

Water Resources Data Ohio Water Year 1998

Volume 2. St. Lawrence River Basin and Statewide Project Data

Water-Data Report OH-98-2





U.S. Department of the Interior

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PREFACE

This volume of the annual hydrologic data report of Ohio is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Ohio are contained in two volumes:

Volume 1. Ohio River Basin Excluding Project Data Volume 2. St. Lawrence River Basin and Statewide Project Data

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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This report was prepared in cooperation with the State of Ohio and with other agencies under the general supervision of S.M. Hindall, District Chief, Ohio.

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letters after station names designate type of data: (c) chemical, (d) discharge, (e) contents and (or) elevation, (M) water-quality monitor, (m) microbiological, (NAWQA) National Water-Quality Assessment Program, (r) radiochemical, (S) daily suspended-sediment data, (s) miscellaneous sediment measurements, (t) temperature]

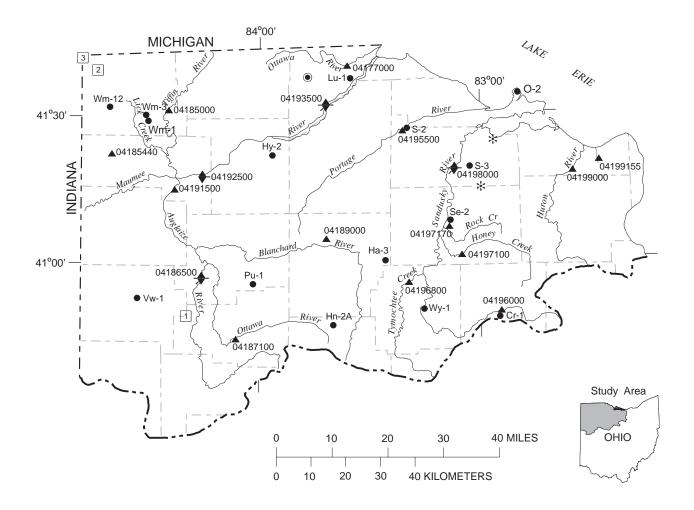
	ion
	nber Page
Lake Erie Basin Ottawa River Basin	
	00039
Ottawa River at University of Toledo, Toledo (d)	000 39
	000
Tiffin River at Stryker (d)	
Unnamed tributary to Lost Creek near Farmer (d)	
Auglaize River near Fort Jennings (cdmst) (NAWQA)	
Ottawa River at Lima (d)	
Blanchard River near Findlay (d)	
Auglaize River near Defiance (d)	
Maumee River near Defiance (dS)	
Maumee River at Waterville (cdmtSs) (NAWQA)	500 53
Portage River Basin	500
Portage River at Woodville (d)	50061
Sandusky River Basin	000
Sandusky River near Bucyrus (d)	
Tymochtee Creek at Crawford (d)	
Honey Creek at Melmore (d)	
Rock Creek at Tiffin (d)	
Sandusky River near Fremont (cdSst)	000 66
Huron River Basin	
Huron River at Milan (d)	000 70
Old Woman's Creek Basin	
Old Womans's Creek at Berlin Road near Huron (d)	155 71
Black River Basin	
Black River at Elyria (d)	500 72
Rocky River Basin	
Rocky River near Berea (d)	500
Cuyahoga River Basin	
Cuyahoga River at Hiram Rapids (d)	000 74
Cuyahoga River at Old Portage (d)	000 75
Yellow Creek at Ghent (d)	208 76
North Fork at Bath (d)	210 77
Park Creek at Bath Center (d)	211 78
North Fork at Bath Center (d)	
Bath Creek at Bath Center (d)	215 80
Yellow Creek at Botzum (d)	220 81
Tinkers Creek at Bedford (d)	200 82
Cuyahoga River at Independence (cdSst)	000 83
Cuyahoga River at LTV Steel at Cleveland (cdmst) (NAWQA)	
Chagrin River Basin	
Chagrin River at Willoughby (d)	00091

	Station		
	Number	Page	
Grand River Basin			
Grand River at Harpersfield (cdmst) (NAWQA)	04211820	92	
Grand River near Painesville (d)	04212100	95	
Conneaut Creek Basin			
Conneaut Creek at Conneaut (d)	04213000	96	

GROUND-WATER STATIONS FOR WHICH RECORDS ARE PUBLISHED

[Letters after station names designate type of data: (c) chemical, (l) water level]

	Local Number	Well Number	Page
CD AWEODD COLDITY	Tumoer	rumoei	ruge
CRAWFORD COUNTY Bucyrus (cl)	CD 1	404929092562100	100
GEAUGA COUNTY	CK-1	404838082303100	100
Southeast of Chagrin Falls (1)	GE 2A	412519091221500	101
HANCOCK COUNTY	GE-3A	412316061221300	101
South of Vanlue (1)	ца 2	405040083275500	102
HARDIN COUNTY	11A-3	403940083273300	102
Southeast of Dola (1)	HNL2A	404648083412600	103
HENRY COUNTY	111N-2/A	404048083412000	103
Southwest of McClure (1)	HV_2	412123083574000	104
LUCAS COUNTY	111-2	412123003374000	104
Toledo (I)	I I I _ 1	413704083362200	105
MEDINA COUNTY		13704003302200	103
Lodi (1)	MD-1	410142082005900	106
OTTAWA COUNTY			100
Catawba Island (cl)	0-2	413434082494000	107
PORTAGE COUNTY			107
East of Kent (cl)	PO-123	410931081192900	108
PUTNAM COUNTY			
Columbus Grove (1)	PU-1	405505084032900	109
SANDUSKY COUNTY			
Fremont (l)	S-3	411914083045300	110
Woodville (cl)			
SENECA COUNTY			
Tiffin (l)	SE-2	410802083093900	112
SUMMIT COUNTY			
Akron (l)	SU-6	410330081282000	113
Cuyahoga Falls (cl)	SU-7	410846081271600	114
VAN WERT COUNTY			
Van Wert (1)	VW-1	405215084335400	115
WILLIAMS COUNTY			
Bryan (l)			
Bryan (cl)			
East of Blakeslee (l)	WM-12	413108084415300	118
WYANDOT COUNTY			
Upper Sandusky (l)	WY-1	405009083172600	119



SURFACE-WATER GAGING STATIONS--Eight-digit number is downstream-order number

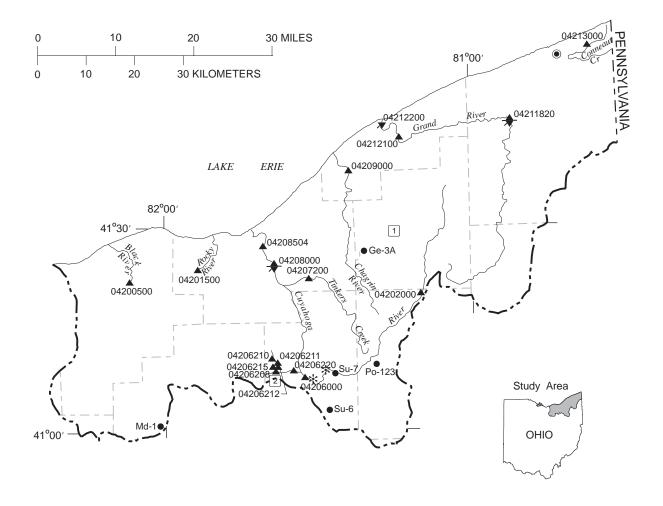
- ▲ Daily discharge
- ▼ Water quality
- ▼ Chemical measurement
- ▼ Biological measurement
- ▼ Sediment measurement

WELL AND LOCAL NUMBER--Letter preceding hyphen is county code; number following hyphen is sequence number

Observation well

- HIGHWAY DEICING CHEMICALS PROJECT
 - 1 ground-water-quality site
 - 1 water-level site
- * AQUATIC BIOTA IN OHIO SPRINGS PROJECT 2 synoptic biological sites
- DELPHOS AQUIFER PROJECT
 9 ground-water quality sites
 66 water-level sites
- 2 LAKE ERIE NAWQA PROJECT 11 ground-water-quality and water-level sites
- 3 HABITAT DESIGN FOR MUSSEL RESTORATION 12 synoptic water-quality sites

Figure 1a. Location of data-collection stations.



SURFACE-WATER GAGING STATIONS--Eight-digit number is downstream-order number

- Daily discharge
- Water quality
- Chemical measurement
- Biological measurement
- Sediment measurement

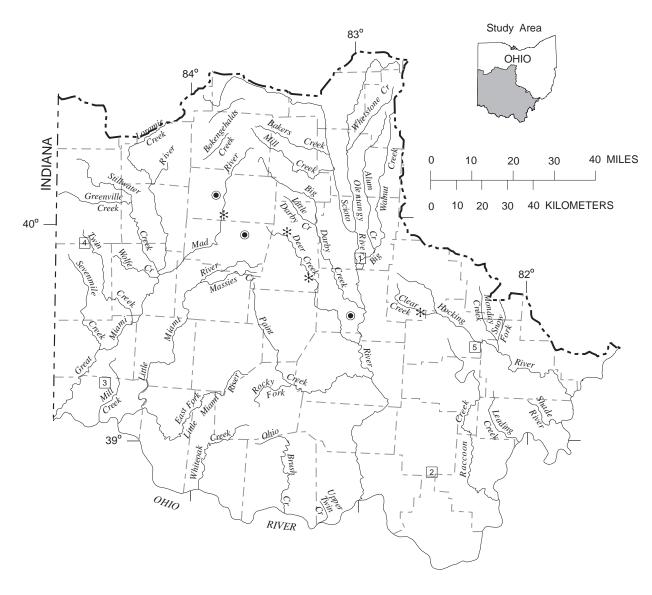
WELL AND LOCAL NUMBER--Letter preceding hyphen is county code; number following hyphen is sequence number

Observation well

- HIGHWAY DEICING CHEMICALS PROJECT ground-water-quality site

 - water-level site
- AQUATIC BIOTA IN OHIO SPRINGS PROJECT 2 synoptic biological sites
- GROUND-WATER MONITORING, GEAUGA COUNTY PROJECT 1 32 observation wells
- AKRON WATER DIVERSION PROJECT 3 surface-water sites

Figure 1b. Location of data-collection stations.



- HIGHWAY DEICING CHEMICALS PROJECT
 3 ground-water-quality sites
 3 water-level sites
- ☆ AQUATIC BIOTA IN OHIO SPRINGS PROJECT
 4 synoptic biological sites
- COLUMBUS WELL FIELD PROJECT
 77 periodic water-level sites
 7 daily water-level sites
 18 ground-water-quality sites
 2 surface-water-quality sites
- 2 WAYNE NATIONAL FOREST PROJECT 14 synoptic water-quality sites
- FORMER AIR FORCE PLANT 36 PROJECT 25 water-level sites 17 water-level and water-quality sites
- 4 SYNOPTIC WATER LEVELS NEAR LEWISBURG PROJECT 184 ground-water sites
- 5 UPPER DORR RUN WATERSHED PROJECT 7 surface-water-quality sites

Figure 1c. Location of data-collection stations for projects, Ohio River Basin.

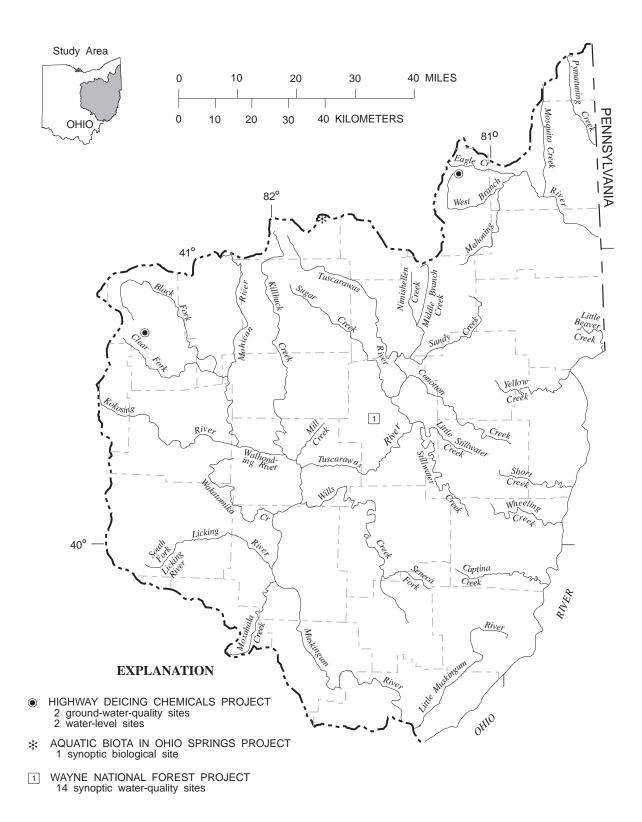


Figure 1d. Location of data-collection stations for projects, Ohio River Basin.

Discontinued Surface-Water-Discharge Stations

The following continuous-record surface-water-discharge or stage-only stations (gaging stations) have been discontinued. Daily discharge or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

Station name	Station number	Drainage area (mi²)	Period of record
St. Joseph River near Blakeslee	04177500	394	1926-32
St. Marys River near Willshire	04181000	354	1926-32
Maumee River at Antwerp	04183500	2,129	1922-35
			1939-82
Maumee River near Sherwood	04184000	2,275	1903-06
Bean Creek at Powers	04184500	206	1941-81
Tiffin River near Brunersburg	04185500	736	1928-36
Miami and Erie Canal at Delphos	04186000	a_	1928-33
Ottawa River at Allentown	04187500	160	1924-36
			1943-82
Ottawa River at Kalida	04188000	309	1930-36
Eagle Creek near Findlay	04188500	55.0	1947-57
Blanchard River at Glandorf	04189500	644	1921-28
			1947-52
Blanchard River at Dupont	04190000	756	1928-35
Roller Creek at Ohio City	04190500	5.14	1946-48
Town Creek near Van Wert	04191000	21.2	1945-53
Miami and Erie Canal near Defiance	04192000		1925-29
			1953-69
Miami and Erie Canal at Waterville	04193000		1921-29
Swan Creek at Toledo	04194000	199	1945-48
Portage River near Pemberville	04194500	337	1930-35
North Branch Portage River near Bowling Green	04195000	45.1	1924-32
Lacarpe Creek near Oak Harbor	04195825	2.95	1988-92
Bayou Ditch near Oak Harbor	04195830	2.82	1964-82
			1988-92
Broken Sword Creek at Nevada	04196200	83.8	1976-82
Sandusky River near Upper Sandusky	04196500	298	1922-35
			1938-82
Tymochtee Creek near Marseilles	04196600	137	1970-74
Sandusky River near Mexico	04197000	774	1923-36
			1938-83
Honey Creek near New Washington	04197020	17	1976-90
Wolf Creek at Bettsville	04197300	66.2	1976-82
East Branch Wolf Creek near Bettsville	04197450	82.4	1976-82
Havens Creek at Havens	04197500	4.28	1946-49
East Branch Huron River near Norwalk	04198500	85.5	1924-35
Old Woman's Creek at U.S. Highway 6 at Huron	04199165	26.5	1980-94
Lake Erie at Ruggles Beach	04199175		1987-94
Vermilion River near Fitchville	04199287	112	1978-89
			1991-93
Vermilion River near Vermilion	04199500	262	1950-81

Discontinued Surface-Water-Discharge Stations—Continued

Station name	Station number	Drainage area (mi²)	Period of record	
East Branch Black River at Elyria	04200000	217	1922-36	
West Branch Black River above Lake Street at Elyria	04200430	174	1980-85	
Cuyahoga River near Kent	04202500	210	1934-35	
Breakneck Creek near Kent	04203000	77.6	1927-35	
Little Cuyahoga River at Mogadore	04204000	14.3	1946-79	
Cuyahoga River at Massillon Road at Akron	04204500	31.6	1946-74	
Springfield Lake Outlet at Akron	04205000	9.72	1946-49	
			1961-74	
Little Cuyahoga River at Akron	04205500	44.4	1920	
			1928-34	
Little Cuyahoga River Below Ohio Canal at Akron	04205700	59.2	1974-80	
Cuyahoga River at Ira	04206250	478	1973-80	
Ohio Canal Feeder at Brecksville	04207000		1923-24	
Ohio Canal at Independence	04207500		1922-23	
			1927-36	
			1941	
			1949-81	
Big Creek at Cleveland	04208502	35.3	1973-86	
Euclid Creek near Euclid	04208690	22.6	1977-80	
			1983-86	
Grand River near North Bristol	04209500	85.4	1942-47	
Phelps Creek near Windsor	04210000	25.6	1942-59	
Grand River near Rome	04210500	251	1942-47	
Rock Creek near Rock Creek	04211000	69.2	1942-66	
Mill Creek near Jefferson	04211500	82.0	1942-75	
Grand River near Madison	04212000	581	1923-35	
			1938-74	
Ashtabula River near Ashtabula	04212500	111	1924-36	
			1939-48	
			1950-80	

a. - Not determined for canals.

Discontinued Surface-Water-Quality Stations

The following continuous-record surface-water-quality stations have been discontinued. Daily records of temperature, specific conductance, pH, dissolved oxygen, or sediment were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

[Letters designate type of record: (do) dissolved oxygen, (pH) pH, (s) sediment, (sc) specific conductance, (t) temperature]

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record
Maumee River at Antwerp	04183500	2,129	t	1939-82
Maumee River at Defiance	04184100	2,316	do, sc, t	1966-70
			pН	1973-78
Tiffin River at Evansport	04185300	541	do, pH, sc, t	1968-78
Auglaize River near Ft. Jennings	04186500	332	do, pH, sc, t	1969-78
Ottawa River at Allentown	04187500	160	sc, t	1969-82
			do, pH.	1977-82
Auglaize River at Cloverdale	04188200	713	do, pH, sc, t	1967-78
Blanchard River near Findlay	04189000	346	do, pH, sc, t	1968-80
Auglaize River near Defiance	04191500	2,318	S	1936
			do, pH, sc, t	1966-76
Maumee River near Waterville	04193490	6,313	do, pH, sc, t	1977-91
Miami River at Waterville	04193500	6,329	do, pH, sc, t	1963-77
Maumee River at Mouth at Toledo	04194023	6,608	do, pH, sc, t	1967-75
Middle Branch Portage River near Portage	04194310	217	sc, t	1969-75
Portage River at Railroad Bridge at Woodville	04195600	428	do, pH, sc, t	1968-80
Portage River at Elmore	04195800	432	t	1950-52
			S	1950-53
			do	1970-80
Sandusky River near Upper Sandusky	04196500	298	do, sc, t	1969-79
			pН	1977-79
Tymochtee Creek at Crawford	04196800	229	do, pH, sc, t	1968-75
Sandusky River at St. Johns Bridge near Mexico	04196990	711	do, sc, t	1969-76
Honey Creek at Melmore	04197100	141	S	1988-89
Sandusky River below Fremont	04198005	1,264	do, pH, sc, t	1966-80
West Branch Huron River near Willard	04198018	86.0	sc, t	1968-75
Huron River at Milan	04199000	371	S	1970-74
				1988-91
Huron River below Milan	04199100	385	do, pH, sc, t	1968-78
Vermilion River near Fitchville	04199287	112	S	1987-89
Vermilion River near Vermilion	04199500	262	sc, t	1969-76
			do, pH	1976-80
East Branch Black River at Grafton	04199900	170	sc, t	1969-75
West Branch Black River near Elyria	04200400	170	sc, t	1969-75
West Branch Black River above Lake Street at Elyria	04200430	174	s	1980-81
Black River at Elyria	04200500	396	t	1962-70
-			sc	1964-70
			S	1980-81
	0.4200550	412	1 .	1066.92
Black River below Elyria	04200550	412	do, sc, t	1966-82

Discontinued Surface-Water-Quality Stations—Continued

[Letters designate type of record: (do) dissolved oxygen, (pH) pH, (s) sediment, (sc) specific conductance, (t) temperature]

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record
Cuyahoga River at Old Portage	04205700	59.2	do, pH, sc, t	1970-84
			S	1972-81
Cuyahoga River at Botzum	04206200	443	t	1947-49
Tinkers Creek at Bedford	04207200	83.9	S	1972-79
Cuyahoga River at Independence	04208000	707	do, sc, t	1965-72
			do, pH, sc, t	1972-91
Big Creek at Cleveland	04208502	35.3	S	1978
Cuyahoga River at Dupont Intake in Cleveland	04208505	794	sc	1964-75
Cuyahoga River at West Third Street Bridge	04208506	798	do, pH, sc, t	1966-87
Cuyahoga River at Superior Street Bridge in Cleveland	04208510	808	do, pH, sc, t	1964-66
Chagrin River at Willoughby	04209000	246	t	1950
			S	1969-74
Grand River at Painesville	04212200	701	do, pH, sc, t	1966-82
Fields Brook at Ashtabula	04212680	3.63	do, pH, sc, t	1983-91
Ashtabula River at Ashtabula	04212700	136	do, pH, sc, t	1968-79

1

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey (USGS), in cooperation with state agencies, obtains a large amount of data each water year (a water year is the 12-month period from October 1 through September 30 and is identified by the calendar year in which it ends) pertaining to the water resources of Ohio. These data, accumulated during many years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the USGS, they are published annually in this report series entitled "Water Resources Data—Ohio."

This report (in two volumes) includes records on surface water and ground water in the State. Specifically, it contains (1) discharge records for streamflow-gaging stations, miscellaneous sites, and crest-stage stations, (2) stage and content records for streams, lakes, and reservoirs, (3) water-quality data for streamflow-gaging stations, wells, synoptic sites, and partial-record sites, and (4) water-level data for observation wells. Locations of lake- and streamflow-gaging stations, water-quality stations, and observation wells for which data are presented in this volume are shown in figures 1a through 1d. The data in this report represent that part of the National Water Data System collected by the USGS and cooperating State and Federal agencies in Ohio.

This series of annual reports for Ohio began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report was changed to present (in two to three volumes) data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to the introduction of this series, and for several years concurrent with it, water-resources data for Ohio were published in a series of USGS Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage through September 1960 were published annually under the title "Surface-Water Supply of the United States, Parts 3 and 4." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and ground-water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above-mentioned Water-Supply Papers can be found in libraries of the principal cities of the United States and can be purchased from the U.S. Geological Survey, Information Services, Box 25286, Denver, CO 80225.

Publications similar to this report are published annually by the USGS for all states. These official USGS reports are identified by means of a number consisting of the two-letter state abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report OH-98-1." For archiving and general distribution, the reports for 1971-74 water years are also identified as water-data reports. These water-data reports can be purchased in paper copy or in microfiche from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

USGS water data can be accessed on the World Wide Web at http://water.usgs.gov. Data at this Web site include historical daily values and peaks, real-time water data, and spatial data. (The USGS Ohio District's Web site can be accessed at http://www-oh.er.usgs.gov.)

Additional information for ordering specific reports, including current prices, may be obtained by writing the District Chief at the address given on the back of title page or by telephoning (614) 430-7700.

COOPERATION

The USGS has had cooperative agreements for the collection of water-resources data since 1898. The following organizations assisted in collecting data in this report:

Cities of Akron, Canton, Cincinnati, Columbus (Water Division), Cortland, Delphos, Fremont, Lima, North Olmsted, and Warren

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Counties of Clermont, Cuyahoga (Board of Health and Sanitary Engineering Division), Erie, Geauga, Madison, Ottawa, Ross, Summit, and Washington

Cuyahoga River Community Planning Organization

Eastgate Development and Transportation Agency

Federal Emergency Management Agency, Region V, Hazardous Branch

Miami Conservancy District

Northeast Ohio Regional Sewer District

Ohio Departments of Agriculture, Natural Resources (Mines and Reclamation, Oil and Gas, Real Estate and Land Management, and Water Division), and Transportation

Ohio Environmental Protection Agency

Ohio State University Research Foundation

State of Ohio Adjutant General's Department

U.S. Air Force, Air Force Materiel Command, Aeronautical Systems Center, Environmental Management Directorate, Restoration Branch

U.S. Army Corps of Engineers (Buffalo, Huntington, Louisville, and Pittsburgh Districts, and Industrial Operations)

U.S. Environmental Protection Agency (Drinking Water Standards Division, Great Lakes National Project Office, NERL-MICROBIAL and Chemical Exposure Assessment Research Division, and Superfund Division, Region V)

University of Toledo

Township of Vermilion

Wright-Patterson Air Force Base

SUMMARY OF HYDROLOGIC CONDITIONS

Ohio is part of three physiographic provinces. Each province has its own distinctive hydrologic characteristics. The topography of the Till Plains Section of the Central Lowlands Physiographic Province (fig. 2) consists of gently rolling ground moraine, bands of terminal moraine, and outwash-filled valleys. Glaciation altered the courses of most streams in this area. The Eastern Lake Section (fig. 2) consists of wide expanses of level or nearly level land interrupted only by the sporadic sandy ridges that are the last visible remnants of glacial-lake beaches. Much of the area was swamp prior to development, and marshes are still present along Lake Erie near Toledo. The Lexington Plain Section of the Interior Low Plateaus Province (fig. 2) is characterized by rolling terrain and a few isolated large hills and ridges. The "barbed" drainage pattern formed when small streams were captured as their headwaters cut back into the hills over time. Streams have carved the Kanawha Section of the Appalachian Plateaus Province (fig. 2) into an intricate series of hollows and steep-sided ridges. Only the large streams in the section have any appreciable flood plain. In the southern New York Section (fig. 2), successive waves of glaciation have subdued the relief, buried many preglacial valleys, and rerouted many streams.

Precipitation

The average annual precipitation in Ohio is about 38 inches. The annual precipitation decreases from around 42 inches on the southern border to about 32 inches in the northwest. An anomalous area of high precipitation (as much as 44 inches) in northeastern Ohio results from air masses that pick up moisture and heat from Lake Erie and subsequently release precipitation over a range of hills stretching northeastward from Cleveland.

Monthly precipitation typically is greatest from May through July and least in October, December, and February. Of the approximate 38 inches of average annual precipitation, about 10 inches runs off immediately, 2 inches is retained at or near the surface and evaporates and transpires, and 26 inches enters the ground. Of the 26 inches that enters the ground, 20 inches is retained in the unsaturated zone and is later lost by evapotranspiration. The remaining 6 inches reaches the water table. Of this 6 inches, 2 inches eventually discharges to streams, and the rest is lost by evapotranspiration and consumptive use. Average runoff ranges from about 15 to 18 inches along the

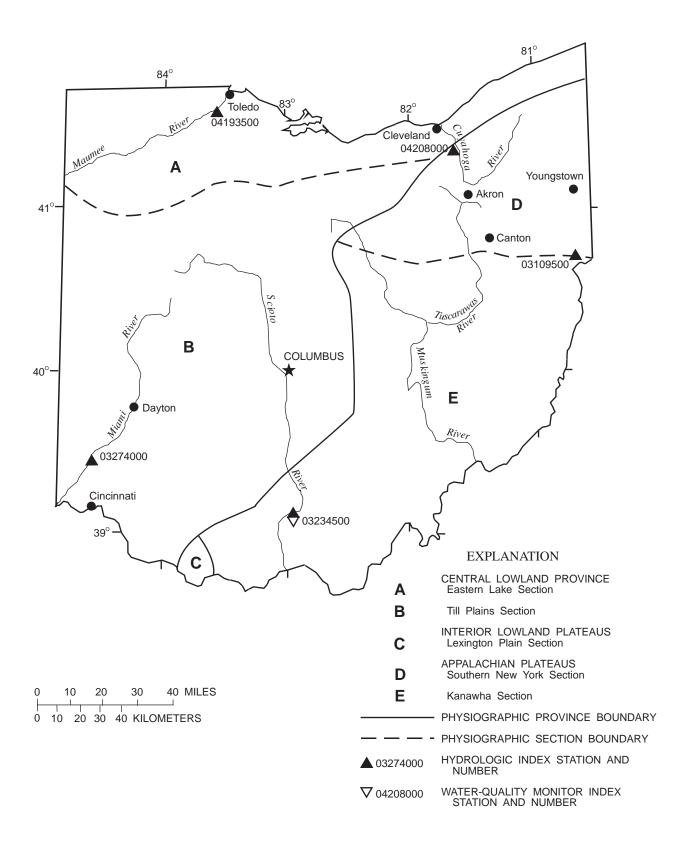


Figure 2. Physiographic divisions and location of Hydrologic Index Stations.

southern border to about 8 to 12 inches along most of the northern border, except in the northeast, where runoff is as much as 20 inches. The pattern of streamflow differs from the pattern of precipitation because of the contributions of snowmelt to streamflow in the early spring and the reduction in flows by evapotranspiration from June through September.

Surface Water

Streamflow

Streamflow-data-collection stations are distributed irregularly throughout the State and tend to be concentrated on the main river systems. The stations are used to sample a wide variety of conditions. The drainage areas range from 12 to 7,420 square miles and represent a wide diversity of topography and other physical characteristics. Streamflow ranges from unregulated to highly regulated.

Statewide Streamflow, Water Year 1998. At the beginning of water year 1998, streamflow was in the normal¹ range except for northwest and central Ohio, where flows were above normal. Streamflow for the period October to December was generally in the normal range statewide in response to normal precipitation.

Streamflow was in the above-normal range throughout the State in January due to above-normal precipitation. Flow returned to normal for most of the State in February and March.

In April, above-normal precipitation resulted in above-normal streamflow for much of the State. By May, seasonal declines returned streamflow to the normal range for most of Ohio.

In June, well above normal precipitation in southern Ohio produced excessive flow, although flows in the remainder of the State remained normal. A series of storms late in the month caused widespread flooding in southern and eastern Ohio. These floods caused loss of life and substantial damage; 23 counties were declared disaster areas. Peak discharge at two gages was in excess of the 100-year recurrence interval.

Streamflow was in the above-normal range statewide through July. Flows declined into the normal range in August, and by the end of the water year, streamflow was in the normal range statewide except for southwest Ohio, where it fell into the below-normal range.

A comparison of streamflows for 1998 with long-term median flows at four representative stations is shown in figure 3.

Water Quality

Water-quality data in Ohio are collected on a short-term basis in conjunction with local or regional studies. On a long-term basis, water-quality data in Ohio are collected at fixed stations. From 1974 to 1995, collection of long-term water-quality data was done as part of the National Stream Quality Accounting Network (NASQAN). With the redesign of the program in 1996 to concentrate on evaluation of large river basins, collection of water-quality data at fixed stations for NASQAN was discontinued in Ohio. The only active long-term monitoring program in Ohio is the National Water-Quality Assessment (NAWQA) Program, a program designed to assess the status and trends in the quality of ground- and surface-water resources in major hydrologic systems (study units) of the United States. Sampling in NAWQA began in 1991 in the Nation and in March 1996 at some sites in Ohio as part of the Lake Erie-Lake St. Clair (LERI) study unit. One of the LERI fixed stations, the Maumee River at Waterville, was also a fixed station in NASQAN. Whereas water-quality sampling in the NASQAN program was done quarterly, sampling in the NAWQA program is done much more frequently. For example, during 1998, 15 samples

¹For streamflow, "normal" is defined as being between the 25th and 75th percentiles as measured during the base period, water years 1961-90.



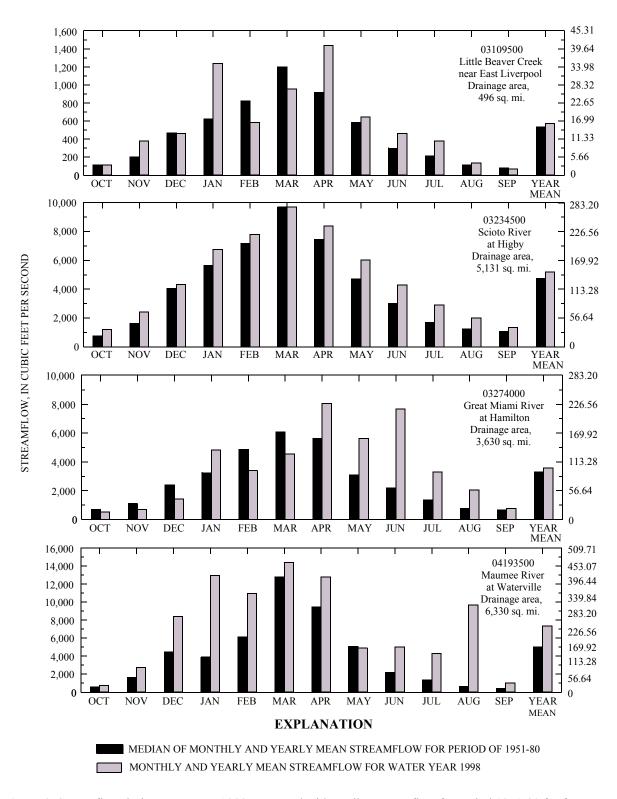


Figure 3. Streamflow during water year 1998 compared with median streamflow for period 1951-80 for four representative gaging stations.

were collected at the Maumee River at Waterville. Sampling time was monthly to biweekly during 1998, depending on the season, so that samples were collected over a range of streamflows. Samples from this site are analyzed for major anions and cations, nutrients, trace elements, suspended sediment, selected physical properties, and *Escherchia coli*.

Box plots of streamflow and concentrations of selected constituents measured during the previous 10-year period (1988-95 as part of NASQAN and 1996-97 as part of NAWQA) are shown in figures 4 and 5 for the Maumee River at Waterville. Land use in the basin is mixed and consists of row-crop agriculture upstream and urban and industrial areas downstream. Results of analysis of samples collected in water year 1998 as part of the NAWQA program are superimposed on the box plots and are represented by dark circles.

For the Maumee River, the values for streamflow measured at the time of water-quality sampling were more extreme during 1998 than for the previous 10-year period. Nine out of twelve streamflows measured during 1998 were outside the 75th or 25th percentiles of streamflows measured during the previous 10-year period. Five samples were collected at low flow; these values were below the 25th percentile, with streamflows ranging from 419 to 1,300 cubic feet per second.

Fecal-coliform bacteria were monitored as part of the NASQAN program. The LERI replaced monitoring for fecal coliforms with another bacterial indicator, *Escherichia coli* (*E. coli*), in 1997. *Escherichia coli* is the preferred and most useful indicator of the quality of freshwater recreational water for body contact. Because only one year of *E. coli* data before 1998 is available for the Maumee River and because fecal-coliform concentrations are no longer determined at this site, a comparison of bacterial indicator concentrations could not be done for data collected during 1998 to the previous 10-year period.

Chloride concentrations, commonly associated with municipal or industrial point sources of wastewater, tended to be higher or lower in 1998 than the 75th and 25th percentiles of concentrations measured during the previous 10-year period. This pattern reflects the extremes of streamflow measured during 1998. The range of dissolved-solids concentrations in 1998, however, was evenly distributed among those determined during the previous 10-year period.

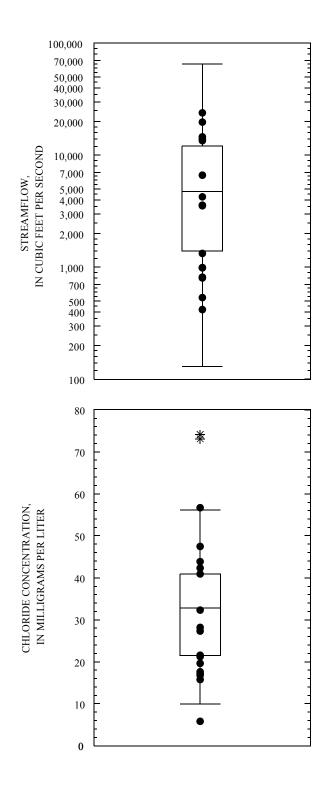
One sample collected during 1998 for nitrate plus nitrite concentrations exceeded the U.S. Environmental Protection Agency maximum contaminant level for finished drinking water (10 milligrams per liter, as N). In Ohio, fertilizers are a major source of nitrate. Concentrations in the Maumee River in 1998 were distributed evenly among the concentrations found during the previous 10-year period and were highly variable, ranging from 0.67 to 13.8 milligrams per liter.

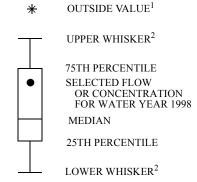
Agricultural runoff and municipal and industrial point sources are the principal sources of phosphorus in Ohio. Increased phosphorus concentrations may lead to a high rate of production of plant materials in water and eutrophication of the receiving water. During 1998, total phosphorus concentrations ranged from 0.096 to 0.512 milligrams per liter, and the extremely high concentrations for total phosphorus found during the previous 10-year period were not found in 1998.

Ground Water

Ground water serves the needs of 46 percent of Ohio's population. An estimated 800 million gallons of ground water per day is withdrawn for public-supply, domestic, industrial, and agricultural purposes. Many people in Ohio depend on ground water as the only practical source of supply.

Ohio's unconsolidated aquifers are composed of either coarse- or fine-grained sediments. Both types are composed mainly of materials of glacial origin. The coarse-grained unconsolidated aquifers generally consist of highly permeable sand and gravel. Much of the sand and gravel is alluvium derived from glaciofluvial outwash along the courses of some modern streams; thus, these aquifers sometimes are referred to as "watercourse" aquifers. Coarse-grained unconsolidated aquifers in the northwestern corner of the State (fig. 6) underlie glacial till, are locally confined under artesian pressure, and are highly productive. Extensive kame-terrace deposits of





 $^{^1}$ An outside value is defined as >1.5 and \leq 3 interquatile ranges from the box

Figure 4. Streamflow and concentration of chloride measured in water year 1998 and the distribution of those characteristics from measurements made during water years 1988-97 for the Maumee River at Waterville.

 $^{^2}$ Upper whisker is defined as the largest data point less than or equal to the upper quartile plus 1.5 times the interquartile range. Lower whisker is minus 1.5 times the interquartile range

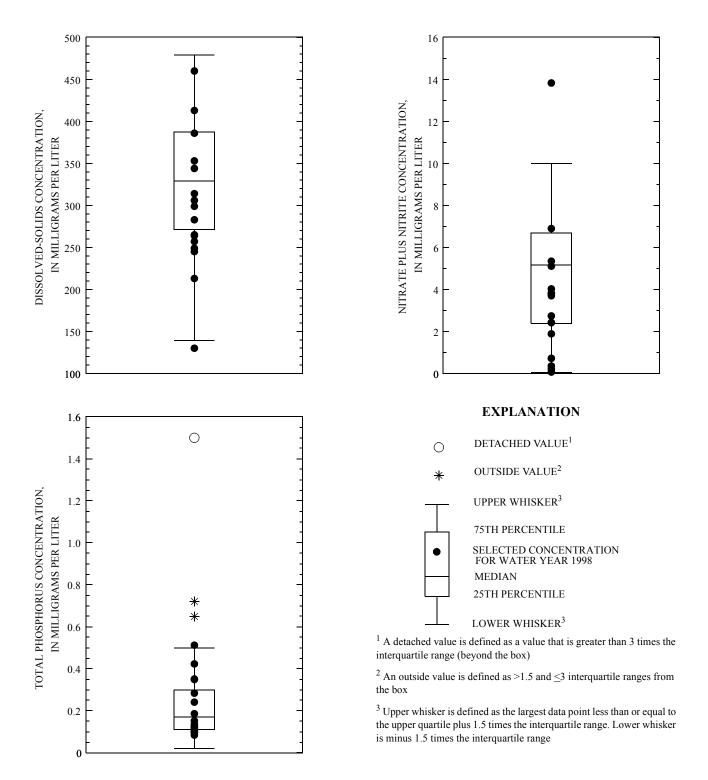


Figure 5. Concentrations of dissolved solids, nitrate plus nitite, and total phosphourus measured in water year 1998 and the distribution of those characteristics from measurements made during water years 1988-97 for the Maumee River at Waterville.

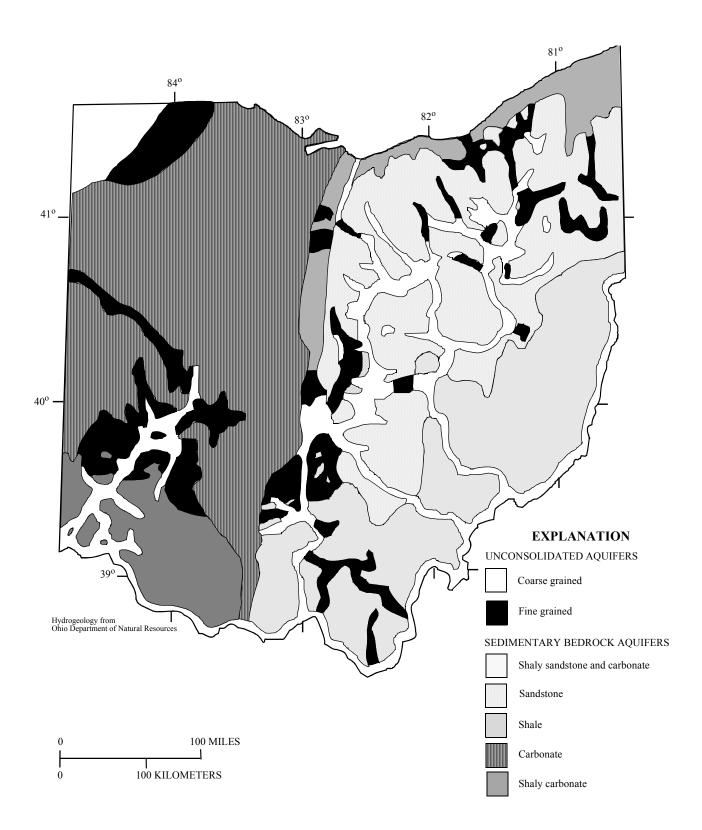


Figure 6. Geographic distribution of principal aquifers in Ohio.

water-bearing gravel and sand are widely used ground-water sources in northeastern Ohio. The fine-grained unconsolidated aquifers are similar to the coarse-grained unconsolidated aquifers in form and origin but are less permeable because of higher percentages of mixed fine sand, silt, and clay. Included in the fine-grained unconsolidated aquifers are tills that contain thin or localized stratified lenses of sand and gravel.

Ground-water supply for much of the unglaciated upland area of southeastern Ohio is from bedrock aquifers composed of shaly sandstone and thin limestone. These strata, which range from Mississippian to Permian in age, are dominated by low-yielding shales and shaly sandstones that include numerous coal-bearing strata. In some places, small water supplies are available from fractured coal beds. Several sandstone aquifers in northeastern Ohio are of regional extent and are major ground-water sources for individual and small public supplies. These include the Berea and Black Hand Sandstones of Mississippian age and several sandstone members of the Pottsville and Allegheny Formations of Pennsylvanian age. The Lake Erie coastline of northeastern Ohio is underlain by shale of Devonian and Mississippian age (fig. 6) that yields only small amounts of water to wells. Silurian-age limestone and dolomite and Devonian limestone comprise the carbonate aquifer system (fig. 6) of much of western Ohio. Glacial cover is uneven and consists of valley fill and terminal moraine in some places. The northeastern part of western Ohio contains an area of high-yielding wells that tap a preferentially weathered zone, which developed when carbonate section was periodically exposed as land mass during the Paleozoic Era. The southwestern corner of Ohio near Cincinnati is underlain by shale and a thin limestone aquifer of Ordovician age. Away from the watercourse (coarse unconsolidated) aquifers that traverse the area, the rocks that form the uplands yield only very small amounts of ground water.

Ground-Water Levels

Most ground-water observation wells in Ohio tap unconsolidated sand and gravel aquifers associated with the State's principal streams. Sample 1-year and 5-year hydrographs of a well completed in an unconfined unconsolidated sand-and-gravel aquifer are shown in figure 7. The observation-well network also includes some bedrock wells in areas where consolidated aquifers are heavily used for water supply, such as in the carbonate-rock region of northwestern Ohio. Sample 1-year and 5-year hydrographs of a well completed in a confined carbonate-rock aquifer are shown in figure 8. The yearly low for most wells occurs during the winter months, especially in cold, dry years or near the end of the growing season. Highs for the year usually occur from March through June, which is the peak of the recharge season. The yearly water-level fluctuation due to climatic conditions in water-table and confined-aquifer wells is commonly 3 to 5 feet but can be as much as 10 feet.

At the beginning of water year 1998, ground-water levels were generally above normal² throughout the State except for areas of eastern Ohio, where they were below normal. Levels declined during October and November and water levels fell into the normal range except in eastern Ohio, where they remained below normal.

Water levels stabilized in December and rose into the above-normal range for much of the State in response to above-normal precipitation in January and February. Levels in eastern Ohio remained below normal.

Precipitation was below normal for much of Ohio in March, and ground-water levels fell into the below-normal range in shallow aquifers. Net rises in water levels occurred throughout the State in April and May, and levels were above normal statewide except for eastern Ohio, where they remained below normal.

The remainder of the water year was characterized by seasonal declines in ground-water levels. In, June, levels were near normal to above normal for much of the State, except for below-normal levels in eastern Ohio. By the end of the water year, ground-water levels were below normal for most of the State.

²For ground-water levels, "normal" is defined as being between the 25th and 75th percentiles of the range values recorded during the reference period, 1960-75.

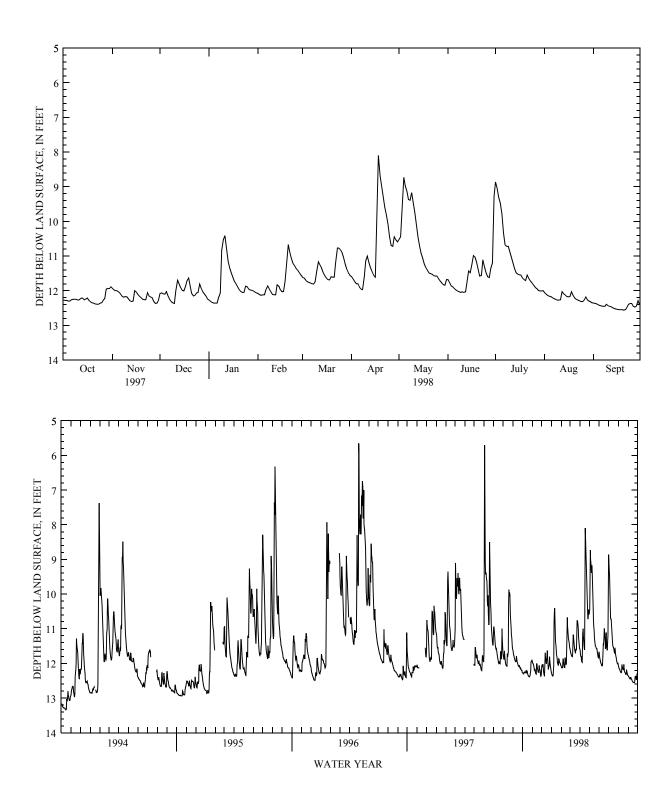


Figure 7. Sample of 1-year and 5-year hydrographs of well FR-3 (395118082573300), completed in a unconfined unconsolidated aquifer.

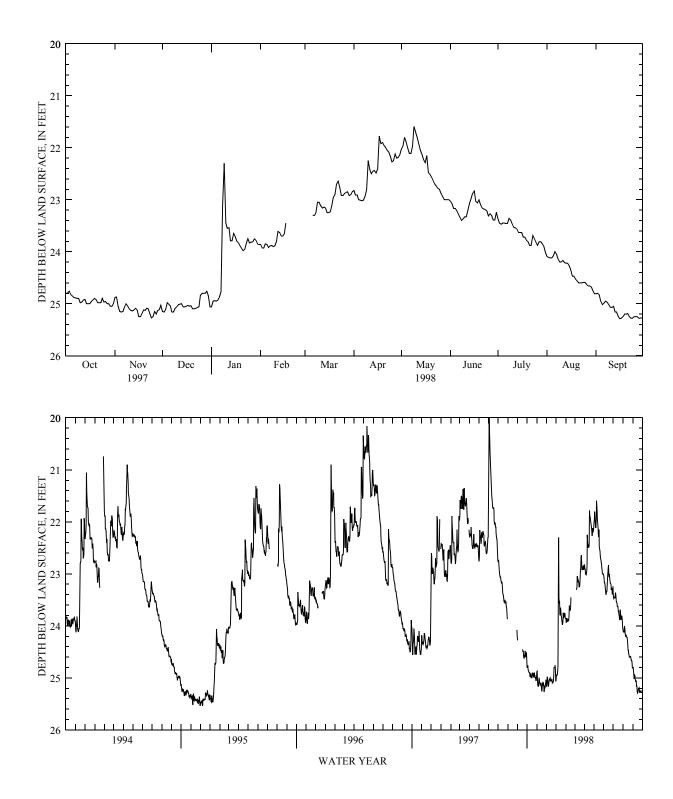


Figure 8. Sample of 1-year and 5-year hydographs of well U-4 (401826083255200), completed in a confined carbonate-rock aquifer.

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SPECIAL NETWORKS AND PROGRAM

<u>Hydrologic Benchmark Network</u> is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins—the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents, (2) to test findings of the National Water-Quality Assessment Program (NAWQA), (3) to characterize processes unique to large-river systems, such as storage and remobilization of sediments and associated contaminants, and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to accomplish the following objectives: (1) provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation-chemistry monitoring sites, (2) provide the mechanism to evaluate the effectiveness of the significant reduction in SO₂ emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred, and (3) provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO₂ and NO_x scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the World Wide Web at http://nadp.nrel.colostate.edu/NADP.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, state, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, state, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies.

Additional information about the NAWQA Program is available through the World Wide Web at http://www.rvares.er.usgs.gov/nawqa/nawqa home.html.

EXPLANATION OF THE RECORDS

The records in this report are for the 1998 water year that began October 1, 1997, and ended September 30, 1998. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether onstream or at a well, is assigned a unique identification number. The number is generally assigned when a station is first established and is retained for that station indefinitely. The systems used by the USGS to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic locations. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Ohio, for surface-water stations where only infrequent measurements are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in USGS reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in a "List of Stations" in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to the above-mentioned downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station such as 04041000, which appears just to the left of the station name, includes the two-digit part number "04" plus the six-digit downstream order number "041000." The part number designates the major river basin; for example, part "03" is the Ohio River Basin, and part "04" is the St. Lawrence River Basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 9.)

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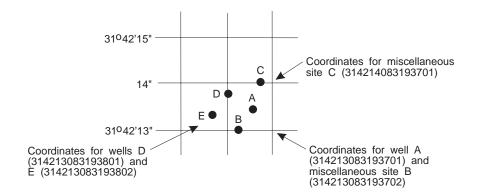


Figure 9. System for numbering wells and miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharge may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir contents, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time or period of time. They may be obtained using a continuous stage-recording device but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements often without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of a partial record is indicated by table titles such as CREST-STAGE PARTIAL RECORDS or LOW-FLOW PARTIAL RECORDS. Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and crest-stage stations for which data are given in this volume are shown in figures 1a through 1d.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relations between stage and discharge. These data, together with supplemental information such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relations between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage, or with digital recorders that punch stage values on paper tapes or store stage data on solid-state storage media at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the USGS as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in USGS Techniques of Water-Resources Investigations, Book 3, Chapter A6.

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In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using (1) logarithmic plotting, (2) velocity-area studies, (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs, or (4) step-backwater techniques.

Daily mean discharges are computed by applying stages (gage heights) to the stage discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curve or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relation that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method, in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys or curves, tables defining the relation of stage and contents. The application of stage to the stage-contents curves or tables give the contents from which daily, monthly, or yearly changes are then determined. If the stage-contents relation changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relation. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relation much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information.

At some gaging stations, acoustic velocity meter (AVM) systems are used to compute discharge. The AVM system measures the stream's velocity at one or more paths in the cross section. Coefficients are developed to relate this path velocity to the mean velocity in the cross section. Because the AVM sensors are fixed in position, the adjustment coefficients generally vary with stage. Cross-sectional area curves are developed to relate stage, recorded as noted above, to cross-section area. Discharge is computed by multiplying path velocity by the appropriate stage-related coefficient and area.

Data Presentation

The records published for each gaging station consist of two parts—the manuscript or station description and the data table for the current water year.

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Station Manuscript. The manuscript provides, under various headings, descriptive information such as station location, period of record, historical extremes outside the period of record, record accuracy, and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

- LOCATION.—Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileage, given for only a few stations, was determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council, or were provided by the U.S. Army Corps of Engineers.
- DRAINAGE AREA.—Drainage areas are measured using the most accurate maps available. Because the types of maps available vary from one drainage basin to another, the accuracy of the drainage areas likewise varies. Drainage areas are updated as better maps become available.
- PERIOD OF RECORD.—This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.
- REVISED RECORDS.—Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: (M) means that only the instantaneous maximum discharge was revised, (m) that only the instantaneous minimum was revised, and (P) that only the peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.
- GAGE.—The type of gage in current use, the datum of the current gage referred to sea level, and a condensed history of the types, locations, and datums of previous gages are given under this heading.
- REMARKS.—All periods of estimated daily discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or be flagged in the daily discharge table. (See the section, "Identifying Estimated Daily Discharge.") If a "remarks" statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station, in addition, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.
- COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.
- EXTREMES FOR PERIOD OF RECORD.—In some headings "Extremes for Period of Record" is presented as a paragraph separate from summary statistics. Extremes may include maximum and minimum stages and maximum and minimum discharges or contents. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, from a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.
- EXTREMES OUTSIDE PERIOD OF RECORD.—Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by USGS.
- PEAK DISCHARGES ABOVE BASE FOR CURRENT YEAR—Presented as a separate table. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. All peaks greater than the base

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discharge are listed with the maximum for the year footnoted by an asterisk (*). Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial regulation or at locations where the instantaneous peak discharge does not exceed the mean daily discharge by 10 percent. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330.

REVISIONS.—If a critical error in published records is discovered, a revision is included in the first report following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a REVISED RECORDS entry, users of data for these stations who obtained the data from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published retrieval of data is always accompanied by revisions of the corresponding data in computer storage.

Manuscript information for lakes or reservoir stations differs from that for stream stations in the nature of the REMARKS and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Data Table of Daily Mean Values. The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed TOTAL gives the sum of the daily figures. The line headed MEAN gives the average flow in cubic feet per second during the month. The lines headed MAX and MIN give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month is often expressed in cubic feet per square mile (line headed CFSM), or in inches (line headed IN.), or in acre-feet (line headed AC-FT). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by symbol and corresponding footnote.

Statistics of Monthly Mean Data. A tabular summary of the mean (line headed MEAN), maximum (line headed MAX), and minimum (line headed MIN) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as FOR WATER YEARS _____. BY WATER YEAR (WY), and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary Statistics. A table titled SUMMARY STATISTICS follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, WATER YEARS ______, will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below), except for the ANNUAL SEVEN-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in the footnotes. When the maximum or minimum statistic occurred outside the designated period, that statistic is listed in the EXTREMES FOR PERIOD OF RECORD paragraph in the manuscript. Selected streamflow-duration-curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

- ANNUAL TOTAL.—The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.
- ANNUAL MEAN.—The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.
- HIGHEST ANNUAL MEAN.—The maximum annual mean discharge occurring for the designated period.
- LOWEST ANNUAL MEAN.—The minimum annual mean discharge occurring for the designated period.
- HIGHEST DAILY MEAN.—The maximum daily mean discharge for the year or for the designated period.
- LOWEST DAILY MEAN.—The minimum daily mean discharge for the year or for the designated period.
- ANNUAL SEVEN-DAY MINIMUM.—The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)
- INSTANTANEOUS PEAK FLOW.—The maximum instantaneous stage occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are given in the table "Peak Discharges and Stages at Continuous-Record Surface Discharge Stations."
- INSTANTANEOUS PEAK STAGE.—The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the "Remarks" paragraph in the manuscript or a footnote may be used to provide further information.
- INSTANTANEOUS LOW FLOW.—The minimum instantaneous discharge occurring for the water year or for the designated period.
- ANNUAL RUNOFF.—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:
 - Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.
 - Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area for the area.
 - Inches (INCHES) indicates the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

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- 10 PERCENT EXCEEDS.—The discharge that has been exceeded 10 percent of the time for the designated period.
- 50 PERCENT EXCEEDS.—The discharge that has been exceeded 50 percent of the time for the designated period.
- 90 PERCENT EXCEEDS.—The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are usually presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second, when collected, is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in time of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily discharge values published in the water-discharge tables of annual state data reports are identified either by flagging individual daily values with the letter "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under REMARKS. "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredths of a cubic foot per second for values less than 1 $\rm ft^3/s$; to the nearest tenth between 1.0 and 10 $\rm ft^3/s$; to whole numbers between 10 and 1,000 $\rm ft^3/s$; and to three significant figures for more than 1,000 $\rm ft^3/s$. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Information used in preparing the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Ohio District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on availability

of the unpublished information or on results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequency.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape or recorded electronically. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recording; however, because of cost, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this volume are shown in figures 1a and 1b.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at a nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of "DISCHARGE MEASUREMENTS."

Onsite Measurement and Sample Collection

In obtaining water-quality data, a major concern is that the data obtained represent the in situ quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made on site when the samples are taken. To ensure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the sample to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in water-quality-related chapters in the series "Techniques of Water-Resources Investigations" (TWRI), and in USGS Open-File Report 93-125 "Methods of Analysis by the U.S. Geological Survey National Water Quality Laboratory—Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments," references are listed in this report. Additional information on collecting, treating, and shipping samples can be found in USGS Water-Resources Investigations Report 98-4057 "Quality-Assurance/Quality-Control Manual for Collection and Analysis of Water-Quality Data in the Ohio District, U.S. Geological Survey."

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream-Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors that must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly readings beginning at 0100 hours and ending at 2400 hours for each day of record. More detailed records (hourly values) may be obtained from the USGS District Office, whose address is given on the back of the title page of this report.

Water Temperatures

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are frequently taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small daily temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharge for days of rapidly changing flow or concentration was computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge values differ from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for microbiological analyses, and samples for specific conductance, pH, and dissolved oxygen are analyzed locally. All other samples are analyzed in the USGS laboratories in Arvada, Colo., or by a USGS-approved outside laboratory. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the USGS laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, and USGS Open-File Report 93-125 "Methods of Analysis by the U.S. Geological Survey National Water Quality Laboratory—Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments." Methods used by the USGS laboratory for microbiological analyses are given in TWRI, Book 5, Chap. A4.

Historical and current (1998) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily, are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge-gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

- LOCATION.—See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.
- DRAINAGE AREA.—See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.
- PERIOD OF RECORD.—This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.
- INSTRUMENTATION.—Information on instrumentation is given only if a water-quality monitor, temperature record, sediment pumping sampler, or other sampling device is in operation at a station.
- REMARKS.—Remarks provide added information pertinent to the collection, analysis, or computation of the record.
- COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.
- EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently because the true maximums and minimums may not have been sampled. Extremes, when given, are for both the period of record and for the current water year.
- REVISIONS.—If errors in published water-quality records are discovered after publication, appropriate updates are made in the USGS computerized data system, the National Water Information System (NWIS). Because the usual volume of updates makes it impractical to document individual changes

in the State data-report series or elsewhere, potential users of USGS water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

REMARK

Remark Codes

The following remarks codes may appear with the water-quality data in this report:

E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptable range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant
V	Analyte was detected in both the environmental sample and the associated blanks

Dissolved Trace-Element Concentrations

PRINTED OUTPUT

NOTE.—To confidently produce dissolved trace-element data with insignificant contamination, the USGS began using a new trace-element protocol at some stations in water year 1994 to collect trace-element data at the microgram per liter (μ g/L) level (refer to USGS Open-File Report 94-539 "U.S. Geological Survey Protocol for the Collection and Processing of Surface-Water Samples for the Subsequent Determination of Inorganic Constituents in Filtered Water"). This protocol was used in water year 1995 at all stations. Therefore, the trace-element data for samples collected before and after implementation of new protocols are not directly comparable.

Change in National Trends Network Procedures

NOTE.—Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

Records of Ground-Water Levels

Water-level data from a network of observation wells (in addition to project wells) are given in this report. The network well data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Ohio are shown in figures 1a and 1b. Water-level data for specific projects are reported under those projects.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is a 15-digit number that is based on latitude and longitude. The secondary identification

number is the local well number, which is provided for local needs. Water-level measurements in this report are given in feet with reference to land-surface datum. Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above sea level is given in each well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or larger units.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

- LOCATION.—This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds), a landline location designation, the hydrologic-unit number, the distance and direction from a geographic point of reference, and the owner's name. AQUIFER.—This entry describes the aquifer by age and composition.
- WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and (or) screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.
- DATUM.—This entry describes both the measuring point and the land-surface altitude at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base, and so on) and in relation to land surface (such as 1.3 ft above land-surface datum). The altitude of the land-surface datum is described in feet above (or below) sea level; it is reported with a precision depending on the method of determination.
- REMARKS.—This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that are also water-quality observation wells, and may be used to acknowledge the assistance of local (non-USGS) observers.
- PERIOD OF PUBLISHED RECORD.—This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water level records by the USGS or cooperating agency, and the words "to current year" if the records are to be continued to the following year. Periods for which water-level records are available, but not published by the USGS, may be noted.
- EXTREMES FOR PERIOD OF PUBLISHED RECORD.—This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below (or above) land-surface datum. All periodic measurements of water levels for wells are listed. For wells equipped with recorders, daily water-level lows are published. The highest and lowest daily lows of the water year are shown on a line below the table. Because only daily lows are published for wells with recorders, the extreme instantaneous high may be a value that is not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites,

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they consist of only one set of measurements. The quality of ground water ordinarily changes slowly, so that frequent measuring of the same parameter is not necessary unless one is concerned with a particular problem such as monitoring for trends of a particular constituent.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties, but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the TWRI manuals listed in this report. The data presented in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from aquifer and had not stood for a long time in the well casing, where it would have been exposed to the atmosphere and the material comprising the casings.

Data Presentation

The records of ground-water quality are published intermixed with the ground-water-level data for network wells and with the specific project for project wells.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be acessed at http://water.usgs.gov

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices.

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot, and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

<u>Algae</u> are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum dry weight biomass that can be produced in a natural

water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

<u>Aquifer</u> is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield reasonable quantities of water to wells and springs.

<u>Artesian</u> means confined, and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

<u>Bacteria</u> are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, but others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

<u>Total coliform bacteria</u> are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35°C. In the laboratory, these bacteria are defined as the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

<u>Fecal coliform bacteria</u> are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at $44^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$ on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

<u>Fecal streptococcal bacteria</u> are bacteria found also in intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as grampositive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35° C $\pm 1.0^{\circ}$ C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

<u>Bed material</u> is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

<u>Biochemical oxygen demand</u> (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

<u>Biomass</u> is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m³) and periphyton and benthic organisms in grams per square meter (g/m²).

<u>Dry mass</u> refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

<u>Organic mass</u> or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

<u>Cells/volume</u> refers to the number of cells of any organism, which are counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to

- the number of contained cells per sample, usually milliliters (mL) or liters (L).
- <u>Cfs-day</u> is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.
- <u>Chemical oxygen demand</u> (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with carbonaceous organic pollution from sewage or industrial wastes.
- <u>Chlorophyll</u> refers to the green pigments of plants. Chlorophyll *a* and *b* are the two most common pigments in plants.
- <u>Color unit</u> is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.
- <u>Contents</u> is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.
- <u>Control</u> designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.
- <u>Control structure</u>, as used in this report, is a structure on a stream or canal that is used to regulate the flow or stage of the stream.
- <u>Cubic foot per second</u> (cfs, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.
- <u>Cubic feet per second per square mile</u> (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.
- <u>Discharge</u> is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.
 - Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.
 - Instantaneous discharge is the discharge at a particular instant of time.
- <u>Dissolved</u>: That material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.
- <u>Dissolved solids concentration</u> of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totalling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.
- <u>Drainage area</u> of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.
- <u>Drainage basin</u> is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.
- <u>Escherichia coli</u> (E. coli) are bacteria present in the intestine and feces of warm-blooded animals. E. coli are a member species of the fecal coliform group of indicator bacteria. In the laboratory they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5°C on mTEC medium.
- Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more

- appropriate when used with a reading on a gage.
- <u>Gaging station</u> is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.
- <u>Hardness</u> of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO₃).
- <u>Hydrologic bench-mark station</u> is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from human-induced changes in other basins that have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.
- <u>Hydrologic index stations</u>, in this report, refers to four continuous record gaging stations that have been selected as representative of streamflow patterns for their respective regions of Ohio. Station locations are shown in figure 2.
- <u>Hydrologic unit</u> is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.
- <u>Measuring point</u> (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.
- Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egglarva-adult or egg-nymph-adult.
- Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.
- Microgram per kilogram (UG/KG, μ g/kg) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (kilogram) of bottom material.
- Micrograms per gram (UG/G, μ g/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.
- Micrograms per liter (UG/L, μg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.
- Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter, and is based on the mass of dry sediment per liter of water-sediment mixture.
- National Stream-Quality Accounting Network (NASQAN) is a data-collection network designed by the USGS to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.
- Organism is any living entity.
 - Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area of habitat, usually square meters (m²), acres, or hectares.

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Periphyton benthic organisms and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

<u>Total organism count</u> is the total number of organisms collected and enumerated in any particular sample.

<u>Parameter code</u> is a 5-digit number used in the U.S. Geological Survey's data system, the National Water Information System (NWIS), to uniquely identify a specific constituent. The codes used in NWIS are the same as those used in the U.S. Environmental Protection Agency's data system, STORET.

<u>Partial-record station</u> is a particular site where limited streamflow and (or) water-quality data are collected systematically over a period of years for use in hydrologic analyses.

<u>Particle size</u> is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

<u>Particle-size classification</u> used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

CLASSIFICATION	SIZE	(m	m)	METHOD OF ANALYSIS
Clay	0.00024	-	0.004	Sedimentation
Silt	0.004	-	0.062	Sedimentation
Sand	0.062	-	2.0	Sedimentation or sieve
Gravel	2.0	_	64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

<u>Percent composition</u> is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, number, mass, or volume.

<u>Periphyton</u> is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

<u>Pesticide program</u> is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

<u>Pesticides</u> are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

<u>Picocurie</u> (PCI, pCi) is one trillionth (1 x 10⁻¹²) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7 x 10¹⁰ radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

<u>Plankton</u> is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

<u>Phytoplankton</u> is the plant part of the plankton. They are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water.

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They are the primary food producers in the aquatic environment, and are commonly known as algae.

- Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions.
- <u>Diatoms</u> are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.
- Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliters (cells/ml) of sample.
- <u>Zooplankton</u> is the animal part of the plankton. Zooplankton are capable of extensive movement within the water column and are often large enough to be seen with the unaided eye.
 - Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.
- <u>Primary productivity</u> is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).
 - Milligrams of carbon per area or volume per unit time [mg C/(m² or m³/time)] for periphyton, macrophytes, and phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method, and it is preferred for use in unenriched waters. Unit time may be the hour or day, depending on the incubation period.
 - Milligrams of oxygen per area or volume per unit time [mg O²/(m² or m³/time)] for periphyton, macrophytes, and phytoplankton are units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.
- <u>Radiochemical program</u> is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.
- Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment; thus, the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.
- <u>Return period</u> is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.
- Runoff in inches (IN., in.) indicates the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.
- <u>Sea level</u> refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.
- <u>Sediment</u> is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and

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decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land use, and quantity and intensity of precipitation.

- <u>Bed load</u> is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.
- <u>Bed-load discharge</u> (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.
- <u>Suspended sediment</u> is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.
- <u>Suspended-sediment concentration</u> is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).
- <u>Suspended-sediment discharge</u> (ton/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.
- <u>Suspended-sediment load</u> is the quantity of suspended sediment passing a section in a specified period.
- <u>Total sediment discharge</u> (ton/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.
- <u>Mean concentration</u> is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.
- Seven-day, 10-year low flow $(7Q_{10})$ is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).
- <u>Sodium-adsorption-ratio</u> (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.
- Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water. Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.
- Stage-discharge relation is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.
- <u>Streamflow</u> is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff," because streamflow may be applied to discharge whether or not it is affected by diversion or regulation.
- Substrate is the physical surface upon which an organism lives.
 - <u>Natural substrate</u> refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.
 - <u>Artificial substrate</u> is a device that is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrate are basket samplers

(made of wire cages filled with clean streamsize rocks) and multiplate samplers (made of hardboard) for benthic organism collection and plexiglas strips for periphyton.

<u>Surface area</u> of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter or a digitizer, in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered or digitized. All areas shown are those for the stage when the planimetered map was made.

<u>Surficial bed material</u> is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bedmaterial Samplers.

<u>Suspended</u> (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total." Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

<u>Taxonomy</u> is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom Animal
Phylum Arthropoda
Class Insecta
Order Ephemeroptera
Family Ephemeridae
Genus Hexagenia

Species..... Hexagenia limbata

<u>Thermograph</u> is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

<u>Time-weighted average</u> is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

<u>Tons per acre-foot</u> indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

- <u>Tons per day</u> (T/DAY) is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.
- <u>Total</u> is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)
- <u>Total in bottom material</u> is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."
- <u>Total discharge</u> is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.
- <u>Total load</u> (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the concentration of the constituent (in milligrams per liter), times the factor 0.0027, times the number of days.
- <u>Total recoverable</u> is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.
- <u>Water year</u> in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called water year 1980.
- <u>WDR</u> is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to state annual basic-data reports published after 1975.
- Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.
- WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to state annual basic-data reports published before 1975.
- WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, CO 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

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SURFACE-WATER RECORDS Ottawa River Basin

04177000 OTTAWA RIVER AT UNIVERSITY OF TOLEDO, TOLEDO, OHIO

LOCATION.--Lat 41°39'29", long 83°37'19", in NE 1/4 sec. 32, T.9 S., R.7 E., Lucas County, Hydrologic Unit 04100001, on left bank at auto bridge at University of Toledo, Toledo, Ohio, 0.4 mi downstream from Deline Ditch, 5.6 mi upstream from Sibley Creek, and 10.9 mi upstream from mouth.

DRAINAGE AREA.--150 mi². Area at site used prior to Sept 30, 1948, 150 mi², revised.

PERIOD OF RECORD.--March 1945 to September 1948 (published as "Tenmile Creek at Toledo"), August 1976 to current year.

REVISED RECORDS.--WSP 1307: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 576.28 ft above sea level. (From Aug. 1976 to July, 1979, at site 500 ft downstream. Prior to Sept. 30, 1948, water-stage recorder at site 2,500 ft upstream at datum 3.72 ft higher.

REMMARKS.--Records fair. Water-quality data collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1943, reached a stage of 15.1 ft present datum, from floodmark, Lucas County Sanitary Engineers; discharge, 3,400 ft³/s. Flood of Apr. 25, 1950, reached a stage of 15.0 ft present datum, from floodmark; discharge, 3,300 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

		DISCF	IARGE, CU	BIC FEET .		ILY MEAN	VALUES	SER 1997 1	O SEPTE	IMBEK 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2	18 13	13 20	209 109	96 54	264 218	158 157	197 180	455 843	17 14	37 32	2.5	26 29
3	19 12	15 23	91	60	174 123	133 109	148	1120 592	13 14	21	1.9	20 17
5	11	23 17	126 147	287 605	102	88	121 99	338	11	22 18	3.4 21	16
6 7	9.1 8.1	14 10	95 67	671 721	80 71	76 71	83 73	233 170	12 12	15 15	151 169	15 62
8	7.5	10	51	1270	61	127	89	156	10	50	105	31
9 10	7.8 9.3	9.2 9.0	43 69	1640 1070	56 52	802 1620	369 1090	145 110	10 20	33 19	33 19	29 22
11 12	7.3 7.2	8.9 8.3	91 115	458 271	103	1100 413	878	90 80	16 37	15 13	14 12	18 16
13	8.3	8.6	109	215	103 300 343 195	256	878 358 231 258	72	35	11	10	14
14 15	32 8.3	19 18	96 77	124 119	195 134	204 153	258 219	61 55	28 21	9.4 9.0	7.3 3.7	13 13
16 17	6.3 6.4	17 14	68 82	100 83	142 744	119 122	404	49 44	18	23 9.4	3.0	13 12
18	6.3	13	95	76	2170	213	262	40	18 14 11 18	8.2	13	10
19 20	5.9 6.3	13 14	100 196	67 61	2240 1800	500 516	404 524 262 179 141	36 35	18 25	17 16	7.1 3.2	8.3 11
21	6.4	24	193	57	1040			33	25	186	42	18
22 23	6.1 5.7	83 170	144 277	54 79	580 404	654 583 700 484	92 82	33 39 25 35	52 86	182 189	40 31	12 8.9
24 25	6.3 6.3	112 57	397 571	70 64	317 258	484 301	73 67	35 28	40 21	30 16	22 337	6.8 5.9
26	22	40	802			234	486	25	40 21 104 130 85 52 38	13	409	7.7
27 28	25 8.4	37 92	417 238	67 78	212 203 169	185 197	1180 775	21 19	130 85	7.5 4.6	182 78	14 12
29	6.9	145 184	159 118	114 297		417	313 245	19 17	52	4.0	59 41	13 14
30 31	8.0 8.5	184	79	293		291 196	245	17		3.2 2.8	32	
TOTAL MEAN	318.7 10.3	1218.0 40.6	5431 175	293 9285 300 1640 54 2.00	12555 448	11179 361	9326 311	5002 161	989	1031.1 33.3	1857.6 59.9	507.6 16.9
MAX	32	184	802	1640	2240	1620	1180	1120	33.0 130	189	409	62
MIN CFSM	5.7 .07	8.3 .27	43 1.17	54 2.00	52 2.99	71 2.40	67 2.07	17 1.08	10 .22	2.8	1.9	5.9 .11
IN.	.08	.30	1.35	2.30	3.11	2.77	2.31	1.24	.25	.26	.46	.13
		MONTHLY MEAI										
MEAN MAX	61.5 407	101 449	137 380	121 561	176 467	297 729	245 438	138 358	132 437	52.3 264	30.4 143	42.3 406
(WY) MIN	1987 .85	1993 3.04	1978	1993 4.92	1990 30.4	1978 56.0	1977 20.4	1945 21.4	1989 7.36	1992 8.46	1980 .82	1981 .13
(WY)	1947	1947	6.14 1947	1977	1978	1989	1946	1988	1988	1984	1946	1946
	STATIST	rics	FOR :		DAR YEAR	F	OR 1998 WAT	TER YEAR		WATER Y	EARS 1945	- 1998
ANNUAL ANNUAL				63189.0 173			58700.0 161			128		
	ANNUAL ANNUAL									215 65.5		1993 1995
HIGHEST	י עודבת י	MEΔN		2330	Jun 3		2240	Feb 19		2500	Moss	14 1982
LOWEST	DAILY ME SEVEN-DA	EAN AY MINIMUM PEAK FLOW		5.7 6.1	Oct 23 Oct 18		1.9 2.8	Aug 3 Jul 29		.0	10 Aug : 10 Aug :	24 1945 24 1945
							2320	Feb 18a		3950 .0 3950 14.5	Mar :	14 1982 14 1982
INSTANT	ANEOUS I	LOW FLOW					1.9	Aug 3		.0	0 Sep	19 1945
	RUNOFF RUNOFF	(CFSM) (TNCHES)		1.15 15.67			1.07 14.56			.8 11.5	5 5	
10 PERC	ENT EXC	EEDS		440			415			320		
	ENT EXC ENT EXC	EEDS		1.15 15.67 440 64 9.4			56 8.3			40 7.0		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

04185000 TIFFIN RIVER AT STRYKER, OHIO

LOCATION.--Lat 41°30'16", long 84°25'47", in SE 1/4 sec. 5, T.6 N., R.4 E., Williams County, Hydrologic Unit 04100006, on left bank 0.5 mi downstream from bridge on State Highway 191 at west edge of Stryker, 0.6 mi upstream from Penn Central bridge, and 1.6 mi downstream from Leatherwood Creek.

DRAINAGE AREA.--410 mi².

PERIOD OF RECORD.--September 1921 to September 1928 (published as "near Stryker"), October 1940 to current year.

REVISED RECORDS.--WSP 1144: 1922-28. WSP 1387: 1925. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 685.1 ft above sea level. Prior to Sept. 30, 1928, nonrecording gage at site 3.5 mi downstream at different datum. Oct. 13, 1940 to Jan. 17, 1941, nonrecording gage and Jan. 18, 1941 to Sept. 30, 1953, water-stage recorder, at site 0.5 mi downstream at same datum.

REMARKS.--Records fair. Small diversion 12.5 mi upstream from gage for municipal supply of Archbold. Diversion averaged 2.87 ft³/s; returned as sewage to Brush Creek, which flows into Tiffin River about 15 mi downstream from station. Water-quality and sediment data collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 16.0 ft, from floodmarks; discharge, 7,600 ft³/s. Flood in 1937 reached a stage of 15.0 ft, from information by local resident; discharge, 6,000 ft³/s.

DIGGUARGE GURIG BEER DER GEGOND HAMER VEAR OGNODER 1007 MO GERMENDER 1000

		DISC	CHARGE,	CUBIC FEET		O, WATER ILY MEAN		BER 1997 T	O SEPTE	EMBER 199	8	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	171	1030	346	448	446	1190	670	98	88	7.9	214
2	63	275	843	291	491	451	872	997	85	70	7.0	160
3	92	469	579	308	516	447	695	1100	78	59	6.1	135
4 5	84 48	488 414	492 438	575 1060	442 362	404 356	588 498	1070 859	69 63	57 51	7.4 11	113 97
6	38	345	337	1540	296	315	423	632	60	46	128	81
7	38 36	274	273	1750	296 256	292	377	502	60	40	128 573	70
8	36	222	240	2640	234	283	357	442	63	49	896	83
9	36	187	223	3200	217	1370	585	457	55	55	1010	85
10	39	158	223	3160	202	2400	1420	489	58	49	1020	67
11	42	138	242	2790	212	2840	1700	416	62	41	673	53
12 13	42 47	137 126	258 275	2310 1860	632 956	2660 2170	1910 1730	349 304	96 117	32 24	332 232	44 38
14	62	106	278	1390	961	1720	1340	275	124	19	184	33
15	86	103	256	812	670	1220	915	257	122	16	150	29
16	115	110	244	505	453	760	936	238	109	14	147	29
17	119	128	261	401	838	524	857	220	100	12	122	31
18 19	133	118 127	270	342 304	2460	583	631	201	80	10 12	129 103	30
20	122 111	127	287 408	304 276	3230 3480	1200 1490	471 396	182 168	242 172	12	78	33 35
21	95	149	438	255	2930	1910	353	154	95	20	63	40
22	80	430	406	239	2380	2000	324	138	303	72	72	55
23	73	544	749	231	1940	1880	306	128	411	113	95	46
24	69	469	982	227	1570	1690	280	125	219	108	1030	42
25	58	373	1450	218	1160	1440	259	133	127	65	3720	38
26 27	42 48	321 271	1630 1750	210 208	816 585	1110 819	279 658	146 139	90 80	40 29	4620 3590	39 42
28	48 119	457	1720	208 216	473	792	938	120	96	29	2660	42
29	217	764	1410	244		1170	888	106	168	17	1830	36
30	206	997	883	348		1390	678	98	127	13	908	33
31	180		485	406		1440		93		9.6	359	
TOTAL	2603	8996	19360	28662	29210	37572	22854	11208	3631	1264.6	24763.4	1873
MEAN MAX	84.0 217	300 997	625 1750	925 3200	1043 3480	1212 2840	762 1910	362 1100	121 411	40.8 113	799 4620	62.4 214
MIN	36	103	223	208	202	283	259	93	55	9.6	6.1	214
STATIST	CICS OF MO	NTHLY MEA	AN DATA	FOR WATER	YEARS 1922	- 1998,	BY WATER	YEAR (WY)				
MEAN	108	230	376	395	546	803	657	381	250	152	76.5	68.8
MAX	887	1339	1785	1687	1569	2563	1990	2112	1422	761	799	460
(WY)	1987	1993	1928	1993	1976	1982	1950	1943	1989	1943	1998	1981
MIN (WY)	10.2 1964	14.6 1954	18.4 1964	20.2 1963	21.9 1963	135 1964	106 1946	74.4 1925	24.1 1988	13.7 1988	9.76 1941	7.40
									1300			1953
	STATISTI	.CS	FOR	R 1997 CALE	NDAR YEAR	F	OR 1998 W	ATER YEAR		WATER	YEARS 1922	- 1998
ANNUAL ANNUAL				176608 484			191997.0 526			336		
	' ANNUAL M	IEAN		404			526			671		1950
	ANNUAL ME									59.	6	1964
	DAILY ME			3340	Feb 23		4620	Aug 26		7640		15 1982
	DAILY MEA			11 18	Aug 10		6.1			2.		18 1988
	SEVEN-DAY ANEOUS PE			18	Aug 6		8.9 5110	Jul 30 Aug 25a		3. 7800		7 1988 15 1982
	ANEOUS PE						15.93			18.		15 1982
INSTANT	ANEOUS LO	W FLOW					6.1			2.		18 1988
	ENT EXCEE			1320			1470			933		
	ENT EXCEE			258 40			242 39			125 23		
JU PEKC	THE BACEE	מעו		40			33			23		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

04185440 UNNAMED TRIBUTARY TO LOST CREEK NEAR FARMER, OHIO

LOCATION.--Lat 41°21'42", long 84°41'28", Defiance County, Hydrologic Unit 04100006, on right bank 400 ft above bridge on Rosedale Rd., 0.5 mi above mouth and 2.0 mi from Farmer. DRAINAGE AREA.--4.23 mi².

PERIOD OF RECORD. -- October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 760 ft above sea level from topographic map.

REMARKS. -- Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MEAN VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP .33 6.1 5.9 1.3 4.4 3.5 4.7 9.5 .32 .31 .03 1.3 3.2 .32 13 1.2 5.2 2.8 4.1 .28 .02 7.7 .16 3 . 65 3.4 1.4 2.9 2.2 2.6 . 21 . 01 2.2 2.0 2.0 5.7 50 22 .52 2.1 .22 .49 .12 .60 1.5 1.7 6.6 .37 1.3 2.7 34 .22 .33 .51 36 1.2 1.5 .22 .20 .27 .81 1.4 31 1.1 1.4 1.2 2.2 .21 13 49 .42 5.9 .27 1.0 1.8 2.1 8 .72 1.3 101 12 .20 19 .42 5.2 .27 .94 .22 10 .29 .58 1.8 9.9 .89 16 29 1.6 .26 .64 2.6 .31 11 .29 .51 4.4 5.8 11 8.3 10 1.3 .36 .32 1.8 .21 7.6 6.1 .29 3.6 22 5.9 5.7 3.4 7.4 12 .43 3.7 1.1 .21 1.3 .15 .44 2.9 5.5 .12 13 .32 1.0 .16 14 48 1.5 2.0 3.5 2.6 5.1 .87 1.1 .13 .58 .10 .62 3.7 .66 .10 15 .49 1.4 1.9 2.4 2.0 .79 .12 .32 52 4 0 1 7 3 4 1 8 71 29 .09 16 43 69 2 4 12 17 6.2 1.9 8.9 .57 .40 .51 1.6 88 1.1 .08 .20 .10 .50 .39 3.9 58 31 .53 .53 .08 .12 .36 2.4 .13 19 52 7 0 1 4 18 54 2 9 49 0.8 14 2.3 .72 29 20 .53 4.4 1.3 .09 .32 11 .43 .11 .11 2.5 6.8 21 1.2 28 1.9 .39 .42 .08 .16 .30 11 .16 .27 19 10 4.3 .38 .37 .09 1.1 16 .31 .20 2.3 .27 6.1 19 1.1 3.3 7.5 1.5 .36 .26 .17 .30 .09 .27 2.8 16 .98 3.0 4.5 .22 .12 24 1.4 .62 .10 .21 25 .27 1.8 42 .93 2.9 3.3 1.4 .55 .19 .06 322 .09 2.5 9.1 20 26 .30 1.5 11 .95 2.8 .28 .06 .08 1.8 .80 1.2 5.5 3.7 2.4 .38 .23 .05 8.6 27 5.1 .05 3.7 2.8 .60 18 3.5 2.9 36 2.1 .35 . 20 .04 6.1 .06 2.6 .44 29 5.8 12 .33 .04 4.8 .06 .36 16 2.2 6.0 5.1 3.7 .31 .63 .03 3.5 .05 30 31 .35 1.6 4.7 3.2 .34 .03 2.2 ---TOTAL 12.34 140.85 182.3 338.66 273.93 449.7 374.6 90.14 28.29 24.68 508.07 8.32 10.9 9.78 12.5 .94 7.6 MEAN .40 4.70 5.88 14.5 2.91 .80 16.4 .28 MAX 29 42 101 88 146 175 22 13 322 .19 .03 .05 MTN . 2.7 .43 1.2 .93 .89 1.4 1.2 .31 . 01 3.87 1.11 2.58 2.31 CFSM .09 1.39 3.43 2.95 .69 . 22 .19 .07 1.24 1.60 2.98 2.41 3.95 3.29 .79 4.47 .07 IN. .11 STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1998, BY WATER YEAR (WY) MEAN 2.88 5.02 6.85 5.64 7.44 7.69 7.34 3.48 2.80 2.23 1.87 .92 MAX 12.6 15.6 23.9 13.9 21.2 14.5 10.9 9.09 7.75 16.4 5.66 1987 1993 1993 1990 1998 1991 1996 1986 1998 1997 (WY) 1991 1990 .031 .051 1.68 .46 1.92 MIN 3.13 . 2.6 .046 .011 .015 .003 (WY) 1995 1995 1990 1988 1995 1996 1987 1988 1988 1988 1989 1991 SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1986 - 1998 ANNUAL TOTAL 1995.01 2431.88 ANNUAL MEAN HIGHEST ANNUAL MEAN 5.47 4.50 6.66 6.66 1998 LOWEST ANNUAL MEAN 1.96 HIGHEST DAILY MEAN LOWEST DAILY MEAN 172 Mar 14 322 Aug 25 322 Aug 25 1998 .01 .00 .10 Aug 8 Aug 3 Auq 3 1987 ANNUAL SEVEN-DAY MINIMUM Aug .03 Jul 28 .00 Aug INSTANTANEOUS PEAK FLOW INSTANTANEOUS PEAK STAGE Aug 25 1998 Aug 25 1998 1770 Aug 25a 1770 7.59 7.59 Aug 25 INSTANTANEOUS LOW FLOW .01 Jul 27 1991 Aug .00 ANNUAL RUNOFF (CFSM) ANNUAL RUNOFF (INCHES) 1 29 1 58 1.06 17.54 21.39 14.45 10 PERCENT EXCEEDS 11 13 1.2 .70 50 PERCENT EXCEEDS 90 PERCENT EXCEEDS 1.3 . 2.9 .12 .05

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO

LOCATION.--Lat 40°56'55", long 84°15'58", in SE 1/4 sec. 15, T.1 S., R.5. E., Putnam County, Hydrologic Unit 04100007, on left bank 200 ft upstream from bridge on U. S. Highway 224, 3.5 mi northeast of Fort Jennings, 6 mi upstream from Ottawa River, and 7.3 mi downstream from Jennings Creek.
DRAINAGE AREA.--332 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1921 to December 1935. October 1940 to current year.
REVISED RECORDS.--WSP 744: 1932. WSP 974: 1930 (M). WSP 1307: 1922-24 (M), 1926-27 (M), 1929 (M). WSP 1912: Drainage area.
GAGE.--Water-stage recorder. Datum of gage is 713.6 ft above sea level. Prior to Oct. 6, 1930, nonrecording gage at same site and datum. REMARKS.--Records fair. Beginning Jan. 4, 1971, water was diverted at a point 24.3 mi upstream from station into Lake

Bresler. Storage in Lake Bresler is available for low-flow augmentation and water supply of city of Lima, in Ottawa River Basin. Net withdrawal totaled 3,764.08 mil gal, equivalent to a mean withdrawal of 16.0 ft³/s. No releases have been made for low-flow augmentation. Some diversion from Grand Lake to Auglaize River Basin through Miami and Erie Canal into Jennings Creek at a point 9.2 mi upstream from station. Annual figures of runoff are considered to be within 10 percent of natural yield. Sediment data collected at this site. Water-quality data collected at this site. National Weather Service gage height Handar telemeter at station.

		DISC	CHARGE,	CUBIC FEET		O, WATER		ER 1997	TO SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	24 22 24 22 23	40 44 38 38 37	379 301 202 337 294	117 125 113 165 187	107 91 80 72 68	127 105 101 94 86	276 291 265 202 167	151 177 373 588 708	156 165 108 73 62	370 173 82 614 2070	47 39 38 74 1070	23 21 20 21 21
6 7 8 9 10	21 17 18 18 15	35 36 33 34 33	181 121 91 76 196	298 621 2590 4030 4020	63 60 54 49 48	74 70 73 540 1400	137 118 256 919 2940	693 372 308 315 270	58 42 42 50 50	1310 361 751 1670 701	1190 1590 1170 857 314	19 19 21 20 19
11 12 13 14 15	17 22 20 28 32	31 30 29 34 37	883 734 382 252 185	1500 534 397 326 262	52 61 73 72 68	713 343 224 171 129	3190 1230 500 367 294	201 161 138 203 165	56 1050 2620 2530 1070	262 149 98 72 60	196 140 204 104 69	19 17 16 15
16 17 18 19 20	32 32 32 29 25	37 35 41 40 40	128 110 105 95 86	217 166 131 107 108	64 293 2530 3110 1870	97 100 242 1080 983	492 900 794 391 274	102 80 70 63 63	445 670 917 398 245	51 45 58 55 54	54 47 41 38 35	15 15 15 15 17
21 22 23 24 25	26 27 26 24 28	46 96 151 141 95	78 94 298 310 1170	110 86 72 87 141	929 609 422 302 242	1940 2100 1040 554 378	217 179 165 139 117	76 74 69 67 74	180 251 267 125 79	61 347 1680 2430 1750	33 32 32 30 28	21 24 22 30 22
26 27 28 29 30 31	31 37 36 37 39	66 54 87 256 326	1630 781 413 269 203 156	123 121 149 175 164 134	202 175 154 	296 259 262 580 489 326	103 105 185 158	91 104 85 69 56 304	67 72 70 89 197	377 204 122 92 87 67	27 27 27 26 25 24	18 17 17 19 18
TOTAL MEAN MAX MIN CFSM IN.	822 26.5 39 15 .08	2040 68.0 326 29 .20	10540 340 1630 76 1.02	17376 561 4030 72 1.69 1.95	11920 426 3110 48 1.28 1.34	14976 483 2100 70 1.46 1.68	15526 518 3190 103 1.56 1.74	6270 202 708 56 .61	12204 407 2620 42 1.23 1.37	16223 523 2430 45 1.58 1.82	7628 246 1590 24 .74	571 19.0 30 15 .06
				FOR WATER						1.02	.03	.00
MEAN MAX (WY) MIN (WY)	75.6 782 1927 5.44 1989	179 1286 1973 13.4 1957	307 1283 1991 11.9 1977	439 2184 1950 8.23 1977	473 1555 1950 23.6 1964	603 2112 1978 81.3 1981	508 1874 1957 51.3 1971	292 1237 1943 28.7 1934	253 1142 1981 13.6 1988	181 1652 1992 20.4 1965	77.8 477 1979 8.10 1991	85.7 1091 1926 5.78 1991
	STATISTI	CS	FOI	R 1997 CALE	NDAR YEAR	F	OR 1998 WAT	ER YEAR		WATER YEA	ARS 1921	- 1998
LOWEST HIGHEST LOWEST ANNUAL INSTANT INSTANT ANNUAL ANNUAL 10 PERC		EAN EAN IN IN EAK FLOW EAK STAGE OW FLOW CFSM) ENCHES) EDS EDS		129545 355 6770 15 18 1.0 14.5 837 116 30			116096 318 4030 15 15 4360 13.59 15 .96 13.01 890 104 22	Jan 9 Oct 10 Sep 13 Jan 9a Jan 9 Oct 10	ı	289 537 65.3 12000 1.2 12800 20.30 .71 .87 11.83 697 75	Oct 2 Oct Jul 1 Jan 2 Oct	1973 1931 15 1992 20 1994 4 1991 15 1992 23 1959 7 1991

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--Continued National Water-Quality Assessment Program, Lake Eric-Lake St. Clair Basin Study Unit

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the NAWQA (National Water-Quality Assessment Program) project in the Lake Erie-Lake St. Clair Basin. The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. This project is one of 59 river basin and aquifer assessment projects being implemented across the nation. At any one time, 15 to 20 of these projects are actively collecting data. The period of high-intensity data collection for the Lake Erie-Lake St. Clair Basin project is in water years 1996-98.

There are four stream sites in Ohio for which data are being reported in this publication as part of the NAWQA study: Auglaize River near Ft. Jennings (04186500), Maumee River at Waterville (04193500), Cuyahoga River at LTV Steel at Cleveland (04208504), and Grand River at Harpersfield (0421820). Three sites are reported in the 1998 Michigan annual data report: Black River near Jeddo, MI (04159492), Clinton River at Sterling Heights, MI (04161820) and River Raisin near Manchester, MI (04175600). Two Sites are reported in the 1998 Indiana annual data report: St. Joseph River near Newville, IN (04178000), and Maumee River at New Haven, IN (04183000). One site is reported in the 1998 New York annual data report: Cattaraugus Creek at Gowanda, NY (04213500).

These data also can be obtained electronically at http://www-oh.er.usgs.gov/nawqa.index.html.

[---, no data; <, concentration or value reported is less than that indicated; E, estimated value; K, value is estimated from a non-ideal colony count]

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
OCT 15	1100	32	1250	7.7	10.0	12.0	753	6.9	65	130	390	92
23	0930	26	1240	8.1	-2.0	6.5	745	9.8	81		380	87
NOV 13	1200	29	1140	8.6	.5	2.5	741	11.6	88		370	87
19	0920	40	1200	8.1	3.0	.5	744	13.4	95	K150	380	86
DEC 16	1315	122	692	7.8	6.0	1.5	740	12.2	90	83	300	77
30	1400	199	659	7.8	3.0	1.5	746	9.6	70		310	82
JAN 14	1200	324	595	7.9	10.0	.5	754	14.0	98	300	270	70
FEB												
26 JUN	1000	204	681	8.3	9.0	5.5	742	13.4	110		320	83
17	0930	364	597	7.9	23.0	20.0		6.7				
JUL 08	1200	684	534	7.8	25.0	23.0	741	7.9	95			
00	1200	001	331	,.0	23.0	23.0	,	,.,	,,,			
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT	SIUM, DIS- SOLVED (MG/L AS MG) (00925)	DIS- SOLVED (MG/L AS NA) (00930)	SIUM, DIS- SOLVED (MG/L AS K) (00935)	BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	DIS- SOLVED (MG/L AS SO4) (00945)	RIDE, DIS- SOLVED (MG/L AS CL) (00940)	RIDE, DIS- SOLVED (MG/L AS F) (00950)	DIS- SOLVED (MG/L AS SIO2) (00955)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
	SIUM, DIS- SOLVED (MG/L AS MG)	DIS- SOLVED (MG/L AS NA)	SIUM, DIS- SOLVED (MG/L AS K)	BONATE WATER DIS IT FIELD MG/L AS HCO3	LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	DIS- SOLVED (MG/L AS SO4)	RIDE, DIS- SOLVED (MG/L AS CL)	RIDE, DIS- SOLVED (MG/L AS F)	DIS- SOLVED (MG/L AS SIO2)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	GEN, NITRITE DIS- SOLVED (MG/L AS N)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 15 23 NOV 13	SIUM, DIS- SOLVED (MG/L AS MG) (00925) 39 40	DIS- SOLVED (MG/L AS NA) (00930) 97 91	SIUM, DIS- SOLVED (MG/L AS K) (00935) 8.8 7.8	BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) 302 322 290	LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) 248 264 238	DIS- SOLVED (MG/L AS SO4) (00945) 160 170	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 160 150	RIDE, DIS- SOLVED (MG/L AS F) (00950) 0.8 .8	DIS- SOLVED (MG/L AS SIO2) (00955) 4.9 4.0	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) 761 784 709	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.01 <.01	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.15 .07
OCT 15 23 NOV 13	SIUM, DIS- SOLVED (MG/L AS MG) (00925)	DIS- SOLVED (MG/L AS NA) (00930) 97 91	SIUM, DIS- SOLVED (MG/L AS K) (00935) 8.8 7.8	BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) 302 322	LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) 248 264	DIS- SOLVED (MG/L AS SO4) (00945) 160 170	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 160 150	RIDE, DIS- SOLVED (MG/L AS F) (00950) 0.8	DIS- SOLVED (MG/L AS SIO2) (00955) 4.9 4.0	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) 761 784	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.01 <.01	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.15 .07
OCT 15 23 NOV 13 19 DEC 16	SIUM, DIS- SOLVED (MG/L AS MG) (00925) 39 40 38 39	DIS- SOLVED (MG/L AS NA) (00930) 97 91 83 100	SIUM, DIS- SOLVED (MG/L AS K) (00935) 8.8 7.8 6.5 8.5	BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) 302 322 290 390 246	LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) 248 264 238 320 202	DIS- SOLVED (MG/L AS SO4) (00945) 160 170 150 160	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 160 150 140 160	RIDE, DIS- SOLVED (MG/L AS F) (00950) 0.8 .8 .8	DIS- SOLVED (MG/L AS SIO2) (00955) 4.9 4.0 .16 .35	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) 761 784 709 751 459	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.01 <.01 <.01	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.15 .07 .05 .32
OCT 15 23 NOV 13 19 DEC 16 30	SIUM, DIS- SOLVED (MG/L AS MG) (00925) 39 40 38 39	DIS- SOLVED (MG/L AS NA) (00930) 97 91 83 100	SIUM, DIS- SOLVED (MG/L AS K) (00935) 8.8 7.8 6.5 8.5	BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) 302 322 290 390	LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) 248 264 238 320	DIS- SOLVED (MG/L AS SO4) (00945) 160 170	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 160 150	RIDE, DIS- SOLVED (MG/L AS F) (00950) 0.8 .8	DIS- SOLVED (MG/L AS SIO2) (00955) 4.9 4.0	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) 761 784 709 751	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.01 <.01	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.15 .07
OCT 15 23 NOV 13 19 DEC 16 30 JAN 14	SIUM, DIS- SOLVED (MG/L AS MG) (00925) 39 40 38 39	DIS- SOLVED (MG/L AS NA) (00930) 97 91 83 100	SIUM, DIS- SOLVED (MG/L AS K) (00935) 8.8 7.8 6.5 8.5	BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) 302 322 290 390 246	LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) 248 264 238 320 202	DIS- SOLVED (MG/L AS SO4) (00945) 160 170 150 160	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 160 150 140 160	RIDE, DIS- SOLVED (MG/L AS F) (00950) 0.8 .8 .8	DIS- SOLVED (MG/L AS SIO2) (00955) 4.9 4.0 .16 .35	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) 761 784 709 751 459	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.01 <.01 <.01	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.15 .07 .05 .32
OCT 15 23 NOV 13 19 DEC 16 30 JAN 14 FEB 26	SIUM, DIS- SOLVED (MG/L AS MG) (00925) 39 40 38 39	DIS- SOLVED (MG/L AS NA) (00930) 97 91 83 100	SIUM, DIS- SOLVED (MG/L AS K) (00935) 8.8 7.8 6.5 8.5	BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) 302 322 290 390 246 229	LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) 248 264 238 320 202 188	DIS- SOLVED (MG/L AS SO4) (00945) 160 170 150 160 80 72	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 160 150 140 160 49 40	RIDE, DIS- SOLVED (MG/L AS F) (00950) 0.8 .8 .8 .8	DIS- SOLVED (MG/L AS SIO2) (00955) 4.9 4.0 .16 .35 7.8 8.4	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) 761 784 709 751 459 424	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.01 <.01 <.01 .01	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.15 .07 .05 .32
OCT 15 23 NOV 13 19 DEC 16 30 JAN 14 FEB	SIUM, DIS- SOLVED (MG/L AS MG) (00925) 39 40 38 39 26 26	DIS- SOLVED (MG/L AS NA) (00930) 97 91 83 100 22 18	SIUM, DIS- SOLVED (MG/L AS K) (00935) 8.8 7.8 6.5 8.5 3.2 3.3	BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) 302 322 290 390 246 229 234	LINITY WAT DIS TOT IT FIELD MG/L AS CACC3 (39086) 248 264 238 320 202 188	DIS- SOLVED (MG/L AS SO4) (00945) 160 170 150 160 80 72 67	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 160 150 140 160 49 40	RIDE, DIS- SOLVED (MG/L AS F) (00950) 0.8 .8 .8 .8	DIS- SOLVED (MG/L AS SIO2) (00955) 4.9 4.0 .16 .35 7.8 8.4 7.7	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) 761 784 709 751 459 424 368	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.01 <.01 .01 .05 .05	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.15 .07 .05 .32 6.4 7.3

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DATE OCT	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
15 23 NOV	0.02	0.78 .46	0.50	0.21	0.13 .11	0.11	18 17	38 17	6.7 5.6	1.5	31 14	<.002
13 19 DEC	<.02	.48	.36	.03	.02	.03	37 48	15 13	4.6 5.5	.3	8 5	.008
16 30 JAN	.08	.69 .73	.47 .51	.07	.06	.07	<10 15	8. 9.	4.3 4.3	. 4	14 21	.008
14 FEB	<.02	E.66	E.50	E.13	E.08	.10	11	8.	4.2	.7	35	.008
26	.04	.40	.30	.08	.05	.05	<10	5.	3.5	.5	98	<.002
JUN 17	.05		.79		.11	.12						1.45
JUL 08	.06		.69		.13	.13						.297
DATE	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)
15 23 NOV	<.002	 0.158	 E.027	<.300	<.002	<.002	<.003	<.003	 <.004	.028	<.002	<.006
13 19 DEC	.004	.111	E.011		<.002	<.002	<.003	<.003	<.004	.026	<.002	<.006
16	E.004	.108	E.028	<.100	<.002	<.002	<.003	<.003	< .004	.011	<.002	<.006
JAN 14	.006	.125	E.036	<.080	<.002	<.002	<.003	<.003	<.004	.007	<.002	<.006
FEB 26	E.004	.083	E.025	<.001	<.002	<.002	<.003	<.003	< .004	< .004	<.002	<.006
JUN 17 JUL	.188	9.96	E.870	<.001	<.002	<.002	<.003	<.003		1.87	<.002	<.006
08	.030	2.21	E.395	<.001	<.002	<.002	<.003	<.003	.019	.385	<.002	<.006
DATE	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)
OCT 15		==.	==	==	==		==	.	± = 1	.	==	- -
23 NOV 13	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
19 DEC	E.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.010
16 30 JAN	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
14 FEB	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
26	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
JUN 17 JUL	E.004	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
08	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005

04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--Continued National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

DATE	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)		METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)
15											
23 NOV	0.185	0.009	<.004	<.003	< .004	<.006	< .004	< .004	<.005	<.002	0.060
13											
19 DEC	.239	< .004	< .004	<.003	< .004	<.006	< .004	< .004	<.005	<.002	.024
16	.188	<.010	< .004	<.003	< .004	<.006	< .004	< .004	<.005	<.002	E.006
30 JAN											
14 FEB	.188	.006	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	E.006
26	.092	< .004	< .004	<.003	< .004	<.006	< .004	< .004	<.005	<.002	<.018
JUN 17	6.58	.413	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	.039
JUL 08	2.26	.096	<.004	<.003	<.004	<.006	<.004	< .004	<.005	<.002	.033
DATE	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	CHLOR, WATER, DISS, REC (UG/L) (04024)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	MAZINE, WATER, DISS, REC (UG/L) (04035)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT 15 23	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	CHLOR, WATER, DISS, REC (UG/L)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L)	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	MAZINE, WATER, DISS, REC (UG/L)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L)	BACIL WATER FLTRD 0.7 U GF, REC (UG/L)	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L)	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L)	LATE WATER FLTRD 0.7 U GF, REC (UG/L)	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L)
OCT 15 23 NOV 13	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	CHLOR, WATER, DISS, REC (UG/L) (04024)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013	MAZINE, WATER, DISS, REC (UG/L) (04035)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002
OCT 15 23 NOV 13 19	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	CHLOR, WATER, DISS, REC (UG/L) (04024)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	MAZINE, WATER, DISS, REC (UG/L) (04035)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) <.010	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT 15 23 NOV 13 19 DEC 16	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) <.003 <.003 <.003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004 <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013 <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.016 .013	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) <.010 <.010 <.010	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) <.013 	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002 <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002 <.002
OCT 15 23 NOV 13 19 DEC 16 30	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) <.003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.016	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) <.010	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) <.013	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002
OCT 15 23 NOV 13 19 DEC 16 30 JAN 14	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) <.003 <.003 <.003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004 <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013 <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.016 .013	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) <.010 <.010 <.010	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) <.013 	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002 <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002 <.002
OCT 15 23 NOV 13 19 DEC 16 30 JAN 14 FEB 26	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) < .003 < .003 < .003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007 <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004 <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013 <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.016 .013	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) <.010 <.010 <.010	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) <.007 <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) <.013 <.013	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002 <.002 <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002 <.002 <.002
OCT 15 23 NOV 13 19 DEC 16 30 JAN 14 FEB	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) <.003 <.003 <.003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007 <.007 <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004 <.004 <.004	PARGITE WATER FLITED 0.7 U GF, REC (UG/L) (82685) <.013 <.013 <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.016 .013	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) <.010 <.010 <.010	BACIL WATER FITTED 0.7 U GF, REC (UG/L) (82665) <.007 <.007 <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) <.013 <.013 <.013 <.013	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002 <.002 <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002 <.002 <.002

04187100 OTTAWA RIVER AT LIMA, OHIO

LOCATION.--Lat 40°43'29", long 84°07'35", Allen County, Hydrologic Unit 04100007, on right bank, 70 ft downstream from Erie Lackawanna RR bridge, 300 ft upstream from bridge to Lima STP, 0.7 mi downstream from Collett Street at Lima, Ohio.

Onio.
DRAINAGE AREA.--128 mi².
PERIOD OF RECORD.--June 1988 to current year.
GAGE.--Water-stage recorder. Datum of gage is 820.00 ft above sea level.
REMARKS.--Records fair except for periods of estimated record, which are poor. Water diverted upstream of gage for City of Lima. Water is returned to stream below gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILLY MEAN VALUES

IOV DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
12 35 0.4 60	33 35 34 41 43	47 40 38 35 32	20 24 24 28 34	137 116 76 63 50	e90 e150 e200 e280 e280	e60 23 14 11 16	41 26 15 732 157	16 13 7.1 146 705	19 14 9.7 16 21
26 0.2 26 5.6 23	152 522 2610 1780 606	32 30 27 26 23	27 22 21 435 536	40 40 79 e900 e1000	e200 e120 e130 e100 e80	16 13 13 13 9.9	38 72 116 35 33	810 1080 521 458 925	20 19 8.5 18
7.2 129 3.2 66 3 34	224 88 78 49 36	25 45 43 27 36	161 73 47 38 27	e600 e250 e160 e130 e170	e62 e56 e70 e80 e37	95 1240 1100 602 170	22 17 15 15	1040 595 240 136 90	e11 e10 e9.6 e9.0 e9.6
41 39 35	26 44 43 37 32	40 513 1400 888 429	21 37 194 398 371	e350 e300 e170 e120 e90	e30 e27 e25 e28 e30	110 194 79 51 47	5.5 13 12 10 20	64 51 98 192 66	11 5.4 2.6 6.8 5.7
30 68 97	28 26 36 41 38	254 115 71 80 47	1440 985 457 221 144	e76 e68 e58 e50 e40	e29 e28 e28 e31 e35	36 26 20 18 20	44 699 735 105 30	39 27 20 19 20	13 11 9.2 8.2 5.5
232 130 72 36	32 37 48 26 32 23	30 29 23 	110 90 210 278 141 98	e50 e70 e66 e62 e62	e40 e32 e25 e40 e110 e66	19 18 20 59 48	29 24 22 19 13 13	17 26 18 13 11	8.0 6.2 5.7 7.1 3.0
105 84 683 1.6 12	6880 222 2610 23	4425 158 1400 23	6712 217 1440 20	5443 181 1000 40	2539 81.9 280 25	4160.9 139 1240 9.9	3136.3 101 735 5.5	7476.1 241 1080 7.1	315.8 10.5 21 2.6
1.5 129 334 586 993 1991 56 5.01	158 327 1993 12.2 1992	169 425 1990 18.9 1989	- 1998, 154 422 1993 42.5 1992	188 291 1995 32.3 1997	131 342 1996 15.5 1994	104 376 1997 7.44 1988	110 444 1992 7.85 1991	63.1 241 1998 6.58 1993	48.2 346 1992 4.49 1994
FOR	1997 CALE	NDAR YEAR	F	OR 1998 WA	TER YEAR	2	WATER Y	EARS 1988	- 1998
LOW TAGE	160 3650 .94	Jun 1 4 Oct 2		124 2610 .94 4.5 2930 15.58	Jan 8 Oct 2 Oct 7 Jan 8 Jan 8	a Ba	3860 .0 .1 4590 18.6 .0 240 26	Dec 00 Oct 15 Sep Dec 53 Dec 00 Oct	1997 1989 30 1990 30 1993 17 1994 30 1990 30 1990 30 1993
	7.7 52 2 12 3.3 3.4 60 5.9 48 7.7 17 0 26 6.6 23 2 180 6.32 180 6.32 180 6.32 180 6.34 1 6.33 8 7.2 129 8.2 66 8.3 41 8.3 31 8.3 29 8.3 33 8.3 29 8.4 1 8.3 33 8.5 41 8.3 33 8.5 41 8.3 33 8.5 41 8.3 35 8.5 41 8.3 37 8.5 66 8.5 79 8.6 68 97 8.7 9 3262 8.7 9 105 8.8 4683 8.7 9 105 8.8 4683 8.7 9 105 8.8 4683 8.7 9 105 8.8 4683 8.7 9 105 8.8 4683 8.7 9 105 8.8 4683 8.8 1991 8.8 586 8.8 12 8.9 105 8.9 1991 8.9 1991 8.9 1992 8.9 1992	7.7 52 33 2 12 35 34 4.4 60 41 5.9 48 43 7.7 17 152 0 26 522 0 26 522 2 6 2610 6.6 23 1780 2 180 606 6 328 224 7.2 129 88 3.2 66 78 3.3 34 49 6 38 34 49 6 38 34 49 6 38 34 49 6 38 34 49 6 38 36 6 41 26 8 41 44 1 39 43 1 35 37 1 33 32 8 29 28 8 30 26 6 68 36 6 68 36 6 78 8 36 32 7 9 326 232 7 130 48 2 9 72 26 1 36 32 1 30 48 2 9 72 26 1 36 32 1 30 48 2 9 72 26 1 36 32 1 37 1 30 48 2 72 26 1 36 32 1 37 1 30 48 2 72 26 1 36 32 1 37 1 30 48 2 72 26 1 36 32 1 37 1 30 48 2 72 26 1 36 32 1 37 1 30 48 2 72 26 1 36 32 1 37 1 30 48 2 72 26 1 36 32 1 37 1 30 48 2 72 26 1 36 32 1 37 1 30 48 2 72 26 1 36 32 1 37 1 30 48 2 72 26 1 36 32 1 37 1 30 48 2 72 26 1 36 32 1 37 1 39 105 222 84 683 2610 5.6 5.0 1 12.2 7992 1992 1992 FOR 1997 CALEI 58535.94 160 VIMUM 4.5 VIMUM 4.5 VIMUM 4.5 VIMUM 4.5 VIMUM 4.5	7.7 52 33 47 2 12 35 40 35 34 38 9.4 60 41 35 5.9 48 43 32 7.7 17 152 32 0 26 522 30 9.2 26 522 30 9.2 26 2610 27 5.6 23 1780 26 2 180 606 23 5 328 224 25 7.2 129 88 45 3.2 66 78 43 3.3 34 49 27 5.3 38 36 36 6 41 26 40 6 33 37 888 6 34 49 27 6 38 31 44 513 6 39 43 1400 6 35 37 888 6 39 43 1400 6 35 37 888 6 30 26 115 6 68 36 71 7 9 326 6880 422 7 97 41 80 80 43 41 41 80 80 43 41 41 80 80 43 41	7.7 52 33 47 20 2 12 35 40 24 35 34 38 24 36.4 60 41 35 28 5.9 48 43 32 34 7.7 17 152 32 27 0 26 522 30 22 6.6 23 1780 26 435 2 180 606 23 536 6 328 224 25 161 7.2 129 88 45 73 8.2 66 78 43 47 8.3 34 49 27 38 8.3 34 49 27 38 8.3 34 49 27 38 8.3 34 49 27 38 8.3 34 49 27 38 8.3 34 49 27 38 8.3 34 49 27 38 8.3 34 49 27 38 8.3 34 49 27 38 8.3 34 49 27 38 8.3 34 49 27 38 8.3 34 49 27 38 8.3 36 36 36 27 8.4 39 43 1400 194 8.3 39 43 1400 194 8.3 30 26 115 985 8.3 3	7.7 52 33 47 20 137 2 12 35 40 24 116 3 35 34 38 24 76 3.4 60 41 35 28 63 5.9 48 43 32 34 50 7.7 17 152 32 27 40 0 26 522 30 22 40 0 2.2 26 2610 27 21 79 2.1 80 606 23 536 e1000 2.1 180 606 23 536 e1000 2.2 129 88 45 73 e250 3.2 66 78 43 47 e160 3.3 34 49 27 38 e130 3.2 66 78 43 47 e160 3.3 38 34 49 27 38 e130 3.3 44 49 27 38 e130 3.3 34 49 27 38 e130 3.3 36 36 27 e170 3.3 39 43 1400 194 e170 3.4 39 43 1400 194 e170 3.3 33 32 429 371 e90 3.3 30 26 115 985 e68 3.3 683 38 47 144 e40 3.3 32 429 371 e90 3.3 683 38 47 144 e40 3.3 683 38 47 144 e40 3.3 683 38 47 144 e40 3.3 683 384 47 144 e40 3.4 70 600 6000 6000 6000 6000 6000 6000 6	7.7 52 33 47 20 137 e90 2 12 35 40 24 116 e150 3.5 34 38 24 76 e200 9.4 60 41 35 28 63 e280 9.4 8 43 32 34 50 e280 7.7 17 152 32 27 40 e200 9.2 6 522 30 22 40 e120 9.2 26 522 30 22 40 e120 9.2 26 2610 27 21 79 e130 1.6 23 1780 26 435 e900 e100 2 180 606 23 536 e1000 e80 1.6 23 1780 26 435 e900 e100 2 180 606 23 536 e1000 e80 1.2 129 88 45 73 e250 e56 3.2 24 25 161 e600 e62 1.2 129 88 45 73 e250 e56 3.3 34 49 27 38 e130 e80 3.3 34 49 37 e100 e27 41 26 40 21 e350 e30 3.3 41 44 513 37 e300 e27 43 39 43 1400 194 e170 e25 43 39 43 1400 194 e170 e25 43 33 32 429 371 e90 e30 38 29 28 254 1440 e76 e29 38 30 26 115 985 e68 e28 30 30 26 115 985 e68 e28 30 30 26 115 985 e68 e28 30 30 26 115 985 e68 e28 31 30 48 23 210 e66 e25 32 23 77 29 90 e70 e32 3 66 232 37 29 90 e70 e32 3 66 83 38 47 144 e40 e35 3 65 222 37 29 90 e70 e32 3 66 222 37 29 90 e70 e32 3 66 83 38 47 144 e40 e35 3 65 222 37 29 90 e70 e32 3 66 83 38 47 144 e40 e35 3 683 38 47 144 e40 e76 3 684 e28 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	7.7 52 33 47 20 137 e90 e60 2 12 35 40 24 116 e150 23 35 34 38 24 76 e200 14 9.4 60 41 35 28 63 e280 11 5.9 48 43 32 34 50 e280 16 7.7 17 152 32 27 40 e200 16 7.7 17 152 32 27 40 e120 13 9.2 26 2610 27 21 79 e130 13 2 180 606 23 536 e1000 e80 9.9 5.6 23 1780 26 435 e900 e100 13 2 180 606 23 536 e1000 e80 9.9 5.3 28 224 25 161 e600 e62 95 7.2 129 88 45 73 e250 e56 1240 33.2 66 78 43 47 e160 e70 1100 5 38 34 49 27 38 e130 e80 602 5 38 36 36 27 e170 e37 170 5 38 34 49 27 38 e130 e80 602 5 41 26 40 21 e350 e30 110 6 34 44 44 513 37 e300 e27 194 4 35 37 888 398 e120 e28 51 6 38 30 26 115 985 e68 e28 56 8 330 26 115 985 e68 e28 20 8 37 41 80 21 e50 e61 225 79 8 38 36 36 27 e170 e37 170 8 31 33 32 429 371 e90 e30 47 8 33 33 2 429 371 e90 e30 47 8 36 33 38 36 36 27 e170 e27 194 4 35 37 888 398 e120 e28 51 8 39 43 1400 194 e170 e25 79 8 38 30 26 115 985 e68 e28 20 2 97 41 80 221 e50 e31 18 8 29 28 254 1440 e76 e29 36 8 3 30 26 115 985 e68 e28 20 2 97 41 80 221 e50 e31 18 8 29 28 254 1440 e76 e29 36 8 3 30 26 15 985 e68 e28 20 9 7 41 80 221 e50 e31 18 8 68 32 144 e40 e35 20 8 7.9 326 688 425 522 158 217 181 81,9 139 8 66 232 37 29 90 e70 e32 18 8 68 327 425 422 291 342 376 99 27 MEAN DATA FOR WATER YEARS 1988 - 1998, BY WATER YEAR (WY) 1.5 129 158 169 154 188 131 104 1.94 Oct 2	7.7 52 33 47 20 137 e90 e60 41 2 12 12 35 40 24 116 e150 23 26 26 26 26 26 26 26 26 27 21 27 40 e200 16 38 22 26 26 26 26 27 21 79 e130 13 16 22 36 28 28 24 25 161 e600 e60 9.9 3 35 26 28 28 24 25 161 e600 e60 9.9 3 35 26 28 28 24 25 161 e600 e60 9.9 3 35 26 28 28 24 25 26 26 26 27 38 22 27 28 28 28 28 28 28 29 27 28 28 28 28 28 29 27 29 28 28 28 28 29 29 28 28 28 29 29 29 28 28 29 29 29 28 28 24 29 371 e90 e30 e30 e30 e30 e30 e30 e30 e30 e30 e3	7.7 52 33 47 20 137 e90 e60 41 16 2 12 35 40 24 116 e150 23 26 13 3.4 38 24 76 e200 14 15 7.1 3.5 34 38 24 76 e200 14 15 7.1 3.6 4 60 41 35 28 63 e280 11 732 146 3.9 48 43 32 34 50 e280 16 157 705 3.9 48 43 32 27 40 e200 16 38 810 0.2 65 522 30 22 40 e120 13 72 1080 0.2 65 522 30 22 40 e120 13 172 1080 0.2 65 522 30 22 40 e120 13 116 521 5.6 23 1780 26 435 e900 e100 13 35 458 2 180 606 23 536 e1000 e80 9.9 33 925 0.2 180 606 23 536 e1000 e80 9.9 33 925 0.2 129 88 45 73 e250 e56 1240 17 755 3.2 129 88 45 73 e250 e56 1240 17 755 3.2 129 88 45 73 e250 e56 1240 17 755 3.2 66 78 43 47 e160 e70 1100 15 3.3 6 36 36 27 e170 e37 170 8.8 90 3.3 6 36 36 27 e170 e37 170 8.8 90 3.4 40 4 31 1400 e80 e27 194 13 51 4 39 43 1400 e194 e170 e25 79 12 98 3 39 43 1400 e194 e170 e25 79 12 98 3 39 43 1400 e194 e170 e25 79 12 98 3 39 43 1400 e194 e170 e25 79 12 98 3 39 43 1400 e194 e170 e25 79 12 98 3 30 26 115 985 e68 e28 26 699 27 2 97 41 80 221 e50 e30 11 8 10 192 4 33 32 20 e70 e27 194 13 51 4 39 43 1400 e70 e25 79 12 98 3 6 68 36 71 457 e58 e28 20 735 20 2 97 41 80 221 e50 e31 18 105 19 3 6 68 36 71 457 e58 e28 20 735 20 2 97 41 80 221 e50 e31 18 105 19 3 6 68 36 71 457 e58 e28 20 735 20 2 97 41 80 221 e50 e31 18 105 19 3 6 68 36 71 457 e58 e28 20 735 20 2 97 41 80 221 e50 e31 18 105 19 3 6 683 38 47 144 e40 e35 20 30 20 3 6 683 38 47 144 e40 e35 20 30 20 3 79 22 6 278 e62 e40 59 19 13 14 15 179 15 199 1992 1992 1992 1994 1994 1998 1991 1991 15 1992 1992 1992 1998 1999 1997 1994 1998 1991 17 199 1992 1992 1999 1999 1997 1994 1998 1998 1998 1999 17 1995 74LENDAR YEAR FOR 1998 WATER YEAR (WY) 1.5 129 1392 11992 11999 11997 11994 11998 11998 11999 1805 222 158 217 181 81 81 91 199 1998 11998 1806 327 425 422 329 30 188 118.63 Dec 3 1990 11992 11992 11999 11997 11994 11998 11998 11998 1806 327 425 422 3290 31 88 4500 Dec 3 15.58 31 88 8 450 Dec 3 1000 00000000000000000000000000000000

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04189000 BLANCHARD RIVER NEAR FINDLAY, OHIO

LOCATION.--Lat 41°03'21", long 83°41'17", on east line of sec. 10, T.1 N., R.10 E., Hancock County, Hydrologic Unit 04100008, on left bank at upstream side of county road bridge, 2 mi west of Findlay, 3 mi downstream from Eagle Creek, and 3 mi upstream from Aurand Run.

DRAINAGE AREA.--346 mi².

PERIOD OF RECORD.--October 1923 to December 1935, October 1940 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.--WSP 974: 1942. WSP 1054: 1927-30, 1933(M), 1945. WSP 1387: 1926, 1928(M), 1930(M), 1952. WSP 1912: Drainage area. WRD-OH-81-2: 1959, 1975(M). WRD-OH-97-2: 1996(M).

GAGE.--Water-stage recorder. Datum of gage is 754.55 ft above sea level. Prior to July 24, 1930, nonrecording gage at same site and datum.

at same site and datum.

REMARKS.--Records fair. Water is diverted upstream from station into Findlay Reservoir. Storage in Findlay Reservoir used for water supply of city of Findlay, and is available for low-flow augmentation. All water returns to stream upstream from station. Water-quality and sediment data collected at this site.

		DIS	CHARGE,	CUBIC FEET		O, WATER		BER 1997	TO SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	43 30 31 34 35	22 23 21 17 16	182 133 116 266 265	135 161 175 643 462	189 152 136 126 120	198 187 178 202 206	386 465 300 239 202	243 373 1080 2040 785	82 101 65 48 53	943 328 197 238 294	59 59 59 94 393	73 75 70 69 66
6 7 8 9 10	36 36 30 32 37	17 18 18 17 18	172 119 90 82 592	842 1360 4960 5290 3590	104 113 107 82 69	182 164 168 889 1360	174 151 440 1170 3510	414 281 307 482 290	38 39 36 43 212	245 168 151 163 141	2010 1990 1130 1290 1060	68 67 64 59 59
11 12 13 14 15	34 34 32 38 33	18 17 16 22 27	1440 659 354 245 193	926 454 340 265 237	82 135 170 178 148	623 339 249 212 168	2400 698 348 253 195	202 165 136 114 98	159 2240 3340 1800 620	119 109 100 92 89	456 271 172 127 101	59 58 57 57 56
16 17 18 19 20	31 32 33 32 31	24 20 18 19 21	166 150 136 127 119	206 197 178 159 137	165 1130 3880 3730 2250	137 141 630 1250 782	1050 2230 1340 461 347	100 91 72 67 64	343 326 294 474 577	59 63 68 69 132	108 77 103 77 71	57 56 56 55 58
21 22 23 24 25	29 26 23 26 30	38 216 237 144 79	106 145 385 357 2010	116 105 132 148 158	1070 608 424 322 262	2640 2900 1720 536 372	303 253 219 190 167	58 53 52 60 57	293 214 184 154 138	109 536 1260 728 241	77 66 76 234 921	219 61 58 58 58
26 27 28 29 30 31	44 108 83 48 29 23	62 48 125 260 251	1800 770 420 305 249 193	123 141 219 238 221 216	227 210 182 	330 283 350 614 419 307	186 209 168 226 256	55 55 52 48 45 44	82 129 262 744 2550	133 83 64 55 60 59	811 227 134 101 88 80	58 56 57 57 57
TOTAL MEAN MAX MIN CFSM IN.	1143 36.9 108 23 .11	1849 61.6 260 16 .18 .20	12346 398 2010 82 1.15 1.33	22534 727 5290 105 2.10 2.42	16371 585 3880 69 1.69 1.76	18736 604 2900 137 1.75 2.01	18536 618 3510 151 1.79 1.99	7983 258 2040 44 .74 .86	15640 521 3340 36 1.51 1.68	7096 229 1260 55 .66 .76	12522 404 2010 59 1.17 1.35	1978 65.9 219 55 .19
STATIST	rics of Mc	NTHLY ME	AN DATA	FOR WATER	YEARS 1924	- 1998,	BY WATER	YEAR (WY)				
MEAN MAX (WY) MIN (WY)	63.0 623 1927 2.43 1935	157 1435 1973 3.67 1935	290 1482 1991 4.28 1935	374 1800 1930 6.54 1945	427 1402 1959 9.86 1964	562 1814 1978 60.1 1941	461 1588 1957 33.3 1925	276 865 1969 22.1 1925	233 1612 1981 18.3 1988	135 1075 1992 4.27 1934	64.3 474 1979 1.24 1934	88.2 944 1926 1.62 1934
SUMMARY	STATISTI	CS	FOI	R 1997 CALE	NDAR YEAR	F	OR 1998 W <i>F</i>	ATER YEAR		WATER YEA	ARS 1924	- 1998
LOWEST HIGHEST LOWEST ANNUAL INSTANT INSTANT INSTANT ANNUAL ANNUAL 10 PERC 50 PERC		CAN CAN MINIMUM CAK FLOW CAK STAGE WW FLOW CFSM) CNCHES) CDS		167345 458 8970 16 17 1.3 17.9 926 160 33			136734 375 5290 16 17 5990 12.21 16 1.08 14.70 933 148 33	Nov 5		261 571 57.5 12000 .40 .56 13000 17.43 .40 .75 10.23 621 59 9.4	Aug 2° Aug 2° Jun 1° Jun 1°	

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

04191500 AUGLAIZE RIVER NEAR DEFIANCE, OHIO

LOCATION.--Lat 41°14'15", long 84°23'57", in NE 1/4 sec. 9, T.3 N. R.4 E., Defiance County, Hydrologic Unit 04100007, on right bank 125 ft downstream from hydroelectric dam of Greco's Hydro-Corporation, 0.2 mi upstream from Jackson Ditch, and 3 mi south of Defiance.

DRAINAGE AREA.--2,318 mi².

PERIOD OF RECORD.--May to August 1903 (gage heights only), April 1915 to current year. Monthly discharges only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 954: 1941. WSP 1912: Drainage area. WRD OH-72-1: 1966 (M).

GAGE.--Water-stage recorder. Datum of gage is 659.70 ft above sea level. May 20 to Aug. 8, 1903, non-recording gage at site 1.8 mi downstream at different datum. April 13, 1915, to Dec. 6, 1933, nonrecording gage near right bank on downstream side of dam at datum 6.00 ft higher, and auxiliary tailwater staff gage near right bank on downstream side of dam at present datum. Oct. 1982 to Nov. 1984 at dam 125 ft upstream, at present datum.

REMARKS.--Records good except for periods of estimated record, which are poor. Flow regulated by dam at powerplant at station; reservoir capacity, 9,800 acre-ft. Plant shut down except for occasional gate operation, Jan. 10, 1963 to Sept. 7, 1985. Some diversion by Miami and Erie Canal from Grand Lake into Jennings Creek, tributary to Auglaize River 70 mi upstream from station. Water-quality data collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1913 reached a stage of 38.8 ft, from reading on powerplant tailwater gage at present datum; discharge, 120,000 ft³/s, from rating curve extended above 51,000 ft³/s.

		DIS	CHARGE,	CUBIC FEET		ND, WATER AILY MEAN	YEAR OCTO	BER 1997	TO SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4	65 73 94 134	1130 1390 775 635	3870 3270 2330 2000	1020 926 925 5240	1250 860 1070 632	687 1160 1140 684	2590 2110 1450 1340	1510 1460 3400 7250	541 356 411 432	4770 4740 3170 2080	e400 e270 e270 e500	266 108 126 214
5	290	253	2550	9820	656	770	1220	7840	358	8380	e1500	102
6 7 8 9 10	318 77 82 144 80	503 239 179 174 42	2330 1530 1010 544 1510	9020 7860 15100 21200 21600	661 629 512 422 482	891 662 1010 7140 14600	778 836 1280 9070 23000	6350 4120 2910 3420 2660	274 100 326 219 256	5160 3340 2680 2680 1970	e4000 e13000 e14000 e10000 7260	109 105 165 83 87
11 12 13 14 15	82 102 122 138 174	46 48 50 51 52	6450 6910 4750 3010 1540	16600 8270 4040 2970 2360	491 883 1180 905 808	10100 6190 3370 1680 1170	25400 16800 8390 4330 2380	1910 1200 807 865 773	175 3220 15900 16700 11300	e1000 e700 e600 e450 e310	6400 5830 4070 1530 755	94 91 89 88 96
16 17 18 19 20	225 232 229 219 192	52 51 49 50 54	954 1120 748 766 764	1690 1270 1090 875 1060	718 3190 16600 21600 18300	712 936 2260 7450 9210	5600 9550 7500 6010 3490	682 622 529 448 405	7470 3980 3220 2810 1190	e280 e160 e110 e100 e160	594 682 492 665 942	82 78 76 75 64
21 22 23 24 25	313 322 121 119 119	62 1810 3620 2720 1640	724 767 3200 3810 8730	1140 230 411 635 883	13300 9000 5160 3070 2090	14300 15400 12300 8490 5260	1880 1060 909 1110 764	346 314 337 337 375	1370 2210 1190 658 559	e300 e1000 e3000 e4500 e4600	454 399 303 246 397	74 233 579 197 173
26 27 28 29 30 31	124 422 555 437 385 451	1030 974 1250 4070 4310	12800 9470 6740 3840 2260 1470	704 711 1240 1510 1740 1570	1260 1370 934 	2880 1860 2110 5020 4920 3610	733 716 874 728 918	452 431 376 213 118 528	374 289 445 632 3090	e4000 e2500 e1700 e1400 e1100 e600	298 1280 722 464 348 248	98 97 91 92 83
TOTAL MEAN MAX MIN STATIST	6440 208 555 65	27309 910 4310 42 ONTHLY ME	101767 3283 12800 544	143710 4636 21600 230 FOR WATER	108033 3858 21600 422 YEARS 191	147972 4773 15400 662	142816 4761 25400 716 BY WATER	52988 1709 7840 118 YEAR (WY)	80055 2669 16700 100	67540 2179 8380 100	78319 2526 14000 246	3915 131 579 64
MEAN MAX (WY) MIN (WY)	481 3445 1955 23.6 1953	1029 7856 1973 7.28 1953	1846 8510 1967 9.34 1977	2550 13350 1950 48.5 1977	2994 10170 1976 111 1964	4183 13090 1982 382 1941	3458 11210 1957 242 1946	1964 10490 1943 69.8 1934	1453 6733 1947 101 1988	847 5762 1992 42.0 1930	352 2526 1998 27.1 1932	429 5571 1992 28.9 1963
SUMMARY	STATIST	ICS	FOR	1997 CAL	ENDAR YEAR	I	OR 1998 WA	ATER YEAR		WATER Y	EARS 1916	- 1998
LOWEST HIGHEST LOWEST ANNUAL INSTANT INSTANT INSTANT 10 PERC 50 PERC	MEAN ANNUAL ANNUAL M DAILY M DAILY ME SEVEN-DA TANEOUS P	EAN EAN AN Y MINIMUN EAK FLOW EAK STAGE OW FLOW EDS EDS		1052223 2883 35200 42 49 7480 1020 180	Jun 3 Nov 10 Nov 10		960864 2633 25400 42 49 26700 19.23 42 7850 883 98	Apr 11 Nov 10 Nov 10 Apr 11 Apr 11 Nov 10		1784 3337 342 52300 .5 1.1 52500 27.6 .5 4960 442 38	0 Oct 1 Oct 1 Feb 1 5 Feb 1	1973 1931 4 1982 3 1952 2 1952 6 1950 3 1959 3 1952

e Estimated.

04192500 MAUMEE RIVER NEAR DEFIANCE, OHIO

LOCATION.--Lat 41°17'31", long 84°16'52", in NW 1/4 sec. 22, T.4 N., R.5 E., Defiance County, Hydrologic Unit 04100009, on left bank 40 ft upstream from Independence Dam, 4 mi downstream from mouth of Auglaize River, and 4.5 mi east of Defiance.

DRAINAGE AREA.--5,545 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD. --October 1924 to December 1935, March 1939 to September 1974, October 1978 to current year.
REVISED RECORDS. --WSP 974: 1926-27, 1930. WSP 1387: 1925-28, 1946. WRD Ohio, 1970: Drainage Area.
GAGE. --Water-stage recorder. Datum of gage is 658.56 ft above sea level. Prior to Nov. 13, 1924, nonrecording gage at same site and datum.

at same site and datum.

REMARKS.--Records fair except for periods estimated record, which are poor. Flow affected by regulation of Auglaize River at hydroelectric plant of the Hydro-Corporation, 7 mi upstream. Operation of hydroelectric plant there was discontinued Jan. 10, 1963, to Sept. 7, 1985. Low flow slightly regulated by powerplant at Ft. Wayne, Indiana. Slight diversion 275 ft upstream into Miami and Erie Canal through a 24-inch conduit, which bypasses station. Two 36-inch diversion pipes installed at dam in 1998 for low-flow aqumentation.

		DIS	CHARGE,	CUBIC FEET		D, WATER		TOBER 1997	TO SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	e1600 e1300 e1200 e1200 e1100	1680 2510 2270 2130 2060	9900 8120 6380 5350 5560	4350 3540 3030 9090 21400	4500 3940 3920 3340 3110	3900 4090 4130 3380 3260	8790 7920 6730 5740 5040	4240 6980 8600 14000 14600	1440 1060 1060 1110 923	5460 5550 4090 2340 10900	1020 674 530 657 3170	3830 2540 1920 1420 1070
6 7 8 9 10	e1200 e1100 e640 762 763	1920 1690 1410 1320 1100	5090 3940 2990 2470 2820	21700 20500 32000 43500 43900	2900 2630 2330 2070 2000	3210 2890 3020 16400 34600	4070 3630 3700 15000 43400	10500 7480 5840 7110 6020	852 510 527 562 531	9200 5610 4120 3790 3770	20700 26700 27300 20100 14600	990 781 768 657 558
11 12 13 14 15	718 740 763 824 859	961 906 840 782 726	7890 9330 7740 5500 3920	36800 24300 16500 12700 9950	1980 3430 4460 4390 4120	28600 20000 12900 10100 8280	48600 38700 24300 17100 11900	4560 3370 2710 2420 2360	565 2630 19100 24200 16800	2350 1630 1520 1160 778	12400 10500 7700 4330 2770	539 499 475 477 453
16 17 18 19 20	1040 1040 1020 1050 1270	732 740 722 699 666	2900 3100 2660 2590 2820	7530 5710 4620 3840 3250	3640 7520 29200 40300 35700	6570 5300 7120 17700 22000	13900 20100 16300 11200 7690	2000 1820 1630 1530 1440	11500 8030 7140 7560 5100	768 398 321 327 424	2060 2140 1550 1610 1610	e430 e420 414 417 e400
21 22 23 24 25	1240 1240 763 509 546	890 3770 6690 5730 4190	2730 2710 6790 8820 16300	3610 2180 2250 2460 2620	27500 20500 15400 11600 9130	29400 31600 26500 19600 14700	5530 4250 3610 3430 2890	1280 1210 1130 1240 1180	3830 4040 2990 2040 1520	704 1700 9590 12700 11200	1040 1370 1070 834 7150	e340 e360 e600 e840 e520
26 27 28 29 30 31	599 766 987 1000 1000	2820 2570 3050 7880 11000	22900 18300 13200 9590 7420 5850	2550 2560 3420 4140 4990 4940	6780 5810 4730 	10700 8330 7330 12100 13700 11000	2920 2980 3240 3170 3590	1170 1250 1420 1280 1010 1230	1140 875 820 1070 2990	8310 5350 4230 3540 2610 1770	12900 14600 12200 9150 7440 5660	e400 e340 e320 e320 e300
TOTAL MEAN MAX MIN STATIS	29959 966 1600 509	74454 2482 11000 666 IONTHLY ME	215680 6957 22900 2470 CAN DATA	363930 11740 43900 2180 FOR WATER	266930 9533 40300 1980 YEARS 1925	402410 12980 34600 2890	349420 11650 48600 2890 BY WATE	122610 3955 14600 1010 R YEAR (WY	132515 4417 24200 510	126210 4071 12700 321	235535 7598 27300 530	23398 780 3830 300
MEAN MAX (WY) MIN (WY)	1324 8314 1955 63.9 1929	2774 16410 1973 110 1954	4617 18040 1967 158 1964	6048 30150 1950 219 1945	6941 22460 1959 363 1964	9579 33940 1982 1455 1941	8525 23210 1957 789 1925	5153 27270 1943 359 1925	3605 20370 1981 214 1988	2104 10700 1992 211 1930	1056 7598 1998 111 1932 EARS 1925	1104 11470 1926 88.1 1955
ANNUAL ANNUAL HIGHES' LOWEST HIGHES' LOWEST ANNUAL INSTAN' INSTAN' 10 PERC	MEAN I ANNUAL ANNUAL M I DAILY ME SEVEN-DA ITANEOUS I	MEAN HEAN HEAN LY MINIMUM HEAK FLOW HEAK STAGE HOW FLOW HEELEDS	I	2482966 6803 58800 509 665 17000 3500 907	Mar 1 Oct 24 Aug 7	F	48600 300 397 50100 16900 3170 662	Apr 11 Sep 30 Sep 16 Apr 11		4387 8286 849 98800 3.0 27 104000 15.8 2.0 12400 1410 223	Mar Sep Aug Mar 7 Mar	1950 1931 15 1982 4 1925 31 1925 15 1982 15 1982 3 1925

e Estimated.

04192500 MAUMEE RIVER NEAR DEFIANCE, OHIO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1997 to current year.
PERIOD OF DAILY RECORD.-SUSPENDED SEDIMENT DISCHARGE: January 1997 to current year.

SUSPENDED SEDIMENT DISCHARGE: January 1997 to current year.

INSTRUMENTATION.--Sampler located downstream from streamflow-gaging station, at Florida, Ohio.

REMARKS.--Sediment samples were collected by a local observer on an approximate once daily basis. Sediment loads were calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge: U.S. Geological Survey, Techniques of Water-Resources Investigations, Book 3, Chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was subdivided into hourly intervals and the daily load was calculated by summation of hourly loads. This required interpolation between measured and estimated

calculated by summation of nourly loads. This required interpolation between measured and estimated concentrations.

EXTREMES FOR PERIOD OF DAILY RECORD.-
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,340 mg/L, Feb. 28, 1997; minimum daily mean, 4 mg/L, Nov. 19, 1997.

SEDIMENT LOADS: Maximum daily, 201,000 tons, Feb. 28, 1997; minimum daily, 8.1 tons, Nov. 19, 1997. EXTREMES FOR CURRENT YEAR. --

SEDIMENT CONCENTRATIONS: Maximum daily mean, 734 mg/L, Feb. 18; minimum daily mean, 4 mg/L, Nov. 19. SEDIMENT LOADS: Maximum daily, 86,400 tons, Apr. 10; minimum daily, 8.1 tons, Nov. 19.

			DIS-				
			CHARGE,	SPE-			
			INST.	CIFIC			SEDI-
		SAM-	CUBIC	CON-	TEMPER-	TEMPER-	MENT,
		PLING	FEET	DUCT-	ATURE	ATURE	SUS-
DATE	TIME	METHOD,	PER	ANCE	AIR	WATER	PENDED
		CODES*	SECOND	(US/CM)	(DEG C)	(DEG C)	(MG/L)
		(82398)	(00061)	(00095)	(00020)	(00010)	(80154)
JAN							
12	1435	10	22200	237	2.0	2.5	186
MAR							
26	1045	10	10800	375	16.5	6.0	132
JUL							
23	1355	10	11000	520	28.0	27.0	103

^{*10 -} Stream cross-section sample obtained by equal-width-increment (EWI) sampling method.

04192500 MAUMEE RIVER NEAR DEFIANCE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

		MEAN			MEAN			MEAN			
	MEAN	CONCEN-	SEDIMENT	MEAN	CONCEN-	SEDIMENT	MEAN	CONCEN-	SEDIMENT		
	DISCHARGE	TRATION	DISCHARGE	DISCHARGE	TRATION	DISCHARGE	DISCHARGE	TRATION	DISCHARGE		
DAY	(CFS)	(MG/L)	(TONS/DAY)	(CFS)	(MG/L)	(TONS/DAY)	(CFS)	(MG/L)	(TONS/DAY)		
		OCTOBER		1	NOVEMBER		DI	ECEMBER			
1	e1600	62	266	1680	23	108	9900	225	6020		
2	e1300	52	182	2510	30	203	8120	130	2860		
3	e1200	49	158	2270	33	199	6380	91	1560		
4	e1200	47	152	2130	33	191	5350	68	984		
5	e1100	46	138	2060	26	143	5560	59	884		
6	e1200	46	150	1920	23	121	5090	58	793		
7	e1100	42	124	1690	23	106	3940	46	489		
8	e640	39	67	1410	21	80	2990	31	254		
9	762	34	70	1320	20	71	2470	25	168		
10	763	30	62	1100	21	61	2820	21	163		
11	718	29	56	961	24	61	7890	73	1730		
12	740	36	72	906	21	52	9330	148	3720		
13	763	37	76	840	15	35	7740	87	1820		
14	824	33	73	782	12	25	5500	63	937		
15	859	34	79	726	9	18	3920	50	533		
16	1040	32	89	732	9	17	2900	38	295		
17	1040	31	85	740	8	15	3100	34	284		
18	1020	31	84	722	6	11	2660	34	244		
19	1050	27	77	699	4	8.1	2590	28	193		
20	1270	27	93	666	5	9.6	2820	26	197		
21	1240	31	104	890	7	18	2730	30	219		
22	1240	31	103	3770	12	162	2710	26	189		
23	763	27	55	6690	67	1210	6790	43	850		
24	509	24	33	5730	71	1090	8820	116	2770		
25	546	23	34	4190	50	566	16300	308	15200		
26	599	22	35	2820	37	280	22900	562	34800		
27	766	22	46	2570	30	209	18300	339	16800		
28	987	23	61	3050	28	236	13200	227	8120		
29	1000	19	51	7880	128	3110	9590	153	3980		
30	1000	16	44	11000	305	9100	7420	109	2190		
31	1120	24	72	= = =		= = =	5850	92	1450		
TOTAL	29959		2791	74454		17515.7	215680		110696		
0 Fa	timated										

e Estimated

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY		:	FEBRUARY			MARCH	
1	4350	68	799	4500	38	459	3900	50	530
2	3540	54	517	3940	35	375	4090	43	480
3	3030	43	350	3920	29	309	4130	39	428
4	9090	94	3340	3340	27	246	3380	32	295
5	21400	569	33100	3110	24	203	3260	28	246
6	21700	400	23400	2900	20	158	3210	23	202
7	20500	282	15600	2630	16	115	2890	20	159
8	32000	386	36000	2330	15	95	3020	22	178
9	43500	551	64700	2070	14	79	16400	441	28700
10	43900	375	44500	2000	12	67	34600	651	60800
11	36800	257	25600	1980	13	69	28600	460	35700
12	24300	180	11900	3430	72	792	20000	338	18300
13	16500	146	6470	4460	122	1470	12900	247	8630
14	12700	124	4260	4390	79	931	10100	183	4990
15	9950	98	2650	4120	54	604	8280	140	3120
16	7530	74	1500	3640	38	372	6570	109	1930
17	5710	57	882	7520	86	2620	5300	85	1220
18	4620	45	559	29200	734	61700	7120	81	1650
19	3840	35	363	40300	570	61900	17700	285	14500
20	3250	28	246	35700	401	38700	22000	337	20300
21	3610	23	222	27500	310	23100	29400	365	29100
22	2180	20	119	20500	237	13200	31600	328	28000
23	2250	17	106	15400	189	7830	26500	240	17200
24	2460	14	93	11600	151	4720	19600	191	10100
25	2620	13	89	9130	118	2890	14700	150	5980
26 27 28 29 30 31	2550 2560 3420 4140 4990 4940	11 10 12 19 28 37	75 71 113 218 378 488	6780 5810 4730 	96 78 61 	1750 1230 784 	10700 8330 7330 12100 13700 11000	119 106 106 243 364 363	3430 2380 2160 8140 13400 10700
TOTAL	363930		278708	266930		226768	402410		332948

04192500 MAUMEE RIVER NEAR DEFIANCE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	8790	259	6140	4240	49	571	1440	39	151
2	7920	206	4410	6980	78	1500	1060	35	99
3	6730	154	2800	8600	168	3990	1060	50	144
4	5740	109	1700	14000	304	12000	1110	42	127
5	5040	77	1050	14600	378	15000	923	34	84
6	4070	62	680	10500	238	6730	852	36	82
7	3630	54	531	7480	164	3330	510	31	43
8	3700	46	466	5840	109	1720	527	28	41
9	15000	146	9240	7110	109	2100	562	29	45
10	43400	730	86400	6020	116	1890	531	31	44
11	48600	473	62200	4560	83	1030	565	29	45
12	38700	333	34800	3370	66	601	2630	49	503
13	24300	250	16300	2710	54	395	19100	263	15300
14	17100	201	9260	2420	51	336	24200	431	28200
15	11900	169	5420	2360	44	277	16800	330	14900
16	13900	182	7170	2000	38	204	11500	260	8050
17	20100	354	19100	1820	35	172	8030	227	4910
18	16300	401	17700	1630	31	138	7140	199	3840
19	11200	264	7980	1530	35	144	7560	175	3580
20	7690	204	4250	1440	42	161	5100	154	2110
21	5530	132	1980	1280	34	116	3830	136	1400
22	4250	84	964	1210	32	106	4040	121	1320
23	3610	63	616	1130	42	129	2990	104	837
24	3430	60	553	1240	41	140	2040	85	466
25	2890	56	437	1180	47	148	1520	76	311
26 27 28 29 30 31 TOTAI	2920 2980 3240 3170 3590 	47 46 50 50 49	369 368 441 429 472 	1170 1250 1420 1280 1010 1230	48 35 30 40 32 33	152 117 113 137 88 112	1140 875 820 1070 2990 	73 63 57 49 45 	224 148 126 141 368

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST		SI	EPTEMBER	
1 2 3 4 5	5460 5550 4090 2340 10900	129 170 123 96 166	1920 2550 1350 608 5400	1020 674 530 657 3170	48 45 39 32 63	131 82 57 57 951	3830 2540 1920 1420 1070	37 41 43 38 33	383 277 219 145 96
6 7 8 9 10	9200 5610 4120 3790 3770	205 155 123 106 90	5120 2350 1370 1080 912	20700 26700 27300 20100 14600	338 266 180 142 118	19600 19100 13300 7680 4660	990 781 768 657 558	31 32 32 37 46	82 66 66 65 70
11 12 13 14 15	2350 1630 1520 1160 778	79 77 66 56 45	496 338 268 175 94	12400 10500 7700 4330 2770	107 95 70 53 46	3550 2710 1470 620 337	539 499 475 477 453	50 53 48 23 18	73 71 61 30 22
16 17 18 19 20	768 398 321 327 424	37 34 28 28 21	75 37 24 24 24	2060 2140 1550 1610 1610	48 55 63 48 38	267 317 264 207 167	e430 e420 414 417 e400	16 17 16 16 17	18 19 18 18
21 22 23 24 25	704 1700 9590 12700 11200	29 45 121 164 147	65 232 3440 5640 4470	1040 1370 1070 834 7150	33 30 38 54 189	95 111 107 122 4950	e340 e360 e600 e840 e520	18 22 34 25 22	17 21 55 57 30
26 27 28 29 30 31	8310 5350 4230 3540 2610 1770	96 64 50 53 55 56	2160 936 570 504 385 265	12900 14600 12200 9150 7440 5660	331 196 118 100 66 44	11500 7700 3870 2470 1320 676	e400 e340 e320 e320 e300	18 20 28 23 24	20 18 24 20 19
TOTAL YEAR	126210 2343051		42882 1568366.7	235535		108448	23398		2098

e Estimated

04193500 MAUMEE RIVER AT WATERVILLE, OHIO

LOCATION.--Lat 41°30'00", long 83°42'46", Lucas County, Hydrologic Unit 04100009, on downstream side of first pier from left end of bridge on State Highway 64 at Waterville, 3 mi downstream from Tontogany Creek, and 20.7 mi upstream from mouth.

DRAINAGE AREA.--6,330 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1898 to December 1901, August 1921 to December 1935, March 1939 to current year. Miami and Erie Canal flow included at Waterville prior to 1930 when the canal was abandoned.

REVISED RECORDS.--WSP 894: 1930 (M). WSP 1084: 1946. WSP 1387: 1900 (M), 1922-23, 1933. WDR OH-68-1: 1967. WDR OH-70-1: Drainage area. WRD-OH-82-2: 1981.

GAGE.--Water-stage recorder with auxiliary crest-stage gage. Datum of gage is 595.71 ft above sea level. Nov. 19, 1898 to Dec. 31, 1901, Aug. 26, 1921, to July 31, 1930, nonrecording gage, Aug. 1, 1930, to Dec. 31, 1935, water-stage recorder, Mar. 14, 1939, to Mar. 12, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Practically no flow at times prior to June 30, 1929, when entire river flow was being diverted by canal.

diverted by canal.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.9 ft, from information by local resident; estimated discharge, 180,000 ft³/s, from rating curve extended above 94,000 ft³/s.

		DIS	CHARGE,	CUBIC FEET		ID, WATER LILY MEAN		TOBER 1997	TO SEPTI	EMBER 1998	3	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1230	1200	12300	5500	5020	4590	10200	4370	1330	4750	1460	4750
2	1070	2160	10100	4220	4540	4340	8720	8540	1340	5720	1010	3320
3	963	2540	7990	3600	3810	4620	7700	11000	972	5180	790	2230
4	893	2170	6900	6620	3720	3780	6290	16700	1070	3150	732	1680
5	856	2080	6810	24300	3280	3480	5580	21900	1020	6160	1120	1360
6	980	1880	6340	26500	2980	3230	4640	14000	1030	12000	15400	1150
7	848	2040	5150	24800	2650	3100	3750	10000	903	7060	28100	1010
8	610	1580	3590	34800	2320	3010	3790	7200	627	4960	29200	881
9	589	1460	3190	47900	2000	13000	8970	7550	698	4190	23900	864
10	539	1340	2520	45700	1840	38300	44100	7460	848	4020	16800	783
11	457	1150	7180	39400	1830	34400	51400	5880	1000	3370	13300	716
12	489	1030	11200	28600	3340	24200	42700	4420	1310	1960	11400	653
13	574	889	9830	19600	5410	16200	28500	3510	13600	1710	9100	603
14	627	1020	7190	14400	4880	12000	20500	2760	28000	1460	5940	572
15	484	971	5320	11900	4580	9150	14300	2830	22100	1180	3540	595
16	576	893	3620	9050	4160	7660	14900	2390	14900	948	2640	485
17	753	861	3700	6500	6830	5790	24100	2020	10400	828	2710	579
18	726	801	3600	5160	35000	6670	20000	1880	8260	537	2350	530
19	732	860	3290	4230	46100	16500	14100	1650	8160	521	2190	497
20	785	808	3600	3250	41900	23700	9740	1570	7900	562	1940	494
21	887	850	3400	3450	33200	31400	6720	1360	4660	728	1600	463
22	793	2440	3280	2670	24400	35300	4920	1170	4340	1310	1190	509
23	739	7670	6530	2230	18500	30000	4150	1230	4240	5710	1510	744
24	533	7180	10700	2270	13900	22800	3560	1260	2790	12500	3330	1060
25	486	5720	17800	2360	10800	17500	3050	1450	2120	12300	18700	709
26	516	3770	27300	2570	7990	12900	3020	1120	1630	9780	33100	631
27	811	3040	23100	2480	6700	9860	3560	1250	1310	6580	23600	512
28	822	3200	16700	3110	5450	7780	3460	1370	1220	4650	16800	454
29	970	6820	12300	4170	= = =	12200	3450	1380	1140	3970	11000	419
30	912	13500	9170	5340		15200	3680	1050	1650	3070	8560	443
31	1010		7270	5500		13100		1150		2180	6610	
TOTAL	23260	81923	260970	402180	307130	445760	383550	151420	150568	133044	299622	29696
MEAN	750	2731	8418	12970	10970	14380	12790	4885	5019	4292	9665	990
MAX	1230	13500	27300	47900	46100	38300	51400	21900	28000	12500	33100	4750
MIN	457	801	2520	2230	1830	3010	3020	1050	627	521	732	419
CFSM IN.	.12	.43	1.33	2.05	1.73	2.27	2.02	.77	.79 .88	.68	1.53	.16
	.14	.48	1.53	2.36	1.80	2.62	2.25	.89		.78	1.76	.17
STATIST	rics of M	ONTHLY ME	EAN DATA	FOR WATER	YEARS 1930) - 1998,	, BY WATE	R YEAR (WY)			
MEAN	1431	3096	5456	6956	7927	11050	9687	6018	4239	2470	1225	1124
MAX	9041	19010	23830	34010	30000	38210	25890	29540	24030	11200	9665	10320
(WY)	1955	1993	1967	1950	1976	1982	1957	1943	1981	1992	1998	1992
MIN	95.5	196	177	235	424	1759	914	587	231	207	146	127
(WY)	1964	1965	1964	1945	1934	1941	1946	1934	1988	1930	1941	1963
SUMMARY	Y STATIST	ICS	FO	R 1997 CALE	NDAR YEAR	I	FOR 1998	WATER YEAR		WATER	YEARS 1930	- 1998
ANNUAL				2677715			2669123					
ANNUAL				7336			7313			5040		
	r annual									9370		1950
	ANNUAL M DAILY M	EAN		62000	M 1		F1400	7 11		938	Man	1931 14 1982
	DAILY ME	DAIN AM		03000	Mar 1 Aug 11		51400 419	Apr 11 Sep 29		113000		30 1988
		AN Y MINIMUN	И	63800 385 499	Aug 11		508	Sep 29 Sep 16		113000 17 47 121000 17.3		27 1988
		EAK FLOW	-	100	1149 0		54100	Apr 11		121000		14 1982
		EAK STAGE								17.1		14 1982
	TANEOUS L						419	Sep 29		17		30 1988
ANNUAL	RUNOFF (CFSM)		1.1			1.	16		. 8		
	RUNOFF (15.7	'4		15.	69		10.8	32	
	CENT EXCE			17900			21100			14000		
	CENT EXCE			3600			3560			1670		
90 PERO	CENT EXCE	EDS		815			727			260		

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1950 to current year. PERIOD OF DAILY RECORD.--

PERIOD OF DAILY RECORD.-
CHLORIDE: October 1987 to September 1994.

NITROGEN, NITRITE + NITRATE: October 1987 to September 1994.

NITROGEN, AMMONIA + ORGANIC: October 1987 to September 1994.

PHOSPHORUS: October 1987 to September 1994.

SUSPENDED SEDIMENT DISCHARGE: April 1950 to September 1984. October 1987 to current year.

INSTRUMENTATION.--Refrigerated water-quality pumping sampler, operated by Heidelberg College Water Quality

Laboratory, from October 1987 to September 1994. Sampler located at station 04193490.

REMARKS.--Sediment samples were collected by a local observer on an approximate once daily basis. Sediment loads were calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge:

U.S. Geological Survey, Techniques of Water-Resources Investigations, Book 3, Chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was subdivided into hourly intervals and the daily load was calculated by summation of hourly loads. This required interpolation between measured and estimated concentrations. concentrations.

EXTREMES FOR PERIOD OF DAILY RECORD.-SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,240 mg/L, Mar. 26, 1954; minimum daily mean, 1 mg/L, on many days during 1953, 1963.
SEDIMENT LOADS: Maximum daily, 300,000 tons, Feb. 24, 1990; minimum daily, 0.26 ton, Sep. 18, 1955.
EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 845 mg/L, Mar. 10; minimum daily mean, 10 mg/L, Nov. 13-15. SEDIMENT LOADS: Maximum daily, 104,000 tons, Apr. 10; minimum daily, 16 tons, Sep. 29.

DATE	TIME	SAM- PLING METHOD, CODES* (82398)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	BROM- ACIL WATER WHLREC (UG/L) (30234)
NOV 25	1030	10	5810	703	7.7	8.0	2.5	59	4.2	0.9	0.16	
25 MAY	1150	50	5850					59	4.8	0.8	0.17	
20 20 JUL	0915 1055	10 50	1560 1510	497	8.2	25.0	24.5	30 30	2.1 2.2	1.1 1.2	0.03 0.13	
24	0940	10	12400		7.7	22.0	26.0	29	1.9	1.6	0.28	<.2
24	1140	50	12600					30	2.3	1.3	0.26	<.2
DATE NOV	BUTA- CHLOR WATER WHLREC (UG/L) (30235)	BUTYL- ATE WATER WHLREC (UG/L) (30236)	CARBOX- IN WATER WHOLE RECOV- ERABLE (UG/L) (30245)	CYCLO- ATE WATER WHOLE RECOV- ERABLE (UG/L) (30254)	DIPHEN- AMID WATER WHOLE RECOV- ERABLE (UG/L) (30255)	HEXAZI- NONE WATER WHOLE RECOV- ERABLE (UG/L) (30264)	PROPA- CHLOR WATER WHOLE RECOV. (UG/L) (30295)	TER- BACIL WATER WHOLE RECOV. (UG/L) (30311)	VER- NOLATE WATER WHOLE RECOV. (UG/L) (30324)	PRO- PAZINE TOTAL (UG/L) (39024)	TRI- FLURA- LIN TOTAL RECOVER (UG/L) (39030)	SIME- TRYNE TOTAL (UG/L) (39054)
25												
25 MAY												
20												
20 JUL												
24	< .1	< .1	<.2	<.1	< .1	<.2	< .1	<.2	<.1	<.1	<.1	<.1
24	<.1	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.1	<.1
DATE NOV	SIMA- ZINE TOTAL (UG/L) (39055)	PROME- TONE TOTAL (UG/L) (39056)	PROME- TRYNE TOTAL (UG/L) (39057)	ATRA- ZINE WATER UNFLTRD REC (UG/L) (39630)	DE-ISO PROPYL ATRAZIN WATER, WHOLE, TOTAL (UG/L) (75980)	DEETHYL ATRA- ZINE, WATER, WHOLE, TOTAL (UG/L) (75981)	ALA- CHLOR TOTAL RECOVER (UG/L) (77825)	CYAN- AZINE TOTAL (UG/L) (81757)	AME- TRYNE TOTAL (UG/L) (82184)	METRI- BUZIN WATER WHOLE TOT.REC (UG/L) (82611)	METOLA- CHLOR WATER WHOLE TOT.REC (UG/L) (82612)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
25										= =		43
25 MAY												
20												29
20 JUL												
24 24	0.1	<.2 <.2	<.1 <.1	1.4	0.22 0.24	0.46 0.46	<.1 <.1	0.2	<.1 <.1	<.1 <.1	1.0	

 $[\]star 10$ - Stream cross-section sample using equal-width-increment (EWI) sampling method. $\star 50$ - Point sample obtained from flow tank.

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

COTOBER NOVEMBER DECEMBER
2
The color of the
12
17
22
27
MEAN CONCEN- SEDIMENT MEAN CONCEN- SEDIMENT TRATION DISCHARGE CFS (MG/L) (TONS/DAY) (TO
MEAN CONCENTRATION DISCHARGE DISCHARGE CONCENTRATION DISCHARGE CONCENTRA
1 5500 102 1510 5020 20 273 4590 55 6 2 4220 82 932 4540 22 268 4340 46 5 3 3600 71 688 3810 24 247 4620 39 4 4 6620 77 1640 3720 32 320 3780 32 5 24300 277 19100 3280 25 226 3480 27 2 6 26500 541 38700 2980 22 178 3230 22 1 7 24800 409 27400 2650 21 148 3100 19 1 8 34800 458 46100 2320 18 111 3010 19 1 9 47900 670 86700 2000 15 82 13000 86 54 10 45700 500 61800 1840 14 70 38300 845 880 11 39400 339 36200 1830 14 69 34400 571 534 12 <
2 4220 82 932 4540 22 268 4340 46 5 3 3600 71 688 3810 24 247 4620 39 4 4 6620 77 1640 3720 32 320 3780 32 5 24300 277 19100 3280 25 226 3480 27 2 6 26500 541 38700 2980 22 178 3230 22 1 7 24800 409 27400 2650 21 148 3100 19 1 8 34800 458 46100 2320 18 111 3010 19 1 9 47900 670 86700 2000 15 82 13000 86 54 10 45700 500 61800 1840 14 70 38300 845 880 11 39400 339 36200 1830 14 69 34400 571 534 12 28600 227 17600 3340 13 121 24200 408 267 13
7 24800 409 27400 2650 21 148 3100 19 1 8 34800 458 46100 2320 18 111 3010 19 1 9 47900 670 86700 2000 15 82 13000 86 54 10 45700 500 61800 1840 14 70 38300 845 880 11 39400 339 36200 1830 14 69 34400 571 534 12 28600 227 17600 3340 13 121 24200 408 267 13 19600 174 9220 5410 17 252 16200 314 137 14 14400 148 5710 4880 20 268 12000 257 83
12 28600 227 17600 3340 13 121 24200 408 267 13 19600 174 9220 5410 17 252 16200 314 137 14 14400 148 5710 4880 20 268 12000 257 83
16 9050 100 2450 4160 40 452 7660 151 31 17 6500 79 1380 6830 57 1310 5790 118 18 18 5160 62 861 35000 664 70500 6670 102 18 19 4230 52 589 46100 823 102000 16500 279 137 20 3250 42 368 41900 476 54000 23700 432 277
21 3450 36 334 33200 342 30700 31400 379 324
22 2670 31 223 24400 269 17800 35300 385 367 23 2230 28 171 18500 215 10700 30000 289 234 24 2270 23 138 13900 170 6390 22800 231 142 25 2360 19 121 10800 139 4040 17500 187 88
23 2230 28 171 18500 215 10700 30000 289 234 24 2270 23 138 13900 170 6390 22800 231 142

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

	MEAN DISCHARGE	MEAN CONCEN- TRATION	SEDIMENT DISCHARGE	MEAN DISCHARGE	MEAN CONCEN- TRATION	SEDIMENT DISCHARGE	MEAN DISCHARGE	MEAN CONCEN- TRATION	SEDIMENT DISCHARGE
DAY	(CFS)	(MG/L)	(TONS/DAY)	(CFS)	(MG/L)	(TONS/DAY)	(CFS)	(MG/L)	(TONS/DAY)
		APRIL			MAY			JUNE	
1	10200	250	6900	4370	50	591	1330	45	162
2	8720 7700	192 163	4520 3370	8540 11000	68 78	1690 2300	1340 972	43 41	154 106
4	6290	129	2190	16700	190	9750	1070	39	112
5	5580	98	1470	21900	346	20600	1020	37	101
6	4640	78	980	14000	239	9030	1030	35	98
7 8	3750 3790	65 56	662 568	10000 7200	170 129	4590 2510	903 627	34 36	82 60
9	8970	74	2630	7550	112	2280	698	34	64
10	44100	822	104000	7460	91	1830	848	34	77
11	51400	667	92700	5880	75	1190	1000	36	98
12	42700	411	47400	4420	74	882	1310	55	210
13 14	28500 20500	298 230	22900 12700	3510 2760	73 65	692 485	13600 28000	306 508	14300 38500
15	14300	193	7410	2830	50	380	22100	339	20400
16	14900	182	7510	2390	36	233	14900	243	9780
17	24100	245	16000	2020	31	168	10400	182	5100
18 19	20000 14100	351 356	18700 13600	1880 1650	38 39	193 173	8260 8160	140 119	3120 2630
20	9740	224	5940	1570	28	117	7900	108	2300
21	6720	157	2860	1360	33	122	4660	93	1170
22	4920	130	1720	1170	36	114	4340	107	1260
23 24	4150	102 82	1150 791	1230	41 47	135 160	4240 2790	115 98	1310 735
25	3560 3050	69	570	1260 1450	52	205	2120	80	457
26	3020	63	512	1120	51	155	1630	65	285
27	3560	56	538	1250	56	188	1310	52	183
28	3460	53	499	1370	54	201	1220	44	146
29 30	3450 3680	50 52	463 514	1380 1050	52 49	192 139	1140 1650	37 33	112 152
31				1150	47	145			
TOTAL	383550		381767	151420		61440	150568		103264
	MEAN	MEAN	CEDIMENT	MEAN	MEAN	CEDIMENT	MEAN	MEAN	CEDIMENT
	MEAN DISCHARGE	MEAN CONCEN- TRATION	SEDIMENT DISCHARGE	MEAN DISCHARGE	MEAN CONCEN- TRATION	SEDIMENT DISCHARGE	MEAN DISCHARGE	MEAN CONCEN- TRATION	SEDIMENT DISCHARGE
DAY		CONCEN-			CONCEN-			CONCEN-	
DAY	DISCHARGE	CONCEN- TRATION	DISCHARGE	DISCHARGE	CONCEN- TRATION	DISCHARGE	DISCHARGE	CONCEN- TRATION	DISCHARGE (TONS/DAY)
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L) JULY	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L) AUGUST	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	DISCHARGE (TONS/DAY)
1 2	DISCHARGE	CONCEN- TRATION (MG/L)	DISCHARGE	DISCHARGE	CONCEN- TRATION (MG/L)	DISCHARGE	DISCHARGE	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)
1 2 3	DISCHARGE (CFS) 4750 5720 5180	CONCENTRATION (MG/L) JULY 68 91 103	DISCHARGE (TONS/DAY) 910 1410 1430	DISCHARGE (CFS) 1460 1010 790	CONCENTRATION (MG/L) AUGUST 48 43 38	DISCHARGE (TONS/DAY) 190 117 82	DISCHARGE (CFS) 4750 3320 2230	CONCENTRATION (MG/L) SEPTEMBER 50 43 39	DISCHARGE (TONS/DAY)
1 2 3 4	DISCHARGE (CFS) 4750 5720 5180 3150	CONCENTRATION (MG/L) JULY 68 91 103 147	DISCHARGE (TONS/DAY) 910 1410 1430 1210	DISCHARGE (CFS) 1460 1010 790 732	CONCENTRATION (MG/L) AUGUST 48 43 38 38	DISCHARGE (TONS/DAY) 190 117 82 75	DISCHARGE (CFS) 4750 3320 2230 1680	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35	DISCHARGE (TONS/DAY) 8 635 384 234 159
1 2 3 4 5	DISCHARGE (CFS) 4750 5720 5180 3150 6160	CONCENTRATION (MG/L) JULY 68 91 103 147 170	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990	DISCHARGE (CFS) 1460 1010 790 732 1120	CONCENTRATION (MG/L) AUGUST 48 43 38 38 51	DISCHARGE (TONS/DAY) 190 117 82 75 163	DISCHARGE (CFS) 4750 3320 2230 1680 1360	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30	DISCHARGE (TONS/DAY) 635 384 234 159 108
1 2 3 4	DISCHARGE (CFS) 4750 5720 5180 3150	CONCENTRATION (MG/L) JULY 68 91 103 147	DISCHARGE (TONS/DAY) 910 1410 1430 1210	DISCHARGE (CFS) 1460 1010 790 732	CONCENTRATION (MG/L) AUGUST 48 43 38 38	DISCHARGE (TONS/DAY) 190 117 82 75	DISCHARGE (CFS) 4750 3320 2230 1680	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35	DISCHARGE (TONS/DAY) 8 635 384 234 159
1 2 3 4 5 6 7 8	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960	CONCEN- TRATION (MG/L) JULY 68 91 103 147 170 171 164 139	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200	CONCENTRATION (MG/L) AUGUST 48 43 38 51 263 384 252	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 24 25	DISCHARGE (TONS/DAY)
1 2 3 4 5 6 7 8	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190	CONCENTRATION (MG/L) JULY 68 91 103 147 170 171 164 139 116	910 1410 1410 2990 5500 3120 1860 1310	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900	CONCEN- TRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 50
1 2 3 4 5 6 7 8 9	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020	CONCENTRATION (MG/L) JULY 68 91 103 147 170 171 164 139 116 96	910 1410 1430 1210 2990 5500 3120 1860 1310 1040	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800	CONCEN- TRATION (MG/L) AUGUST 48 43 38 51 263 384 4252 167 112	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45
1 2 3 4 5 6 7 8	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370	CONCENTRATION (MG/L) JULY 68 91 103 147 170 171 164 139 116 96 79	910 1410 1430 1210 2990 5500 3120 1860 1310 1040	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 13300	CONCENTRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45
1 2 3 4 5 6 7 8 9 10 11 12 13	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710	CONCENTRATION (MG/L) JULY 68 91 103 147 170 171 164 139 116 96 79 66 57	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 13300 11400 9100	CONCENTRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 5080 2910 2170 1580	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 20 21 17	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28
1 2 3 4 5 6 7 8 9 10 11 12 13 14	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460	CONCENTRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 79 66 57 51	910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 13300 11400 9100 5940	CONCEN- TRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65 57	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 20 21 17	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180	CONCEN- TRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 79 666 57 51 46	910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 13300 11400 9100 5940 3540	CONCEN- TRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65 57 52	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 20 21 17 19 17	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 45 40 37 28 29 27
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180	CONCEN- TRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 57 51 46 41	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 13300 11400 9100 5940 3540	CONCEN- TRATION (MG/L) AUGUST 48 43 38 38 51 263 384 252 167 1112 81 71 65 57 52	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492 368	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 21 17 19 17 19 17	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29 27
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537	CONCEN- TRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 79 666 57 51 46	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 11400 9100 5940 3540 2640 2710 2350	CONCEN- TRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65 57 52 52 52 48	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 20 21 17 19 17	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29 27 23 31 22
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521	CONCEN- TRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 57 51 46 41 37 33 33	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 11400 9100 5940 3540 2640 2710 2350 2190	CONCEN- TRATION (MG/L) AUGUST 48 43 38 38 51 263 384 252 167 1112 81 71 65 57 52 52 52 48 49	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492 368 381 304 286	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 21 20 21 17 19 17 18 20 16 14	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29 27 23 31 22 19
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562	CONCEN- TRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 577 51 46 41 37 33 31 36	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 11400 9100 5940 3540 2640 2710 2350 2190 1940	CONCEN- TRATION (MG/L) AUGUST 48 43 38 38 51 263 384 252 167 1112 81 71 65 57 52 52 52 52 48 49 50	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492 368 381 304 286 263	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 20 21 17 19 17 18 20 16 14 16	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29 27 23 31 22 19 22
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562 728	CONCENTRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 57 51 46 41 37 33 31 36 42	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 11300 11400 9100 5940 3540 2640 2710 2350 2190 1940	CONCEN- TRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65 57 52 52 48 49 50	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492 368 381 304 286 263	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 20 21 17 19 17 18 20 16 14 16	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29 27 23 31 22 19 22
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562	CONCEN- TRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 577 51 46 41 37 33 31 36	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 11400 9100 5940 3540 2640 2710 2350 2190 1940	CONCEN- TRATION (MG/L) AUGUST 48 43 38 38 51 263 384 252 167 1112 81 71 65 57 52 52 52 52 48 49 50	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492 368 381 304 286 263	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 20 21 17 19 17 18 20 16 14 16	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29 27 23 31 22 19 22
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562 728 1310 5710 12500	CONCENTRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 57 51 46 41 37 33 31 36 42 50 127	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54 83 183 2380 5990	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 13300 11400 9100 5940 3540 2640 2710 2350 2190 1940 1600 1190 1510 3330	CONCEN- TRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65 57 52 52 52 48 49 50 41 27 26 53	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492 368 381 304 286 263 180 86 108 717	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494 463 509 744 1060	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 21 20 20 21 17 19 17 18 20 16 14 16 20 20 27 29	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29 27 23 31 22 29 19 22 24 28 56 84
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562 728 1310 5710 12500 12300	CONCENTRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 57 51 46 41 37 33 31 36 42 50 127 177 143	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54 83 183 2380 5990 4720	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 13300 11400 9100 5940 3540 2640 2710 2350 2190 1940 1600 1190 1510 3330 18700	CONCEN- TRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65 57 52 52 52 48 49 50 41 27 26 53 184	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492 368 381 304 286 263 180 86 108 717 13100	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494 463 509 744 1060 709	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 21 21 20 21 17 19 17 18 20 16 14 16 20 20 27 29 20	DISCHARGE (TONS/DAY) 635 384 234 159 108 88 655 600 500 45 40 37 28 29 27 23 31 22 29 19 22 24 28 56 84 38
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562 728 1310 5710 12500 12300 9780	CONCENTRATION (MG/L) JULY 68 91 103 147 170 171 164 139 116 96 57 51 46 41 37 33 31 36 42 50 127 177 143	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54 83 183 2380 5990 4720 3030	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 11300 11400 9100 5940 3540 2640 2710 2350 2190 1940 1600 1190 1510 3330 18700	CONCENTRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65 57 75 52 52 48 49 50 41 27 266 53 184	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492 368 381 304 286 263 180 86 108 717 13100	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494 463 509 744 1060 709	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 24 25 21 21 20 20 21 17 19 17 18 20 16 14 16 20 20 27 29 20 18	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29 27 23 31 22 19 22 24 28 56 84 38
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562 728 1310 5710 12500 12300	CONCENTRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 57 51 46 41 37 33 31 36 42 50 127 177 143	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54 83 183 2380 5990 4720	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 13300 11400 9100 5940 3540 2640 2710 2350 2190 1940 1600 1190 1510 3330 18700	CONCEN- TRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65 57 52 52 52 48 49 50 41 27 26 53 184	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492 368 381 304 286 263 180 86 108 717 13100	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494 463 509 744 1060 709	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 21 21 20 21 17 19 17 18 20 16 14 16 20 20 27 29 20	DISCHARGE (TONS/DAY) 635 384 234 159 108 88 655 600 500 45 40 37 28 29 27 23 31 22 29 19 22 24 28 56 84 38
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562 728 1310 5710 12500 12300 9780 6580 4650 3970	CONCENTRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 79 666 57 51 46 41 37 33 31 36 42 50 127 177 143 115 92 77 68	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54 83 183 2380 5990 4720 3030 1630 963 733	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 11300 11400 9100 5940 3540 2640 2710 2350 2190 1940 1600 1190 1510 3330 18700 33100 23600 16800 11000	CONCENTRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65 57 52 52 48 49 50 41 27 26 53 184 345 223 143 88	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 10900 5080 2910 2170 1580 908 492 368 381 304 286 263 180 86 108 717 13100 31100 14200 6530 2610	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494 463 509 744 1060 709 631 512 454 419	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 20 21 17 19 17 18 20 16 14 16 20 27 29 20 18 20 16 14	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 888 65 60 50 45 40 37 28 29 27 23 31 22 19 22 24 28 56 84 38 30 27 19 16
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562 728 1310 5710 12500 12300 9780 6580 4650 3970 3070	CONCENTRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 79 666 57 51 46 41 37 33 31 36 42 50 127 177 143 115 92 77 68 61	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54 83 183 2380 5990 4720 3030 1630 963 733 504	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 11300 11400 5940 3540 2640 2710 2350 2190 1940 1600 1190 1510 3330 18700 33100 23600 16800 11000 8560	CONCEN- TRATION (MG/L) AUGUST 48 43 38 38 51 263 384 252 167 112 81 71 65 57 52 52 52 52 49 50 41 27 26 53 184 345 223 143 88 78	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 5080 2910 2170 1580 908 492 368 381 304 286 263 180 86 108 717 13100 31100 14200 6530 2610 1800	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494 463 509 744 1060 709 631 512 454	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 21 20 21 17 19 19 17 18 20 16 14 16 20 20 27 29 20 18 80 20 16 18	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 655 60 50 45 40 37 28 29 27 23 31 22 29 24 28 56 84 38 30 27 19
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 29 20 20 21 21 21 22 22 23 24 24 25 26 26 27 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 28 28 28 28 28 28 28 28 28 28 28 28	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562 728 1310 5710 12500 12300 9780 6580 4650 3970 3070 2180	CONCENTRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 79 66 57 51 46 41 37 33 31 36 42 50 127 177 143 115 92 77 68 61 54	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54 83 183 2380 5990 4720 3030 1630 963 733 504 318	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 13300 11400 9100 5940 3540 2640 2710 2350 2190 1940 16600 1190 1510 3330 18700 33100 23600 16800 11000 8560 6610	CONCEN- TRATION (MG/L) AUGUST 48 43 38 51 263 384 252 167 112 81 71 65 57 52 52 52 52 48 49 50 41 27 26 53 184 345 233 143 88 78 60	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 5080 2910 2170 1580 908 492 368 381 304 286 263 180 86 108 717 13100 31100 14200 6530 2610 1800 1080	DISCHARGE (CFS) 4750 3320 2230 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494 463 509 744 1060 709 631 512 454 419 443	CONCENTRATION (MG/L) SEPTEMBER 50 43 39 35 30 28 24 25 21 21 20 21 17 19 17 18 20 16 14 16 20 20 27 29 20 18 20 16 14 16	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29 27 23 31 22 19 22 24 28 56 84 38 30 27 19 16 19
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	DISCHARGE (CFS) 4750 5720 5180 3150 6160 12000 7060 4960 4960 4190 4020 3370 1960 1710 1460 1180 948 828 537 521 562 728 1310 5710 12500 12300 9780 6580 4650 3970 3070	CONCENTRATION (MG/L) JULY 688 91 103 147 170 171 164 139 116 96 79 666 57 51 46 41 37 33 31 36 42 50 127 177 143 115 92 77 68 61	DISCHARGE (TONS/DAY) 910 1410 1430 1210 2990 5500 3120 1860 1310 1040 719 347 262 200 145 104 81 47 44 54 83 183 2380 5990 4720 3030 1630 963 733 504	DISCHARGE (CFS) 1460 1010 790 732 1120 15400 28100 29200 23900 16800 11300 11400 5940 3540 2640 2710 2350 2190 1940 1600 1190 1510 3330 18700 33100 23600 16800 11000 8560	CONCEN- TRATION (MG/L) AUGUST 48 43 38 38 51 263 384 252 167 112 81 71 65 57 52 52 52 52 49 50 41 27 26 53 184 345 223 143 88 78	DISCHARGE (TONS/DAY) 190 117 82 75 163 14100 29100 19900 5080 2910 2170 1580 908 492 368 381 304 286 263 180 86 108 717 13100 31100 14200 6530 2610 1800	DISCHARGE (CFS) 4750 3320 2230 1680 1360 1150 1010 881 864 783 716 653 603 572 595 485 579 530 497 494 463 509 744 1060 709 631 512 454 419 443	CONCENTRATION (MG/L) SEPTEMBER 500 433 39 355 300 288 24 255 211 21 20 21 177 19 17 18 200 16 14 16 200 27 29 20 21 18 20 21 16 14 16	DISCHARGE (TONS/DAY) 6 635 384 234 159 108 88 65 60 50 45 40 37 28 29 27 23 31 22 19 22 24 28 56 84 38 30 27 19 16 19

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the NAWQA (National Water-Quality Assessment Program) project in the Lake Erie-Lake St. Clair Basin. The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. This project is one of 59 river basin and aquifer assessment projects being implemented across the nation. At any one time, 15 to 20 of these projects are actively collecting data. The period of high-intensity data collection for the Lake Erie-Lake St. Clair Basin project is in water years 1996-98.

There are four stream sites in Ohio for which data are being reported in this publication as part of the NAWQA study: Auglaize River near Ft. Jennings (04186500), Maumee River at Waterville (04193500), Cuyahoga River at LTV Steel at Cleveland (04208504), and Grand River at Harpersfield (0421820). Three sites are reported in the 1998 Michigan annual data report: Black River near Jeddo, MI (04159492), Clinton River at Sterling Heights, MI (04161820) and River Raisin near Manchester, MI (04175600). Two Sites are reported in the 1998 Indiana annual data report: St. Joseph River near Newville, IN (04178000), and Maumee River at New Haven, IN (04183000). One site is reported in the 1998 New York annual data report: Cattaraugus Creek at Gowanda, NY (04213500).

These data also can be obtained electronically at http://www-oh.er.usgs.gov/nawqa.index.html.

[---, no data; <, concentration or value reported is less than that indicated; E, estimated value; K, value is estimated from a non-ideal colony count]

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
OCT		(00001)	(00033)	(00100)	(00020)	(00010)	(00023)	(00300)	(00301)	(31033)	(00300)	(00313)
14	1530	536	444	9.0	9.0	18.5	747	13.6	148		180	46
21	1330	817	541	8.6	10.0	14.0	746	15.1	150	K17	220	58
NOV												
12	1230	995	732	8.4	1.5	6.0	747	15.0	123		300	82
18	1400	802	630	8.8	2.0	3.5	750	19.0	145	K10	260	72
DEC												
17	0830	3590	604	7.6	. 5	0.0	744	13.8	99	300	240	67
JAN												
13	1230	19800	353	7.8	-2.0	2.0	753	13.6	99	1000	140	40
FEB												
24	1145	14000	400	7.9	1.0	4.5	743	12.4	98	1500	180	50
MAR	0000	12500	4.45		0.5	14.0	E40	0 5	0.2		100	53
31 APR	0900	13500	447	7.8	27.5	14.0	740	8.5	83		190	53
21	1330	6650	420	7.8	14.0	12.5	750	7.9	93		170	49
MAY	1330	6650	420	7.0	14.0	12.5	750	1.5	93		170	4.5
13	1030	3540	502	8.0	20.0	17.5	745	8.3	89	K90	220	61
JUN	1030	3310	302	0.0	20.0	17.5	713	0.5	0,5	100	220	01
04	0840	989	599	8.8	20.5	19.5	744	11.1	124		240	56
16	1445	14600	408	7.1	23.0		737				160	46
JUL												
09	0900	4250	400	7.7	23.0	24.5	745	7.4	91	420	150	43
22	0915	1330	508	8.3	21.5	26.0	745	7.0	86	220	190	50
AUG												
27	0930	23900	192	7.0	23.5	22.0	749	5.6	65	1200	91	28
SEP												
28	1200	419	487	8.6	19.0	22.0	738	9.9	118	K21	190	48

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DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT 14	16	16	5.1	142	12	136	49	28	0.3	3.6	265	0.01
21	18	21	5.5	188	5	162	60	41	.3	1.9	344	.02
NOV 12	24	33	5.5	229	12	208	85	57	.5	3.0	460	<.01
18 DEC	21	25	5.5				69	47	. 4	3.6	413	.02
17 JAN	19	19	3.9	193		158	60	44	.3	6.8	386	.03
13	11	6.3	4.5	127		104	30	18	.2	6.3	213	.03
FEB 24	13	7.7	3.9	135		124	38	20	.2	6.3	245	.03
MAR 31	14	11	2.9	159		130	42	21	.2	5.1	264	.07
APR 21	13	8.2	3.2	142		116	35	16	. 2	5.7	257	.05
MAY 13	17	12	3.2	176		144	48	21	.2	6.0	314	.04
JUN												
04 16	24 12	25 6.7	3.4 5.5	183 129		150 106	75 27	42 17	.4 .3	<.10 7.1	353 283	.03 .37
JUL 09	11	10	4.3	115		94	30	17	.3	7.5	249	.06
22 AUG	16	16	4.7	267		238	50	27	.3	5.0	306	.03
27	5.1	3.0	4.0	80		66	12	5.7	.2	6.2	130	.02
SEP 28	16	21	2.9	142	17	144	52	32	. 4	.50	299	<.01
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
OCT	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHORUS TOTAL (MG/L AS P) (00665)	PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	DIS- SOLVED (UG/L AS FE) (01046)	NESE, DIS- SOLVED (UG/L AS MN) (01056)	ORGANIC DIS- SOLVED (MG/L AS C) (00681)	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	MENT, SUS- PENDED (MG/L) (80154)
OCT 14 21	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	GEN, AMMONIA DIS- SOLVED (MG/L AS N)	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHORUS TOTAL (MG/L AS P)	PHORUS DIS- SOLVED (MG/L AS P)	PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	DIS- SOLVED (UG/L AS FE)	NESE, DIS- SOLVED (UG/L AS MN)	ORGANIC DIS- SOLVED (MG/L AS C)	ORGANIC SUS- PENDED TOTAL (MG/L AS C)	MENT, SUS- PENDED (MG/L)
OCT 14 21 NOV 12 18	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHORUS TOTAL (MG/L AS P) (00665)	PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	DIS- SOLVED (UG/L AS FE) (01046)	NESE, DIS- SOLVED (UG/L AS MN) (01056)	ORGANIC DIS- SOLVED (MG/L AS C) (00681)	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	MENT, SUS- PENDED (MG/L) (80154)
OCT 14 21 NOV 12 18 DEC 17	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.36 .72	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1	GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 0.01 <.01	DIS- SOLVED (UG/L AS FE) (01046) 13 4	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1	MENT, SUS- PENDED (MG/L) (80154) 34 20
OCT 14 21 NOV 12 18	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.36 .72	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02 <.02	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01 .02	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 0.01 <.01	DIS- SOLVED (UG/L AS FE) (01046) 13 4 25 21	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1 <1 <4	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1 6.9 7.8	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1 1.7	MENT, SUS- PENDED (MG/L) (80154) 34 20 18
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24	GEN, NO2+NO3 DIS- SOLVED (MG/L 00631) 0.36 .72 1.9 2.4	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02 <.02 <.02 <.02 <.02	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1 1.4 1.2	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5 .6 .6	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10 .11 .08	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01 .02 .02	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 0.01 <.01 .03 .02	DIS- SOLVED (UG/L AS FE) (01046) 13 4 25 21	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1 <1 <4	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1 6.9 7.8	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1 1.7	MENT, SUS- PENDED (MG/L) (80154) 34 20 18 24
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.36 .72 1.9 2.4 5.3	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02 <.02 <.02 <.02 <.02 <.02 <.02	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1 1.4 1.2 1.0	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5 .6 .6	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10 .11 .08 .19	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01 .02 .02	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 0.01 <.01 .03 .02 .08	DIS- SOLVED (UG/L AS FE) (01046) 13 4 25 21 28	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1 <1 <4	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1 6.9 7.8 5.7	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1 1.7 1.4 2.7	MENT, SUS- PENDED (MG/L) (80154) 34 20 18 24 53
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.36 .72 1.9 2.4 5.3 3.8 5.1	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02 <.02 27 <.02 <.02 .09	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1 1.4 1.2 1.0 1.2	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5 .6 .6 .7 .7	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10 .11 .08 .19 .35	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01 .02 .02 .10	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 0.01 <.01 .03 .02 .08 .12	DIS- SOLVED (UG/L AS FE) (01046) 13 4 25 21 28 70	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1 <1 <4 8 5	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1 6.9 7.8 5.7	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1 1.7 1.4 2.7	MENT, SUS- PENDED (MG/L) (80154) 34 20 18 24 53 164
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.36 .72 1.9 2.4 5.3 3.8 5.1	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02 <.02 <.02 <.02 .27 <.02 .11	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1 1.4 1.2 1.0 1.2 1.7	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5 .6 .6 .7 .7 .7	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10 .11 .08 .19 .35 .42	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01 .02 .02 .10 .13 .12	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 0.01 <.01 .03 .02 .08 .12 .11	DIS- SOLVED (UG/L AS FE) (01046) 13 4 25 21 28 70 30	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1 <1 <4 8 5	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1 6.9 7.8 5.7 7.3 6.4	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1 1.7 1.4 2.7 3.6 5.1	MENT, SUS- PENDED (MG/L) (80154) 34 20 18 24 53 164 190
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.36 .72 1.9 2.4 5.3 3.8 5.1 3.7 4.0	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02 <.02 27 <.02 <.02 .11 .07 .05	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1 1.4 1.2 1.0 1.2 1.5 .7 1.4	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5 .6 .6 .7 .7 .6 .7	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10 .11 .08 .19 .35 .42 .10	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01 .02 .02 .10 .13 .12 .10 .10 .10	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 	DIS- SOLVED (UG/L AS FE) (01046) 13 4 25 21 28 70 30 22 22	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1 <1 <4 8 5 <4 <4 <4 <4	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1 6.9 7.8 5.7 7.3 6.4 6.2 6.4	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1 1.7 1.4 2.7 3.6 5.1 2.3	MENT, SUS- PENDED (MG/L) (80154) 34 20 18 24 53 164 190 333
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN 04 16	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.36 .72 1.9 2.4 5.3 3.8 5.1 3.7	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02 <.02 .27 <.02 <.02 .11 .07	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1 1.4 1.2 1.0 1.2 1.5 .7	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5 .6 .6 .7 .7 .6	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10 .11 .08 .19 .35 .42 .10	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01 .02 .02 .10 .13 .12 .10 .10	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 0.01 <.01 .03 .02 .08 .12 .11	DIS- SOLVED (UG/L AS FE) (01046) 13 4 25 21 28 70 30 22	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1 <1 <4 8 5 <4 <4	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1 6.9 7.8 5.7 7.3 6.4 6.2 6.4	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1 1.7 1.4 2.7 3.6 5.1	MENT, SUS- PENDED (MG/L) (80154) 34 20 18 24 53 164 190 333
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUL 09	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.36 .72 1.9 2.4 5.3 3.8 5.1 3.7 4.0 3.8 .22 13.8 6.9	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02 27 <.02 <.02 .09 .11 .07 .05 <.02 .04 <.02	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1 1.4 1.2 1.0 1.2 1.5 .7 1.4 1.3 1.8 2.5	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5 .6 .6 .7 .7 .6 .7 .6 .5 .6 .7	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10 .11 .08 .19 .35 .42 .10 .35 .24 .15 .51	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01 .02 .02 .10 .13 .12 .10 .10 .12 .10 .11	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 0.01 .03 .02 .08 .12 .11 .07 .09 .09	DIS- SOLVED (UG/L AS FE) (01046) 13 4 25 21 28 70 30 22 22 16 <10 17	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1 <1 <4 8 5 <4 <4 <4 <4 <4 <4	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1 6.9 7.8 5.7 7.3 6.4 6.2 6.4 7.2 5.7 8.0	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1 1.7 1.4 2.7 3.6 5.1 2.3 1.9 4.2 4.6	MENT, SUS- PENDED (MG/L) (80154) 34 20 18 24 53 164 190 333 77 36 286
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN 04 16 JUL	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.36 .72 1.9 2.4 5.3 3.8 5.1 3.7 4.0 3.8 .22 13.8	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02 .27 <.02 .09 .11 .07 .05 <.02 .04 <.02 .04	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1 1.4 1.2 1.0 1.2 1.5 .7 1.4 1.3 1.8 2.5	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5 .6 .6 .7 .7 .6 .7 .6 .6 .5 .7	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10 .11 .08 .19 .35 .42 .10 .35 .24 .15 .51	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01 .02 .10 .13 .12 .10 .10 .10 .12	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 	DIS- SOLVED (UG/L AS FE) (01046) 13 4 25 21 28 70 30 22 22 16 <10 17	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1 <1 <4 8 5 <4 <4 <4 <4 <4	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1 6.9 7.8 5.7 7.3 6.4 6.2 6.4 7.2	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1 1.7 1.4 2.7 3.6 5.1 2.3 1.9	MENT, SUS- PENDED (MG/L) (80154) 34 20 18 24 53 164 190 333 77 36 286
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN 04 16 JUL 09 22	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 0.36 .72 1.9 2.4 5.3 3.8 5.1 3.7 4.0 3.8 .22 13.8 6.9	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) <.02 <.02 27 <.02 <.02 .09 .11 .07 .05 <.02 .04 <.02	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) 1.7 1.1 1.4 1.2 1.0 1.2 1.5 .7 1.4 1.3 1.8 2.5	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) 0.6 .5 .6 .6 .7 .7 .6 .7 .6 .5 .6 .7	PHORUS TOTAL (MG/L AS P) (00665) 0.13 .10 .11 .08 .19 .35 .42 .10 .35 .24 .15 .51	PHORUS DIS- SOLVED (MG/L AS P) (00666) 0.02 <.01 .02 .02 .10 .13 .12 .10 .10 .12 .10 .11	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) 0.01 .03 .02 .08 .12 .11 .07 .09 .09	DIS- SOLVED (UG/L AS FE) (01046) 13 4 25 21 28 70 30 22 22 16 <10 17	NESE, DIS- SOLVED (UG/L AS MN) (01056) 2 1 <1 <4 8 5 <4 <4 <4 <4 <4 <4	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 8.0 7.1 6.9 7.8 5.7 7.3 6.4 6.2 6.4 7.2 5.7 8.0	ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689) >5.0 1.3 2.1 1.7 1.4 2.7 3.6 5.1 2.3 1.9 4.2 4.6	MENT, SUS- PENDED (MG/L) (80154) 34 20 18 24 53 164 190 333 77 36 286

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

			WAIEK-C	0112111	,							
DATE	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)
14												
21 NOV	<.002	0.006	0.289	E.097	<.001	<.002	<.002	<.003	<.003	<.004	0.046	<.002
12 18 DEC	.024	.016	.219	E.064	<.400	<.002	<.002	<.003	<.010	<.004	.066	<.002
17	.014	.011	.136	E.037	<.500	<.002	< .002	<.010	< .003	.025	.040	<.002
JAN 13 FEB	.019	.015	.133	E.044	<.001	<.002	<.002	<.003	<.003	<.004	.023	<.002
24 MAR	.011	.011	.115	E.040	<.001	<.002	<.002	<.003	< .003	< .004	.021	<.002
31	.018	.013	.126	E.022	<.100	.007	<.002	<.003	<.003	< .004	.017	<.002
APR 21	.026	.027	.170	E.049	<.001	<.002	<.002	<.003	< .003	< .004	.037	<.002
MAY 13	1.28	.843	3.84	E.065	<.001	<.002	<.002	<.003	<.003	<.030	.723	<.002
JUN 04	.067	.030	1.01	E.090	<.001	<.002	<.002	<.003	<.003	<.004	.401	<.002
16 JUL	5.64	1.68	E31.8	E1.60	< .001	<.002	<.002	E.023	E.328	<.210	4.53	<.002
09	.269	.120	3.60	E.456	<.001	<.002	< .002	E.054	E.255	<.020	.701	<.002
22 AUG	.074	<.002	1.60	E.245	<.001	<.002	<.002	<.003	<.003	<.004	.269	<.002
27 SEP	.040	.017	.562	E.119	< .040	<.002	<.002	<.060	<.080	<.004	.189	<.002
28	.008	.005	.313	E.072	< .001	<.002	<.002	<.003	< .003	< .004	.054	<.002
DATE	P,P' DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
DATE OCT 14	DDE DISSOLV (UG/L)	AZINON, DIS- SOLVED (UG/L)	ELDRIN DIS- SOLVED (UG/L)	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L)	FOTON WATER FLTRD 0.7 U GF, REC (UG/L)	WATER FLTRD 0.7 U GF, REC (UG/L)	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L)	PROP WATER FLTRD 0.7 U GF, REC (UG/L)	WATER DISS REC (UG/L)	BHC DIS- SOLVED (UG/L)	DIS- SOLVED (UG/L)	URON WATER FLTRD 0.7 U GF, REC (UG/L)
OCT	DDE DISSOLV (UG/L) (34653)	AZINON, DIS- SOLVED (UG/L) (39572)	ELDRIN DIS- SOLVED (UG/L) (39381)	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	WATER DISS REC (UG/L) (04095)	BHC DIS- SOLVED (UG/L) (34253)	DIS- SOLVED (UG/L) (39341)	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
OCT 14 21	DDE DISSOLV (UG/L) (34653)	AZINON, DIS- SOLVED (UG/L) (39572)	ELDRIN DIS- SOLVED (UG/L) (39381)	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	WATER DISS REC (UG/L) (04095)	BHC DIS- SOLVED (UG/L) (34253)	DIS- SOLVED (UG/L) (39341)	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
OCT 14 21 NOV 12 18 DEC	DDE DISSOLV (UG/L) (34653) <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002	ELDRIN DIS- SOLVED (UG/L) (39381) <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) <.002	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) <.003	WATER DISS REC (UG/L) (04095) <.003	BHC DIS- SOLVED (UG/L) (34253) <.002	DIS- SOLVED (UG/L) (39341) <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.002
OCT 14 21 NOV 12 18	DDE DISSOLV (UG/L) (34653)	AZINON, DIS- SOLVED (UG/L) (39572) E.002	ELDRIN DIS- SOLVED (UG/L) (39381) <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) <.002	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	WATER DISS REC (UG/L) (04095)	BHC DIS- SOLVED (UG/L) (34253)	DIS- SOLVED (UG/L) (39341) <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.002
OCT 14 21 NOV 12 18 DEC 17	DDE DISSOLV (UG/L) (34653) <.006 <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002 <.002	ELDRIN DIS- SOLVED (UG/L) (39381) <.001 <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003 <.003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017 <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) <.002 <.002	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004 <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) <.003 <.003	WATER DISS REC (UG/L) (04095) <.003 <.003	BHC DIS- DIS- SOLVED (UG/L) (34253) <.002 <.002 <.002	DIS- SOLVED (UG/L) (39341) <.004 <.004 <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.002 <.002 <.002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR	DDE DISSOLV (UG/L) (34653) <.006 <.006 <.006 <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002 <.002 .007 <.002	ELDRIN DIS- SOLVED (UG/L) (39381) <.001 <.001 <.001 <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003 <.003 <.003 <.003 <.003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017 <.017 <.017 <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) <.002 <.002 <.002 <.002 <.002	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004 <.004 <.004 <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) <.003 <.003 <.003 <.003	WATER DISS REC (UG/L) (04095) <.003 <.003 <.003 <.003	BHC DIS- SOLVED (UG/L) (34253) <.002 <.002 <.002 <.002 <.002	DIS- SOLVED (UG/L) (39341) <.004 <.004 <.004 <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.002 <.002 <.002 <.002 <.002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR	DDE DISSOLV (UG/L) (34653) <.006 <.006 <.006 <.006 <.006 <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002 <.002 .007 <.002 <.002 E.004	ELDRIN DIS- SOLVED (UG/L) (39381) <.001 <.001 <.001 <.001 <.001 <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003 <.003 <.003 <.003 <.003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017 <.017 <.017 <.017 <.017 <.017 <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) <.002 <.002 <.002 <.002 <.002 <.002	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004 <.004 <.004 <.004 <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) <.003 <.003 <.003 <.003	WATER DISS REC (UG/L) (04095) <.003 <.003 <.003 <.003 <.003	BHC DIS- DIS- SOLVED (UG/L) (34253) <.002 <.002 <.002 <.002 <.002 <.002 <.002	DIS- SOLVED (UG/L) (39341) <.004 <.004 <.004 <.004 <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.002 <.002 <.002 <.002 <.002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY	DDE DISSOLV (UG/L) (34653) <.006 <.006 <.006 <.006 <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002 <.002 .007 <.002 E.004	ELDRIN DIS- SOLVED (UG/L) (39381) <.001 <.001 <.001 <.001 <.001 <.001 <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) < .003 < .003 < .003 < .003 < .003 < .003 < .003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017 <.017 <.017 <.017 <.017 <.017 <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) <.002 <.002 <.002 <.002 <.002 <.002 <.002	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004 <.004 <.004 <.004 <.004 <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) < .003 < .003 < .003 < .003 < .003 < .003 < .003	WATER DISS REC (UG/L) (04095) <.003 <.003 <.003 <.003 <.003	BHC DIS- DIS- SOLVED (UG/L) (34253) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002	DIS- SOLVED (UG/L) (39341) <.004 <.004 <.004 <.004 <.004 <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.0002 <.0002 <.0002 <.0002 <.0002 <.0002 <.0002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN	DDE DISSOLV (UG/L) (34653) <.006 <.006 <.006 <.006 <.006 <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002 <.002 .007 <.002 <.002 E.004	ELDRIN DIS- SOLVED (UG/L) (39381) <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003 <.003 <.003 <.003 <.003 <.003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017 <.017 <.017 <.017 <.017 <.017 <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) <.002 <.002 <.002 <.002 <.002 <.002 <.002	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004 <.004 <.004 <.004 <.004 <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	WATER DISS REC (UG/L) (04095) <.003 <.003 <.003 <.003 <.003 <.003 <.003	BHC DIS- SOLVED (UG/L) (34253) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002	DIS- SOLVED (UG/L) (39341) <.004 <.004 <.004 <.004 <.004 <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN 04	DDE DISSOLV (UG/L) (34653) <.006 <.006 <.006 <.006 <.006 <.006 <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002 <.002 .007 <.002 E.004 .007 .009	ELDRIN DIS- SOLVED (UG/L) (39381) <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .002	FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003	WATER DISS REC (UG/L) (04095) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	BHC DIS- SOLVED (UG/L) (34253) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002	DIS- SOLVED (UG/L) (39341) <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.0002 <.0002 <.0002 <.0002 <.0002 <.0002 <.0002 <.0002 <.0002 <.0002 <.0002 <.0002 <.0002 <.0002 <.0002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN 04 JUN 04 JUL	DDE DISSOLV (UG/L) (34653) <.006 <.006 <.006 <.006 <.006 <.006 <.006 <.006 <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002 <.002 .007 <.002 E.004 .007 .009	ELDRIN DIS- SOLVED (UG/L) (39381) <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 000	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	WATER DISS REC (UG/L) (04095) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	BHC DIS- SOLVED (UG/L) (34253) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002	DIS- SOLVED (UG/L) (39341) <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN 04 16 JUL 09	DDE DISSOLV (UG/L) (34653) <.006 <.006 <.006 <.006 <.006 <.006 <.006 <.006 <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002 <.002 .007 <.002 E.004 .007 .009 <.002 .002	ELDRIN DIS- SOLVED (UG/L) (39381) <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 0	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) < .002 < .002 < .002 < .002 < .002 < .002 < .002 < .005 < .002 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .005 < .0	FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003	WATER DISS REC (UG/L) (04095) <.003003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	BHC DIS- SOLVED (UG/L) (34253) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002	DIS- SOLVED (UG/L) (39341) <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN 04 JUN 04 JUL	DDE DISSOLV (UG/L) (34653) <.006 <.006 <.006 <.006 <.006 <.006 <.006 <.006 <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002 <.002 .007 <.002 E.004 .007 .009	ELDRIN DIS- SOLVED (UG/L) (39381) <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668) <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 0002 <- 000	FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	WATER DISS REC (UG/L) (04095) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	BHC DIS- SOLVED (UG/L) (34253) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002	DIS- SOLVED (UG/L) (39341) <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN 04 JUN 04 JUL 09 JUL 09 22 AUG	DDE DISSOLV (UG/L) (34653) <.006 <.006 <.006 <.006 <.006 <.006 <.006 <.006 <.006 <.006 <.006	AZINON, DIS- SOLVED (UG/L) (39572) E.002 <.002 .007 <.002 .007 .009 <.002 .007	ELDRIN DIS- SOLVED (UG/L) (39381) <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001 <.001	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017 <.017	WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004	PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 0	WATER DISS REC (UG/L) (04095) <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003	BHC DIS- SOLVED (UG/L) (34253) <.002 002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002	DIS- SOLVED (UG/L) (39341) <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004 <.004	URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002 <.002

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

DATE	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	WATER	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)
14												
21 NOV	<.005	0.138	< .004	<.004	<.003	<.004	<.006	<.004	< .004	<.005	<.002	0.032
12 18 DEC	<.010	.157	.011	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	.033
17 JAN	<.005	.154	.039	<.004	< .003	<.004	<.006	<.004	< .004	<.005	<.002	E.007
13	<.005	.166	.058	<.004	<.003	< .004	<.006	< .004	< .004	<.005	<.002	E.006
FEB 24 MAR	<.005	.151	.015	<.004	<.003	<.004	<.006	<.004	< .004	<.005	<.002	E.004
31 APR	<.005	.091	<.010	<.004	<.003	< .004	< .006	< .004	< .004	<.005	<.002	E.008
21	<.005	.538	.158	<.004	<.003	<.004	<.006	< .004	< .004	<.005	<.002	.021
MAY 13 JUN	<.005	3.17	.724	<.004	<.003	<.004	<.006	<.004	.035	<.005	<.002	.051
04	<.005	1.13	.068	< .004	< .003	< .004	<.006	< .004	< .004	<.005	<.002	.036
16 JUL	<.005	21.5	2.02	<.004	<.003	< .004	<.006	<.004	< .040	<.005	<.002	.052
09 22	<.005 <.005	5.77 1.43	.172 .035	<.004 <.004	<.003 <.003	<.004 <.004	<.006 <.006	<.004 <.004	<.004 <.004	<.005 <.005	<.002 <.002	.095 .105
AUG 27	<.005	.586	.043	<.004	<.003	<.004	<.010	<.004	<.004	<.005	<.002	.019
SEP 28	<.005	.208	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.005	<.002	.037
20	1.005	.200	1.001	1.001	1.005	1.001	1.000	1.001	V.001	1.005	1.002	.037
	PRO	ON-	P	RO- Pi	RO-							
DATE	E GF, (UG,	FER CH FRD WA' 7 U DI REC RE /L) (UG	OP- PA LOR, WA TER, FL SS, O. C GF, /L) (UG	NIL PAROTER WA' TRD FL' 7 U 0. REC GF, /L) (UG	GITE SI TER MAZ TRD WA 7 U DI REC RE /L) (UG	THI ZINE, WA ATER, FL ESS, 0. EC GF, E/L) (UG	URON BAC TER WAT TRD FLT 7 U 0.7 REC GF, /L) (UG,	CIL BU FER WA' FRD FL' 7 U 0.' REC GF, /L) (UG	FOS BEN TER WA TRD FL 7 U 0. REC GF, /L) (UG	CARB LATER WATTER WATTRD FLOTON O. REC GF,	TE FL TER AL TRD WAT 7 U 0. REC GF, /L) (UG	3/L)
DATE	WAT FLT 0.7 E GF,	FER CH FRD WA' 7 U DI REC RE /L) (UG	OP- PA LOR, WA TER, FL SS, O. C GF, /L) (UG	NIL PAROTER WA' TRD FL' 7 U 0. REC GF, /L) (UG	GITE SI TER MAZ TRD WA 7 U DI REC RE /L) (UG	THI ZINE, WA ATER, FL ESS, 0. EC GF, E/L) (UG	URON BAC TER WAT TRD FLT 7 U 0.7 REC GF, /L) (UG,	CIL BU FER WA' FRD FL' 7 U 0.' REC GF, /L) (UG	FOS BEN TER WA TRD FL 7 U 0. REC GF, /L) (UG	CARB LATER WATTER WATTRD FLOTON O. REC GF,	TE FL TER AL TRD WAT 7 U 0. REC GF, /L) (UG	UR- IN FLT 7 U REC
OCT 14 21	WAT FLT 0.7 E GF, (UG, (826	TER CH. TRD WA 7 U DI. REC RE /L) (UG 576) (04	OP- PA LOR, WA TER, FI SS, 0. C GF, /L) (UG 024) (82	NIL PARC TER WA' TRD FL' 7 U 0. REC GF, /L) (UG 679) (82	GITE SI TER MAZ TRD WA 7 U DI REC RE /L) (UG 685) (04	THI ZINE, WA TTER, FL SS, 0. SC GF, G/L) (UG 1035) (82	URON BAC TER WAT TRD FLT 7 U 0.7 REC GF, (L) (UG, 670) (826	CIL BU FER WA' FRD FL' 7 U 0. REC GF, /L) (UG 665) (82	FOS BEN TER WA TRD FL 7 U 0. REC GF, /L) (UG 675) (82	CARB LA TER WA' TRD FL' 7 U 0. REC GF, /L) (UG 681) (82	TE FL TER AL TRD WAT 7 U 0. REC GF, /L) (UG 678) (82	UR- IN FLT 7 U REC J/L)
OCT 14 21 NOV	WAT FLT 0.7 E GF, (UG, (826	TER CH. TRD WA' 7 U DI REC RE /L) (UG 576) (04	OP- PA LOR, WA TER, FL SS, 0. C GF, /L) (UG 024) (82	NIL PARC TER WA' TRD FL' 7 U 0.0 REC GF, /L) (UG 679) (820	GITE SI TER MAZ TRD WF 7 U DI REC RE /L) (UG 685) (04	THI ZINE, WA ZINE, FL SS, 0.3C GF, G/L) (UG 1035) (82	URON BAG TER WAT TRD FLT REC GF, /L) (UG, 670) (826	CIL BU FER WA' FRD FL 7 U 0.7 REC GF, (/L) (UG 565) (82	FOS BEN TER WA TRD FL 7 U 0. REC GF, /L) (UG 675) (82	CARB LA TER WA' TRD FL' 7 U 0. REC GF, /L) (UG 681) (82	TE FL TER AL TRD WAT 7 U 0. REC GF, /L) (UG 678) (82	UR- IN FFLT 7 U REC G/L) 2661)
OCT 14 21 NOV 12 18	WAT FLT 0.7 E GF, (UG, (826	TER CH: TRD WA: T U DI: REC RE (L) (UG 576) (04	OP- PA LOR, WATER, FL SSS, 0. C GF, /L) (UG 024) (82	NIL PAR TER WA' TRD FL' 7 U 0. REC GF, /L) (UG 679) (82)	GITE SI TER MAZ TRD WA 7 U DI REC RE (/L) (UG 685) (04	THI IINE, WA ATER, FL SS, 0. CC GF, 6/L) (UG 1035) (82	URON BAG TER WAT TRD FLT TRD 0.7 REC GF, (L) (UG, 670) (826	EIL BU FER WA' FRD FL' 7 U 0. REC GF, (/L) (UG 665) (82	FOS BEN TER WA TRD FL 7 U 0. REC GF, /L) (UG 675) (82	CARB LA' TER WA' TRD FL' 7 U 0. REC GF, /L) (UG 681) (82 002 <.	TE FI TER AL TRD WAT 7 U 0. REC GF, /L) (UG 678) (82	UR- IN FELT 7 U REC G/L)
OCT	WAT FLT 0.7 E GF, (UG, (826	TER CH. TRD WA' 7 U DI. REC RE (/L) (UG 576) (04	OP- PA LOR, WA TER, FI SS, 0. C GF, /L) (UG 0024) (82	NIL PAR TER WA' TRD FL' 7 U 0. REC GF, /L) (UG 679) (82: 0004 <	GITE SI TER MAZ TRD WP 7 U DI REC RE /L) (UG 685) (04	THI IINE, WA IITER, FL ISS, 0. CC GF, (8/L) (UG (0035) (82	URON BACTER WATTER WATTER WATTER TRD FLT 0.5 REC GF, /L) (UG, 670) (826	EIL BU FER WA' FRD FL' 7 U 0. REC GF, /L) (UG 665) (82	FOS BEN TER WA TRD FL 7 U 0. REC GF, /L) (UG 675) (82	CARB LA' TER WA' TER WA' TRD FL' 7 U 0. REC GF, /L) (UG 681) (82 0002 <.	TE FI TER AI TRD WAT T U 0. REC GF, /L) (UG 678) (82 0001 <.	UR- IN FIT FLT 7 U REC G/L) 2661) 002
OCT	WAT FLT 0.7 E GF, (UG, (826	TER CH. TRD WA' 7 U DI. REC RE (7L) (UG 576) (04 003 < 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003 <. 003	OP- PA LOR, WA TER, FI SS, O. C GF, (/L) (UG 024) (82 007 <. 007 <.	NIL PARRITER WA'TER WA'TRD FL' 7 U 0. REC GF, (VIG 679) (82) 004 <	GITE SI TER MAZ TRD WP 7 U DI REC RE (1/L) (UG 685) (04	I- THI IIINE, WA A TTER, FL SS, O. SC, GF, (VL) (WG 0035) (82 0037 O 023 . 012 .	URON BACTER WATTER WATTER WATTER TRD FLT 0.5 REC GF, (UG 670) (826 015 <.0 011 <.0 011 <.0 011 <.0	EIL BU TER WA' TER FL' 7 U 0. REC GF, 7 U (UG 565) (82) 007 <.	FOS BEN TER WA FILE TER WA FILE FL O. REC GF, (UG 675) (82 013 <. 013 <. 013 <. 013 <. 013	CARB LA' TER WA' TRD FI 7 U 0. REC GF, /L) (UG 681) (82 002 <. 002 <.	TE FI TER AL TRD WAT 7 U 0. REC GF, /L) (UG 678) (82 001 < 001 <	UR- IN 7 FLT 7 U REC 8(L) 002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24	WAT FLT 0.: GF, (UG, (826	TER CH. TRD WA'. 7 U DI. REC RE (1) (UG 576) (04 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 < 2003 -	OP- PA LOR, WA TER, FI SS, O. C GF, (/L) (UG 0024) (82 0007 <. 0007 <.	NIL PARITER WA'TER WA'TRD FL' 7 U 0. REC GF, /L) (UG 679) (82) 0004 < 004 <	GITE SI TER MAZ TRD WP 7 U DI REC RE /L) (UG 685) (04	THI IINE, WA TITER, FL SS, 0. CC GF, G/L) (UG 0035) (82 037 0 023 . 012 .	URON BAC TER WAT TER WAT TRD FLT 7 U 0 REC GF, /L) (UG, 670) (826	CILL BU FER WA' FIT TRD FL' 7 U 0. REC GF, /L) (UG 6665) (82 0007 <. 0007 <.	FOS BEN TER WA TER WA TRD FL O. C.	CARB LA' TER WA' TER WA' TRD FL' 7 U 0. REC GF, /L) (UG 681) (82 0002 <. 002 <. 002 <.	TE FI TER AI TER AI TRD WAT 7 U 0. REC GF, /L) (UG 678) (82 0001 <. 001 <. 001 <.	UR- LIN 7 U REC 8/L) 1661) 002 002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31	WAT	TER CH TRD WA' 7 U DI REC RE ('L') (UG 6576) (04 	OP- PALOR, WA FILOR, WA FILOR, WA FILOR, WA FILOR,	NIL PARE TER WA' TTEN WA' TRD FI 7 U 0. REC GF, //L) (UG 679) (82' 004 < 004 < 004 <	GITE SITER MAZITER MAZ	I- THI MA INTER, WA ITER, O. CC GF, (S/L) (UG 0035) (82 023 012 017 < 013 <	URON BACTER WATTER WATTER WATTER WATTER TRD FLT 7 U 0.7 REC GF, /L) (UG, 670) (826 0.015 <.0 0.011 <.0 0.011 <.0 0.010 <.0 0.010 <.0 0.010 <.0 0.010 <.0 0.010 <.0 0.000 <.0 0.000 <.0 0.0 0.0 0.0 0.	EIL BU TER WA' FER FL' 7 U 0. REC GF, //L) (UG 665) (82	FOS BEN TER WA TRD FL O. TER FOR TRD FL O. TER F. (UG 6675) (82 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <. 013 <	CARB LATER WATTER WATTEN FLT O. REC GF, /L) (UG 681) (82 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <	TE FI TER AI TER AI TRD WAT 7 U 0. REC GF, /L) (UG 678) (82 001 <. 001 <. 001 <. 001 <.	UR- LIN 7 U REC 6/L) 6661) 002 002 002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21	WAT FLIT O	TER CH. TRD WA' 7 U DI. REC RE 7 (1) (UG 676) (04 003 <. 003 <. 003 <. 003 <. 003 <.	OP- PA LOR, WA LOR, WA LOR, FI SS, 0. C GF, (/L) (UG 024) (82 007 <. 007 <. 007 <. 007 <. 007 <. 007 <.	NIL PARRITER WA'TER WA'TER WA'TER WA'TER FL' 7 U 0. REC GF, (UG 679) (82) 004 < 004 < 004 < 004 < 004 <	GITE SITER MAZITER MAZ	- THI WAR INE WAR IN	URON BACTER WATTER WATTER WATTER TRD FLT 0.5 PLT 0.5 P	EIL BU TER WA' FEN FL' 7 U 0. REC GF, ('U) 6665) (82 007 < 007 < 007 < 007 < 007 <	FOS BEN TER WA FILE TER WA FILE FILE FILE FILE FILE FILE FILE FILE	CARB LA' TER WA' TER WA' TRD FI 7 U 0. REC GF, /L) (UG 681) (82 002 <. 002 <. 002 <. 002 <. 002 <. 002 <.	TE FI TER AL TER AL TRD WAT 7 U 0. REC GF, /L) (UG 678) (82 001 <. 001 <. 001 <. 001 <. 001 <.	UR- LIN 7 U REC 6/L) 6/661) 002 002 002 002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13	WAT	TER CH (TRD WA') (TRD DI (TRD	OP- PALOR, WANTER, FLICAN, C. GF, (UG 0024) (822-007) <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 007 <. 0	NIL PARE TER WA'TER WA'TER WA'TRD FL' 7 U 0. REC GF, //L) (UG 679) (82: 0004 < 0004 < 0004 < 0004 < 0004 <	GITE SITER MAZTER MAZTE	- THI WAR INE WAR IN	URON BACTER WATTER WATTER WATTER TRD FLT 7 U 0.7 REC GF, /L) (UG, 670) (826 0.15 < 0.14 < 0.11 < 0.10 < 0.11 < 0.10 < 0.11 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 <	CILL BU FER WA' FIND FL' 7 U 0. REC GF, /(L) (UG 665) (822	FOS BEN TER WA TERD FL O. C.	CARB LATTER WATTER WATTER CONTROL CARB LATTER WATTER CONTROL CARBON CARB	TE FI TER AI TER AI TRD WAT 7 U 0. REC GF, /L) (UG 678) (82 0001 <. 0001 <. 0001 <. 0001 <. 0001 <.	UR- LIN 7 U REC 8/(L) 1002 002 002 002 002 002 002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY	WAT FLT	TER CH TRD WAN TO DI CHE	OP- PALOR, WA FILOR, WA FILOR, WA FILOR, WA FILOR,	NIL PARE TER WA'TER WA'TER WA'TRD FIND FIND FIND FIND FIND FIND FIND FIN	GITE SITER MAZTER MAZTE	THI WA TITER, WA TITER, O. CC GF, (S/L) (UG GO 35) (82 023 012 017 < 013 < 020 036 181 <	URON BACTER WATTER WATTER WATTER TRD FLT 7 U 0.7 REC GF, //L) (UG, 670) (826 0.015 <.0 0.011 <.0 0.010 <.0 0.010 <.0 0.010 <.0 0.010 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.0 0.0 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.016 <.0 0.01	EIL BU TER WA' FER FL' 7 U 0. REC GF, //L) (UG 665) (82	FOS BEN TER WA TER	CARB LATER WATTER WATTER WATTRD FLY 7 U 0. REC GF, /L) (UG 681) (82 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <.	TE FI TER AL TER AL TRD WAT 7 U 0. REC GF, (/L) (UG 678) (82 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <.	UR- LIN 7 U REC 8/L) 6/661) 002 002 002 002 002 002 002 002
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN 04 16	WAT	TER CH (TRD WA') (TRD DI (TRD	OP- PALOR, WATER OF PALOR, WATER OF PALOR, WATER OF PALOR	NIL PARR TER WA' TER WA' TRD FL' 7 U 0. REC GF, //L) (UG 679) (82' 004 < 004 < 004 < 004 < 004 < 004 < 004 < 004 < 004 < 004 < 004 <	GITE SITER MAZITER MAZITRD WARD MAZITRD WARD MAZITRD WARD MAZITRD WARD MAZITRD WARD MAZITRD MA	THI IINE, WA TITER, GL SS, 0. CC GF, (UG 0035) (82 023 . 012 . 017 . 013 . 020 . 036 . 181 .	URON BACTER WATTER WATTER WATTER WATTER TRD FLT 7 U 0.7 REC GF, /L) (UG, 670) (826 0.015 < .0 0.011 < .0 0.011 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010	EIL BU FER WA' FIND FL' 7 U 0. REC GF, //L) (UG 665) (82	FOS BEN TER WA TERD FL O. C.	CARB LATTER WATTER WATTER CONTROL CARB LATTER WATTER CONTROL CARBON CONTROL CARBON CAR	TE FI TER AI TER AI TRD WAT 7 U 0. REC GF, /L) (UG 678) (82 0001 <. 0001 <. 0001 <. 0001 <. 0001 <. 0001 <. 0001 <. 0001 <. 0001 <.	UR- LIN 7 U REC 5/L) 6661) 002 002 002 002 002 002 002 002 0
OCT 14 21 NOV 12 18 DEC 17 JAN 13 FEB 24 MAR 31 APR 21 MAY 13 JUN 04 16 JUL 09	WAT FLT 0.7 0.7 (UG, (826 - <.0 <.0 <.0 <.0 <.0 <.0 <.0 <.0 <.0 <.0	TER CH (TRD WA') (TRD DI (TRD	OP- PALOR, WATER OF PALOR, WAT	NIL PARE TER WA'TER WA'TER WA'TER WA'TER O. TRUE GF, /L) (UG 679) (82'	GITE SITER MAZITER MAZITRD WP 7 U DI REC RE (/L) (UG 685) (044 013	THI INE, WA TITER, GL O. C. GF, (S/L) (UG GF, (S/L) (0.035) (82 0.023 0.12 0.17 0.13 0.17 0.13 0.18 0.18 0.19 0 0.19 0.1	URON BACTER WATTER WATTER WATTER WATTER TRD FLT 7 U 0.7 REC GF, /L) (UG, 670) (826 0.015 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.010 < .0 0.0 0.010 < .0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	EIL BU FER WA' FIND FL' 7 U 0. REC GF, //L) (UG 665) (82	FOS BEN TER WA TERD FL 7 U	CARB LATTER WATTER WATTER WATTRD FLT O. REC GF, /L) (UG 681) (82 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002 <. 002	TE FI TER AI TER AI TRD WAT 7 U 0. REC GF, /L) (UG 678) (82 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <. 001 <.	UR- LIN 7 U REC 8(/L) 86(-1) 002 002 002 002 002 002 002 002 0
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SURFACE-WATER RECORDS **Portage River Basin**

04195500 PORTAGE RIVER AT WOODVILLE, OHIO

LOCATION.--Lat 41°26'58", long 83°21'41", in sec. 28, T.6 N., R.13 E., Sandusky County, Hydrologic Unit 04100010, on left bank at upstream side of bridge on U. S. Highway 20 in Woodville, 600 ft downstream from unnamed right bank tributary, and 10.3 mi upstream from Sugar Creek.

DRAINAGE AREA.--428 mi².

DRAINAGE AREA.--428 mi².

PERIOD OF RECORD.--July 1928 to December 1935, October 1939 to current year.

REVISED RECORDS.--WSP 894: 1929-30. WSP 1207: 1933. WSP 1387: 1931, 1933. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 614.75 ft above sea level. Prior to Oct. 8, 1933, nonrecording gage,
Oct. 9, 1933, to Dec. 30, 1935, water-stage recorder, Oct. 17 to Nov. 29, 1939, nonrecording gage, all at same site and datum.

REMARKS.--Records good. Flow supplemented by water imported from Maumee River Basin for municipal supply for city of Bowling Green 16 mi upstream. The importation of this water began Sept. 1, 1951. Water-quality data collected at this site 800 ft downstream. Sediment data collected at this site. National Weather Service gage height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 17 ft, from information by local residents; discharge, 17,000 ft³/s, from rating curve extended above 11,500 ft³/s.

		DISC	HARGE,	CUBIC FEET), WATER		BER 1997 T	O SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	28	534	156	329	266	409	299	43	460	13	403
2	15 17	25 27	340 227	213 176	273 230	265 260	469 359	1620 2450	42 36	204 104	12 11	233 159
4	16	28	457	944	189	239	285	3530	32	69	10	116
5	16	25	675	2980	155	242	235	5020	30	70	83	91
6 7	14 12	26 26	408 258	2390 2130	160 146	223 204	193 173	2730 1040	30 29	93 68	2250 2440	71 67
8	11	25	184	4460	121	199	270	583	28	54	1960	65
9	8.8	25	162	7090	111	900	1420	425	28	56	984	59
10	8.1	21 19	191	4110	104	2440	4010	316	33	109	577 313	51
11 12	11	19	1810 1300	1320 676	106 297	1110 574	2670 985	246 206	206 268	69 52	313 194	47 42
13	13	16	682	503	598	392	550	173	2440	38	123	39
14 15	15 16	20 22	431 299	437 380	415 292	333 261	441 489	146 127	2360 896	28 26	76 55	36 33
16	22	29	252	323	253	201	1570	114	479	26	146	32
17	23	35	311	258	1620	183	2590	104	427	21	363	32
18 19	20 18	34 28	288 248	213 176	6070 8260	458 1650	1190 607	92 83	277 197	18 18	324 667	32 31
20	18 17	28 24	248	153	4680	1030	434	83 79	266	19	313	33
21	16	28	186	139	2260	2500	347	71	188	28	149	34
22	14	141	166	127	1240	2590	279	67	115	230	87	164
23 24	13 13	504 328	593 803	140 200	783 568	1420 764	234 201	61 60	88 71	889 624	60 190	149 75
25	15	193	2250	204	448	496	178	58	61	228	3870	50
26	20	133	3000	193	377	396	200	60	57	99	8820	38
27 28	34 67	107 126	1430 725	271 428	345 314	336 338	377 305	51 46	52 91	55 37	11100 8390	31 28
29	57	632	464	443	214	934	234	44	185	30	3970	28
30	41	709	359	445		735	255	42	650	22	1350	24
31	34		265	411		464		41		18	732	
TOTAL MEAN	622.9 20.1	3402 113	19519 630	32089 1035	30744 1098	22403 723	21959 732	19984 645	9705 324	3862 125	49632 1601	2293 76.4
MAX	67	709	3000	7090	8260	2590	4010	5020	2440	889	11100	403
MIN	8.1	16	162	127	104	183	173	41	28	18	10	24
CFSM IN.	.05 .05	.26 .30	1.47	2.42 2.79	2.57 2.67	1.69 1.95	1.71 1.91	1.51 1.74	.76 .84	.29 .34	3.74 4.31	.18
				FOR WATER								
MEAN MAX	84.2 722	200 1595	356 1722	461 2129	523 1793	765 2542	640 1965	409 1685	288 1875	154 821	83.3 1601	87.7 1088
(WY)	1951	1973	1991	1952	1976	1982	1957	1943	1981	1958	1998	1981
MIN	2.96	3.61	4.37	2.24	2.00	118	41.7	25.4	9.29	2.81	3.09	3.67
(WY) (+)	1935 7.0	1935 6.4	1935 5.8	1945 5.8	1934 6.2	1941 6.0	1946 6.1	1934 7.1	1988 7.6	1930 7.9	1933 7.4	1944 8.0
MEAN≠	13.1	107	624	1029	1092	717	726	638	316	117	1594	68.4
CFSM≠ IN≠	.03	.25 .28	1.46	2.40	2.55	1.68 1.93	1.70 1.89	1.49 1.72	.74 .82	.27 .32	3.72 4.29	.16
	.04 Y STATIST			2.77 R 1997 CALE			1.89 OR 1998 WA		.82	WATER YE		.18
		ICS	FOR		NDAR YEAR	r		IEK YEAK		WAIER YE	AKS 1928	- 1998
ANNUAL ANNUAL				181212.9 496			216214.9 592			337		
HIGHEST	r annual i									628		1973
	ANNUAL MI DAILY MI			9010	Jun 3		11100	Aug 27		81.4 11100	λυα	1931 27 1998
	DAILY MEA			8.1	Oct 10		8.1	Oct 10		.40		26 1931
		MINIMUM		11	Oct 7		11	Oct 7		.93		12 1934
	FANEOUS PI FANEOUS PI						11500 13.98	Aug 27a Aug 27		11500 14.51		15 1950 15 1950
INSTANT	TANEOUS LO	OW FLOW					8.1	Oct 10		.40		16 1931
	RUNOFF (1.1			1.38			.79		
	RUNOFF (: CENT EXCE			15.7 977	5		18.79 1590			10.71 850		
50 PERG	CENT EXCE	EDS		159			191			69		
90 PERG	CENT EXCE	EDS		19			21			8.0		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations. (+) Diversion in cubic feet per second, from Maumee River Basin for municipal supply; furnished by City of Bowling Green.

≠ Adjusted for diversion.

04196000 SANDUSKY RIVER NEAR BUCYRUS, OHIO

LOCATION.--Lat 40°48'13", long 83°00'21", in NE 1/4 sec. 10, T.3 S., R.16 E., Crawford County, Hydrologic Unit 04100011, on right bank at downstream side of bridge on township road, 1 mi upstream from unnamed left bank tributary, 1.5 mi west of Bucyrus, and 12 mi downstream from Loss Creek.

DRAINAGE AREA.--88.8 mi².

PERIOD OF RECORD.--August 1925 to November 1935, July 1938 to December 1951, December 1963 to September 1981, October

1995 to current year.

1995 to current year.

REVISED RECORDS.--WSP 744: 1925-32. WSP 874: 1938. WSP 1307: 1926(M), 1928(M), 1931, 1932(M), 1934-35(M), 1939, 1940(M), 1946(M). WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 955.04 ft above sea level. Prior to May 11, 1940, nonrecording gage, and May 12, 1940, to December 31, 1951.

REMARKS.--Records good, except for periods of estimated record, which are poor. Low flow slightly affected by operation of reservoirs, 5.3 mi to 6.0 mi upstream from station, for municipal supply of Bucyrus. Water-quality and sediment data collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 23, 1913 reached a stage of 14.5 ft, from floodmarks. Flood of January 22, 1959, reached a stage of 11.9 ft, from floodmarks; discharge, 13,500 ft³/s.

		DIS	CHARGE,	CUBIC FEET	PER SECOND	, WATER LY MEAN		BER 1997	TO SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	4.9 4.7 4.8 5.3 5.0	6.6 6.6 8.8 7.6 7.6	31 31 25 27 41	17 16 18 26 32	32 28 24 21 20	100 89 65 74 119	42 34 33 37 33	36 40 173 599 182	8.8 8.5 7.8 8.4	e150 e70 e45 e35 e80	11 9.1 9.0 9.3	10 8.8 7.9 7.6 6.8
6 7 8 9 10	4.8 4.5 4.6 5.0 5.2	8.3 9.3 9.2 8.4 8.4	28 21 18 18 97	71 914 2720 1460 441	14 15 12 11 9.3	84 63 58 216 258	30 30 43 369 365	93 60 199 446 123	8.5 8.5 7.7 7.9	e50 e30 e24 e21 e17	14 20 18 13 26	6.0 6.3 6.4 5.5
11 12 13 14 15	5.0 5.2 7.2 11 5.6	7.6 7.0 7.1 17	280 79 48 34 26	199 114 82 57 53	11 28 52 34 25	130 85 59 53 41	130 79 60 79 71	71 48 37 29 23	76 380 928 286 121	e12 e10 e9.0 e8.0 e7.4	22 18 12 10 8.8	5.1 5.0 4.9 4.4 4.4
16 17 18 19 20	5.4 6.3 6.7 6.4 6.8	17 15 13 11	21 13 8.8 13 5.8	49 41 34 24 28	25 184 1110 1070 309	37 46 65 83 107	584 1250 309 152 316	18 18 20 20 19	77 299 83 75 55	e7.0 e6.6 e6.2 e6.0 e15	7.6 7.2 10 8.0 9.2	4.3 4.2 4.6 4.4 5.2
21 22 23 24 25	6.5 6.2 6.4 6.7 7.9	11 18 12 17 14	14 19 36 54 267	18 22 72 159 77	199 127 96 78 65	1180 631 194 114 84	151 96 74 59 48	17 15 14 14 13	35 e30 e30 e31 e34	e60 132 433 154 54	7.8 6.9 6.9 95 204	11 5.4 8.3 6.6 5.9
26 27 28 29 30 31	12 14 21 12 9.3 7.6	12 10 14 19 21	189 92 59 44 33 15	56 61 64 54 47 39	56 55 51 	65 52 63 65 52 38	47 49 41 36 36	14 13 12 10 9.3 9.1	e39 e50 e140 e450 e250	32 24 19 16 14	270 51 26 18 14 11	5.0 4.8 5.0 4.7 4.7
TOTAL MEAN MAX MIN CFSM IN.	224.0 7.23 21 4.5 .08	347.5 11.6 21 6.6 .13 .15	1687.6 54.4 280 5.8 .61	7065 228 2720 16 2.57 2.96	3761.3 134 1110 9.3 1.51 1.58	4370 141 1180 37 1.59 1.83	4683 156 1250 30 1.76 1.96	2394.4 77.2 599 9.1 .87 1.00	3632.1 121 928 7.7 1.36 1.52	1559.2 50.3 433 6.0 .57 .65	969.8 31.3 270 6.9 .35 .41	178.7 5.96 11 4.2 .07
					YEARS 1925							
MEAN MAX (WY) MIN (WY)	23.6 278 1927 1.28 1935	57.5 271 1973 1.34 1935	112 405 1928 1.39 1935	144 635 1950 3.93 1977	145 339 1976 2.29 1934	189 471 1978 32.9 1981	147 408 1964 9.64 1935	93.7 252 1969 4.44 1934	77.4 428 1947 1.93 1934	36.3 184 1966 .84 1995	25.0 212 1979 1.34 1995	22.1 116 1926 .38 1995
	STATIST:	ICS	FOI	R 1997 CALE		F	OR 1998 W	ATER YEAR	?	WATER Y	EARS 1925	- 1998
LOWEST HIGHEST LOWEST ANNUAL INSTANT INSTANT INSTANT ANNUAL ANNUAL 10 PERC 50 PERC		EAN EAN AN Y MINIMUN EAK FLOW EAK STAGE OW FLOW CFSM) INCHES) EDS EDS		34497.3 94.5 2630 3.8 4.5 1.0 14.4 214 25 5.9	Jun 1 Sep 7 Sep 3		30872.6 84.6 2720 4.2 4.5 3210 8.43 4.2 .95 12.93 183 24 6.1	Sep 13 Jan 8 Jan 8 Sep 17	7 3 3 3 3	88.8 145 20.4 4600 .34 .36 5800 9.83 .66 1.00 13.55 195 21 3.0	Sep 3 Sep 2 Dec 1 Dec 1 Sep 2	1973 1934 14 1927 30 1995 14 1995 14 1927 14 1977 28 1947

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations. e Estimated.

04196800 TYMOCHTEE CREEK AT CRAWFORD, OHIO

LOCATION.--Lat 40°55'22", long 83°20'56", in SE 1/4 sec. 27, T.1 S., R.13 E., Wyandot County, Hydrologic Unit 04100011, on right bank at downstream side of bridge on State Highway 199 (formerly U.S. Highway 23), 0.4 mi northwest of Crawford, 1.5 mi downstream from Lick Run, 2.7 mi upstream from Little Tymochtee Creek, and 3 mi southeast of Carey. DRAINAGE AREA.--229 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1961-63, and annual maximum, water years 1961-64,

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1961-63, and annual maximum, water years 1961-64, June 1964 to current year.

REVISED RECORDS.--WRD Ohio 1969: 1964(P), 1966(M), 1967(P).

GAGE.--Water-stage recorder. Datum of gage is 785.86 ft above sea level.

REMARKS.--Records good except for periods of estimated record, which are poor. Beginning Mar. 9, 1972, water is diverted at a point 29.4 mi upstream from station into Killdeer Reservoir. Storage is available for low-flow augmentation. There were no low-flow augmentation releases during the year. During the year, withdrawals totaled 71.2 mil gal, equivalent to a mean annual withdrawal of 0.3 ft³s. Return flow through Abraham Marsh totaled 156 mil gal, equivalent to a mean annual release of 0.66 ft³s. Water-quality and sediment data collected at this site

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MEAN VALUES DAY NOV FEB SEP OCT DEC JAN MAR APR MAY JUN TITT. AUG 6.1 2.9 6.6 2.5 5.1 5.6 2.0 4.4 4.8 1.0 4.4 4.3 .71 3.5 .93 3.5 .98 e13 4.0 1.1 e12 3.6 8.8 e13 e150 3.3 8.9 2.3 3.7 e140 2.1 3.8 e1000 1.6 4.2 e1200 1.2 6.8 .99 6.0 e220 7.2 1.1 7.9 7.0 6.7 e70 e150 1.5 e66 e380 6.6 6.1 1.1 9.5 e500 5.9 6.1 .86 27 e1800 2.0 5.3 5.0 1.1 e1600 5.2 3.9 1.4 e800 3.8 2.4 4.7 3.4 2.0 9.9 3.7 2.0 e560 8.0 e350 3.8 1.8 2.4 8.1 9.5 1.6 9.4 1.5 1.3 20 2.8 2.0 1.5 1.6 ---___ ------7.7 9.0 TOTAL. 229.02 536 7 1729 3 1437.4 70 95 MEAN 7.39 17.9 2.72 55.8 46.4 2.37 6.6 MIN .71 8.8 4.7 3.4 .86 STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1998, BY WATER YEAR (WY) MEAN 35.6 32.5 MΔY (WY) .084 .86 1.66 32.8 1.04 MIN (WY) SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1964 -ANNUAL TOTAL 76472.72 68631.37 ANNUAL MEAN HIGHEST ANNUAL MEAN LOWEST ANNUAL MEAN 72.2 HIGHEST DAILY MEAN LOWEST DAILY MEAN Dec 31 1990 Aug 10 1964 Jun 5 Jan . 71 Oct . 71 Oct .00 ANNUAL SEVEN-DAY MINIMUM 1.2 1.1 Sep 13 .00 Oct INSTANTANEOUS PEAK FLOW INSTANTANEOUS PEAK STAGE Jan 9a Dec 31 1990 Mar 6 1963 11.21 8.82 Jan INSTANTANEOUS LOW FLOW Oct Aug 10 1964 .71 .00 10 PERCENT EXCEEDS 50 PERCENT EXCEEDS 90 PERCENT EXCEEDS 8.1 3.7 1.5

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

04197100 HONEY CREEK AT MELMORE, OHIO

LOCATION.--Lat 41°01'20", long 83°06'35", Seneca County, Hydrologic Unit 04100011, at bridge on State Highways 67 and 100 at Melmore, 1.5 mi upstream from Buckeye Creek.

DRAINAGE AREA.--149 mi².

PERIOD OF RECORD.--Annual maximum, water years 1961-75, February 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 818 ft above sea level from topographic map.

REMMARKS.--Records good except for periods of estimated record, which are poor. Water-quality data collected at this

site.

		DISC	HARGE, C	UBIC FEET		, WATER	YEAR OCTOR	BER 1997	TO SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	5.6 5.5 4.9 4.5 4.1	3.9 3.4 3.8 3.7 3.4	82 56 42 90 106	e52 48 47 273 331	86 70 61 54 48	67 71 73 97 118	133 118 88 70 60	75 124 422 518 499	9.1 7.9 9.0 10	927 557 207 111 76	14 11 9.8 9.6 110	51 37 29 24 20
6 7 8 9 10	4.2 4.0 3.7 3.2 3.4	3.4 3.4 3.3 3.1 3.0	71 51 42 38 192	387 1070 3200 2600 1410	39 43 36 33 30	109 90 94 490 729	52 47 45 174 520	236 127 98 142 141	9.4 8.3 7.8 7.4 9.0	55 42 35 29 25	311 184 178 67 42	17 15 14 13 11
11 12 13 14 15	3.2 3.3 3.4 5.0 4.8	2.8 2.7 2.7 3.6 3.5	524 381 174 105 72	724 420 278 196 147	30 40 65 65 53	371 189 126 100 82	306 146 97 79 100	86 63 50 42 36	7.5 114 631 790 468	21 17 15 13	40 29 22 17 13	9.6 8.2 7.4 6.8 6.1
16 17 18 19 20	5.2 6.9 7.6 6.3 4.5	3.4 6.4 7.2 6.1 5.5	60 58 56 50 47	116 91 73 60 51	49 539 2030 2010 1060	69 62 105 235 274	408 1000 983 443 462	31 27 24 21 19	292 343 156 106 71	53 23 16 12 9.2	10 9.1 9.8 8.3 8.7	5.9 5.8 5.8 5.9
21 22 23 24 25	e3.6 3.2 3.1 3.2 3.5	5.7 15 30 28 22	42 41 178 186 529	46 42 47 91 104	550 316 211 152 113	1380 1540 713 331 193	328 186 127 95 75	17 16 15 14 14	52 41 32 27 22	9.4 375 528 483 182	9.5 7.6 6.9 16 976	7.9 6.5 6.0 7.4 6.7
26 27 28 29 30 31	5.3 13 14 8.5 6.3 5.0	17 13 31 124 118	601 327 172 114 86 e58	84 110 176 169 155 116	91 80 71 	138 106 140 337 214 130	80 204 134 97 88	13 13 12 12 11	18 20 326 1340 1040	76 48 34 26 20 17	2420 1510 689 286 127 77	6.0 5.3 5.1 5.0 5.1
TOTAL MEAN MAX MIN CFSM IN.	162.0 5.23 14 3.1 .04	482.0 16.1 124 2.7 .11	4631 149 601 38 1.00 1.16	12714 410 3200 42 2.75 3.17	8025 287 2030 30 1.92 2.00	8773 283 1540 62 1.90 2.19	6745 225 1000 45 1.51 1.68	2929 94.5 518 11 .63 .73	5984.4 199 1340 7.4 1.34 1.49	4052.6 131 927 9.2 .88 1.01	7228.3 233 2420 6.9 1.56 1.80	359.3 12.0 51 5.0 .08
STATIST	rics of M	ONTHLY MEA	N DATA F	OR WATER Y	EARS 1977	- 1998,	BY WATER	YEAR (W	()			
MEAN MAX (WY) MIN (WY)	30.2 186 1991 .71 1989	108 550 1993 2.51 1995	169 518 1978 1.99 1977	157 465 1993 1.31 1977	232 528 1990 65.6 1993	285 765 1978 40.4 1981	247 540 1979 77.5 1991	122 340 1997 8.69 1988	123 740 1981 1.05 1988	76.2 373 1992 .46 1988	42.3 233 1998 1.52 1993	35.5 242 1981 .84 1995
SUMMARY	Y STATIST	ics	FOR	1997 CALEN	DAR YEAR	F	OR 1998 WA	TER YEAR	3	WATER Y	EARS 1977	- 1998
LOWEST HIGHEST LOWEST ANNUAL INSTANT INSTANT INSTANT	MEAN I ANNUAL ANNUAL M I DAILY M DAILY ME SEVEN-DA IANEOUS P	EAN EAN Y MINIMUM EAK FLOW EAK STAGE OW FLOW		62266.4 171 2970 2.7 3.0	Nov 7		3200 2.7 3.0 3550 10.11 2.7 1.14	Nov 7 Jan 8 Jan 8 Nov 12	2 7 3 a 3	135 189 48.1 4000 .0 .0 4440 11.0	Dec 3 17 Sep 2 19 Sep 2 Jun 1 10 Jun 1	1993 1988 80 1990 28 1988 24 1988 13 1981 13 1981 28 1988
ANNUAL 10 PERC 50 PERC	RUNOFF (RUNOFF (CENT EXCE CENT EXCE	INCHES) EDS EDS		15.55 454 48 5.1			15.50 464 49 5.0			12.3 362 32 1.9	0	

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04197170 ROCK CREEK AT TIFFIN, OHIO

LOCATION.--Lat 41°06'49", long 83°10'06", Seneca County, Hydrologic Unit 04100011, on left bank 0.05 mi downstream from bridge on Rebecca Street, at Heidelberg College, Tiffin, Ohio.

DRAINAGE AREA.--34.6 mi².

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 740 ft above sea level, from topographic map.

REMARKS.--Records fair except for periods of estimated record, which are poor.

		DISCH	ARGE, CUI	BIC FEET P	ER SECOND,	WATER Y		ER 1997 :	TO SEPTEM	3ER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	1.6 1.7 1.7 1.7	1.7 1.6 1.8 1.8	15 8.3 6.3 22 21	6.3 5.4 5.9 153 122	11 8.6 7.7 7.0 6.4	12 14 13 24 29	32 29 16 13	e14 e35 e60 e90 e170	e1.9 e1.8 e1.8 e1.7	175 52 15 10 8.2	2.9 2.6 2.5 2.5 29	8.0 e6.0 e5.0 e4.5 e4.1
6 7 8 9 10	1.6 1.5 1.5 1.5	1.7 1.7 1.7 1.7	10 6.5 5.3 5.2 88	152 445 1370 361 78	5.9 5.8 5.5 5.2 5.2	18 14 14 184 242	9.9 9.4 10 e16 e120	e40 e20 e30 e40 e20	e1.6 e1.5 e1.5 e1.5 e2.0	6.3 5.6 5.2 4.9 4.5	34 39 13 13 53	e3.8 e3.5 e3.2 e2.9 e2.7
11 12 13 14 15	1.5 1.8 2.2 2.8 2.0	1.6 1.5 1.6 2.7 2.6	161 44 17 10 7.4	34 19 15 12	5.4 8.4 14 9.8 7.4	58 25 16 14 12	e60 e25 e17 e16 e60	e13 e9.0 e8.0 e6.6 e5.8	e10 e100 e250 e120 e70	4.1 3.8 3.5 3.3 3.0	18 7.7 4.8 3.9 3.4	e2.5 e2.3 e2.2 e1.9 e1.7
16 17 18 19 20	2.0 1.8 1.5 1.7	2.3 2.0 2.1 2.3 2.5	6.2 5.8 6.5 6.1 5.6	11 9.1 8.2 7.5 6.9	7.6 332 986 368 100	11 11 35 58 59	e150 e210 e150 e80 e62	e5.2 e4.8 e4.5 e4.0 e3.7	e60 e50 e30 e19 e10	90 32 8.3 4.7 3.5	3.1 2.9 3.3 2.7 2.4	e1.7 e1.7 e1.9 e2.2 e3.5
21 22 23 24 25	2.0 1.7 1.8 1.9 2.5	2.9 4.7 5.6 4.2 3.2	5.3 5.6 47 35 220	6.5 6.3 8.0 14 12	71 39 26 19 16	584 191 54 30 20	e45 e30 e19 e16 e14	e3.4 e3.2 e2.9 e2.8 e2.6	e8.0 e6.0 e5.0 4.1 3.8	5.8 313 265 49 13	2.6 2.4 2.4 4.8 678	6.8 4.5 3.7 3.9 3.4
26 27 28 29 30 31	3.2 3.0 2.2 1.9 1.8	3.1 2.9 7.2 50 37	112 41 18 11 8.8 7.4	10 16 30 24 23 16	14 13 12 	16 14 24 110 36 20	e21 e50 e30 e20 e15	e2.5 e2.3 e2.2 e2.1 e2.0 e2.0	3.3 4.5 103 1010 274	7.0 5.1 4.3 3.8 3.5 3.1	1590 159 32 16 12 9.3	2.6 2.6 2.4 2.2 2.1
TOTAL MEAN MAX MIN CFSM IN.	58.4 1.88 3.2 1.3 .05	159.2 5.31 50 1.5 .15	968.3 31.2 220 5.2 .90 1.04	2998.1 96.7 1370 5.4 2.80 3.22	2116.9 75.6 986 5.2 2.19 2.28	1962 63.3 584 11 1.83 2.11	1356.3 45.2 210 9.4 1.31 1.46	611.6 19.7 170 2.0 .57	2157.6 71.9 1010 1.5 2.08 2.32	1115.5 36.0 313 3.0 1.04 1.20	2752.2 88.8 1590 2.4 2.57 2.96	99.5 3.32 8.0 1.7 .10
STATISTIC	CS OF M	ONTHLY MEA	AN DATA I	FOR WATER	YEARS 1984	- 1998	, BY WATER	YEAR (WY	")			
MEAN MAX (WY) MIN (WY)	10.2 50.3 1991 1.28 1989	32.3 145 1993 2.09 1995	39.5 172 1991 2.09 1992	41.0 98.5 1993 10.2 1992	62.7 122 1990 13.0 1993	52.2 138 1984 13.6 1989	54.1 92.7 1994 17.9 1988	30.4 87.6 1997 2.29 1988	23.8 90.8 1997 1.12 1988	16.1 82.0 1992 .55 1988	11.7 88.8 1998 1.37 1991	11.5 99.5 1992 .83 1995
SUMMARY S	STATIST	ICS	FOR	1997 CALE	NDAR YEAR	1	FOR 1998 W	ATER YEAR	2	WATER Y	EARS 1984	- 1998
ANNUAL TO ANNUAL MH HIGHEST A LOWEST A HIGHEST I LOWEST DA ANNUAL SH INSTANTAN INSTANTAN INSTANTAN ANNUAL RU ANNUAL RU ANNUAL RU 10 PERCEN 90 PERCEN	EAN ANNUAL I NNUAL MI DAILY MI AILY ME EVEN-DA NEOUS PI NEOUS L UNOFF (() UNOFF (() NT EXCEI	EAN EAN AN Y MINIMUM EAK FLOW EAK STAGE OW FLOW CFSM) INCHES) EDS EDS			5		1.5 2640	6 Aug 26 Oct 10 0) 5 5	31.5 48.2 11.6 1590 .3 2640 8.9 .3 12.5 62 6.5	Aug 2 Jul 2 18 Jul 1 Aug 2 16 Aug 2 12 Jul 2	1984 1988 6 1998 9 1988 2 1988 6 1998 6 1998 9 1988

e Estimated.

04198000 SANDUSKY RIVER NEAR FREMONT, OHIO

LOCATION.--Lat 41°18'28", long 83°09'32", in sec. 17, T.4 N., R.15 E., Sandusky County, Hydrologic Unit 04100011, on left bank at downstream side of county road bridge, 2.3 mi upstream from Ballville diversion dam, 2.5 mi downstream from Wolf Creek, and 3.5 mi southwest of Fremont.

DRAINAGE AREA.--1,251 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1898 to March 1901 (gage height and discharge measurements only, published as "at Fremont"), October 1923 to December 1935, July 1938 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.--WSP 744: 1931-32. WSP 874: 1938. WSP 1144: 1924-30. WSP 1387: 1925, 1928-29, 1931-35. WSP 1912:

Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 626.3 ft above sea level. Nov. 18, 1898, to Mar. 10, 1901, nonrecording gage at site 4 mi downstream at different datum. Nov. 8, 1923, to Sept. 5, 1930, nonrecording gage at present site and datum.

REMARKS.--Records good except for periods of estimated record, which are fair. Water-quality data collected at this site.

		DISC	CHARGE,	CUBIC FEET		D, WATER		BER 1997	TO SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	95	514	e430	764	749	1080	869	157	e3000	144	321
2	68 64	91 84	380 304	e380 409	640 550	700 699	1260 1050	1300 1990	166 174	e1900 e1200	123 112	258 219
4	64	84 79	406	999	485	725	860	4930	148	e1200 e900	102	188
5	59	73	689	2310	442	785	697	5050	135	e680	174	159
6	55	72	535	2140	417	788	592	3330	136	e450	2130	140
7	53	71	405	3760	387	790	524	1800	134	e300	1480	139
8 9	52 50	68 68	349 303	14600 17300	367 335	751 1570	690 1040	1180 1210	133 128	e430 e600	1240 692	125 117
10	52	70	482	14600	315	4860	4550	1650	141	e350	745	110
11	51	68	3030	13100	304	3810	4870	1530	346	e260	649	102
12	47	67	2500	7080	338	2450	3850	944	1560	e200	398	96
13	49	66	1830	2800	431	1470	2500	682	6420	e170	274	92
14 15	56 60	71 82	1050 685	1630 1260	495 515	1060 835	1320 1020	550 468	6220 4090	e580 e910	223 186	89 86
16	53	85	523	1020	495	694	2510	410	2180	e500	156	84
17	57	85	445	850	1840	613	7010	362	1610	350	133	83
18	65	86	397	729	13100	728	6740	326	1160	211	138	84
19 20	65 65	87 92	353 313	620 536	14700 11100	1870 2210	5540 3440	301 286	1250 1700	163 147	133 115	84 80
21	64	98	288	472	8670	7230	2500	267	1240	146	101	101
22	59	151	287	420	4920	9470	1930	250	832	891	94	138
23	58	244	538		2540	7740	1370	236	545	1860	97	109
24 25	58 60	272	872	481	1750	5380 2700	1040 828	234 229	470 397	2470	127	91 84
		218	2720		1350			229		1940 950	5330	
26 27	71 116	178 156	4020 2980	878 807	1080 943	1570 1190	732 893	227	e310 e270	950 505	16000 6860	81 78
28	132	241	1830		829	1060	893	204	e420	335	2580	72
29	142	466	1120			2030	715	185	e1100	256	1260	68
30 31	119 100	618	797 e580			1710 1220	794	171 165	e4300	212 171	669 433	62
TOTAL	2138	4202	31525	94671	70102	69457	62838	31554	37872	23037	42898	3540
MEAN	69.0	140	1017	3054	2504	2241	2095	1018	1262	743	1384	118
MAX	142	618	4020		14700	9470	7010	5050	6420	3000	16000	321
MIN CFSM	47 .06	66 .11	287 .81	380 2.44	304 2.00	613 1.79	524 1.67	165 .81	128 1.01	146 .59	94 1.11	62 .09
IN.	.06	.12	.94	2.82	2.08	2.07	1.87	.94	1.13	.69	1.28	.11
STATIST	rics of Mc	NTHLY ME	AN DATA	FOR WATER	YEARS 1924	- 1998,	BY WATER	YEAR (WY)			
MEAN	223	587	1099	1575	1938	2339	1829	1071	820	464	232	255
MAX	2521	4413	5495	7659	7504	8261	5524	3654	6091	3479	1660	3713
(WY)	1927	1993	1991	1930	1984	1978	1957	1969	1981	1992	1958	1981
MIN (WY)	9.94 1964	25.4 1954	32.6 1964	53.5 1961	60.3 1964	319 1941	144 1946	100 1941	43.4 1988	30.9 1934	22.4 1952	13.5 1953
	STATISTI			R 1997 CALE			OR 1998 W		1300		EARS 1924	
ANNUAL		CS	FO.	к 1997 САЦЕ 514507	NDAR IEAR	r'	OR 1996 WF 473834	AAAI AAIA		WAIER IE	ARS 1924	- 1996
ANNUAL				1410			1298			1031		
HIGHEST	C ANNUAL M									2167		1984
	ANNUAL ME						4 = 0 0 0			275		1934
	DAILY ME DAILY MEA			23700 47	Jun 2 Oct 12		17300 47	Jan 9 Oct 12		36000 5.0		.5 1978 20 1963
	SEVEN-DAY			51	Oct 7		51	Oct 7		6.3		9 1988
	TANEOUS PE						18500	Jan 9		36500		6 1978
	TANEOUS PE TANEOUS LO						8.76 47	Jan 9 Oct 12		16.14 4.4		14 1979 19 1964
	RUNOFF (C			1.1	3		1.04			.82		.J 1JU4
	RUNOFF (I			15.3			14.09			11.20		
	CENT EXCEE			3480 476			3010 468			2760 278		
	CENT EXCEP			4 76 77			468 72			39		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04198000 SANDUSKY RIVER NEAR FREMONT, OHIO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD. -- Water years 1951-56, 1978 to current year.

PERIOD OF DAILY RECORD.

CHOON OF DALLY RECORD.-CHLORIDE: February 1988 to September 1994.
NITROGEN, NITRITE + NITRATE: February 1988 to September 1994.
NITROGEN, AMMONIA + ORGANIC: February 1988 to September 1994.
PHOSPHORUS: February 1988 to September 1994.
SUSPENDED SEDIMENT DISCHARGE: Water years 1951-1956, 1978 to current year.

INSTRUMENTATION. -- Refrigerated water-quality pumping sampler, operated by Heidelberg College Water Quality Laboratory, from February 1988 to September 1994.

REMARKS.--Sediment samples were collected by a local observer on an approximate once daily basis. Sediment loads were

Calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge: U.S. Geological Survey, Techniques of Water-Resources Investigations, Book 3, Chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was subdivided into half-hour intervals and the daily load was calculated by summing the loads for these half-hour intervals. This required interpolation between measured and estimated concentrations.

EXTREMES FOR PERIOD OF DAILY RECORD. --

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,420 mg/L, Jun. 9, 1981; minimum daily mean, 1 mg/L, on many days during 1951-56, 1980, 1981, 1988, 1992.
SEDIMENT LOADS: Maximum daily, 124,000 tons, Jun. 14, 1981; minimum daily, less than 0.05 ton, on several days

during 1952, 1954, 1989. EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 725 mg/L, Feb. 18; minimum daily mean, 5 mg/L, Feb. 10. SEDIMENT LOADS: Maximum daily, 25,500 tons, Feb. 18; minimum daily, 1.1 ton, Oct. 21.

DATE	TIME	SAM- PLING METHOD, CODES* (82398)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
NOV												
25	1430	10	209	852	8.2	12.0	4.5	60	1.5	0.5	0.01	18
25	1545	50	209					66	1.8	0.5	0.01	
MAY												
20	1535	10	284	556	8.4	35.0	28.0	35	2.8	0.8	0.08	39
20	1640	50	283					31	2.8	0.8	0.01	
JUL												
23	1640	10	1950	320	7.7	28.5	24.5	15	1.8	1.2	0.23	
23	1805	50	2030					17	1.9	1.4	0.33	

^{*10 -} Stream cross-section sample using equal-width-increment (EWI) sampling method.

^{*50 -} Point sample obtained from flow tank.

04198000 SANDUSKY RIVER NEAR FREMONT, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER		1	NOVEMBER		DI	ECEMBER	
1 2 3 4 5 6 7 8	74 68 64 64 59 55 53	29 26 23 21 18 16 14	5.7 4.8 4.0 3.5 2.9 2.4 2.0 1.7	95 91 84 79 73 72 71 68	13 14 21 19 18 14 11	3.3 3.3 4.7 4.1 3.5 2.8 2.1 2.2	514 380 304 406 689 535 405 349	40 29 21 24 44 29 24 21	56 30 17 28 83 42 27 20
9 10	50 52	11 11	1.5 1.5	68 70	14 17	2.7	303 482	19 31	16 56
11 12 13 14 15	51 47 49 56 60	10 10 12 14 13	1.4 1.3 1.5 2.1 2.1	68 67 66 71 82	15 12 10 10 9	2.7 2.1 1.8 1.8 2.0	3030 2500 1830 1050 685	187 158 114 82 59	1620 1070 567 235 111
16 17 18 19 20	53 57 65 65 65	10 9 11 9 7	1.5 1.3 1.9 1.5	85 85 86 87 92	9 8 8 9 8	2.0 1.9 1.9 2.0 2.0	523 445 397 353 313	44 36 30 25 21	63 44 32 24 17
21 22 23 24 25	64 59 58 58 60	6 7 10 11	1.1 1.2 1.5 1.7	98 151 244 272 218	7 13 19 14 16	1.9 6.1 12 10 9.3	288 287 538 872 2720	17 15 46 85 292	13 12 75 201 2800
26 27 28 29 30 31 TOTAL	71 116 132 142 119 100	12 13 14 11 10 12	2.3 4.1 4.8 4.4 3.1 3.3	178 156 241 466 618 	16 13 29 83 59	7.7 5.5 21 105 98 	4020 2980 1830 1120 797 e580 31525	364 228 164 117 84 60	4050 1840 815 357 181 94
TOTAL	∠138		/5.1	4202		3∠8.6	31525		1459

e Estimated

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
MEAN MEAN MEAN MEAN

		MEAN			MEAN			MEAN	
	MEAN	CONCEN-	SEDIMENT	MEAN	CONCEN-	SEDIMENT	MEAN	CONCEN-	SEDIMENT
	DISCHARGE	TRATION	DISCHARGE	DISCHARGE	TRATION	DISCHARGE	DISCHARGE	TRATION	DISCHARGE
DAY	(CFS)	(MG/L)	(TONS/DAY)	(CFS)	(MG/L)	(TONS/DAY)	(CFS)	(MG/L)	(TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
		JANUARY			FEBRUARI			MARCH	
1	e430	43	50	764	21	43	749	33	66
2	e380	31	32	640	20	35	700	26	50
3	409	24	27	550	19	28	699	19	36
4	999	87	376	485	16	21	725	14	28
5	2310	222	1430	442	13	16	785	11	23
6	2140	159	935	417	11	12	788	12	25
7	3760	215	2540	387	9	9.3	790	14	30
8	14600	611	24700	367	7	7.3	751	20	40
9	17300	441	20800	335	6	5.0	1570	118	747
10	14600	355	14000	315	5	4.3	4860	319	4180
11	13100	260	9250	304	6	5.0	3810	223	2310
12	7080	180	3480	338	9	8.0	2450	162	1080
13	2800	138	1050	431	10	11	1470	117	467
14	1630	108	477	495	8	10	1060	84	241
15	1260	85	292	515	9	12	835	56	128
16	1020	67	186	495	9	12	694	36	68
17	850	53	122	1840	193	1770	613	24	40
18	729	43	84	13100	725	25500	728	32	70
19	620	35	58	14700	444	17800	1870	107	547
20	536	30	44	11100	315	9460	2210	83	499
21	472	26	33	8670	236	5550	7230	341	7530
22	420	19	21	4920	176	2360	9470	323	8310
23	426	15	18	2540	133	915	7740	250	5240
24	481	14	19	1750	94	447	5380	193	2820
25	669	14	25	1350	69	253	2700	146	1080
26	878	13	31	1080	57	166	1570	104	445
27	807	14	31	943	46	118	1190	77	248
28	925	19	47	829	39	87	1060	69	203
29	1070	19	56				2030	198	1110
30	1040	21	60				1710	146	679
31	930	21	54				1220	101	334
		21						101	
TOTAL	94671		80328	70102		64664.9	69457		38674

e Estimated

04198000 SANDUSKY RIVER NEAR FREMONT, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	1080	74	216	869	48	124	157	55	23
2	1260	66	223	1300	136	472	166	64	29
3 4	1050	56	159	1990	127	801	174	58	27
4	860	53	122	4930	396	5850	148	50	20
5	697	42	78	5050	564	7750	135	46	17
6	592	33	53	3330	408	3720	136	41	15
7	524	29	42	1800	241	1190	134	35	13
8	690	82	170	1180	134	432	133	31	11
9	1040	189	630	1210	87	285	128	32	11
10	4550	381	4550	1650	145	678	141	32	12
11	4870	347	4550	1530	140	584	346	78	79
12	3850	315	3280	944	107	274	1560	274	2120
13	2500	221	1530	682	88	162	6420	462	7840
14	1320	126	457	550	72	107	6220	359	6030
15	1020	80	220	468	59	75	4090	305	3390
16	2510	190	1630	410	49	54	2180	205	1230
17	7010	481	9120	362	40	39	1610	157	683
18	6740	398	7240	326	42	37	1160	123	386
19	5540	293	4420	301	45	37	1250	121	416
20	3440	200	1870	286	37	29	1700	193	889
21	2500	141	957	267	29	21	1240	190	633
22	1930	106	555	250	31	21	832	228	508
23	1370	79	293	236	30	19	545	180	266
24	1040	68	190	234	30	19	470	134	170
25	828	55	124	229	32	20	397	125	134
26	732	46	91	227	36	22	e310	112	94
27	893	39	94	218	41	24	e270	96	70
28	893	39	95	204	46	25	e420	91	103
29	715	35	67	185	52	26	e1100	529	1570
30	794	31	67	171	46	21	e4300	559	6490
31				165	47	21			
TOTAL	62838		43093	31554		22939	37872		33279

e Estimated

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

		MEAN	,		MEAN		MEAN			
	MEAN	CONCEN-	SEDIMENT	MEAN	CONCEN-	SEDIMENT	MEAN	CONCEN-	SEDIMENT	
DAY	DISCHARGE (CFS)	TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	TRATION (MG/L)	DISCHARGE (TONS/DAY)	
DAI	(CFS)		(IONS/DAI)	(CFS)		(IONS/DAI)			(IONS/DAI)	
		JULY			AUGUST		SI	EPTEMBER		
1	e3000	270	2190	144	42	16	321	35	30	
2	e1900	178	912	123	45	15	258	31	21	
3 4	e1200 e900	123 85	398 206	112 102	42 31	13 8.5	219 188	27 21	16 11	
5	e680	70	129	102	51	35	159	19	8.0	
6 7	e450 e300	68 63	82 51	2130 1480	210 113	1230 457	140 139	18 16	6.8 6.0	
8	e430	58	67	1240	85	285	125	14	4.6	
9	e600	53	87	692	76	141	117	13	4.1	
10	e350	49	46	745	98	201	110	13	3.8	
	e260	42	29	649	81	141	102	12	3.2	
11 12	e260 e200	36	29	398	74	79	96	10	2.6	
13	e170	38	17	274	67	50	92	8	2.1	
14	e580	34	53	223	56	34	89	8	1.9	
15	e910	145	357	186	45	23	86	8	1.9	
16	e500	127	172	156	41	17	84	9	1.9	
17	350	83	80	133	39	14	83	10	2.2	
18	211	57	33	138	45	17	84	10	2.3	
19	163	42	18	133	46	16	84	10	2.3	
20	147	29	12	115	43	13	80	10	2.2	
21	146	27	11	101	40	11	101	13	3.6	
22	891	109	331	94	35	8.8	138	17	6.3	
23	1860	149	775	97	33	8.5	109	11	3.3	
24	2470	178	1190	127	43	16	91	14	3.5	
25	1940	118	621	5330	257	5300	84	14	3.2	
26	950	97	249	16000	224	9820	81	12	2.7	
27	505	80	109	6860	131	2480	78	12	2.5	
28	335	66	60	2580	90	636	72	11	2.2	
29 30	256 212	55	38	1260 669	62	214 87	68 62	11 11	2.0	
31	212 171	47 44	27 20	433	48 39	8 / 4 6	62	11	1.8	
TOTAL	23037		8390	42898		21432.8	3540		165.0	
YEAR	473834		327965.4							

e Estimated

SURFACE-WATER RECORDS **Huron River Basin**

04199000 HURON RIVER AT MILAN, OHIO

LOCATION.--Lat 41°18'06", long 82°36'25, in SW 1/4 sec. 4, T.5 N., R.22 W., Erie County, Hydrologic Unit 04100012, on right bank on upstream side of bridge on U.S. Highway 250, 0.2 mi northwest of Milan and 2.0 mi downstream from confluence of East and West Branches.

DRAINAGE AREA.--371 mi².

PERIOD OF RECORD.--March 1950 to September 1980, October 1987 to current year.

REVISED RECORDS.--WSP 1912: Drainage area. WDR OH-89-2: 1988.

GAGE.--Water-stage recorder. Datum of gage is 573.26 ft above sea level. July 29, 1953, to Oct. 5, 1979, water-stage recorder at site of former highway bridge 500 ft downstream at same datum. July 29, 1953, nonrecording gage at site of former highway 450 ft downstream at same datum.

REMARKS.--Records fair except for periods of estimated record, which are poor. Water-quality and sediment data collected at this site.

		DIS	CHARGE,	CUBIC FEET		O, WATER ILY MEAN		ER 1997 '	TO SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	34 32 32 32 34	30 31 32 28 29	291 163 124 335 358	139 179 164 529 833	273 229 193 173 144	481 661 399 438 476	321 311 233 213 183	289 381 414 647 740	30 27 24 23 23	4120 1070 435 241 177	50 47 45 44 60	196 151 123 103 110
6 7 8 9 10	31 28 26 23 21	29 29 28 27 28	211 142 126 128 921	966 4000 11200 5620 2030	130 157 137 121 106	383 319 329 1810 2230	165 141 374 1670 2440	366 278 253 214 201	26 31 29 34 41	135 116 188 118 82	180 557 371 126 92	102 108 109 81 65
11 12 13 14 15	20 20 20 29 35	28 26 25 33 38	2080 754 432 290 248	1090 692 539 423 379	103 156 301 246 174	980 585 427 370 318	790 425 314 324 445	181 164 144 127 117	38 516 2650 1550 474	63 46 38 34 63	352 316 113 71 61	58 50 46 42 40
16 17 18 19 20	28 25 25 25 25	50 37 42 35 34	178 172 151 136 127	328 288 251 205 192	161 1510 6380 4160 1590	272 272 434 798 867	2160 5670 1410 714 1490	104 94 85 80 71	500 527 279 369 155	232 85 38 29 29	56 55 57 55 48	40 38 38 33 32
21 22 23 24 25	26 26 26 27 28	34 65 143 95 62	119 123 595 454 1790	166 159 350 707 511	1110 716 538 436 364	6900 3410 1190 657 462	807 470 354 285 240	64 56 49 43 44	101 80 70 71 539	75 2730 2080 851 284	48 47 48 75 3110	43 44 45 37 33
26 27 28 29 30 31	35 55 39 40 36 33	50 42 344 978 516	1180 575 374 281 284 184	408 604 638 497 431 346	315 286 262 	375 326 313 800 476 338	571 1340 535 362 317	e44 41 39 33 28 28	312 170 963 1900 5020	131 77 63 57 57 54	12700 2470 812 518 372 278	30 26 24 20 19
TOTAL MEAN MAX MIN CFSM IN.	916 29.5 55 20 .08 .09	2968 98.9 978 25 .27	13326 430 2080 119 1.16 1.34	34864 1125 11200 139 3.03 3.50	20471 731 6380 103 1.97 2.05	28096 906 6900 272 2.44 2.82	25074 836 5670 141 2.25 2.51	5419 175 740 28 .47	16572 552 5020 23 1.49 1.66	13798 445 4120 29 1.20 1.38	23234 749 12700 44 2.02 2.33	1886 62.9 196 19 .17
STATIST	CICS OF MO	NTHLY ME	AN DATA	FOR WATER	YEARS 1951	- 1998,	BY WATER	YEAR (WY)				
MEAN MAX (WY) MIN (WY)	55.2 402 1991 7.86 1964	173 1259 1973 14.0 1964	352 1909 1991 9.23 1964	474 1302 1952 26.8 1977	550 1422 1959 24.0 1964	703 1697 1978 117 1981	571 1536 1957 86.0 1971	320 929 1967 46.5 1962	238 980 1981 14.9 1988	182 1821 1969 11.8 1963	101 749 1998 11.3 1952	76.9 573 1972 5.76 1955
SUMMARY	STATISTI	CS	FOI	R 1997 CALE	NDAR YEAR	F	OR 1998 WA	TER YEAR		WATER YE	EARS 1951	- 1998
LOWEST HIGHEST LOWEST ANNUAL INSTANT INSTANT INSTANT ANNUAL ANNUAL	MEAN ANNUAL M ANNUAL ME DAILY MEA SEVEN-DAY ANEOUS PE ANEOUS PE ANEOUS LO ANEOUS LO CANDOFF (C	AN AN MINIMUM AK FLOW AK STAGE W FLOW FSM)		9550 14 17 1.2 17.2			19 1.38 18.71	Aug 26 Sep 30 Oct 7 Aug 26a Aug 26 Sep 30		315 530 145 31400 3.0 3.4 49600 31.10 2.2 .85	Sep 1 Sep 1 Jul Jul Sep 1	1997 1953 5 1969 6 1955 5 1969 5 1969 0 1955
50 PERC	ENT EXCEE ENT EXCEE ENT EXCEE	DS		1180 151 27			1020 163 29			718 86 15		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

SURFACE-WATER RECORDS Old Woman's Creek Basin

04199155 OLD WOMAN'S CREEK AT BERLIN ROAD NEAR HURON, OHIO

LOCATION.--Lat 41°20'54", long 82°30'50, Erie County, Hydrologic Unit 04100012, on left downstream side of Berlin Road Bridge, 3.8 mi southeast of Huron.

DRAINAGE AREA.--22.1 mi².

PERIOD OF RECORD.--October 1987 to September 1994, October 1995 to current year.

REVISED RECORDS.--WSP 1912: Drainage area. WDR OH-89-2: 1988.

GAGE.--Water-stage recorder. Datum of gage is 570 ft above sea level. Erie county benchmark.

REMARKS.--Records good.

		DISC	CHARGE,	CUBIC FEET	PER SECOND	, WATER LY MEAN		BER 1997	TO SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	1.5 1.5 1.4 1.3	2.0 2.0 2.1 2.3 2.0	12 8.1 7.0 23 14	18 20	12 11 9.7 9.2 8.4	17	16 13 11 9.7 8.5	20 33 22 24 21	2.0 1.4 1.6 1.4 1.8	97 18 8.9 6.2 4.6	.80 .63 .50 .44 2.5	.96 .72 .56 .45
6 7 8 9 10	1.5 1.2 1.8 2.2 1.9	2.5	9.1 7.3 8.2 9.2 128	35 502 838 177 60	7.5 7.0 6.7 6.4 6.3	14 12 20 199 125	7.8 7.1 27 276 125	15 12 12 9.9 8.4	1.8	3.1	9.4 8.7 3.6 1.7	.14 2.6 2.7 1.6
11 12 13 14 15	1.6 1.6 1.7 2.6 2.7	2 9	79 28 17 12 9.9	31 21 20 15 16	6.9 15 16 11 9.5	2.4	34 20 16 34 57	7.8 7.5 6.7 5.8 5.1	1.6 39 93 14 7.7		1.7 1.1 .73 .54	.49 .25 .04 .01
16 17 18 19 20	2.7 2.8 3.0 3.2 3.3	5.6 4.0 3.3 3.4 3.7	9.2 8.7 7.4 7.0 6.6	13	9.9 270 359 118 63	18 17 37 40 131	358 405 45 38 101	4.6 3.9 3.6 3.2 3.0	5.7 7.0 6.8 38 12	86 7.6 3.1 2.2 1.9	.27 .13 .05 .02	.01 .05 .02 .02
21 22 23 24 25	3.5 3.5 3.7 3.9 5.3	4.1 8.3 8.0 4.7 3.4	5.8 7.3 28 17 102	49 46 25	49 30 23 19 15	629 97 46 30 22	36 25 20 16 13	2.6 2.4 2.4 2.3 2.6	5.1 3.2 2.4 1.9	6.0 220 39 13 6.6	.00 .00 .00 1.5	.23 .06 .01 .00
26 27 28 29 30 31	7.3 7.6 3.7 2.6 2.1 1.9	3.2 2.8 22 43 20	41 23 16 12 11 7.7	20 27 24 18 17	14 13 12 	18 40 20 15	134 69 29 24 21	2.4 2.2 1.9 1.7 1.5	2.6 11 23 46 192	4.5 3.0 2.2 1.7 1.3	40 7.6 3.4 2.7 1.8 1.3	.00
TOTAL MEAN MAX MIN CFSM IN.		180.2 6.01 43 2.0 .27	681.5	2098.9 67.7 838 7.1	1137.5 40.6 359 6.3 1.84 1.91	1803 58.2 629 12 2.63 3.03	1996.1 66.5 405 7.1 3.01 3.36		529.44 17.6 192 .94 .80	589.8 19.0 220 1.1 .86 .99	175.11 5.65 82 .00 .26 .29	12.13 .40 2.7 .00 .02
STATIST	ICS OF M	ONTHLY MEA	AN DATA	FOR WATER	YEARS 1988	- 1998,	BY WATER	YEAR (WY	")			
MEAN MAX (WY) MIN (WY)	4.51 20.8 1997 .001 1995	1993 .31 1992		74.8 1993 8.03 1988	35.1 78.6 1990 10.3 1989	35.6 86.3 1993 12.4 1990	43.5 66.5 1998 18.4 1988	19.5 52.2 1989 2.20 1988	16.6 47.4 1997 .17 1988	6.50 35.1 1992 .010 1991	6.20 23.7 1992 .000 1991	7.01 23.1 1996 .000 1991
	STATIST	ICS	FOR	R 1997 CALE	NDAR YEAR	F	OR 1998 W	ATER YEAR -	2	WATER Y	EARS 1988	- 1998
ANNUAL TOTAL ANNUAL MEAN ANNUAL MEAN LOMEST ANNUAL MEAN LOMEST DAILY MEAN HIGHEST DAILY MEAN ANNUAL SEVEN-DAY MINIMUM INSTANTANEOUS PEAK FLOW INSTANTANEOUS PEAK FLOW INSTANTANEOUS LOW FLOW ANNUAL RUNOFF (CFSM) ANNUAL RUNOFF (INCHES) 10 PERCENT EXCEEDS 50 PERCENT EXCEEDS 11.0			Jun 1 10 Aug 2 3 Jul 28		9541.78 26.1 838	Jan 8 0 Aug 21 0 Sep 24 Jan 7 0 Jan 7 0 Aug 20	a a)	20.8 34.1 8.7 838 .0 .0 1940 11.8 .0 .9 12.7 44 5.0	Jan 0 Jun 0 Jun 1 Feb 1 Feb 2 Sep 4	1997 1988 8 1998 15 1988 15 1988 27 1997 27 1997 9 1991		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

SURFACE-WATER RECORDS **Black River Basin**

04200500 BLACK RIVER AT ELYRIA, OHIO

LOCATION.--Lat 41°22'49", long 82°06'17", in T.6 N., R.17 W., Lorain County, Hydrologic Unit 04110001, on left bank in Cascade Park at Elyria, 0.8 mi downstream from confluence of East and West Branches.

DRAINAGE AREA.--396 mi².

DRAINAGE AREA.--396 mi².

PERIOD OF RECORD.--October 1944 to current year. Records for May 1903 to July 1906 (published as "near Elyria") published in WSP 97, 129, and 205, are unreliable and should not be used.

REVISED RECORDS.--WSP 1912: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 620.83 ft above sea level.

REMARKS.--Records fair except for periods of estimated record and for discharges greater than 1,000 ft³/s, which are poor. Some regulation at low flow for industrial use. Water-quality and sediment data collected at this site.

		DISCHA	RGE, CUB	IC FEET P			YEAR OCTOBER	R 1997 TC	SEPTEMBE	R 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	20 21 16 14 16	23 21 20 17 16	305 198 148 182 215	118 106 112 222 515	165 140 122 108 97	397 469 340 400 385	171 154 136 116 100	256 351 286 970 1500	e18 e17 e16 e15 e14	1280 619 184 91 56	12 9.9 8.8 7.7 12	54 42 33 28 26
6 7 8 9 10	14 14 11 11	17 19 21 18 20	199 155 127 126 491	620 2310 7830 9290 3760	89 79 73 69 66	313 246 216 484 1260	86 77 115 897 1950	923 727 e500 e300 e190	e14 e14 e15 e15 e16	41 32 98 42 25	13 12 10 32 65	27 50 50 41 40
11 12 13 14 15	10 10 13 18 12	21 21 21 37 41	1560 901 426 255 176	1100 533 384 304 248	68 97 157 189 152	917 609 426 329 326	812 383 241 214 559	e160 e140 e120 e100 e90	e25 129 184 111 88	20 16 14 12 93	381 196 79 39 24	39 36 32 26 26
16 17 18 19 20	13 11 11 11 13	60 74 59 49 47	128 111 94 87 80	233 226 202 175 157	128 684 3190 3120 1580	309 266 325 478 627	2090 5270 3620 887 1890	e80 e70 e62 e54 e47	69 66 55 61 47	60 23 19 11 10	18 13 10 8.2 6.9	25 20 18 26 20
21 22 23 24 25	11 16 13 13 16	43 56 73 73 56	75 92 251 350 693	143 135 344 864 604	953 655 432 314 242	3980 4010 1160 546 362	1280 550 346 245 190	e42 e37 e33 e30 e28	33 26 23 17 14	63 616 381 394 188	6.0 5.6 5.0 4.9	22 21 19 18 19
26 27 28 29 30 31	33 60 43 41 39 29	43 37 133 573 490	906 547 319 214 158 121	348 284 262 236 210 191	197 170 151 	270 226 214 296 266 210	1040 2650 1140 453 310	e27 e25 e23 e22 e21 e20	17 43 100 114 135	85 49 34 25 18 14	2710 3490 858 202 114 76	19 18 14 12 13
TOTAL MEAN MAX MIN CFSM IN.	586 18.9 60 10 .05	2199 73.3 573 16 .19 .21	9690 313 1560 75 .79	32066 1034 9290 106 2.61 3.01	13487 482 3190 66 1.22 1.27	20662 667 4010 210 1.68 1.94	27972 932 5270 77 2.35 2.63	7234 233 1500 20 .59 .68	1511 50.4 184 14 .13	4613 149 1280 10 .38 .43	8741.0 282 3490 4.9 .71 .82	834 27.8 54 12 .07
STATIST	CICS OF MC	NTHLY MEA	N DATA F	OR WATER	YEARS 1945	- 1998	B, BY WATER Y	EAR (WY)				
MEAN MAX (WY) MIN (WY)	63.4 463 1997 2.34 1945	230 1238 1986 5.78 1945	401 1885 1991 5.82 1945	492 1825 1952 8.48 1945	604 1505 1959 16.6 1964	795 1866 1978 135 1953	630 1728 1957 22.0 1946	361 1122 1969 50.0 1963	212 1245 1947 10.6 1988	140 1472 1969 7.42 1991	73.7 529 1958 4.72 1952	79.0 701 1972 2.84 1946
SUMMARY	STATISTI	CS	FOR	1997 CALE	NDAR YEAR		FOR 1998 WAT	ER YEAR		WATER Y	EARS 1945	- 1998
ANNUAL TOTAL ANNUAL MEAN HIGHEST ANNUAL MEAN HIGHEST DAILY MEAN HIGHEST DAILY MEAN HIGHEST DAILY MEAN HIGHEST DAILY MEAN ANNUAL SEVEN-DAY MINIMUM INSTANTANEOUS PEAK FLOW INSTANTANEOUS PEAK STAGE INSTANTANEOUS LOW FLOW ANNUAL RUNOFF (CFSM) ANNUAL RUNOFF (INCHES) 10 PERCENT EXCEEDS 90 PERCENT EXCEEDS			130892.5 359 9590 8.5 11 .9 12.3 789 123 13	Jul 19 1		129595.0 355 9290 4.9 6.7 10400 15.03 4.9 .90 12.17 830 89	Jan 9 Aug 24 Aug 18 Jan 9a Jan 9 Aug 24		339 534 130 24900 .6 1.4 51700 26.4 .0 .824 74 10	0 Oct Oct Jul 0 Jul 0 Oct 1	1973 1953 2 1959 5 1944 6 1969 6 1969 0 1956	

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

SURFACE-WATER RECORDS **Rocky River Basin**

04201500 ROCKY RIVER NEAR BEREA, OHIO

LOCATION.--Lat 41°24'24", long 81°53'14", in T.6 N., R.15 W., Cuyahoga County, Hydrologic Unit 04110001, on right bank at downstream side of Cedar Point Road Bridge in Rocky River Reservation, just downstream from confluence of East and West Branches, and 3.0 mi northwest of Berea.

DRAINAGE AREA.--267 mi².

PERIOD OF RECORD.--October 1923 to September 1935, September 1943 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.--WSP 1437: 1924, 1925 (M), 1926, 1927 (M), 1928-29, 1930-35 (M), 1945. WSP 1912: Drainage area.

WDR-OH-2-1983: 1978-1982 (M).

GAGE --Water-stage recorder Datum of gage is 649 90 ft above sea level (Cuyahoga County benchmark). Prior to

WDR-OH-2-1983: 1978-1982(M).

GAGE.--Water-stage recorder. Datum of gage is 649.90 ft above sea level (Cuyahoga County benchmark). Prior to Sept. 30, 1935, nonrecording gage at same site and datum.

REMARKS.--Records good except for periods of estimated record, which are poor. Some regulation at low flow by small reservoirs on East Branch. Some interbasin transfer of water from Lake Erie for municipal water supply by Cleveland Metro Water District. Water-quality and sediment data collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 20.9 ft.

DATE			DISCHA	RGE, CU	BIC FEET			YEAR OCTOBER	R 1997 TO	SEPTEMBE	R 1998		
2	DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
3	1	56	51	245	141	142	476	187	281	70	791	e15	e70
4													
S													
7 31 45 156 2850 84 206 90 275 34 36 35 e14 e18 618 615 8 31 60 177 8100 79 208 183 226 33 245 e16 660 90 30 58 179 3850 74 1150 1730 206 31 147 e15 668 10 33 55 920 1320 73 1540 2140 160 36 63 e15 662 11 39 50 1600 557 81 673 3180 283 188 38 38 41 e100 e43 12 33 48 510 337 2447 385 289 133 235 33 e1000 e38 134 21 21 21 21 21 21 21 21 21 21 21 21 21													
The color of the	6	37	46	181	5.01	9.0	256	96	417	36	35	e14	
9 30 58 179 3850 74 1150 1730 206 31 147 e15 e68 10 33 55 920 1520 73 1540 2140 160 36 63 e35 e55 11 39 50 1600 557 81 673 558 138 38 41 e100 e43 12 33 48 510 337 247 385 289 133 225 33 e1000 e43 13 31 46 289 286 351 301 203 121 633 27 e100 e43 14 52 102 199 237 196 290 223 96 267 24 e40 e33 15 53 220 151 241 137 287 808 81 108 148 e20 e28 17 40 154 138 255 1300 278 6830 67 163 129 e16 e27 18 37 111 125 210 3070 406 1320 59 105 57 e13 22 19 40 32 123 180 1200 422 664 53 66 44 e11 28 20 36 100 116 173 746 506 2080 49 56 36 e10 23 21 34 100 116 173 746 506 2080 49 56 36 e10 23 22 32 164 146 136 423 1230 393 40 39 e170 e8.4 27 23 3 20 569 508 297 478 289 38 35 e140 e7.8 32 24 33 19 669 508 297 478 289 38 35 e140 e7.8 32 24 33 19 669 508 297 478 289 38 35 e140 e7.8 32 24 33 19 669 508 297 478 289 38 35 e140 e7.2 23 25 47 97 670 351 197 230 176 38 30 e80 e7.2 23 26 74 83 565 241 162 20 8 2120 38 35 e58 e100 22 27 456 81 327 217 151 196 270 39 48 e42 e1800 18 29 27 456 81 327 217 151 196 270 39 48 e42 e1800 18 29 27 456 81 327 217 151 196 270 39 48 e42 e1800 18 29 27 456 81 327 217 151 196 270 39 48 e42 e1800 18 29 27 456 81 327 217 151 196 270 39 48 e42 e1800 18 29 27 456 81 327 217 151 196 270 39 48 e42 e1800 18 29 27 456 81 327 27 17 151 196 270 39 48 e42 e1800 18 29 27 456 81 337 950 2493 10759 15189 574 185 189 180 170 180 70 31 54 124 180 166 6 78 18 e180 170 170 170 180 170 170 170 170 170 170 170 170 170 17													
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17	15	53	220	151	241	137	287	808	81	108	145	e25	e30
18													
19													
21													
22 32	20	36	100	116	173	746	506	2080	49	56	36	e10	23
23 32 200 659 508 297 478 289 38 35 e140 e7.8 32 24 33 1199 380 775 239 307 225 38 33 e120 e7.2 25 25 47 97 670 351 197 230 176 38 30 e80 e7.0 23 26 74 83 565 241 162 208 2120 38 35 e58 e100 22 27 456 81 327 217 151 196 2720 39 48 e42 e1800 18 28 240 506 218 202 148 188 576 38 206 e33 e600 20 20 29 205 909 159 185 288 314 37 135 e26 e170 22 23 36 5 396 141 190 225 305 34 185 e21 e130 17 31 54 124 180 166 78 18 e90 200 20 20 20 20 20	21	34	100	112	146	684	2660	784	45	47	e200	e9.0	23
24 33 139 380 775 229 307 225 38 33 e120 e7.2 25 25 25 47 97 670 351 197 230 176 38 30 e80 e7.0 23 26 74 83 565 241 162 208 2120 38 35 e58 e1000 22 27 456 81 327 217 151 196 2720 39 48 e42 e1800 18 28 240 506 218 202 148 188 576 38 206 e33 e600 20 29 105 909 159 185 288 314 37 135 e26 e170 22 230 65 396 141 190 225 305 34 185 e21 e130 17 31 54 124 180 166 78 e18 e90 TOTAL 1985 4337 9560 24293 10759 15189 28880 8465 3022 3520 5325.4 1053 MEAN 64.0 145 308 784 384 490 963 273 101 114 172 35.1 MAX 456 909 1600 8100 3070 2660 6830 3050 633 791 1800 70 70 70 70 70 70 70													
25													
27													
27	26	74	83	565	241	162	208	2120	3.8	35	e58	e1000	22
29			81	327									
30 65 396 141 190 225 305 34 185 e21 e130 17 31 54 e18 e90 TOTAL 1985 4337 9560 24293 10759 15189 28880 8465 3022 3520 5325.4 1053 MEAN 64.0 145 308 784 384 490 963 273 101 114 172 35.1 MAX 456 909 1600 8100 3070 2660 6830 3050 633 791 1800 70 MIN 30 45 112 134 73 166 90 34 30 18 7.0 17 CFSM .24 .54 1.16 2.94 1.44 1.84 3.61 1.02 .38 .43 .64 .13 IN28 .60 1.33 3.38 1.50 2.12 4.02 1.18 .42 .49 .74 .15 STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1998, BY WATER YEAR (WY) MEAN 94.7 223 348 415 474 597 508 296 177 115 76.2 105 MAX 935 1080 1534 1398 1245 1253 1374 845 911 887 553 820 (WY) 1927 1986 1991 1930 1959 1984 1961 1984 1947 1992 1935 1924 MIN 1.25 9.14 8.15 32.4 17.0 141 40.9 17.6 10.1 4.25 .90 .94 MIN 1.25 9.14 8.15 32.4 17.0 141 40.9 17.6 10.1 4.25 .90 .94 MIN 1.25 9.14 8.15 32.4 17.0 141 40.9 17.6 10.1 4.25 .90 .94 MIN 1.25 9.14 8.15 32.4 17.0 141 40.9 17.6 10.1 4.25 .90 .94 ANNUAL TOTAL ANNUAL TOTAL ANNUAL MEAN													
31 54 124 180 166 78 e18 e90 TOTAL													
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MIN 30 45 112 134 73 166 90 34 30 18 7.0 17 CFSM .24 .54 1.16 2.94 1.44 1.84 3.61 1.02 .38 .43 .64 .13 IN28 .60 1.33 3.38 1.50 2.12 4.02 1.18 .42 .49 .74 .15 STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1998, BY WATER YEAR (WY) MEAN 94.7 223 348 415 474 597 508 296 177 115 76.2 105 MAX 935 1080 1534 1398 1245 1253 1374 845 911 887 553 820 (WY) 1927 1986 1991 1930 1959 1984 1961 1984 1947 1992 1935 1924 MIN 1.25 9.14 8.15 32.4 17.0 141 40.9 17.6 10.1 4.25 .90 .94 (WY) 1934 1964 1964 1945 1934 1969 1946 1934 1933 1954 1933 1933 SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEAR 1924 - 1998 ANNUAL TOTAL 125776 116388.4 ANNUAL MEAN 345 319 285 HIGHEST ANNUAL MEAN 464 1945 1934 1969 1946 1934 1933 1954 1933 1934 LOWEST ANNUAL MEAN 79.5 1934 HIGHEST DAILY MEAN 8030 Jun 1 8100 Jan 8 14300 Jan 22 1959 LOWEST DAILY MEAN 18 AUG 10 7.0 AUG 25 .20 Sep 2 1932 ANNUAL SEVEN-DAY MINIMUM 23 Jul 19 8.66 AUG 19 .27 AUG 21 1953 INSTANTANEOUS PEAK FLOW 9010 Jan 8a 21400 Jan 22 1959 INSTANTANEOUS PEAK STAGE 67.0 AUG 25 .20 Sep 2 1932 ANNUAL RUNOFF (CFSM) 1.29 11.19 1.07 ANNUAL RUNOFF (CFSM) 1.29 1.19 ANNUAL RUNOFF (CFSM) 1.29 1.19 ANNUAL RUNOFF (CFSM) 1.29 1.19 ANNUAL RUNOFF (INCHES) 17.52 16.22 14.49 10 PERCENT EXCEEDS 774 666 666 660 50 PERCENT EXCEEDS 159 124													
CFSM													
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MEAN 94.7 223 348 415 474 597 508 296 177 115 76.2 105 MAX 935 1080 1534 1398 1245 1253 1374 845 911 887 553 820 (WY) 1927 1986 1991 1930 1959 1984 1961 1984 1947 1992 1935 1924 MIN 1.25 9.14 8.15 32.4 17.0 141 40.9 17.6 10.1 4.25 .90 .94 (WY) 1934 1964 1945 1934 1969 1946 1934 1933 1933 1933 SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1924 1998 ANNUAL MEAN 345 116388.4 116388.4 484 1993 1934 HIGHEST ANNUAL MEAN 345 319 285 484 1997 1997 1934 19													
MAX 935 1080 1534 1398 1245 1253 1374 845 911 887 553 820 (WY) 1927 1986 1991 1930 1959 1984 1961 1984 1947 1992 1935 1924 (WY) 1934 1964 1964 1945 1934 1969 1946 1934 1933 1954 1933 1933	STATIST	ICS OF MO	NTHLY MEA	N DATA	FOR WATER	R YEARS 1924	- 1998	B, BY WATER	YEAR (WY)				
MY													
MIN 1.25 9.14 8.15 32.4 17.0 141 40.9 17.6 10.1 4.25 .90 .94 (WY) 1934 1964 1964 1945 1934 1969 1946 1934 1933 1953 1933 1933 1933 1933 1934 1934 1964 1964 1964 1964 1964 1966 1966 196													
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ANNUAL TOTAL 125776 116388.4 ANNUAL MEAN 345 319 285 HIGHEST ANNUAL MEAN 484 1997 LOWEST ANNUAL MEAN 79.5 1934 HIGHEST DAILY MEAN 8030 Jun 1 8100 Jan 8 14300 Jan 22 1959 LOWEST DAILY MEAN 18 Aug 10 7.0 Aug 25 20 Sep 2 1932 ANNUAL SEVEN-DAY MINIMUM 23 Jul 19 8.6 Aug 19 27 Aug 21 1933 INSTANTANEOUS PEAK FLOW 9010 Jan 8 21400 Jan 22 1959 INSTANTANEOUS PEAK STAGE 6.76 Jan 8 18.60 Jun 29 1924 INSTANTANEOUS LOW FLOW 67.0 Aug 25 2 Sep 2 1932 ANNUAL RUNOFF (CFSM) 1.29 1.19 1.07 ANNUAL RUNOFF (INCHES) 17.52 16.22 14.49 10 PERCENT EXCEEDS 714 6666 660 50 PERCENT EXCEEDS 159													
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HIGHEST ANNUAL MEAN LOWEST ANNUAL MEAN HIGHEST DAILY MEAN 8030 Jun 1 8100 Jan 8 14300 Jan 22 1959 LOWEST DAILY MEAN 18 Aug 10 7.0 Aug 25 .20 Sep 2 1932 ANNUAL SEVEN-DAY MINIMUM 23 Jul 19 8.6 Aug 19 .27 Aug 21 1933 INSTANTANEOUS PEAK FLOW 9010 Jan 8a 21400 Jan 22 1959 INSTANTANEOUS PEAK STAGE INSTANTANEOUS LOW FLOW ANNUAL RUNOFF (CFSM) 1.29 1.19 1.07 ANNUAL RUNOFF (INCHES) 17.52 16.22 14.49 50 PERCENT EXCEEDS 159 124 84													
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ANNUAL RUNOFF (INCHES) 17.52 16.22 14.49 10 PERCENT EXCEEDS 714 666 660 50 PERCENT EXCEEDS 159 124 84					_	0.0			Aug 25				2 1932
10 PERCENT EXCEEDS 714 666 660 50 PERCENT EXCEEDS 159 124 84													
					714	. 52							
90 PERCENT EXCEEDS 33 27 11													
	90 PERC	ENT EXCEE	:DS		33			27			11		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04202000 CUYAHOGA RIVER AT HIRAM RAPIDS, OHIO

LOCATION.--Lat 41°20'26", long 81°10'01", in T.5 N., R.7 W., Portage County, Hydrologic Unit 04110002, on left bank at downstream side of bridge on Winchell Road at Hiram Rapids, 0.6 mi downstream from Black Brook.

DRAINAGE AREA.--151 mi².

PERIOD OF RECORD.--August 1927 to December 1935 (published as "near Hiram"), October 1944 to current year.

REVISED RECORDS.--WSP 1054: 1945. WSP 1437: 1931. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,087.46 ft above sea level. Prior to Aug. 26, 1927, nonrecording gage and Aug. 26, 1927, to Dec. 31, 1935, water-stage recorder, at site 2.8 mi downstream at different datum.

Oct. 20, 1944, to Oct. 22, 1946, nonrecording gage at present site and datum.

REMARKS.--Records good except for periods estimated record, which are poor. Flow regulated by East Branch Reservoir, usable capacity, 4,140 acre-ft, 14.6 mi upstream since 1939 and by LaDue Reservoir, usable capacity, 18,110 acre-ft, 9.8 mi upstream since 1961. Water-quality data collected at this site.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3670 ft³/s Jan. 23, 1959, gage height 8.11 ft; minimum daily, 6.6 ft³/s Sept. 10, 1933.

		DISC	HARGE, O	CUBIC FEET	PER SECONI	O, WATER		BER 1997 :	TO SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	156 182 190 179 162	55 51 54 53 50	252 235 195 165 158	192 173 180 209 272	238 216 195 178 164	212 241 236 195 179	246 244 230 210 176	457 392 372 402 396	45 49 46 42 36	e100 e80 e64 e52 e43	e47 e45 e43 e42 e40	78 76 75 75 74
6 7 8 9 10	150 125 93 78 72	47 45 50 55 52	151 137 132 129 156	355 397 692 1220 1510	149 139 132 127 123	168 158 157 246 375	143 122 122 182 345	398 368 334 309 274	34 34 36 35 34	e37 e35 e38 e43 e37	e44 e42 e40 e38 e60	75 77 82 81 79
11 12 13 14 15	62 55 54 54 54	51 51 49 53 68	262 357 400 374 322	1330 1000 748 564 447	122 136 157 168 155	443 435 376 315 254	463 486 432 397 412	238 206 180 162 148	34 51 102 119 101	e34 e32 e31 e29 e28	e90 e80 e72 e68 65	75 72 71 68 67
16 17 18 19 20	60 79 94 100 105	86 91 84 78 84	267 227 198 179 171	376 324 287 259 234	137 148 258 361 397	211 194 214 264 310	533 819 1170 1140 1000	137 126 116 107 101	82 78 77 67 81	e37 e49 e40 e34 e30	58 57 71 75 74	65 65 65 67
21 22 23 24 25	105 102 80 63 60	99 119 145 161 149	168 166 210 269 347	218 196 204 245 276	404 370 335 280 230	368 422 441 410 342	888 783 660 552 475	87 56 40 35 34	78 60 49 41 36	e28 e32 e100 e120 e100	73 72 71 70 83	65 64 63 60 54
26 27 28 29 30 31	61 92 131 129 99 70	128 128 158 196 232	395 422 407 355 295 233	283 271 269 248 239 244	208 205 203 	285 247 216 239 241 247	526 670 712 653 555	33 32 31 30 29	32 33 e100 e140 e110	e80 e66 e60 e55 e52 e49	109 110 100 91 87 82	48 48 50 49 47
TOTAL MEAN MAX MIN CFSM IN.	3096 99.9 190 54 .66	2722 90.7 232 45 .60	7734 249 422 129 1.65 1.91	13462 434 1510 173 2.88 3.32	5935 212 404 122 1.40 1.46	8641 279 443 157 1.85 2.13	15346 512 1170 122 3.39 3.78	5660 183 457 29 1.21 1.39	1862 62.1 140 32 .41	1615 52.1 120 28 .35 .40	2099 67.7 110 38 .45	2000 66.7 82 47 .44
STATIST	CICS OF MO	ONTHLY MEA	N DATA	FOR WATER	YEARS 1927	- 1998,	BY WATER	YEAR (WY)				
MEAN MAX (WY) MIN (WY)	98.0 378 1955 20.1 1954	168 616 1986 28.9 1954	253 816 1978 43.8 1954	310 962 1952 43.5 1961	343 883 1976 40.6 1934	441 835 1963 174 1989	356 914 1957 76.2 1946	211 569 1984 33.6 1934	122 542 1989 21.6 1934	87.8 325 1969 15.3 1933	84.1 347 1956 17.1 1933	90.8 374 1975 15.9 1933
SUMMARY	STATIST:	ICS	FOR	1997 CALE	NDAR YEAR	F	OR 1998 WA	TER YEAR		WATER YE	ARS 1927	- 1998
LOWEST HIGHEST LOWEST ANNUAL INSTANT INSTANT ANNUAL ANNUAL 10 PERC	MEAN ANNUAL MANNUAL MANNUAL MAILY MEA BEVEN-DAY ANEOUS PA	EAN EAN AN Y MINIMUM EAK FLOW EAK STAGE DW FLOW CFSM) LINCHES) EDS EDS		90620 248 1780 44 50 1.6 22.3 485 179 63			70172 192 1510 28 31 1530 5.17 28 1.27 17.29 403 123 40	Jan 10 Jul 15 May 25 Jan 10 Jan 10 Jul 15		214 318 106 3560 6.6 8.5 3320 7.67 12 1.41 19.21 516 117 34	Sep 1 Aug 2 Feb 1 Feb 1 Sep 1	1997 1934 3 1959 0 1933 1 1933 1 1936 8 1976 9 1967

e Estimated.

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OHIO

LOCATION.--Lat 41°08'08", long 81°32'50", Summit County, Hydrologic Unit 04110002, on right bank 230 ft upstream from North Portage Path bridge at Old Portage, 1.2 mi downstream from Little Cuyahoga River, and 4 mi northwest of Akron City Hall.

DRAINAGE AREA.--404 mi².

PERIOD OF RECORD.--September 1921 to December 1935, March 1939 to current year.

REVISED RECORDS.--WSP 1307: 1924 (M). WSP 1912: Drainage area. WDR OH-79-2: 1974 (M), 1976 (M).

GAGE.--Water-stage recorder. Datum of gage is 740.11 ft above sea level, unadjusted. Prior to Dec. 21, 1923, nonrecording gage at same site and datum.

REMARKS.--Records good except for periods of estimated record, which are fair. Natural flow of stream affected by diversions, storage reservoirs, and powerplants. At Lake Rockwell, 17.7 mi upstream from gage, an average of 64 ft³/s was diverted for municipal supply of city of Akron. Sewage from city enters river 2.9 mi downstream from station. Some diversion from the Tuscarawas River Basin drainage into this basin at Portage Lakes (see REMARKS for station 03117000 in volume 1 of this report). Sediment data collected at this site. Satellite telemeter at gage.

		DIS	CHARGE,	CUBIC FEET	PER SECONI	O, WATER		OBER 1997 T	O SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	242 214 212 232 226	161 146 145 150 133	407 374 371 410 330	343 295 324 469 464	394 387 359 335 305	525 535 491 482 427	339 355 424 494 425	1020 1360 1420 1620 1220	123 200 142 95 107	446 316 280 249 196	78 73 74 64 70	123 113 104 100 100
6 7 8 9 10	233 357 398 389 337	122 161 171 168 144	301 300 271 253 487	495 812 1840 2380 2280	291 261 251 237 233	382 351 423 845 993	452 251 261 637 882	1060 888 761 675 578	116 111 107 115 120	171 162 252 176 156	80 74 67 79 220	97 291 277 157 123
11 12 13 14 15	123 121 121 147 134	132 127 137 242 213	637 613 600 600 536	2240 2020 1630 1210 908	230 313 295 289 285	892 837 768 652 572	672 829 850 850 912	480 424 380 335 326	130 487 519 232 276	132 115 110 105 228	266 162 150 111 83	116 103 100 97 95
16 17 18 19 20	120 116 111 110 113	209 187 189 183 184	461 397 353 322 293	724 614 543 482 453	274 552 701 734 742	504 474 515 568 581	1730 2270 1830 1990 2110	305 271 240 221 207	309 269 221 262 227	165 166 101 89 88	88 89 87 79 73	92 93 90 92 91
21 22 23 24 25	114 107 120 127 120	177 226 224 225 237	272 344 404 428 505	400 373 509 592 570	737 672 599 525 452	734 736 718 708 761	1780 1490 1310 1060 863	188 169 160 151 149	196 168 149 140 130	108 527 480 245 183	73 76 73 523 1120	166 103 86 91 96
26 27 28 29 30 31	192 330 180 189 201 190	242 229 530 453 407	553 555 556 526 473 435	527 502 468 453 435 414	400 364 374 	918 292 237 281 366 499	1310 1660 1330 1210 1160	149 147 142 128 134 141	134 229 734 695 653	140 125 116 106 102 93	456 243 235 274 284 200	85 83 86 80 73
TOTAL MEAN MAX MIN CFSM IN.	5926 191 398 107 .47	6254 208 530 122 .52	13367 431 637 253 1.07	25769 831 2380 295 2.06 2.37	11591 414 742 230 1.02 1.07	18067 583 993 237 1.44 1.66	31736 1058 2270 251 2.62 2.92	15449 498 1620 128 1.23 1.42	7396 247 734 95 .61	5928 191 527 88 .47	5624 181 1120 64 .45	3403 113 291 73 .28
					YEARS 1922				.00	.55	. 32	.51
MEAN MAX (WY) MIN (WY)	218 1205 1927 50.8 1934	328 1307 1986 56.5 1964	475 1516 1928 48.3 1964	575 1807 1952 83.3 1961	663 1592 1976 86.1 1963	877 1416 1927 282 1931	741 1520 1940 166 1935	475 1253 1996 77.0 1934	315 1371 1989 72.4 1988	232 676 1976 50.4 1954	183 772 1992 56.9 1962	210 1150 1926 47.1 1964
	STATISTI	ICS	FOI	R 1997 CALE	NDAR YEAR	F		ATER YEAR		WATER YE	ARS 1922	- 1998
LOWEST HIGHEST LOWEST ANNUAL INSTANT INSTANT ANNUAL ANNUAL 10 PERC		EAN EAN AN Y MINIMUM EAK FLOW EAK STAGE OW FLOW CISSM) INCHES) EDS EDS		184411 505 2590 94 111 1.2 16.9 1030 390 131			150510 412 2380 64 72 3440 8.8 52 1.0 13.8 855 274 97	Aug 4 2		440 669 181 6040 24 40 6500 13.29 26 1.09 14.80 1030 268 78	Sep 2 Oct 3 Jan 2 Sep 1	1927 1934 22 1959 24 1964 30 1944 21 1959 14 1979 2 1945

04206208 YELLOW CREEK AT GHENT, OHIO

LOCATION.--Lat 41°09'29", long 81°38'32", Summit County, Hydrologic Unit 04110002, on left downstream bank at driveway bridge of Creekside Farm at 3680 Granger Road, 150 ft south of Granger Road, 0.25 mi west of Cleveland-Massillon Road, 2.9 mi northwest of Akron corporate boundary.

DRAINAGE AREA.--12.7 mi².

PERIOD OF RECORD.--October 1, 1991 to current year (station discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 908 ft above sea level, from topographic map.

REMARKS.--Records fair except for periods of estimated record and discharges less than 3.0 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MEAN VALUES DAY ОСТ AUG SEP NOV DEC JAN FEB MAR APR MAY .TITN .TITT. 3.2 6.2 6.3 7.6 13 13 19 5.3 12 3.0 4.2 3.4 2 6.0 7.5 7.5 7.0 7.4 6 0 3.2 4.1 5.0 11 12 53 2.9 4.1 3.0 6.9 3.9 5.0 10 54 4.8 2.6 4.0 11 3.8 9.0 17 6.9 13 9.3 5.6 2.8 3.8 5 3.0 3.8 6.6 12 6.5 12 8.7 42 5.2 4.5 3.0 3.1 6 7 2.8 4.6 e5.7 13 6.1 10 10 30 5.3 3.8 3.4 3.1 8.2 2.6 6.0 9.1 3.8 6.4 36 22 5.3 3.7 3.0 8.9 2.8 5.1 4.7 8 6.1 6.1 116 6.0 14 15 21 8.8 2.5 13 2.8 5.0 5.7 81 5.9 44 42 19 6.0 2.5 6.9 10 29 5.8 17 5.8 5.8 4.8 3.0 4.4 32 30 35 4.4 3.1 11 3.9 22 18 6.4 18 18 16 5.3 3.6 4.8 4.2 12 18 12 3.9 14 16 3.8 13 15 15 3.1 3.3 3.1 8.3 2.9 13 4.1 13 10 12 14 31 2.8 3.5 e13 14 3.5 9.7 e11 7.9 13 2.1 13 13 2.8 2.6 3.2 3.8 16 6.5 7.1 27 2.5 3.5 11 13 12 16 3.0 15 16 3.3 11 5.9 13 11 13 93 11 14 4.3 2.4 3.7 3.2 7.4 5.6 57 89 11 3.2 2.3 4.1 17 11 15 11 4.0 3.3 e5.8 5.7 5.6 55 9.3 7.7 2.9 18 10 5.4 5.2 19 3.5 9.3 32 18 34 8.3 6.8 3.1 2.4 3.4 6.2 43 5.6 3.0 2.0 4.0 20 8.5 26 9.1 18 3.2 5.6 5.1 7.0 21 42 25 4.9 3.7 2.1 9.5 21 e7.8 3.3 17 4.5 2.5 5.8 22 7.1 7.8 24 19 8.2 29 23 3.6 6.6 12 19 13 19 17 7.4 4.3 16 7.9 2.3 4.3 8.5 2.4 3.4 5.3 17 12 15 17 5.0 2.1 3.9 5.7 78 25 4.1 5.0 16 12 11 12 15 7.0 3.8 3.8 6.1 2.6 5.2 10 10 12 70 6.6 4.0 4.4 3.8 3.8 11 15 4.8 7.8 9.7 11 56 6.0 6.3 4.6 11 3.3 5.9 28 24 6.7 8.8 11 26 5.7 7.9 3.9 7.1 4.5 11 29 4.3 14 6.1 8.4 13 22 5.3 12 3.5 6.2 3.3 30 7.7 7.2 ---19 5.3 13 3.2 31 3.4 e6.1 8.0 ---10 5.3 3.2 4.7 175.4 TOTAL 118.9 201.9 262.3 561.6 397.6 502.1 837.2 579.9 250.8 237.5 139.0 3.84 6.73 24 8.46 18.1 116 14.2 57 16.2 44 27.9 93 18.7 112 5.66 7.66 78 MEAN 8.36 4.63 MAX 31 13 MIN 2.6 3.4 5.0 6.0 5.8 9.1 8.2 5.3 3.8 2.8 2.0 3.1 .36 .53 .45 CESM .30 .67 .77 1.43 1.65 1.12 1.28 2.20 1.47 .66 .73 .60 2.45 .35 .59 1.47 IN. 1.16 .51 .41 - 1998, BY WATER YEAR (WY) STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 MEAN 6.15 12.8 13.5 19.5 15.1 21.0 22.8 15.3 12.5 7.58 6.10 6.91 12.7 1997 30.5 1997 21.2 1997 29.7 1994 23.4 1997 24.3 1992 15.0 1992 MAX 25.3 33.9 37.5 25.8 20.0 1993 1993 1993 1996 1992 (WY) 5.48 MIN 3.31 4.63 6.68 7.89 9.42 12 9 13.6 9 09 3.62 2 04 2.21 (WY) 1992 1992 1992 1992 1995 1995 1995 1995 1994 1993 1993 1995 SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1992 - 1998 ANNUAL TOTAL 4958.6 4264.2 ANNUAL MEAN 13.6 11.7 13.2 HIGHEST ANNUAL MEAN LOWEST ANNUAL MEAN 17.0 1997 8.48 1995 HIGHEST DAILY MEAN 182 Jun 1 116 Jan 8 182 Jun 1 1997 LOWEST DAILY MEAN ANNUAL SEVEN-DAY MINIMUM 2.4 Jul 31 2.0 Aug 20 1.1 Aug 31 1993 2.3 Aug 17 1.3 Aug 26 1993 Aug INSTANTANEOUS PEAK FLOW INSTANTANEOUS PEAK STAGE 164 May 4a 243 Apr 12 1994 12.50 8 12.94 Apr 12 1994 Jan 1.9 INSTANTANEOUS LOW FLOW Aug .02 Aug 31 1993 1 07 1 04 ANNUAL RUNOFF (CFSM) 92 ANNUAL RUNOFF (INCHES) 12.49 14.52 14.17 10 PERCENT EXCEEDS 50 PERCENT EXCEEDS 26 26 22 6.9 8.5 11 90 PERCENT EXCEEDS 3.2 2.9 3.1

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04206210 NORTH FORK AT BATH, OHIO

LOCATION.--Lat 41°11'20", long 81°39'12", Summit County, Hydrologic Unit 04110002, on right upstream bank at triple barrel culvert under Ira Road, 0.9 mi west of Cleveland-Massillon Road, 4.7 mi northwest of Akron corporate boundary.

DRAINAGE AREA.--2.81 mi².

PERIOD OF RECORD.--October 1, 1991, to current year (station discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 996 ft above sea level, from topographic map.

REMARKS.--Records fair except for periods of estimated record and discharges less than 6.0 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	e.47 e.35 e.32 e.35 e.44	.39 .73 .44 .48	1.7 1.3 1.3 4.0 1.9	1.1 1.8 3.6 11 4.3	e2.1 e2.1 e1.9 e1.9 e1.7	e6.3 e3.5 e3.1 e4.4 e3.6	e4.4 e3.1 e2.6 e2.5 e2.2	4.5 17 8.0 19 7.1	.24 .20 .22 .19	1.7 .44 .31 .29 .28	.11 .10 .10 .10	.13 .15 .19 .20
6 7 8 9 10	e.45 e.58 e.56 e.48 e.52	.39 .62 .78 .49	1.5 1.6 1.6 1.7	4.8 47 e51 e28 e5.5	e1.6 e1.5 e1.5 e1.5 e1.4	e2.8 e2.6 e8.8 e29 e12	e2.2 e2.1 e4.5 e30 e16	4.2 3.2 3.4 2.5 1.9	.22 .25 .18 .16 .45	.25 .22 2.5 .44 .28	.24 .12 .09 .12 5.2	.28 3.2 12 1.8 .45
11 12 13 14 15	e.51 e.50 e.52 e.72 e.47	.41 .37 .36 2.6 2.3	4.3 2.7 1.9	e3.4 e2.8 e2.9 e2.3 e2.9	e3.5 e2.2 e1.8	e5.7 e4.6 e3.9 e3.7 e3.6	e6.5 e5.0 e4.2 e13 e10	1.8 1.6 1.5 1.2	.27 5.7 5.5 .93 5.5	.19 .16 .16 .16 .61	.62 .23 .15 .13	.31 .26 .20 .19
16 17 18 19 20	e.48 e.48 e.48 e.57 e.57	1.7 1.3 .73 .70	1.8 1.8 1.5 1.6	e3.0 e2.4 e2.2 e2.1 e2.0	e1.8 e32 e20 e14 e12	e3.9 e5.4 e7.7 e5.0 e11	e46 39 5.7 10 11	.77 .57 .47 .43	3.3 1.1 .41 1.5 .39	.67 .24 .15 .14	.12 .11 .11 .09	.24 .29 .25 .29
21 22 23 24 25	e.54 e.53 e.54 e.53 e.97	1.1 1.9 1.3 .67	1.4 5.1 6.5 3.7	e1.8 e1.8 e8.8 e4.3 e2.9	e8.6 e6.0 e5.2 e3.8 e2.8	e21 e6.2 e4.0 e3.5 e2.9	4.5 3.0 2.4 1.9	.34 .32 .31 .30	.28 .26 .26 .24 .21	.50 18 6.6 .97 .36	.10 .11 .10 1.3	.73 .25 .17 .18
26 27 28 29 30 31	e2.5 5.5 1.0 .48 .42 .39	.50 .53 12 4.8 2.4	4.9 2.9 2.0 1.7 1.6	e2.6 e2.5 e2.4 e2.5 e2.2	e2.6 e2.7 e2.9 	e3.3 e2.8 e3.2 e4.3 e3.0 e2.6	29 9.2 4.2 3.0 3.1	.33 .29 .27 .28 .25	.26 4.3 5.6 2.8 3.5	.29 .24 .19 .16 .16	2.2 .41 .28 .32 .28	.29 .36 .52 .53
TOTAL MEAN MAX MIN CFSM IN.	.75 5.5 .32 .27	42.68 1.42 12 .36 .51	111.2 3.59 25 1.3 1.28 1.47	218.5 7.05 51 1.1 2.51 2.89	142.3 5.08 32 1.4 1.81 1.88	187.4 6.05 29 2.6 2.15 2.48	281.9 9.40 46 1.6 3.34 3.73	83.91 2.71 19 .24 .96 1.11	44.60 1.49 5.7 .16 .53	36.93 1.19 18 .12 .42 .49	31.42 1.01 18 .08 .36 .42	25.10 .84 12 .13 .30 .33
MEAN MAX (WY) MIN (WY)	1.58 4.60 1997 .34 1995	4.03 7.87 1994 .56 1995	4.34 13.3 1997 1.04 1996	7.42 12.5 1993 2.31 1992	5.64 8.92 1996 3.11 1995	6.72 13.0 1993 4.07 1992	6.69 10.5 1994 3.72 1997	3.54 8.28 1997 1.01 1992	3.00 8.46 1997 .38 1992	2.15 9.23 1992 .40 1996	1.35 3.84 1992 .25 1993	1.50 3.47 1992 .33 1994
ANNUAL HIGHES' LOWEST HIGHES' LOWEST ANNUAL INSTAN' INSTAN' INSTAN' ANNUAL ANNUAL 10 PER(50 PER(MEAN F ANNUAL ANNUAL F DAILY DAILY SEVEN-DA FANEOUS F	MEAN IEAN IEAN IAN IY MINIMUM IEAK FLOW IEAK STAGE IOW FLOW CFSM) INCHES) IEDS		FOR 1997 CALENDAR YEAR 1576.78 4.32 92 Jun 1 .18 Aug 9 .22 Jul 28 1.54 20.87 9.9 1.7 .32			FOR 1998 WATER YEAR 1229.16 3.37 51 Jan 8 .08 Aug 20 .10 Aug 17 204 Apr 17a 13.29 Jan 8 .05 Aug 8 1.20 16.27 7.3 1.5 .19			3.9 5.8 2.4 156	0 Jan Jul Jul Jul Jul Jul Jul 2 8 8	1997 1995 28 1994 4 1992

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04206211 PARK CREEK AT BATH CENTER, OHIO

LOCATION.--Lat 41°10'44", long 81°38'09", Summit County, Hydrologic Unit 04110002, on upstream left bank at culvert under the entrance of the Bath Community Center, 200 ft east of Cleveland-Massillon Road, 0.7 mi north of Bath Road, 3.7 mi northwest of Akron corporate boundary.

DRAINAGE AREA.--0.826 mi².

PERIOD OF RECORD.--October 1, 1991, to current year (station discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 980 ft above sea level, from topographic map.

REMARKS.--Records poor.

		DISCH	ARGE, CUE	BIC FEET F		WATER Y MEAN	YEAR OCTOBE	R 1997 T	O SEPTEME	BER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	.07 .06 .05 .05	.07 .09 .07 .07	.46 .30 .44 1.2 .78	e.14 .39 .56 2.1 .70	e.50 .56 .55 .55	2.1 1.5 1.5 1.7	1.9 1.4 1.3 1.3	2.4 7.8 4.2 7.1 2.1	.22 .22 .14 .14	.70 .36 .22 .22	.41 .39 .24 .22	.16 .14 .14 .10
6 7 8 9 10	.10 .08 .07 .07	.05 .13 .23 .13	e.45 e.50 .61 .51	.87 6.9 12 8.1 2.0	e.43 e.41 e.39 e.38 .40	1.4 1.2 2.4 6.4 3.3	1.2 1.2 2.1 5.7 3.3	1.4 1.2 1.1 .94 .65	.14 .14 .14 .11	.14 .14 1.5 .48 .36	.22 .17 .14 .14	.08 .95 3.2 1.2
11 12 13 14 15	.06 .05 .05 .05	.07 .07 .07 .70 .57	1.6 .61 .36 .30	1.3 1.1 1.1 e1.0 1.3	.41 1.0 .47 .38	2.2 e1.8 e1.5 1.4 e1.3	1.4 1.1 1.1 3.6 2.6	.56 .55 .46 .44	.10 2.2 1.5 .52	.24 .15 .12 .10	.42 .37 .34 .31	.79 .83 .60 .55
16 17 18 19 20	.05 .03 .03 .03	.43 e.30 e.28 .26	.27 .27 e.20 .15 .14	1.2 1.1 1.1 1.1	.48 7.7 3.9 2.9 2.6	e1.3 1.7 2.3 1.7 3.3	12 7.5 2.5 3.6 2.9	.39 .36 .34 .34	1.2 .53 .39 .63	.30 .18 .16 .29	.18 .14 .14 .10	.57 .57 .48 .42 .43
21 22 23 24 25	.02 .02 .01 .01	.24 .44 .28 .22 e.21	.14 .77 .87 .61 1.6	e.74 .78 2.9 1.3 .92	2.0 1.7 1.6 1.4	5.2 2.6 1.8 1.5	1.7 1.5 1.3 1.2	.34 .34 .34 .34	.31 .16 .19 .14	.88 4.2 1.7 .84 .71	.08 .07 .07 .67 5.2	.79 .56 .42 .35
26 27 28 29 30 31	.71 1.3 .33 .14 .10	.21 .13 2.7 1.2 .98	.82 .43 .24 .14 e.14	.85 .86 .76 .75 .75	1.2 1.3 1.4 	1.4 1.3 1.5 1.7 1.4	9.5 3.1 1.4 1.1	.22 .22 .22 .22 .22 .22	.18 1.1 1.4 1.0 1.2	.62 .55 .49 .45 .45	.72 .38 .31 .28 .25	.37 .33 .28 .28
TOTAL MEAN MAX MIN CFSM IN.	3.86 .12 1.3 .01 .15	10.65 .35 2.7 .05 .43	20.74 .67 5.4 .14 .81 .93	56.32 1.82 12 .14 2.19 2.52	36.79 1.31 7.7 .34 1.58 1.65	62.6 2.02 6.4 1.2 2.43 2.81				17.69 .57 4.2 .10 .69	13.24 .43 5.2 .07 .51	16.88 .56 3.2 .08 .68
STATIST	TICS OF M	ONTHLY ME.	AN DATA F	OR WATER	YEARS 1992	- 1998	, BY WATER	YEAR (WY)			
MEAN MAX (WY) MIN (WY)	.34 1.39 1997 .012 1995	1.14 3.46 1993 .038 1995	1.39 3.95 1993 .21 1992	2.16 3.45 1993 1.20 1992	1.25 2.44 1997 .43 1993	1.87 3.06 1993 .83 1994	1.92 2.73 1998 1.26 1995	1.12 2.41 1997 .31 1993	.92 2.30 1997 .12 1992	.65 2.84 1992 .004 1996	.40 .86 1994 .000 1993	.48 1.09 1992 .030 1993
SUMMARY	STATIST	'ICS	FOR	1997 CALE	NDAR YEAR		FOR 1998 WA	TER YEAR		WATER Y	EARS 1992	- 1998
LOWEST HIGHEST LOWEST ANNUAL INSTANT INSTANT INSTANT ANNUAL ANNUAL 10 PERC	MEAN ANNUAL ANNUAL DAILY DAILY SEVEN-DA TANEOUS E	EAN EAN EAN Y MINIMUM EAK FLOW EAK STAGE OW FLOW CFSM) INCHES) EEDS		450.1 1.2 38 .0 .0	Jun 1 1 Aug 7 1 Aug 6		373.10 1.02 12 .01 .02 37 12.20 .01 1.23 16.72 2.2 .46	Jan 8 Oct 23 Oct 19 Jan 8 Jan 8 Oct 22	a	1.1 1.7 .6 38 .0 .0 162 15.1 .0 1.3 18.5 2.6 .3	4 6 Jun 0 Jul 0 Jul Dec 8 Dec 0 Aug 7 8	1997 1995 1 1997 17 1993 17 1993 30 1992 30 1992 21 1993

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04206212 NORTH FORK AT BATH CENTER, OHIO

LOCATION.--Lat 41°10'08", long 81°38'04", Summit County, Hydrologic Unit 04110002, on left upstream side of bridge on Bath Road, 750 ft east of Cleveland-Massillon Road at Bath Center, 3.1 mi northwest of Akron corporate boundary. DRAINAGE AREA.--5.58 mi². PERIOD OF RECORD.--October 1, 1991, to current year. GAGE.--Water-stage recorder. Elevation of gage is 936 ft above sea level, from topographic map. REMARKS.--Records fair except for periods of estimated record and discharges of less than 5 ft²/s, which are poor.

DISCHARGE,	CUBIC FEET				OBER 1997	TO SEPTE	MBER 1998		
NOV DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
.0 1.7	2.5	2.4 2.2 2.2 2.2 2.2	10 5.3 5.0 7.8 5.8	8.3 4.9 3.8 3.8 3.5	11 42 21 45 15	.75 .78 .88 .86	2.5 1.2 .91 .73	.48 .41 .40 .31	.39 .40 .39 .39
95 2 2	5.8	2.1	3.9	3.2 9.9	8.4 7.9	.90 .75 .73 .70	.49 .55 5.2 1.2		
		2.1 7.8 3.6 2.4 2.2	11 8.7 7.2 7.2 6.9	9.6 6.7 5.0 20 16	3.8	11	.59 .52 .46 .39	.56	.74
			7.3 10 14 10 18	87 69 14 21 23	2.2 2.0 1.8 1.5 1.5		1.6 .86 1.1 .75 .48	.39 .36 .33 .31	.56 .63 .53 .50
.3 1.8 .7 6.5 .7 9.2 .2 4.8 .84 15	2.7 2.5 18 9.4 5.1	9.5 6.5 4.9 4.0 3.5	33 12 8.4 6.3 4.9	11 8.6 6.9 5.3 4.4	1.3 1.3 1.3	.65	2.7 32 12 1.9 1.2	.30 .30 .30 3.5	1.9 .72 .52 .50
.1 7.6 .0 4.1 .3.1 .3 2.6 .4 2.2	4.0 4.0 3.8 3.5 3.7 3.2	3.2 3.5 3.8 	5.7 4.3 5.2 8.0 4.7 4.0	62 21 9.9 7.7 7.4	1.3 1.3 1.3 1.3 1.0	.51 6.6 8.3 4.7 4.7	.61 .61	4.3 1.2 .62 .66 .54	.50 .50 .44 .43 .41
.24 156.0 .07 5.03 16 33 .61 1.7 .37 .90	364.6 11.8 85 1.8 2.11	193.1 6.90 57	315.9 10.2 43	525.1	210.85 6.80 45	2.72 11 .50	2.42	1.95 33	48.08 1.60 22 .35 .29
LY MEAN DATA	FOR WATER	YEARS 1992	- 1998,	BY WATER	YEAR (WY)				
5.3 18.3 993 1997	17.4 1993	8.49 12.6 1996 4.16 1993	12.0 22.3 1993 7.16 1995	12.3 17.5 1998 7.84 1997	6.13 12.3 1997 3.05 1993	5.27 11.7 1997 1.57 1992	4.13 16.9 1992 .73 1996	2.48 6.94 1992 .27 1993	3.08 7.21 1992 1.24 1995
FO	R 1997 CALE	NDAR YEAR	F	OR 1998 W	ATER YEAR		WATER YE	ARS 1992	- 1998
NIMUM FLOW STAGE LOW (ES)	6.4 159 .3 .4 1.1 15.7 13 3.1	Jun 1 8 Aug 8 0 Aug 6		5.8 87 .2 .3 257 11.8 .2 1.0 14.2 1.3 2.2	Apr 16 7 Aug 20 1 Aug 17 Apr 17a 5 Apr 17 0 Aug 4 5		8.97 4.58 190 .07 .10 885 12.93 .01 1.26 17.08	Jan Jul Jul Jul Jul Jul Jul	1993 1995 28 1994 3 1992 7 1993 30 1992 30 1992 27 1997
	NOV DEC 162 2.3 1.0 1.75 1.8 1.75 5.9 1.67 2.9 1.67 2.2 1.3 2.2 1.74 33 1.8 1.9 1.2 1.2 1.2 1.2 1.2 1.3 1.8 1.7 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	NOV DEC JAN .62 2.3 1.8 .0 1.7 2.5 .75 1.8 4.9 .75 5.9 16 .67 2.9 6.7 .61 2.1 7.6 .95 2.2 58 .3 2.2 85 .76 2.2 58 .3 15 .68 14 8.6 .63 6.6 5.8 .84 3.8 5.6 .9 2.9 3.9 .3 2.2 5.6 .5 2.3 5.7 .6 2.5 3.9 .2 2.9 3.9 .3 2.2 5.6 .5 2.3 5.7 .6 2.5 3.9 .2 2.9 3.9 .3 2.1 3.3 .6 2.1 3.2 .3 1.8 2.7 .7 6.5 2.5 .3 2.1 3.3 .6 2.1 3.2 .3 1.8 2.7 .7 6.5 2.5 .7 9.2 18 .2 4.8 9.4 .84 15 5.1 .1 7.6 4.0 .0 4.1 4.0 .0 4.1 4.0 .1 3.1 3.8 .3 2.6 3.5 .4 2.2 3.7 2.1 3.2 .24 156.0 364.6 .07 5.03 11.8 .3 2.6 3.5 .4 2.2 3.7 2.1 3.2 .24 156.0 364.6 .07 5.03 11.8 .3 2.6 3.5 .4 2.2 3.7 2.1 3.2 .24 156.0 364.6 .3 3.5 .4 2.2 3.7 .4 1.0 4 2.43 .4 2.2 3.7 .4 1.0 4 2.43 .5 11.4 1.0 4 2.43 .5 1997 1993 .14 1.97 3.76 .995 1992 1992 FOR 1997 CALE 2360.3 .6.4 159 NIMUM PLOW STAGE COW 1 1.1 .3 3.1 .3 15.7 .3 3.1	NOV DEC JAN FEB 1.62 2.3 1.8 2.4 1.0 1.7 2.5 2.2 1.75 1.8 4.9 2.2 1.75 5.9 16 2.2 1.67 2.9 6.7 2.2 1.61 2.1 7.6 2.0 1.95 2.2 58 2.1 1.3 2.2 85 2.1 1.4 8.6 2.1 1.63 6.6 5.8 7.8 1.84 3.8 5.6 3.6 1.9 2.9 3.9 2.4 1.3 2.2 5.6 2.2 1.5 2.3 5.7 2.9 1.6 2.2 3.6 3.6 1.9 2.9 3.9 5.7 1.0 2.9 3.9 5.7 1.0 2.9 3.9 5.7 1.0 2.2 3.6 2.6 1.1 3.2 13 1.1 8 2.7 9.5 1.2 2.2 3.6 26 1.3 2.1 3.3 16 1.6 2.1 3.2 13 1.8 2.7 9.5 1.7 6.5 2.5 6.5 1.7 9.2 18 4.9 1.8 4.9 1.8 4.9 1.1 7.6 4.0 3.2 1.8 4.9 1.1 7.6 4.0 3.2 1.1 3.3 1.8 3.8 1.1 3.8 3.8 1.8	NOV DEC JAN FEB MAR 1.62 2.3 1.8 2.4 10 1.7 2.5 2.2 5.3 1.8 4.9 2.2 5.0 1.5 1.8 4.9 2.2 5.0 1.5 5.9 16 2.2 7.8 1.67 2.9 6.7 2.2 5.8 1.61 2.1 7.6 2.0 4.3 1.95 2.2 58 2.1 3.9 1.3 2.2 85 2.1 3.9 1.3 2.2 85 2.1 13 1.62 2.2 58 1.9 43 1.74 33 15 1.9 21 1.68 14 8.6 2.1 11 1.63 6.6 5.8 7.8 8.7 1.84 3.8 5.6 3.6 7.2 1.9 2.9 3.9 2.4 7.2 1.3 2.2 5.6 2.2 6.9 1.3 2.2 5.6 2.2 6.9 1.5 2.3 5.7 2.9 7.3 1.8 2.9 3.9 2.4 7.2 1.3 2.2 5.6 2.2 6.9 1.5 2.3 5.7 2.9 7.3 1.6 2.2 3.6 26 14 1.3 2.1 3.3 16 10 1.6 2.1 3.2 13 18 1.8 2.7 9.5 33 1.8 2.7 9.5 33 1.8 2.7 9.5 33 1.8 2.7 9.5 4.9 1.1 7.6 4.0 3.2 5.7 1.9 2 18 4.9 8.4 1.5 5.1 3.5 4.9 1.1 7.6 4.0 3.2 5.7 1.0 4.1 4.0 3.5 4.3 1.3 1.8 8.9 4 4.0 6.3 1.3 1.8 8.5 5.1 3.5 4.9 1.1 7.6 4.0 3.2 5.7 1.2 1.3 3.1 3.5 4.9 1.1 7.6 4.0 3.2 5.7 1.0 4.1 4.0 3.5 4.3 1.3 1.8 8.5 5.1 3.5 4.9 1.1 7.6 4.0 3.2 5.7 1.0 4.1 4.0 3.5 4.3 1.3 1.8 8.8 5.2 1.1 1.2 8.49 1.2 4.8 9.4 4.0 1.1 7.6 4.0 3.2 5.7 1.0 4.1 4.0 3.5 4.3 1.1 8.3 1.8 1.9 3.9 1.1 7.6 4.0 3.2 5.7 1.1 3.8 3.8 3.8 5.2 1.1 3.8 3.8 5.2 1.1 3.8 3.8 5.2 1.1 3.8 3.8 3.8 3.8 5.2 1.1 3.8 3.8 3.8 3.8 5.2 1.1 3.8 3.8 3.8 3.8 5.2 1.1 3.8 3.8 3.8 3.8 5.2 1.1 3.8 3.8 3.8 3.8 5.2 1.1 3.8 3.8 3.8 3.8 5.2 1.1 3.8 3.8 3.8 3.8 5.2 1.1 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8	NOV DEC JAN FEB MAR APR 1.62 2.3 1.8 2.4 10 8.3 1.75 1.8 4.9 2.2 5.3 4.9 1.75 1.8 4.9 2.2 5.3 3.8 1.67 2.9 6.7 2.2 5.8 3.5 1.61 2.1 7.6 2.0 4.3 3.2 1.95 2.2 58 2.1 3.9 3.2 1.95 2.2 58 2.1 13 9.9 1.62 2.2 58 1.9 43 44 1.04 33 15 1.9 21 25 1.68 14 8.6 2.1 11 9.6 1.63 6.6 5.8 7.8 8.7 6.7 1.9 2.9 3.9 2.4 7.2 20 1.3 2.2 5.6 2.2 6.9 16 1.5 2.3 5.7 2.9 7.3 87 1.6 2.5 3.9 5.7 10 69 1.6 2.1 3.2 13 18 23 1.8 2.7 9.5 33 11 1.6 2.1 3.2 13 18 23 1.8 2.7 9.5 33 11 1.7 6.5 2.1 3.2 13 18 23 1.8 2.7 9.5 33 11 1.7 6.6 2.1 3.2 13 18 23 1.8 2.7 9.5 33 11 1.7 6.6 5.2 5.5 6.5 12 8.6 1.7 9.2 18 4.9 8.4 6.9 1.1 7.6 4.0 3.2 5.7 6.2 1.1 7.6 4.0 3.5 4.3 21 3.1 3.8 3.8 5.5 7.4 9 8.4 1.1 7.6 4.0 3.5 4.3 21 3.1 3.8 3.8 5.2 9.9 1.4 2.2 3.7 4.7 7.4 1.7 1.8 1.9 3.9 3.2 1.8 2.7 9.5 33 11 1.7 6.5 2.3 3.7 4.7 7.4 1.9 2.1 1.8 4.9 8.4 6.9 1.1 7.6 4.0 3.2 5.7 6.2 1.1 3.2 13 3.8 3.8 5.2 9.9 1.3 2.6 3.5 8.0 7.7 1.4 2.2 3.7 4.7 7.4 1.7 1.8 1.9 3.9 3.2 1.8 2.7 9.5 33 11 1.7 6.5 2.3 3.7 4.7 7.4 1.9 2.1 3.2 13 18 5.9 525.1 1.1 7.6 4.0 3.2 5.7 62 1.1 8 1.9 3.9 3.2 1.1 1.0 4.2 43 1.2 9.2 11 3.50 1.1 1.1 1.2 1.2 1.8 3.3 1.4 1.2 1.3 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	NOV DEC JAN FEB MAR APR MAY 6.2 2.3 1.8 2.4 10 8.3 11 1.7 2.5 2.2 5.3 4.9 42 7.5 1.8 4.9 2.2 5.0 3.8 21 7.5 5.9 16 2.2 7.8 3.8 45 6.67 2.9 6.7 2.2 5.8 3.5 15 6.61 2.1 7.6 2.0 4.3 3.2 9.7 9.5 2.2 58 2.1 3.9 3.2 8.4 3. 2.2 85 2.1 3.9 9.9 7.9 9.5 2.2 58 1.9 43 44 5.8 7.6 2.2 58 1.9 43 44 5.8 7.6 2.2 58 1.9 43 44 5.8 7.7 33 15 1.9 21 25 4.5 6.8 14 8.6 2.1 11 9.6 4.0 6.63 6.6 5.8 7.8 8.7 6.7 3.8 8.4 3.8 5.6 3.6 7.2 5.0 3.6 9.9 2.9 3.9 2.4 7.2 20 3.2 3. 3.2 2.5 6.2 2.6 9.16 3.1 2.2 5.6 2.2 6.9 16 3.1 2.1 3.3 16 6.2 2.3 5.7 2.9 7.3 87 2.2 6.6 2.5 3.9 57 10 69 2.0 3.2 2.3 3.6 26 14 14 18.8 3.6 2.1 3.3 18 23 1.5 6.6 2.1 3.3 18 23 1.5 6.6 2.1 3.3 18 23 1.5 6.7 6.9 2.0 4.3 3.2 1.5 6.8 1.4 8.6 8.7 8.8 7.8 8.7 6.7 1.8 8.7 6.7 1.8 8.8 7.8 8.7 1.8 8.8 7 6.7 1.0 6.9 1.0 8.8 1.4 1.8 1.8 1.9 1.9 8.8 1.9 1.9 1.8 1.9 1.9 8.8 1.9 1.9 1.0 1.9 1.9 8.8 1.9 1.9 1.0 1.9 1.9 8.8 1.9 1.9 1.0 1.9 1.9 8.9 1.9 1.0 1.9 1.9 8.9 1.9 1.9 1.9 1.9 8.9 1.9 1.0 1.8 8.9 1.9 1.9 1.9 8.9 1.9 1.9 1.9 8.9 1.9 1.9 1.9 8.9 1.9 1.0 1.8 8.9 1.9 1.0 1.8 8.9 1.9 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.9 1.0 1.0 1.8 8.0 1.0 1.0 1.8 8.0 1.0 1.0 1.8 8.0 1.0 1.0 1.0 8.0 1.0 1.0 1.0 8.0 1.0 1.0 1.0 8.0 1.0 1.0	NOV DEC JAN FEB MAR APR MAY JUN 1.62 2.3 1.8 2.4 10 8.3 11 .75 1.0 1.7 2.5 2.2 5.3 4.9 42 7.8 1.5 5.9 16 2.2 7.8 3.8 21 88 1.67 2.9 6.7 2.2 5.8 3.5 15 75 1.61 2.1 7.6 2.0 4.3 3.2 9.7 9.0 1.52 2.2 58 2.1 3.9 3.2 8.4 7.5 1.62 2.2 58 2.1 3.9 9.9 7.9 7.9 1.63 2.2 58 2.1 3.9 9.9 7.9 7.9 1.64 3.3 15 1.9 21 25 4.5 9.7 1.65 1.8 8.6 2.1 13 9.9 7.9 7.9 7.7 1.68 14 8.6 2.1 13 9.9 7.9 7.9 7.7 1.68 14 8.6 2.1 13 9.9 7.9 7.9 7.7 1.68 14 8.6 2.1 13 9.9 7.9 7.9 7.7 1.68 14 8.6 2.1 13 9.9 7.9 7.9 7.7 1.69 2.9 3.9 2.4 7.2 20 3.6 11 1.60 3.6 5.8 7.8 8.7 6.7 3.8 11 1.61 3.1 8.6 7.2 5.0 3.6 11 1.62 2.9 3.9 2.4 7.2 20 3.2 11 3.3 2.2 2 5.6 2.2 6.9 16 3.1 8.6 1.5 2.3 5.7 2.9 7.3 87 2.2 5.6 2.2 2.3 5.7 2.9 7.3 87 2.2 5.6 2.2 2.3 5.7 2.9 7.3 87 2.2 5.6 2.2 2.3 3.9 5.7 10 69 2.0 1.9 2.2 2.2 3.6 6.5 12 8.6 1.3 1.6 2.1 3.3 1.8 2.7 9.5 33 11 1.4 1.8 1.4 1.8 1.4 1.8 1.4 1.8 1.4 1.8 1.4 1.8 1.7 1.3 1.3 1.5 1.9 2.1 1.3 1.3 1.5 1.9 2.1 1.3 1.3 1.5 1.9 2.1 1.3 1.3 1.5 1.9 2.1 1.3 1.3 1.5 1.9 2.1 1.3 1.3 1.5 1.9 2.2 3.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	NOV DEC JAN FEB MAR APR MAY JUN JUL 1.62 2.3 1.8 2.4 10 8.3 11 .75 2.5 1.0 1.7 2.5 2.2 5.3 4.9 42 .78 1.2 1.75 1.8 4.9 2.2 5.0 3.8 21 88 .91 1.67 2.9 16 2.2 7.8 3.8 45 .86 .73 1.67 2.9 16 2.2 7.8 3.8 45 .86 .73 1.67 2.9 6.7 2.2 5.8 3.5 15 .75 .64 1.61 2.1 7.6 2.0 4.3 3.2 9.7 .90 49 1.95 2.2 58 2.1 3.9 9.9 7.9 7.3 5.2 1.3 2.2 88 2.1 13 9.9 7.9 7.9 7.3 5.2 1.4 33 15 1.9 21 25 4.5 9.7 1.2 1.74 33 15 1.9 21 25 4.5 9.7 1.2 1.74 33 15 1.9 21 25 4.5 9.2 89 1.8 4 3.8 5.6 3.6 7.2 5.0 3.6 11 4.6 1.63 6.6 5.8 7.8 8.7 6.7 3.8 11 .52 1.8 8.4 3.8 5.6 3.6 7.2 5.0 3.6 11 4.6 1.9 2.9 3.9 2.4 7.2 20 3.2 11.7 3.9 1.3 2.2 5.6 2.2 6.9 16 3.1 8.6 7.5 1.5 2.3 5.7 2.9 7.3 87 2.2 5.6 1.6 1.2 2.1 3.3 8.7 7.2 9 7.3 87 2.2 5.6 1.6 1.3 1.8 2.7 9.5 10 41 1.5 2.4 1.5 1.5 1.5 2.3 5.7 2.9 7.3 87 2.2 5.6 1.6 1.3 1.8 2.7 9.5 33 11 1.4 7.8 2.7 1.7 6.5 2.5 2.5 6.5 12 8.6 1.3 6.9 1.9 1.8 1.3 1.8 2.7 9.5 12 8.6 1.3 6.9 1.3 6.6 1.3 1.8 2.7 9.5 12 8.6 1.3 1.1 1.4 7.8 2.7 1.7 9.2 18 4.9 4.0 6.3 5.3 1.3 1.5 1.3 6.6 1.2 1.7 7.6 4.0 3.2 5.7 4.9 1.3 1.3 1.5 1.3 6.6 1.2 1.7 7.6 4.0 3.2 5.7 4.9 1.3 6.9 1.3 6.6 1.2 1.7 7.6 4.0 3.2 5.7 6.9 1.0 6.9 1.3 6.6 1.2 1.0 4.1 4.0 3.5 4.9 4.4 1.4 1.8 1.5 2.4 7.5 1.0 4.1 4.0 3.5 5.7 4.9 4.4 1.4 1.5 5.0 1.9 1.4 4.0 3.5 5.7 4.9 4.4 1.4 1.5 5.0 1.9 1.0 4.1 4.0 3.5 5.7 4.9 4.4 1.4 1.5 5.0 1.9 1.0 4.1 4.0 3.5 5.7 4.9 1.3 6.6 6.6 1.3 1.3 6.6 6.6 1.3 3.3 8.5 5.7 4.9 4.4 1.4 1.5 5.0 1.9 1.0 4.1 4.0 3.5 5.7 4.9 1.9 8.8 6.9 1.3 6.6 6.6 1.3 3.1 8.6 6.7 5.9 1.9 1.0 4.1 4.0 3.5 5.4 3.9 1.1 3.5 0.1 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1	NOT DEC JAN FEB MAR APR MAY JUN JUL AUG

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations. e Estimated.

04206215 BATH CREEK AT BATH CENTER, OHIO

LOCATION.--Lat 41°10'09", long 81°38'56", Summit County, Hydrologic Unit 04110002, on upstream left bank at bridge on Bath Road, 0.2 mi downstream from Steriner Pond, 0.6 mi west of Cleveland-Massillon Road, and 3.6 mi northwest of Akron corporate boundary.

DRAINAGE AREA.--3.52 mi².

PERIOD OF RECORD.--October 1, 1991, to current year (station discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 961 ft above sea level, from topographic map.

REMARKS.--Records good except for periods of estimated record and discharges less than 6.0 ft³/s, which are poor.

		DISCH	ARGE, CUB	IC FEET I	PER SECOND, DAIL	WATER Y		BER 1997 TO) SEPTEME	BER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	.46 .32 .34 .45	.50 .60 .59 .57	2.1 1.4 1.1 4.0 2.6	2.7 1.9 3.3 10 5.5	2.1 2.0 1.8 1.6 1.3	5.5 3.8 3.1 4.7 3.8	4.8 3.4 2.4 1.9 1.6	4.1 25 14 37 14	.49 .49 .50 .45	1.9 .56 .40 .40	.32 .21 .25 .27	.32 .32 .38 .36
6 7 8 9 10	.40 .40 .40 .40	.50 .58 .72 .67	1.9 2.2 2.0 2.0	5.2 22 59 36 12	1.2 1.1 1.1 .84	2.8 2.4 6.0 23 13	1.2 .82 4.2 25 17	6.7 5.3 4.8 3.6 2.7	.67 .50 .44 .42	.40 .35 2.0 1.4 .44	.40 .39 .32 .40	.32 .85 6.4 6.2 1.2
11 12 13 14 15	.52 .56 .51 .59	.60 .60 .54 2.4 4.4	11 5.4 3.5 2.6 2.0	6.1 4.9 4.5 3.2 3.8	1.2 5.0 3.2 2.2 1.8	6.6 5.2 4.5 4.5 4.2	6.1 3.9 2.7 8.4	2.4 2.2 1.8 1.2	.55 2.8 4.1 1.4 .94	.39 .32 .32 .36 .43	.86 .29 .05 .05	.47 .37 .72 .91
16 17 18 19 20	.69 .70 .70 .71 .69	3.7 2.6 2.1 2.0 2.1	2.1 2.1 1.7 1.8 1.9	4.4 3.4 2.9 2.7 2.5	1.9 31 22 11 8.3	4.6 6.3 8.9 6.1 7.7	50 39 10 10	.71 .65 .60 .59	.96 .74 .56 .66	.56 .43 .10 .16	.15 .18 .26 .31	.36 .40 .37 .32
21 22 23 24 25	.66 .60 .60 .60	1.9 2.7 2.6 1.9	1.6 3.3 6.6 4.1 9.2	2.0 2.0 9.9 6.8 4.6	6.1 5.0 4.1 3.4 2.8	18 7.4 4.9 3.4 2.7	6.0 4.6 3.5 2.7 2.0	.51 .49 .48 .50	.50 .50 .50 .62	.41 9.8 5.3 1.5	.05 .17 .15 .82	.46 .38 .29 .05
26 27 28 29 30 31	1.0 3.4 .96 .58 .49	1.8 1.6 8.3 5.5 2.9	5.5 3.5 2.3 2.0 1.9	3.6 3.2 3.0 2.8 2.8 2.5	2.4 2.7 2.5 	2.7 2.4 2.2 4.3 2.8 2.7	30 16 5.7 4.2 3.9	.51 .43 .40 .52 .55	.55 .81 1.9 2.1 1.1	.38 .32 .32 .31 .32	8.4 1.5 .45 .40 .36	.30 .38 .39 .32 .38
TOTAL MEAN MAX MIN CFSM IN.	20.54 .66 3.4 .32 .19 .22	57.71 1.92 8.3 .50 .55 .61	111.1 3.58 16 1.1 1.02 1.17	239.2 7.72 59 1.9 2.19 2.53	130.48 4.66 31 .84 1.32 1.38 YEARS 1992	180.2 5.81 23 2.2 1.65 1.90	296.02 9.87 50 .82 2.80 3.13	134.26 4.33 37 .40 1.23 1.42	29.85 1.00 4.1 .42 .28 .32	31.22 1.01 9.8 .10 .29	24.88 .80 8.4 .05 .23 .26	24.47 .82 6.4 .05 .23 .26
MEAN MAX (WY) MIN (WY)	1.29 4.39 1997 .41 1992	4.38 8.75 1993 .45 1992	4.43 11.2 1997 .72 1992	6.83 11.2 1993 1.80 1992	4.42 7.25 1997 2.44 1993	6.19 8.45 1993 4.11 1995	7.40 9.87 1998 4.14 1997	3.74 7.45 1996 1.52 1994	2.99 7.07 1997 .81 1992	2.03 9.25 1992 .54 1996	1.13 3.33 1992 .42 1993	1.31 3.80 1992 .45 1995
ANNUAL HIGHES' LOWEST HIGHES' LOWEST ANNUAL INSTAN' INSTAN' ANNUAL ANNUAL 10 PER(50 PER(MEAN F ANNUAL ANNUAL M F DAILY M DAILY ME SEVEN-DA FANEOUS P	MEAN EAN EAN AN Y MINIMUM EAK FLOW EAK STAGE OW FLOW CFSM) INCHES) EDS EDS		1384.1 3.7 91	Jun 1 18 Sep 30 31 Sep 27	ī	1279.9 3.5 59	Jan 8 Aug 13 15 Aug 12 Apr 16a 46 Apr 16 05 Jul 18	à.	3.8 5.1 2.4	Dec O Sep 4 Aug Dec 9 Dec 0 Aug 9 2	1997 1995 31 1992

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

04206220 YELLOW CREEK AT BOTZUM, OHIO

LOCATION.--Lat 41°09'47", long 81°35'02", Summit County, Hydrologic Unit 04110002, on right downstream bank near Bath Road truss bridge over Yellow Creek, 0.5 mi upstream from confluence with Cuyahoga River, 0.7 mi west of Akron sewage treatment plant.

Akron sewage treatment plant.

DRAINAGE AREA.--30.7 mi².

PERIOD OF RECORD.--October 1, 1991, to current year.

GAGE.--Water-stage recorder. Elevation of gage is 743 ft above sea level, from topographic map.

REMARKS.--Records fair except for periods of estimated record, which are poor. (Formerly named Yellow Creek at Bath Road near Botzum, Ohio)

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MEAN VALUES DAY OCT NOV DEC FEB APR MAY JUN JUL AUG SEP JAN MAR 8.7 14 33 18 35 36 46 11 27 6.2 9.2 8.9 2 27 12 18 25 17 29 213 14 6.1 8.9 16 8.0 16 17 23 16 24 23 159 15 11 6.0 8.6 8.1 15 31 66 16 31 2.1 347 12 10 5.9 8.1 7.8 22 5 8.0 13 38 16 26 20 107 11 9.5 6.4 7.6 7.1 6 7 13 19 38 15 2.2 2.0 62 11 8.3 7.1 7.6 20 188 15 21 19 46 8.2 6.4 28 15 11 20 5.9 18 14 43 38 44 10 9.8 9 8.0 16 19 314 14 193 179 39 15 6.6 33 9.7 10 9.2 14 136 97 15 104 126 34 12 22 17 8.7 17 51 31 8.0 12 11 14 82 49 46 11 13 8.9 7.8 12 39 36 38 30 47 7.3 10 13 e38 36 6.6 13 8.8 13 26 3.3 25 36 28 27 75 6.8 9.1 76 2.7 14 10 2.7 21 e25 19 34 2.4 6.6 6.0 9.9 10 34 19 26 18 34 86 23 35 9.4 5.9 8.8 15 9.3 2.2 398 21 8.7 16 2.6 19 29 34 34 12 5.7 17 9.1 19 40 20 23 8.0 5.6 19 24 246 321 9.4 19 17 7.3 18 9.2 e17 18 21 172 58 86 17 5.6 8.7 19 9.6 17 17 20 86 45 87 17 5.5 8.4 10 17 20 20 66 8.5 21 9.5 e19 49 4.7 21 16 16 154 56 16 11 8.3 22 9.3 20 26 18 39 66 41 15 9.8 123 5.4 9.2 2.3 9.7 18 43 64 32 45 36 14 53 4.9 9.9 9.9 45 24 15 28 45 28 36 33 14 21 8.6 12 27 29 11 227 25 29 30 26 15 37 23 23 29 287 13 9.4 9.9 8.6 20 85 27 59 15 25 21 23 26 157 13 17 8.8 24 8.6 2.8 2.0 93 20 21 23 26 56 12 12 26 7.8 7.1 18 15 9.9 29 50 19 20 35 43 34 16 6.7 30 15 28 19 20 ___ 27 40 11 28 13 8.5 31 14 --e19 19 ---24 ---12 ---6.6 11 2572 85.7 1472 TOTAL. 368.9 631 912 1874 1109 1453 579.0 481.6 598.0 412.2 29.4 136 19.3 75 13.7 MEAN 11.9 21.0 60.5 39.6 46.9 47.5 15.5 19.3 MAX 59 93 470 246 193 398 347 123 227 84 7.1 7.6 MTN 13 16 18 14 21 19 2.79 11 9.2 6.6 4.7 .63 .45 CFSM .39 .69 . 96 1.97 1.29 1.53 1.55 .51 .63 1.76 2.27 3.12 .70 .58 .50 IN. .45 .76 1.11 1.34 1.78 STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1998, BY WATER YEAR (WY) MEAN 16.1 37.9 38.5 60.3 44.8 58 1 62.9 37.0 32.6 21.6 16.6 17.7 MAX 40.3 76.2 94.0 98.2 66.8 95.4 63.6 70.5 74.8 41.1 108 48.3 (WY) 1997 1993 1997 1993 1997 1993 1994 1997 1992 1992 1992 MTN 6.31 9 23 12 1 17 8 25 4 31 0 35 0 20 5 15 7 10 1 5.68 4 85 (WY) 1995 1992 1992 1992 1995 1995 1995 1992 1992 1993 1993 1995 FOR 1998 WATER YEAR WATER YEARS 1992 - 1998 SUMMARY STATISTICS FOR 1997 CALENDAR YEAR ANNUAL TOTAL 14487.4 12462.7 ANNUAL MEAN 39 7 34 1 36.9 HIGHEST ANNUAL MEAN 50.2 1997 LOWEST ANNUAL MEAN HIGHEST DAILY MEAN 22.1 1995 756 470 8 765 Jan 28 1994 Jun 1 Jan LOWEST DAILY MEAN 9 4.7 Aug 20 5 1995 5.8 2.4 Sep Aug ANNUAL SEVEN-DAY MINIMUM INSTANTANEOUS PEAK FLOW 6.3 6 5.2 Aug 17 2.6 Sep 1 1995 Aug 853 1470 Jul 31 1992 Apr 16a INSTANTANEOUS PEAK STAGE 13.95 Apr 16 15.60 Jul 31 1992 INSTANTANEOUS LOW FLOW 4.1 Aug 20 2.4 1995 1.29 1.20 ANNUAL RUNOFF (CFSM) 1.11 ANNUAL RUNOFF (INCHES) 17.55 15.10 16.35 10 PERCENT EXCEEDS 50 PERCENT EXCEEDS 80 65 75 20 19 24 90 PERCENT EXCEEDS 6.4 7.6 7.9

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations. e Estimated.

04207200 TINKERS CREEK AT BEDFORD, OHIO

LOCATION.--Lat 41°23'04", long 81°31'39", in T.6 N., R.11 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank at downstream side of bridge on State Highway 14 in Bedford, 5.5 mi upstream from mouth.

DRAINAGE AREA.--83.9 mi².

PERIOD OF RECORD.--November 1962 to current year.

REVISED RECORDS.--WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 876.18 ft above sea level.

REMARKS.--Records poor.

		DISCH	IARGE, C	UBIC FEET	PER SECOND	, WATER LY MEAN		BER 1997 T	O SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	41	98	e62	e76	138	128	127	38	179	38	29
2	60	38	80	e60	e70	104	92	358	32	82	36	30
3	39	40	82	e120	e66	118	71	256	29	64	37	26
4	30	44	134	e220	e63	149	59	369	29	52	39	30
5	33	50	101	e150	e60	130	54	224	32	44	54	25
6	31	42	79	e120	e56	97	53	131	28	42	34	23
7	30 29	49 47	83 90	e450	e54 e52	80 147	52	104 94	30 28	44 49	30	83 50
8	29	42	84	e1800 e950	e52 e50	524	126 478	73	28 29	42	26 265	53
10	30	38	466	e600	e48	418	417	58	31	38	442	38
11	28	39	414	e400	e46	235	199	55	40	33	89	31
12	28	36	244	e280	e130	153	99	53	279	32	44	27
13	28	35	123	e220	e110	128	77	50	280	34	34	25
14	43	88	88	e180	e86	118	165	45	94	34	32	26
15	29	101	76	e150	e74	114	215	42	58	70	29	28
16	28	85	e70	e130	e64	134	1570	39	222	54	27	28
17	28	71	e66	e110	e200	167	1400	35	85	46	28	29
18	28	60	e60	e100	e400	250	647	34	51	37	30	28
19 20	27 27	64 76	e56 e52	e90 e82	e260 e200	199 277	396 409	33 32	196 67	51 39	27 27	57 31
	= :										= -	
21 22	27 27	83 105	e50 e110	e76 e72	e160 e130	366 210	195 120	30 29	43 39	121 317	27 25	31 29
23	27	68	e190	e230	e110	132	93	27	37	288	24	28
24	27	56	e120	e210	e96	104	75	26	37	108	35	26
25	33	52	e180	e160	e80	86	66	26	36	66	428	26
26	133	56	e140	e130	e72	85	1110	27	67	52	154	25
27	278	48	e110	e120	68	76	718	27	324	51	56	24
28	113	327	e90	e100	89	101	350	26	352	49	40	30
29	68	255	e80	e94		90	120	25	331	44	49	27
30 31	55 43	149	e72 e66	e86 e82		74 65	145	25 142	228	40 40	34 33	26
TOTAL MEAN	1489 48.0	2285 76.2	3754 121	7634 246	2970 106	5069 164	9699 323	2622 84.6	3172 106	2242 72.3	2273 73.3	969 32.3
MAX	278	327	466	1800	400	524	1570	369	352	317	442	3∠.3 83
MIN	27	35	50	60	46	65	52	25	28	32	24	23
CFSM	.01	.01	.01	.03	.01	.02	.04	.01	.01	.01	.01	.00
IN.	.01	.01	.02	.03	.01	.02	.04	.01	.01	.01	.01	.00
STATIST	CICS OF MC	NTHLY MEAN	I DATA E	FOR WATER	YEARS 1963	- 1998,	BY WATER	YEAR (WY)				
MEAN	70.0	139	175	153	198	246	193	124	88.7	78.8	63.7	73.2
MAX	261	402	506	396	463	457	323	339	257	329	255	289
(WY)	1991	1986	1991	1993	1976	1963	1998	1989	1975	1969	1992	1990
MIN	8.55	13.4	16.9	33.1	39.0	81.2	54.1	33.4	16.5	13.1	11.3	8.73
(WY)	1964	1965	1964	1977	1963	1990	1971	1965	1964	1967	1963	1964
SUMMARY	STATISTI	CS	FOR	1997 CALE	NDAR YEAR	F	OR 1998 WA	ATER YEAR		WATER YEA	ARS 1963	- 1998
ANNUAL				45854			44178					
ANNUAL				126			121			134		
	ANNUAL N									185		1975
	ANNUAL ME			1650	Jun 1		1800	Jan 8		81.7 2920	Dog 3	1964 0 1990
	DAILY ME			22	Aug 2		23	Sep 6		5.8		.0 1964
		MINIMUM		23	Aug 5		26	May 24		6.5		4 1963
	ANEOUS PE				3		e4000	Jan 8a		7220		0 1969
	ANEOUS PE						e8.03			10.10	Jul 2	0 1969
	ANEOUS LO			_	1.5		23	Sep 6		5.2		.9 1963
	RUNOFF (CRUNOFF (I			. 0			. 01			.016)	
	CENT EXCE			.2 309	1		.20 270	,		.22 323		
	ENT EXCE			68			65			62		
90 PERC	CENT EXCE	EDS		27			28			20		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO

LOCATION.--Lat 41°23'43", long 81°37'48, in T.6 N., R.12 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank 240 ft downstream from bridge on Old Rockside Road, 0.8 mi northeast of Independence, and 3.0 mi downstream from Tinkers Creek.

DRAINAGE AREA.--707 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1903 to December 1905 (fragmentary), January to July 1906 (gage heights and discharge measurements only), September 1921 to May 1923, September 1927 to December 1935, March 1940 to current year.

REVISED RECORDS.--WSP 1307: 1922-23 (M), 1928-30 (M), 1933 (M), 1940 (M), 1947 (M), 1950 (M). WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 583.57 ft above sea level. Sept. 21, 1903 to July 21, 1906, nonrecording gage at bridge 240 ft upstream at present datum. Sept. 28, 1921 to May 30, 1923, nonrecording gage at bridge 240 ft upstream at datum 2.42 ft higher. Sept. to Oct. 8, 1927, nonrecording gage, and Oct. 9, 1927,to Dec. 31, 1935, Mar. 5, 1940, to June 19, 1969, water-stage recorder, at site 100 ft upstream at present datum.

REMARKS.--Records good. Natural flow of stream affected by diversion, storage reservoirs, and powerplants. Some diversion from the Tuscarawas River Basin drainage into this basin at Portage Lakes (see REMARKS for station 03117000). Water diverted into Ohio Canal at Brecksville, 6 mi upstream from station, bypasses station. These records do not include flow in canal except above about 15,000 ft³/s, when channels merge. Satellite telemeter at gage. Water-quality data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MEAN VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP 5 2.2 2.4 2.8 ------___ TOTAL MEAN MTN STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1998, BY WATER YEAR (WY) MEAN 1986 1959 1957 1992 MAX (WY) MIN 82.9 62.3 (WY) SUMMARY STATISTICS FOR 1997 CALENDAR YEAR FOR 1998 WATER YEAR WATER YEARS 1922 - 1998 ANNUAL TOTAL ANNUAL MEAN HIGHEST ANNUAL MEAN LOWEST ANNUAL MEAN HIGHEST DAILY MEAN Jan 22 1959 Jun Apr 17 LOWEST DAILY MEAN Aug 23 Aug 28 Sep ANNUAL SEVEN-DAY MINIMUM Oct 18 Aug 26 1933 Aug Apr 17 INSTANTANEOUS PEAK FLOW Jan 22 1959 INSTANTANEOUS PEAK STAGE 18.05 22.41 Jan 22 Apr Aug 28 1933 INSTANTANEOUS LOW FLOW 10 PERCENT EXCEEDS 50 PERCENT EXCEEDS 90 PERCENT EXCEEDS

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD. -- October 1948 to September 1949, October 1950 to current year.

PERIOD OF RECORD. -- October 1948 to September 1949, October 1950 to current year.

PERIOD OF DAILY RECORD. -CHLORIDE: October 1987 to September 1994.

NITROGEN, NITRITE + NITRATE: October 1987 to September 1994.

NITROGEN, AMMONIA + ORGANIC: October 1987 to September 1994.

PHOSPHORUS: October 1987 to September 1994.

SUSPENDED SEDIMENT DISCHARGE: Water years 1950-74, December 1976 to September 1984, October 1987 to current year.

INSTRUMENTATION. -- Alcohol - actuated thermograph October 1956 to June 1965, water-quality monitor from July 1965 to September 1991, and a refrigerated water-quality pumping sampler, operated by Heidelberg College Water Quality Laboratory, from October 1987 to September 1994.

PEMAPES: --Sediment samples were collected by a local observer on an approximate once daily basis. Sediment loads were

REMARKS.--Sediment samples were collected by a local observer on an approximate once daily basis. Sediment loads were calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge: U.S. Geological Survey, Techniques of Water-Resources Investigations, Book 3, Chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was subdivided into half-hour intervals and the daily load was calculated by summing the loads for these half-hour intervals. This required interpolation between measured and estimated concentrations.

EXTREMES FOR PERIOD OF DAILY RECORD.-SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,400 mg/L, Dec. 31, 1992; minimum daily mean, 1 mg/L, Feb. 12, 13,

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

SEDIMENT LOADS: Maximum daily, 82,900 tons, Dec. 31, 1992; minimum daily, 1.2 tons, Feb. 13, 1989. EXTREMES FOR CURRENT YEAR. -

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,420 mg/L, Apr. 17; minimum daily mean, 2 mg/L, Oct. 23. SEDIMENT LOADS: Maximum daily, 30,600 tons, Apr. 17; minimum daily, 1.3 tons, Oct. 23.

DATE	TIME	SAM- PLING METHOD, CODES* (82398)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
NOV												
24	1550	10	401	920	8.0	0.5	4.5	160	3.2	0.6	0.10	4
24	1645	50	397					160	3.3	0.6	0.11	
MAY												
19	1320	10	513	760	7.9	30.5	21.5	100	3.0	0.6	0.14	18
19	1420	50	513					110	2.9	0.7	0.18	
JUL												
23	1135	10	2090	580	7.7	29.0	24.0	81	1.6	1.6	0.55	
23	1310	50	1790					84	2.0	1.6	0.44	

 $[\]star 10$ - Stream cross-section sample using equal-width-increment (EWI) sampling method. $\star 50$ - Point sample obtained from flow tank.

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE		SEDIMENT DISCHARGE (TONS/DAY)
DAI	(CFS)	OCTOBER	(IONS/DAI)	(CFS)	NOVEMBER		(CFS)	(MG/L) DECEMBER	
1	535	83	126	314	7	6.0	696	23	44
2	437	22	27	315	6	5.2	636	14	25
3	368	11	11	301	5	4.2	593	12	19
4 5	354 368	15 14	14 14	314 316	5 6	4.5 5.5	853 673	48 18	114 33
6	350	14	14	271	5	3.9	577	13	20
7	398	21	23	295	6	4.8	579	10	16
8	486	22	29	369	7	7.4	594	12	19
9 10	490 506	20 19	27 26	336 313	6 6	5.7 4.9	544 1750	9 294	14 2390
11 12	342 236	11 7	10 4.3	288 276	5 4	3.8 2.9	1900 1310	191 73	1040 260
13	238	9	5.8	263	3	2.2	982	46	121
14	288	11	8.2	460	16	24	885	33	80
15	278	6	4.8	572	19	30	809	29	63
16 17	250 246	5 4	3.4 2.7	528 451	7 7	9.5 8.7	728 663	22 15	43 28
18	228	4	2.7	400	7	7.6	595	12	28 19
19	222	3	1.9	389	6	6.8	557	12	17
20	222	4	2.3	422	9	9.7	538	9	13
21	232	4	2.4	423	8	9.5	490	7	9.8
22 23	220 215	3 2	1.7 1.3	512 468	14 7	19 9.6	687 1250	53 131	198 480
24	224	3	1.8	418	4	4.0	833	42	94
25	261	4	2.8	402	3	3.6	1320	95	351
26	330	22	51	421	5	6.3	1070	39	114
27	1270	266	1020	420	10	11	916	25	62
28	529	36	54	1240	223	1000	836	17	38
29 30	401 367	12 9	13 9.1	1220 831	117 46	409 105	789 729	14 12	29 24
31	361	8	7.7				680	10	18
TOTAL	11252		1521.6	13548		1734.3	26062		5795.8
		MEAN			MEAN			MEAN	
	MEAN	CONCEN-	SEDIMENT	MEAN	CONCEN-	SEDIMENT	MEAN	CONCEN-	SEDIMENT
DAY	DISCHARGE	CONCEN- TRATION	DISCHARGE	DISCHARGE	CONCEN- TRATION	DISCHARGE	DISCHARGE	CONCEN- TRATION	DISCHARGE
DAY		CONCEN- TRATION (MG/L)			CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)		CONCEN- TRATION (MG/L)	
DAY	DISCHARGE (CFS)	CONCEN- TRATION	DISCHARGE	DISCHARGE	CONCEN- TRATION	DISCHARGE (TONS/DAY)	DISCHARGE	CONCEN- TRATION (MG/L) MARCH	DISCHARGE
1	DISCHARGE (CFS)	CONCENTRATION (MG/L) JANUARY	DISCHARGE (TONS/DAY)	DISCHARGE (CFS) 765	CONCEN- TRATION (MG/L) FEBRUARY	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L) MARCH	DISCHARGE (TONS/DAY)
1 2	DISCHARGE (CFS) 584 572	CONCEN- TRATION (MG/L) JANUARY 9 9	DISCHARGE (TONS/DAY)	DISCHARGE (CFS) 765 752	CONCEN- TRATION (MG/L) FEBRUARY 23 15	DISCHARGE (TONS/DAY) 48 31	DISCHARGE (CFS) 900 935	CONCEN- TRATION (MG/L) MARCH 77 33	DISCHARGE (TONS/DAY)
1 2 3 4	DISCHARGE (CFS) 584 572 869 1500	CONCENTRATION (MG/L) JANUARY 9 9 44 176	DISCHARGE (TONS/DAY) 14 15 105 820	DISCHARGE (CFS) 765 752 718 684	CONCEN- TRATION (MG/L) FEBRUARY 23 15 15	DISCHARGE (TONS/DAY) 48 31 28 19	DISCHARGE (CFS) 900 935 833 981	CONCENTRATION (MG/L) MARCH 77 33 27 24	DISCHARGE (TONS/DAY) 189 83 60 64
1 2 3	DISCHARGE (CFS) 584 572 869	CONCENTRATION (MG/L) JANUARY 9 9 44	DISCHARGE (TONS/DAY) 14 15 105	DISCHARGE (CFS) 765 752 718	CONCEN- TRATION (MG/L) FEBRUARY 23 15 15	DISCHARGE (TONS/DAY) 48 31 28	DISCHARGE (CFS) 900 935 833	CONCENTRATION (MG/L) MARCH 77 33 27	DISCHARGE (TONS/DAY) 189 83 60
1 2 3 4 5	DISCHARGE (CFS) 584 572 869 1500 1120 1100	CONCENTRATION (MG/L) JANUARY 9 9 44 176 76 66	DISCHARGE (TONS/DAY) 14 15 105 820 238 200	DISCHARGE (CFS) 765 752 718 684 642 613	CONCEN- TRATION (MG/L) FEBRUARY 23 15 15 10 8	DISCHARGE (TONS/DAY) 48 31 28 19 15	DISCHARGE (CFS) 900 935 833 981 879	CONCENTRATION (MG/L) MARCH 77 33 27 24 18	DISCHARGE (TONS/DAY) 189 83 60 64 43
1 2 3 4 5	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150	CONCENTRATION (MG/L) JANUARY 9 9 44 176 76 66 945	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800	765 752 718 684 642 613 577	CONCENTRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14	DISCHARGE (CFS) 900 935 833 981 879 730 651	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16
1 2 3 4 5	DISCHARGE (CFS) 584 572 869 1500 1120 1100	CONCENTRATION (MG/L) JANUARY 9 9 44 176 76 66	DISCHARGE (TONS/DAY) 14 15 105 820 238 200	DISCHARGE (CFS) 765 752 718 684 642 613	CONCEN- TRATION (MG/L) FEBRUARY 23 15 15 10 8	DISCHARGE (TONS/DAY) 48 31 28 19 15	DISCHARGE (CFS) 900 935 833 981 879	CONCENTRATION (MG/L) MARCH 77 33 27 24 18	DISCHARGE (TONS/DAY) 189 83 60 64 43
1 2 3 4 5 6 7 8	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200	CONCENTRATION (MG/L) JANUARY 9 9 44 176 76 66 945 1080	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100	765 755 752 718 684 642 613 577 560	CONCENTRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14	DISCHARGE (CFS) 900 935 833 981 879 730 651 797	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9 57	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185
1 2 3 4 5 6 7 8 9 10	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190	CONCENTRATION (MG/L) JANUARY 9 44 176 66 945 1080 516 284 225	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940	765 752 718 684 642 613 577 560 539 533	CONCENTRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8 8 6 8	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3	900 935 833 981 879 730 651 797 2450 2490	CONCEN- TRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501
1 2 3 4 5 6 7 8 9 10	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710	CONCENTRATION (MG/L) JANUARY 9 9 44 176 76 66 945 1080 516 284 225 181	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330	765 755 718 684 642 613 577 560 539 533	CONCENTRATION (MG/L) FEBRUARY 23 15 10 8 9 9 8 8 6 8 58	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172	900 935 833 981 879 730 651 797 2450 2490 1860 1480	CONCEN- TRATION (MG/L) MARCH 777 33 27 24 18 10 9 57 641 312 98 53	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214
1 2 3 4 5 6 7 8 9 10 11 12 13	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330	CONCENTRATION (MG/L) JANUARY 9 9 44 176 76 66 945 1080 516 284 225 181 160	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010	765 752 718 684 642 613 577 560 539 533 526 942 829	CONCEN- TRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 9 8 8 6	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310	CONCEN- TRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 53 47	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214
1 2 3 4 5 6 7 8 9 10	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710	CONCENTRATION (MG/L) JANUARY 9 9 44 176 76 66 945 1080 516 284 225 181	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330	765 755 718 684 642 613 577 560 539 533	CONCENTRATION (MG/L) FEBRUARY 23 15 10 8 9 9 8 8 6 8 58	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172	900 935 833 981 879 730 651 797 2450 2490 1860 1480	CONCEN- TRATION (MG/L) MARCH 777 33 27 24 18 10 9 57 641 312 98 53	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590	CONCENTRATION (MG/L) JANUARY 9 44 176 66 945 1080 516 284 225 181 160 138	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695	765 752 718 684 642 613 577 560 539 533 526 942 829 676 628	CONCENTRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8 8 6 8 58 28	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 14	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 53 47 35 27	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130	CONCENTRATION (MG/L) JANUARY 9 9 44 176 76 66 6945 1080 516 284 225 181 160 138 98 70 54	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165	765 752 718 684 642 613 577 560 539 533 526 942 829 676 628	CONCEN- TRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8 8 6 6 8 58 28 9 9	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 53 47 35 27 23 25	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010	CONCENTRATION (MG/L) JANUARY 9 44 176 66 945 1080 516 284 225 181 160 138 98 70 54 42	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165 114	765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620	CONCEN- TRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8 8 6 8 58 28 9 493 456	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540 3920	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996	CONCEN- TRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 53 47 35 27 23 25 43	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58 66 154
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130	CONCENTRATION (MG/L) JANUARY 9 9 44 176 76 66 6945 1080 516 284 225 181 160 138 98 70 54	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165	765 752 718 684 642 613 577 560 539 533 526 942 829 676 628	CONCEN- TRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8 8 6 6 8 58 28 9 9	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 53 47 35 27 23 25	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010 914	CONCENTRATION (MG/L) JANUARY 9 44 176 76 66 945 1080 516 284 225 181 160 138 98 70 54 42 33	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165 114 83	DISCHARGE (CFS) 765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620 1820	CONCEN- TRATION (MG/L) FEBRUARY 23 15 10 8 9 9 8 8 6 8 58 28 9 8 9 493 456 127	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9 3 11 172 64 17 14 14 5540 3920 634	DISCHARGE (CFS) 900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996 1320 1250	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 53 47 35 27 23 25 43 39	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58 66 154 131
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010 914 870 802 740	CONCENTRATION (MG/L) JANUARY 9 44 176 66 945 1080 516 284 225 181 160 138 98 70 54 42 33 29 30 26	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165 114 83 68 66 52	DISCHARGE (CFS) 765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620 1820 1510 1440 1180	CONCENTRATION (MG/L) FEBRUARY 23 15 10 8 9 9 8 8 6 8 58 28 9 493 456 127 72 49 37	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540 3920 634 293 192 120	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996 1320 1250 1210	CONCEN- TRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 47 35 27 23 47 35 27 23 48 39 43 181 58	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58 66 154 131 161 1250 273
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010 914 870 802 740 1490	CONCENTRATION (MG/L) JANUARY 9 44 176 76 66 945 1080 516 284 225 181 160 138 98 70 54 42 33 29 30 26 77	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1330 1010 695 418 270 165 114 83 68 66 52 381	DISCHARGE (CFS) 765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620 1820 1510 1440 1180 1020	CONCENTRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8 8 6 8 58 28 9 493 456 127 72 49 37 33	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 14 5540 3920 634 293 192 120 91	DISCHARGE (CFS) 900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996 1320 1250 1210 2480 1680 1300	CONCEN- TRATION (MG/L) MARCH 77 33 327 24 18 10 9 57 641 312 98 53 47 35 27 23 25 43 39 43 181 58 27	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58 66 154 131 161 1250 273 94
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010 914 870 802 740	CONCENTRATION (MG/L) JANUARY 9 44 176 66 945 1080 516 284 225 181 160 138 98 70 54 42 33 29 30 26	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165 114 83 68 66 52	DISCHARGE (CFS) 765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620 1820 1510 1440 1180	CONCENTRATION (MG/L) FEBRUARY 23 15 10 8 9 9 8 8 6 8 58 28 9 493 456 127 72 49 37	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540 3920 634 293 192 120	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996 1320 1250 1210	CONCEN- TRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 47 35 27 23 47 35 27 43 39 43 181 58	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 166 185 5610 2200 501 214 167 110 76 58 66 154 131 161 1250 273
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010 914 870 802 740 1490 1490 1590 1240	CONCENTRATION (MG/L) JANUARY 9 9 44 176 66 6945 1080 516 284 225 181 160 138 98 70 54 42 33 29 30 26 77 77	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165 114 83 68 66 52 381 337	DISCHARGE (CFS) 765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620 1820 1810 1440 1180 1020 880 774	CONCEN- TRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8 8 6 6 8 58 28 9 493 456 127 72 49 37 33 34	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540 3920 634 293 192 120 91 80	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996 1320 1250 1210 2480 1680 1300 1110	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 988 53 47 35 27 23 25 43 39 43 181 58 27 22	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58 66 154 131 161 1250 273 94 65 70
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010 914 870 802 740 1490 1590 1240 1040 967	CONCENTRATION (MG/L) JANUARY 9 44 176 76 66 945 1080 516 284 225 181 1600 138 98 70 54 42 33 29 30 26 77 77 37 77 27 26	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165 114 83 68 66 52 381 337 125	DISCHARGE (CFS) 765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620 1820 1510 1440 1180 1020 880 774 700 655	CONCENTRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8 8 6 8 58 28 9 493 456 127 72 49 37 33 34 34 32 22 18	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540 3920 634 293 192 120 91 80 70 42 32	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996 1320 1250 1210 2480 1680 1300 1100 1080	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 53 47 25 43 35 27 23 25 43 39 43 181 58 27 22 24 54 36	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58 666 154 131 161 1250 273 94 65 70 196 87
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010 914 870 802 740 1490 1490 1590 1240 1040 967 910	CONCENTRATION (MG/L) JANUARY 9 44 176 66 945 1080 516 284 225 181 160 138 98 70 54 42 33 29 30 26 77 77 37 27 26 22	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165 114 83 68 66 52 381 337 125 77 69 55	DISCHARGE (CFS) 765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620 1820 1510 1440 1180 1020 880 774 700 655 632	CONCENTRATION (MG/L) FEBRUARY 23 15 10 8 9 9 8 8 6 6 8 58 28 9 493 456 127 72 49 37 33 34 34 22 18	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540 3920 634 293 192 120 91 80 70 42 32 24	PISCHARGE (CFS) 900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996 1320 1250 1210 2480 1680 1300 1110 1080 1300 830 830 568	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 853 47 35 27 23 25 43 39 43 181 58 88 27 22 24 54 36 16	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58 66 154 131 161 1250 273 94 65 70 196 87
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010 914 870 802 740 1490 1590 1240 1040 967	CONCENTRATION (MG/L) JANUARY 9 44 176 76 66 945 1080 516 284 225 181 1600 138 98 70 54 42 33 29 30 26 77 77 37 77 27 26	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165 114 83 68 66 52 381 337 125	DISCHARGE (CFS) 765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620 1820 1510 1440 1180 1020 880 774 700 655	CONCENTRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8 8 6 8 58 28 9 493 456 127 72 49 37 33 34 34 32 22 18	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540 3920 634 293 192 120 91 80 70 42 32	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996 1320 1250 1210 2480 1680 1300 1100 1080	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 53 47 25 43 35 27 23 25 43 39 43 181 58 27 22 24 54 36	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58 666 154 131 161 1250 273 94 65 70 196 87
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010 914 870 802 740 1490 1590 1590 1240 1040 967 910 875	CONCENTRATION (MG/L) JANUARY 9 9 44 176 76 66 6945 1080 516 284 225 181 160 138 98 70 54 42 33 29 30 26 77 77 37 27 26 22 18	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165 114 83 68 66 52 381 337 125 77 69 55 42	DISCHARGE (CFS) 765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620 1820 1820 1510 1440 1180 1020 880 774 700 655 632	CONCENTRATION (MG/L) FEBRUARY 23 15 10 8 9 9 8 8 6 8 58 28 9 493 456 127 72 49 37 33 34 34 22 18 14	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540 3920 634 293 192 120 91 80 70 42 32 24	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996 1320 1250 1210 2480 1680 1300 1110 1080	CONCENTRATION (MG/L) MARCH 777 33 27 24 18 10 9 57 641 312 98 53 47 35 27 23 25 43 39 43 181 58 27 22 24 54 36 16	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58 66 154 131 161 1250 273 94 65 70 196 87 25 30
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	DISCHARGE (CFS) 584 572 869 1500 1120 1100 3150 7200 5900 4080 3190 2710 2330 1860 1590 1420 1130 1010 914 870 802 740 1490 1590 1240 1040 967 910 875 899	CONCENTRATION (MG/L) JANUARY 9 44 176 66 945 1080 516 284 225 181 1600 138 98 70 54 42 33 29 30 26 77 77 77 77 77 77 77 77 77	DISCHARGE (TONS/DAY) 14 15 105 820 238 200 11800 21100 8480 3160 1940 1330 1010 695 418 270 165 114 83 68 66 52 381 337 125 77 69 55 42 41	DISCHARGE (CFS) 765 752 718 684 642 613 577 560 539 533 526 942 829 676 628 607 1850 2620 1820 1820 1510 1440 1180 1020 880 774 700 655 632	CONCENTRATION (MG/L) FEBRUARY 23 15 15 10 8 9 9 8 8 6 8 58 28 9 493 456 127 72 49 37 33 34 34 34 22 18 14	DISCHARGE (TONS/DAY) 48 31 28 19 15 16 14 12 11 9.3 11 172 64 17 14 5540 3920 634 293 192 120 91 80 70 42 32 24	900 935 833 981 879 730 651 797 2450 2490 1860 1480 1310 1150 1020 950 996 1320 1250 1210 2480 1680 1300 1100 1080 1300 1100 1080 1080 10	CONCENTRATION (MG/L) MARCH 77 33 27 24 18 10 9 57 641 312 98 53 47 22 23 25 43 39 43 181 58 27 22 24 54 36 16 16	DISCHARGE (TONS/DAY) 189 83 60 64 43 20 16 185 5610 2200 501 214 167 110 76 58 66 154 131 161 1250 273 94 65 70 196 87 25 30 28

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1 2 3 4 5	854 718 656 725 664	51 25 15 18 16	119 49 27 35 28	1630 2790 2730 3490 2420	87 536 335 513 206	382 4570 2630 5140 1390	425 301 400 279 266	83 35 30 30 23	112 29 32 23 17
6 7 8 9 10	643 564 619 2180 2930	17 14 38 364 353	30 21 74 3580 2950	1780 1500 1330 1160 996	124 110 126 74 60	598 444 450 233 162	285 278 269 267 291	20 14 13 15 14	15 10 9.6 11 11
11 12 13 14 15	1520 1210 1150 1220 2050	114 73 66 80 236	484 239 205 292 1410	872 777 732 671 628	59 77 46 43 44	139 162 92 78 74	292 815 1760 781 508	13 483 1220 940 216	11 1400 5750 2100 291
16 17 18 19 20	4510 7510 3530 2800 3630	638 1420 385 255 324	10300 30600 3790 2020 3220	616 585 551 516 506	31 25 20 16 16	51 39 30 23 21	851 754 478 696 511	154 124 51 120 76	460 288 66 276 106
21 22 23 24 25	2630 1980 1650 1320 1050	170 144 121 104 84	1210 767 540 372 238	477 454 433 419 426	15 14 14 15 11	19 17 17 17 13	410 361 335 318 306	50 29 30 24 21	56 28 27 21 18
26 27 28 29 30 31	3950 4160 2580 1850 1790	534 352 190 115 102	7780 3740 1280 567 494	422 417 364 313 297 444	16 20 21 15 15 52	18 22 21 13 12	334 946 1890 1580 1230	21 591 950 406 279	19 3290 5490 1800 1000
TOTAL	62643		76461	30746		16988	18217		22766.6
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
DAY	DISCHARGE	CONCEN- TRATION	DISCHARGE	DISCHARGE	CONCEN- TRATION	DISCHARGE	DISCHARGE	CONCEN- TRATION	DISCHARGE (TONS/DAY)
DAY 1 2 3 4 5	DISCHARGE	CONCEN- TRATION (MG/L)	DISCHARGE	DISCHARGE	CONCEN- TRATION (MG/L)	DISCHARGE	DISCHARGE	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)
1 2 3 4	DISCHARGE (CFS) 1260 637 508 466	CONCENTRATION (MG/L) JULY 334 85 60 48	DISCHARGE (TONS/DAY) 1320 149 83 60	DISCHARGE (CFS) 245 232 232 224	CONCENTRATION (MG/L) AUGUST 13 12 15 25	DISCHARGE (TONS/DAY) 8.5 7.6 9.4	DISCHARGE (CFS) 365 320 315 296	CONCENTRATION (MG/L) SEPTEMBER 32 25 20 16	DISCHARGE (TONS/DAY)
1 2 3 4 5 6 7 8	DISCHARGE (CFS) 1260 637 508 466 408 358 344 456 443	CONCEN- TRATION (MG/L) JULY 334 85 60 48 39 28 25 43 46	DISCHARGE (TONS/DAY) 1320 149 83 60 43 27 23 64 58	DISCHARGE (CFS) 245 232 232 224 239 262 242 240 372	CONCEN- TRATION (MG/L) AUGUST 13 12 15 25 54 28 20 18 96	DISCHARGE (TONS/DAY) 8.5 7.6 9.4 15 35 20 13 11 190	DISCHARGE (CFS) 365 320 315 296 249 255 455 588 512	CONCENTRATION (MG/L) SEPTEMBER 32 25 20 16 14 11 119 102 108	DISCHARGE (TONS/DAY) 32 22 17 13 9.6 7.8 205 204 163
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	DISCHARGE (CFS) 1260 637 508 466 408 358 344 456 443 351 315 285 271 268 421 648 348 279 265 271	CONCEN- TRATION (MG/L) JULY 334 85 60 48 39 28 25 43 46 17 11 9 9 9 65 197 39 27 22	DISCHARGE (TONS/DAY) 1320 149 83 60 43 27 23 64 58 16 9.4 7.1 6.6 6.5 111 447 37 20 16 14	DISCHARGE (CFS) 245 232 232 224 239 262 242 220 372 1190 626 419 322 298 246 229 230 235 227 215	CONCEN- TRATION (MG/L) AUGUST 13 12 15 25 54 28 20 18 96 592 218 59 38 32 29 26 20 25 25 21	DISCHARGE (TONS/DAY) 8.5 7.6 9.4 15 35 20 13 11 190 2980 410 69 33 26 19 16 12 16 15 12	DISCHARGE (CFS) 365 320 315 296 249 255 455 588 512 348 298 264 254 252 252 249 249 247 230 270	CONCENTRATION (MG/L) SEPTEMBER 32 25 20 16 14 11 119 102 108 33 3 26 23 19 17 17 16 16 16 41	DISCHARGE (TONS/DAY) 32 22 17 13 9.6 7.8 205 204 163 32 21 17 13 12 11 11 11 11 11 11 11 11 11 11 11 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	DISCHARGE (CFS) 1260 637 508 466 408 358 344 456 443 351 315 285 271 268 421 648 348 279 265 271 293 1720 1440 739 466	CONCENTRATION (MG/L) JULY 334 85 60 48 39 28 25 43 46 17 11 9 9 65 197 39 27 19 22 12000 401 183 104	DISCHARGE (TONS/DAY) 1320 149 83 60 43 27 23 64 58 16 9.4 7.1 6.6 6.5 111 447 37 20 16 14 18 7560 1710 377 132	DISCHARGE (CFS) 245 232 232 232 224 239 262 242 220 372 1190 626 419 322 298 246 229 230 235 227 215 214 218 210 234 2450	CONCEN- TRATION (MG/L) AUGUST 13 12 15 25 54 28 20 18 96 592 218 59 38 32 29 26 20 25 25	DISCHARGE (TONS/DAY) 8.5 7.6 9.4 15 35 20 13 11 190 2980 410 69 33 26 19 16 12 16 15	DISCHARGE (CFS) 365 320 315 296 249 255 455 588 512 348 298 264 254 252 252 249 249 247 230	CONCENTRATION (MG/L) SEPTEMBER 32 25 20 16 14 11 119 102 108 33 26 23 19 17 17 16 16 16 41 32 26 13 12 13	DISCHARGE (TONS/DAY) 32 22 17 13 9.6 7.8 205 204 163 32 21 17 13 12 11 11 11 11 11 11 10 31 27 22 8.8 7.4 8.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	DISCHARGE (CFS) 1260 637 508 466 408 358 344 456 443 351 315 285 271 268 421 648 348 279 265 271 293 1720 1440 739	CONCENTRATION (MG/L) JULY 334 85 60 48 39 28 25 43 46 17 11 9 9 9 65 197 39 27 7 22 19 22 1200 401 183	DISCHARGE (TONS/DAY) 1320 149 83 60 43 27 23 64 58 16 9.4 7.1 6.6 6.5 111 447 37 20 16 14 18 7560 1710 377	DISCHARGE (CFS) 245 232 232 224 239 262 242 220 372 1190 626 419 322 298 246 229 230 235 227 215 214 218 210 234	CONCEN- TRATION (MG/L) AUGUST 13 12 15 25 54 28 8 20 18 96 592 218 59 38 32 29 26 20 25 21 17 18 18 18	DISCHARGE (TONS/DAY) 8.5 7.6 9.4 15 35 20 13 11 190 2980 410 69 33 26 19 16 12 16 15 12 9.9 11 10 10	DISCHARGE (CFS) 365 320 315 296 249 255 455 588 512 348 298 264 254 252 249 247 230 270 280 305 248 226	CONCENTRATION (MG/L) SEPTEMBER 32 25 20 16 14 11 119 102 108 33 26 23 19 17 17 16 16 16 41 32 26 13 12	DISCHARGE (TONS/DAY) 32 22 17 13 9.6 7.8 205 204 163 32 21 17 13 12 11 11 11 11 10 31 27 22 8.88 7.4

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LOCATION.--Lat 41°27'45", long 81°40'52", Cuyahoga County, Hydrologic Unit 04110002, on left bank, at LTV Steel Company footbridge, 1.2 mi downstream from Big Creek, 5.5 mi upstream from mouth at Cleveland.

DRAINAGE AREA.--788 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1, 1991, to current year.
GAGE.--Water-stage and acoustic velocity meter recorder. Elevation of gage is 583.57 ft above sea level, from

topographic map.

REMARKS.--Estimated daily discharges are marked in table. Records fair except for periods of estimated record, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s Aug. 13, 1994; minimum daily discharge, 310 ft³/s Aug. 29, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,300 ft³/s Apr. 17; minimum daily discharge, 333 ft³/s Oct. 13.

		DISCH	IARGE, CUB	IC FEET	PER SECOND	, WATER LY MEAN		BER 1997	TO SEPTEM	BER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	984	660	1280	1140	1020	1480	1280	e2100	709	1550	498	625
2	756	612	1200	1070	1060	1480	1040	e3200	506	979	511	585
3	676	604	e1100	1500	1030	1470	1020	e3100	668	810	505	564
4 5	610	665	e1500	2280	905	1660	1100	e4200	507	765	502	564
5	693	637	e1200	1840	955	1400	1010	e2700	562	713	698	509
6	726	550	e1100	1900	923	1240	996	e2200	504	618	533	492
7	967	633	e1000	4470	813	978	850	1810	502	677	553	1120
8	839	715	e980	e7400	885	1320	1170	1650	483	872	458	1090
9	799	654	e960	e6000	823	3140	3980	1460	475	698	914	902
10	776	664	e2700	e4400	724	3150	3290	1310	535	640	3140	650
11	834	651	e3100	e3500	872	2340	1840	1210	664	565	1070	592
12	548	610	e2200	e3000	1580	1860	1610	1060	2240	520	794	530
13	333	572	e1800	2420	1280	1660	1510	981	2420	513	672	536
14	679	1030	e1600	2010	1090	1510	2010	903	1090	479	600	525
15	599	1200	e1400	1740	975	1330	2300	852	895	1140	516	526
16	635	1040	e1200	1550	1040	1350	7500	824	1240	955	541	556
17	521	942	e1100	1360	2660	1450	8270	770	996	622	507	558
18	587	875	e1050	1050	3230	1790	3770	723	744	535	570	542
19	490	892	e1000	953	2480	1630	3900	643	1350	502	542	570
20	506	915	966	1070	2120	2350	4410	688	835	496	488	571
21	493	826	966	1200	2040	3100	3030	662	677	1200	476	687
22	534	1100	1150	996	1670	1950	2420	643	646	2630	481	658
23	572	923	2060	2120	1700	1650	2120	621	596	2210	458	588
24	519	980	1440	1970	1440	1470	1790	551	599	1080	773	487
25	541	1100	2080	1650	1310	1430	1560	568	544	742	4800	541
26	768	806	1710	1370	1180	1640	e4600	558	721	647	2100	515
27	2320	825	1470	1370	993	1030	e4900	575	2840	554	1020	537
28	1120	2320	1360	1330	1100	1060	e3700	513	2270	539	813	565
29	773	1980	1280	1210		1050	e2300	506	2100	550	891	523
30	753	1490	1030	1220		964	e2200	549	1890	524	837	518
31	732		1070	1170		1070		1450		576	742	
TOTAL	22683	27471	44052	66259	37898	51002	81476	39580	30808	25901	28003	18226
MEAN	732	916	1421	2137	1354	1645	2716	1277	1027	836	903	608
MAX	2320	2320	3100	7400	3230	3150	8270	4200	2840	2630	4800	1120
MIN	333	550	960	953	724	964	850	506	475	479	458	487

CAL YR 1997 TOTAL 523290 MEAN 1434 MAX 11000 MIN 333 TOTAL 473359 MEAN 1297 MAX 8270 MIN 333 WTR YR 1998

e Estimated.

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WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the NAWQA (National Water-Quality Assessment Program) project in the Lake Erie-Lake St. Clair Basin. The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. This project is one of 59 river basin and aquifer assessment projects being implemented across the nation. At any one time, 15 to 20 of these projects are actively collecting data. The period of high-intensity data collection for the Lake Erie-Lake St. Clair Basin project is in water years 1996-98.

There are four stream sites in Ohio for which data are being reported in this publication as part of the NAWQA study: Auglaize River near Ft. Jennings (04186500), Maumee River at Waterville (04193500), Cuyahoga River at LTV Steel at Cleveland (04208504), and Grand River at Harpersfield (0421820). Three sites are reported in the 1998 Michigan annual data report: Black River near Jeddo, MI (04159492), Clinton River at Sterling Heights, MI (04161820) and River Raisin near Manchester, MI (04175600). Two Sites are reported in the 1998 Indiana annual data report: St. Joseph River near Newville, IN (04178000), and Maumee River at New Haven, IN (04183000). One site is reported in the 1998 New York annual data report: Cattaraugus Creek at Gowanda, NY (04213500).

These data also can be obtained electronically at http://www-oh.er.usgs.gov/nawqa.index.html.

[---, no data; <, concentration or value reported is less than that indicated; E, estimated value; K, value is estimated from a non-ideal colony count]

DATE OCT 21	TIME 0830	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
NOV 25	0900	1200	7.7	3.0	6.0	749	11.3	88		230	66	17
DEC 17 JAN	1400	913	7.5	7.0	4.5	746	10.2	81	1900	210	59	15
13 FEB	0930	545	7.7	-2.0	4.0	750	12.1	95	2200	130	38	9.2
18 24 JUN	1430 0845	 806	 7.9	2.0	 6.0	 744	 11.7	 97	23000 3300	210	 61	 14
22	1000								830			
DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
21 NOV	111	19	146	119	110	190	1.1	5.2	694	0.05	10.3	0.19
25												
	133	14	154	126	94	220	1.0	5.6	666	.02	5.1	.04
DEC 17	133 93	14 11	154 145	126 119	94 81	220 150	1.0	5.6 7.3	666 538	.02	5.1 5.1	.04
DEC 17 JAN 13 FEB												
DEC 17 JAN 13	93	11	145	119	81	150	. 8	7.3	538	.02	5.1	<.02

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DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)
OCT 21	1.7	1.3	0.25	0.22	0.17	80	51	8.0	0.50	12	<.002	<.002
NOV 25	1.1	1.0	.12	.08	.11	66	51	6.5	.70	7	<.002	<.002
DEC 17 JAN	.9	.8	.10	.06	.04	67	54	6.6	.60	10	<.002	<.002
13 FEB	.8	.6	.14	.05	.02	68	48	5.7	1.5	96	<.002	<.002
18												
24 JUN	.8	.7	.10	.04	.04	52	59	5.0	.70	39	<.002	<.002
22												
DATE	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)
21	0.099	E.018	<.200	<.002	<.002	<.003	<.003	< .004	<.010	<.002	<.006	0.026
NOV 25	.061	E.014	< .400	<.002	<.002	E.143	<.003	.007	.014	<.002	<.006	.030
DEC 17	.034	<.010	<1.10	<.002	<.002	E.040	<.003	.006	.011	<.002	<.006	.016
JAN 13	.044	E.012	< .400	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006	.005
FEB 18												
24 JUN	.017	E.006	<.500	<.002	<.002	<.003	<.003	<.004	< .004	<.002	<.006	.011
22												
DAT	DI E SOI	ORIN WAT IS- 0.7 LVED GF, E/L) (UG/	YYL FO'LINE WA'L FLT FL' 'U 0.' REC GF, 'L) (UG,	SUL- FON EPT FER WAT FRD FLT 7 U 0.1 REC GF, (L) (UG,	TC FL TER AL TRD WAT 7 U 0. REC GF, /L) (UG	UR- PR IN WA FLT FL 7 U 0. REC GF, /L) (UG	TER FON TRD WA 7 U DI REC R /L) (UG	TER B SS D EC SOL /L) (UG	IS- DI VED SOL' /L) (U	UR WA DANE FL S- 0. VED GF, G/L) (UG	TRD TH 7 U I REC SC	ALA- HION, HIS- LIVED HG/L)
OCT 21	<.0	001 <.0	003 <.0	017 <.0	002 <.	004 <.	003 <.	003 <.	002 <.	004 <.	002 <.	005
NOV 25	<.0	001 <.0	003 <.0	017 <.0	002 <.	004 <.	003 <.	003 <.	002 <.	004 <.	002 <.	005
DEC 17	<.0	001 <.0	003 <.0	017 <.0	002 <.	004 <.	003 <.	003 <.	002 <.	004 <.	002 <.	005
JAN 13 FEB	<.0	001 <.0	003 <.0)17 <.0	002 <.	004 <.	003 <.	003 <.	002 <.	004 <.	002 <.	005
18 24 JUN											002 <.	005
22	-											

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		METRI-	MOL- INATE	NAPROP- AMIDE		METHYL PARA-	PEB- ULATE	PENDI- METH-	PER- METHRIN	PHORATE	PRO-
	METO-	BUZIN	WATER	WATER	PARA-	THION	WATER	ALIN	CIS	WATER	METON,
	LACHLOR	SENCOR	FLTRD	FLTRD	THION,	WAT FLT	FILTRD	WAT FLT	WAT FLT	FLTRD	WATER,
	WATER	WATER	0.7 U	0.7 U	DIS-	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	DISS,
DATE	DISSOLV	DISSOLV	GF, REC	GF, REC	SOLVED	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	REC
	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
OCT	(39415)	(82630)	(82671)	(82684)	(39542)	(82667)	(82669)	(82683)	(82687)	(82664)	(04037)
21	0.029	< .004	< .004	<.003	< .004	<.006	< .004	< .004	<.005	< .002	0.031
NOV	0.025	<.00 1	<.00₹	<.003	<.00₹	<.000	V.004	<.004	<.003	<.002	0.031
25	.022	< .004	< .004	< .003	< .004	< .006	< .004	< .004	< .005	< .002	.018
DEC											
17	.019	< .004	< .004	<.003	< .004	<.006	< .004	< .004	<.005	< .002	E.013
JAN	010	0.04	004	000	004	006	0.04	0.04	005	0.00	E 010
13 FEB	.019	<.004	< .004	<.003	< .004	<.006	<.004	< .004	<.005	<.002	E.012
18											
24	.009	< .004	< .004	< .003	< .004	< .006	< .004	< .004	<.005	< .002	E.009
JUN											
22											
	PRON-		PRO-	PRO-		TERII-	TER-	TER-	THIO-	TRIAL.	TRT -
	PRON-	PROP-	PRO-	PRO- PARGITE	ST-	TEBU- THIURON	TER- BACIL	TER- BUFOS	THIO- BENCARB	TRIAL-	TRI- FLUR-
	PRON- AMIDE WATER	PROP- CHLOR,	PRO- PANIL WATER	PRO- PARGITE WATER	SI- MAZINE,	TEBU- THIURON WATER	TER- BACIL WATER	TER- BUFOS WATER	THIO- BENCARB WATER	TRIAL- LATE WATER	TRI- FLUR- ALIN
	AMIDE		PANIL	PARGITE WATER FLTRD		THIURON WATER FLTRD	BACIL WATER FLTRD	BUFOS WATER FLTRD	BENCARB WATER FLTRD	LATE WATER FLTRD	FLUR-
	AMIDE WATER FLTRD 0.7 U	CHLOR, WATER, DISS,	PANIL WATER FLTRD 0.7 U	PARGITE WATER FLTRD 0.7 U	MAZINE, WATER, DISS,	THIURON WATER FLTRD 0.7 U	BACIL WATER FLTRD 0.7 U	BUFOS WATER FLTRD 0.7 U	BENCARB WATER FLTRD 0.7 U	LATE WATER FLTRD 0.7 U	FLUR- ALIN WAT FLT 0.7 U
DATE	AMIDE WATER FLTRD 0.7 U GF, REC	CHLOR, WATER, DISS, REC	PANIL WATER FLTRD 0.7 U GF, REC	PARGITE WATER FLTRD 0.7 U GF, REC	MAZINE, WATER, DISS, REC	THIURON WATER FLTRD 0.7 U GF, REC	BACIL WATER FLTRD 0.7 U GF, REC	BUFOS WATER FLTRD 0.7 U GF, REC	BENCARB WATER FLTRD 0.7 U GF, REC	LATE WATER FLTRD 0.7 U GF, REC	FLUR- ALIN WAT FLT 0.7 U GF, REC
DATE	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	CHLOR, WATER, DISS, REC (UG/L)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L)	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	MAZINE, WATER, DISS, REC (UG/L)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L)	BACIL WATER FLTRD 0.7 U GF, REC (UG/L)	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L)	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L)	LATE WATER FLTRD 0.7 U GF, REC (UG/L)	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L)
	AMIDE WATER FLTRD 0.7 U GF, REC	CHLOR, WATER, DISS, REC	PANIL WATER FLTRD 0.7 U GF, REC	PARGITE WATER FLTRD 0.7 U GF, REC	MAZINE, WATER, DISS, REC	THIURON WATER FLTRD 0.7 U GF, REC	BACIL WATER FLTRD 0.7 U GF, REC	BUFOS WATER FLTRD 0.7 U GF, REC	BENCARB WATER FLTRD 0.7 U GF, REC	LATE WATER FLTRD 0.7 U GF, REC	FLUR- ALIN WAT FLT 0.7 U GF, REC
OCT	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	CHLOR, WATER, DISS, REC (UG/L) (04024)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	MAZINE, WATER, DISS, REC (UG/L) (04035)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT 21	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	CHLOR, WATER, DISS, REC (UG/L)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L)	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	MAZINE, WATER, DISS, REC (UG/L)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L)	BACIL WATER FLTRD 0.7 U GF, REC (UG/L)	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L)	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L)	LATE WATER FLTRD 0.7 U GF, REC (UG/L)	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L)
OCT 21 NOV	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) <.003	CHLOR, WATER, DISS, REC (UG/L) (04024)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013	MAZINE, WATER, DISS, REC (UG/L) (04035)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002
OCT 21	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	CHLOR, WATER, DISS, REC (UG/L) (04024)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	MAZINE, WATER, DISS, REC (UG/L) (04035)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
OCT 21 NOV 25 DEC 17	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) <.003	CHLOR, WATER, DISS, REC (UG/L) (04024)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013	MAZINE, WATER, DISS, REC (UG/L) (04035)	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002
OCT 21 NOV 25 DEC 17 JAN	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) <.003 <.003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007 <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004 <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013 <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.013 .010	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) <.010 E.007 <.010	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) <.007 <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) <.013 <.013	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002 <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002 <.002
OCT 21 NOV 25 DEC 17 JAN 13	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) <.003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.013	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) < .010 E.007	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) <.013	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002
OCT 21 NOV 25 DEC 17 JAN 13 FEB	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) < .003 < .003 < .003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007 <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004 <.004 <.004	PARGITE WATER FLITED 0.7 U GF, REC (UG/L) (82685) <.013 <.013 <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.013 .010	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) <.010 E.007 <.010 <.010	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) <.007 <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) < .013 < .013 < .013	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002 <.002 <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002 <.002 <.002
OCT 21 NOV 25 DEC 17 JAN 13 FEB 18	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) <.003 <.003 <.003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007 <.007 <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004 <.004 <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013 <.013 <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.013 .010 .009	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) < .010 E.007 < .010 < .010	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) <.007 <.007 <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) <.013 <.013 <.013	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002 <.002 <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002 <.002 <.002
OCT 21 NOV 25 DEC 17 JAN 13 FEB 18 24	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) < .003 < .003 < .003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007 <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004 <.004 <.004	PARGITE WATER FLITED 0.7 U GF, REC (UG/L) (82685) <.013 <.013 <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.013 .010	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) <.010 E.007 <.010 <.010	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) <.007 <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) < .013 < .013 < .013	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002 <.002 <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002 <.002 <.002
OCT 21 NOV 25 DEC 17 JAN 13 FEB 18	AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) <.003 <.003 <.003	CHLOR, WATER, DISS, REC (UG/L) (04024) <.007 <.007 <.007	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) <.004 <.004 <.004	PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) <.013 <.013 <.013	MAZINE, WATER, DISS, REC (UG/L) (04035) 0.013 .010 .009	THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) < .010 E.007 < .010 < .010	BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) <.007 <.007 <.007	BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) <.013 <.013 <.013	BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) <.002 <.002 <.002	LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) <.001 <.001 <.001	FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661) <.002 <.002 <.002

SURFACE-WATER RECORDS **Chagrin River Basin**

04209000 CHAGRIN RIVER AT WILLOUGHBY, OHIO

LOCATION.--Lat 41°37'51", long 81°24'13", in T.9 N., R.10 W., Lake County, Hydrologic Unit 04110003, on left bank, 150 ft downstream from city waterworks dam, 800 ft downstream from East Branch, 1.0 mi southeast of Willoughby, and 5.0 mi upstream from mouth.

DRAINAGE AREA. -- 246 mi2.

PRAINAGE AREA. --246 mir.

PERIOD OF RECORD. --July 1925 to November 1935, October 1939 to 1984, March 25, 1988 to September 1994, October 1, 1995, to September, 1996. (July 1925 to September 1932 monthly runoff in inches, adjusted for diversion, published in WSP 1307; previously published runoff was unadjusted and should not be used).

REVISED RECORDS. --WSP 1084: 1929 (M), 1931 (M). WSP 1307: 1926-28 (M), 1930 (M), 1932-35 (M), 1942 (M). WSP 1912: Drainage

area. See also PERIOD OF RECORD.

area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 594.57 ft above sea level. Prior to Dec. 20, 1939, nonrecording gage at site 150 ft upstream at datum 7 ft higher.

REMARKS.---Records fair, except for periods of estimated record, which are poor. Water diverted 200 ft upstream from station for municipal supply of city of Willoughby until 1988, when water treatment plant was relocated downstream of gaging station. Water-quality and sediment data collected at this site.

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04211820 GRAND RIVER AT HARPERSFIELD, OHIO

LOCATION.--Lat 41°45'19", long 80°56'55", Ashtabula County, Hydrologic Unit 04110004, on left bank, 2000 ft downstream of bridge on State Highway 534, 0.25 mi south of Harpersfield, 4.85 mi upstream of Mill Creek confluence. DRAINAGE AREA.--552 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1996 to current year. GAGE.--Water-stage recorder. Altitude of gage is 735 ft above sea level. REMARKS.--Records fair except for periods of estimated record, which are poor.

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e Estimated.

04211820 GRAND RIVER AT HARPERSFIELD, OHIO--Continued National Water-Quality Assessment Program, Lake Eric-Lake St. Clair Basin Study Unit

WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the NAWQA (National Water-Quaity Assessment Program) project in the Lake Erie-Lake St. Clair Basin. The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. This project is one of 59 river basin and aquifer assessment projects being implemented across the nation. At any one time, 15 to 20 of these projects are actively collecting data. The period of high-intensity data collection for the Lake Erie-Lake St. Clair Basin project is in water years 1996-98.

There are four stream sites in Ohio for which data are being reported in this publication as part of the NAWQA study: Auglaize River near Ft. Jennings (04186500), Maumee River at Waterville (04193500), Cuyahoga River at LTV Steel at Cleveland (04208504), and Grand River at Harpersfield (0421820). Three sites are reported in the 1998 Michigan annual data report: Black River near Jeddo, MI (04159492), Clinton River at Sterling Heights, MI (04161820) and River Raisin near Manchester, MI (04175600). Two Sites are reported in the 1998 Indiana annual data report: St. Joseph River near Newville, IN (04178000), and Maumee River at New Haven, IN (04183000). One site is reported in the 1998 New York annual data report: Cattaraugus Creek at Gowanda, NY (04213500).

These data also can be obtained electronically at http://www-oh.er.usgs.gov/nawqa.index.html.

[---, no data; <, concentration or value reported is less than that indicated; E, estimated value; K, value is estimated from a non-ideal colony coun]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
OCT 20	1300	65	263	7.8	14.0	11.0	744	10.3	96	K23	99	27
NOV												
24 DEC	1330	376	460	7.8	2.0	3.0	749	13.3	99		140	38
18 JAN	0945	236	299	7.7	1.5	.5	746	11.9	84	130	94	26
12 FEB	1400	3650	157	7.2	.0	3.0	746	11.4	87	K630	50	13
23	1300	773	243	7.5	4.0	4.0	738	13.4	106	200	80	22
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
20	7.3	11	3.1	93	78	20	19	0.2	3.7	169	<.01	<.05
NOV 24	10	31	4.3	102	83	47	56	.1	4.7	265	<.01	1.4
DEC 18 JAN	7.2	19	3.1	60	49	41	33	.1	5.8	204	<.01	1.2
12 FEB	4.2	8.4	2.9	31	26	24	14	<.1	5.4	106	.01	.39
23	6.0	14	2.3	51	41	31	24	<.1	5.0	147	.01	.48
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS-PHORUSORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	ACETO- CHLOR, WATER FLTRD REC (UG/L)
OCT	(00608)	(00625)	(00623)	(00665)	(00666)	(00671)	(01046)	(01056)	(00681)	(00689)	(80154)	(49260)
20 NOV	<.02	0.55	0.40	0.04	0.02	<.01	42	24	7.5	0.8	8	0.079
24 DEC	<.02	.44	.38	.03	.02	.04	100	32	6.2	.7	11	.012
18 JAN	<.02	.55	.43	.05	.02	.01	140	59	6.0	.5	10	.007
12 FEB	<.02	.63	.41	.09	.03	<.01	160	38	7.0	1.1	55	<.002
23	.05	.55	.37	.06	.02	.03	140	31	5.6	.7	23	<.002

04211820 GRAND RIVER AT HARPERSFIELD, OHIO--Continued National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)
OCT 20	<.002	1.46	E.186	<.001	<.002	<.002	<.003	<.003	<.004	0.055	<.002	<.006
NOV 24	<.002	.194	E.047	<.200	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006
DEC 18 JAN	<.002	.175	E.020	<.600	<.002	<.002	<.003	<.003	<.004	.009	<.002	<.006
12 FEB	<.002	.054	E.007	<.500	<.002	<.002	<.003	<.003	< .004	<.004	<.002	<.006
23	<.002	.032	E.007	<.100	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.006
DATE	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)
OCT 20	0.092	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.010
NOV 24	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
DEC 18	<.002	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
JAN 12 FEB	.017	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
23	.005	<.001	<.003	<.017	<.002	<.004	<.003	<.003	<.002	<.004	<.002	<.005
DAT	WAT DISS (UG/ (394 . 0.7	O- BUZ LOR SENC ER WAT OLV DISS L) (UG/ 15) (826	TRI- INA ZIN WAT ZOR FLT TER 0.7 SOLV GF, (L) (UG, 630) (826	TER WAT FLT OF TER WAT FLT OF TER FLT OF TER F, (UG/571) (826	TDE TER PAI TRD TH TO D REC SO ('L') (U0 584) (399)	RA- TH: ION, WAT IS- 0.* LVED GF, G/L) (UG,	RA- UL ION WA FLT FI 7 U 0. REC GF, /L) (UG 667) (82	ATE ME ATER AL LITRD WAT 7 U 0. REC GF,	TH- MET. IN C FLT WAT 7 U 0. REC GF, /L) (UG 683) (82	FLT FL 7 U 0. REC GF, (L) (UG 687) (82	TER ME TRD WA 7 U DI REC RE (/L) (UC	RO- ETON, ATER, ISS, EC G/L) 4037)
JAN 12		10 0	110 . (006 <.	004 <.	004 <.			.018
FEB)10 <.(004 <.0	003 <.	004 <.	006 <. 006 <.	004 <.	004 <.	005 <.	002 <.	.018
	0	40 <.0	004 <.0	004 < .0	003 <.0	004 <.0	006 <. 006 <.	004 <. 004 <. 004 <.	004 <. 004 <. 004 <.	005 <. 005 <.	002 < .	.018
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DAT OCT 20 NOV 24 DEC	PRO AMI WATT FLT 0.7 GF, (UG/ (826	40 <.0 27 <.0 N- DE PRC ER CHI RD WAT U DIS REC REC L) (UG/ 76) (040 03 <.0	004 <.0 004 <.0 004 <.0 007 <.0 007 <.0 007 <.0	004 <.0 004 <.0 004 <.0 004 <.0 004 <.0 007 PF 007	003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.003 <.004 <.004 <.004 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.005 <.	004 <.0 004 <.0 004 <.0 004 <.0 004 <.0 TEI THITILINE, WA' TER, FL' SS, 0.0 CG GF, (L) (UG, 035) (820 033 <.0	006 <. 006 <. 006 <. 006 <. 006 <. 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DAT OCT 20 NOV 24 DEC 18	PRO AMI WATT FLT GF, (UG/ (826 . <.0 <.0 <.0	40 <.0 27 <.0 N- DE PRC ER CHI RD WAT U DIS REC REC L) (UG/ 76) (040 03 <.0 03 <.0 03 <.0	004 <.0 004 <.0 004 <.0 004 <.0 007 <.0 007 <.0 007 <.0	004 <.0 004 <.0 004 <.0 004 <.0 004 <.0 004 <.0 004 <.0 004 <.0 004 <.0 004 <.0	003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .003 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .004 < .00	004 <.1 004 <.1 004 <.1 004 <.1 004 <.1 005 <.1 005 <.1	006 <. 006 <. 006 <. 006 <. 006 <. 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04212100 GRAND RIVER NEAR PAINESVILLE, OHIO

LOCATION.--Lat 41°43'08", long 81°13'41", Lake County, Hydrologic Unit 04110004, on downstream left abutment of bridge on State Highway 84 (Walnut Avenue), 0.9 mi downstream from Big Creek in Painesville.

DRAINAGE AREA.--685 mi².

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 596.37 ft above sea level. Previously published, in error, as 620.37 ft above sea level.

REMARKS.--Records good. Water-quality data collected at this site.

		DISC	CHARGE,	CUBIC FEET			R YEAR OCTO I VALUES	BER 1997 T	O SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	75 54 47 115 131	139 124 114 108 103	1150 833 584 544 596	1670 843 915 3320 3250	985 813 747 632 537	460 541 613 664 683	649 730 784 685 562	1320 981 1030 1350 1770	59 48 47 48 49	45 39 42 39 35	17 14 12 12 12	31 30 28 21 16
6 7 8 9 10	94 70 75 78 74	103 102 95 90 88	643 617 642 665 985	2270 3580 9680 10900 8190	454 399 367 340 326	731 707 715 1580 2650	457 382 331 768 4570	1630 1140 804 657 750	49 49 45 41 40	30 27 28 26 23	12 11 11 12 138	14 13 12 12 11
11 12 13 14 15	68 61 54 57 57	92 123 131 138 169	2560 2670 1940 1530 1130	5390 4030 2960 1700 973	320 496 744 683 549	2340 1780 1340 999 814	4100 2320 1750 1270 1240	691 504 381 312 259	39 87 139 87 127	21 19 19 18 18	90 36 34 49 42	11 9.7 8.6 10
16 17 18 19 20	55 63 80 80 79	196 227 287 284 283	809 690 641 614 707	910 874 789 694 623	462 867 2790 2620 1850	730 827 1680 2100 1710	2790 6840 6300 3970 5840	220 185 153 130 112	338 276 156 142 145	35 30 24 38 40	32 25 25 23 17	14 15 11 11
21 22 23 24 25	79 81 85 88 85	398 714 648 563 441	737 695 1580 1850 2710	571 535 743 1360 1580	1520 1280 1000 812 662	2190 2270 1980 1630 1180	5030 2700 1670 1060 684	97 87 79 70 64	186 129 90 70 56	38 68 91 56 48	13 12 11 19 85	97 115 55 33 24
26 27 28 29 30 31	87 306 209 198 215 175	417 602 791 1110 1370	2450 1730 1200 882 689 539	1250 1020 953 1050 1590 1320	552 485 443 	853 662 588 845 846 705	2000 4260 3360 2210 1870	60 57 53 52 50 49	48 42 43 44 46	48 47 37 30 25 21	50 28 19 22 40 41	20 17 14 12 11
TOTAL MEAN MAX MIN CFSM IN.	3075 99.2 306 47 .14 .17	10050 335 1370 88 .49 .55	35612 1149 2710 539 1.68 1.93	2437	23735 848 2790 320 1.24 1.29	37413 1207 2650 460 1.76 2.03	71182 2373 6840 331 3.46 3.87	15097 487 1770 49 .71 .82	2765 92.2 338 39 .13 .15	1105 35.6 91 18 .05 .06	964 31.1 138 11 .05	699.3 23.3 115 8.6 .03
STATIST	ICS OF M	ONTHLY MEA	AN DATA	FOR WATER	YEARS 1975	- 1998,	, BY WATER	YEAR (WY)				
MEAN MAX (WY) MIN (WY)	509 1880 1991 42.1 1992	1250 4026 1986 67.1 1979	1612 3816 1978 363 1992	1993 109	1804 4044 1981 322 1987	2021 3753 1993 577 1990	1483 2598 1987 450 1975	834 3214 1989 106 1987	686 2851 1986 39.8 1988	274 1106 1987 30.5 1991	251 1106 1980 17.0 1991	429 1854 1990 11.0 1995
	STATIST	ICS	FOI	R 1997 CALE	NDAR YEAR	I	FOR 1998 WA	TER YEAR		WATER YEA	ARS 1975	- 1998
LOWEST HIGHEST LOWEST ANNUAL INSTANT INSTANT ANNUAL ANNUAL 10 PERC 50 PERC	MEAN ANNUAL M ANNUAL M DAILY M DAILY ME SEVEN-DA ANEOUS P	EAN EAN AN Y MINIMUM EAK FLOW EAK STAGE OW FLOW CFSM) INCHES) EDS EDS		369290 1012 13400 11 13 1.4 20.0 2590 540 31			277230.3 760 10900 8.6 10 12600 10.34 7.7 1.11 15.06 1960 227 19			1047 1406 668 15300 5.1 5.3 18700 13.16 5.1 1.53 20.78 2810 428 39	Aug Aug Jun 1 Dec 2	1997 1992 6 1985 4 1991 2 1991 11 1986 25 1979 4 1991

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

SURFACE-WATER RECORDS **Conneaut River Basin**

04213000 CONNEAUT CREEK AT CONNEAUT, OHIO

LOCATION.--Lat 41°55'37", long 80°36'15", Ashtabula County, Hydrologic Unit 04120101, on right bank at downstream side of Keefus Road bridge at Conneaut, and 6.4 mi upstream from mouth.

DRAINAGE AREA.--175 mi².

PERIOD OF RECORD.--July 1922 to December 1935, March 1950 to September 1961 (published as "at Amboy"), October 1961

to current year.
REVISED RECORDS.--WSP 714: 1926. WSP 784: 1933. WSP 1437: 1923-25(M), 1926-30, 1931-32(M), 1933, 1935(M). WSP 1912:

Drainage area.

GAGE..-Water-stage recorder. Datum of gage is 610.30 ft above sea level. Prior to Aug. 17, 1924, nonrecording gage at same site and datum.

REMARKS.--Records good except for periods of estimated record, which are poor. Water-quality and sediment data collected at this site.

		DISC	CHARGE,	CUBIC FEET		O, WATER ILY MEAN		BER 1997 T	O SEPTE	MBER 1998		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	16 37 37 28 31	32 29 26 29 33	351 227 137 139 311	140 269 1420	320 233 209 191 155	111 139 157 139 159	197 406 346 224 168	274 734 1610 926 970	78 74 78 58 48	19 19 18 15	e7.0 e6.6 e6.2 e6.0 e5.6	e11 e10 e8.6 e7.8 e7.0
6 7 8 9 10	21 20 24 18	28 24 21 19 17	271 204 236 260 350	4760	130 102 85 78 71	192 182 160 247 490	136 112 100 242 1660	681 535 346 377 352	46 44 43 40 39	11 9.7 11 e11 e10	e5.4 e5.2 e5.0 e10 e54	e6.4 e6.0 e5.6 e5.2 e5.0
11 12 13 14 15	12 10 8.8 9.4 9.6	19 23 25 35 47	1190 1010 534 376 285	451 326 303	71 120 314 258 161	400 275 239 231 213	1220 353 211 170 410	258 236 242 209 175	40 50 79 85 63	e9.4 e8.8 e8.4 e8.0 e7.6	e40 e15 e12 e19 e17	e4.8 e4.6 e4.5 e6.0 e8.2
16 17 18 19 20	9.5 10 11 12 12	100 73 83 70 65	242 228 220 212 265	335 255 214	117 183 811 772 476	202 222 650 1480 942	730 2650 1990 550 1580	156 141 130 117 109	165 129 61 47 42	e14 e11 e9.4 e15 e17	e15 e11 e9.8 e7.6 e6.2	e9.0 e7.2 e6.0 e5.2 e7.0
21 22 23 24 25	13 17 19 18 18	122 271 301 203 128	364 291 782 1120 1350	162 206 517	330 281 237 197 164	821 987 579 469 375	1610 489 297 211 165	97 96 92 88 86	36 32 30 30 25	e14 e20 e30 e23 e16	e5.4 e5.0 e4.6 e10 e25	e32 e40 e27 e20 e13
26 27 28 29 30 31	21 51 81 101 62 40	116 205 260 224 303	1510 729 405 265 201 168	212 223 294 651	143 127 116 	271 210 181 261 343 224	238 977 578 311 308	83 76 75 70 62 72	25 23 23 21 20	e12 e11 e10 e9.4 e8.6 e7.8	e9.8 e7.4 e6.0 e8.0 e16 e13	e10 e9.0 e8.0 e7.4 e6.8
TOTAL MEAN MAX MIN CFSM IN.	792.3 25.6 101 8.8 .15	2931 97.7 303 17 .56	14233 459 1510 137 2.62 3.03	747 4760 129	6452 230 811 71 1.32 1.37	11551 373 1480 111 2.13 2.46	18639 621 2650 100 3.55 3.96	9475 306 1610 62 1.75 2.01	1574 52.5 165 20 .30	408.1 13.2 30 7.6 .08 .09	373.8 12.1 54 4.6 .07	308.3 10.3 40 4.5 .06
STATIS'	TICS OF MC	NTHLY ME	AN DATA	FOR WATER Y	YEARS 1922	- 1998,	BY WATER Y	ZEAR (WY)				
MEAN MAX (WY) MIN (WY)	138 804 1927 4.95 1924	321 1373 1986 17.1 1954	422 1049 1928 35.1 1961		460 1115 1981 39.6 1934	539 987 1972 235 1969	392 839 1957 69.9 1935	234 670 1953 20.2 1934	135 1013 1986 5.46 1934	76.5 415 1969 2.79 1934	65.8 493 1980 3.19 1923	105 709 1990 3.56 1932
SUMMAR	Y STATISTI	CS	FO	R 1997 CALE	NDAR YEAR	F		TER YEAR		WATER YE	ARS 1922	- 1998
LOWEST HIGHES' LOWEST ANNUAL INSTAN' INSTAN' INSTAN' ANNUAL	MEAN T ANNUAL M ANNUAL M T DAILY MEA DAILY MEA SEVEN-DAY TANEOUS PE TANEOUS PE TANEOUS LO RUNOFF (C	AN AN MINIMUM AK FLOW AK STAGE W FLOW CFSM)		103738.5 284 4560 8.8 9.8			4760 4.5 5.1 6070 8.15 4.5 1.41 19.11	Jan 9 Sep 13 Sep 7 Jan 9a Jan 9 Sep 13		275 401 140 11000 .30 .64 17000 12.94 .20 1.57 21.38		1986 1931 31 1968 30 1933 27 1933 22 1959 4 1934 31 1933
10 PER	RUNOFF (I CENT EXCEE CENT EXCEE CENT EXCEE	DS DS		750 128 15	J		616 96 8.0			685 97 10		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations. e Estimated.

PEAK DISCHARGES AND STAGES AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS

For continuous-record surface-water-discharge stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented in this table. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. The peaks are listed in chronological order. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by human intervention. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330. The maximum peak discharge and gage height for the water year are flagged with an asterisk (*).

[e, estimated]

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)
			LAKE	ERIE BASIN			
			OTTAWA	RIVER BASIN			
	0417700	0 OTTAWA RIVI	R AT TOLEDO INIVERS	ITY, TOLEDO, OH (Base	discharc	e. 1 150 ft ³ /	a)
Jan. 9	0600	1,680	10.67	Apr. 10	2130	1,320	9.60
Feb. 18	1600	*2,320	*12.03	Apr. 27	1800	1,350	9.70
Mar. 10	1430	1,690	10.71	May 3	0900	1,170	9.12
			MAUMEI	E RIVER BASIN			
						2	
		04185000 T	IFFIN RIVER AT STRYK	ER, OH (Base discharge	: 1,850	ft ³ /s)	
Jan. 10	0400	3,230	13.85	Mar. 22	0300	2,030	12.22
Feb. 20	0300	3,600	14.29	Apr. 12	0900	1,940	12.07
Mar. 11	1600	2,950	13.51	Aug. 25	1900	*5,110	*15.93
	041854	40 UNNAMED T	RIBUTARY TO LOST CRE	EK NR FARMER, OH (Base	dischar	ge: 120 ft ³ /s)
Jan. 8	0730	171	3.69	Apr. 9	1415	568	5.21
Feb. 17	1945	286	4.26	Apr. 16	0615	268	4.18
Mar. 9	0915	370	4.59	Aug. 6	2315	382	4.63
Mar. 19	0145	173	3.70	Aug. 25	1245	*1,770	*7.59
Mar. 28	1500	164	11.94				
	041	86500 AUGLAI	ZE RIVER NEAR FORT J	ENNINGS, OH (Base disc	harge: 2	,700 ft ³ /s)	
Jan. 9	2400	*4,360	*13.59	Apr. 11	0400	3,440	12.31
Feb. 19	0430	3,220	11.94	June 13	2130	2,770	11.12
		04187100	OTTAWA RIVER AT LIMA	, OH (Base discharge:	1.300 ft	. ³ /s)	
Jan. 8	2000	*2,930	*15.58	June 12	0830	1,710	13.59
Feb. 18	0030	1,660	13.52	July 4	0430	1,730	13.63
Mar. 21	0900	1,560	13.35	Aug. 6	2300	1,520	13.28
	(14189000 BIAN	CHARD RIVER NEAR FIN	DLAY, OH (Base discha:	rae 2.80	10 ft ³ /s)	
Jan. 8	2330	*5,990	*12.21	Apr. 10	1100	3,830	9.71
Feb. 18	1900	4,180	10.22	June 12	2330	3,500	9.07
Mar. 21	2400	3,120	8.42	June 30	0900	2,840	7.80
			PORTAG	E RIVER BASIN			
		04105500 505	made bives an excess	III OII (Pers Alas)	2 500	£ £ 3 / _ \	
D 05	2400			LLE, OH (Base discharg			0.10
Dec. 25	2400	3,530	8.35	Apr. 10	1730	4,370	9.19
Jan. 9	1400	7,510	11.63	May 5	1600	5,260	9.99
Feb. 19	0830	8,670	12.37	Aug. 27	0500	*11,500	*13.98

PEAK DISCHARGES AND STAGES AT CONTINUOUS-RECORD SURFACE DISCHAGE STATIONS

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998-Continued

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGH (FT)
			SANDUSKY	RIVER BASIN			
		04196000 SANI	DUSKY RIVER NEAR BUCY	RUS, OH (Base dischar	ge: 1,20	0 ft ³ /s)	
Jan. 8	1500	*3,210	*8.43	Apr. 17	1500	1,500	6.27
Feb. 19	0500	1,590	6.46	June 13	1330	1,280	5.79
Mar.21	2000	1,570	6.42				
		04196800 TYM	OCHTEE CREEK AT CRAWF	ORD, OH (Base dischar	ge: 1,80	$0 \text{ ft}^3/\text{s})$	
Jan. 9	1930	*5,190	*8.82	Apr. 11	1330	2,310	6.60
Mar. 22	2230	2,340	6.63	Apr. 18	1100	1,950	6.23
		04197100 H	ONEY CREEK AT MELMORE	, OH (Base discharge	: 1,500 f	Et ³ /s)	
Jan. 8	1800	*3,550	10.11	June 28	2200	2,020	7.95
Feb. 18	2330	2,390	8.52	Aug. 26	1000	2,650	8.90
Mar. 22	0100	1,800	7.59				
	(04198000 SAND	USKY RIVER NEAR FREMO	NT, OH (Base discharg	ge: 10,00	00 ft ³ /s)	
Jan. 9	0230	*18,500	8.76	Mar. 21	2330	10,300	6.18
Feb. 18	2300	15,900	7.93	Aug. 26	0730	17,700	8.51
			HURON I	RIVER BASIN			
		04199000	HURON RIVER AT MILAN,	OH (Base discharge:	4.700 ft	³ /s)	
Jan. 8	1200	12,200	20.54	Apr. 17	0745	7,870	17.23
Feb. 18	0645	7,230	16.67	Jan. 30	2115	7,300	16.73
Mar. 21	1200	7,860	17.22	Aug. 26	0830	*16,800	*23.36
			OLD WOMAN	'S CREEK BASIN			
	0419915	5 OLD WOMAN'S	S CREEK AT BERLIN ROA	O NEAR HURON, OH (Bas	e discha	rge: 400 ft ³ /	s)
Jan. 7	2345	*1,270	*10.60	Apr. 17	0245	1,050	10.04
Feb. 17	2130	881	9.52	June 30	2115	689	8.76
Mar. 21	0315	878	9.51	July 22	0700	624	8.47
Apr. 9	1800	764	9.07				
			BLACK F	RIVER BASIN			
		04200500 F	BLACK RIVER AT ELYRIA	OH (Base discharge:	3.200 f	t.3/s)	
Jan. 9	0900	*10,400	*15.03	Apr. 17	0930	5,600	10.96
Feb. 18	2100	3,560	8.67	Aug. 27	0430	4,060	9.28
Mar. 21	2330	4,860	10.19			,	
			ROCKY I	RIVER BASIN			
		04201500 R	OCKY RIVER NEAR BEREA	OH (Base discharge	. 4 000 f	+3/s)	
Jan. 8	1030	*9,010	*6.76	Apr. 17	1330	8,880	6.71
Feb. 18	0130	4,900	5.04	Apr. 27	0100	4,730	4.96
Apr. 9	2200	4,360	4.78	May 4	0900	4,240	4.72
			CUYAHOGA	A RIVER BASIN			
		04206208	YELLOW CREEK AT GHEN	C, OH (Base discharge	: 140 ft	³ /s)	
Jan. 8	0420	158	*12.50	May 4	0145	*164	12.47
Apr. 16	1405	158	12.44	Aug. 25	2030	153	12.17
Apr. 26	1920	143	12.35	.5			· -
-							

PEAK DISCHARGES AND STAGES AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998—Continued

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)
		042062	10 NORTH FORK AT BA	TH, OH (Base discharge	140 ft ³ /s	3)	
Jan. 7	1955	150	12.24	Apr. 17	0115	*204	12.60
Jan. 8	0445	157	*13.29	July 22	0110	179	12.44
		04206211 PA	RK CREEK AT BATH CE	NTER, OH (Base discharg	ge: 60.0	ft ³ /s)	
Jan. 8	0325	*37	*12.20				
		04206212 NO	ORTH FORK AT BATH C	ENTER, OH (Base dischar	ge: 230 i	ft ³ /s)	
Jan. 8	0445	237	11.76	Apr. 17	0130	*257	*11.85
Apr. 16	1050	237	11.76				
		04206215 BA	TH CREEK AT BATH CE	NTER, OH (Base discharg	ge: 80.0	$ft^3/s)$	
Jan. 8	0525	88	13.42	Apr. 16	1320	*92	*13.46
		04206220	YELLOW CREEK AT BOT	ZUM, OH (Base discharge	e: 650 ft	(3/s)	
Jan. 8	0420	831	13.90	Apr. 26	1705	712	13.61
Apr. 16	1050	*853	*13.95	Aug. 25	1655	665	13.50
		04207200 TI	NKERS CREEK AT BEDF	ORD, OH (Base discharge	e: 1,500	$ft^3/s)$	
Jan. 8	unknown	*e4,000	unknown	Apr. 26	0530	1,770	6.31
Apr. 16	0630	1,800	6.34	Aug. 10	0900	1,560	6.11
Aor, 16	2300	3,730	7.82				
			CHAGR	IN RIVER BASIN			
	(04209000 CHAC	FRIN RIVER AT WILLO	UGHBY, OH (Base dischar	ge: 4,000	0 ft ³ /s)	
Jan. 8	1000	*6,970	9.39	Apr. 17	0630	6,150	8.80
Jan. 9	1400	4,410	7.33	Apr. 26	2000	4,490	7.40
			GRAN	D RIVER BASIN			
		04211820 GRAN	ID RIVER AT HARPERS	FIELD, OH (Base dischar	ae: 5.500) ft ³ /s)	
Jan.9	unknown	*7,650	8.66	Apr. 17	1915	7,250	8.47
Apr. 10	1545	5,250	7.40	Apr. 20	1930	5,710	7.67
	n	4212100 GRAN	D RIVER NEAR PAINES	VILLE, OH (Base dischar	rae: 6.50	0 ft.3/s)	
Jan. 9	1300	*12,600	10.34	Apr. 18	0100	7,420	7.79
			CONNEA	UT RIVER BASIN			
		04212000 COM	NEVILL CODER VA COMP	ENIT OF (Page dischare	70. 2 000	f+3/g)	
Tan 0				EAUT, OH (Base discharg			C 04
Jan. 9	1030	*6,070	*8.15	Apr. 17	1830	3,190	6.04

GROUND-WATER RECORDS Crawford County

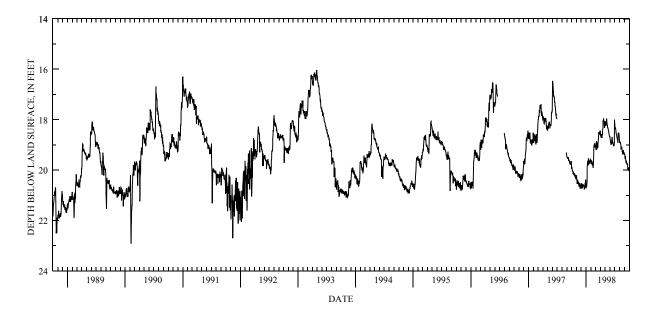
404838082563100. LOCAL NUMBER, CR-1

LOCATION.--Lat 40°48'38", long 82°56'31", Hydrologic Unit 04100011, Timken Roller Bearing Co., U.S. 30 in Bucyrus.
Owner: Timken Roller Bearing Co.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in., depth 54 ft, cased.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is 1039.13 ft above sea level.
Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of water.
PERIOD OF RECORD.--April 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 37.64 ft below land-surface datum, Dec. 11, 1962;
minimum daily low, 16.04 ft below land-surface datum, Apr. 29, 1993.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	19.95 19.93 19.87 19.95 19.99	20.21 20.25 20.40 20.52 20.54	20.69 20.73 20.64 20.52 20.56	20.70 20.64 20.64 20.66 20.59	19.65 19.75 19.76 19.62 19.65	19.03 18.99 19.11 19.19 19.19	18.48 18.63 18.60 18.67 18.68	18.06 18.15 18.18 18.16 18.21	18.72 18.76 18.79 18.86 18.90	18.11 18.18 18.32 18.29 18.34	18.88 18.91 18.89 18.91 18.93	19.37 19.36 19.40 19.51 19.55
6 7 8 9 10	20.02 20.04 20.06 20.07 20.15	20.47 20.43 20.39 20.43 20.49	20.59 20.71 20.71 20.59 20.56	20.55 20.42 19.93 19.73 19.71	19.72 19.72 19.75 19.78 19.81	19.18 19.17 18.85 19.15 19.15	18.68 18.69 18.72 18.57 18.68	18.24 18.19 18.10 18.09 17.99	18.92 18.96 19.00 18.99 18.92	18.34 18.34 18.39 18.45 18.54	18.89 18.95 18.98 19.03 19.18	19.48 19.45 19.55 19.60 19.65
11 12 13 14 15	20.13 20.06 20.08 20.17 20.19	20.53 20.54 20.52 20.48 20.50	20.63 20.65 20.57 20.63 20.61	19.68 19.63 19.79 19.82 19.53	19.70 19.79 19.83 19.89 19.91	19.13 19.08 18.92 19.07 19.09	18.70 18.70 18.58 18.48 18.48	17.98 18.08 18.13 18.18 18.22	18.95 18.87 18.73 18.72 18.68	18.56 18.57 18.60 18.66 18.69	19.10 19.13 19.11 19.07 19.13	19.71 19.63 19.65 19.67 19.73
16 17 18 19 20	20.19 20.14 20.15 20.13 20.21	20.63 20.65 20.57 20.52 20.57	20.58 20.62 20.65 20.67 20.75	19.56 19.63 19.66 19.68 19.75	19.78 19.66 19.27 19.07	19.08 18.96 18.84 18.81 18.75	18.34 18.19 18.19 18.03 18.09	18.24 18.31 18.34 18.31 18.33	18.82 18.92 18.94 18.88 18.92	18.70 18.74 18.78 18.82 18.80	19.17 19.19 19.27 19.30 19.31	19.76 19.76 19.75 19.74 19.77
21 22 23 24 25	20.21 20.27 20.24 20.18 20.31	20.53 20.58 20.63 20.73 20.66	20.77 20.65 20.70 20.67 20.53	19.74 19.73 19.65 19.62 19.68	19.07 18.97 18.96 19.10 19.06	18.56 18.50 18.55 18.61 18.61	18.03 17.98 17.99 18.05 18.11	18.39 18.45 18.45 18.49 18.51	18.96 18.99 19.00 19.04 19.04	18.92 18.89 18.61 18.51 18.54	19.38 19.32 19.27 19.25 19.22	19.79 19.95 19.97 19.90 19.90
26 27 28 29 30 31	20.29 20.32 20.36 20.34 20.36 20.26	20.64 20.70 20.62 20.62 20.54	20.54 20.47 20.50 20.38 20.47 20.72	19.68 19.62 19.55 19.57 19.64 19.69	18.92 19.02 19.02 	18.48 18.53 18.51 18.56 18.47 18.43	18.19 18.30 18.32 18.25 18.19	18.57 18.60 18.63 18.66 18.68	19.04 19.01 18.97 18.61 18.00	18.55 18.54 18.56 18.65 18.72 18.83	19.25 19.35 19.30 19.34 19.34	19.92 19.93 19.99 19.98 19.99
MAX	20.36	20.73	20.77	20.70	19.91	19.19	18.72	18.68	19.04	18.92	19.39	19.99

CAL YR 1997 LOW 20.77 WTR YR 1998 LOW 20.77



GROUND-WATER RECORDS Geauga County

412518081221500. LOCAL NUMBER, GE-3A

LOCATION.--Lat 41°25'18", long 81°22'15", Hydrologic Unit 04110003, 1.2 miles southeast of Chagrin Falls.

Owner: City of Chagrin Falls

AQUIFER.--Sandstone of Pennsylvanian Age. WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth drilled 120 ft, present depth 89 ft, cased. INSTRUMENTATION.--Digital recorder--60 minute punch.
DATUM.--Elevation of land-surface datum is 1130 ft above sea level.

Measuring point: Floor of instrument shelter 3.50 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 3.0 ft above land-surface datum.

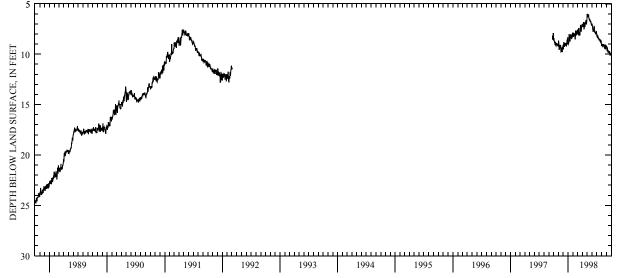
REMARKS. --Station operated by Ohio Department of Natural Resources, Division of Water. Water level affected by pumping wells nearby for Chagrin Falls municipal supply.

PERIOD OF RECORD.--September 1951 to September 1991 continuous. Discontinued October 1991 to March 1996. Periodic measurements April 1996 to September 1997. Continuous September 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 52.85 ft below land-surface datum, Oct. 2, 1965; minimum daily low, 5.99 ft below land-surface datum, May 2, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES DAY DEC FEB OCT NOV JAN MAR MAY JUN JUL AUG SEP APR 7.01 8.58 7 64 6 24 7.07 9.18 8 85 9.36 9 07 8 14 8 03 9.41 9.21 7.24 7.00 9.13 8.61 8.64 9.50 8.91 8.21 7.62 5.99 8.18 7.24 3 8.41 9.04 9.35 8.86 8.28 7.54 6.09 7.13 8.20 9.05 9.29 7.78 4 8 54 9 45 8 86 8 93 8.07 6 12 7 21 8 15 9 05 9 52 5 8.68 9.57 8.83 8.86 7.87 8.01 7.27 6.24 7.34 8.32 9.09 9.68 6 8.72 9.49 8.83 8.67 8.00 8.02 7.24 6.26 7.49 8.32 9.03 9.58 7.98 8.80 9.32 9.19 8.51 8.01 7.22 6.20 7.62 8.22 9.34 8 8.87 9.14 9.27 8.01 8.05 7.82 7.03 6.04 7.77 8.17 9.20 9.48 9.05 7.77 8.83 9.10 8.34 8.14 7.41 6.82 6.19 8.24 9.16 9.69 8.49 10 9.04 9.23 8.89 8.20 8.04 7.30 6.17 7.60 8.39 9.02 9.81 8.05 6.13 11 9.09 9.34 9.14 8.57 8.11 7.43 7.62 8.44 12 8.93 9.38 9.18 8.53 8.02 8 10 7.52 6.32 7.43 8.43 9.18 9.62 8.78 8.98 8.16 8.03 7.37 6.42 7.36 8.41 9.67 13 9.38 8.69 9.18 9.10 7.83 6.50 7.36 8.48 15 9.15 9.22 9.09 8.19 8.52 8.04 7.02 6.55 7.19 8.51 9.01 9.78 16 9.18 9.62 9.02 8.02 8.32 8.11 6.83 6.48 7.46 8.48 9.12 9.86 17 9.07 9.72 8.96 8.03 8.05 7.95 7.17 6.66 7.75 7.79 8.47 9.11 9.87 8.98 9.67 9.00 8.13 7.65 7.63 7.29 6.70 8.52 9.28 9.85 18 8.96 19 8.89 9 47 7.86 7.09 9 4 0 9.73 7.04 20 8.98 9.49 9.11 8.37 7.83 7.27 6.54 7.74 8.58 9.43 9.73 7.79 8 98 9 23 8 06 7 00 9 41 9 74 21 9 35 8 42 7 10 6.66 8 66 22 9.02 9.02 7.22 6.77 7.90 9.32 9.37 8.33 8.12 6.88 8.65 9.95 23 9.01 9.46 8.92 8.09 7.91 7.42 6.79 7.89 8.57 9.24 24 8.93 9.78 9.73 8 92 8 09 7 79 7 71 6.62 6.75 6.80 7.97 8.73 9 06 10 05 7.99 7.75 7.95 25 9.11 8.55 8.79 9.12 8.31 6.79 9.97 9.11 9.29 7.97 7.47 7.88 9.34 26 8.68 8.36 6.73 6.94 8.82 10.01 6.96 8.62 7.02 7.90 2.8 9.14 9.36 8.65 8.05 7.70 7.15 7.03 7.08 7.93 8.64 9.36 10.04 9.15 9.38 7.87 7.28 6.84 7.05 7.93 9.24 29 8.46 ---8.68 10.05 9.23 9.07 ---7.12 6.59 7.72 8.77 9.31 8.03 9.91 31 9.03 9.06 8.15 ---7.03 6.95 9.05 9.41 MAX 9.23 9.78 9.50 9.07 8.52 8.11 7.52 7 13 7.97 9 05 9.43 10.12

CAL YR 1997 9.78 LOW WTR YR 1998 LOW 10.12



GROUND-WATER RECORDS Hancock County

405940083275500. LOCAL NUMBER, HA-3

LOCATION.--Lat 40°59`40", long 83°27'55", Hydrologic Unit 0410008, 2 miles south of Vanlue.
Owner: City of Findlay.
AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 10 in., diameter 6 in. below 55 ft., depth 240 ft, WELL CHARACTERISTICS.--Drilled artesian well, diameter 10 in., diameter 6 in. below 55 ft., depth 240 cased to 55 ft.

INSTRUMENTATION.--Type F continuous recorder.

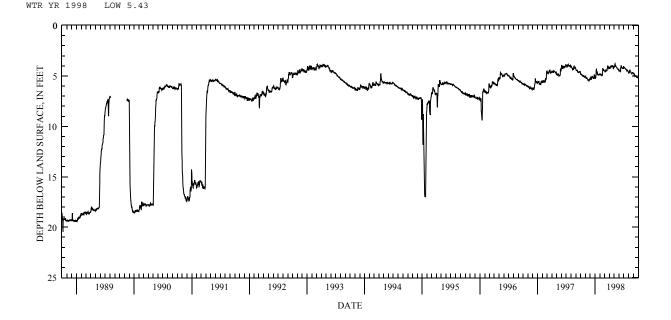
DATUM.--Elevation of land-surface datum is 815 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 1.40 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--May 1947 to October 1972 and August 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 20.67 ft below land-surface datum, Sept. 22, 1988; minimum daily low, 3.76 ft below land-surface datum, May 7, 1998.

		DEPTH BELO	OW LAND S	SURFACE			, WATER YEA UM VALUES	R OCTOBER	. 1997 To) SEPTEMBER	1998	
DAY	OCT	NOV	DEC	JAN	I FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	4.85 4.84 4.76 4.83 4.83	5.02 5.05 5.16 5.26 5.27	5.29 5.30 5.22 5.14 5.18	5.25 5.16 5.16 5.17 5.06	4.89 4.89 4.81	4.51 4.51 4.52 4.58 4.61	4.14 4.22 4.22 4.23 4.24	4.08 4.08 4.14 4.07 4.01	4.43 4.45 4.48 4.48 4.51	4.10 4.10 4.10 4.14 4.16	4.70 4.67 4.68 4.70 4.69	4.74 4.75 4.79 4.87 4.92
6 7 8 9 10	4.86 4.86 4.88 4.89 4.96	5.21 5.15 5.15 5.16 5.22	5.21 5.33 5.33 5.25 5.20	4.95 4.80 4.48 4.27	4.86 4.87 4.89	4.59 4.57 4.49 4.44 4.49	4.24 4.21 4.16 4.11 4.20	3.80 3.76 4.00 3.97 3.93	4.52 4.55 4.57 4.55 4.45	4.16 4.16 4.21 4.25 4.29	4.47 4.43 4.42 4.42 4.42	4.85 4.85 4.93 4.96 5.01
11 12 13 14 15	4.96 4.89 4.93 5.01 5.03	5.27 5.29 5.27 5.31 5.35	5.05 5.03 5.03 5.09	4.56 4.56 4.81 4.82	4.94 4.95 4.97	4.47 4.43 4.37 4.43 4.49	4.01 3.99 3.96 4.11 4.07	3.96 4.02 4.05 4.09 4.10	4.46 4.19 4.13 3.93 3.94	4.28 4.27 4.28 4.33 4.33	4.52 4.59 4.59 4.55 4.62	4.98 4.95 4.99 5.02 5.05
16 17 18 19 20	5.02 4.99 4.98 4.97 5.05	5.43 5.43 5.39 5.34 5.43	5.08 5.14 5.14 5.16 5.25	4.75 4.82 4.83 4.85	4.79 3 4.24 5 4.31	4.49 4.43 4.34 4.23 4.23	4.04 4.03 4.04 4.02 4.10	4.14 4.17 4.18 4.18 4.23	4.08 4.21 4.21 4.14 4.15	4.33 4.36 4.38 4.42 4.46	4.64 4.66 4.73 4.76 4.76	5.07 5.07 5.07 5.06 5.07
21 22 23 24 25	5.05 5.08 5.06 5.03 5.13	5.34 5.36 5.35 5.43 5.36	5.25 5.19 5.27 5.23 5.00	4.90 4.88 4.87 4.88	3 4.35 7 4.30 3 4.41	4.02 3.96 4.05 4.16 4.16	4.01 3.99 4.01 4.06 4.09	4.28 4.30 4.32 4.32 4.33	4.16 4.22 4.24 4.28 4.28	4.51 4.49 4.45 4.49 4.49	4.76 4.75 4.73 4.74 4.70	5.08 5.14 5.15 5.13
26 27 28 29 30 31	5.11 5.11 5.11 5.09 5.10 5.03	5.36 5.41 5.35 5.34 5.17	4.90 4.89 4.94 4.89 5.05 5.25	4.92 4.83 4.83 4.86 4.86	4.47 3 4.49 3	4.12 4.18 4.28 4.25 4.16 4.14	4.27 4.32 4.20 4.15 4.06	4.36 4.40 4.41 4.40 4.41 4.37	4.26 4.28 4.27 4.24 4.03	4.50 4.49 4.50 4.54 4.61 4.67	4.67 4.66 4.66 4.71 4.75	5.13 5.14 5.17 5.15 5.17
MAX	5.13	5.43	5.33	5.25	4.97	4.61	4.32	4.41	4.57	4.67	4.76	5.17



GROUND-WATER RECORDS Hardin County

404648083412600. LOCAL NUMBER, HN-2A

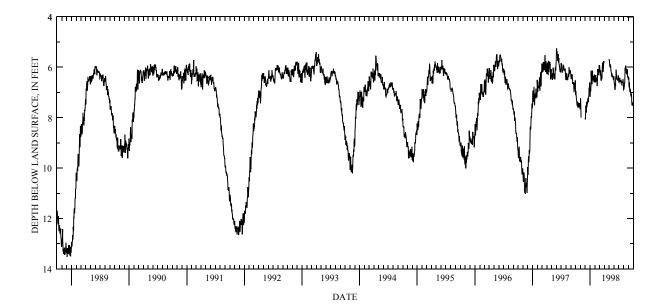
 $\label{location.--Lat 40°46'48", long 83°41'26", Hydrologic Unit 04100007, at southeast edge of Dola. } \\$

LOCATION.--Lat 40°46'48", long 83°41'26", Hydrologic Unit U4100007, at Southeast 5051 -Owner: Kevin Eikenbary.
AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 51 ft cased.
INSTRUMENTATION.--Type F continuous recorder.
DATUM.--Elevation of land-surface datum is 945 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 2.88 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--December 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 15.86 ft below land-surface datum, Jan. 20, 21, 1965;
minimum daily low, 5.25 ft below land-surface datum, June 2, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.08	7.30	8.01	7.15	6.49	5.96		5.72	6.51	6.51	6.88	6.48
2	7.08	7.23	8.07	6.95	6.60	5.95		5.68	6.54	6.59	6.87	6.38
3	6.94	7.62	7.91	6.91	6.60	5.99		5.75	6.62	6.60	6.80	6.44
4	7.09	8.00	7.52	6.95	6.45	6.18		5.82	6.65	6.53	6.81	6.68
5	7.16		7.54	6.90	6.31	6.31		5.93	6.73	6.58	6.77	6.80
3	7.10		7.54	0.50	0.51	0.51		3.33	0.75	0.50	0.77	0.00
6	7.25		7.57	6.77	6.41	6.31		5.97	6.82	6.55	6.69	6.72
7	7.30		7.78	6.58	6.44	6.31		5.95	6.86	6.51	6.61	6.60
8	7.34		7.78	6.13	6.47	6.12		5.87	6.90	6.42	6.63	6.77
9	7.42		7.51	6.43	6.51	6.13		6.00	6.89	6.44	6.35	6.90
10	7.50		7.37	6.55	6.55	6.50		5.99	6.68	6.53	6.13	6.98
11	7.52		7.56	6.57	C 41	6.52		5.94	6.69	6.57	6.02	6.96
	7.32		7.58	6.48	6.41 6.50	6.52		6.03		6.57		
12									6.45		6.09	6.88
13	7.36		7.43	6.67	6.55	6.45		6.12	6.35	6.51	6.08	6.89
14	7.55		7.46	6.67	6.70	6.30		6.19	6.33	6.57	5.98	6.93
15	7.59		7.45	6.15	6.74	6.44		6.20	6.09	6.59	5.93	7.04
16	7.59		7.34	6.15	6.60	6.47		6.23	6.32	6.56	6.00	7.11
17	7.54		7.25	6.30	6.33	6.37		6.35	6.47	6.54	6.04	7.14
18	7.47		7.23	6.34	6.07	6.11		6.35	6.47	6.57	6.20	7.13
19	7.41		7.23	6.40	6.14	5.93		6.30	6.32	6.60	6.25	7.06
20	7.48		7.34	6.51	6.13	5.93		6.25	6.38	6.61	6.26	7.07
21	7.49		7.38	6.51	6.28	5.81		6.33	6.39	6.72	6.26	7.15
22	7.56		7.22	6.47	6.29	5.92		6.36	6.47	6.65	6.24	7.40
23	7.53		7.15	6.34	6.11	6.04		6.37	6.47	6.57	6.18	7.50
24	7.42		7.13	6.46	6.11	6.18		6.36	6.51	6.60	6.07	7.44
25	7.57		6.81	6.54	6.21	6.18		6.36	6.51	6.61	6.14	7.41
26	7.55		6.87	6.56	6.16	6.02		6.40	6.52	6.61	6.32	7.43
27	7.59		6.84	6.52	5.91	5.90		6.45	6.46	6.54	6.38	7.42
28	7.65		6.78	6.37	5.94	5.75		6.48	6.51	6.46	6.37	7.51
29	7.63		6.60	6.29		5.83		6.48	6.51	6.51	6.35	7.51
30	7.66		6.75	6.43		5.75		6.49	6.32	6.61	6.39	7.48
31	7.52		7.15	6.50		5.75		6.36	0.32	6.82	6.50	7.40
			1.10	0.50							0.50	
MAX	7.66	8.00	8.07	7.15	6.74	6.52		6.49	6.90	6.82	6.88	7.51

CAL YR 1997 LOW 8.07 WTR YR 1998 LOW 8.07



GROUND-WATER RECORDS Henry County

412123083574000. LOCAL NUMBER, HY-2

LOCATION.--Lat 41°21'23", long 83°57'40", Hydrologic Unit 04100009, 1.4 Mi southwest of McClure.

LOCATION.--Lat 41°21'23", long 83°57'40", Hydrologic Unit 04100009, 1.4 Mi southwest of McClure.

Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth drilled 300 ft, cased to 43 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 680 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

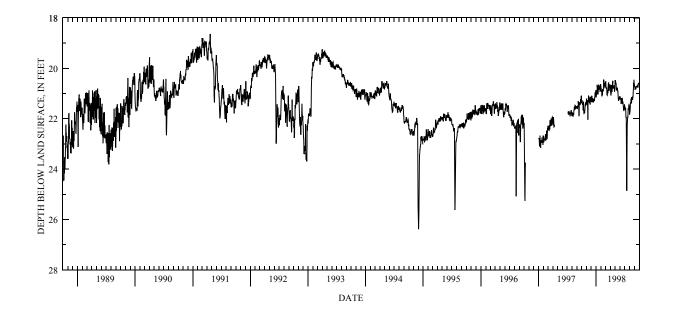
PERIOD OF RECORD.--June 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 26.38 ft below land-surface datum, Dec. 3, 1994;

minimum daily low, 14.55 ft below land-surface datum, Mar. 22, 1978.

		DEPTH BELOW	V LAND	SURFACE		EL) (FEET) AILY MAXIN			ER 1997 :	TO SEPTEMB	ER 1998	
DAY	OCT	NOV	DEC	JAN	N FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	21.37 21.37 21.27 21.28 21.33	21.20 21.34 21.26 21.40 21.43	21.30 21.33 21.34 21.11 21.11	21.16 21.08 21.05 21.01 20.99	20.83 20.93 20.90	20.56 20.54 20.52 20.67 20.79	20.70 20.91 20.92 21.08 21.08	20.58 20.47 20.51 20.51 20.60	21.23 21.14 21.19 21.20 21.20	21.50 21.56 21.61 21.53 21.64	21.84 21.77 21.72 21.68 21.57	20.66 20.73 20.74 20.75 20.86
6 7 8 9 10	21.38 21.45 21.43 21.38 21.62	21.42 21.30 21.26 22.04 21.81	21.16 21.30 21.31 21.23 21.18	20.91 20.85 20.66 20.74 20.86	21.11 21.08 21.01	20.79 20.79 20.76 20.79 21.02	21.01 20.95 20.78 20.67 20.88	20.60 20.57 20.64 20.85 20.88	21.21 21.28 21.41 21.40 21.35	21.61 21.58 21.68 21.95 21.95	21.38 21.38 21.37 21.32 21.23	20.74 20.81 20.81 20.81 20.83
11 12 13 14 15	21.67 21.43 21.32 21.62 21.76	21.36 21.28 21.27 21.08 21.12	21.32 21.32 21.27 21.32 21.35	21.01 21.01 20.99 21.04 20.76	20.82 20.86 20.90	21.06 21.07 21.00 20.87 20.97	20.91 20.91 20.79 20.62 20.63	20.82 20.81 20.83 20.88 20.82	21.34 21.23 21.20 21.23 21.18	21.93 22.31 22.73 24.86 23.63	21.20 21.25 21.40 21.32 21.17	20.75 20.71 20.75 20.73 20.72
16 17 18 19 20	21.80 21.79 21.75 21.74 21.77	21.30 21.33 21.35 21.21 21.20	21.31 21.22 21.27 21.20 21.26	20.65 20.65 20.65 20.83	20.69 20.45 20.54	20.97 20.89 20.72 20.61 20.58	20.50 20.71 20.80 20.73 20.76	20.77 20.90 20.90 20.93 21.08	21.23 21.39 21.41 21.32 21.39	22.53 22.25 22.14 22.02 21.94	21.17 21.16 21.16 21.26 21.22	20.76 20.73 20.72 20.72 20.72
21 22 23 24 25	21.66 21.60 21.50 21.41 21.44	21.18 21.16 21.41 21.44 21.39	21.30 21.21 21.14 21.13 20.96	20.82 20.73 20.73 20.75 20.80	20.65 20.59 20.72	20.56 20.75 20.77 20.90 20.88	20.75 20.73 20.70 20.68 20.75	21.18 21.25 21.29 21.24 21.15	21.41 21.52 21.55 21.63 21.68	21.94 21.77 21.62 21.63 21.61	21.21 21.14 21.07 21.00 20.78	20.69 20.70 20.75 20.75 20.62
26 27 28 29 30 31	21.42 21.35 21.43 21.42 21.42 21.28	21.16 21.24 21.16 21.16 21.12	20.97 20.97 21.09 21.09 20.87 21.14	20.91 20.90 20.74 20.63 20.67	20.61 20.63 3	20.76 20.72 20.64 20.72 20.71 20.65	20.74 20.90 20.93 20.84 20.78	21.21 21.22 21.21 21.19 21.18 21.10	21.64 21.66 21.63 21.62 21.43	21.60 21.47 21.45 21.47 21.51 21.79	20.59 20.57 20.55 20.46 20.55 20.67	20.60 20.58 20.63 20.61 20.58
MAX	21.80	22.04	21.35	21.16	21.11	21.07	21.08	21.29	21.68	24.86	21.84	20.86

CAL YR 1997 LOW 23.15 LOW 24.86 WTR YR 1998



GROUND-WATER RECORDS Lucas County

413704083362200. LOCAL NUMBER, LU-1

LOCATION.--Lat 41°37'04", long 83°36'22", Hydrologic Unit 04100001, at Toledo State Hospital.

Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth drilled 525 ft, present depth 523.0 ft, cased to 93 ft.
INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 624 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 2.98 ft above land-surface datum (Revised from 1978 and 1979).

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water. Prior to Aug. 23, 1978, measuring point was 3.10 ft above land-surface datum. Reported in 1979 as 3.00 ft above land-surface datum.

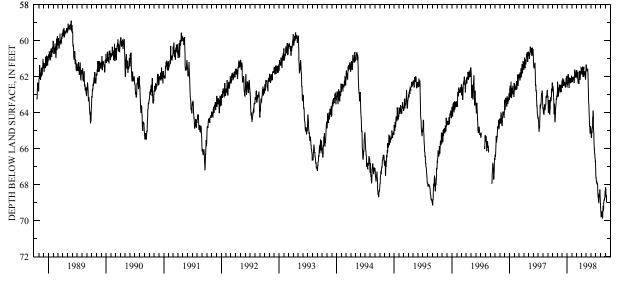
PERIOD OF RECORD.--March 1946 to September 1982 continuous, October 1983 to January 1985 periodic, continuous thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 117.25 ft below land-surface datum, Sept. 18, 1957; minimum daily low, 56.87 ft below land-surface datum, Apr. 16, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	62.79 62.77 62.52 62.62 62.67	62.60 62.29 62.65 62.99 63.09	62.54 62.63 62.54 62.10 62.13	62.57 62.34 62.34 62.45 62.34	62.13 62.27 62.31 62.19 62.03	61.69 61.67 61.64 61.87 62.06	61.52 61.83 61.82 61.87 61.88	61.48 61.33 61.42 61.52 61.63	65.16 65.03 65.33 65.40 65.28	67.06 67.47 67.66 67.59 67.72	69.30 69.47 69.56 69.77 69.76	68.34 68.15 68.30 68.49 68.65
6 7 8 9 10	62.79 63.16 63.25 63.68 64.05	63.06 62.88 62.72 62.66 62.69	62.16 62.46 62.50 62.31 62.17	62.25 62.12 61.85 62.04 62.28	62.12 62.11 62.11 62.17 62.16	62.05 62.06 61.87 61.74 62.24	61.84 61.75 61.47 61.47 61.84	61.65 61.62 61.54 61.71 61.65	65.16 65.06 65.12 64.99 64.76	67.82 67.86 67.84 67.95 67.92	69.72 69.56 69.52 69.51 69.50	68.63 68.97 68.97
11 12 13 14 15	64.08 63.75 63.50 64.10 64.45	62.74 62.74 62.74 62.45 62.53	62.48 62.48 62.36 62.48 62.46	62.35 62.35 62.61 62.63 62.16	62.00 62.02 62.13 62.31 62.35	62.34 62.34 62.24 62.16 62.34	61.94 62.00 61.87 61.59 61.66	61.59 61.69 61.83 62.30 62.57	64.72 64.31 64.17 64.12 63.89	67.99 67.92 67.99 68.32 68.53	69.58 69.82 69.85 69.76 69.58	
16 17 18 19 20	64.53 64.47 64.18 63.91 63.73	62.82 62.86 62.82 62.60 62.60	62.37 62.34 62.36 62.34 62.53	62.05 62.05 62.13 62.15 62.33	62.19 61.92 61.61 61.75 61.79	62.40 62.22 61.89 61.72 61.71	61.45 61.91 62.00 61.82 61.88	62.98 63.36 63.51 63.64 63.90	64.21 64.82 64.98 65.16 65.45	68.61 68.59 68.76 68.96 68.98	69.45 69.18 69.41 69.42 69.25	
21 22 23 24 25	63.66 63.60 63.44 63.23 63.28	62.46 62.48 62.60 62.86 62.77	62.61 62.45 62.38 62.38 62.07	62.34 62.27 62.09 62.16 62.28	62.03 62.06 61.91 61.93 62.03	61.68 61.74 61.92 62.17 62.16	61.88 61.85 61.76 61.70 61.81	64.26 64.54 64.75 64.73 64.91	65.74 66.03 66.01 66.24 66.31	68.91 68.69 68.50 68.65 68.65	69.03 68.92 68.87 68.85 68.85	
26 27 28 29 30 31	63.25 63.06 63.12 63.03 63.04 62.81	62.45 62.60 62.45 62.45 62.22	62.16 62.16 62.16 62.00 61.96 62.57	62.29 62.29 62.09 61.95 62.09 62.16	61.99 61.71 61.73 	61.90 61.82 61.70 61.81 61.60 61.50	61.87 62.10 62.16 61.98 61.79	65.16 65.13 64.94 64.76 64.84 64.86	66.39 66.49 66.64 66.75 66.67	68.52 68.27 68.41 68.68 68.84 69.14	68.79 68.79 68.67 68.51 68.38 68.33	
MAX	64.53	63.09	62.63	62.63	62.35	62.40	62.16	65.16	66.75	69.14	69.85	68.97

CAL YR 1997 LOW 65.06 WTR YR 1998 LOW 69.85



GROUND-WATER RECORDS Medina County

410142082005900. LOCAL NUMBER, MD-1

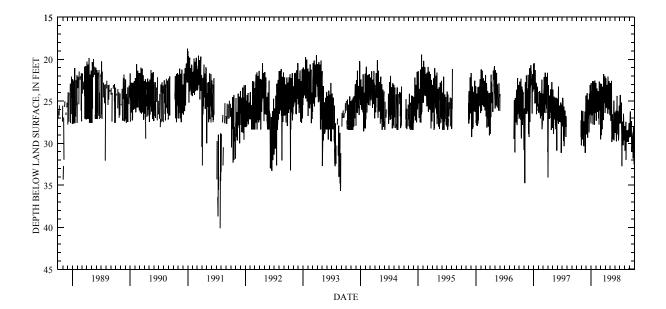
LOCATION.--Lat 41°01'42", long 82°00'59", Hydrologic Unit 04110001, at waterworks plant at Lodi.
Owner: Lodi Water Dept.

AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 65 ft, cased.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is 910 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 1.90 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--September 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 45.21 ft below land-surface datum, July 8, 1988;
minimum daily low, 7.60 ft below land-surface datum, July 6, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	 	28.22 26.12 29.09 28.36 27.04	26.42 28.94 28.06 26.80 28.37	22.85 24.92 23.84 24.47 24.49	22.85 27.32 25.07 25.21 25.87	22.90 29.53 26.52 27.90 26.49	25.03 24.91 24.48 24.84 22.27	24.98 22.91 22.84 26.45 26.17	28.70 27.47 28.76 28.19 26.77	27.22 26.67 27.08 26.18 24.24	28.01 28.01 30.82 30.79 28.85	28.81 29.29 28.50 28.13 28.08
6 7 8 9 10	 	27.41 29.53 27.57 26.17 28.37	25.63 24.04 25.37 26.38 29.34	25.53 26.67 23.93 25.10 22.61	25.77 23.47 23.56 26.20 24.20	29.03 24.19 22.93 27.51 25.03	25.72 25.19 25.10 25.81 25.12	27.32 26.01 24.26 24.75 22.58	26.93 26.14 28.63 28.40 29.77	27.11 27.62 26.93 26.88 25.52	28.38 28.04 28.27 27.45 31.96	26.21 27.49 28.26 28.89 29.24
11 12 13 14 15	 	27.34 28.88 27.82 30.29 27.40	26.55 27.00 25.45 24.80 25.74	22.81 27.73 23.07 24.63 25.33	26.26 24.30 25.81 24.45 23.80	27.16 28.33 25.17 23.85 23.29	24.00 23.04 25.17 23.40 23.87	26.05 29.84 29.08 28.99 26.55	28.95 28.00 26.21 24.37 28.93	25.50 25.16 28.08 28.85 32.73	29.14 29.65 28.45 29.03 29.57	27.92 27.84 27.35 29.07 30.99
16 17 18 19 20	 	27.46 30.35 28.14 28.58 27.48	25.65 25.04 28.60 28.68 25.75	24.45 22.64 23.05 26.43 23.56	25.56 25.89 27.06 24.08 27.77	25.54 26.42 24.39 27.24 26.88	26.48 26.32 22.06 23.36 24.07	26.64 27.46 28.81 28.16 29.17	27.36 28.18 27.82 26.19 26.91	28.91 28.59 27.49 27.48 30.16	28.50 29.22 29.83 29.63 28.87	30.79 30.34 29.18 29.86 29.79
21 22 23 24 25	 	28.96 27.02 26.22 27.84 31.14	24.08 26.64 26.25 24.85 23.07	27.79 24.63 25.69 23.54 22.54	24.27 22.66 25.02 25.76 24.48	22.60 21.75 24.12 23.06 25.13	24.37 25.86 24.80 25.94 22.62	29.54 28.02 27.10 26.34 24.94	27.37 28.65 28.68 29.67 28.74	28.85 28.33 30.22 27.83 26.50	29.33 29.24 28.40 28.90 29.52	29.46 29.55 28.70 31.81 30.04
26 27 28 29 30 31	29.26 27.28 30.26	29.68 26.97 25.76 24.32 25.10	26.51 25.11 23.92 25.31 27.23 27.62	24.14 26.32 24.62 26.37 24.80 23.77	24.75 26.12 25.02 	25.20 24.88 22.88 22.03 24.17 26.41	23.49 24.61 24.62 26.22 26.66	29.68 28.69 28.60 26.87 26.41 26.33	27.42 27.69 25.53 27.65 26.14	27.13 28.73 29.64 29.27 28.73 28.55	29.83 29.36 27.78 27.98 27.59 28.21	28.10 28.46 30.87 30.78 32.53
MAX	30.26	31.14	29.34	27.79	27.77	29.53	26.66	29.84	29.77	32.73	31.96	32.53

CAL YR 1997 WTR YR 1998 LOW 34.07 LOW 32.73



GROUND-WATER RECORDS Ottawa County

413434082494000. LOCAL NUMBER, O-2

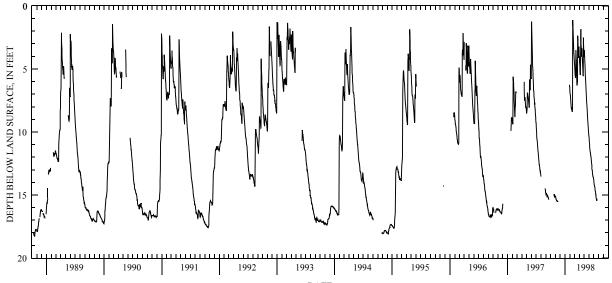
LOCATION.--Lat 41°34'34", long 82°49'40", Hydrologic Unit 04100010. Catawba Island near Port Clinton.

LOCATION.--Lat 41°34'34", long 82°49'40", Hydrologic Unit 04100010. Catawba Island near Port Clinton.
Owner: William Williams.
AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled water table well, diameter 6 in., depth 62 ft, cased to 26 ft.
INSTRUMENTATION.--Type F continuous recorder.
DATUM.--Elevation of land-surface datum is 591 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 1.60 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--March 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 18.27 ft below land-surface datum, Sept. 17, 1989;
minimum daily low, 1.12 ft below land-surface datum, Feb. 18, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		15.11			6.84	4.51	4.00	4.00	10.38	13.73		
2		15.14			7.07	4.65	4.36	4.00	10.50	13.85		
3		15.23			7.23	4.94	4.49	3.51	10.66	13.98		
4		15.31			7.23	5.20	4.84	3.82	10.86	14.13		
5		15.37			7.46	5.45	5.13	4.19	11.01	14.23		
6		15.41			7.59	5.53	5.33	4.47	11.21	14.26		
7		15.36			7.76	5.70	5.48	4.66	11.40	14.29		
8		15.42			7.90	5.67	5.48	5.10	11.57	14.37		
9		15.44			8.06	5.35	4.92	5.53	11.57	14.43		
10		15.45			8.14	3.52	1.84	5.68	11.66	14.60		
11		15.49			8.12	3.88	2.51	5.93	11.74	14.69		
12		15.51			8.18	4.16	3.05	6.23	11.85	14.73		
13		15.53			8.26	4.29	3.39	6.46	11.93	14.76		
14		15.49			8.33	5.27	3.80	6.75	12.03	14.98		
15		15.51			8.39	5.84	3.99	7.01	12.08	14.99		
16		15.52			8.34	6.17	4.00	7.31	12.29	15.17		
17		15.56			8.12	6.31	3.37	7.58	12.35	15.25		
18					1.12	6.28	3.73	7.74	12.49	15.32		
19					1.54	6.02	3.96	7.94	12.64	15.38		
20					1.68	6.06	4.23	8.09	12.92	15.44		
21	14.92				2.11	3.42	4.47	8.34	13.01	15.44		
22	14.98				2.50	2.36	4.68	8.63	13.07	15.29		
23	15.02				2.90	2.75	4.90	8.88	13.17			
24	15.11				3.38	3.28	5.28	9.09	13.40			
25	15.14				3.74	3.47	5.56	9.21	13.43			
26	15.16				3.88	3.78	5.54	9.44	13.52			
27	15.04				4.09	4.06	2.50	9.56	13.55			
28	15.06				4.28	4.13	3.12	9.82	13.64			
29	15.10			6.25		3.22	3.44	10.03	13.69			
30	15.11			6.50		3.63	3.69	10.14	13.68			
31	15.11			6.70		3.90		10.29				
MAX	15.16	15.56		6.70	8.39	6.31	5.56	10.29	13.69	15.44		

CAL YR 1997 LOW 15.56 WTR YR 1998 LOW 15.56



GROUND-WATER RECORDS Portage County

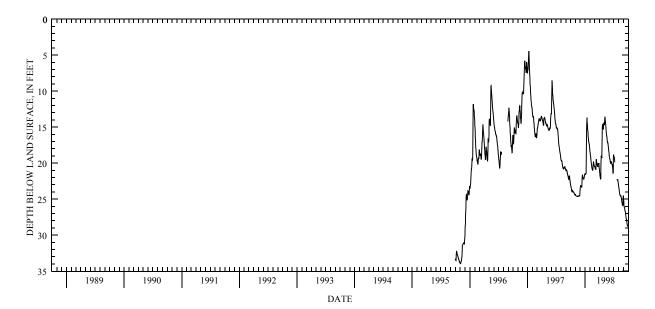
410931081192900. LOCAL NUMBER, PO-123

LOCATION.--Lat $41^{\circ}09^{\circ}31^{\circ}$, long $81^{\circ}19^{\circ}29^{\circ}$, Hydrologic Unit 04110002, east of Kent.

LOCATION.--Lat 41°09'31", long 81°19'29", Hydrologic Unit 04110002, east of Kent.
Owner: City of Kent.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., cased.
INSTRUMENTATION.--Digitial recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is 1042 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 3.5 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--October 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 33.97 ft below land-surface datum, Nov. 3, 1995;
minimum daily low, 4.43 ft below land-surface datum, Jan. 9, 1997.

	1	DEPTH BELO	OW LAND ST	URFACE (W.	ATER LEVEL			EAR OCTOBE	R 1997 T	O SEPTEMBE	ER 1998	
					DAI	LY MAXIM	UM VALUES					
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3	23.00 23.10 23.23	24.46 24.46 24.49	23.48 23.30 23.14	21.57 21.52 21.51	18.39 18.61 18.76	20.43 20.41 20.44	20.83 21.08 21.23	14.55 14.66 14.64	18.53 18.75 18.95	18.86 19.06 19.11	23.19 23.29 23.42	24.77 25.09 25.39
4 5	23.30 23.39	24.53 24.54	23.13 23.17	21.52 21.51	18.94 19.16	20.51 20.64	21.44 21.60	14.49 13.98	19.15 19.28	19.18 19.21	23.60 23.79	25.72 25.97
6 7 8 9 10	23.53 23.70 23.82 23.94 23.99	24.57 24.58 24.59 24.59 24.59	23.18 23.22 23.25 23.34 23.34	21.44 21.35 21.19 19.48 17.14	19.39 19.53 19.70 19.92 20.13	20.74 20.81 20.84 20.87 20.85	21.82 21.99 22.18 22.20 22.10	13.71 13.55 13.88 14.13 14.30	19.39 19.44 19.61 19.73 19.83	19.37 19.59 19.88 	23.97 24.16 24.28 24.37 24.40	26.13 26.13 26.19 26.35 26.47
11 12 13 14 15	23.98 23.89 23.82 23.87 23.92	24.59 24.58 24.58 24.63 24.63	23.32 22.66 22.02 21.76 21.70	15.18 13.87 13.67 14.20 14.61	20.27 20.47 20.61 20.73 20.82	20.00 19.52 19.43 19.70 19.85	20.72 19.69 18.97 19.08 19.19	14.53 14.81 15.08 15.40 15.72	19.97 19.99 19.96 19.89 19.80	 	24.49 24.51 24.51 24.57 24.57	26.60 26.69 26.74 26.83 27.03
16 17 18 19 20	23.93 23.98 24.00 24.00 24.03	24.58 24.55 24.54 24.53 24.56	21.78 21.91 22.00 22.10 22.21	15.01 15.28 15.52 15.82 16.19	20.89 20.96 20.95 20.94 20.57	20.02 20.16 20.24 20.37 20.46	19.19 18.28 16.78 15.98 15.13	15.94 16.10 16.25 16.36 16.60	19.81 19.89 19.98 20.13 20.17	 	24.57 24.63 24.81 24.93 25.09	27.24 27.45 27.64 27.73 27.76
21 22 23 24 25	24.06 24.09 24.18 24.24 24.30	24.57 24.57 24.57 24.53 24.54	22.22 22.20 22.20 22.20 22.06	16.47 16.67 16.94 17.03 17.12	20.22 19.97 19.83 19.85 20.10	20.46 20.43 20.21 20.06 20.03	14.68 14.63 14.70 15.01 15.23	16.82 17.01 17.17 17.16 17.11	20.18 20.19 20.34 20.55 20.91	22.21 22.32 22.35 22.35	25.26 25.38 25.47 25.70 25.80	27.84 28.07 28.27 28.43 28.57
26 27 28 29 30 31	24.30 24.35 24.36 24.37 24.41 24.46	24.55 24.55 24.38 24.15 23.77	21.95 21.78 21.68 21.54 21.50 21.57	17.26 17.40 17.53 17.78 18.01 18.23	20.20 20.35 20.42 	20.07 20.07 20.09 20.17 20.28 20.52	15.26 15.17 14.70 14.48 14.35	17.38 17.54 17.76 18.05 18.22 18.40	21.25 21.35 21.25 19.54 18.79	22.31 22.31 22.48 22.63 22.79 22.98	25.84 25.85 25.82 25.69 25.05 24.48	28.64 28.67 28.68 28.79 28.87
MAX	24.46	24.63	23.48	21.57	20.96	20.87	22.20	18.40	21.35	22.98	25.85	28.87

CAL YR 1997 WTR YR 1998 LOW 24.63 LOW 28.87



GROUND-WATER RECORDS Putnam County

405505084032900. LOCAL NUMBER, PU-1

LOCATION.--Lat 40°55'05", long 84°03'29", Hydrologic Unit 04100007, Center and Broadway Streets, Columbus Grove.
Owner: Columbus Grove Water Department.

AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 110 ft, cased.
INSTRUMENTATION.--Digital recorder--60-minute punch.

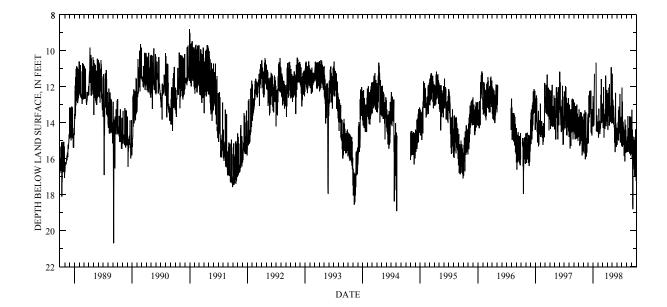
DATUM.--Elevation of land-surface datum is 770 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resource, Division of Water.
PERIOD OF RECORD.--July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 24.30 ft below land-surface datum, Aug. 24, 1962;
minimum daily low, 8.80 ft below land-surface datum, Dec. 30, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.15	15.04	13.51	14.22	14.15	12.94	13.75	13.02	14.76	15.28	15.00	15.75
2	14.15	14.80	15.14	13.30	13.95	13.79	13.75	11.29	15.24	14.25	15.51	14.22
3	14.61	13.51	13.80	12.88	14.22	13.91	13.78	13.61	14.41	12.06	15.20	13.29
4	13.26	14.26	14.00	13.72	14.83	13.93	14.41	14.02	14.51	14.97	15.63	13.75
5	14.71	15.71	12.49	14.15	14.59	13.39	12.37	13.05	14.30	15.34	15.28	16.01
6	14.61	15.05	13.33	13.98	13.22	14.29	13.50	12.73	14.72	12.84	14.77	14.38
7	13.69	15.14	12.93	13.84	13.88	13.43	13.62	13.99	13.97	14.22	15.01	14.90
8	15.28	15.04	13.71	12.91	14.20	12.02	13.50	13.01	14.52	14.18	15.47	16.20
9	15.00	13.34	12.24	11.29	14.12	13.71	12.70	13.17	14.95	15.25	13.64	18.48
10	13.62	13.32	13.55		14.33	13.95	13.65	14.10	13.30	13.94	14.08	18.81
11	15.18	15.25	13.09		13.90	14.83	12.06	13.09	14.94	14.15	15.62	15.45
12	14.65	14.96	13.29		14.40	13.52	12.96	13.44	15.00	15.00	14.69	14.77
13	13.41	16.04	12.98		14.62	13.87	12.90	13.85	13.12	14.24	14.31	15.39
14	14.84	15.11	13.03		14.50	13.66	14.17	13.73	13.31	14.94	14.82	15.02
15	14.93	14.65	12.24		14.36	13.90	11.86	14.26	13.71	14.38	14.78	16.37
16	13.86	13.43	13.27		14.23	14.36	12.96	14.13	14.45	15.84	15.51	15.55
17	15.02	15.13	12.22		14.33	13.86	13.39	15.12	13.58	14.71	14.75	15.10
18	14.67	15.13	14.08		13.96	14.02	13.53	14.24	14.59	15.16	15.33	14.96
19	13.45	15.89	14.56	10.66	12.46	13.24	13.43	14.24	13.06	14.77	15.19	16.58
20	14.56	15.23	14.49	13.13	13.84	13.82	13.95	15.63	12.41	15.02	13.65	16.17
21	15.00	14.87	13.38	14.49	12.87	12.69	13.07	15.60	14.04	16.16	15.72	16.27
22	13.98	15.67	14.59	14.07	11.58	11.38	13.78	14.51	15.11	13.84	15.00	16.97
23	15.82	14.88	13.96	14.14	13.33	13.01	13.57	12.34	13.72	14.67	14.38	14.80
24	15.08	15.19	14.72	13.96	14.02	13.03	13.09	15.12	14.24	15.12	14.76	15.81
25	13.67	15.03	13.61	14.02	13.90	14.20	13.88	14.59	15.10	14.50	15.81	15.12
26	15.27	14.60	13.24	13.60	12.99	12.63	10.92	14.06	15.09	14.12	14.88	16.94
27	14.88	14.07	13.65	14.43	13.54	13.22	14.03	14.41	14.89	15.69	13.68	14.45
28	13.85	13.73	13.48	13.95	13.89	13.93	13.31	15.34	13.68	14.41	15.72	14.37
29	15.61	13.68	13.82	14.52		12.18	13.95	14.27	14.85	14.78	14.03	14.99
30	15.20	13.65	13.96	14.19		13.66	13.41	14.88	14.46	15.57	15.52	17.24
31	13.86		12.53	14.47		13.29		14.76		15.25	15.46	
MAX	15.82	16.04	15.14	14.52	14.83	14.83	14.41	15.63	15.24	16.16	15.81	18.81

CAL YR 1997 LOW 16.04 WTR YR 1998 LOW 18.81



GROUND-WATER RECORDS Sandusky County

411914083045300. LOCAL NUMBER, S-3

LOCATION.--Lat 41°19'14", long 83°04'53", Hydrologic Unit 04100011, 2.6 mi southeast of Fremont Post Office.

LOCATION.--Lat 41°19'14", long 83°04'53", Hydrologic Unit 04100011, 2.6 mi southeast of Fremont Post Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in., depth 121 ft, cased to 93 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 627 ft above sea level, from topographic map.

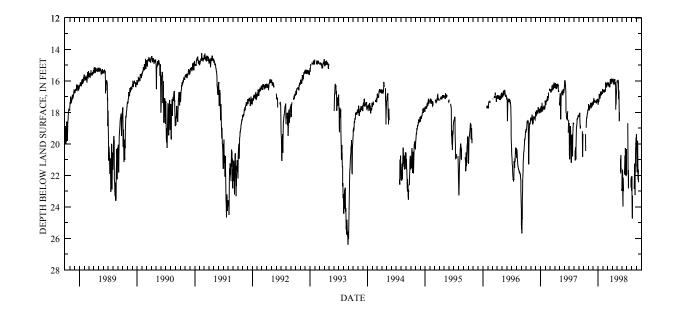
Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

PERIOD OF RECORD.--December 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 26.38 ft below land-surface datum, Aug. 30, 1993; minimum daily low, 14.02 ft below land-surface datum, Mar. 24, 1975.

		DEPTH BELOW	I LAND	SURFACE					ER 1997 T	O SEPTEMB	ER 1998	
					Di	AILY MAXIM	MUM VALUES	S				
DAY	OCT	NOV	DEC	JAI	I FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		17.61	17.48	17.51	16.61	16.14	15.91	16.08	22.19		22.98	19.39
2		17.47	17.51	17.33	16.72	16.13	16.05	15.98	21.94		22.05	20.05
3		17.68	17.45			16.12	16.04	16.04	22.99		22.68	21.46
4		17.83	17.15			16.16	16.06	16.03	21.63		24.04	21.26
5		17.84	17.12	17.30	16.56	16.25	16.07	16.06	21.79		24.71	21.80
6		17.84	17.13			16.26	16.11	16.06	22.95		24.73	21.44
7		17.72	17.34			16.21	16.05	16.00	23.98		23.28	20.19
8		17.60	17.38			16.14	15.94	15.94	23.35	18.69		19.80
9		17.61	17.32			16.11	15.92	16.09	22.14	19.96		19.94
10		17.64	17.22	17.00	16.71	16.33	16.06	16.11	22.94	21.93		21.82
11		17.66	17.30	17.03	16.62	16.36	16.16	17.16	22.96	21.68		22.27
12		17.65	17.32			16.36	16.26	16.79	22.71	22.82		21.62
13	19.38	17.65	17.25			16.29	16.14	16.60		21.95		21.84
14	20.46	17.43	17.36			16.21	15.99	17.32				22.44
15		17.44	17.36	16.84	16.68	16.33	16.05	18.56				
16		17.66	17.32	16.73	16.62	16.36	15.88	18.00	21.94			
17	18.98	17.71	17.30	16.68	16.48	16.32	16.04		21.95			
18	18.65	17.68	17.31			16.07	16.18		21.71		22.87	
19	18.48	17.56	17.29			15.91	16.08		20.99		21.83	
20	18.36	17.48	17.38	16.89	16.22	15.91	16.13		20.75		21.26	
21	18.35	17.39	17.42			15.88	16.10		21.70		21.67	
22	18.27	17.38	17.38			15.97	16.40	20.95	21.82		23.09	
23	18.20	17.49	17.30			16.08	17.84	20.95	20.28		23.25	
24	18.07	17.62	17.31			16.20		21.81	21.95		22.00	
25	18.06	17.62	17.15	16.79	16.34	16.19	17.52	20.72	21.98		21.20	
26	18.05	17.41	17.23			16.04	16.96	21.90	21.79		21.19	
27	17.84	17.54	17.26			16.00	16.79	21.50	21.99		20.28	
28	17.85	17.46	17.27			15.89	16.68		21.98	22.24	20.08	
29	17.84	17.33	17.25			16.04	16.54		20.33	22.76	19.74	
30	17.84	17.31	17.14			15.94	16.31	22.87		22.12	19.62	
31	17.79		17.48	16.61		15.89		22.98		22.44	19.53	
MAX	20.46	17.84	17.51	17.51	16.74	16.36	17.84	22.98	23.98	22.82	24.73	22.44

CAL YR 1997 LOW 21.20 LOW 24.73 WTR YR 1998



GROUND-WATER RECORDS Sandusky County

412703083213600. LOCAL NUMBER, S-2

LOCATION.--Lat 41°27'03", long 83°21'36", Hydrologic Unit 04100010, at waterworks in Woodville.

Owner: Woodville Water department.

AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 198 ft cased.
INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 635 ft above sea level from topographic map.

Measuring point: Top of casing at land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

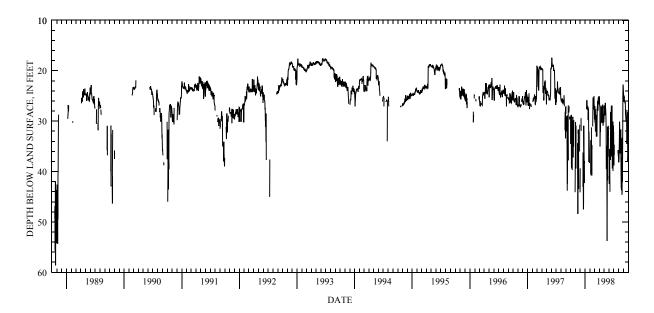
PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 100.97 ft below land-surface datum, Jan. 29, 1982; minimum daily low, 17.43 ft below land-surface datum, June 3, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.12	30.23	39.37			29.61	25.40	29.63	35.96	32.16	38.00	24.04
2	34.51	36.03		42.24		27.46	26.39	27.02	42.49	38.82	38.17	24.62
3	29.26		30.24		33.89	27.06	26.69	27.44		38.11	37.79	26.18
4	29.74	39.37				30.22	27.32	27.87	37.71	34.70	37.30	24.89
5	28.79	30.85	29.47		33.78	28.66	29.17	27.78	35.56	36.70	35.94	25.19
5	20.75	30.03	23.47		33.70	20.00	23.11	27.70	33.30	30.70	33.74	23.13
6	38.88		29.48		40.52	28.56	35.04	26.88	36.91		34.25	25.19
7	39.37		31.97		34.00	32.11	30.01	28.90	44.04		30.16	25.98
8	29.47				40.81		32.13	26.93			31.56	25.79
9	29.13		38.50	27.66		27.56	30.17	26.40	31.56		32.51	26.15
10				26.71	31.25	29.71	30.23	27.19	31.23		36.40	25.93
1.1	39.74			25.99	35.48	28.90	27.02	27.61	28.20		33.79	26.33
11	29.90			25.99			27.02	28.26	28.20 37.72			
12					40.82	28.89					31.81	26.31
13				26.10	34.77	33.08	27.94	29.29			36.44	26.22
14	30.67	34.40		26.69	35.52	29.25	29.98	31.98	29.61		36.32	28.83
15	29.15	46.75		27.45		29.19	28.79	39.52	29.94		31.68	27.69
16	29.35	48.44		27.61		33.07	27.16		26.98		35.37	29.56
17	37.22	35.44		27.41		29.99	28.92		37.00		39.55	30.16
18	29.84	31.68	43.06	27.81	31.06	28.51	30.31	34.92	27.90		43.10	28.90
19		32.51	36.26	27.15	27.30	27.11	30.24	46.98	34.17		43.75	29.77
20	35.04	31.98	43.50	29.79	25.36	27.05	30.24	53.76	29.51		38.04	29.09
21	29.83	43.49	47.54	29.21	26.29	26.51	27.55	48.40	26.96		37.31	29.47
22			46.18	27.55	25.72	26.06	26.99	31.08	39.41		44.61	34.51
23		31.63	30.93	33.43	25.86	27.91	26.74	41.77	32.86		44.24	33.83
24	30.15		35.04	37.60	27.63	25.90	27.53	40.92	32.64		33.34	30.16
25			36.01	38.15	26.62	25.61	30.90		30.12		42.04	28.25
26	29.71		38.46	32.13	25.02	25.28	30.17	43.02	32.22		41.23	34.54
27	20.71	36.03	37.99	35.95	26.56	25.23	30.27		39.87		28.35	30.16
28	41.95	30.70	42.29	35.91	28.03	25.59	29.01	30.94	30.87	36.34	24.09	37.92
29				38.33	20.03	26.65	30.24	32.99	32.09	35.76	25.85	37.27
30	44.10	44.16		30.33		25.51	28.66	37.08	32.09	36.91	22.79	37.83
31	39.43	44.16		31.06		25.03	20.00	37.06	32.27	37.07	24.01	37.03
21	39.43			31.06		∠5.03				37.07	24.01	
MAX	44.10	48.44	47.54	42.24	40.82	33.08	35.04	53.76	44.04	38.82	44.61	37.92

CAL YR 1997 LOW 48.44 WTR YR 1998 LOW 53.76



GROUND-WATER RECORDS Seneca County

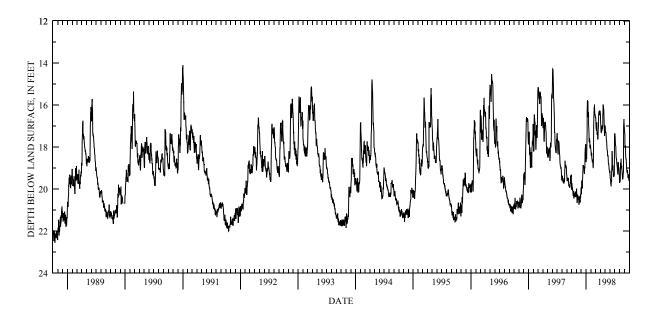
410802083093900. LOCAL NUMBER, SE-2

LOCATION.--Lat 41°08'02", long 83°09'39", Hydrologic Unit 04100011, Tiffin State Hospital, Tiffin.

LOCATION.--Lat 41°08'02", long 83°09'39", Hydrologic Unit 04100011, Tiffin State Hospital, Tiffin.
Owner: State of Ohio.
AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 250 ft, cased.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 740 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 0.50 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--July 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 23.76 ft below land-surface datum, Nov. 22, 1964;
minimum daily low, 14.11 ft below land-surface datum, Jan. 2, 1991.

		DEPTH BELO	OW LAND S	URFACE (W	ATER LEVEL) DAIL		, WATER YE UM VALUES	EAR OCTOBE	R 1997 TO) SEPTEMBE	IR 1998	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.02	20.03	20.21	18.72	18.18	16.60	16.44	16.98	19.32	17.36	19.71	17.20
2	20.03	19.99	20.25	18.51	18.39	16.59	16.79	17.04	19.35	17.37	19.64	17.26
3	19.73	20.35	20.10	18.54	18.42	16.62	16.80	17.20	19.48	17.45	19.60	17.44
4	19.85	20.61	19.62	18.58	18.27	16.88	17.04	17.25	19.54	17.50	19.67	17.81
5	19.92	20.67	19.62	17.97	18.32	17.12	17.12	17.29	19.62	17.73	19.59	18.04
6	19.96	20.58	19.66	17.57	18.50	17.14	17.30	17.34	19.73	17.89	19.09	17.98
7	20.04	20.38	19.94	17.27	18.56	17.23	17.31	17.31	19.80	17.94	18.76	17.93
8	20.10	20.27	19.95	16.33	18.60	17.14	17.14	17.47	19.87	17.96	18.78	18.25
9	20.08	20.31	19.61	15.78	18.71	16.83	16.99	17.68	19.81	18.18	18.84	18.44
10	20.30	20.43	19.51	15.84	18.71	17.14	17.21	17.70	19.60	18.43	18.57	18.55
11	20.32	20.49	19.16	15.85	18.60	17.41	17.24	17.73	19.66	18.54	18.81	18.57
12	20.14	20.52	19.15	15.85	18.63	17.43	17.23	17.94	19.25	18.56	18.99	18.58
13	20.11	20.52	18.87	16.56	18.82	17.31	17.05	18.04	18.88	18.60	19.01	18.71
14	20.39	20.37	18.95	16.58	18.97	17.37	16.99	18.15	18.55	18.75	18.90	18.83
15	20.44	20.43	18.97	16.34	18.98	17.60	17.13	18.18	18.20	18.81	18.99	18.99
16	20.44	20.70	18.92	16.54	18.83	17.65	16.98	18.21	18.66	18.87	19.13	19.16
17	20.33	20.75	18.94	16.93	18.33	17.54	16.43	18.39	19.01	18.93	19.20	19.19
18	20.23	20.66	18.99	17.19	16.98	17.23	16.39	18.44	19.11	19.05	19.25	19.17
19	20.19	20.44	18.98	17.42	16.71	17.06	15.98	18.39	18.88	19.17	19.51	19.10
20	20.29	20.45	19.21	17.75	16.30	17.04	16.05	18.46	19.04	19.21	19.55	19.17
21	20.31	20.35	19.28	17.76	16.15	16.57	16.11	18.63	19.10	19.32	19.52	19.20
22	20.38	20.39	19.13	17.79	16.11	16.45	16.18	18.80	19.26	19.22	19.49	19.32
23	20.34	20.45	18.99	17.58	15.98	16.31	16.23	18.81	19.29	18.72	19.40	19.48
24	20.13	20.64	18.97	17.78	16.25	16.50	16.52	18.81	19.41	18.77	19.32	19.40
25	20.38	20.57	18.27	18.01	16.47	16.48	16.70	18.89	19.40	18.96	19.18	19.30
26 27 28 29 30 31 MAX	20.35 20.33 20.38 20.31 20.32 20.17	20.28 20.43 20.26 20.23 19.93 	18.10 18.05 18.00 17.88 18.04 18.69 20.25	18.05 18.04 17.91 17.93 18.12 18.18	16.46 16.46 16.57 18.98	16.27 16.41 16.34 16.47 16.29 16.30	17.01 17.33 17.47 17.32 17.17 	19.01 19.08 19.13 19.14 19.23 19.14	19.34 19.41 19.32 18.76 17.53	19.04 18.97 19.01 19.17 19.32 19.58	17.64 17.04 16.68 16.68 16.90 17.12	19.35 19.36 19.54 19.57 19.55

CAL YR 1997 WTR YR 1998 LOW 20.75 LOW 20.75



GROUND-WATER RECORDS Summit County

410330081282000. LOCAL NUMBER, SU-6

 $\label{location.--Lat 41^03'30", long 81^28'20", Hydrologic Unit 04110002, Seiberling St, Akron. \\$

Owner: Goodyear Tire and Rubber Co.

AQUIFER.--Sand and gravel of Pleistocene Age. WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 in., depth 89 ft, cased.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 in., depth 89 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 1000 ft above sea level from topographic map.

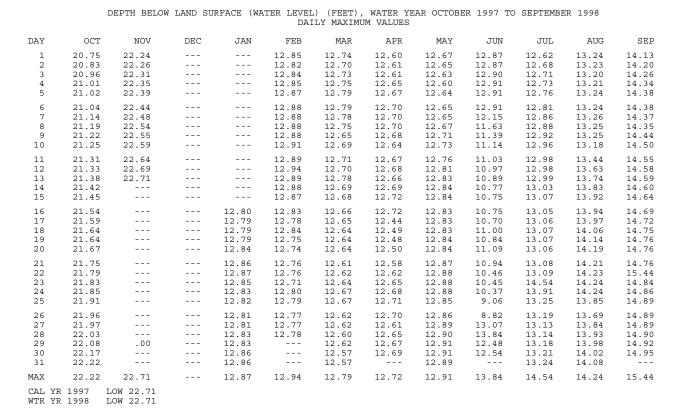
Measuring point: Floor of instrument shelter 2.63 ft above land-surface datum.

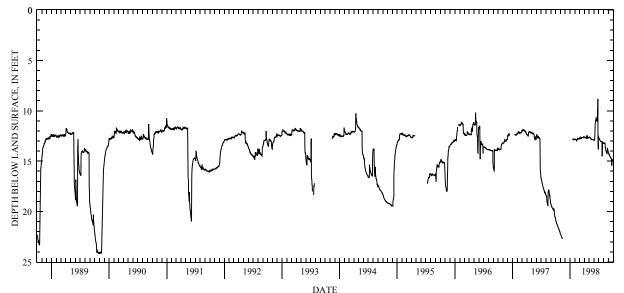
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--March 1944 to current year. Records for May 14-Sept. 30, 1980, published in USGS-WDR-OH-80-1, are unreliable and should not be used.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 59.47 ft below land-surface datum, Oct. 18, 1947;

minimum daily low, 8.82 ft below land-surface datum, June 26, 1998.





GROUND-WATER RECORDS Summit County

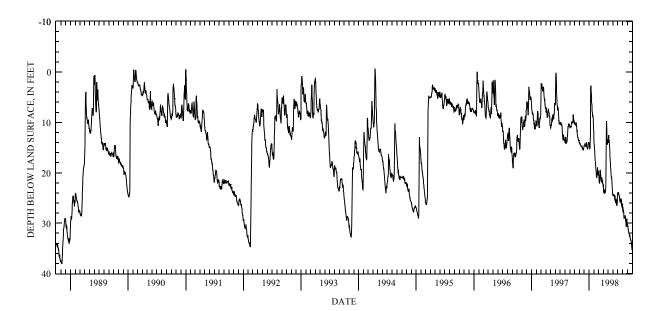
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET). WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

410846081271600. LOCAL NUMBER, SU-7

LOCATION.--Lat 41°08'46", long 81°27'16", Hydrologic Unit 04110002, Monroe Falls Road, Cuyahoga Falls.
Owner: Cuyahoga Falls Water Department.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled unused water-table, diameter 6 in., depth 100 ft, cased.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is 994 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 5.00 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--August 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 44.19 ft below land-surface datum, Sept. 7, 1971;
minimum daily low, 0.67 ft above land-surface datum, Apr. 15, 1994.

	1	DELIH REPO	OW LAND SU	JRFACE (WA		LY MAXIMU		SAR OCTOBE	IR 1997 IC) SEPIEMBE	SK 1998	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.19	14.14	14.64	14.13	13.97	19.76	22.43	13.86	24.45	24.01	26.47	30.54
2	10.22	14.19	14.65	14.29	14.43	19.74	23.56	14.06	24.54	23.98	27.46	30.67
3	10.27	14.13	14.61	14.62	14.65	20.60	23.83	13.86	24.54	24.16	26.80	30.69
4	10.31	14.17	14.49	15.05	15.25	20.40	23.99	13.10	24.43	24.16	27.83	30.54
5	10.39	14.24	14.24	15.19	15.68	21.55	23.99	12.52	24.46	23.94	27.90	31.11
6	10.53	14.45	14.19	15.07	16.35	21.87	23.78	13.69	24.26	23.94	27.33	31.31
7	10.53	14.51	14.43	15.02	16.76	22.07	23.32	13.79	24.41	23.94	27.54	31.43
8	10.39	14.51	14.64	14.20	17.13	22.07	23.58	13.48	24.45	24.37	27.78	31.64
9	10.16	14.63	14.76	12.25	17.66	21.80	23.79	14.00	24.49	24.38	28.93	31.81
10	9.99	14.67	14.76	5.60	18.08	21.47	23.98	14.43	24.52	24.44	29.07	31.96
11	10.13	14.73	14.70	3.04	18.43	20.74	23.98	14.96	24.96	24.54	28.95	32.05
12	10.34	14.84	14.79	2.79	18.82	19.42	23.87	15.54	25.24	24.79	28.94	32.13
13	10.82	14.93	14.47	2.66	19.32	20.00	23.61	16.92	25.30	25.14	28.78	32.27
14	10.89	14.93	14.34	3.64	19.52	20.32	23.91	17.18	24.53	25.44	28.75	32.50
15	11.60	14.92	14.08	4.38	19.99	20.37	23.15	17.83	25.53	25.73	28.91	32.54
16	11.91	14.69	13.96	5.14	20.53	20.83	22.90	18.48	25.59	25.71	28.88	32.27
17	11.60	14.70	14.43	6.01	20.75	20.99	21.87	19.01	25.68	25.70	28.46	32.77
18	12.56	15.00	14.62	6.46	20.91	21.27	16.99	19.12	25.94	25.72	29.04	32.85
19	12.60	15.12	15.05	6.86	20.90	21.49	13.60	19.81	25.98	25.52	28.75	33.05
20	12.94	15.32	15.14	7.69	20.61	21.72	11.58	20.50	25.19	25.19	29.58	33.20
21	12.91	15.38	15.24	8.10	20.43	21.80	9.83	20.90	25.23	25.21	29.17	33.26
22	13.04	15.17	15.33	8.55	19.76	21.81	9.82	20.93	25.42	25.20	30.18	33.39
23	13.10	15.18	15.11	8.71	18.93	20.98	10.90	20.79	26.32	26.14	30.37	33.39
24	13.39	15.43	15.10	8.62	19.26	21.61	12.50	21.09	26.32	25.33	30.64	33.42
25	13.56	15.57	15.00	8.65	19.66	22.05	13.80	21.83	26.33	26.35	30.59	33.65
26 27 28 29 30 31	13.56 13.47 13.62 13.62 13.86 14.18	15.37 15.18 15.11 14.97 14.73	14.57 14.18 14.03 14.07 14.03 14.14	9.05 9.13 9.85 11.08 12.07 12.85	19.81 20.09 20.43 	21.53 21.45 22.03 22.19 22.43 22.54	14.42 14.26 13.44 13.48 13.41	22.52 23.06 23.56 24.02 24.38 24.44	26.53 26.46 25.77 25.19 24.10	26.50 26.55 26.77 26.00 27.03 26.23	29.62 30.24 29.15 30.09 30.09 30.23	33.82 34.33 34.70 34.95 35.40
MAX	14.18	15.57	15.33	15.19	20.91	22.54	23.99	24.44	26.53	27.03	30.64	35.40

CAL YR 1997 LOW 15.57 WTR YR 1998 LOW 35.40



GROUND-WATER RECORDS Van Wert County

405215084335400. LOCAL NUMBER, VW-1

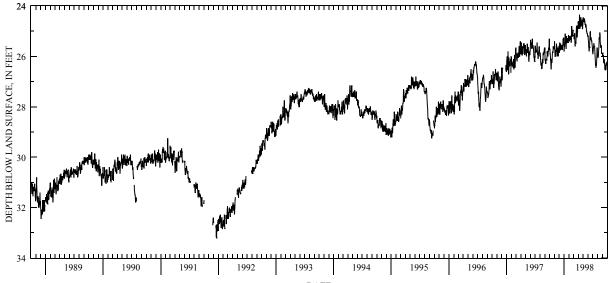
LOCATION.--Lat 40°52'15", long 84°33'54", Hydrologic Unit 04100007, Ridge Road near Van Wert.

LOCATION.--Lat 40°52'15", long 84°33'54", Hydrologic Unit 04100007, Ridge Road near Van Wert.
Owner: Marsh Foundation.
AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 340 ft, cased.
INSTRUMENTATION.--Type F continuous recorder.
DATUM.--Elevation of land-surface datum is 790.37 ft above sea level.
Measuring point: Floor of instrument shelter 6.15 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--August 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low 33.20 ft below land-surface datum, Dec. 20-21, 1991;
minimum daily low, 18.85 ft below land-surface datum, Mar. 6, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	25.75 25.75 25.70 25.90 25.90	25.40 25.40 25.75 26.00 26.00	25.80 25.85 25.70 25.45 25.50	25.80 25.60 25.60 25.60 25.55	25.30 25.40 25.40 25.35 25.20	25.15 25.30	24.60 24.85 24.80 24.90 24.90	24.50 24.45 24.50 24.50 24.60	25.20 25.20 25.30 25.40 25.50	25.80 25.90 25.90 25.80 25.70	26.00 26.00 26.00 26.05 26.00	26.00 25.90 25.85 25.90 26.00
6 7 8 9 10	26.00 26.15 26.20 26.35 26.50	26.00 25.90 25.80 25.75 25.75	25.55 25.75 25.75 25.60 25.50	25.45 25.35 25.10 25.20 25.45	25.25 25.30 25.30 25.30 25.35	25.30 25.30 25.10 25.10 25.45	24.85 24.80 24.55 24.35 24.70	24.60 24.50 24.50 24.65 24.55	25.60 25.70 25.80 25.80 25.65	25.65 25.60 25.50 25.50 25.60	25.95 25.80 25.70 25.65 25.40	25.95 26.00 26.20 26.25 26.25
11 12 13 14 15	26.50 26.30 26.10 26.20 26.25	25.80 25.80 25.80 25.50 25.60	25.70 25.75 25.65 25.70 25.70	25.45 25.45 25.65 25.70 25.30	25.20 25.20 25.25 25.40 25.45	25.55 25.60 25.45 25.40 25.45	24.80 24.90 24.75 24.55 24.60	24.55 24.60 24.70 24.75 24.70	25.65 25.55 25.25 25.20 25.05	25.60 25.60 25.60 25.70 25.85	25.25 25.30 25.30 25.20 25.05	26.15 26.10 26.15 26.20 26.35
16 17 18 19 20	26.20 26.10 25.95 25.80 25.85	25.85 26.00 25.95 25.80 25.75	25.60 25.55 25.60 25.60 25.70	25.20 25.25 25.30 25.35 25.45	25.35 25.10 24.80 24.95 25.00	25.50 25.35 25.05 24.90 24.80	24.45 24.70 24.80 24.80 24.75	24.75 24.80 24.85 24.75 24.75	25.00 25.25 25.35 25.30 25.25	26.00 26.15 26.25 26.35 26.35	25.10 25.20 25.40 25.55 25.65	26.50 26.50 26.55 26.40 26.35
21 22 23 24 25	25.80 25.85 25.75 25.60 25.70	25.65 25.65 25.70 26.00 26.00	25.75 25.60 25.55 25.55 25.30	25.45 25.40 25.30 25.30 25.40	25.20 25.20 25.10 25.10 25.20	24.80 24.90 25.05 25.20 25.25	24.75 24.70 24.65 24.55 24.65	24.85 24.95 25.00 25.00 25.05	25.25 25.35 25.40 25.35 25.40	26.40 26.45 26.35 26.35 26.30	25.65 25.65 25.60 25.55 25.65	26.35 26.50 26.55 26.45 26.25
26 27 28 29 30 31	25.70 25.65 25.70 25.70 25.70 25.60	25.75 25.80 25.80 25.60 25.60	25.35 25.35 25.40 25.25 25.30 25.75	25.45 25.45 25.30 25.15 25.25 25.30	25.15 24.95 25.00 	25.05 25.00 24.80 24.90 24.75 24.65	24.65 24.90 24.90 24.80 24.70	25.10 25.10 25.10 25.20 25.20	25.45 25.50 25.65 25.80 25.80	26.20 26.05 25.80 25.65 25.70 25.90	25.85 25.90 25.85 25.85 26.00	26.30 26.25 26.35 26.30 26.20
MAX	26.50	26.00	25.85	25.80	25.45	25.60	24.90	25.20	25.80	26.45	26.05	26.55

CAL YR 1997 LOW 26.70 WTR YR 1998 LOW 26.55



GROUND-WATER RECORDS Williams County

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

412821084313600. LOCAL NUMBER, WM-1

LOCATION.--Lat 41°28'21", long 84°31'36", Hydrologic Unit 04100006, Bryan Water Treatment Plant, Bryan.
Owner: City of Bryan.

AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled unused production well, diameter 8 in., depth 118 ft, cased.
INSTRUMENTATION.--Type F continuous recorder.
DATUM.--Elevation of land-surface datum is 747 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 3.30 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--May 1951 to May 1957, discontinued June 1957 to September 1984, reactivated October 1984 to current year.

CAL YR 1997

WTR YR 1998

LOW 29.85

LOW 30.80

1989

1990

1991

1992

to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 39.35 ft below land-surface datum, July 7, 1988; minimum daily low, 1.45 ft below land-surface datum, Jan. 27, 1952.

					DA1	ILY MAXIMU	JM VALUES					
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	28.55 28.25 28.60 27.60 26.30	26.10 24.80 23.65 25.10 25.60	21.40 22.80 23.40 23.70 24.00	20.00 18.85 18.65 18.20 19.85	21.50 23.70 23.95 23.60 23.70	23.30 22.80 23.00 23.85 24.25	23.20 23.70 24.20 23.05 22.10	25.50 23.85 22.30 22.80 23.90	24.75 25.60 26.95 27.60 27.70	28.55 28.40 27.95 27.10 25.40	29.60 29.00 28.55 30.40 30.30	29.10 29.50 29.35 29.55 28.30
6 7 8 9 10	28.20 28.30 28.90 29.05 28.70	25.70 25.45 25.15 24.20 23.90	24.00 22.95 22.80 24.40 24.60	19.70 20.55 20.80 21.40 21.00	24.00 23.45 22.55 22.45 23.20	23.75 24.30 23.55 22.35 23.05	21.80 22.70 23.30 23.60 23.00	25.10 26.05 26.15 25.65 24.40	26.40 25.70 24.40 27.30 26.70	25.65 27.35 26.90 27.30 27.95	30.80 30.20 29.05 28.60 27.65	27.00 25.70 25.55 27.05 26.90
11 12 13 14 15	27.20 26.15 26.90 27.50	25.10 25.40 25.20 24.90 24.85	24.85 24.80 24.40 23.45 23.05	21.20 22.20 22.15 22.40 22.20	23.70 23.70 24.30 24.60 23.60	23.25 23.85 23.75 23.05 22.80	21.70 21.40 20.75 22.20 23.00	23.80 25.05 26.10 26.05 27.35	27.10 26.70 25.85 24.50 24.20	28.05 26.55 26.10 27.65 29.00	28.00 29.00 29.45 29.80 28.45	27.95 27.10 26.10 25.60 27.00
16 17 18 19 20	27.50 27.00 25.45 25.35	23.50 24.15 24.75 24.75 25.20	25.05 25.05 25.65 25.35 24.45	21.50 21.40 21.20 23.05 23.55	23.35 23.55 23.30 23.55 24.00	22.70 23.30 23.30 23.35 23.60	22.85 23.20 22.70 21.30 21.60	26.00 24.75 24.40 26.25 27.35	26.10 26.50 27.05 27.40 26.30	29.80 30.30 29.50 29.05 29.10	28.35 28.35 29.00 29.50 30.00	27.40 28.30 28.15 27.25 27.05
21 22 23 24 25	26.70 27.10 27.20 27.30 26.50	25.70 25.00 23.95 23.80 25.00	23.25 22.85 24.15 23.60 21.55	23.90 23.85 22.85 22.20 21.30	24.00 23.45 22.85 22.90 23.20	22.95 21.90 21.45 22.65 23.35	22.25 22.90 23.35 23.70 23.45	27.70 28.05 27.40 26.45 23.85	25.60 26.00 28.70 29.20 29.35	30.35 30.45 29.80 29.95 29.10	30.05 28.05 27.25 27.10 28.30	26.35 27.70 28.50 28.30 27.80
26 27 28 29 30 31	25.15 24.75 26.05 26.45 26.70 26.60	25.00 24.65 22.65 21.90 21.30	20.20 20.15 19.50 19.20 19.65 19.75	22.80 23.30 23.30 23.20 23.45 22.50	23.95 23.65 24.05 	23.00 23.40 22.85 21.95 22.50 22.90	22.20 22.85 23.90 24.20 25.40	24.80 26.05 26.30 25.80 25.95 25.25	29.70 28.55 27.80 28.00 28.60	27.35 27.10 29.00 29.65 30.25 30.60	29.15 29.85 30.05 29.50 28.05 27.70	27.00 26.70 26.25 27.90 28.10
MAX	29.05	26.10	25.65	23.90	24.60	24.30	25.40	28.05	29.70	30.60	30.80	29.55

DEPTH BELOW LAND SURFACE, IN FEET 20

1993

DATE

1994

1995

1996

1997

1998

GROUND-WATER RECORDS Williams County

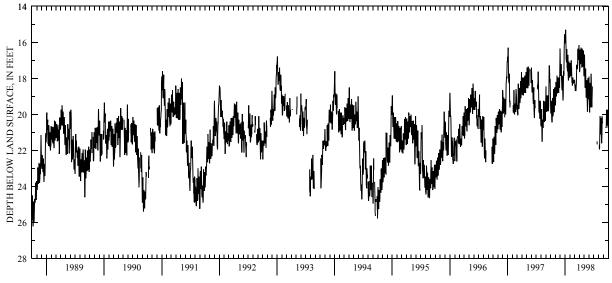
412930084320900. LOCAL NUMBER, WM-3

LOCATION.--Lat 41°29'30", long 84°32'09", Hydrologic Unit 04100006, Union Street, Bryan.
Owner: City of Bryan.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled unused test well, diameter 8 in., depth 174 ft, cased.
INSTRUMENTATION.--Type F continuous recorder.
DATUM.--Elevation of land-surface datum is 760 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 2.00 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--October 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 27.35 ft below land-surface datum, June 30 - July 1, 1988;
minimum daily low, 15.15 ft below land-surface datum, Jan. 4, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	19.60 19.85 19.95 19.80 19.25	19.30 19.20 18.20 18.60 18.85	16.80 17.45 17.80 17.85 17.80	16.00 15.70 15.60 15.30 15.70	17.15 17.30 17.85 17.75 17.80	18.10 18.10 18.25 18.45 18.50	17.20 17.60 17.65 17.45 16.75	17.85 17.65 16.70 16.70 17.40	17.90 18.45 19.10 19.55 19.90		21.70 21.70	
6 7 8 9 10	19.50 19.85 20.30 20.45 20.40	19.00 18.95 18.85 18.15 17.85	17.75 17.20 17.40 18.00 18.15	16.20 16.55 16.90 17.10 17.05	17.85 17.70 17.05 17.00 17.30	18.65 18.70 18.45 18.35 18.70	16.40 16.90 17.20 17.15 17.10	18.10 18.50 18.50 18.40 17.60	19.80 19.00 18.25 19.10 19.30	 	21.95 21.90 21.50 20.80 20.10	
11 12 13 14 15	20.40 19.65 19.10 19.60 19.85	18.50 18.80 18.80 18.80 18.65	18.50 18.65 18.50 17.85 18.00	16.40 16.40 17.10 17.35 17.55	17.40 17.70 18.15 18.25 18.10	18.60 18.40 18.30 17.85 17.25	16.60 16.30 16.45 16.75 17.10	17.45 18.10 18.45 19.05 19.05	19.60 19.60 19.35 18.80 17.75	 	20.20 20.65 21.00 21.10 20.95	
16 17 18 19 20	20.10 20.00 19.85 18.60 18.75	17.95 18.20 18.40 18.50 18.75	18.60 18.95 19.20 19.20 18.90	17.60 17.45 16.70 16.95 17.70	18.40 18.25 18.00 17.95 18.30	17.40 17.50 17.45 17.45 17.40	17.30 17.40 17.25 16.35 16.40	19.00 18.30 18.10 18.85 19.20	18.40 18.90 19.40 19.60 19.55	 	20.55 20.20 20.85 21.30 21.60	20.70 20.75 20.60 19.95
21 22 23 24 25	19.35 19.60 19.85 19.85 19.60	18.80 18.65 17.95 18.05 18.10	18.10 17.60 17.85 17.80 17.15	18.10 18.10 18.05 17.80 17.10	18.25 18.15 18.25 18.15 18.20	17.05 16.45 16.35 16.80 16.90	16.90 17.25 17.35 17.30 17.20	19.60 19.85 19.75 19.05 18.00	19.15 18.45 	21.50 21.65 21.65	21.60 21.10 20.30 20.10 20.50	19.75 20.30 20.50 20.60 20.60
26 27 28 29 30 31	18.80 18.50 18.90 19.30 19.45 19.50	18.50 18.50 17.45 16.85 16.35	16.30 16.00 15.70 15.55 15.80 16.05	17.10 17.55 17.95 17.85 17.95 17.90	18.10 18.25 18.20 	16.95 16.95 16.80 16.15 16.40 16.75	16.50 16.45 16.90 17.20 17.85	18.00 18.35 18.75 19.10 19.15 18.60				20.35 19.75 19.80 20.30 20.75
MAX	20.45	19.30	19.20	18.10	18.40	18.70	17.85	19.85	19.90	21.65	21.95	20.75

CAL YR 1997 LOW 21.50 WTR YR 1998 LOW 21.95



GROUND-WATER RECORDS Williams County

413108084415300. LOCAL NUMBER, WM-12

LOCATION.--Lat 41°31'08", long 84°41'53", Hydrologic Unit 04100003, 1.7 mi east of Blakeslee.
Owner: State of Ohio.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled test artesian well, diameter 10 in., depth 115 ft, cased to 85 ft, screened 85 ft to 115 ft.
INSTRUMENTATION.--Periodic measurement with chalked tape by ODNR personnel.
DATUM.--Elevation of land-surface datum is 830 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 1.50 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--1974 to September 1982 continuous, periodic October 1983 to December 1984, continuous January 1985 to November 1986, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum measured low, 10.66 ft below land-surface datum, Oct. 24, 1994; minimum daily low, 3.83 ft below land-surface datum, Mar. 17, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM INSTANTANEOUS OBSERVATIONS

	DA'I'E	i	WATER LEVEL
Nov.	11,	1997	8.93
Apr.	30,	1998	7.37

GROUND-WATER RECORDS Wyandot County

405009083172600. LOCAL NUMBER, WY-1

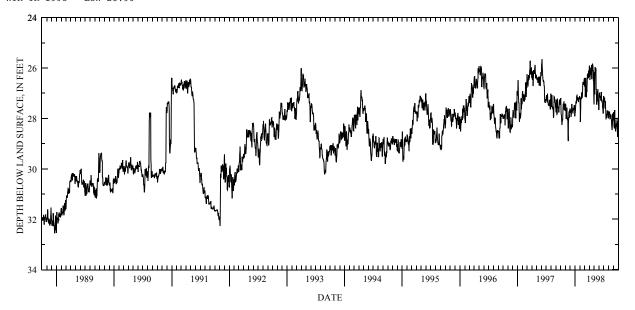
LOCATION.--Lat 40°50'09", long 83°17'26", Hydrologic Unit 04100011, State Rt 199, Upper Sandusky.

LOCATION.--Lat 40°50'09", long 83°17'26", Hydrologic Unit 04100011, State Rt 199, Upper Sandusky.
Owner: Karg Supply Co.
AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 5 in, depth 90 ft, cased.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is 850 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--September 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 40.90 ft below land-surface datum, July 12, 15, 17, 21,
Aug. 26, 1961; minimum daily low, 25.65 ft below land-surface datum, June 5, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.23	27.49	27.67	27.78	27.19	26.39	25.90	27.44	27.50	27.11	27.94	27.95
2	27.19	27.42	27.78	27.70	27.70	26.73	26.11	26.81	27.13	27.24	27.87	27.76
3	27.55	27.56	27.75	27.65	28.14	26.65	26.24	26.17	27.06	27.31	27.77	27.77
4	27.79	27.87	27.66	27.50	28.03	26.50	26.40	26.93	26.99	27.33	27.75	28.04
5	27.84	28.00	27.71	27.43	27.51	26.62	26.47	27.05	26.99	27.32	27.76	28.30
6	27.87	28.00	27.94	27.33	27.32	27.14	26.37	26.36	27.06	27.25	27.73	28.37
7	28.02	27.94	27.90	27.31	27.21	27.06	26.25	26.07	27.13	27.17	27.79	28.39
8	28.15	27.94	27.85	27.41	27.18	26.65	26.15	25.96	27.17	27.37	27.79	28.05
9	28.25	27.67	27.72	27.37	27.23	26.39	26.15	26.07	27.18	27.60	28.02	27.67
10	28.22	27.58	27.51	27.18	27.18	26.63	25.98	26.14	27.12	27.55	28.02	28.02
11	28.10	27.81	27.43	27.12	27.10	26.92	26.18	26.14	27.12	27.31	27.94	28.05
12	28.09	28.03	27.56	27.11	26.97	27.10	26.25	26.01	27.25	27.50	27.84	28.07
13	28.03	28.04	27.57	27.05	27.09	27.16	26.22	26.17	27.29	27.55	27.87	28.38
14	28.06	28.03	27.66	27.28	27.19	26.98	26.07	26.84	27.23	27.71	27.86	28.46
15	27.84	28.00	27.72	27.16	27.17	26.88	25.89	26.84	27.17	27.88	27.89	28.51
16	27.57	27.97	27.61	27.18	27.13	26.94	26.44	27.15	26.95	28.04	27.88	28.39
17	27.51	28.52	27.76	27.22	26.98	26.77	26.36	27.41	27.06	27.83	27.90	28.41
18	27.42	28.90	27.80	27.17	26.70	26.60	26.06	27.45	27.27	27.92	28.04	28.29
19	27.53	28.61	27.68	27.27	26.58	26.35	25.97	27.31	27.35	27.97	28.06	28.23
20	27.49	28.13	27.60	27.27	26.59	26.23	25.88	27.12	27.28	27.93	28.26	28.19
21	27.35	27.96	27.68	27.33	26.56	26.31	25.83	27.12	27.28	27.85	28.28	28.31
22	27.34	27.93	27.65	27.32	26.61	26.29	25.87	27.00	27.35	27.88	28.41	28.31
23	27.62	27.73	27.58	27.19	26.66	26.31	25.88	26.94	27.37	27.71	28.45	28.09
24	27.66	27.92	27.60	27.19	26.62	26.33	25.91	26.94	27.56	27.68	28.46	27.98
25	27.58	27.97	27.51	27.18	26.65	26.39	26.13	26.84	27.60	27.73	28.19	28.19
26 27 28 29 30 31	27.58 27.42 27.64 27.70 27.69 27.58	27.70 27.72 27.68 27.65 27.60	27.51 27.52 27.47 27.90 27.90 27.73	27.22 27.19 27.16 27.11 27.18 27.14	26.52 26.44 26.43 	26.38 26.24 26.10 26.34 26.35 26.13	26.09 26.51 26.40 26.86 27.34	27.33 27.30 27.23 27.46 27.65 27.65	27.60 27.79 27.79 27.80 27.52	27.72 27.69 27.75 27.97 27.98 27.94	27.83 27.83 27.85 28.05 28.07 28.07	28.58 28.72 28.72 28.21 28.10
MAX	28.25	28.90	27.94	27.78	28.14	27.16	27.34	27.65	27.80	28.04	28.46	28.72

CAL YR 1997 LOW 28.90 WTR YR 1998 LOW 28.90



The following table lists chemical and physical data collected at ten stations in Ohio. The project is part of a regional study investigating whether changes in herbicide use has affected herbicide and nutrient concentrations in Midwestern streams. Samples were collected and analyzed during June and July 1998.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

03157000 - CLEAR C NR ROCKBRIDGE OH

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO GEN, NITRIT DIS- SOLVE (MG/I AS N) (00613	GI TE NO2- DI CD SOI (MC	EN, +NO3 AM IS- LVED S G/L (N) A	GEN, MONIA DIS- SOLVED MG/L LS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
JUN 10 30	1400 1130	37 85	395 420	8.3 7.8	18.6 21.1	.019			.038	.026	.0321
DATE	ALA- CHLC WATE DISS REC, (UG/L	R, ZINE R, WATE , DISS REC (UG/L	E, ZIN ER, WAT S, DIS REC L) (UG/	A- CYA E, ZIN ER, WAT S, DIS REC L) (UG/	rer, Lac ss, wa c Dis L) (UG	TO- E HLOR SE TER W SOLV DI /L) (U	ETRI- BUZIN BUCOR JATER SSOLV JG/L) 12630)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	WATE DISS REC (UG/1	OR, MAZII ER, WATI S, DIS REC L) (UG/I	ER, S, L)
JUN 10 30	.01						.004	<.0180 .0217	<.00°		
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO GEN, NITRIT DIS- SOLVE (MG/I AS N) (00613	O- NIT GI TE NO2- DI SOI GD SOI AS	TRO- N EN, +NO3 AM IS- LVED S G/L (N) A	GEN, MONIA DIS- GOLVED MG/L LS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
JUN 02 29	1230 1100	163 1040	797 392	7.7 7.2	21.6 23.0	.192	_	.82 .87	.682 .197	.374 .166	.896 .172
DATE	ALA- CHLC WATE DISS REC, (UG/L	R, ZINE R, WATE , DISS REC (UG/I	E, ZIN ER, WAT S, DIS REC L) (UG/	A- CYA E, ZIN ER, WAT S, DIS REC L) (UG/	TER, LAC ES, WA C DIS (L) (UG	TO- E HLOR SE TER W SOLV DI /L) (U	BUZIN CNCOR JATER SSOLV JG/L)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	WATE DISS REC (UG/1	OR, MAZII ER, WATI S, DIS REC L) (UG/I	ER, S, L)
JUN 02 29	.02						.223	.0516	<.00°		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998—Continued

03223000 - OLENTANGY R AT CLARIDON OH

DATE JUN 09 29	TIME	INST. CUBIC FEET PER SECOND (ANCE US/CM)	PH WATER WHOLE FIELD STAND- ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO GEN, NITRO DIS- SOLVI (MG/J AS N) (00613	, G TE NO2 - D ED SO. L (M)) AS 3) (00	EN, +NO3 AM IS- LVED S G/L (N) A 631) (0	ITRO- GEN, MONIA DIS- OLVED MG/L S N) 0608)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
DATE	ALA- CHLOI WATEI DISS REC, (UG/L (4634:	R, WATER , DISS, REC) (UG/L)	DISS, REC (UG/L)	CYA ZIN A, WAT DIS REC (UG/	E, ME' ER, LACI S, WA' DISS L) (UG,	FO- I HLOR SI FER I SOLV DI /L) (I	METRI- BUZIN ENCOR WATER ISSOLV UG/L) 82630)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PROF CHLC WATE DISS REC (UG/I (0402	DR, MAZI ER, WAT S, DIS REC L) (UG/	ER, S, L)
JUN 09 29	.009		E.0773 E.570	.03			<.004 .065	E.0098 E.0172	<.007 <.007		
		DIS-	032255	900 - OL	ENTANGY 1	R NR DEI			ITRO-	PHOS-	
DATE	TIME	CHARGE, INST. CUBIC FEET PER SECOND (CON- DUCT- (ANCE US/CM)	WATER WHOLE FIELD STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C) (00010)	GEN NITRI DIS SOLVI (MG/I AS N)	, G: TE NO2 - D ED SO: L (M:) AS	EN, +NO3 AM IS- LVED S G/L (N) A	GEN, MONIA DIS- OLVED MG/L S N) 0608)	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
JUN 09 JUL	1100	34	442	7.4	19.8	.120			.307	<.010	.257
O1 DATE	ALA- CHLOI WATE DISS REC, (UG/L)	R, WATER, DISS, REC (UG/L)	DISS, REC (UG/L)	CYA ZIN R, WAT DIS REC (UG/	E, ME' ER, LACI S, WA' DISS L) (UG,	FO- I HLOR SI FER I SOLV D3 /L) (I	4 METRI- BUZIN ENCOR WATER ISSOLV UG/L) 82630)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROF CHLC WATE DISS REC (UG/I (0402	DR, MAZI ER, WAT S, DIS REC L) (UG/	ER, S, L)
JUN 09 JUL 01	.00		E.113 E.712	.06			.048	.0232	<.007		2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998—Continued

03230500 - BIG DARBY C AT DARBYVILLE OH

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPI ATUI WATI (DEG (0001	G NIT ER- D RE SC ER (M C) AS	EEN, PRITE NO PIS- PLVED S IG/L IN) A	NITRO- GEN, D2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
JUN 03 29	1200 1100	188 12600	750 106	8.2 7.4	20.4 21.8		67 27	8.44 1.37	.124	.130	.688 .178
DATE	ALA- CHLC WATE DISS REC, (UG/I	DR, ZINE ER, WATE G, DISS REC L) (UG/L	R, ZINI R, WATI , DIS REC) (UG/	A- CYZ E, ZII ER, WA' S, DII REG L) (UG	rer, i ss, c i /L)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	WATER	METO WAT: DIS: V REC (UG/	ON, CHI ER, WAT S, DIS REC L) (UG/	COR, MAZ CER, WA CSS, DI C REC (L) (UG	INE, FER, SS,
JUN 03 29	.12					3.04 2.89	.078	E.00			
			0:	3234500	- SCIOT	TO R AT	HIGBY O	H			
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPI ATUI WATI (DEG (0001	G NIT ER- D RE SC ER (M C) AS	EEN, PRITE NO PIS- PLVED S G/L FN) 2	NITRO- GEN, D2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
JUN 04 JUL	1030	2560	574	8.3	20.8		38	3.19	.037	.060	1.08
DATE	ALA- CHLC WATE DISS REC, (UG/I (4634	DR, ZINE ER, WATE G, DISS REC L) (UG/L	, ZINI R, WATI , DIS REC) (UG/	A- CYZ E, ZII ER, WA' S, DII REG L) (UG	rer, i ss, c i /L)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO WAT: DIS: V REC (UG/	ON, CHI ER, WAT S, DIS REC L) (UG/	LOR, MAZ TER, WA' SS, DIS C REG	INE, TER, SS,
JUN 04 JUL	.06					2.30	.107	.03			
08	.02	3.80	E.45	0 .6:	23	2.31	.043	.02	15 <.00	070 .4	12

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998—Continued

03240000 - L MIAMI R NR OLDTOWN OH

DATE	TIME	INST. CI CUBIC CO FEET DU PER AN SECOND (US	PE- WARFIC WEDN- FINCT- (STICE AS/CM) UN	TAND- A' ARD W NITS) (D	MPER- TURE ATER EG C) 0010)	NIT GE NITR DI SOL (MG AS	EN, LITE NO S- LVED S L/L (N) A	GEN, 02+NO3 DIS- GOLVED MG/L AS N)	GI AMMO DI SOI (MO AS	TRO- EN, ONIA IS- LVED G/L N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
JUN 10 30	1030 1045				5.5 0.8	.01	-	4.36 4.77		028 020	.018	.0539
DATE	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	WATER, DISS, REC (UG/L)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	MET LACH WAT DISS (UG/	LOR ER OLV L)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MET WAT DIS REC (UG/	ON, ER, S,	PROPERTY OF THE PROPERTY OF T	OR, MAZIER, WATES, DISREC	NE, PER, SS, L
JUN 10 30	.015	.445 .510	E.0673 E.0796	.0536		77 01	.007	E.00 E.00		<.007		
DATE	1	DIS- HARGE, SE INST. CI CUBIC CO FEET DU	PE- WA FIC WE ON- FI OCT- (ST	PH ATER HOLE IELD TE FAND- A	PARIS MPER- TURE ATER	NIT GE NITR DI	RO- N N, ITE NO S- VED S	IITRO- GEN,	NIT GI AMMO DI SOI	TRO- EN, ONIA IS- LVED G/L	PHOS- PHORUS ORTHO, DIS- SOLVED	ACETO- CHLOR, WATER FLTRD REC
JUN	5	SECOND (US	(CM) UN	NITS) (D	EG C) 0010)	AS (006	N) A	MG/L S N) 10631)	AS	N) 608)	AS P) (00671)	(UG/L) (49260)
10 30	1100 1000				4.4 7.9	.03		4.15 4.10		063 020	.023	<.0020
DATE	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	WATER, DISS, REC (UG/L)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	WAT DISS (UG/	LOR ER OLV L)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MET WAT DIS REC (UG/	ON, ER, S,	PROF CHLO WATE DISS REC (UG/I (0402	OR, MAZIER, WATES, DISRECL) (UG/	NE, PER, SS, L
JUN 10 30	<.002	.048 .536	E.0089 E.108	<.0040		30 75	<.004	<.01 E.00		<.007		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998—Continued

04185000 - TIFFIN R AT STRYKER OH

DATE	TIME	INST. CUBIC CFEET I PER FSECOND (U	CON- DUCT- ANCE JS/CM)	(STAND- ARD UNITS)	WATER (DEG C)	G NIT D SO (M AS	EN, RITE IS- LVED G/L N)	DIS- SOLVEI (MG/L AS N)	0 8 AMM 1 9 SC 1) AS	GEN, MONIA DIS- DLVED MG/L G N)	ORTHO, DIS- SOLVED (MG/L AS P)	WATER
JUN 01 JUL	1300	161	623	8.0	21.0	. 0		1.89		.135	.048	.262
07	1130	76	631	7.9	22.5	. 0	24	1.12		.064	.067	.0365
DATE	ALA- CHLOF WATEF DISS, REC, (UG/L) (46342	R, WATER, DISS, REC	WATE DISS REC (UG/L	- CYA , ZIN R, WAT , DIS REC) (UG/	IE, ME PER, LAC SS, WA DIS L) (UG	HLOR TER SOLV	BUZI SENCO WATE DISSO (UG/I	OR WAR	ETON, ATER, ISS, EC F/L)	WAT DIS REC (UG/	OR, MAZ ER, WA' S, DI: RE(L) (UG	INE, FER, SS,
JUN 01 JUL	.150	1.63	E.107	.40	17 .	481	.10	01 E.(0100	<.00	70 .1:	97
07	.010	.581	E.082	0 .16		127	.01	12 E.	178	<.00	70 .0	544
DATE	TIME	INST. CUBIC CFEET I PER FSECOND (U	BPE- CIFIC CON- DUCT- ANCE JS/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C) (00010)	NI G NIT D SO (M AS	TRO- EN, RITE IS- LVED G/L N)	NITROGEN, NO2+NO3 DIS- SOLVEI (MG/L AS N)	NI - NI () () () () () () () () () () () () ()	GEN, MONIA DIS- DLVED MG/L G N)	(MG/L	CHLOR, WATER FLTRD REC (UG/L)
JUN 17 JUL	0930	364	597	7.9	20.0	. 0	93	10.4		. 053	.120	1.45
08	1200	684	534	7.8	23.0	.0	21	6.00		.063	.129	.297
DATE	ALA- CHLOF WATER DISS, REC, (UG/L) (46342	R, ZINE, R, WATER, DISS, REC (UG/L)	ZINE WATE DISS REC (UG/L	- CYA , ZIN R, WAT , DIS REC) (UG/	ER, LAC SS, WA	TER SOLV (L)	BUZI SENCO WATE DISSO (UG/I	IN MI OR WA ER DO OLV RI	RO- ETON, ATER, ISS, EC G/L)	WAT	OR, MAZ ER, WA' S, DI RE(L) (UG	INE, FER, SS,
JUN 17 JUL	.188	9.96	E.870	1.87	6.	58	. 41	13 .(392	<.00	70 .6	32
08	.030	2.21	E.395	.38	5 2.	26	.09	96 .0	334	<.00	70 .1	14

PROJECT DATA **City of Akron Water Diversion**

The Ohio and Erie Canal runs from the Little Cuyahoga River through the City of Akron, through Summit Lake, past Nesmith Lake to Wolf Creek, a tributary to the Tuscarawas River. Water is diverted from Long Lake, one of the Portage Lakes, into the canal system at the Long Lake Feeder Water Control structure near Lake Nesmith. The water can either flow North into the Little Cuyahoga River or South to the Tuscarawas River. The following three discharge gaging stations are on the Ohio and Erie Canal system near the Akron area. The Long Lake Feeder Gage measures water flow into the canal while the Ohio and Erie Canal at Lock 1 gage and the Wolf Creek Outlet gage measure water flow to the North and South, respectively. The tables contain the mean daily discharge at each gaging station.

410121081330300 LONG LAKE FEEDER TO OHIO & ERIE CANAL AT AKRON. OHIO

LOCATION. -- Lat 41°01'21", Long 81°33'03", Summit County, Hydrologic Unit 05040001, in canal feeder gate house control structure at north end of Long Lake Channel on West side of State Route 93 (Manchester Road), 0.1 mi south of Lake Nesmith, at Akron, Ohio.

DRAINAGE AREA. -- Not determined.
PERIOD OF RECORD.-- June 12, 1998 to September 30, 1998.
GAGE.-- Acoustic Doppler Flow meter records water-depth, discharge, and velocity.

REMARKS. -- Records are fair. Flow is completely regulated by operation of gates at flow control structure upstream

of gage.

EXTREMES FOR PERIOD JUNE 12 to SEPTEMBER 30, 1998. -- Maximum instantaneous discharge, 31 ft³/s on September 8; Minimum Daily discharge, 12 ft³/s on August 9.

			DISCHARG	E, CUBIC		SECOND, WA		OCTOBER 19	997 TO SE	PTEMBER 1	998	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										e22	e16	e20
2										e22	e15	e28
3										e22	e15	e28
4										23	14	28
5										e22	e14	e28
6										e22	e14	e28
7										e22	13	e28
8										e21	e13	24
9										e21	12	23
10										e21	12	22
11										e20	13	23
12									24	20	13	22
13									24	20	13	e22
14									24	e20	13	e22
15									24	e20	18	e22
16									23	e20	26	e21
17									23	e20	25	21
18									23	e20	25	e21
19									e22	e20	e25	e21
20									23	e21	25	e21
21									24	e21	e24	21
22									23	e21	e24	e21
23									e22	e21	23	21
24									e22	21	e23	22
25									e22	e21	e22	23
									622	CZI	C22	23
26									e22	21	e22	23
27									e22	18	e21	e22
28									e22	e16	e21	e21
29									e22	e16	e20	e20
30									e22	e16		e19
											e20	
31										e16	e20	
TOTAL										627	574	686
MEAN										20.2	18.5	22.9
MAX										23	26	28
MIN										16	12	19
STATIST	ICS OF MO	NTHLY MEA	AN DATA FO	R WATER Y	EARS 1998	- 1998,	BY WATER	YEAR (WY)				
MEAN										20.2	18.5	22.9
MAX										20.2	18.5	22.9
(WY)										1998	1998	1998
MIN										20.2	18.5	22.9
(WY)										1998	1998	1998

e Estimated

PROJECT DATA City of Akron Water Diversion

410433081312500 OHIO & ERIE CANAL AT LOCK1 AT AKRON, OHIO

LOCATION. -- Lat 41°04'33", Long 81°31'25", Summit County, Hydrologic Unit 05040001, at lower pool level of Lock 1, at south end of culvert under West Exchange Street, 1.6 mi. northeast of Summit Lake, at Akron, Ohio.

DRAINAGE AREA.-- Not determined.

PERIOD OF RECORD.-- June 1, 1998 to September 30, 1998.

GAGE.-- Water-stage recorder. Datum of gage is 953.76 ft above mean sea level.

REMARKS.-- Record is good except for periods of estimated record, which are fair. Flow is completely regulated by operation of gate in Lock 1.

EXTREMES FOR PERIOD JUNE 1 to SEPTEMBER 30, 1998. -- Maximum instantaneous stage, 3.44 ft. on August 25; maximum instantaneous discharge, 477 ft³/s on August 25; Minimum Daily discharge, 3.0 ft³/s on August 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MEAN VALUES

					DA.	ILI MEAN	VALUES					
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									6.9	28	3.1	11
2									18	11	4.4	13
3									14	12	14	14
4									5.5	12	16	18
5									6.3	13	12	22
3									0.5			
6									8.4	16	16	22
7									7.9	15	7.2	37
8									7.8	16	3.0	46
9									7.7	14	4.0	23
10									7.6	14	15	15
										1.5	0.0	1.5
11									7.3	15	28	15
12									25	15	19	13
13									41	15	13	14
14									10	14	5.4	14
15									11	16	7.1	14
16									14	31	20	14
17									20	17	23	14
18									13	17	23	14
19									11	17	16	14
20									11	17	13	14
20										Ξ,	13	
21									11	24	15	25
22									10	47	16	14
23									10	40	16	6.3
24									11	16	89	18
25									11	13	215	14
0.6									1.1	- 1 4	2.1	0 0
26									11	e14	31	9.8
27									23	e23	10	10
28 29									38 41	e18 14	11	12 9.8
									41		11	
30									43	14	11	5.1
31										9.8	10	
TOTAL									462.4	557.8	697.2	485.0
MEAN									15.4	18.0	22.5	16.2
MAX									43	47	215	46
MIN									5.5	9.8	3.0	5.1
STATIST	ICS OF MO	NTHLY MEA	N DATA FO	R WATER Y	EARS 1998	- 1998,	BY WATER	YEAR (WY)			
MEAN									15.4	18.0	22.5	16.2
MAX									15.4	18.0	22.5	16.2
(WY)									1998	1998	1998	1998
MIN									15.4	18.0	22.5	16.2
(WY)									1998	1998	1998	1998

e Estimated

PROJECT DATA **City of Akron Water Diversion**

410014081362600 WOLF CREEK OUTLET OF OHIO & ERIE CANAL AT BARBERTON, OHIO

LOCATION. -- Lat 41°00'14", Long 81°36'26", Summit County, Hydrologic Unit 05040001, at Wolf Road culvert for the Ohio and Erie Canal outlet, 0.1 mi. above confluence with Wolf Creek, 0.2 mi. from confluence of Wolf C and Tuscarawas River, 0.6 mi. east of Columbia Lake, at Barberton, Ohio.

DRAINAGE AREA.-- Not determined.

PERIOD OF RECORD.-- June 1, 1998 to September 30, 1998.

GAGE.-- Water-stage recorder. Datum of gage is 952.00 ft. above mean sea level.

REMARKS.-- Record is fair. Flow is completely regulated by operation of gate at outlet structure.

EXTREMES FOR PERIOD JUNE 1 to SEPTEMBER 30, 1998. -- Maximum instantaneous stage, 4.79 ft. on June 30; maximum instantaneous discharge, 17 ft³/s on June 30; Minimum Daily discharge, 2.9 ft³/s on September 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									3.7	11	3.9	8.0
2									4.0	5.7	4.4	7.1
3									4.0	3.5	4.5	6.2
4									4.1	3.6	4.0	6.1
5									4.1			5.8
5									4.2	3.9	3.9	5.8
6									4.3	4.0	3.8	5.1
7									3.9	3.8	3.6	6.5
8									3.8	4.3	4.1	6.0
9									3.8	4.1	4.6	3.4
10									3.9	4.1	5.9	3.2
11									3.8	4.1	5.8	2.9
12									5.7	4.0	4.1	3.4
13									6.2	3.9	3.5	3.6
14									4.8	4.0	3.4	4.7
15									5.0			
15									5.0	4.2	4.0	6.2
16									5.7	4.8	4.8	6.3
17									5.8	4.1	4.9	6.8
18									4.7	4.1	5.0	6.9
19									4.4	3.9	4.6	6.8
20									4.5	4.8	4.7	7.7
21									4.4	5.2	5.4	8.9
22									4.3	5.7	6.1	8.0
23									4.4	6.7	6.2	7.7
24									4.6	4.4	9.2	8.1
25									5.0	4.4	12	7.3
26									5.3	5.1	5.6	7.2
27									6.5	5.0	4.0	7.3
28									6.2	3.9	3.9	8.0
29									6.8		4.1	7.5
30										3.6		
									9.6	3.8	4.1	8.1
31										3.5	4.2	
TOTAL									147.4	141.2	152.3	190.8
MEAN									4.91	4.55	4.91	6.36
MAX									9.6	11	12	8.9
MIN									3.7	3.5	3.4	2.9
STATIST	ICS OF MC	NTHLY MEA	AN DATA FO	OR WATER Y	/EARS 1998	3 - 1998,	BY WATER	YEAR (W	Y)			
MEAN									4.91	4.55	4.91	6.36
MAX									4.91	4.55	4.91	6.36
(WY)									1998	1998	1998	1998
MIN									4.91	4.55	4.91	6.36
(WY)									1998	1998	1998	1998

The following tables list the results of chemical analysis of ground-water samples collected from seven sites throughout Ohio, established to monitor the ground-water quality in areas near state highways where road deicing is practiced. Some wells, with station ID's ending in "O1" through "O6", represent the multiports within the same well ending in "O0". Level "O1" is the deepest port and level "O6" is the shallowest port. These ports were sampled using dialysis tubing filled with distilled water, set at each level and allowed to come to equilibrium for approxiamtely 6 weeks. Wells at the sites in Clark and Champaign Counties were not sampled on a regular basis this water year due to lack of salt application in those areas. Sampling will resume at those sites as soon as salt enters the aquifer system. Ground-water level measurements are listed in the fourth table.

This study began in 1988 and will continue through 2001. Water-quality sampling began in 1991 and will continue until 1999. These data are presented to the Ohio Department of Transportation for their use in reviewing deicing practices and to accumulate baseline data. Dashes (--) indicate sample was not analyzed for that constituent.

WATER-QUALITY DATA,	WATER	YEAR OCTOR	BER 1997 T	HROUGH SI	EPTEMBER 199	8
DATE	DUCT- ANCE LAB (US/CM)	(MG/L	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L AS CL)	AS BR)	
393541083000801 PK-50	NR CIR	CLEVILLE C	H-LEVEL 1	(LAT 39	35 41N LONG	083 00 08W)
OCT 1997 08 NOV	738	99	8.9	18	.034	
26	744	97	6.4	17	.054	
JAN 1998 15	725	100	4.9	16	.035	
MAR 04	729	93	4.2	15	.032	
APR						
28 JUN	650	95	8.9	17	.032	
02 JUL	661	83	16	16	.053	
09 AUG	645	86	18	27	.018	
27	702	92	20	23	.045	
393541083000802 PK-50	NR CIR	CLEVILLE C	OH-LEVEL 2	(LAT 39	35 41N LONG	083 00 08W)
OCT 1997	740	0.2	1.4	20	0.47	
08 NOV	749	92	14	20	.047	
26 JAN 1998	669	85	9.8	16	.038	
15 MAR	686	93	5.9	16	.044	
04 APR	683	84	4.6	15	.040	
28 JUN	690	100	6.3	12	.027	
02 JUL	638	82	13	10	.042	
09 AUG	710	96	19	33	.030	
27	737	90	21	25	.037	
393541083000803 PK-50	NR CIR	CLEVILLE (OH-LEVEL 3	(LAT 39	35 41N LONG	083 00 08W)
OCT 1997	607	0.4	1.2	10	0.41	
08 NOV	687	84	13	19	.041	
26 JAN 1998	634	81	7.2	16	.049	
15	643	88	6.0	15	.037	
MAR 04	695	88	8.3	15	.045	
APR 28	632	89	15	7.8	.023	
JUN						
02 JUL	626	76	16	13	.040	
09 AUG	761	99	29	38	.025	
27 WATER-QUALITY DATA,	705 WATER	84 YEAR OCTOR	23 BER 1997 T	35 HROUGH SI	.034 EPTEMBER 199	8-Continued

PROJECT DATA

	SPE-						
	CIFIC			CHLO-			
		CALCIUM			BROMIDE		
	DUCT-	DIS-	DIS-	DIS-	DIS-		
	ANCE				SOLVED		
DATE	LAB		(MG/L	(MG/L			
	(US/CM)	(00915)	AS NA)	AS CL)	AS BR)		
	(90095)	(00915)	(00930)	(00940)	(/16/0)		
393541083000804 PK-5	0 NR CIRC	CLEVILLE O	H-LEVEL 4	(LAT 39	35 41N LONG	083 00 08W)
OCT 1997							
08	677	84	13	19	.038		
NOV							
26 JAN 1998	636	79	7.4	16	.048		
15	625	87	5.4	17	.032		
MAR							
04	669	83	5.8	16	.045		
APR							
28	661	94	13	8.1	.017		
JUN 02	659	78	14	13	.050		
JUL	033	70	17	13	.030		
09	797	99	28	40	.037		
AUG							
27	738	88	23	36	.035		
20254100200005 PK 5	O ND GID			/T NIII 20	25 41N TONG	002 00 0011	١
393541083000805 PK-5	O NR CIRC	TEAITTE O	H-LEVEL 5	(LAT 39	35 41N LONG	083 00 08W)
OCT 1997							
08	681	85	17	20	.042		
NOV							
26	654	82	9.1	17	.048		
JAN 1998	626	0.0	F 0	17	024		
15 MAR	636	88	5.9	17	.034		
04	599	83	5.1	16	.032		
APR							
28	674	96	11	9.0	.016		
JUN	642	0.1	1.5	1.1	0.45		
02 JUL	643	81	15	11	.047		
09	782	99	26	38	.029		
AUG							
27	736	87	22	32	.036		
				,			
393541083000806 PK-5	O NR CIRC	CPEAIPPE O	H-LEVEL 6	(LAT 39	35 41N LONG	083 00 08W)
APR 1998							
28	778	110	26	15	.032		
JUN							
02	678	83	20	17	.049		
JUL 09	614	99	26	27			
AUG	014	99	20	21			
27	707	87	20	37	.032		
393541083000901 PK-4	9 NR CIRO	CLEVILLE O	H-LEVEL 1	(LAT 39	35 41N LONG	083 00 09W)
OCT 1997							
08	562	89	4.1	18			
NOV	302	0.5	1.1	10			
26	620	80	4.7	19			
JAN 1998							
15	609	84	2.6	17			
MAR 04	615	80	3.0	17			
APR	010	00	٥.٠	± /	-		
28	586	89	4.9	17			
JUN							
02	624	85	5.9	18			
JUL 09	679	86	23	41			
AUG	013	00	دے	41	-		
27	657	88	16	37			

PROJECT DATA

	DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED	DIS- SOLVED (MG/L AS CL)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)			
393541083	000902 PK-4	9 NR CIRC	LEVILLE O	H-LEVEL 2	(LAT 39	35 41N LONG	083	00	09W)
	OCT 1997								
	08	551	85	4.6	18				
	NOV	331	03	4.0	10				
	26	608	81	4.9	23				
	JAN 1998 15	613	86	2.6	17				
	MAR 04	612			17				
	APR 28	597			16	==			
	JUN 02	545	93	6.1	19				
	JUL								
	09 AUG	613	85	23	42				
	27	660			36				
393541083	000903 PK-4	9 NR CIRC	LEVILLE O	H-LEVEL 3	(LAT 39	35 41N LONG	083	00	09W)
	OCT 1997								
	08	601	84	4.6	18				
	NOV								
	26 JAN 1998	611			22	==			
	15	600	84	2.7	17				
	MAR 04	618	80	3.0	17				
	APR								
	28 JUN	627	85	6.4	16				
	02 JUL	627			19				
	09 AUG	652	86	25	41				
	27	659	83	17	40				
202541002		o ND GIDG		11 1 1 1 1 1 1 1 1	/T TH 20	25 41N TONG	002	0.0	0.0141
393541083	000904 PK-4:	9 NK CIKC	TEAITTE O	H-PEARP 4	(LAI 39	35 41N LONG	083	00	09W)
	OCT 1997								
	08 NOV	542	81	3.5	18				
	26 JAN 1998	573	77	5.3	20				
	15	599	79	2.4	17				
	MAR 04	609	79	3.1	17				
	APR 28	604	83	5.3	17				
	JUN	004	03	5.5	Ι/				
	02 JUL	604	86	8.2	21	==			
	09 AUG	682	89	31	53				
	27	676	86	15	38				

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	DIS-	DIS- SOLVED (MG/L AS CL)	AS BR)		
393541083000905 PK-4	9 NR CIRC	LEVILLE O	H-LEVEL 5	(LAT 39	35 41N LONG	083	00 09W)
OCT 1997							
08 NOV	544	83	7.0	20			
26	596	75	9.8	23			
JAN 1998 15	599			24			
MAR 04	600	77	3.9	17			
APR 28	524			18			
JUN							
02 JUL	604	85	7.4	15			
09 AUG	550	83	7.0	19			
27	608	83	19	33			
393541083001001 PK-4	7 NR CIRC	LEVILLE O	H-LEVEL 1	(LAT 39	35 41N LONG	083	00 10W)
OCT 1997							
08 NOV	620	85	5.9	19			
26	609	80	5.7	20			
JAN 1998 15	593	82	2.9	16			
MAR 04	605	76	4.8	19			
APR 28	614			20			
JUN							
02	677	86	18	36			
JUL							
09 AUG	622	85	8.3	19			
27	503	79	10	24			
393541083001002 PK-4	7 NR CIRC	LEVILLE O	H-LEVEL 2	(LAT 39	35 41N LONG	083	00 10W)
OCT 1997							
08 NOV	597	83	5.8	19			
26 JAN 1998	607	77	6.1	19			
15 MAR	586	82	3.1	16			
04	577	81	5.0	18			
APR 28	623	82	13	22			
JUN	686	0.6	1.0	2.5			
02 JUL	676	86	18	37			
09 AUG	615	86	7.8	18			
27	539	80	10	24			

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	DIS- SOLVEI (MG/L AS CL	BROMIDE DIS- D SOLVED (MG/L) AS BR)	
393541083001003 PK-4	7 NR CIRC	LEVILLE	OH-LEVEL 3	(LAT 3	9 35 41N LONG	3 083 00 10W)
OCT 1997 08	597			19		
NOV 26	613	79	6.4	20		
JAN 1998 15	526	79	3.2	16		
MAR 04	602	79	5.2	18		
APR 28	624	79	13	21		
JUN 02	667			37		
JUL 09	611	83	7.5	17		
AUG 27	512	80	11	23		
393541083001004 PK-4	7 NR CIRC	LEVILLE	OH-LEVEL 4	(LAT 3	9 35 41N LONG	3 083 00 10W)
OCT 1997 08	615	83	5.9	20		
NOV 26	616	80	6.4	21		
JAN 1998						
15 MAR	592	79	3.4	17		
04 APR	612	80	4.5	17		
28 JUN	622	80	11	20		
02 JUL	631	84	12	25		
09 AUG	570	83	7.7	18		
27	541	79	11	26		
393541083001005 PK-4	7 NR CIRC	LEVILLE	OH-LEVEL 5	(LAT 3	9 35 41N LONG	3 083 00 10W)
OCT 1997 08	604	82	6.5	19		
NOV 26	619	79	6.3	21		
JAN 1998 15	597	81	3.4	16		
MAR 04	604	77	4.1	18		
JUN 02	702	88	32	47		
AUG 27		83	11	24		
393541083001006 PK-4	7 NR CIRC	LEVILLE	OH-LEVEL 6	(LAT 3	9 35 41N LONG	3 083 00 10W)
JUL 1998						
09 AUG	573	83	18	25		
27	477	81	17	20		

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED (MG/L	DIS- SOLVED (MG/L AS CL)	AS BR)	
393541083001201 PK-		CLEVILLE O	H-LEVEL 1	(LAT 39	35 41N LONG	083 00 12W)
OCT 1997 08		100	3.9	12		
NOV	730	120	3.9	12		
26 JAN 1998				15		
15 MAR	616	86	1.9	13		
04 APR	615	110	4.3	13		
28	711	100	3.4	13		
JUN 02 JUL	652	100	3.6	13		
09	534	85	1.8	13		
AUG 27	415	76	2.2	12		
393541083001202 PK-	53 NR CIRC	CLEVILLE O	H-LEVEL 2	(LAT 39	35 41N LONG	083 00 12W)
OCT 1997 08				14		
NOV 26	609	92	2.0	13		
JAN 1998				3.1		
15 MAR	611					
04 APR	679			14		
28 JUN	578	84	1.9	15		
02 JUL	686	100	3.2	13		
09 AUG	550	85	1.9	13		
27	437	74	2.0	12		
393541083001203 PK-	53 NR CIRC	CLEVILLE O	H-LEVEL 3	(LAT 39	35 41N LONG	083 00 12W)
OCT 1997 08		96	2.3	14		
NOV 26	631	87	2.0	13		
JAN 1998 15	601	0.2	1.8	13		
MAR						
04 JUN	623		==	14		
02 JUL	562			14		
09 AUG	519	87	2.0	13	==	
27	==	84	2.4	11		
393541083001204 PK-	53 NR CIRC	CLEVILLE O	H-LEVEL 4	(LAT 39	35 41N LONG	083 00 12W)
OCT 1997 08				15		
NOV 26	643	85	4.2	16		
JAN 1998 15	596			13		
MAR 04	593	80	2.1	15		
JUN 02	550	78	1.7	14	==	
JUL 09	572		1.8	13		
AUG						
27	389	73	1.9	11		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 THROUGH SEPTEMBER 1998—Continued

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	AS CA)	DIS-	DIS- SOLVED (MG/L AS CL)	AS BR)		
393541083001205 PK-	53 NR CIRC	CLEVILLE O	H-LEVEL 5	(LAT 39	35 41N LONG	083	00 12W)
OCT 1997 08		87	1.9	15			
NOV 26		88	5.8	18			
JAN 1998 15	571			14			
MAR 04 APR	604			15			
28 JUN	537	80	1.6	15			
02 JUL	561	79	1.7	14			
09 AUG	496	83	2.1	14			
27		86	2.9	12			
393541083001206 PK-	53 NR CIRC	CLEVILLE O	H-LEVEL 6	(LAT 39	35 41N LONG	083	00 12W)
OCT 1997 08		88	2.3	16			
NOV 26	607			18			
JAN 1998 15	569			14			
MAR 04	494			15			
APR 28	541	81	1.5	14			
393542083000501 PK-	52 NR CIRC	CLEVILLE O	H-LEVEL 1	(LAT 39	35 42N LONG	083	00 05W)
OCT 1997	,						
08 NOV	709			25			
26 JAN 1998	581	79	10	22			
15 MAR	585			16			
04 APR	564			18			
28 JUN	713	= =	==	41			
02 JUL	684	==	==	36			
09 AUG	633			30			
27	646	97	28	34			
393542083000502 PK-	52 NR CIRC	CLEVILLE O	H-LEVEL 2	(LAT 39	35 42N LONG	083	00 05W)
OCT 1997		0.1	1.0	0.0			
08 NOV	656			22			
26 JAN 1998	588	77	6.9	18			
15 MAR	578			17			
04 APR	628	90	13	19			
28 JUN	693	92	20	39			
02 JUL				36			
09 AUG	689	97	18	32			
27	672	99	29	36			

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 THROUGH SEPTEMBER 1998—Continued

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	SOLVED (MG/L	DIS- SOLVED (MG/L AS CL)	(MG/L	
393542083000503 PK-5	2 NR CIRC	LEVILLE (OH-LEVEL 3	(LAT 39	35 42N LONG	083 00 05W)
OCT 1997						
08	619	90	19	23		
NOV	013	, ,		23		
26 JAN 1998	589	76	6.6	20		
15	585	80	4.3	16		
MAR 04	632	83	11	19		
APR	032	63	11	19		
28 JUN	677	93	20	39		
02	591			37		
JUL 09	748			31		
AUG						
27	707	94	29	35		
393542083000504 PK-5	2 NR CIRC	LEVILLE (OH-LEVEL 4	(LAT 39	35 42N LONG	083 00 05W)
OCT 1997						
08 NOV	702			24		
26	588	76	6.9	19		
JAN 1998 15	589	79	6.1	17		
MAR 04	580	83	15	19		
APR	300	05	13	10		
28 JUN	735			39		
02	651			39		
JUL 09	725			37		
AUG						
27		120	29	35		
393542083000505 PK-5	2 NR CIRC	LEVILLE (OH-LEVEL 5	(LAT 39	35 42N LONG	083 00 05W)
OCT 1997 08	653	88	16	21		
NOV	5.60		F 0	1.0		
26 JAN 1998	562	73	5.8	17		
15	572			17		
MAR 04	598			19		
APR						
28 JUN	747	93	21	40	==	
02	709			38		
JUL 09	741	100	20	38		
AUG 27		110	30	34		

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	SOLVED (MG/L	DIS- SOLVED (MG/L AS CL)	DIS- SOLVED (MG/L AS BR)			
393542083000506 PK-52	NR CIRC	LEVILLE	OH-LEVEL 6	(LAT 39	35 42N LONG	083	00	05W)
OCT 1997								
08 NOV	655	94	28	26				
26 JAN 1998	596	82	13	22				
15 MAR	622	80	8.7	18				
04 APR	611	81	13	19				
28 JUN	669	93	18	39				
02 JUL	670	95	20	38				
09 AUG	691	100	21	39				
27	749			35				
393542083000701 PK-53	NR CIRC	LEVILLE	OH-LEVEL 1	(LAT 39	35 42N LONG	083	00	07W)
OCT 1997								
08	625	86	8.7	20				
NOV								
26 JAN 1998	632			21				
15 MAR	618	82	7.1	19				
04 APR	572			18				
28 JUN	563	85	6.4	23				
02 JUL	632	84	6.7	21				
09	619	89	9.4	21				
AUG 27	582	110	11	23				
393542083000702 PK-51	NR CIRC	CLEVILLE	OH-LEVEL 2	(LAT 39	35 42N LONG	083	00	07W)
OCT 1997								
08 NOV	581	84	7.1	18				
26 JAN 1998	624	79	8.7	23				
15	614	83	5.7	19				
MAR 04	600			19				
APR 28	636	85	7.1	26				
JUN	62.5			0.1				
02 JUL	635			21				
09 AUG	561	90	10	22				
27	656	85	9.6	20				

DATE	DUCT- ANCE LAB (US/CM)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	DIS-	DIS- SOLVED (MG/L AS CL)	AS BR)	
393542083000703 PK-5	1 NR CIRC	LEVILLE C	H-LEVEL 3	(LAT 39	35 42N LONG	083 00 07W)
OCT 1997						
08	619	87	7.4	19		
NOV	60.0			0.4		
26 JAN 1998	627			24		
15	610	84	5.9	19		
MAR 04	604	82	5.5	18		
APR	001	02	3.3	10		
28 JUN	629	86	8.5	23		
02	625	82	10	21		
JUL 09	624	95	12	22		
AUG	624	95	12	22		
27	609	82	8.4	19		
393542083000704 PK-5	1 NR CIRC	LEVILLE C	H-LEVEL 4	(LAT 39	35 42N LONG	083 00 07W)
OCT 1997						
08 NOV	617	87	7.4	19		
26	635	84	9.3	25		
JAN 1998 15	599	83	6.0	20		
MAR	399	63	0.0	20		
04	606	80	5.3	18		
APR 28	640	84	8.4	23		
JUN 02	614	84	11	23		
JUL	614	84	11	23		
09 AUG	659	89	12	23		
27	579	81	9.4	19		
393542083000705 PK-5	1 NR CIRC	LEVILLE C	H-LEVEL 5	(LAT 39	35 42N LONG	083 00 07W)
OCT 1997						
08	615	84	7.2	19		
NOV 26	643	83	11	26		
JAN 1998	015	03		20		
15 MAR	567	77	3.4	17		
04	600	80	4.5	18		
APR 28	662	82	8.4	23		
JUN				0.5		
02 JUL	635	75	11	23		
09	657	93	14	24		
AUG 27	590	88	11	21		

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	DIS- SOLVED (MG/L AS CL)	AS BR)		
393542083000706 PK-5	31 NR CIRC	LEVILLE C	H-LEVEL 6	(LAT 39	35 42N LONG	083 00 07	7W)
NOV 1997 26	608			21			
JAN 1998 15	611	83	5.4	19			
MAR							
04 APR		82	4.3				
28 JUN	626	85	6.7	21			
02 JUL	625	83	8.8	20			
09	604			20			
AUG 27	553	84	12	21			
395859083440501 CL-	-140 NR SF	RINGFIELD	OH-LEVEL	1 (LAT :	39 58 59N LON	NG 083 44	05W)
APR 1998							
14	921						
395859083440502 CL-	140 NR SF	RINGFIELD	OH-LEVEL	2 (LAT :	39 58 59N LON	IG 083 44	05W)
OCT 1997 14	787						
395859083440503 CL-	-140 NR SP	RINGFIELD	OH-LEVEL	3 (LAT :	39 58 59N LON	IG 083 44	05W)
APR 1998 14							
395859083440504 CL-	-140 NR SE	RINGFIELD	OH-LEVEL	4 (TAT :	39 58 59N I.O.	JG 083 44	05W)
OCT 1997	110 1111 01		011 22122	1 (2111	33 30 331, 201	.0 005 11	03,
14	807						
400947083480002 CH-	44 NR URB	ANA OH-LE	VEL 2 (LA	T 40 09 4	47N LONG 083	48 00W)	
OCT 1997							
09 APR 1998	848	==		= =			
15	906						
400947083480003 CH-	44 NR URE	ANA OH-LE	VEL 3 (LA	T 40 09 4	47N LONG 083	48 00W)	
OCT 1997 09	859						
403922082325901 R-19		GTON OH-L	EVEL 1 (L	AT 40 39	22N LONG 082	32 59W)	
OCT 1997							
28 DEC	522	70	9.0	38			
03 JAN 1998	525			40			
06 MAR	528	68	7.7	49			
11	552			46			
APR 21	531	69	7.4	44	==		
MAY 27	523	72	8.2	42			
JUL 22	516	74	7.9	39			
SEP							
02	549	72	8.1	41			

PROJECT DATA

DATE	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	DIS- SOLVED (MG/L	AS NA)	DIS- SOLVED (MG/L AS CL)	(MG/L AS BR)	
403922082325902 R-19	NR LEXIN	NGTON OH-L	EVEL 2 (L	AT 40 39	22N LONG	082 32 59W)
OCT 1997						
28	548	73	8.9	42		
DEC 03	550			44		
JAN 1998	330			11		
06	533	71	7.3	48		
MAR 11 APR	555	72	7.0	49		
21	559	76	8.1	46		
MAY 27	514	73	8.5	41		
JUL	51.0			4.7		
22 SEP	517	72	7.6	41		
02	528	72	8.2	42		
403922082325903 R-19	NR LEXIN	NGTON OH-L	EVEL 3 (L	AT 40 39	22N LONG	082 32 59W)
OCT 1997						
28 DEC	546	73	8.8	42		
03	543	70	9.3	45		
JAN 1998 06	526	69	7.7	45		
MAR	320	0,5	7.7	43		
11 APR	565	72	7.3	48		
21	538			44		
MAY 27	557			40		
JUL	33.			10		
22 SEP	511	71	7.6	41		
02	553	71	8.2	42		
403922082325904 R-19	NR LEXIN	NGTON OH-L	EVEL 4 (L	AT 40 39	22N LONG	082 32 59W)
OCT 1997						
28 DEC	311	76	9.2	41		
03 JAN 1998	574	73	10	42		
06	565	77	9.3	43		
MAR 11	566	74	7.5	48		
APR 21	565	76	8.1	44		
MAY 27	520	66	8.1	34		
JUL 22	528	74	7.8	40		
SEP 02	549	73	8.4	42		
02	343	13	0.4	42		

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	(MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	DIS- SOLVED (MG/L AS CL)	AS BR)	
403922082325905 R-19	NR LEXIN	IGTON OH-L	EVEL 5 (LA	AT 40 39	22N LONG	082 32 59W)
DEC 1997						
03 JAN 1998	297			16		
06 MAR	326			22		
11 APR	570	74	7.6	48		
21	572	77	8.3	45		
MAY 27	456	58	7.9	30		
JUL 22	531	73	7.9	40		
SEP 02	563	73	8.5	42		
403922082330001 R-20	NR LEXIN	IGTON OH-L	EVEL 1 (LA	AT 40 39	22N LONG	082 33 00W)
OCT 1997						
28 DEC	513	69	9.4	42		
03 JAN 1998	514	68	8.8	44		
06	512			43		
MAR 11	501	64	6.0	45		
APR 21	476	62	6.7	39		
MAY 27	439	56	7.2	29		
JUL 22	448	60	8.5	41		
SEP 02	503	64	9.2	41		
403922082330002 R-20	NR LEXIN	IGTON OH-L	EVEL 2 (LA	AT 40 39	22N LONG	082 33 00W)
OCT 1997						
28 DEC	511	69	9.4	42		
03 JAN 1998	507	67	8.5	45		
06	515			43		
MAR 11	488	63	5.9	44		
APR 21	461	62	6.8	39		
MAY 27	432			26		
JUL 22	450	59	8.6	41		
SEP 02	497	63	9.3	40		

DATE	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	DIS- SOLVED (MG/L AS CL)	(MG/L AS BR)	
403922082330003 R-20	NR LEXIN	IGTON OH-L	EVEL 3 (L	AT 40 39	22N LONG	082 33 00W)
OCT 1997						
28	514	70	9.2	43		
DEC 03	507	67	8.5	45		
JAN 1998	307	0,	0.5	15		
06 MAR	517	55	7.7	44		
MAR 11 APR	497			45		
21	488	62	6.7	40		
MAY 27	434	55	6.9	26		
JUL						
22 SEP	443	58	8.6	43		
02	498	63	9.4	42		
403922082330004 R-20	NR LEXIN	IGTON OH-L	EVEL 4 (L	AT 40 39	22N LONG	082 33 00W)
OCT 1997						
28 DEC	459	64	9.4	30		
03	505			44		
JAN 1998	405	65	7.0	4.1		
06 MAR	485	65	7.9	41		
11	505			48		
APR 21	451			42		
MAY						
27 JUL	419	56	7.4	28		
22	430	54	8.4	40		
SEP 02	468	59	8.3	38		
403922082330005 R-20					22N LONG	082 33 00W)
OCT 1997						
28	353	63	8.8	25		
DEC 03	467			32		
JAN 1998				32		
	461	61	9.2	35		
MAR 11 APR	507	66	7.6	43		
21	469	62	7.3	39		
MAY 27	477	62	7.2	35		
JUL						
22 SEP	443	60	7.1	34		
02	458	58	8.1	35		

PROJECT DATA

	DATE	DUCT- ANCE LAB (US/CM)	(MG/L AS CA)	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED	AS BR)	
4039220823	30006 R-20	NR LEXIN	IGTON OH-L	EVEL 6 (L	AT 40 39	22N LONG	082 33 00W)
	OCT 1997						
		370	62	8.7	25		
	03 JAN 1998	461	60	9.3	31		
	06	454	59	9.5	35		
	MAR 11 APR	490			39		
	21 MAY	474	62	7.2	40		
	27	474			36		
	JUL 22	442	61	7.2	34		
	SEP 02	454	57	7.9	35		
402022002						22N IONG	082 32 54W)
403923062	325401 R-2	I NK DEVI	NGION On-	телет т (LAI 40 39	Z3N LONG	062 32 54W)
	OCT 1997						
	28 DEC	167	24	2.0	2.6		
		192			3.1		
	06	194	24	2.1	2.5		
	MAR 11 APR	288	41	2.2	2.6		
	21	327	50	2.6	3.7		
	MAY 27	296	41	2.5	3.1		
	JUL 22	373	61	2.4	3.5		
	SEP 02	212	27	2.7	2.7		
4039230823						23N LONG	082 32 54W)
1039230023	25102 10 21	WIC DEMIN	oron on h		111 10 33	ZSIV BOIVO	002 32 31W)
	OCT 1997						
	28 DEC	185	23	1.9	2.6		
	03 JAN 1998	172	19	2.4	3.0		
	06 MAR	181	23	2.0	2.4		
	11 APR	284	41	2.2	2.6		
	21 MAY	296	43	3.4	3.3		
	27	292	42	2.6	3.3		
	JUL 22	369	61	2.4	3.5		
	SEP 02	208	25	2.0	2.5		

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	DIS- SOLVED (MG/L AS BR)	
403923082325403 R-21	NR LEXIN	GTON OH-L	EVEL 3 (LA	AT 40 39	23N LONG	082 32 54W)
OCT 1997 28 DEC	192	24	2.0	2.8		
03	199			2.7		
JAN 1998 06	191			2.6		
MAR 11	305			2.8		
APR 21	239	31	2.9	2.9		
MAY			2.4	3.4		
JUL	360					
22 SEP			2.6			
			2.0			
403923082325404 R-21	NR LEXIN	GTON OH-L	EVEL 4 (LA	AT 40 39	23N LONG	082 32 54W)
APR 1998						
21 MAY	254	34	2.9	2.9		
27	295	41	2.6	3.7		
SEP 02	113			2.0		
403923082325601 R-15	NR LEXIN	GTON OH-L	EVEL 1 (LA	AT 40 39	23N LONG	082 32 56W)
OCT 1997						
28	249	25	12	11		
DEC 03	268	26	12	12		
JAN 1998 06	312	31	13	21		
MAR 11	310	24	19	41		
APR						
21 MAY	369	26	31	55		
27 JUL	259			23		
22 SEP	291	25	17	32		
02	314	28	16	27		
403923082325602 R-15	NR LEXIN	GTON OH-L	EVEL 2 (LA	AT 40 39	23N LONG	082 32 56W)
OCT 1997	0.4.0	0.6	11	11		
28 DEC	248	26	11	11		
03 JAN 1998	253	24	11	12		
06	304	30	13	19		
MAR 11	315	26	20	42		
APR 21	368			57		
MAY		==				
27 JUL	270			23		
22 SEP	276	24	16	27		
02	317	28	16	28		

PROJECT DATA

DATE	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	DIS- SOLVED (MG/L AS CA)		DIS- SOLVED (MG/L AS CL)	AS BR)	
403923082325603 R-15	NR LEXIN	IGTON OH-L	EVEL 3 (L	AT 40 39	23N LONG	082 32 56W)
OCT 1997 28	52			1.5		
DEC 03						
JAN 1998				4.0		
06 MAR	91			7.2		
11 APR	325			43		
21 MAY	366			56		
27 JUL	303			27		
22	310			33		
SEP 02	121			12		
403923082325701 R-18	NR LEXIN	IGTON OH-I	EVEL 1 (L	AT 40 39	23N LONG	082 32 57W)
OCT 1997						
28 DEC	477	51	4.9	56	.038	
03	452	56	5.2	50	.044	
JAN 1998 06	472	55	5.2	49	.045	
MAR 11	451	49	5.3	48	.045	
APR 21	413	50	7.7	46	.029	
MAY						
27 JUL	413	45	14	46	.030	
22 SEP	441	51	9.2	48	.059	
02	479	56	6.8	54	.055	
403923082325702 R-18	NR LEXIN	IGTON OH-L	EVEL 2 (L	AT 40 39	23N LONG	082 32 57W)
OCT 1997 28	467	54	4.9	53	.040	
DEC 03		60	40	85	.024	
JAN 1998						
06 MAR	464	53	5.0	53	.048	
11 APR	425	49	5.5	46	.041	
21 MAY	415	51	7.7	47	.032	
27	412	42	14	48	.031	
JUL 22	361	48	8.7	47	.053	
SEP 02	471	53	6.4	54	.055	

OCT 1997 28 435 69 8.6 43 0.017 DEC 03 491 64 8.2 45 0.033 JAN 1998 06 526 64 7.5 52 0.042 APR 21 487 67 7.4 48 0.033 JUL 22 446 61 9.6 41 0.057 SEP 02 522 63 9.0 51 0.040 04.3923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) ADSPERATION OF SEP 02 520 69 8.0 52 0.045 APR 21 487 60 6.0 47 0.045 APR 21 487 60 6.0 47 0.045 APR 21 487 60 6.0 47 0.045 APR 21 480 63 9.0 49 0.045 APR 21 460 63 9.0 49 0.045 APR 22 467 54 15 46 0.052 SEP 02 520 59 10 50 0.045 APR 21 460 63 0.0 47 0.045 APR 22 467 54 15 0.0 49 0.045 APR 23 507 68 7.9 49 0.00 APR APR 24 507 68 7.9 49 0.00 APR APR 25 507 68 7.9 49 0.00 APR 26 507 68 7.9 49 0.00 APR 27 524 64 10 50 0.00 APR 27 524 64 11 50 0.00 APR 20 525 50 0.00 APR 20 520 50 0.00 APR 20	DATE	DUCT- ANCE LAB (US/CM)	(MG/L AS CA)	DIS- SOLVED	DIS- SOLVED (MG/L AS CL)	(MG/L	
28 435 69 8.6 43 .017 DEC 03 491 64 8.2 45 .033 JAN 1998 06 526 64 7.5 52 .046 MAR 11 505 62 7.1 49 .042 APR 21 487 67 7.4 48 .033 JUL 22 446 61 9.6 41 .057 SEP 02 522 63 9.0 51 .049 403923082325704 R-18 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 538 66 7.6 52 .021 DEC 03 511 66 7.0 52 .022 JAN 1998 06 529 65 6.5 54 .045 MAR 11 487 60 6.0 47 .044 APR 21 460 63 9.0 49 .029 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 552 69 8.0 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 557 68 8.0 52 .049 MAR 11 484 62 6.9 48 .048 APR 21 54 64 10 51 .028 MAR 11 484 62 6.9 48 .048 APR 21 554 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 498 67 22 51 .031 JUL 32 498 67 20 20 20 20 20 20 2	403923082325703 R-1	8 NR LEXIN	IGTON OH-L	EVEL 3 (LAT 40 39	23N LONG	082 32 57W)
DBC 03.		435	69	8.6	43	.017	
JAN 1998 06 526 64 7.5 52 .046 MAR 11 505 62 7.1 49 .042 APR 21 487 67 7.4 48 .033 JUL 22 446 61 9.6 41 .057 SEP 02 522 63 9.0 51 .049 403923082325704 R-18 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 538 66 7.6 52 .022 JAN 1998 06 529 65 6.5 54 .045 MAR 11 487 60 6.0 47 .044 APR 21 460 63 9.0 49 .029 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .002 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .0045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .0045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 20N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .0045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 20N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 11 484 62 6.9 48 .005 MAR 11 484 62 6.9 48 .006 MAR 11 484 62 6.9 48 .006 MAY 27 498 57 22 .51 .031 JUL 22 524 64 10 .51 .028 MAY 27 498 57 22 .51 .031 JUL 22 498 57 22 .51 .031 JUL 22 523 64 11 .50 .059 SEP 02 523 64 .11 .50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 22 .51 .031 JUL 22 524 64 .11 .50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W)	DEC						
MAR 11 505 62 7.1 49 .042 APR 21 487 67 7.4 48 .034 MAY 27 472 59 11 43 .033 JUL 22 446 61 9.6 41 .057 SEP 02 522 63 9.0 51 .049 403923082325704 R-18 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 538 66 7.6 52 .021 DEC 03 511 66 7.0 52 .022 JAN 1998 06 529 65 6.5 54 .045 MAR 11 487 60 6.0 47 .044 APR 21 460 63 9.0 49 .029 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .034 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 20N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 20N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .049 MAR 11 484 62 6.9 48 .0 52 .049 MAR 11 484 62 6.9 48 .005 JAN 1998 06 552 69 8.0 50 50 .049 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .039 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 689 79 22 47 .030	JAN 1998						
APR 21 487 67 7.4 48 .034 MAY 27 472 59 11 43 .033 JUL 22 446 61 9.6 41 .057 SEP 02 522 63 9.0 51 .049 403923082325704 R-18 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 538 66 7.6 52 .021 DEC 03 511 66 7.0 52 .022 JAN 1998 06 529 65 6.5 54 .045 MAR 11 487 60 6.0 47 .044 APR 21 460 63 9.0 49 .029 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .049 MAR 11 484 62 6.9 48 .048 APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) APR 21 684 87 23 40 .039 APR 21 689 79 22 47 .030	MAR						
MAY 27 472 59 11 43 .033 .033 3UL 22 446 61 9.6 41 .057 SEP 02 522 63 9.0 51 .049 403923082325704 R-18 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 538 66 7.6 52 .021 DEC 03 511 66 7.0 52 .022 JAN 1998	APR						
JUL 22 446 61 9.6 41 .057 SEP 02 522 63 9.0 51 .049 403923082325704 R-18 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 538 66 7.6 52 .021 DEC 03 511 66 7.0 52 .022 JAN 1998 06 529 65 6.5 54 .045 MAR 11 487 60 6.0 47 .044 APR 21 460 63 9.0 49 .029 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .045 APR 21 546 64 10 51 .034 JUL 21 547 64 15 .046 APR 21 524 64 10 51 .028 MAR APR 21 524 64 10 51 .028 MAY APR 21 524 64 10 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W)		487	67	7.4	48	.034	
SEP 02 522 63 9.0 51 .049 403923082325704 R-18 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 538 66 7.6 52 .021 DEC 03 511 66 7.0 52 .022 JAN 1998 06 529 65 6.5 54 .045 MAR 11 487 60 60 60 47 .044 APR 21 460 63 9.0 49 .029 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .045 APR 21 484 62 6.9 48 .048 APR 21 484 62 6.9 54 .052 SEP 02 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .030 APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) APR 21 684 87 22 40 .030 APR 321 684 87 23 40 .039 APR 321 685 79 22 47 .030		472	59	11	43	.033	
OCT 1997 28 538 66 7.6 52 .021 DEC 03 511 66 7.0 52 .022 JAN 1998 06 529 65 6.5 54 .045 MAR 11 487 60 63 9.0 49 .029 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .049 MAR 11 484 62 6.9 48 .048 APR 21 498 57 22 51 .031 JUL 22 498 63 17 43 .050 SEP 02 523 64 11 50 .048 APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W)		446	61	9.6	41	.057	
OCT 1997 28 538 66 7.6 52 .021 DEC 03 511 66 7.0 52 .022 JAN 1998 06 529 65 6.5 54 .045 MAR 11 487 60 6.0 47 .044 APR 21 460 63 9.0 49 .029 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .049 MAR 11 484 62 6.9 48 .048 APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) ANA APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) ANA ANA 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W)	02	522	63	9.0	51	.049	
28 538 66 7.6 52 .021 DEC 03 511 66 7.0 52 .022 JAN 1998 06 529 65 6.5 54 .045 MAR 11 487 60 6.0 47 .044 APR 21 460 63 9.0 49 .029 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .049 MAR 11 484 62 6.9 48 .048 APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W)	403923082325704 R-1	8 NR LEXIN	IGTON OH-L	EVEL 4 (LAT 40 39	23N LONG	082 32 57W)
131 198 198 198 198 198 198 198 198 198 11 11	28	538	66	7.6	52	.021	
06 529 65 6.5 54 045 MAR 11 487 60 6.0 47 044 APR 21 460 63 9.0 49 029 MAY 27 490 52 18 51 034 JULL 22 467 54 15 46 052 SEP 02 520 59 10 52 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 030 JAN 1998 06 552 69 8.0 52 049 MAR 11 484 62 6.9 48 048 APR 21 524 64 10 51 038 MAY 27 498 57 22 51 031 JUL 22 490 63 17 43 050 SEP 02 523 64 11 50 039 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W)	03	511	66	7.0	52	.022	
11 487 60 6.0 47 .044 APR APR 21 460 63 9.0 49 .029 MAY 27 490 52 18 51 .034 JUL 22 467 54 15 46 .052 SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .049 MAR 11 484 62 6.9 48 .048 APR 211 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W)		529	65	6.5	54	.045	
1		487	60	6.0	47	.044	
10		460	63	9.0	49	.029	
22 467 54 15 46 .052 SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .049 MAR 11 484 62 66.9 48 .0 52 .049 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 53 51 .031 JUL 22 490 63 17 54 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030		490	52	18	51	.034	
SEP 02 520 59 10 52 .045 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997 28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .049 MAR 11 484 62 6.9 48 .048 APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030		467	54	15	46	. 052	
### A03923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) OCT 1997	SEP						
OCT 1997							000 20 5741
28 507 68 7.9 49 .030 JAN 1998 06 552 69 8.0 52 .049 MAR 11 484 62 6.9 48 .048 APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030 MAY		O NK LEAIN	IGION OH-L	ъмъп э (LAI 40 39	Z3N LONG	062 32 57W)
06 552 69 8.0 52 .049 MAR 11 484 62 6.9 48 .048 APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030 MAY	28	507	68	7.9	49	.030	
11 484 62 6.9 48 .048 APR 21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030 MAY	06	552	69	8.0	52	.049	
21 524 64 10 51 .028 MAY 27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030	11	484	62	6.9	48	.048	
27 498 57 22 51 .031 JUL 22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030 MAY		524	64	10	51	.028	
22 490 63 17 43 .050 SEP 02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030 MAY		498	57	22	51	.031	
02 523 64 11 50 .049 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030 MAY		490	63	17	43	.050	
403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030 MAY		523	64	11	5.0	049	
MAR 1998 11 684 87 23 40 .039 APR 21 659 79 22 47 .030 MAY							082 32 57W\
11 684 87 23 40 .039 APR 21 659 79 22 47 .030 MAY		O MY DEVIL	OH-L	v. 0 (.	TIL 40 39	SOM HOMG	002 32 3/W)
21 659 79 22 47 .030 MAY	11	684	87	23	40	.039	
	21	659	79	22	47	.030	
		528	57	32	52	.039	

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	AS CA)	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L	AS BR)	
403923082325901 R-17	NR LEXIN	IGTON OH-L	EVEL 1	(LAT 40 39	23N LONG	082 32 59W)
OCT 1997 28	536	71	6.3	52		
DEC 03 JAN 1998	3740	69	6.8	54		
		68	6.0	54		
11 APR	518	66	5.5	50		
21 MAY	492			47		
27 JUL	490			48		
22 SEP	467	59	12	45		
	522	64	8.0	51		
403923082325902 R-17	NR LEXIN	IGTON OH-L	EVEL 2	(LAT 40 39	23N LONG	082 32 59W)
OCT 1997 28	511	65	5.4	53		
DEC 03	507	63	5.9	54		
JAN 1998 06	493	61	5.4	49		
	474	56	5.3	48		
APR 21	445			44		
MAY 27	446	48	15	50		
JUL 22 SEP	447	54	10	46		
02	503	60	6.7	53		
403923082325903 R-17	NR LEXIN	IGTON OH-L	EVEL 3	(LAT 40 39	23N LONG	082 32 59W)
OCT 1997 28 DEC	501	64	5.4	54		
03 JAN 1998				55		
06 MAR	495	60	5.3	49		
11 APR	457	54	5.5	50		
21 MAY	431	50	8.8	44		
27 JUL	452	49	16	50		
22 SEP	437	51	11	44		
02	487		6.4			
403923082325904 R-17	NR LEXIN	IGTON OH-L	EVEL 4	(LAT 40 39	23N LONG	082 32 59W)
OCT 1997 28	133			1.6		
APR 1998 21 MAY	446			46		
MAY 27 JUL	447			50		
22 SEP	440			44		
02	142	24	2.9	6.5		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 THROUGH SEPTEMBER 1998—Continued

PROJECT DATA

DA:	ΓE (DUCT- ANCE LAB US/CM)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	DIS SOLV (MC	S- /ED S/L NA)	RI DI SC (M AS	S- DLVED IG/L CL)	BROMII DIS- SOLVI (MG/I AS BI (71870	ED S		
411136081172403 PC	0-122 N	R RAVENN	IA OH-LEV	EL 3	(LAT	41	11 36	N LONG	081	17	24W)
DEC :	1997										
05. MAR 1	1998	444	53		2		:6				
20. APR		626	54	40		8	17				
23. MAY		598	53	41		8	14				
29. SEP		586	58	48		8	14				
09.		694	59	52		10	0				
411136081172404 PC	D-122 N	R RAVENN	IA OH-LEV	EL 4	(LAT	41	11 36	N LONG	081	17	24W)
OCT 1		651	66	43		9	13				
DEC 05.		598	58	40		8	13				
JAN 1		623	53	36		8	19				
MAR 20.		606	58	43		8	12				
APR 23.		552	57	43			'9				
MAY											
29. JUL		643	53	45			2				
30. SEP		668	60	54		10	00				
09.		684	58	52		9	8				
411136081172405 PC	D-122 N	R RAVENN	IA OH-LEV	EL 5	(LAT	41	11 36	N LONG	081	17	24W)
OCT 1		649	66	44		9	13				
DEC 05.		615	59	40)1				
JAN :	1998										
08. MAR	• •	604	58	38		8	16				
20. APR		620	56	42		8	37				
23. MAY		570	58	44		8	16				
29. SEP		646	57	47		9	2				
09.		682	60	53		9	8				
411136081172406 PG	D-122 N	R RAVENN	IA OH-LEV	EL 6	(LAT	41	11 36	N LONG	081	17	24W)
OCT 1		627	64	42		0	0				
DEC											
05. JAN 1	1998	617	59	40			18				
08. MAR		626	59	38		9	2				
20. APR		610	58	43		8	1				
23. MAY		600	49	37		8	8				
29. JUL		603	56	48		8	15				
30.		684	62	56		11	.0				
SEP 09.		687	59	53		10	0				

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	SOLVED (MG/L	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L AS CL)	DIS- SOLVED (MG/L AS BR)	
411136081172407 PO-122	NR RAVE	NNA OH-LEV	EL 7 (LAT	41 11 361	N LONG 081	17 24W)
JAN 1998						
	639	59	41	93		
20 APR	616	51	39	87		
23 MAY	613	55	46	95		
29 JUL	633	46	38	89		
30 SEP	703	60	56	110		
09	627	54	53	87		
411137081172101 PO-13	14 NR RAV	VENNA OH-L	EVEL 1 (L	AT 41 11 3	37N LONG 08	1 17 21W)
OCT 1997						
15	523	89	7.5	12		
DEC 05	551	90	7.2	12		
JAN 1998 08	285			4.3		
MAR 20	274	39	11	4.0		
APR 23	327	52	15	4.7		
MAY 29	478	71	8.1	10		
JUL 30	356	57	5.5	3.1		
SEP 09	417	67	6.9	4.8		
411137081172102 PO-13	14 NR RAV	VENNA OH-L	EVEL 2 (Li	AT 41 11 3	37N LONG 08	1 17 21W)
OCT 1997						
15 DEC	529	92	7.3	12		
05 JAN 1998	558	93	6.9	12		
08 MAR	276			4.8		
20 APR	280			4.4		
23	345			4.6		
MAY 29	489			11		
JUL 30	364	59	5.6	3.2		
SEP 09	419	.30	.68	5.1		
411137081172103 PO-13 OCT 1997	14 NR RAV	JENNA OH-L	EVEL 3 (L	AT 41 11 3	37N LONG 08:	1 17 21W)
15 DEC	611	110	6.5	14		
05		130	6.4	13		
JAN 1998 08 MAR		26	15	5.6		
20	281	40	11	4.2		
	321	50	15	4.7		
MAY 29	475	74	6.7	12		
JUL 30	353	58	5.1	3.2		
SEP 09	382	74	5.6	5.9		
WATER-QUALITY DATA	, WATER	YEAR OCTOB	ER 1997 TI	HROUGH SEI	PTEMBER 199	8-Continued

PROJECT DATA
Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

DATE	DUCT- ANCE LAB (US/CM)	AS CA)	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L	AS BR)	
411137081172104 PO-1	14 NR RAV	/ENNA OH-L	EVEL 4 (LAT 41 11	37N LONG	081 17 21W)
OCT 1997						
15 DEC	596	110	6.4	15		
05 JAN 1998	698			15		
08 MAR	232	29	16	5.0		
20	287	40	11	4.2		
APR 23	333	53	14	4.6		
MAY 29	476			12		
JUL	476					
30 SEP	363			3.6		
09	395	74	5.6	5.7		
411137081172105 PO-1	14 NR RAV	/ENNA OH-L	EVEL 5 (LAT 41 11	37N LONG	081 17 21W)
OCT 1997						
15	584	95	5.4	14		
DEC 05	700			14		
JAN 1998 08	241			4.7		
MAR						
20 APR	282			4.7		
23 MAY	346			4.7		
29	462			11		
JUL 30	392			3.3		
SEP 09	454	79	5.6	5.0		
411137081172106 PO-1	1/ ND DAT	ZENNA OH-T	ביופו כ (ፐአጥ 41 11	27N IONC	001 17 21W\
41113/0011/2100 FO-1	TA W KA	/ENNA OH-L	ieven o (THI 41 II	37N LONG	001 17 ZIW)
OCT 1997 15	248			7.6		
MAR 1998				4 1		
APR	268			4.1		
23 MAY	340	54	13	5.5		
29 JUL	454			12		
30	380			4.7		
411137081172301 PO-1	18 NR RAV	/ENNA OH-L	EVEL 1 (LAT 41 11	37N LONG	081 17 23W)
OCT 1997						
15 DEC	3600	130	583	1000		
05 JAN 1998	3660	120	586	1000		
08	2030	71	343	520		
MAR 20	704	27	111	150		
APR 23	540	19	60	110		
MAY						
29 JUL	443	19	59	91		
30 SEP	3160	110	499	820		
09	3040	83	513	770		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 THROUGH SEPTEMBER 1998-Continued

PROJECT DATA

DATE		DIS- SOLVED (MG/L AS CA)	DIS- SOLVED (MG/L AS NA)	SOLVED	DIS- SOLVED (MG/L AS BR)	
411137081172302 PO-1	.18 NR RAV	JENNA OH-L	EVEL 2	(LAT 41 11	37N LONG	081 17 23W)
OCT 1997						
15 DEC	3700	140	598	1000		
05	3680	120	618	1000		
JAN 1998 08	1700	73	273	410		
MAR 20	1140	33	146	280		
APR 23	578			120		
MAY 29	560	23	71	120		
JUL						
30 SEP	3220	110	511	840		
09	3070	84	513	780		
411137081172303 PO-1	18 NR RAV	JENNA OH-I	EVEL 3	(LAT 41 11	37N LONG	081 17 23W)
OCT 1997						
	3610	140	591	1000		
DEC 05	3650			980		
JAN 1998 08	2330	75	353	600		
MAR 20	979	33	154	240		
APR	979					
23 MAY	415			78		
29 JUL	468	22	64	96		
30	3230	100	506	850		
SEP 09	3050	84	502	770		
411137081172304 PO-1	.18 NR RAV	JENNA OH-L	EVEL 4	(LAT 41 11	37N LONG	081 17 23W)
OCT 1997						
15	3500	130	577	970		
DEC 05		110	582	960		
JAN 1998 08		73	375	590		
MAR 20	898	27	125	210		
APR						
23 MAY	259	-,-		71		
29 JUL	448	22	60	96		
30 SEP	3170	100	491	830		
09	3030	83	504	760		

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	(MG/L AS CA)	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L	AS BR)	
411137081172305 PO-1	18 NR RAV	/ENNA OH-L	EVEL 5 (LAT 41 11	37N LONG	081 17 23W)
OCT 1997 15 DEC	3670	160	577	990		
05		130	532	930		
		73	382	590		
MAR 20	1080	30	122	260		
APR 23	280			43		
MAY 29	484	25	62	100		
JUL						
30 SEP	2190			550		
09	3000	82	513	750		
411137081172306 PO-1	18 NR RAV	/ENNA OH-L	EVEL 6 (LAT 41 11	37N LONG	081 17 23W)
MAR 1998 20	510	23	50	110		
APR						
23 MAY		15	34	40		
29 JUL	329	13	48	65		
30	1970	74	273	470		
411127001170401 DO 1						
41113/0811/2401 PO-1	17 NR RAV	/ENNA OH-L	EVEL 1 (LAT 41 11	37N LONG	081 17 24W)
OCT 1997						081 17 24W)
OCT 1997 15 DEC	994	91	97	190	37N LONG	081 17 24W)
OCT 1997 15	994 1020					081 17 24W)
OCT 1997 15 DEC 05 JAN 1998 08	994 1020	91	97 94	190		081 17 24W)
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20	994 1020	91 85	97 94	190 200	 .045	081 17 24W)
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23	994 1020 1130	91 85 89	97 94 114	190 200 230	 .045 .056	081 17 24W)
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY	994 1020 1130 749	91 85 89 64	97 94 114 74	190 200 230 120	 .045 .056	081 17 24W)
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23	994 1020 1130 749 563	91 85 89 64	97 94 114 74 54	190 200 230 120 80	.045 .056 .033	081 17 24W)
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29	994 1020 1130 749 563 451	91 85 89 64 55	97 94 114 74 54	190 200 230 120 80 51	.045 .056 .033 .021	081 17 24W)
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29 JUL 30 SEP	994 1020 1130 749 563 451 917	91 85 89 64 55 47 73	97 94 114 74 54 37 76	190 200 230 120 80 51 170 230	.045 .056 .033 .021 .020	
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29 JUL 30 SEP 09 411137081172402 PO-1	994 1020 1130 749 563 451 917 1120	91 85 89 64 55 47 73 80	97 94 114 74 54 37 76 111	190 200 230 120 80 51 170 230	.045 .056 .033 .021 .020 .054 37N LONG	
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29 JUL 30 SEP 09 411137081172402 PO-1 OCT 1997 15 DEC	994 1020 1130 749 563 451 917 1120 117 NR RAN	91 85 89 64 55 47 73 80 /ENNA OH-L	97 94 114 74 54 37 76 111 EVEL 2 (190 200 230 120 80 51 170 230 LAT 41 11	.045 .056 .033 .021 .020 .054 37N LONG	
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29 JUL 30 SEP 09 411137081172402 PO-1	994 1020 1130 749 563 451 917 1120	91 85 89 64 55 47 73 80	97 94 114 74 54 37 76 111	190 200 230 120 80 51 170 230 LAT 41 11 230 260	.045 .056 .033 .021 .020 .054 37N LONG	
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29 JUL 30 SEP 09 411137081172402 PO-1 OCT 1997 15 DEC 05	994 1020 1130 749 563 451 917 1120 117 NR RAN	91 85 89 64 55 47 73 80 /ENNA OH-L	97 94 114 74 54 37 76 111 EVEL 2 (190 200 230 120 80 51 170 230 LAT 41 11	.045 .056 .033 .021 .020 .054 37N LONG	
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29 JUL 30 SEP 09 411137081172402 PO-1 OCT 1997 15 DEC 05 JAN 1998 08	994 1020 1130 749 563 451 917 1120 .17 NR RAV	91 85 89 64 55 47 73 80 7ENNA OH-L	97 94 114 74 54 37 76 111 EVEL 2 (125 139	190 200 230 120 80 51 170 230 LAT 41 11 230 260	.045 .056 .033 .021 .020 .054 37N LONG	
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29 JUL 30 SEP 09 411137081172402 PO-1 OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23	994 1020 1130 749 563 451 917 1120 .17 NR RAV 1130 1200 1440	91 85 89 64 55 47 73 80 VENNA OH-L 76 82 93	97 94 114 74 54 37 76 111 EVEL 2 (125 139	190 200 230 120 80 51 170 230 LAT 41 11 230 260 320	045 .056 .033 .021 .020054 37N LONG .052 .030 .065	
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29 JUL 30 SEP 09 411137081172402 PO-1 OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29 MAR 20 APR 23 MAY 29	994 1020 1130 749 563 451 917 1120 .17 NR RAV 1130 1200 1440 1320	91 85 89 64 55 47 73 80 7ENNA OH-L 76 82 93 82	97 94 114 74 54 37 76 111 EVEL 2 (125 139 157	190 200 230 120 80 51 170 230 LAT 41 11 230 260 320 270	.045 .056 .033 .021 .020 .054 37N LONG .052 .030 .065	
OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY 29 JUL 30 SEP 09 411137081172402 PO-1 OCT 1997 15 DEC 05 JAN 1998 08 MAR 20 APR 23 MAY	994 1020 1130 749 563 451 917 1120 .17 NR RAV 1130 1200 1440 1320 832	91 85 89 64 55 47 73 80 7ENNA OH-L 76 82 93 82 61	97 94 114 74 54 37 76 111 EVEL 2 (125 139 157 159 114	190 200 230 120 80 51 170 230 LAT 41 11 230 260 320 270 150	045 .056 .033 .021 .020054 37N LONG .052 .030 .065 .044 .032	

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	CALCIUM DIS- SOLVED (MG/L AS CA)	DIS- SOLVED (MG/L AS NA	SOLVED	DIS- SOLVED (MG/L AS BR)	
411137081172403 PO-11	7 NR R	AVENNA OH-	LEVEL 3	(LAT 41 11	37N LONG	081 17 24W)
OCT 1997						
15	1590	120	172	380		
DEC 05	1740	120	196	420	.079	
JAN 1998 08	1920	110	229	230	.091	
MAR 20	1330	66	185	270	.059	
APR						
23 MAY	985	55	146	200	.036	
29 JUL	750	39	92	120	.043	
30 SEP	1250	72	151	280		
09	1710	94	208	400	.075	
411137081172404 PO-11	7 NR R	AVENNA OH-	LEVEL 4	(LAT 41 11	37N LONG	081 17 24W)
OCT 1997						
15	2290	140	281	570	.097	
DEC 05	2470	140	312	620	.10	
JAN 1998 08 MAR	2240	120	299	280	.098	
20	1230	62	177	240	.044	
APR 23	847	52	122	150	.027	
MAY 29	789	51	96	140	.042	
JUL						
30 SEP	1580	89	189	360		
09	2060	100	261	500	.092	
411137081172405 PO-11	7 NR R	AVENNA OH-	LEVEL 5	(LAT 41 11	37N LONG	081 17 24W)
OCT 1997						
15 DEC	2710	140	347	660	.11	
05	2770	140	380	720	.13	
JAN 1998 08	2550	120	359	310	.11	
MAR 20	934	54	125	160	.035	
APR 23	713	46	79	120	.030	
MAY 29			88	140	.042	
JUL						
30 SEP	1950	100	242	480		
09	1990	97	252	470	.090	
411137081172406 PO-11	7 NR R	AVENNA OH-	LEVEL 6	(LAT 41 11	37N LONG	081 17 24W)
DEC 1997 05	1480	99	155	350	.056	
JAN 1998 08	1330	92	156	270	.082	
MAR						
20 APR	471	42	40	64	.013	
23 MAY	436	44	32	43	.018	
29 JUL	400	40	35	45	.016	
30	1250		121	290		
WATER-QUALITY DATA,	WATER	YEAR OCTO	BER 1997	THROUGH S	EPTEMBER	1998—Continued

PROJECT DATA

DATE		(MG/L AS CA)	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED	DIS- SOLVED (MG/L AS BR)	
411138081172401 PO-1	15 NR RAV	ENNA OH-L	EVEL 1 (I	LAT 41 11 3	38N LONG 0	81 17 24W)
OCT 1997						
15	2010	37	351	460		
DEC	0.050	4.2	250	400		
05 JAN 1998	2070	43	370	480		
08		56	315	450		
MAR						
20	1270	45	169	300		
APR 23	1610	67	233	400		
MAY	1010	07	233	400		
	2300			590		
JUL						
30	2170	55	372	530		
SEP 09	2330	44	415	550		
33	2550		113	330		
411138081172402 PO-1	15 NR RAV	VENNA OH-L	EVEL 2 (I	LAT 41 11 3	38N LONG 0	81 17 24W)
OCT 1997						
	2010	37	351	450		
DEC 05	2150	46	379	510		
JAN 1998	2150	40	319	210		
	1840	53	309	430		
MAR						
20	1080	45	179	240		
APR 23	1390	62	209	340		
MAY	1330	02	203	310		
29	2260	89	350	580		
JUL						
30 SEP	2130	52	357	510		
09	2300	45	403	540		
411138081172403 PO-1	15 NR RAV	/ENNA OH-L	EVEL 3 (I	LAT 41 11 3	38N LONG 0	81 17 24W)
OCT 1997						
15 DEC	1870	31	318	420		
	2100	45	371	490		
JAN 1998			~ -			
	1750	51	302	400		
MAR						
20 APR	915	39	130	190		
23	1110	53	155	280		
MAY						
29	2040	81	316	510		
JUL 30	2010	50	341	470		
SEP	2010	50	3#1	± / ∪		
09	2210	42	389	510		

PROJECT DATA

Ι		DUCT- ANCE LAB (US/CM)	(MG/L AS CA)	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L	AS BR)		
41113808117240	04 PO-115	5 NR RAV	ENNA OH-L	EVEL 4 (LAT 41 11	38N LONG	081 1	7 24W)
റ്റ	1997							
	5	1740	32	301	360			
0.5	5 T 1998	2090	44	371	500			
	3	1770	51	297	410			
20)	903	42	120	180			
	3	1070	58	167	260			
	9	1970	89	284	480			
)	2000	52	327	460			
SEI 09)	2170	43	382	490			
41113808117240	NE DO 111	- ND DAT	TENNIA OII I	127721 E /	T N T 41 11	20M LONG	001 1	7 24141
		NK KAV	ENNA On-L	вивы э (.	LAI 41 II	30N LONG	001 1	/ 24W)
	1997 5	1550	24	275	320			
DEC		1890	39	337	430			
JAN	I 1998							
9.0 AAM	3	1760	50	285	400			
20 APF) }	591	38	69	91			
23 MAN	3	545	53	48	81			
	9	1400	75	169	310			
)	1670	53	258	380			
)	1940	36	333	430			
41113808117240	06 PO-11	5 NR RAV	ENNA OH-L	EVEL 6 (LAT 41 11	38N LONG	081 1	7 24W)
20	1998	569	37	70	95			
	3	469	46	79	72			
		625	54	64	110			
)	1030	59	155	200			
SEI 09					210			
4135460834809			LAND OH-L	EVEL 1 (LAT 41 35	46N LONG	083 4	8 09W)
OCI	1997							
22 DEC	2	621	100	11	70			
0.9	9	657	100	15	83			
13	1 1998	748	110	24	110			
	2	710	100	18	98			
APF 09	₹	719	100	27	100			
JUL 03	J 3	727	100	19	100			
JUI 23	3	680			97			
SEI	•		100	21	97			
03	3	711	100	21	31			

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 THROUGH SEPTEMBER 1998—Continued

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L	(MG/L AS BR)	
413546083480902 I	LU-28 NR HO	LLAND OH-I	LEVEL 2 (LAT 41 35	46N LONG	083 48 09W)
OCT 199	97					
22	1140	160	37	260		
DEC 09 JAN 199	1250	160	51	290		
13		160	84	310		
MAR						
12 APR	1350	130	99	310		
09 JUN	1280	110	117	290		
03	1190	92	116	260		
JUL 23	1050	93	99	210		
SEP 03	980	87	87	190		
413546083480903 I	LU-28 NR HO	LLAND OH-I	LEVEL 3 ((LAT 41 35	46N LONG	083 48 09W)
OCT 199						
22 DEC	1180	170	40	290		
09 JAN 199		180	136	510		
13		140	164	420		
MAR 12	1500	77	188	340		
APR						
09 JUN	994	37	157	160		
03	713	23	123	89		
JUL 23	623	29	99	74		
SEP 03	694	36	100	110		
413546083480904 I	JU-28 NR HO.	LLAND OH-I	LEVEL 4 ((LAT 41 35	46N LONG	083 48 09W)
OCT 199 22		79	235	350		
DEC	1740	79	233	330		
09 JAN 199	1610 98	51	257	320		
13	759	38	116	95		
MAR 12	460	25	65	26		
APR 09	802	16	151	93		
JUN						
03 JUL	744	16	137	71		
23 SEP	741			120		
03	954	27	155	120		

PROJECT DATA

	DATE	DUCT- ANCE LAB (US/CM)	(MG/L AS CA)	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L	(MG/L AS BR)			
413546083	480905 LU-:	28 NR HOI	LLAND OH-I	EVEL 5	(LAT 41 35	46N LONG	083	48	09W)
	OCT 1997								
	22 DEC	685	76	27	52				
	09 JAN 1998	1070	72	83	110				
	13 MAR	577	31	64	48				
	12 APR	378	21	52	13				
	09 JUN	321	26	33	11				
	03 JUL	434	26	62	8.5				
	23 SEP	685	33	94	78				
	03	783	34	102	84				
413547083	481001 LU-:	26 NR HOI	LLAND OH-I	EVEL 1	(LAT 41 35	47N LONG	083	48	10W)
	OCT 1997								
	22	677	110	9.5	89	.025			
	DEC 09	665	110	8.6	83	.040			
	JAN 1998								
	13 MAR	664	100	8.2	80	.10			
	12 APR	631	99	7.9	74	.055			
	09	646	110	8.6	82	.036			
	JUN 03	731	110	13	120	.075			
	JUL 23	682	100	13	110	.058			
	03	702	110	11	110	.045			
413547083	481002 LU-:	26 NR HOI	LLAND OH-L	EVEL 2	(LAT 41 35	47N LONG	083	48	10W)
	OCT 1997								
	22 DEC	2040	57	300	550	.080			
	09 JAN 1998	1230	25	228	180	.042			
	13 MAR	887	13	189	53	.036			
	12 APR	766	8.3	150	130	.056			
	09 JUN	617	9.5	120	64	.025			
	03 JUL	911	13	165	160	.056			
	23 SEP	952	14	173	170	.070			
	03	569	6.4	114	68	.028			

PROJECT DATA

	DATE	DUCT- ANCE LAB (US/CM)		DIS- SOLVED (MG/L AS NA)	DIS- SOLVED	AS BR)	
413547083	3481003 LU-	26 NR HOI	LAND OH-L	EVEL 3 (LAT 41 35	47N LONG	083 48 10W)
	OCT 1997						
	22 DEC	1190	98	86	300	.35	
	09 JAN 1998	2520	170	247	740	.10	
	13 MAR	2770	130	367	780	.12	
	12 APR	883	21	154	170	.020	
	09 JUN	665	14	116	130	.014	
	03	742	18	122	150	.016	
	JUL 23	947	19	161	230	.040	
	SEP 03	840	21	137	180	.038	
413547083	3481004 LU-	26 NR HOI	LAND OH-L	EVEL 4 (LAT 41 35	47N LONG	083 48 10W)
	OCT 1997						
	22	340	38	20	19	<.010	
		347	46	11	20	.015	
		3060	320	199	900	.19	
	MAR 12	869	81	63	170	.037	
	APR 09	441	59	9.2	60	.019	
	JUN 03	682	82	21	150	.024	
	JUL 23	2190	270	68	620	.10	
	SEP 03	903	110	25	200	.045	
413547083	3481005 LU-	26 NR HOI	LAND OH-L	EVEL 5 (LAT 41 35	47N LONG	083 48 10W)
	OCT 1997						
	22 DEC	475	8.0	95	29	<.010	
	09 JAN 1998	467	26	68	21	.046	
	13	379	50	14	6.3	.014	
	MAR 12	401	55	12	6.2	.033	
	APR 09	407	61	12	11	.021	
	JUN 03	402	44	29	6.1	.042	
	JUL 23	2200	280	63	620	.097	
	SEP 03	893	110	17	190	.036	

PROJECT DATA

ξΩ	DUCT ANCE ATE LAB (US/C	CC I- CALC C- DIS C SOI B (MC		S- DIS- VED SOLV G/L (MG, NA) AS (E, BROMIDE - DIS- VED SOLVED	
41354708348100	06 LU-26 NR	HOLLAND	OH-LEVEL	6 (LAT 41	35 47N LONG	083 48 10W)
OCT	1997					
22.	243	17	12	22	<.010	
	234	. 17	16	16	.019	
	1998 189) 11	12	9	.3 .026	
MAR				,	.5 .020	
12. APR	185	12	14	11	.022	
	158	12	12	7	.0 <.010	
JUN 03. JUL	154	10	11	13	<.010	
		10	15	20	.012	
SEP						
03.	231	. 14	21	23	.017	
41354708348110	01 LU-27 NR	HOLLAND	OH-LEVEL	1 (LAT 41	35 47N LONG	083 48 11W)
	1997					
22. DEC		. 120	29	120		
09.		110	21	100		
		130	31	200		
MAR 12.	892	·		160		
APR						
09. JUN	883	140	13	160		
	987			180		
	1010	130	46	220		
	1420	140	89	340		
41354708348110	02 LU-27 NR	HOLLAND	OH-LEVEL	2 (LAT 41	35 47N LONG	083 48 11W)
OCT	1997					
		72	84	150		
	792 1998	53	90	140		
		30	83	75		
MAR 12.	556	; .		80		
APR 09	753	78	44	150		
JUN	1050	100	E C	220		
03. JUL	1050	100	56	220		
23. SEP	1220	120	85	300		
	1720	140	119	450		

PROJECT DATA

	DATE	DUCT- ANCE LAB (US/CM)	(MG/L	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L AS CL)	(MG/L AS BR)		
413547083	3481103 LU-	27 NR HOL	LAND OH-L	EVEL 3 (I	AT 41 35	47N LONG	083 48	11W)
	OCT 1997							
	22 DEC	844	43	136	140			
	09 JAN 1998	855	49	104	92			
	13 MAR	686	55	66	52			
	12 APR	406			36			
	09 JUN	642	24	100	120			
	03 JUL	829	100	6.9	6.6			
	23 SEP	1280			320			
		717	97	6.1	9.5			
413547083	3481104 LU-	27 NR HOL	LAND OH-L	EVEL 4 (I	AT 41 35	47N LONG	083 48	11W)
	OCT 1997							
	22	1190	130	60	56			
	DEC 09	1140	130	43	23			
	JAN 1998 13	686	92	11	12			
	MAR							
	12 APR	303	35	5.8	5.9			
	09 JUN	646	78	13	11			
	03 JUL	803	98	8.3	7.3			
	23 SEP	474	38	46	9.9			
	03	661	93	5.6	8.3			
413547083	3481105 LU-	27 NR HOL	LAND OH-L	EVEL 5 (I	AT 41 35	47N LONG	083 48	11W)
	OCT 1997							
	22 DEC	1520	230	9.3	14			
	09 JAN 1998	1280	180	7.8	10			
	13 MAR	639	84	7.0	8.2			
	12 APR	429	52	4.5	4.6			
	09 JUN	529	65	3.5	4.5			
	03 JUL	834	100	3.8	5.1			
	23 SEP	501	82	2.7	6.5			
	03	691	94	4.1	8.2			

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)		DIS- SOLVED (MG/L AS NA	DIS- SOLVED (MG/L		
413547083481201 LU-	25 NR HOL	LAND OH-L	EVEL 1	(LAT 41 35	47N LONG	083 48 12W)
OCT 1997						
22	671	89	26	100		
DEC	645	0.0	0.2	0.4		
09 JAN 1998		88	23	84		
13 MAR	673	85	28	96		
12	2040	190	155	540		
APR 09	2380	200	202	670		
JUN						
03 JUL	830			150		
23	709	98	22	130		
SEP 03	743	110	13	140		
413547083481202 LU-	25 ND HOT	TAND OH-I	EVEL 2	(T.AT 41 35	A7N LONG	083 48 1211)
113317003101202 10	25 MIC HOL	DINO ON D		(1111 11 33	171V LONG	003 10 12117
OCT 1997						
22 DEC	542			76		
09	555	59	34	77		
JAN 1998 13	1370	130	53	340		
MAR 12	1040	94	100	470		
APR				470		
09 JUN	1570	110	164	410		
03	968			220		
JUL 23	908	100	42	220		
SEP 03	827	95	33	170		
413547083481203 LU-	25 NR HOI	IJAND OH-I	EVEL 3	(LAT 41 35	47N LONG	083 48 12W)
				,		,
OCT 1997 22	937	66	73	210		
DEC						
09 JAN 1998	1230	89	107	310		
13	2080			490		
MAR 12	1360	32	204	290		
APR 09	910	15	169	170		
JUN 03	827	26	131	160		
JUL	02/	20	131	100	==	
23 SEP	817			180		
03	1140	40	165	270		

	DATE	DUCT- ANCE LAB (US/CM)		DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L	AS BR)			
41354708348	31204 LU-2	25 NR HOL	LAND OH-L	EVEL 4 (LAT 41 35	47N LONG	083	48	12W)
(OCT 1997								
		938	18	177	150				
I	DEC								
	09	1230	48	176	270				
	JAN 1998 13	677	32	92	100				
	MAR	0	32	72	100				
_	12	285	17	60	20				
I	APR 09	479	28	64	34				
ن	JUN	473	20	04	34				
	03	465	37	50	23				
j	JUL	5 2.0			110				
c	23 SEP	738			110				
	03	675	58	53	120				
41354708348	31205 LU-2	25 NR HOL	LAND OH-L	EVEL 5 (LAT 41 35	47N LONG	083	48	12W)
_									
	OCT 1997	220	17	28	18				
	22 DEC	229	17	20	10				
	09	291	18	27	25				
Č	JAN 1998								
	13 MAR	501	22	63	62				
	12	300	14	41	23				
	APR								
_	09	239	15	27	16				
į.	JUN 03	275	17	23	24				
ن	JUL	273	17	23	24				
	23	517			64				
S	SEP	212	1.0	0.0	2.0				
	03	313	19	29	39				
41354708348	31301 LU-2	22 NR HOL	LAND OH-L	EVEL 1 (LAT 41 35	47N LONG	083	48	13W)
C	OCT 1997								
_	22	843	120	21	160				
I	DEC 09	1110	100	74	230				
ن	JAN 1998	1110	100	74	230				
	13	728	110	26	120				
N	MAR	F.F.C		0.0	70				
Z	12 APR	556	66	29	78				
<u>.</u>	09	713	100	23	110				
Ċ	JUN								
	03	704	100	13	98				
	JUL 23	855	87	60	180				
2	03	1610	210	43	390				

PROJECT DATA

DATE	(US/CM)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED (MG/L AS NA	DIS- SOLVED (MG/L	AS BR)	
413547083481302	LU-22 NR HC	LLAND OH-I	LEVEL 2	(LAT 41 35	47N LONG	083 48 13W)
OCT 19	97					
22	830	100	25	170		
DEC 09 JAN 19		100	22	160		
JAN 19 13		89	27	130		
MAR						
12 APR	380	37	18	45		
09 JUN	437	57	19	40		
03	624	75	17	99		
JUL 23 SEP	757	83	46	140		
03	1410	120	102	340		
413547083481303	LU-22 NR HC	LLAND OH-I	LEVEL 3	(LAT 41 35	47N LONG	083 48 13W)
OCT 19	97					
DEC	1740	100	166	470		
09		120	161	430		
JAN 19 13 MAR		85	90	260		
12	367	28	26	48		
APR 09	566	49	66	110		
JUN 03	947			220		
JUL						
23 SEP	774	53	70	140		
03	1510	97	167	370		
413547083481304	LU-22 NR HC	LLAND OH-I	LEVEL 4	(LAT 41 35	47N LONG	083 48 13W)
OCT 19 22		37	83	45		
DEC 09	807	37	121	110		
JAN 19	98					
13 MAR	528	38	47	82		
12	353	27	22	41		
APR 09	350	28	25	37		
JUN 03	822	50	44	160		
JUL 23	641	52	56	100		
SEP						
03	365	23	47	16		

		DUCT- ANCE LAB (US/CM)	AS CA)	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED	AS BR)		
413547083	481305 LU-2	2 NR HOL	LAND OH-L	EVEL 5 (LAT 41 35	47N LONG	083 48	13W)
	OCT 1997							
		385	31	26	20			
	09 JAN 1998	365	36	19	10			
	13 MAR	303	25	29	45			
	12 APR	308	22	23	35			
	09	247	19	14	13			
	JUN 03	544	29	59	51			
	JUL 23	428	22	55	27			
	SEP 03	304	17	41	6.0			
413549083	481501 LU-2	l NR HOL	LAND OH-L	EVEL 1 (LAT 41 35	49N LONG	083 48	15W)
	OCT 1997							
	22	845	140	9.1	110			
		853	150	8.9	110			
	JAN 1998 13	842			110			
	MAR 12	767	120	10	94			
		828	140	11	110			
	JUN 03	624	87	9.5	75			
	JUL 23	816	140	9.6	110			
	SEP 03	847	140	10	100			
413549083	481502 LU-2	l NR HOL	LAND OH-L	EVEL 2 (LAT 41 35	49N LONG	083 48	15W)
	OCT 1997							
	22 DEC	333	47	3.3	18			
	09 JAN 1998	302	47	3.7	15			
	13	254	41	3.1	8.4			
	MAR 12	205	18	8.3	14			
	APR 09	266	40	3.7	10			
	JUN 03	102	5.9	6.5	3.4			
	JUL 23	253			6.8			
	SEP 03	294	47	3.5	13			

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	SOLVED (MG/L AS NA)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	DIS- SOLVED (MG/L AS BR)	
413549083481503 LU-	21 NR HOL	LAND OH-L	EVEL 3 (L	AT 41 35 4	19N LONG	083 48 15W)
OCT 1997						
	227	32	2.4	4.8		
DEC						
09 JAN 1998	249	38	2.3	6.9		
13	144	19	5.0	4.9		
MAR						
12 APR	184	15	8.7	11		
09	200	26	4.4	4.3		
JUN	200	20		1.5		
03	103			3.6		
JUL						
23	189	28	2.2	2.6		
SEP 03	204			3.7		
03	204			3.7		
413549083481504 LU-	21 NR HOL	LAND OH-L	EVEL 4 (L	AT 41 35 4	19N LONG	083 48 15W)
OCT 1997						
22	181	19	4.0	7.9		
DEC	165	22	2.4	7.4		
09 JAN 1998	165	22	3.4	7.4		
13	120			4.5		
MAR						
12	128	13	8.6	6.2		
APR						
09 JUN	130	8.7	9.3	4.9		
03	137			4.3		
JUL	23.			1.5		
23	179	23	2.4	3.0		
SEP						
03	167			6.1		
413549083481505 LU-	21 NR HOL	LAND OH-L	EVEL 5 (L	AT 41 35 4	19N LONG	083 48 15W)
OCT 1997						
22	157	16	4.3	8.9		
DEC						
09	141	15	4.0	7.7		
JAN 1998 13		7.5	5.6	4.6		
MAR	110	7.5	5.0	4.0		
12	138	10	9.6	6.8		
APR						
09	113	5.0	9.9	5.0		
JUN	110			2 7		
03 JUL	119			3.7		
23	155	16	4.6	3.4		
SEP		-				
03	146	13	4.6	4.5		

PROJECT DATA

A	DATE	DUCT- ANCE LAB (US/CM)	(MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	DIS- SOLVED (MG/L AS CL)	(MG/L AS BR)	
16 605 51 63 50	415305080414201 AB-1	39 NR KIN	GSVILLE C	H-LEVEL 1	(LAT 41	53 05N LONG	080 41 42W)
16 605 51 63 50	OCT 1997						
04 897 93 55 150 JAN 1998 07 262 39 9.7 5.3 MAR 19 276 35 3.9 2.2 APR 22 292 2.7 MAY 28 379 3.4 JUL 29 947 47 125 140 SEP 08 640 37 86 53 415305080414202 AB-139 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 05N LONG 080 41 42W) DCC 1997 16 671 57 66 65 DEC 04 811 84 50 120 JAN 1998 07 257 35 7.4 5.6 APR 22 274 37 4.1 2.6 APR 22 274 37 4.1 2.6 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 676 57 66 66 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 676 57 66 66 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 676 57 66 66 DCC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 274 37 2.4 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 APR 22 254 31 3.8 2.7 APR 22 254 31 3.8 2.7 APR 22 254 31 3.8 2.3 JUL 29 896 52 119 130	16	605	51	63	50		
07 262 39 9.7 5.3 MAR 19 276 35 3.9 2.2 APR 22 292 2.7 MAY 28 379 3.4 JUL 29 947 47 125 140 SEP 08 640 37 86 53 415305080414202 AB-139 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 05N LONG 080 41 42W) CCT 1997 16 671 57 66 65 DEC 04 811 84 50 120 JAN 1998 07 257 35 7.4 5.6 APR 22 274 37 4.1 2.6 APR 22 274 37 4.1 2.6 APR 22 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) CCT 1997 16 676 57 66 66 BEC 04 676 57 66 66 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) CCT 1997 16 676 57 66 66 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 APR 22 254 31 3.8 2.3 JUL 29 896 52 119 130		897	93	55	150		
MAR 19 276 35 3.9 2.2 APR 22 292 2.7 JUL 29 379 3.4 JUL 29 640 37 86 53 415305080414202 AB-139 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 671 57 66 65 DEC 04 811 84 50 120 JAN 1998 07 257 35 7.4 5.6 MAR 19 261 32 3.9 2.7 APR 22 274 37 4.1 2.6 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414202 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) APR 22 274 37 4.1 2.6 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) CCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 274 31 3.8 2.7 APR 22 254 31 3.8 2.7 APR 22 254 31 3.8 2.7 APR 22 254 31 3.8 2.3 JUL 29 896 52 119 130 SEP 28 312 42 3.8 2.3 JUL 29 896 52 119 130		262	20	9 7	E 2		
APR 22 292 2.7	MAR						
22 292 2.7		276	35	3.9	2.2		
28 379	22	292			2.7		
29 947 47 125 140 SEP 08 640 37 86 53 415305080414202 AB-139 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 671 57 66 65 DEC 04 811 84 50 120 JAN 1998 07 257 35 7.4 5.6 MAR 19 261 32 3.9 2.7 APR 22 274 37 4.1 2.6 JUL 299 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130		379			3.4		
SEP 08 640 37 86 53 415305080414202 AB-139 NR KINGSVILLE 0H-LEVEL 2 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 671 57 66 65 DEC 04 811 84 50 120 JAN 1998 07 257 35 7.4 5.6 APR 22 274 37 4.1 2.6 APR 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAY 28 375 34 3.7 2.4 APR 29 926 47 37 35		947	47	125	140		
A15305080414202 AB-139 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 671 57 66 65 DEC 04 811 84 50 120 JAN 1998 07 257 35 7.4 5.6 MAR 19 261 32 3.9 2.7 APR 22 274 37 4.1 2.6 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 SEP UIL 29 896 52 119 130 SEP	SEP						
OCT 1997 16 671 57 66 65 DEC 04 811 84 50 120 JAN 1998 07 257 35 7.4 5.6 MAR 19 261 32 3.9 2.7 APR 22 274 37 4.1 2.6 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP	08	640	37	86	53		
16 671 57 66 65 DEC 04 811 84 50 120 JAN 1998 07 257 35 7.4 5.6 MAR 19 261 32 3.9 2.7 APR 22 274 37 4.1 2.6 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP	415305080414202 AB-1	39 NR KIN	GSVILLE C	H-LEVEL 2	(LAT 41	53 05N LONG	080 41 42W)
DEC 04 811 84 50 120 JAN 1998 07 257 35 7.4 5.6 MAR 19 261 32 3.9 2.7 APR 22 274 37 4.1 2.6 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130	OCT 1997						
04 811 84 50 120 JAN 1998 07 257 35 7.4 5.6 MAR 19 261 32 3.9 2.7 APR 22 274 37 4.1 2.6 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 50 N LONG 080 41 420) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 APR 22 254 31 3.8 2.7 APR 28 312 42 3.8 2.3		671	57	66	65		
07 257 35 7.4 5.6 MAR 19 261 32 3.9 2.7 APR 22 274 37 4.1 2.6 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130	04	811	84	50	120		
MAR 19 261 32 3.9 2.7 APR 22 274 37 4.1 2.6 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP		257	35	7.4	5.6		
APR 22 274 37 4.1 2.6 MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP	MAR						
MAY 28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP		261	32	3.9	2.7		
28 335 45 5.4 4.0 JUL 29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP		274	37	4.1	2.6		
29 926 47 131 140 SEP 08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 666 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP	28	335	45	5.4	4.0		
08 640 37 87 52 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP	29	926	47	131	140		
OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP		640	37	87	52		
OCT 1997 16 676 57 66 66 DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP	415305080414203 AB-1	39 NR KIN	IGSVII.I.E C	H-I.EVEI. 3	(T.DT 41	53 05N LONG	. 080 41 42W)
DEC 04 763 79 47 110 JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP	OCT 1997						11 12,
JAN 1998 07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP		676	57	66	66		
07 274 35 7.0 7.5 MAR 19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP		763	79	47	110		
19 275 34 3.7 2.4 APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP	07	274	35	7.0	7.5		
APR 22 254 31 3.8 2.7 MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP		275	34	3.7	2.4		
MAY 28 312 42 3.8 2.3 JUL 29 896 52 119 130 SEP	APR						
JUL 29 896 52 119 130 SEP	MAY						
29 896 52 119 130 SEP		312	42	3.8	2.3		
	29	896	52	119	130		
08 640 37 84 54	08	640	37	84	54		

DATE	DUCT- ANCE LAB US/CM	CALCIUM DIS- SOLVEI (MG/L	SOLVED	DIS- SOLVED (MG/L AS CL)	DIS- SOLVED (MG/L AS BR)			
415305080414204 AB-139	NR K	INGSVILLE	OH-LEVEL 4	(LAT 41	53 05N LON	G 080	41	42W)
OCT 1997								
16 DEC	644			63				
04 JAN 1998	775			110				
07 MAR	243	34	5.7	3.9				
19	278			2.7				
APR 22	268	35	4.0	2.5				
MAY 28	278	37	4.1	2.2				
JUL 29	756	62	66	95				
SEP 08	686			66				
415305080414205 AB-139			OU_IEVEI E		E3 OEN LONG	7 000	41	1 JW)
	, INIC IC	LINGSVILLE	OH BEVER 5	(LAI TI	DO OOM HOM	3 000	-11	72W)
	633			66				
JAN 1998 07	222	29	5.6	3.6				
MAR 19	287	38	4.2	2.5				
APR 22	265	35	4.1	2.9				
MAY 28	255			2.8				
JUL	278			3.7				
SEP								
08				3.9				
415305080414206 AB-139	NR K	INGSVILLE	OH-LEVEL 6	(LAT 41	53 05N LONG	3 080	41	42W)
MAY 1998 28	264			3.6				
415307080414201 AB-133	NR K	TNGSVILLE				3 080	41	42W)
OCT 1997	, 1410 10	.11000111111	OII BEVEE I	(1111 11	33 07N HON	3 000		1211)
16	4260	170	646	1100				
	3960			1100				
JAN 1998 07	1820			490				
MAR 19	3240	130	485	870				
APR 22	3490	110	532	1000				
MAY 28				740				
JUL		130	506	890				
SEP								
08	4130	160	624	1100				

OCT 1997 16 3350 130 515 910 DEC 04 2460 660 JAN 1998 07 1880 50 310 520 APR 22 3410 110 526 980 SEP 08 4050 170 605 1100 415307080414203 AB-133 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3180 120 503 830 SEP 08 4050 170 605 1100 415307080414203 AB-133 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3180 120 530 920 APR 22 3430 110 527 1000 APR 22 3430 110 527 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3180 320 550 920 APR 22 3430 110 527 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 JEC 04 2500 43 259 530 APR 16 3160 120 496 840 JEC 04 2500 43 259 530 APR 19 3300 110 530 900 APR 19 3300 110 530 900 APR 22 3470 100 516 940 APR 32 3470 100 516 940 APR 3480 349 340 340 340 340 340 340 340 340 340 340	DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	DIS-	DIS- SOLVED (MG/L AS CL)	AS BR)		
16 3350 130 515 910 DEC 04 2460 660 JAN 1998 07 1880 50 310 520 APR 22 3410 110 526 980 JUL 29 3130 97 494 820 SEP 08 4050 170 605 1100 OCT 1997 16 3180 120 503 830 DEC 04 2680 80 418 730 7 JAN 1998 07 1850 51 312 510 APR 22 3430 110 527 1000 APR 23 2750 62 464 720 APR 24 250 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 503 830 APR 21 3120 95 501 830 APR 22 3430 110 527 1000 APR 21 3160 120 496 840 APR 21 3160 120 496 840 APR 22 3190 43 259 530 APR 3AN 1998 07 1900 43 259 530 JAN 1998 07 1900 43 259 530 JAN 1998 07 1900 43 259 530 APR 22 3300 110 530 900 APR 3AN 4PR 3PR 3AN 4PR 3PR 3PR 3PR 3PR 3PR 3PR 3PR 3PR 3PR 3	415307080414202 AB-1	33 NR KIN	IGSVILLE O	H-LEVEL 2	(LAT 41	53 07N LONG	080	41 42W)
DEC 04 2460	OCT 1997							
14		3350	130	515	910			
07 1880 50 310 520	04				660			
19 3270 120 524 900 APR 22 3410 110 526 980 MAY 28 2840 66 483 700 JUL 29 3130 97 494 820 SEP 08 4050 170 605 1100 415307080414203 AB-133 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3180 120 503 830 DEC 04 2680 80 418 730 JAN 1998 07 1850 51 312 510 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 JUL 29 3160 120 496 840 JUN ANDRIAN SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR APR 22 3270 100 516 940 APR APR 22 3270 100 516 940 MAY 28 2610 55 440 680			50	310	520			
22 3410 110 526 980 MAY 28 2840 66 483 700 JUL 29 3130 97 494 820 SEP 08 4050 170 605 1100 415307080414203 AB-133 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3180 120 503 830 DEC 04 2680 80 418 730 JAN 1998 07 1850 51 312 510 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 JEC OL COL 1997 16 3160 120 496 840 JEC OL COL 1997 16 3160 120 496 840 JAN 1998 07 1900 43 259 530 MAR 19 2370 100 516 940 APR 22 3270 100 516 940 MAY 22 3270 100 516 940 MAY 22 3270 100 516 940 MAY 28 2610 55 440 680	19	3270	120	524	900			
28 2840 66 483 700 JUL JUL 29 3130 97 494 820 SEP 08 4050 170 605 1100 415307080414203 AB-133 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3180 120 503 830 DEC 04 2680 80 418 730 JAN 1998 07 1850 51 312 510 MAR 19 3350 120 530 920 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR APR 22 3270 100 516 940 MAY 28 2500 55 440 680	22	3410	110	526	980			
29 3130 97 494 820 SEP 08 4050 170 605 1100 415307080414203 AB-133 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3180 120 503 830 DEC 04 2680 80 418 730 JAN 1998 07 1850 51 312 510 MAR 19 3350 120 530 920 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680		2840	66	483	700			
SEP 08 4050 170 605 1100 415307080414203 AB-133 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3180 120 503 830 DEC 04 2680 80 418 730 JAN 1998 07 1850 51 312 510 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JULL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 APR 19 3300 110 530 900 APR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680		2120	0.7	404	920			
A15307080414203 AB-133 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3180 120 503 830 DEC 04 2680 80 418 730 JAN 1998 07 1850 51 312 510 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680		3130	91	434	620			
OCT 1997 16 3180 120 503 830 DEC 04 2680 80 418 730 JAN 1998 07 1850 51 312 510 MAR 19 3350 120 530 920 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680	08	4050	170	605	1100			
16 3180 120 503 830 DEC 04 2680 80 418 730 JAN 1998 07 1850 51 312 510 MAR 19 3350 120 530 920 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680	415307080414203 AB-1	33 NR KIN	IGSVILLE O	H-LEVEL 3	(LAT 41	53 07N LONG	080	41 42W)
DEC 04 2680 80 418 730 JAN 1998 07 1850 51 312 510 MAR 19 3350 120 530 920 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680								
04 2680 80 418 730 JAN 1998 07 1850 51 312 510 MAR 19 3350 120 530 920 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680		3180	120	503	830			
MAR 19 3350 120 530 920 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY ANAY 28 2610 55 440 680	04	2680	80	418	730			
19 3350 120 530 920 APR 22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680	07	1850	51	312	510			
22 3430 110 527 1000 MAY 28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680	19	3350	120	530	920			
28 2750 62 464 720 JUL 29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680	22	3430	110	527	1000			
29 3120 95 501 830 SEP 08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680	28	2750	62	464	720			
08 4040 170 598 1100 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680	29	3120	95	501	830			
OCT 1997 16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680		4040	170	598	1100			
16 3160 120 496 840 DEC 04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680	415307080414204 AB-1	33 NR KIN	IGSVILLE O	H-LEVEL 4	(LAT 41	53 07N LONG	080	41 42W)
04 2070 540 JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680	16	3160	120	496	840			
JAN 1998 07 1900 43 259 530 MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680		2070			540			
MAR 19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680	JAN 1998							
19 3300 110 530 900 APR 22 3270 100 516 940 MAY 28 2610 55 440 680		1900	43	259	530			
22 3270 100 516 940 MAY 28 2610 55 440 680	19	3300	110	530	900			
28 2610 55 440 680	22	3270	100	516	940			
JUL		2610	55	440	680			
29 3100 88 509 840		3100	88	509	840			
SEP 08 3950 160 600 1000		3950	160	600	1000			

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM) (90095)	(MG/L AS CA) (00915)	DIS- SOLVED (MG/L AS NA) (00930)	DIS- SOLVED (MG/L AS CL) (00940)	AS BR) (71870)	000 41 4211)
415307080414205 AB-1	33 NR KIN	GSVILLE O	H-LEVEL 5	(LAT 41	53 07N LONG	080 41 42W)
OCT 1997 16	2880	97	452	740		
DEC 04	2040			540		
JAN 1998 07	1830	49	300	500		
MAR 19	2360		382	630		
APR 22			514	950		
MAY 28		52		660		
JUL			430			
29 SEP	2780		454	720		
08	3920	160	587	1000		
415307080414206 AB-1	33 NR KIN	IGSVILLE O	H-LEVEL 6	(LAT 41	53 07N LONG	080 41 42W)
JAN 1998 07	1740	46	288	480		
MAR 19	2460	65	357	670		
APR 22	3330	100	507	960		
MAY 28		40	343	490		
415308080414301 AB-1					53 08N LONG	080 41 43W)
OCT 1997				(
16	1510	120	127	840		
DEC 04	1730	140	155	410		
JAN 1998 07	1930	110	168	460		
MAR 19	1470	110	135	330		
APR 22	1440	110	126	310		
MAY 28	1370	100	119	280		
JUL 29	1330	100	123	290		
SEP 08	1390	100	122	290		
415308080414302 AB-1	35 NR KIN	GSVILLE O	H-LEVEL 2	(LAT 41	53 08N LONG	080 41 43W)
OCT 1997						
16 DEC	1510	120	127	340		
04 JAN 1998	1780			420		
07 MAR	1860	130	190	440		
19	1280	99	120	270		
APR 22	1420	110	124	310		
MAY 28	1270	98	113	270		
JUL 29	1330	100	114	290		
SEP 08	1360	100	122	290		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 THROUGH SEPTEMBER 1998-Continued

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	DIS-	DIS- SOLVED (MG/L AS CL)	AS BR)		
415308080414303 AB-1	35 NR KIN	GSVILLE O	H-LEVEL 3	(LAT 41	53 08N LONG	080	41 43W)
OCT 1997							
16 DEC	1510	120	128	340			
04 JAN 1998	1830			690			
07	1850	120	173	440			
MAR 19 APR	1280	97	117	260			
22 MAY	1420	100	123	310			
28	1250	98	113	270			
JUL 29 SEP	1340	100	122	300			
	1370	100	127	310			
415308080414304 AB-1	35 NR KIN	GSVILLE O	H-LEVEL 4	(LAT 41	53 08N LONG	080	41 43W)
OCT 1997							
16 DEC	1500	120	125	330			
	1780	140	160	430			
JAN 1998 07	1700	130	170	420			
MAR 19	1200	93	108	240			
APR 22		100	121	310			
MAY 28	1240	95	112	260			
JUL	1240	23	112	200			
29 SEP	1340	100	112	290			
	1410	100	125	300			
415308080414305 AB-1	35 NR KIN	GSVILLE O	H-LEVEL 5	(LAT 41	53 08N LONG	080	41 43W)
OCT 1997	1320	110	104	280			
DEC 04	1500	140	115	330			
JAN 1998 07	1610	130	145	380			
MAR	1010	130	143	300			
19 APR	1270	98	117	270			
22 MAY	1360	100	120	290			
28	1280	98	117	270			
JUL 29 SEP	1230	96	104	250			
08	1290	100	106	280			

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED	DIS- SOLVED (MG/L AS CL)	AS BR)		
415308080414306 AB	-135 NR KIN	NGSVILLE C	H-LEVEL 6	(LAT 41	53 08N LONG	080 41 437	N)
OCT 199	7						
16 DEC		110	106	270			
04 JAN 199		130	111	330			
	1750	130	174	440			
MAR 19	1610			370			
APR 22 MAY	1290	99	118	280			
28 JUL	1500	110	134	320			
29 SEP	1240	99	104	250			
	1260	100	108	270			
415309080414301 AB	-136 NR KIN	NGSVILLE C	H-LEVEL 1	(LAT 41	53 09N LONG	080 41 437	N)
OCT 199	7						
	2300	130	282	600			
	2460	140	321	710			
07 MAR		110	278	640			
19	2200	110	270	550			
APR 22	1980	96	255	530			
MAY 28	2110	99	274	540			
JUL 29	2220	110	291	570			
SEP 08	2360			590			
415309080414302 AB	-136 NR KIN	NGSVILLE C	H-LEVEL 2	(LAT 41	53 09N LONG	080 41 43	N)
OCT 199		130	287	620			
DEC 04	2550	150	302	680			
JAN 199		120	305	650			
MAR 19	2160	110	256	560			
APR 22	1990	95	255	520			
MAY	2152	100	272	FFC			
28 JUL	2150	100	273	550			
29 SEP	2190	110	300	580			
08	2230	120	290	550			

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	SOLVED (MG/L	DIS- SOLVED (MG/L AS CL)	DIS- SOLVED (MG/L AS BR)			
415309080414303 AB-1	36 NR KIN	GSVILLE C	H-LEVEL 3	(LAT 41	53 09N LONG	080	41	43W)
OCT 1997 16	2300	130	284	610				
DEC								
04 JAN 1998	2560	150	309	670				
07 MAR	2410	120	308	660				
19	2020	120	260	510				
APR 22 MAY	1950	90	250	500				
28		100	268	520				
JUL 29	2200	100	300	570				
SEP 08	2180	110	283	530				
415309080414304 AB-1	36 NR KIN	IGSVILLE C	H-LEVEL 4	(LAT 41	53 09N LONG	080	41	43W)
OCT 1997 16	2210	130	277	580				
DEC	2210	130						
04 JAN 1998	2580			680				
07	2400	120	311	640				
MAR 19	2400	120	296	610				
APR 22	1940	91	249	490				
MAY 28	2090	98	270	530				
JUL 29	2160	100	307	570				
SEP								
08	2570	120	349	660				
415309080414305 AB-1	36 NR KIN	IGSVILLE C	H-LEVEL 5	(LAT 41	53 09N LONG	080	41	43W)
OCT 1997 16 DEC	2130	120	258	550				
04	2590	150	317	700				
JAN 1998 07		120	312	640				
MAR 19	2360	130	299	600				
APR 22	1930	92	252	500				
MAY 28	2090	96	273	520				
JUL 29 SEP	2140	110	282	540				
08	2540	130	337	640				

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PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED (MG/L AS NA)	SOLVED (MG/L	DIS- SOLVED (MG/L AS BR)			
415309080414306 AB-1	36 NR KIN	GSVILLE C	H-LEVEL 6	(LAT 41 53	09N LONG	080	41	43W)
OCT 1997								
16	1790	110	207	440				
DEC								
04 JAN 1998	2520			440				
07 MAR	2150	120	271	570				
19 APR	2200			570				
22 MAY	1880	100	232	470				
28	1880			460				
JUL 29	1730	92	211	410				
SEP 08	1760	97	214	400				
415309080414401 AB-1	38 NR KIN	GSVILLE C	H-LEVEL 1	(LAT 41 53	09N LONG	080	41	44W)
OCT 1997								
	989	84	72	190	045			
DEC	303	01	. 2	130	.015			
04 JAN 1998	1130	100	72	230	.054			
07 MAR	1540	110	151	370	.067			
19 APR	1250	86	116	290	.064			
22 MAY	1280	96	125	300	.052			
28 JUL	1140	83	118	250	.052			
29 SEP	776	70	60	140				
08	899	83	60	160	.045			
415309080414402 AB-1	38 NR KIN	GSVILLE C	H-LEVEL 2	(LAT 41 53	09N LONG	080	41	44W)
OCT 1997 16	834	80	53	150	.042			
DEC 04	1140	100	83	230	.052			
JAN 1998		100		330	.064			
MAR								
19 APR	1030	79	89	220	.052			
22 MAY	1060	86	99	230	.043			
28 JUL	973	76	90	200	.048			
29 SEP	742	66	49	120				
08	758	77	39	110	.041			

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED	AS CL)	DIS- SOLVED (MG/L AS BR)			
415309080414403 AB-1	38 NR KIN	IGSVILLE (OH-LEVEL 3	(LAT 41 53	09N LONG	080	41	44W)
OCT 1997								
16	736	85	37	110				
DEC 04	738	100	26	120	.029			
JAN 1998								
07 MAR	1360	100	130	330	.058			
19 APR	910	74	78	170	.047			
22 MAY	984	84	86	190	.040			
28	980	74	84	210	.051			
JUL 29 SEP	651	65	36	90				
08	717	79	34	100	.038			
415309080414405 AB-1	38 NR KIN	GSVILLE (OH-LEVEL 5	(LAT 41 53	09N LONG	080	41	44W)
OCT 1997								
16	1640	130	128	410				
DEC								
04 JAN 1998	1910	140	181	490	.080			
07 MAR	1270	87	128	300	.059			
19	1150	77	109	260	.062			
APR 22 MAY	930	82	92	210	.038			
28	802	62	76	150	.035			
JUL 29	820	66	68	160				
SEP 08	1400	100	126	310	.063			
415309080414406 AB-1	38 NR KIN	IGSVILLE (OH-LEVEL 6	(LAT 41 53	09N LONG	080	41	44W)
OCT 1997 16	1320	92	115	300	.061			
DEC 04	788	100	26	150	.029			
JAN 1998								
07 MAR	1490	100	148	360	.069			
19 APR	1370	93	129	320	.060			
22 MAY	1410	100	143	330	.058			
28 JUL	1090	82	118	250	.051			
29 SEP	1030	80	91	220				
08	1420	95	137	310	.065			

PROJECT DATA

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	(MG/L	DIS- SOLVED (MG/L AS CL)	(MG/L AS BR)	
415310080414401 AB-1	37 NR KIN	IGSVILLE C	H-LEVEL 1	(LAT 41	53 10N LONG	080 41 44W)
OCT 1997						
16	788	83	50	110		
DEC						
04	855	98	50	100		
JAN 1998	F01	0.1	4.5	0.0		
07 MAR	781	81	46	88		
19	798	77	50	120		
APR						
22	774			110		
MAY	===					
28 JUL	733	76	46	110		
29	783	80	49	120		
SEP						
08	770	76	51	110		
415310080414402 AB-1	37 NR KIN	IGSVILLE C	H-LEVEL 2	(LAT 41	53 10N LONG	080 41 44W)
OCT 1997						
16	790	82	49	110		
DEC						
04	842	95	49	100		
JAN 1998						
07 MAR	736	69	41	84		
MAR 19	740	74	48	97		
APR	, 10		10	· ·		
22	713	77	45	95		
MAY						
28 JUL	716	74	44	100		
29	751	75	51	120		
SEP	751	, 5	31	120		
08	776	76	51	120		
				,		
415310080414403 AB-1	37 NR KIN	IGSVILLE C	H-LEVEL 3	(LAT 41	53 10N LONG	080 41 44W)
OCT 1997						
16	768	81	49	110		
DEC						
04	857	97	49	99		
JAN 1998	725	72	4.5	0.6		
07 MAR	735	73	45	86		
19	726			93		
APR	•					
22	702	74	42	91		
MAY		=-				
28 JUL	720	73	43	100	==	
29	770	77	50	120		
SEP						
08	794	74	50	110		

DATE	DUCT- ANCE LAB (US/CM)	DIS- SOLVED (MG/L AS CA)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	DIS- SOLVED (MG/L AS CL)	AS BR)	
415310080414404 AB-13	37 NR KIN	GSVILLE C	H-LEVEL 4	(LAT 41	53 10N LONG	080 41 44W)
OCT 1997						
16 DEC	796	82	50	110		
04 JAN 1998	872	100	48	94		
07 MAR	737	78	47	84		
19 APR	677			78		
22 MAY	655	68	38	85		
28 JUL	717	73	45	100		
29 SEP	779	76	49	110		
08	798	77	49	110		
415310080414405 AB-13	37 NR KIN	GSVILLE C	H-LEVEL 5	(LAT 41	53 10N LONG	080 41 44W)
OCT 1997						
16	774			110		
DEC 04	805	92	47	98		
JAN 1998 07	737	77	49	82		
MAR 19	680	66	48	80		
APR 22	648	71	39	87		
MAY						
28 JUL	719	73	46	110		
29 SEP	788	75	52	110		
08	791	78	48	100		
415310080414406 AB-13	37 NR KIN	GSVILLE C	H-LEVEL 6	(LAT 41	53 10N LONG	080 41 44W)
OCT 1997						
16 DEC	766		50	100		
04 JAN 1998	896	110	48	97		
07 MAR	732	80	47	83		
19 APR	689	65	46	80		
22 MAY	644	70	37	88		
28 JUL	720	80	46	120		
29 SEP	775	78	50	110		
08	788	78	49	100		

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SAMPLE ANALYSES FROM ONE WELL AT EACH SITE WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

	DATE	DUCT- ANCE LAB	WATER WHOLE LAB (STAND- ARD UNITS)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	DIS- SOLVED (MG/L AS CN)	
393541083000801	PK-50 NR	CIRCLEVILLE	E OH-LEV	EL 1 (LAT	39 35 41N LON	G 083 00 08W)
	OCT 1997 08	738	7.6	438	<.01	
393541083000802	PK-50 NR	CIRCLEVILLE	E OH-LEV	EL 2 (LAT	39 35 41N LON	G 083 00 08W)
	OCT 1997 08	749	7.3	437	<.01	
393541083000804	PK-50 NR	CIRCLEVILLE	OH-LEV	EL 4 (LAT	39 35 41N LON	G 083 00 08W)
	APR 1998 28	661	7.3	401	<.01	
393541083000805	PK-50 NR	CIRCLEVILLE	E OH-LEV	EL 5 (LAT	39 35 41N LON	G 083 00 08W)
	APR 1998 28	674	7.4	414	<.01	
39585908344050	1 CL-140 N	R SPRINGFIE	ELD OH-L	EVEL 1 (L	AT 39 58 59N L	ONG 083 44 05W)
	APR 1998 14	921	7.2	559	<.01	
39585908344050	2 CL-140 N	R SPRINGFIE	ELD OH-L	EVEL 2 (L	AT 39 58 59N L	ONG 083 44 05W)
	OCT 1997 14	787	7.1	478	<.01	
39585908344050	3 CL-140 N	R SPRINGFIE	ELD OH-L	EVEL 3 (L	AT 39 58 59N L	ONG 083 44 05W)
	APR 1998 14	927	7.2	570	<.01	
39585908344050	4 CL-140 N	R SPRINGFIE	ELD OH-L	EVEL 4 (L	AT 39 58 59N L	ONG 083 44 05W)
	OCT 1997 14	807	7.1	481	<.01	
40094708348000	2 CH-44 NR	URBANA OH-	LEVEL 2	(LAT 40	09 47N LONG 08	3 48 00W)
	OCT 1997 09	848	7.3	507	<.01	
	APR 1998 15	906	7.2	565	<.01	
40094708348000	3 CH-44 NR	URBANA OH-	LEVEL 3	(LAT 40	09 47N LONG 08	3 48 00W)
	OCT 1997	859	7 2	517	< 01	
403923082325701						82 32 57W)
	OCT 1997 28	477	7.2	259	<.01	
403923082325704	R-18 NR L	EXINGTON OF	H-LEVEL	4 (LAT 40	39 23N LONG 0	82 32 57W)
	OCT 1997 28	538	7.5	294	<.01	
403923082325705	R-18 NR L APR 1998 21	EXINGTON OF	H-LEVEL	5 (LAT 40 294		82 32 57W)

SAMPLE ANALYSES FROM ONE WELL AT EACH SITE—Continued WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

	DATE	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	RI A: I	DEG. C DIS- SOLVED (MG/L)	SOLVED
403923082325706	R-18 NR LE	EXINGTON C	H-LEVEL	6	(LAT 40	39 23N LONG 082 32 57W)
	APR 1998 21	659	7.4		381	<.01
411137081172401	PO-117 NR	RAVENNA C	H-LEVEL	1	(LAT 41	11 37N LONG 081 17 24W)
	OCT 1997 15	994	7.6		557	<.01
411137081172403	PO-117 NR	RAVENNA C	H-LEVEL	3	(LAT 41	11 37N LONG 081 17 24W)
	OCT 1997 15	1590	7.6		890	<.01
411137081172405	PO-117 NR	RAVENNA C	H-LEVEL	5	(LAT 41	11 37N LONG 081 17 24W)
	APR 1998 23	713	7.7		393	<.01
411137081172406	PO-117 NR	RAVENNA C	H-LEVEL	6	(LAT 41	11 37N LONG 081 17 24W)
	APR 1998 23	436	7.8		244	<.01
41354708348100	2 LU-26 NR	HOLLAND C	H-LEVEL	2	(LAT 41	35 47N LONG 083 48 10W)
	OCT 1997 22 APR 1998	2040	8.1		1130	<.01
	09	617	8.4		356	<.01
41354708348100		HOLLAND C)H-LEVEL	4	(LAT 41	35 47N LONG 083 48 10W)
	OCT 1997 22 APR 1998	340	7.8		207	<.01
	09	441	7.8		266	<.01
415309080414403	AB-138 NR	KINGSVILL	LE OH-LEV	/EL	3 (LAT	41 53 09N LONG 080 41 44W)
	OCT 1997 16 APR 1998	736	7.7		400	<.01
	22	984	7.6		570	<.01
415309080414405	AB-138 NR	KINGSVILL	LE OH-LEV	ÆL.	5 (LAT	41 53 09N LONG 080 41 44W)
	OCT 1997 16	1640	7.5		949	<.01
415309080414406	AB-138 NR	KINGSVILL	LE OH-LEV	ÆL.	6 (LAT	41 53 09N LONG 080 41 44W)
	APR 1998 22	1410	7.5		796	<.01

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010) R CIRCLEVI	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	(MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT 1997 08	10.38	615	7.0	15.5	360	91	31	4.9	2.3	248
APR 1998 28	8.73	620	7.3	13.5	330	84	28	10	2.1	264
	39354	1083001200	PK-53 N	R CIRCLEVI	ILLE OH	(LAT 39 35	41N LONG	083 00 12	2W)	
OCT 1997										
08 APR 1998	9.85	708	7.1	14.5	410	100	36	3.0	1.1	282
28	8.22	661	7.2	12.5	360	94	32	2.4	1.0	278
OCT 100F	39585	9083440600) CL-137	NR SPRINGE	LIETD OH	(LAT 39 58	3 59N LON	G 083 44 (J6W)	
OCT 1997 14	20.37	794	6.9	13.5	420	100	40	7.9	2.7	350
APR 1998 14	20.83	820	7.1	13.0	430	100	42	8.6	3.4	382
	3959010	83440700 C	CL-136 NR	SPRINGFIE	ELD OH (I	AT 39 59 0	1N LONG	083 44 07	N)	
OCT 1997 14	19.31	767	6.8	13.0	430	100	41	3.7	1.1	364
APR 1998	19.40	730	7.2	12.0	400	92	40	6.9	1.2	364
						40 09 48N			1.2	301
OCT 1997					(====					
09 APR 1998	10.24	824	7.0	13.5	440	110	41	22	3.4	312
15	8.37	796	7.2	12.5	400	99	38	15	4.3	354
	4009	5008348060	00 CH-38	NR URBANA	OH (LAT	40 09 50N	LONG 083	48 06W)		
OCT 1997 09	7.56	748	6.9	14.5	430	110	41	4.4	1.9	302
APR 1998 15	5.59	730	7.3	9.5	410	98	39	3.8	1.6	328
	40392	3082325400	R-21 NR	LEXINGTON	OH (LAI	. 40 39 23N	LONG 08	2 32 54W)		
OCT 1997										
28 APR 1998	17.59	172	7.4	13.0	78	22	5.9	1.9	1.1	52
21	7.46	198		10.5		28	6.7		1.2	68
	40392	3082325600) R-15 NR	LEXINGTON	I OH (LA)	7 40 39 231	I LONG 08	2 32 56W)		
OCT 1997 28	17.37	242	6.7	11.0	84	23	6.8	13	.95	56
APR 1998 21	13.66	355	6.7	11.0	98	27	7.7	29	1.2	51
	41113	7081172100	PO-114	NR RAVENNA	CAL) HO A	7 41 11 37N	LONG 08	1 17 21W)		
OCT 1997	4 00	405	77 2	12.5	250	0.5	0 1	6.1	2 2	170
15 APR 1998 23	4.88	495 268	7.3	13.5	250 130	85 46	9.1	6.1	1.3	170 133
۷۶						46 7 41 11 38N			1.3	133
OCT 1997	41113	JJJ11/24UU	, 10-113	TAIN IVEN DINING	· Oii (LIA)	1 11 361	A TOMO 08	_ 1/ 24W)		
15 APR 1998	8.80	2170	7.0	13.0	130	44	5.2	396	1.8	202
23	5.72	1850	7.1	9.5	210	70	7.7	276	3.2	108

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1997 08 APR 1998	52	17	.10	.033	8.6	379	382	.025	3.85
28	53	20	.12	.032	7.3	387	376	.015	2.69
	393541083	001200 PK	-53 NR CI	RCLEVILLE	OH (LAT	39 35 41N	LONG 083	00 12W)	
OCT 1997 08	63	13	.11	.030	9.4	438	441	<.010	8.39
APR 1998 28	53	13	.14	.040	8.2	413	406	<.010	7.40
	395859083	140600 CL	-137 NR S	SPRGFLD,OH	(LAT 39	58 59N LO	NG 083 44	06W)	
OCT 1997	29	15	.21	020	12	459	471	<.010	9.43
APR 1998	30	25	.21	.028	12	503	473	<.010	5.06
	9590108344								3.00
OCT 1997	9390106344	J700 CH-1.	O NK SF	CINGFIELD V	OH (LAI 3	9 39 UIN .	LONG 083	44 0/W)	
14 APR 1998	32	8.7	.25	.036	13	457	458	<.010	7.46
14	36	13	.27	.020	12	465	444	<.010	5.74
	40094808	3480200 CI	H-41 NR U	JRBANA OH	(LAT 40 0	9 48N LON	G 083 48	02W)	
OCT 1997 09 APR 1998	93	32	.28	.025	9.0	517	516	.018	2.13
15	92	27	.34	.024	8.1	510	484	.014	.964
	40095008	3480600 CI	H-38 NR U	JRBANA OH	(LAT 40 0	9 50N LON	G 083 48	06W)	
OCT 1997	85	18	.34	.030	8.7	453	457	<.010	<.050
APR 1998 15	100	14	.37	.013	6.4	489	452	<.010	<.050
				XINGTON OH					
	103323002.	525100 K 1	51 WI 1112	iiwoiow on	(1111 10	33 Z3N EO.	140 002 32	. 51117	
OCT 1997	13	2.3	<.10	.021	11	108	106	<.010	3.58
APR 1998 21	20	2.1	<.10	.011	9.6	122	120	<.010	1.95
	403923082	325600 R-1	15 NR LEX	KINGTON OH	(LAT 40	39 23N LO	NG 082 32	56W)	
OCT 1997									
28 APR 1998	23			<.010					3.15
21	23		<.10	.018	8.5				2.19
	411137081	172100 PO-	-114 NR F	RAVENNA OH	(LAT 41	11 37N LO	NG 081 17	21W)	
OCT 1997 15 APR 1998	46	14	<.10	.019	7.7	293	294	.050	3.49
23	20	4.9	<.10	<.010	5.6	177	175	<.010	1.50
	411138081	172400 PO	-115 NR F	RAVENNA OH	(LAT 41	11 38N LO	NG 081 17	24W)	
OCT 1997	7.5	E00	2.0	005	F 7	1100	1160	. 010	004
15 APR 1998	75	500	.28	.095	5.7	1180	1160		.994
23	35	490	< .10	.066	4.1	1030	956	<.010	.473

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

DATE	DIS- SOLVED (MG/L AS N) (00608)	ORGANIC DIS. (MG/L AS N) (00623)	(MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025) LONG 083	DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
00E 100E									
OCT 1997 08 APR 1998	<.015	<.20	<.010	<.010	80	<.50	<1.0	<3.0	<10
28	.024	<.10	<.010	.017	69	<1.0	<8.0	<12	<10
	393541083	001200 PK	-53 NR C	IRCLEVILLE	OH (LAT	39 35 41N	LONG 083	00 12W)	
OCT 1997									
08 APR 1998	<.015	<.20	<.010	<.010	79	<.50	<1.0	<3.0	<10
28	.023	<.10	<.010	<.010	72	<1.0	<8.0	<12	<10
	395859083	440600 CL	-137 NR S	SPRGFLD,OH	(LAT 39	58 59N LOI	NG 083 44	06W)	
OCT 1997									
14 APR 1998	<.015	<.20	.014	<.010	136	<.50	<1.0	<3.0	<10
14	.021	<.10	<.010	<.010	154	<1.0	<8.0	<12	<10
35	9590108344	0700 CL-1	36 NR SPI	RINGFIELD (OH (LAT 3	9 59 01N I	LONG 083	44 07W)	
OCT 1997									
14	<.015	<.20	.040	<.010	135	<.50	1.4	<3.0	<10
APR 1998 14	.023	<.10	<.010	<.010	128	<1.0	<8.0	<12	<10
	40094808	3480200 C	H-41 NR U	JRBANA OH	(LAT 40 0	9 48N LONG	G 083 48	02W)	
OCT 1997									
09 APR 1998	<.015	<.20	<.010	<.010	78	<.50	<1.0	<3.0	<10
15	<.020	<.10	<.010	<.010	80	<1.0	<8.0	<12	<10
	40095008	3480600 C	H-38 NR U	JRBANA OH	(LAT 40 0	9 50N LONG	G 083 48	06W)	
OCT 1997									
09 APR 1998	.022	<.20	<.010	<.010	78	<.50	<1.0	<3.0	<10
15	.039	.21	<.010	<.010	69	<1.0	<8.0	<12	<10
	403923082	325400 R-	21 NR LEX	KINGTON OH	(LAT 40	39 23N LOI	NG 082 32	54W)	
OCT 1997									
28 APR 1998	<.015	<.20	<.010	<.010	13	<.50	<1.0	<3.0	<10
21	.037	<.10	.014	<.010	19	<1.0	<8.0	<12	<10
	403923082	325600 R-	15 NR LEX	KINGTON OH	(LAT 40	39 23N LOI	NG 082 32	56W)	
OCT 1997									
28		<.20	<.010	.014	17	<.50	<1.0	<3.0	<10
APR 1998 21	<.020	<.10	.026	.018	25	<1.0	<8.0	<12	<10
	411137081	172100 PO	-114 NR I	RAVENNA OH	(LAT 41	11 37N LO	NG 081 17	21W)	
OCT 1997									
15		<.20	<.010	<.010	36	<.50	<1.0	<3.0	<10
APR 1998 23		<.10	<.010	<.010	21	<1.0	<8.0	<12	<10
	411138081	172400 PO	-115 NR I	RAVENNA OH	(LAT 41	11 38N LO	NG 081 17	24W)	
OCT 1997									
15		<.20	.035	.043	36	<1.5	<3.0	<9.0	<30
APR 1998 23	.027	<.10	<.010	.024	49	<1.0	<8.0	<12	<10

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

DATE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)
	393541083	001000 PK	-47 NR CII	RCLEVILLE	OH (LAT	39 35 41N	LONG 083	00 10W)	
OCT 1997 08 APR 1998	4.0	<10	4	20	<10	131	<6	7.7	<.01
28	<10	<100	<4	20	<60	116	<10	<20	<.01
	393541083	001200 PK	-53 NR CII	RCLEVILLE	OH (LAT	39 35 41N	LONG 083	00 12W)	
OCT 1997									
08 APR 1998	<3.0	<10	5	11	<10	108	<6	<3.0	<.01
28	<10	<100	<4	15	<60	95	<10	<20	<.01
	395859083	440600 CL	-137 NR SI	PRINGFIELI	OH (LAT	39 58 591	N LONG 08	3 44 06W)	
OCT 1997									
14 APR 1998	4.0	<10	5	<1.0	<10	176	<6	9.1	<.01
14	<10	<100	<4	<4.0	<60	181	<10	<20	<.01
3:	9590108344	0700 CL-1	36 NR SPR	INGFIELD (OH (LAT 3	9 59 01N I	LONG 083	44 07W)	
OCT 1997									
14 APR 1998	4.8	<10	6	<1.0	<10	376	<6	6.7	<.01
14	<10	<100	<4	<4.0	<60	288	<10	<20	<.01
	40094808	3480200 C	H-41 NR UI	RBANA OH	(LAT 40 C	9 48N LONG	G 083 48	02W)	
OCT 1997									
09 APR 1998	76	<10	6	139	<10	425	<6	7.7	<.01
15	110	<100	<4	109	<60	387	<10	<20	<.01
	40095008	3480600 C	H-38 NR UI	RBANA OH	(LAT 40 C	9 50N LONG	3 083 48	06W)	
OCT 1997									
09 APR 1998	940	<10	5	132	<10	340	<6	<3.0	<.01
15	790	<100	<4	124	<60	315	<10	<20	<.01
	403923082	325400 R-	21 NR LEX	INGTON OH	(LAT 40	39 23N LO	NG 082 32	54W)	
OCT 1997									
28 APR 1998	7.4	<10	<4	1.1	<10	38	<6	<3.0	<.01
21	51	<100	<4	111	<60	46	<10	<20	<.01
	403923082	325600 R-	15 NR LEX	INGTON OH	(LAT 40	39 23N LO	NG 082 32	56W)	
OCT 1997									
28 APR 1998		<10	<4	<1.0	<10	45	<6	<3.0	<.01
	<10	<100	<4	<4.0	<60	54	<10	<20	<.01
	411137081	172100 PO	-114 NR R	AVENNA OH	(LAT 41	11 37N LO	NG 081 17	21W)	
OCT 1997									
15 APR 1998		<10	<4	220	<10	169	<6	<3.0	<.01
	<10	<100	<4	4.9	<60	101	<10	<20	<.01
	411138081	172400 PO	-115 NR R	AVENNA OH	(LAT 41	11 38N LO	NG 081 17	24W)	
OCT 1997									
15 APR 1998	19	<100	<12	<3.0	<30	160	<18	21	.02
23		<100	<4	<4.0	<60	233	<10	<20	<.01

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

DATE	DEPT BELC LANI SURFA (WAT LEVE (FEE	DW SI D CI ACE CO TER DI EL) AI	NCE S/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
	4	135470	8348130	U-22	NR HOLLAN	D OH (LAT	41 35 47	N LONG 08	33 48 13W)		
OCT 1997 23 APR 1998	5.8	39 1:	150	7.9	15.5	210	65	11	130	3.3	126
10	3.4	18 !	525	8.0	10.5	140	37	10	48	1.8	82
	4	135490	8348150	0 LU-21	NR HOLLAN	D OH (LAT	41 35 49	N LONG 08	33 48 15W)		
OCT 1997 23	5.3	31 :	248	7.7	13.0	110	34	5.0	3.3	1.6	64
APR 1998 10	2.8	35	196	7.6	9.5	88	27	5.0	5.5	1.1	48
	415	305080	414200 2	AB-139 N	R KINGSVII	LLE OH (L	AT 41 53	05N LONG	080 41 42	W)	
OCT 1997											
16	11.7	78	491	7.6	13.0	180	56	9.9	33	.88	148
APR 1998 22	5.6	56 !	522	7.3	12.0	170	52	9.4	14	.63	114
	415	307080	414200 2	AB-133 N	R KINGSVI	LLE OH (L	AT 41 53	07N LONG	080 41 42	W)	
OCT 1997											
16 APR 1998	7.9	97 4	180	7.1	13.2	520	160	29	600	2.5	262
22	4.7	79 3	500	6.9	9.5	400	120	21	548	3.0	152
DAT	E ,	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	DIS-	, RID DI ED SOL L (MG L) AS	E, BROM S- DI: VED SOL' /L (MG F) AS	IDE DIS S- SOL VED (MG /L AS BR) SIO	CA, RESI - AT 1 VED DEG /L DI SOL 2) (MG	DUE SUM 80 CONS . C TUEN S- DI VED SOI /L) (MG	STI- NITR NTS, DI SS- SOL NED (MG S/L) AS	N, GE ITE NO2+ S- DI VED SOI /L (MG N) AS	NO3 S- VED (/L N)
OCT 1		135470	8348130	0 LU-22	NR HOLLAN	D OH (LAT	41 35 47	N LONG 08	33 48 13W)		
23 APR 1		45	230	<.1	0 .03	36 7.	9 63	0 59	<.0	10 2.1	4
10		25	94	.1	0 .0	19 5.	1 30	0 28	<.0	10 .9	10
	4	135490	8348150	0 LU-21	NR HOLLAN	D OH (LAT	41 35 49	N LONG 08	33 48 15W)		
OCT 1 23		30	15	<.1	0 < . 0	10 8.	5 15	5 14	1 <.0	10 .2	03
APR 1 10	998	28	12	.1	4 < .0	10 7.	4 12	8 12	20 < .0	10 .1	10
	415	3050804	414200	AR-139 N	R KINGSVI	LLE OH (L	AT 41 53	OSN LONG	080 41 42	W)	
OCT 1		,505000	111200 1	10 100 10	it itiivobvi.	DDD OII (D	111 11 55	OSIV BOING	000 11 12	,	
16		62	30	.2	9 .0:	20 11	29	6 32	.0	10 <.0	50
APR 1 22	998	54	26	.1	6 < . 0	10 11	24	0 23	< . 0	10 .2	44
	415	307080	414200 2	AB-133 N	R KINGSVI	LLE OH (L	AT 41 53	07N LONG	080 41 42	W)	
OCT 1											
16 APR 1		77	1100	<.1	0 .2	0 9.	8 227	0 214	<.0	10 .2	48
		53	970	<.1	0 .1	3 5.	7 202	0 182	20 <.0	10 .1	77

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DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	DIS-	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
	41354708	3481300 L	U-22 NR H	OLLAND OH	(LAT 41	35 47N LO	NG 083 48	13W)	
OCT 1997 23 APR 1998	.067	.33	<.010	<.010	66	<.50	<1.0	<3.0	<10
10	.044	<.10	<.010	.017	28	<1.0	<8.0	<12	<10
	41354908	3481500 L	U-21 NR H	OLLAND OH	(LAT 41	35 49N LO	NG 083 48	15W)	
OCT 1997 23 APR 1998	.051	<.20	<.010	.010	33	<.50	1.3	4.5	<10
10	.038	<.10	<.010	.017	32	<1.0	<8.0	<12	<10
4	153050804	14200 AB-	139 NR KI	NGSVILLE	OH (LAT 4	1 53 05N	LONG 080	41 42W)	
OCT 1997 16	.022	<.20	<.010	<.010	24	<.50	<1.0	<3.0	<10
APR 1998 22	.033	<.10	.018	.016	22	<1.0	<8.0	<12	<10
4	153070804	14200 AB-	133 NR KI	NGSVILLE	OH (LAT 4	1 53 07N	LONG 080	41 42W)	
OCT 1997									
16 APR 1998	.031	<.20	.016	.011	194	<1.5	<3.0	<9.0	<30
22	.026	<.10	.010	.012	163	<3.0	<24	<36	<30
DATE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)
	41354708	3481300 L	U-22 NR H	OLLAND OH	(LAT 41	35 47N LO	NG 083 48	13W)	
OCT 1997 23 APR 1998	320	14	<4	93	<10	270	<6	<3.0	<.01
10	33	<100	<4	26	<60	151	<10	<20	<.01
	41354908	3481500 L	U-21 NR H	OLLAND OH	(LAT 41	35 49N LO	NG 083 48	15W)	
OCT 1997 23	350	<10	<4	47	<10	80	<6	<3.0	<.01
APR 1998 10	240	<100	<4	31	<60	70	<10	<20	<.01
4	153050804	14200 AB-	139 NR KI	NGSVILLE	OH (LAT 4	1 53 05N	LONG 080	41 42W)	
OCT 1997									
16 APR 1998	<3.0	<10	6	320	<10	90	<6	4.3	<.01
22	<10	<100	5	106	<60	86	<10	<20	<.01
4	153070804	14200 AB-	133 NR KI	NGSVILLE	OH (LAT 4	1 53 07N	LONG 080	41 42W)	
OCT 1997 16	<9.0	<30	12	6.3	<30	352	<18	<9.0	.01
APR 1998 22	<30	<300	13	<12	<180	364	<30	<60	<.01

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

The following table lists ground-water level measurements from wells located throughout the seven sites in the "Effects of Highway Deicing Chemicals" study area.

GROUND-WATER LEVELS

		DEPTH OF WELL	AQUIFER	WATER- LEVEL	WATER LEVEL	ALTITUDE OF LAND SURFACE
SITE-ID	LOCAL WELL NUMBER	(FEET)	CODE	DATE	(FEET)	(FEET)
393540083001200	PK-46 NR CIRCLEVILLE OF	34.6	1120TSH	10-08-1997 11-26-1997 01-15-1998 03-04-1998 04-28-1998 06-02-1998 07-09-1998 08-27-1998	10.55 11.12 10.63 10.30 8.93 8.57 6.66 8.94	679.16
393541083000700	PK-44 NR CIRCLEVILLE OF	8 1	112OTSH	10-08-1997 11-26-1997 01-15-1998 03-04-1998 04-28-1998 06-02-1998 07-09-1998 08-27-1998	12.09 12.57 12.02 11.72 10.45 10.19 8.47 10.62	679.54
393541083000800	PK-50 NR CIRCLEVILLE OF	34.3	1120TSH	10-08-1997 11-26-1997 01-15-1998 03-04-1998 04-28-1998 06-02-1998 07-09-1998	11.78 12.32 11.83 11.49 9.98 9.23 8.00	679.62
393541083000900	PK-49 NR CIRCLEVILLE OF	I 35.6	112OTSH	10-08-1997 11-26-1997 01-15-1998 03-04-1998 04-28-1998 06-02-1998 07-09-1998 08-27-1998	11.44 11.98 11.44 11.12 9.82 9.51 7.66 9.92	679.51
393541083001000	PK-47 NR CIRCLEVILLE OF	36.1	112OTSH	10-08-1997 11-26-1997 01-15-1998 03-04-1998 04-28-1998 06-02-1998 07-09-1998 08-27-1998	10.38 10.85 10.27 10.09 8.73 8.46 6.67 8.83	678.37
393541083001100	PK-48 NR CIRCLEVILLE OF	I 28.0	112OTSH	10-08-1997 11-26-1997 01-15-1998 03-04-1998 04-28-1998 06-02-1998 07-09-1998 08-27-1998	10.65 11.20 10.67 10.36 9.06 8.76 6.98 9.17	678.50
393541083001200	PK-53 NR CIRCLEVILLE OF	I 35.6	112OTSH	10-08-1997 11-26-1997 01-15-1998 03-04-1998 04-28-1998 06-02-1998 07-09-1998 08-27-1998	9.85 10.42 9.92 9.60 8.22 7.88 5.95 8.25	678.50

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER- LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
202542002000500	PK-52 NR CIRCLEVILLE OH	36.2	1120TSH	10-08-1997	11.76	679.58
393342063000300	FR-32 NR CIRCLEVILLE OH	30.2	1120131	11-26-1997	12.29	079.50
				01-15-1998	11.75	
				03-04-1998	11.41	
				04-28-1998	10.12	
				06-02-1998	9.73	
				07-09-1998	8.14	
				08-27-1998	10.26	
393542083000700	PK-51 NR CIRCLEVILLE OH	35.5	1120TSH	10-08-1997	11.68	679.63
				11-26-1997	12.21	
				01-15-1998	11.66	
				03-04-1998	11.36	
				04-28-1998	10.06	
				06-02-1998	9.27	
				07-09-1998 08-27-1998	8.01 10.18	
395859083440200	CL-141 NR SPRINGFIELD OH	37.5	1120TSH	11-25-1997	21.15	1030.70
				08-26-1998	18.61	
395859083440300	CL-143 NR SPRINGFIELD OH	40.0	1120TSH	11-25-1997	19.96	1029.45
395859083440400	CL-142 NR SPRINGFIELD OH	35.9	1120TSH	11-25-1997	20.46	1030.00
395859083440500	CL-140 NR SPRINGFIELD OH	36.7	1120TSH	11-25-1997	21.04	1030.49
				04-14-1998	20.03	
395859083440600	CL-137 NR SPRINGFIELD OH	38.0	1120TSH	10-14-1997	20.37	1031.34
				11-25-1997	21.80	
				04-14-1998	20.83	
				08-26-1998	19.23	
395859083440700	CL-138 NR SPRINGFIELD OH	28.5	1120TSH	10-14-1997	20.63	1031.61
				11-25-1997	22.05	
				01-14-1998	22.11	
				03-05-1998	22.42	
				04-14-1998	21.10	
				06-05-1998	19.62	
				07-08-1998 08-26-1998	19.58 19.71	
				00 20 1990	23.72	
395859083440800	CL-139 NR SPRINGFIELD OH	36.9	1120TSH	10-14-1997	19.94	1031.33
				11-25-1997	21.40	
				08-26-1998	19.52	
395901083440600	CL-135 NR SPRINGFIELD OH	37.2	112OTSH	10-14-1997	19.02	1031.89
				11-25-1997	19.57	
395901083440700	CL-136 NR SPRINGFIELD OH	37.5	1120TSH	10-14-1997	19.31	1032.08
				11-25-1997	19.84	
				04-14-1998		
				08-26-1998	18.69	
400947083480000	CH-44 NR URBANA OH	31.0	1120TSH			1029.71
				11-25-1997		
				04-15-1998		
				08-28-1998	10.13	
400948083475800	CH-46 NR URBANA OH	34.8	1120TSH	10-09-1997	8.91	1028.56
				11-25-1997	9.12	
				08-28-1998	11.10	
400948083480000	CH-45 NR URBANA OH	34.4	1120TSH	10-09-1997	9.52	1029.26
				11-25-1997	9.71	
				08-28-1998	9.20	
400948083480100	CH-43 NR URBANA OH	32.2	1120TSH	10-09-1997	9.81	1029.48
				11-25-1997		
				08-28-1998	9.47	

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER- LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
SIIE-ID	LOCAL WELL NUMBER	(FEEI)	CODE	DATE	(FEEI)	(FEEI)
400948083480200	CH-41 NR URBANA OH	34.3	112OTSH	10-09-1997 11-25-1997 04-15-1998	10.24 10.42 8.37	1029.98
400949083480100	CH-42 NR URBANA OH	28.7	112OTSH	08-28-1998 10-09-1997 11-25-1997 01-14-1998 03-05-1998 04-15-1998	9.90 10.20 10.39 8.54 9.12 8.34	1029.89
				05-01-1998 06-05-1998 07-08-1998 08-28-1998	8.26 9.24 9.16 9.85	
400950083480600	CH-38 NR URBANA OH	19.2	1120TSH	10-09-1997 04-15-1998	7.56 5.59	1027.30
403922082325900	R-19 NR LEXINGTON OH	30.0	112OTSH	10-28-1997 12-03-1997 01-06-1998 03-11-1998 04-21-1998 05-27-1998 07-22-1998 09-02-1998	13.68 13.62 13.37 11.87 10.99 11.96 12.27 13.30	1164.90
403922082330000	R-20 NR LEXINGTON OH	34.2	1120TSH	10-28-1997 12-03-1997 01-06-1998 03-11-1998 04-21-1998 05-27-1998 07-22-1998 09-02-1998	10.37 10.30 10.05 8.67 7.82 8.73 9.03 10.02	1161.26
403923082325400	R-21 NR LEXINGTON OH	25.0	112OTSH	10-28-1997 12-03-1997 01-06-1998 03-11-1998 04-21-1998 05-27-1998 07-22-1998 09-02-1998	17.59 19.20 16.98 13.74 7.46 14.92 16.16 17.06	1185.19
403923082325500	R-16 NR LEXINGTON OH	18.9	112OTSH	10-28-1997 12-03-1997 01-06-1998 02-23-1998 03-11-1998 04-21-1998 05-27-1998 07-22-1998 09-02-1998	17.18 17.16 16.87 13.56 14.20 12.28 14.20 15.51 16.79	1168.37
403923082325600	R-15 NR LEXINGTON OH	23.0	112OTSH	10-28-1997 12-03-1997 01-06-1998 03-11-1998 04-21-1998 05-27-1998 07-22-1998 09-02-1998	17.37 17.36 17.13 15.27 13.66 15.64 15.98 17.16	1168.39
403923082325700	R-18 NR LEXINGTON OH	23.0	112OTSH	10-28-1997 12-03-1997 01-06-1998 03-11-1998 04-21-1998 05-27-1998 07-22-1998 09-02-1998	15.56 15.50 15.26 13.67 12.53 13.62 14.15 15.17	1167.10

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

		DEPTH		WATER-	WATER	ALTITUDE OF LAND
SITE-ID	LOCAL WELL NUMBER	OF WELL (FEET)	AQUIFER CODE	LEVEL DATE	LEVEL (FEET)	SURFACE (FEET)
403923082325800	R-12 NR LEXINGTON OH	22.0	1120TSH	10-28-1997	15.73	1167.02
				12-03-1997	15.68	
				01-06-1998	15.44	
				03-11-1998	13.85	
				04-21-1998	12.72	
				05-22-1998	13.80	
				07-22-1998	14.30 15.37	
				09-02-1998	15.37	
403923082325900	R-17 NR LEXINGTON OH	23.2	112OTSH	10-28-1997	15.14	1166.89
				12-03-1997	15.10	
				01-06-1998	14.97	
				03-11-1998 04-21-1998	13.30 12.12	
				07-22-1998	13.78	
				09-02-1998	14.80	
403923082330000	R-13 NR LEXINGTON OH	30	1120TSH	10-28-1997	11.50	1162.27
				12-03-1997	11.45	
				01-06-1998	11.21	
				03-11-1998	9.86	
				04-21-1998	9.00	
				05-27-1998	9.92 10.21	
				07-22-1998 09-02-1998	11.22	
				05 02 1550	11.22	
403925082325600	R-14 NR LEXINGTON OH	30	112OTSH	10-28-1997	23.74	1185.01
				12-03-1997	26.06	
				01-06-1998	19.78	
				03-11-1998	16.55	
				04-21-1998	10.27	
				05-27-1998 07-22-1998	17.75 18.96	
				07-22-1996	10.90	
411135081172600	PO-113 NR RAVENNA OH	9.2	1120TSH	12-05-1997	0.92	1061.12
				01-08-1998	0.13	
				03-20-1998	0.38	
				04-23-1998	0.35	
				05-29-1998	1.27	
411136081172400	PO-122 NR RAVENNA OH	24	1120TSH	10-15-1997	5.56	1064
				12-05-1997	4.79	
				01-08-1998	2.23	
				03-20-1998	2.74	
				04-23-1998 05-29-1998	2.48	
				07-30-1998	4.58	
				09-09-1998	5.48	
411137081172100	PO-114 NR RAVENNA OH	12.3	1120TSH	10-15-1997	4.88	1064.40
				12-05-1997	4.08	
				01-08-1998	1.33	
				03-20-1998	1.02	
				04-23-1998 05-29-1998	.80	
				05-29-1998	2.12 3.24	
				09-09-1998	4.76	
411137081172300	PO-118 NR RAVENNA OH	19.0	1120TSH	10-15-1997	7.41	1067.14
				12-05-1997	6.25	
				01-08-1998	4.95	
				03-20-1998	4.57	
				04-23-1998 05-29-1998	4.33 5.73	
				07-30-1998	6.45	
				09-09-1998	7.31	

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER- LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
411137081172400	PO-117 NR RAVENNA OH	18.5	112OTSH	10-15-1997	7.14	1066.86
				12-05-1997	6.42	
				01-08-1998	4.69	
				03-20-1998 04-23-1998	4.29	
				05-29-1998	5.47	
				07-30-1998	6.21	
				09-09-1998	7.08	
411137081172500	PO-112 NR RAVENNA OH	8.5	1120TSH	10-15-1997	4.79	1064.50
				12-05-1997	4.02	
				01-08-1998	1.99	
				03-20-1998 04-23-1998	1.98	
				05-29-1998	3.10	
				07-30-1998	3.81	
				09-09-1998	4.71	
411138081172100	PO-111 NR RAVENNA OH	10.0	1120TSH	10-15-1997	3.92	1069.92
				12-05-1997	3.33	
				01-08-1998 03-20-1998	1.36	
				04-23-1998	.35	
				05-29-1998	1.59	
				07-30-1998	2.61	
				09-09-1998	3.80	
411138081172400	PO-115 NR RAVENNA OH	17.5	1120TSH	10-15-1997	8.80	1068.59
				12-05-1997	8.10	
				01-08-1998	8.47	
				03-20-1998	5.97	
				04-23-1998 05-29-1998	5.72 7.13	
				07-30-1998	7.88	
				09-09-1998	8.74	
411138081172500	PO-116 NR RAVENNA OH	17.5	1120TSH	10-15-1997	8.68	1068.39
				12-05-1997 01-08-1998	7.96 6.40	
				02-24-1998	6.38	
				03-20-1998	5.82	
				04-23-1998	5.55	
				05-29-1998	6.93	
				07-30-1998 09-09-1998	7.72 6.39	
411120001172600	DO 101 ND DAVENNA OU	18.4	1120TSH	10-15-1997	8.54	1068.24
4111300011/2000	PO-121 NR RAVENNA OH	10.4	112015H	12-05-1997	7.82	1066.24
				01-08-1998	7.17	
				03-20-1998	5.71	
				04-23-1998	5.46	
				05-29-1998 07-30-1998		
413546083480900	LU-28 NR HOLLAND OH	28.2	112LAKE	10-22-1997		676.61
		-2.2		12-09-1997		
				01-13-1998	4.90	
				03-12-1998		
				04-09-1998		
				06-03-1998		
				07-23-1998 09-03-1998		
413547083481000	LU-26 NR HOLLAND OH	29.6	112LAKE	10-22-1997		676.75
				12-09-1997		
				01-13-1998	4.36	
				03-12-1998 04-09-1998	3.48	
				06-03-1998	4.46	
				07-23-1998	5.05	
				09-03-1998	5.35	

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

				AQUIFER	WATER- LEVEL	WATER LEVEL	ALTITUDE OF LAND SURFACE
SITE-ID	LOCAL	WELL NUMBER	(FEET)	CODE	DATE	(FEET)	(FEET)
413547083481100	LU-27 NR	HOLLAND OH	28.4	112LAKE	10-22-1997	5.39	676.39
					12-09-1997		
					01-13-1998	4.15	
					03-12-1998	3.28	
					04-09-1998 06-03-1998		
					07-23-1998		
					09-03-1998		
413547083481200	LU-25 NR	HOLLAND OH	29.4	112LAKE	10-22-1997		676.68
					12-09-1997 01-13-1998		
					03-12-1998	3.43	
					04-09-1998		
					06-03-1998		
					07-23-1998	4.99	
					09-03-1998	5.28	
413547083481300	LU-22 NR	HOLLAND OH	28.3	112LAKE	10-22-1997		677.08
					12-09-1997		
					01-13-1998 03-12-1998		
					04-09-1998		
					06-03-1998		
					07-23-1998	5.14	
					09-03-1998	5.49	
413547083481400	LU-23 NR	HOLLAND OH	29.4	112LAKE	10-22-1997	5.76	676.97
					12-09-1997	5.64	
					01-13-1998		
					03-12-1998		
					04-09-1998 06-03-1998		
					07-23-1998		
					09-03-1998		
413547083481500	LU-24 NR	HOLLAND OH	18.7	112LAKE	10-22-1997	5.99	677.21
					12-09-1997		
					01-13-1998		
					03-12-1998 04-09-1998	3.91 3.92	
					06-03-1998		
					07-23-1998		
					09-03-1998	5.76	
413548083480400	LU-17 NR	HOLLAND OH	29.2	112LAKE	10-22-1997		676.23
					12-09-1997		
					01-13-1998 03-12-1998	4.96	
					03-12-1998	4.02 4.45	
					06-03-1998	5.07	
					07-23-1998	6.16	
					09-03-1998	5.91	
413549083481500	LU-21 NR	HOLLAND OH	29.1	112LAKE	10-22-1997	5.27	677.07
					12-09-1997 01-13-1998	5.09 4.03	
					01-13-1998	3.04	
					04-09-1998	3.31	
					06-03-1998	4.24	
					07-23-1998	5.38	
					09-03-1998	5.11	
413551083481200	LU-20 NR	HOLLAND OH	31.0	112LAKE	10-22-1997	4.52	676.13
					12-09-1997	4.25	
					01-13-1998 03-12-1998	3.20 2.32	
					04-09-1998	2.32	
					06-03-1998	3.68	
					07-23-1998	4.54	
					09-03-1998	4.40	

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER- LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
413553083480600	LU-18 NR HOLLAND OH	29.0	112LAKE	10-22-1997	4.68	675.75
				12-09-1997	4.33	
				01-13-1998	3.11	
				03-12-1998	2.13	
				04-09-1998	2.57	
				06-03-1998	4.12	
				07-23-1998 09-03-1998	4.72 4.63	
413553083480900	LU-19 NR HOLLAND OH	31.3	112LAKE	10-22-1997	4.12	675.75
				12-09-1997	3.74	
				01-13-1998	2.77	
				03-12-1998	1.87	
				04-09-1998	1.88	
				06-03-1998	3.44	
				07-23-1998 09-03-1998	4.19 4.06	
415305080414200	AB-139 NR KINGSVILLE OH	20.2	111TRRC	10-16-1997	11.78	777.51
				12-04-1997 01-07-1998	10.13 6.70	
				01-07-1998	7.43	
				04-22-1998	5.66	
				05-28-1998	10.48	
				07-29-1998	12.10	
				09-08-1998	12.04	
415305080414300	AB-132 NR KINGSVILLE OH	14.5	111TRRC	10-16-1997	12.68	778.47
				12-04-1997	11.03	
				01-07-1998	7.50	
				03-19-1998	8.27	
				04-22-1998	6.40	
				05-28-1998	11.37	
				07-29-1998 09-18-1998	12.70 12.98	
415307080414200	AB-133 NR KINGSVILLE OH	20.0	111TRRC	10-16-1997	8.97	772.10
11330,000111200	TID 133 HR RINGSVIELE OIL	20.0	11111110	12-04-1997	5.98	7,2120
				01-07-1998	4.30	
				03-19-1998	4.69	
				04-22-1998	4.79	
				05-28-1998	7.34	
				07-29-1998	9.01	
				09-08-1998	9.38	
415307080414300	AB-129 NR KINGSVILLE OH	18.0	111TRRC	10-16-1997	9.35	772.50
				12-04-1997	6.36	
				01-07-1998	4.68	
				03-19-1998 04-22-1998	5.18 5.24	
				05-28-1998	7.76	
				07-29-1998	9.40	
				09-08-1998		
415307080414400	AB-130 NR KINGSVILLE OH	10.0	111TRRC	10-16-1997		770.95
				12-04-1997		
				01-07-1998	4.77	
				03-19-1998	5.52	
				04-22-1998		
				05-28-1998 07-29-1998	6.76 8.80	
				09-08-1998		
415307080414500	AB-134 NR KINGSVILLE OH	17.4	111TRRC	10-16-1997	8.96	772.10
				12-04-1997	5.99	
				01-07-1998	4.24	
				02-23-1998	5.58	
				03-19-1998 04-22-1998	4.68 4.78	
				05-28-1998	7.34	
				07-29-1998	8.98	
				09-08-1998	9.37	

GROUND-WATER LEVELS-Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER- LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
415307080414600	AB-140 NR KINGSVILLE OH	20.8	111TRRC	10-16-1997 12-04-1997 01-07-1998 03-19-1998 04-22-1998 05-28-1998 07-29-1998	9.10 6.12 4.47 4.85 4.94 7.47 9.19	772.22
415308080414300	AB-135 NR KINGSVILLE OH	19.5	111TRRC	10-16-1997 12-04-1997 01-07-1998 03-19-1998 04-22-1998 05-28-1998 07-29-1998 09-08-1998	9.11 6.56 4.94 5.63 5.31 7.35 9.16 9.55	771.36
415308080414400	AB-131 NR KINGSVILLE OH	21.0	111TRRC	10-16-1997 12-04-1997 01-07-1998 03-19-1998 04-22-1998 05-28-1998 07-29-1998 09-08-1998	7.20 5.31 3.63 4.75 4.44 6.04 7.23 7.29	765.00
415309080414300	AB-136 NR KINGSVILLE OH	20.1	111TRRC	10-16-1997 12-04-1997 01-07-1998 03-19-1998 04-22-1998 05-28-1998 07-29-1998 09-08-1998	7.69 5.88 4.24 5.16 4.76 6.24 7.74 7.99	767.66
415309080414400	AB-138 NR KINGSVILLE OH	19.5	111TRRC	10-16-1997 12-04-1997 01-07-1998 03-19-1998 04-22-1998 05-28-1998 07-29-1998 09-08-1998	7.93 6.06 4.43 5.36 4.97 6.44 7.90 8.20	767.87
415310080414400	AB-137 NR KINGSVILLE OH	19.5	111TRRC	10-16-1997 12-04-1997 01-07-1998 03-19-1998 04-22-1998 05-28-1998 07-29-1998 09-08-1998	5.96 4.07 2.38 3.58 3.28 4.83 5.99 6.05	763.76

AQUIFER CODE (Geologic Unit)

111ALVM - Alluvium, Holocene Epoch 111TRC - Terrace Deposits, Holocene Epoch 112LAKE - Lake Deposits, Pleistocene Epoch 112OTSH - Outwash, Pleistocene Epoch

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

GROUND-WATER RECORDS

415307080414500. Local number, AB-134.

LOCATION.--Lat 41°53'07" Long 80°41'45", Hydrologic Unit 04120101, along State Route 84 near Kingsville, OH. Owner.--USGS/Ohio State University (OARDC-Grape Research Branch).

AQUIFER .-- Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 17.4 ft. Cased with Sch 40 PVC to 7.5 ft; .010 in. screen from 7.5 to 17.4 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: water level, air temperature, soil temperature, water temperature, and specific conductance. Conductivity/water temperature probe was set at 10.0 feet below land surface; probe removed July, 1992.

DATUM.--Elevation of land-surface datum is 772.10 feet above sea level.

Measuring point: shelter shelf 3.93 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceding tables.

PERIOD OF RECORD. -- February 1991 to current year.

PERIOD OF DAILY RECORD . - -

WATER LEVEL: February 1991 to current year SPECIFIC CONDUCTANCE: February 1991 to July 1992 AIR TEMPERATURE: February 1991 to current year WATER TEMPERATURE: February 1991 to July 1992 SOIL TEMPERATURE: July 1992 to current year PRECIPITATION: February 1991 to current year

EXTREMES FOR PERIOD OF DAILY RECORD. --

WATER LEVEL: Maximum daily low, 10.66 ft. below land-surface datum, October 26, 1995 (this represents an artificial low due to pumping of well AB-133, 4 ft. away); maximum daily high, 2.11 ft. below land-surface datum, March 23, 1993.

March 23, 1993.

SPECIFIC CONDUCTANCE: Maximum, 2560 microsiemens March 27, 1991; minimum, 948 microsiemens August 8, 1991.

AIR TEMPERATURE: Maximum, 33.3°C August 8, 1998; minimum, -29.6°C January 19, 1994.

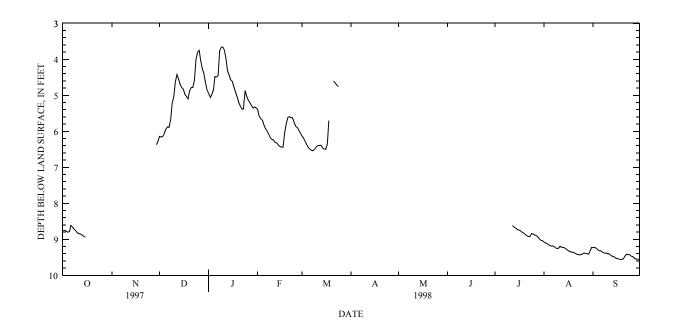
WATER TEMPERATURE: Maximum, 15.5°C many days in 1991; minimum, 6.6°C March 26-28,April 1-7 1992.

SOIL TEMPERATURE: Maximum, 31.8°C July 11, 1993; minimum, -3.1°C February 5, 1996.

EXTREMES FOR CURRENT YEAR. --

WATER LEVEL: Maximum daily low, 9.57 ft. below land-surface datum, September 30, 1998; maximum daily high, 3.66 ft. below land-surface datum, January 8-11, 1998.

AIR TEMPERATURE: Maximum, 33.3°C August 8, 1998; minimum, -10.3°C January 1, 1998. SOIL TEMPERATURE: Maximum, 23.3°C August 9, 1998; minimum, 0.4°C January 7, 9, 1998.



415307080414500 AB-134 NR KINGSVILLE OH-Continued

	D	מסס שייחים	OM TAND	SURFACE (W			K KINGSVII			7 TA CEDTE	MDED 100)
DAV												
DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN OVEMBER	MEAN	MAX	MIN ECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	8.75	8.71	8.74				6.14	6.12	6.14	4.95	4.81	4.87
2	8.75	8.74	8.75				6.16	6.14	6.14	5.05	4.95	5.02
3	8.77	8.74	8.75				6.14	6.05	6.09	4.98	4.85	4.92
4	8.80	8.77	8.78				6.05	5.93	5.98	4.85	4.45	4.61
5	8.79	8.59	8.68				5.93	5.87	5.89	4.48	4.44	4.45
6	8.61	8.59	8.60				5.87	5.85	5.86	4.49	4.42	4.45
7	8.66	8.61	8.63				5.89	5.66	5.81	4.45	3.75	4.20
8	8.72	8.66	8.69				5.66	5.21	5.44	3.75	3.66	3.66
9	8.76	8.72	8.74				5.21	5.04	5.10	3.66	3.66	3.66
10	8.82	8.76	8.80				5.04	4.62	4.83	3.66	3.66	3.66
11	8.84	8.82	8.83				4.62	4.40	4.47	3.76	3.66	3.68
12	8.85	8.84	8.85				4.42	4.38	4.40	4.00	3.76	3.88
13	8.88	8.85	8.86				4.55	4.41	4.48	4.32	4.00	4.19
14	8.91	8.88	8.90				4.70	4.55	4.64	4.45	4.32	4.40
15	8.94	8.91	8.93				4.79	4.70	4.73	4.57	4.45	4.52
16							4.83	4.79	4.82	4.61	4.51	4.54
17							4.97	4.83	4.92	4.77	4.61	4.68
18							5.04	4.97	5.00	4.91	4.77	4.84
19							5.10	4.87	5.04	5.04	4.91	4.97
20								4.76			5.04	
20							4.87	4.76	4.81	5.20	5.04	5.13
21							4.78	4.74	4.76	5.30	5.20	5.25
22							4.78	4.58	4.75	5.38	5.30	5.36
23							4.58	4.00	4.25	5.38	4.87	5.18
24							4.00	3.80	3.92	4.87	4.80	4.83
25							3.80	3.70	3.73	5.02	4.86	4.94
26							3.75	3.70	3.71	5.13	5.02	5.08
27							4.03	3.75	3.87	5.20	5.12	5.16
28							4.27	4.03	4.16	5.28	5.20	5.24
29				6.37	6.28	6.34	4.39	4.27	4.34	5.35	5.28	5.31
30				6.28	6.14	6.18	4.64	4.39	4.52	5.32	5.19	5.23
31							4.85	4.64	4.77	5.35	5.23	5.30
MONITHIA	8.94	8.59	8.77	6 27	6.14	6.26	6.16	3.70	4.88	5.38	2 66	4 60
				6.37	6.14			3.70	4.88	5.38	3.66	4.68
MONTH	0.51											
MONTH				SURFACE (W								3
	D	EPTH BELO	OW LAND		ATER LEV	EL) (FEET), WATER Y	EAR OCT	OBER 1997	TO SEPTEM	MBER 1998	
DAY				SURFACE (W								MEAN
	D MAX	EPTH BELO	OW LAND		ATER LEV	EL) (FEET), WATER Y	EAR OCTO	OBER 1997	TO SEPTEM	MBER 1998 MIN	
DAY	D MAX	EPTH BELO MIN FEBRUARY	OW LAND	MAX	ATER LEV MIN MARCH	EL) (FEET), WATER Y	EAR OCTO	OBER 1997 MEAN	7 TO SEPTEM	MBER 1998 MIN MAY	MEAN
DAY 1	D MAX 5.39	EPTH BELO MIN FEBRUARY 5.35	DW LAND MEAN 5.37	MAX 6.13	ATER LEV MIN MARCH 6.05	EL) (FEET MEAN 6.09), WATER Y MAX	EAR OCTO MIN APRIL	OBER 1997 MEAN	TO SEPTEN	MBER 1998 MIN MAY	MEAN
DAY 1 2	D MAX 5.39 5.58	EPTH BELO MIN FEBRUARY 5.35 5.37	MEAN 5.37 5.46	MAX 6.13 6.19	MIN MARCH 6.05 6.13	EL) (FEET MEAN 6.09 6.16	MAX MAX	YEAR OCTO MIN APRIL 	DBER 1997 MEAN 	TO SEPTEN MAX	MBER 1998 MIN MAY 	MEAN
DAY 1 2 3	D MAX 5.39 5.58 5.65	MIN FEBRUARY 5.35 5.37 5.58	DW LAND MEAN 5.37 5.46 5.61	MAX 6.13 6.19 6.28	MIN MARCH 6.05 6.13 6.19	EL) (FEET MEAN 6.09 6.16 6.23), WATER Y MAX 	MIN APRIL	DBER 1997 MEAN 	TO SEPTEN MAX	MBER 1998 MIN MAY 	MEAN
DAY 1 2 3 4	D MAX 5.39 5.58 5.65 5.69	MIN FEBRUARY 5.35 5.37 5.58 5.63	DW LAND MEAN 5.37 5.46 5.61 5.65	6.13 6.19 6.28 6.37	MIN MARCH 6.05 6.13 6.19 6.28	MEAN 6.09 6.16 6.23 6.33	MAX	TEAR OCTO	DBER 1997 MEAN 	TO SEPTEN MAX	MBER 1998 MIN MAY 	MEAN
DAY 1 2 3	D MAX 5.39 5.58 5.65	MIN FEBRUARY 5.35 5.37 5.58	DW LAND MEAN 5.37 5.46 5.61	MAX 6.13 6.19 6.28	MIN MARCH 6.05 6.13 6.19	EL) (FEET MEAN 6.09 6.16 6.23), WATER Y MAX 	MIN APRIL	DBER 1997 MEAN 	TO SEPTEN MAX	MBER 1998 MIN MAY 	MEAN
DAY 1 2 3 4 5	D MAX 5.39 5.58 5.65 5.69 5.83	MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69	DW LAND MEAN 5.37 5.46 5.61 5.65 5.76	MAX 6.13 6.19 6.28 6.37 6.45	MIN MARCH 6.05 6.13 6.19 6.28 6.37	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42	MAX	TEAR OCTO	DBER 1997 MEAN 	TO SEPTEN MAX	MBER 1998 MIN MAY 	MEAN
DAY 1 2 3 4 5	D MAX 5.39 5.58 5.65 5.69 5.83 5.93	MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83	DW LAND MEAN 5.37 5.46 5.61 5.65 5.76 5.88	6.13 6.19 6.28 6.37 6.45	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47), WATER Y MAX	YEAR OCTO MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY 	MEAN
DAY 1 2 3 4 5 6 7	D MAX 5.39 5.58 5.65 5.69 5.83 5.93 6.00	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93	DW LAND MEAN 5.37 5.46 5.61 5.65 5.76 5.88 5.96	MAX 6.13 6.19 6.28 6.37 6.45 6.49 6.53	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52	MAX	YEAR OCTO	DBER 1997 MEAN	TO SEPTEN MAX	MBER 1998 MIN MAY 	MEAN
DAY 1 2 3 4 5 6 7 8	D MAX 5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09	MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04	MAX 6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51	MAX	YEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14	MAX 6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43	MAX	YEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8	D MAX 5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09	MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04	MAX 6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51	MAX	YEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14	MAX 6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43	MAX	YEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10	5.39 5.58 5.65 5.69 5.83 6.00 6.09 6.18 6.23	MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21	MAX 6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21	MAX 6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.49 6.48 6.41 6.40 6.38	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39	MAX	YEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.11 6.21 6.24 6.29	MAX 6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38	MAX	ZEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24 6.30	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.24 6.29 6.31	MAX 6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.49 6.39	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.43 6.41 6.39 6.38	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	5.39 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.38	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.22 6.31 6.36 6.40	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39 6.39 6.46 6.49	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.43 6.41 6.39 6.38 6.38 6.38 6.39 6.48	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	5.39 5.58 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.38 6.41	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.24 6.23 6.36 6.40 6.43	MAX 6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39 6.46 6.49 6.50	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	5.39 5.58 5.69 5.83 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.38 6.41 6.04	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.24 6.29 6.31 6.36 6.40	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39 6.39 6.46 6.49	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.37 6.38 6.37 6.38 6.37	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.38 6.39 6.48 6.48 6.11	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.44 6.44	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.32 6.38 6.41 6.04 5.81	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.11 6.21 6.24 6.29 6.31 6.36 6.40 6.40 6.43 6.34 5.91	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39 6.46 6.49 6.39 6.46 6.49	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 6.35 5.70 4.76	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.39 6.48 6.11 5.17	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.44 6.04 5.81	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.69 5.83 5.69 6.00 6.09 6.18 6.22 6.34 6.30 6.32 6.38 6.41 6.04 5.81 5.61	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.24 6.29 6.31 6.36 6.40 6.43 6.40 5.91	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.39 6.39 6.46 6.49	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.28 6.37 6.38 6.28 6.46	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.38 6.39 6.48 6.11 5.17	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.44 6.44	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.32 6.38 6.41 6.04 5.81	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.11 6.21 6.24 6.29 6.31 6.36 6.40 6.40 6.43 6.34 5.91	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39 6.46 6.49 6.39 6.46 6.49	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 6.35 5.70 4.76	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.39 6.48 6.11 5.17	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.44 6.04 5.81 5.61	EPTH BELC MIN FEBRUARY 5.35 5.37 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.32 6.38 6.41 6.04 5.81 5.61 5.55	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.24 6.29 6.31 6.36 6.40 6.40 6.40 6.40 5.69 5.69	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.39 6.46 6.49 6.53 6.57 6.40	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 6.35 5.70 4.76	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.38 6.39 6.48 6.11 5.17	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.44 6.44 5.81 5.61	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.30 6.32 6.32 6.38 6.41 6.04 5.61 5.55	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.24 6.29 6.31 6.36 6.40 6.43 5.91 5.69 5.56	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.39 6.39 6.46 6.49 6.50 6.35 5.70	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 6.35 5.70 4.76 4.56	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.38 6.39 6.48 6.11 5.17 4.57	MAX	ZEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	5.39 5.58 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.44 6.581 5.61 5.59 5.62	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.32 6.38 6.41 6.04 5.81 5.61 5.55 5.55	5.37 5.46 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.24 6.21 6.31 6.36 6.40 6.43 6.34 5.99 5.56	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39 6.46 6.49 6.50 6.35 5.70	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 6.35 5.70 4.76 4.56 4.58	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.11 5.17 4.57 4.62	MAX	YEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	5.39 5.58 5.69 5.83 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.44 6.44 5.61 5.61 5.59	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.32 6.38 6.41 6.04 5.81 5.61 5.55 5.55 5.59 5.59	5.37 5.46 5.61 5.65 5.76 6.04 6.14 6.21 6.24 6.21 6.36 6.40 6.43 6.31 5.55 5.76 5.56 5.56	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39 6.39 6.46 6.49 6.50 6.46 6.49	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 6.35 5.70 4.76 4.56 4.58 4.64	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.38 6.39 6.48 6.41 5.17 4.57 4.62 4.69	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.581 5.61 5.62 5.62 5.75	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.32 6.38 6.41 5.61 5.55 5.55 5.55 5.55	MEAN 5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.11 6.21 6.24 6.29 6.31 6.36 6.40 6.43 6.40 6.43 6.5.91 5.69 5.56 5.57	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39 6.39 6.39 6.46 6.49 6.40	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 6.35 5.70 4.76 4.56 4.58 4.58 4.71	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.39 6.48 6.11 5.17 4.57 4.62 4.69 4.75	MAX MAX	ZEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	5.39 5.58 5.69 5.83 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.44 6.44 5.61 5.61 5.59	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.32 6.38 6.41 6.04 5.81 5.61 5.55 5.55 5.59 5.59	5.37 5.46 5.61 5.65 5.76 6.04 6.14 6.21 6.24 6.21 6.36 6.40 6.43 6.31 5.55 5.76 5.56 5.56	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39 6.39 6.46 6.49 6.50 6.46 6.49	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 6.35 5.70 4.76 4.56 4.58 4.64	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.38 6.39 6.48 6.41 5.17 4.57 4.62 4.69	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	5.39 5.58 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.581 5.61 5.62 5.62 5.75	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.32 6.38 6.41 5.61 5.55 5.55 5.55 5.55	MEAN 5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.11 6.21 6.24 6.29 6.31 6.36 6.40 6.43 6.40 6.43 6.5.91 5.69 5.56 5.57	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.43 6.40 6.39 6.39 6.39 6.46 6.49 6.40	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 6.35 5.70 4.76 4.56 4.58 4.58 4.71	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.39 6.48 6.11 5.17 4.57 4.62 4.69 4.75	MAX MAX	ZEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	5.39 5.58 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.581 5.61 5.59 5.62 5.75 5.86	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.18 6.22 6.24 6.30 6.32 6.32 6.32 6.38 6.41 5.61 5.61 5.55 5.55 5.55 5.59 5.55	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.21 6.21 6.24 6.29 6.31 6.36 6.40 6.40 6.40 5.59 5.56 5.56 5.56 5.56 5.65	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.39 6.43 6.40 6.39 6.46 6.49 6.49	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 4.71 4.56 4.58 4.64 4.71	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.39 6.48 6.11 5.17 4.57 4.62 4.69 4.75	MAX MAX	ZEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	5.39 5.65 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.04 5.81 5.61 5.59 5.62 5.75 5.86 5.89	EPTH BELC MIN FEBRUARY 5.35 5.37 5.63 5.69 5.83 5.93 6.00 6.18 6.22 6.24 6.30 6.32 6.38 6.41 6.04 5.81 5.61 5.55 5.55 5.55 5.55 5.59 5.62 5.75	MEAN 5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.24 6.29 6.31 6.36 6.40 6.43 6.40 6.43 6.591 5.69 5.56 5.57 5.60 5.58 5.82	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.39 6.46 6.49 6.35 5.70 4.60 4.66 4.72 4.76	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 4.71 4.56 4.58 4.64 4.71	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.38 6.39 6.48 6.11 5.17 4.57 4.62 4.69 4.75	MAX	ZEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	5.39 5.58 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.44 5.81 5.61 5.59 5.62 5.62 5.75 5.86 5.89 5.97	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.30 6.32 6.32 6.38 6.41 6.04 5.81 5.61 5.55 5.55 5.59 5.55 5.59 5.83 5.69 5.83 6.09 6.18	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.24 6.29 6.31 6.36 6.40 6.43 5.91 5.69 5.56 5.57 5.60 5.59 5.60 5.59 5.88	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.39 6.39 6.46 6.49 6.50 6.35 5.70 4.60 4.66 4.72 4.76	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.28 6.46 6.35 5.70 4.76 4.56 4.58 4.64 4.71	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.38 6.39 6.48 6.11 5.17 4.57 4.62 4.69 4.75	MAX	ZEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	5.39 5.565 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.04 5.61 5.59 5.62 5.62 5.75 5.86 5.89 6.05	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.09 6.18 6.22 6.30 6.32 6.32 6.38 6.41 6.04 5.61 5.55 5.55 5.55 5.55 5.59 5.62 5.75	DW LAND MEAN 5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.24 6.29 6.31 6.36 6.40 6.43 6.34 5.91 5.69 5.56 5.57 5.60 5.59 5.68 5.82 5.87 5.89 6.02	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.39 6.39 6.46 6.49 6.50 6.35 5.70 4.60 4.66 4.72 4.76	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 6.35 5.70 4.76 4.56 4.58 4.64 4.71	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.38 6.39 6.48 6.11 5.17 4.57 4.62 4.69 4.75	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	5.39 5.58 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.581 5.61 5.59 5.62 5.75 5.86 5.89 5.97 6.05	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 6.00 6.09 6.18 6.22 6.24 6.30 6.32 6.38 6.41 6.04 5.81 5.61 5.55 5.55 5.59 5.58 5.62 5.75 5.85 5.86 5.97	MEAN 5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.14 6.21 6.24 6.29 6.31 6.36 6.40 6.43 6.34 5.91 5.69 5.56 5.57 5.60 5.59 5.68 5.82 5.87 5.89	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.39 6.43 6.40 6.39 6.46 6.49 6.47 4.60 4.66 4.72 4.76	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.28 6.46 6.35 5.70 4.76 4.56 4.58 4.64 4.71	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.11 5.17 4.57 4.62 4.69 4.75	MAX	MIN APRIL	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	5.39 5.58 5.69 5.83 5.93 6.00 6.09 6.18 6.23 6.24 6.31 6.32 6.38 6.42 6.44 6.04 5.81 5.61 5.62 5.62 5.75 5.86 5.89 5.97 6.05	EPTH BELC MIN FEBRUARY 5.35 5.37 5.58 5.63 5.69 5.83 5.93 6.00 6.18 6.22 6.24 6.30 6.32 6.38 6.41 5.55 5.57 5.58 5.62 5.75 5.86 5.97 5.87	5.37 5.46 5.61 5.65 5.76 5.88 5.96 6.04 6.11 6.21 6.24 6.29 6.31 6.36 6.40 6.40 6.43 6.40 5.57 5.69 5.56 5.57 5.69 5.56 5.57	6.13 6.19 6.28 6.37 6.45 6.49 6.53 6.54 6.49 6.39 6.43 6.40 6.39 6.39 6.46 6.49 6.47 4.60 4.66 4.72 4.76	MIN MARCH 6.05 6.13 6.19 6.28 6.37 6.45 6.49 6.48 6.41 6.40 6.38 6.37 6.38 6.28 6.46 4.71 4.56 4.58 4.64 4.71	EL) (FEET MEAN 6.09 6.16 6.23 6.33 6.42 6.47 6.52 6.51 6.43 6.41 6.39 6.38 6.39 6.48 6.31 5.17 4.57 4.62 4.69 4.75 4.62 4.69 4.75	MAX MAX	ZEAR OCTO	DBER 1997 MEAN	7 TO SEPTEN MAX	MBER 1998 MIN MAY	MEAN

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Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

415307080414500 AB-134 NR KINGSVILLE OH-Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MAX MIN MEAN MAX MIN MEAN MEAN MTN MEAN MAX MTN JUNE JULY AUGUST SEPTEMBER 9.22 1 9.08 9.04 9.08 9.23 9.22 ___ ------------2 9 1 0 9 08 9 09 9 22 9 21 9 21 3 ------------------9.12 9.10 9.11 9.25 9.22 9.23 ---------------4 9.16 9.12 9.14 9.29 9.25 9.26 5 _ _ _ ---------_ _ _ _ _ _ 9.18 9.16 9.17 9.32 9.29 9.31 9.19 9.18 9.19 6 9.32 9.32 9.32 9.19 9.19 9.19 9.36 9.32 9.34 9.23 9.19 9.22 9.38 9.36 9.37 9 9.25 9.23 9.24 9.38 9.38 9.38 ------------9.25 9.23 9.40 10 ---9.19 9.38 9.40 11 9.19 9.18 9.19 9.40 9.40 9.40 12 ---------8 61 8.58 8.61 9.22 9.19 9.21 9.44 9.40 9.42 13 ---8.66 8.61 8.64 9.22 9.22 9.22 9.47 9.44 9.46 ---8.68 8.66 8.67 9.24 9.22 9.22 9.48 15 ------8.73 8.68 8.71 9.27 9.24 9.26 9.52 9.48 9.50 16 8.74 8.73 8.74 9.31 9.27 9.30 9.53 9.52 9.52 - - -------___ ------8 76 17 8 76 8 74 9 33 9 31 9 32 9 54 9 53 9 54 18 ---------8.80 8.76 8.79 9.35 9.33 9.34 9.56 9.54 9.56 ---------19 8.82 8.80 8.81 9.36 9.35 9.36 9.56 9.54 9.55 2.0 ---------8.86 8.82 8.85 9.37 9.36 9.37 9.54 9.47 9.51 8.90 8.86 8.88 9.40 9.37 9.38 9.47 21 9.41 9.43 2.2 ---8.92 8.90 8.91 9.42 9.40 9.41 9.41 9.40 9.40 23 8.92 8.84 8.86 9.43 9.42 9.43 9.42 9.40 9.41 9.40 24 8.84 8.83 8.83 9.43 9.42 9.43 9.42 9.43 25 ------9.37 8.85 8.83 8.84 9.41 9.38 9.47 9.43 9.45 26 8.88 8.85 8.88 9.38 9.37 9.37 9.48 9.47 9.48 27 ---------8.89 8.88 8.89 9.39 9.38 9.38 9.52 9.48 9.49 28 ---8.93 8.89 8.93 9.40 9.39 9.40 9.55 9.52 9.54 29 ---------8.99 8.88 8.97 9.41 9.33 9.38 9.55 9.55 9.55 30 ___ ---9.03 8.99 9.01 9.33 9.23 9.27 9.57 9.55 9.56 ------9.04 9.03 9.04 9.23 9.22 9.22 ___ ------8 58 MONTH 9 04 8 83 9 43 9.04 9 27 9 57 9 21 9 42 9.57 YEAR 3.66 7.07 TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MAX MIN MAX MIN JANUARY OCTOBER NOVEMBER DECEMBER FEBRUARY MARCH 1 13.6 7.4 2.3 1 2.3 -10.3 8.5 -3.4 6.8 1.1 2 15.0 2.9 ---1.1 -5.0 8.1 8.2 . 4 . 9 4.4 . 6 7.2 12.5 -1.7 3.2 -.9 3 21.5 9.3 8.4 -4.4 1.0 25.7 15.1 7.1 -.3 10.7 3.6 -.9 -2.0 . 3 -1.0 4 5 2.4 23.7 13.7 -------.3 -2.6 15.6 9.5 -.3 -2.9 -.6 6 23.0 15.8 ------1.4 -5.1 13.7 6.1 1.1 -4.6 4.0 -4.2 .6 25.5 13.8 ---2.0 10.7 2.2 2.5 -4.1 7.2 -5.3 ------1.5 8 25.3 15.1 1.8 2.7 -6.2 8.7 ---9 25.7 15.3 1.6 -3.0 6.7 . 8 4.1 -8.2 13.2 10 18.8 8.3 1.3 -.9 3.2 -2.3 10.4 -5.1 -3.1 -7.0 11 17.2 4.9 ------. 6 -1.6 -2.1 -6.6 11.0 4.4 -6.6 -8.8 . 0 12 22.1 6 1 -------1.2 -2.8 5.4 -6.8 6.4 -3.1 -7 3 13 25.8 14.0 ------. 0 -2.3 7.1 -6.4 . 8 -1.6 -.1 -9.7 4.9 16.5 ------1.6 -2.4 -5.1 -8.9 -1.0 -7.0 -2.7 14 ---15 12.2 3.1 ---5.7 -4.4 . 9 -6.2 5.3 -7.5 -2.2 -4.3 ---16 8.5 1 -2.2 -3.3 8.5 -1.0 1 -7.4 7.9 17 ------------5.3 -4.8 -.3 -3.1 7.3 3.3 -4.8 ------------3.9 -1.1 -6.4 8.8 18 -4.2 1.9 11.1 2.3 ___ ___ 5.5 -1.4 -6.4 2.5 19 -.6 1.1 20 ------------1.5 -1.5 -1.9 -4.9 3.1 1.0 ------21 -------------4.9 -1.5 -5.3 1.8 . 5 ------3.2 -5.4 -3.7 5.2 -.1 -.2 -7.3 _ _ _ ---------3.0 1.0 4.0 . 4 3.6 -.3

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8.5

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-2.1

-3.5

-4.7

-5.7

-8.5

-8.5

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-1.1

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5.4

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15.6

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-2.2

-2.8

-2.9

-3 0

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-4.5

-3.8

-10.3

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2.7

6.3

8.1

13.4

13.4

1.2

-2.0

1.0

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-8.2

4.3

12.1

23.3

26.0

24.5

17.9

26.6

25.6

26.6

-4.7

-2.5

9.1

15.9

12.9

11.0

16.0

14.5

-9.7

415307080414500 AB-134 NR KINGSVILLE OH-Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MAX MIN MAX MIN MIN MAX MAX APRIL MAY JUNE JULY AUGUST SEPTEMBER 20.1 24.8 8.5 1 5.4 18.5 13.0 24.1 10.3 ---___ ------___ 2 8 5 5 1 16 9 10 3 26 8 8 1 20 1 12 3 3 7.5 2.2 17.4 9.2 ------------27.3 12.0 21.3 11.1 ------4 4.6 2.7 17.1 8.5 27.5 16.0 22.9 11.4 5 ------19.8 8.5 ---_ _ _ ------23.3 18.6 26.1 9.3 22.6 8.9 30.4 19.3 30.3 6 8.5 -5.5 17.1 12.3 -5.0 24.6 12.2 ---31.6 20.5 24.2 15.2 16.4 5.1 17.6 12.0 33.3 20.4 15.7 11.4 9 6.7 17.9 10.8 30.1 20.8 18.0 13.3 3.4 15.7 ------------23.3 10 7.0 9.9 19.5 20.3 1.3 6.4 11 9.8 -3.8 15.0 10.0 24.6 17.6 26.5 11.0 12 17.2 -.8 16.5 10 5 ------25 7 10 0 23.3 16.0 25.3 14.1 26.9 13 21.5 3.1 23.6 11.4 ------27.9 11.9 24.8 13.8 14.5 15.7 11.3 26.5 13.6 ---29.8 15.6 25.4 14.3 15 12.1 28.0 12.5 ------30.2 19.2 27.6 16.3 27.9 20.3 16 19.9 9.5 26.3 13.8 ------28.5 19.0 27.0 17.5 20.7 14.2 ------24 3 18 3 28 4 17 2 17 14 0 4.5 23 5 9 7 21 4 8 2 . 2 18 13.9 26.5 11.9 ------25.8 10.2 21.9 13.5 24.9 5.7 ------19 8.5 4.7 28.0 16.4 28.6 13.5 19.8 8.1 27.9 14.4 20 13.4 3.2 25.5 13.7 ---_ _ _ 29.8 20.8 24.0 7.0 27.0 17.7 17.1 2.1 15.9 5.7 29.6 20.0 27.3 16.9 23.5 21 16.9 22 15.4 16.0 5.4 27.8 18.9 24.4 16.1 17.8 11.7 23 15.2 4.5 18.7 2.6 25.9 19.1 30.5 15.9 15.6 24 18.7 . 8 22.0 4.4 23.4 12.9 28.1 18.6 18.4 5.2 25 17.5 ------23.8 23.9 17.8 13.3 10.4 12.6 21.9 13.4 . 3 7.4 26 2.2 22.0 10.3 24.1 10.6 23.9 16.2 31.0 17.5 27 8.0 1.3 26.6 7.8 ------27.1 13.1 25.3 13.2 24.7 17 3 28 11.6 . 0 ------------29.1 17.9 28.8 14.3 17.9 7.6 29 15.4 -1.0 ------------26.4 15.4 26.5 18.1 22.6 30 ------------26.0 16.2 25.6 15.1 19.3 18.3 11.9 12.7 ------------23.3 13.0 23.5 11.7 ___ ---30.2 10 0 7 0 MONTH 21 5 -55 28 0 2 6 33 3 4 1 31 5 33.3 -10.3 YEAR TEMPERATURE, SOIL (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MAX MIN MIN MAX TANIIARY OCTOBER NOVEMBER DECEMBER FEBRUARY MARCH 1 14.6 13.2 5.7 4.1 . 7 .6 1.0 . 7 4.8 4.1 2 13.3 11.9 ---2.0 3.9 ---4.1 3.4 . 8 . 5 . 9 4.5 3 2.8 4.1 . 8 1.2 14.3 12.5 4.1 1.8 3.9 3.2 16.1 14.1 4.8 4.1 4.9 4.1 1.2 3.3 2.7 4 . 8 5 17.0 15.8 ------4.4 3.5 7.0 4.8 . 8 . 6 3.0 2.4 6 17.4 16.3 ------3.5 3.1 8.4 7.0 .6 . 5 3.2 2.5 17.8 ---16.5 3.1 2.8 8.0 6.7 . 5 3.4 ------8 18.2 16.9 2.8 2.7 6.7 5.1 4.4 ---9 18.1 16.9 2.7 2.6 5.1 4.3 . 5 . 4 5.9 4.4 18.0 2.8 10 16.1 2.6 2.3 4.3 3.1 . 9 . 5 5.1 11 16.1 14.8 ------2.4 2.3 3.1 1.8 2.7 . 7 2.8 1.8 12 15.4 13 8 ------2.3 2 2 1.8 1.4 3.0 2 2 1.8 1 3 13 16.5 14.7 ------2.2 2.2 1.9 1.3 2.2 1.6 1.3 1.0 .9 16.4 14.3 ------2.2 2.1 1.3 .8 1.6 1.2 1.0 14 ---. 9 15 14.3 13.0 ---2.1 2.0 .8 . 7 1.3 . 9 . 8 ------2.0 16 1.9 .8 . 7 1.6 . 8 8 . 7 ---1.6 1.0 17 ---------2.0 2.0 . 7 . 7 3.1 . 7 ------------2.0 . 7 . 7 4.0 1.0 18 1.8 3.1 3.2 ---___ . 7 . 7 1.9 4.0 19 1.8 3.4 ---20 ---------2.0 1.9 . 7 . 7 3.6 3.2 ------21 ------------1.9 1.6 . 7 . 7 3.4 3.0 ---2.2 ---1.6 1.2 . 7 3.8 ------------. 7 23 1.6 1.2 . 6 3.4 2.8 1.9 ---24 2.1 . 6 3.4 1.3 25 3.2 2.1 . 7 3.2 . 6 3.0 3.0 1.1 ------------2.7 7.4 26 3.0 2.2 .6 . 6 3.9 3.0 .6 27 ------------2.2 1.9 . 7 4.3 3 3 9 8 7.4 2.8 ------------1.9 1.3 . 8 . 6 4.3 3.5 10.6 9.3 1.0 29 ------1.3 1.4 11.6 10.0 ------. 9 3.0 ---6.2 5.6 1.0 1.3 1.0 ------13.1 11.1 ---31 ---------.9 . 7 1.1 .8 ------13.6 12.4 MONTH 18.2 11.9 6.2 5.6 5.7 . 7 8.4 . 5 4.3 . 4 13.6 . 7

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

415307080414500 AB-134 NR KINGSVILLE OH-Continued

		TH	EMPERATURE,	, SOIL (D	EG. C), W	ATER YEAR	COCTOBER	1997 TO S	EPTEMBER	1998		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	API	RIL	MA	Z	JUN	E	JUI	LY	AUG	UST	SEPT	EMBER
1	13.2	11.9	12.3	11.2					21.3	19.7	20.7	19.5
2	11.9	9.4	13.1	12.1					21.1	19.4	20.1	19.4
3	9.4	8.7	13.6	12.5					21.1	19.6	19.5	18.4
4 5	8.7	7.9	13.6 13.8	12.8 12.9					21.4 21.2	20.2	19.2 19.4	18.1 18.0
6 7	7.6 7.5	5.9 5.6	14.4 14.7	12.9 13.7					21.7 22.5	20.6 20.9	20.5 20.5	18.7 19.2
8	9.1	7.2	14.7	14.4					23.1	20.9	19.2	17.4
9	8.8	7.7	14.9	14.1					23.3	22.3	17.4	16.6
10	8.1	6.8	14.7	14.1					23.2	22.2	17.0	15.9
11	7.8	6.2	14.3	13.8					22.4	21.7	17.3	16.0
12	8.7	6.2	14.4	13.8			20.7	19.0	22.5	21.5	18.0	16.8
13	9.7	7.6	15.4	13.9			21.2	19.3	22.0	20.6	19.2	17.6
14 15	10.1 10.6	9.3 9.7	16.5 17.3	14.8 15.6			21.5 22.3	20.0 20.7	21.9 22.0	20.5 20.8	19.7 19.9	18.4 19.3
16	11.6	10.1	17.8	16.5			22.7	21.4	22.5	21.1	19.9	19.5
17 18	11.7 9.8	9.8 8.6	17.5 17.3	16.3 16.0			22.5 21.9	21.7 20.3	22.5 22.3	21.3 21.2	19.5 18.9	18.6 17.2
19	9.7	8.9	18.0	16.4			21.7	20.2	21.2	19.5	19.2	18.0
20	9.8	8.4	18.4	17.1			22.7	21.3	20.0	18.4	20.0	18.8
21	10.5	8.6	18.1	16.4			22.9	21.7	21.0	19.3	20.4	19.6
22	10.9	9.5	16.4	15.0			22.7	21.8	21.3	20.6	20.1	18.6
23	10.9	9.8	16.0	14.2			22.6	21.9	21.9	20.3	18.6	16.7
24	10.8	9.5	15.6	14.1			22.2	21.0	22.0	21.0	16.8	15.5
25	10.8	9.2	15.3	14.8			21.5	20.4	21.9	21.0	17.1	16.0
26	10.5	9.4	16.2	14.7			21.1	19.8	21.7	20.7	19.2	17.0
27	9.6	8.5	16.5	14.9			20.8	19.6	21.6	20.4	19.3	18.7
28 29	9.9 9.6	8.2 8.4					21.6 22.0	20.3 21.1	21.5 21.7	20.2 21.0	19.2 17.8	17.8 16.4
30	11.3	9.6					21.7	20.6	21.7	20.6	17.5	16.9
31							21.7	20.3	21.3	20.2		
MONTH	13.2	5.6	18.4	11.2			22.9	19.0	23.3	18.4	20.7	15.5
YEAR	23.3	.4	10.1				22.7	13.0	23.3	10.1	20.,	10.0
		PRE	CIPITATIO	N, TOTAL,		WATER YEA		R 1997 TO	SEPTEMBE	R 1998		
DAY	OCT	NOV	DEC	JAN				R 1997 TO MAY	SEPTEMBE:	R 1998 JUL	AUG	SEP
DAY 1	OCT				DAI	ILY SUM V	ALUES				AUG	SEP
1 2	.00	NOV 	DEC .00 .01	JAN .00 .00	DAI FEB .00 .00	MAR .02 .00	ALUES APR .42 .01	MAY .48 .46	JUN 	JUL 	.00	.00
1 2 3	.00	NOV 	DEC .00 .01	JAN .00 .00	DA1 FEB .00 .00	MAR .02 .00 .00	ALUES APR .42 .01	MAY .48 .46	JUN 	JUL 	.00	.00
1 2 3 4	.00 .00 .00	NOV 	DEC .00 .01 .25 .08	JAN .00 .00 .32 .32	DA1 FEB .00 .00 .00	MAR .02 .00 .00 .11	ALUES APR .42 .01 .00 .00	MAY .48 .46 .00	JUN 	JUL 	.00	.00 .30 .00
1 2 3 4 5	.00 .00 .00 .61	NOV 	DEC .00 .01 .25 .08	JAN .00 .00 .32 .32 .09	DAI FEB .00 .00 .00 .00	MAR .02 .00 .00 .11 .01	ALUES APR .42 .01 .00 .00	MAY .48 .46 .00 .36 .00	JUN 	JUL 	.00 .00 .00 .00	.00 .30 .00 .00
1 2 3 4 5	.00 .00 .00 .61 .03	NOV	DEC .00 .01 .25 .08 .00 .23	JAN .00 .00 .32 .32 .09 .07	DAI FEB .00 .00 .00 .00 .00 .00	MAR .02 .00 .00 .11 .01	ALUES APR	MAY .48 .46 .00 .36 .00	JUN 	JUL 	.00 .00 .00 .00 .02	.00 .30 .00 .00
1 2 3 4 5 6 7	.00 .00 .00 .61 .03	NOV	DEC .00 .01 .25 .08 .00 .23	JAN .00 .00 .32 .32 .09 .07	DAI FEB .00 .00 .00 .00 .00 .00 .00	MAR .02 .00 .00 .01 .01 .01 .00 .00	ALUES APR .42 .01 .00 .00 .00 .00	MAY .48 .46 .00 .36 .00 .01	JUN 	JUL 	.00 .00 .00 .00 .02 .01	.00 .30 .00 .00 .00
1 2 3 4 5	.00 .00 .00 .61 .03	NOV	DEC .00 .01 .25 .08 .00 .23	JAN .00 .00 .32 .32 .09 .07	DAI FEB .00 .00 .00 .00 .00 .00	MAR .02 .00 .00 .11 .01	ALUES APR	MAY .48 .46 .00 .36 .00	JUN	JUL 	.00 .00 .00 .00 .02	.00 .30 .00 .00
1 2 3 4 5 6 7 8	.00 .00 .00 .61 .03 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04	JAN .00 .00 .32 .32 .09 .07 1.44 .39	DAI FEB .00 .00 .00 .00 .00	MAR .02 .00 .00 .11 .01 .00 .00 .24	ALUES APR .42 .01 .00 .00 .00 .00 .00 .00	MAY .48 .46 .00 .36 .00 .01 .01	JUN	JUL	.00 .00 .00 .00 .02 .01 .00	.00 .30 .00 .00 .00
1 2 3 4 5 6 7 8	.00 .00 .00 .61 .03 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00	MAR .02 .00 .00 .01 .01 .01 .00 .00 .24 .27	ALUES APR .42 .01 .00 .00 .00 .00 .00 .00 .00 .00	MAY .48 .46 .00 .36 .00 .01 .01 .01	JUN	JUL	.00 .00 .00 .00 .02 .01 .00 .00	.00 .30 .00 .00 .00 .00 .24 .31
1 2 3 4 5 6 7 8 9	.00 .00 .00 .61 .03 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27	ALUES APR .42 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAY .48 .46 .00 .36 .00 .01 .01 .17 .00 .00	JUN	JUL	.00 .00 .00 .00 .02 .01 .00 .00 .36	.000 .300 .000 .000 .000 .244 .311 .000
1 2 3 4 5 6 7 8 9 10 11 12 13	.00 .00 .00 .61 .03 .00 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05	DA1 FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .01 .01 .07 .00 .00	JUN	JUL	.00 .00 .00 .00 .02 .01 .00 .00 .36 .93	.00 .30 .00 .00 .00 .24 .311 .00 .00
1 2 3 4 5 6 7 8 9 10 11 12 13 14	.00 .00 .00 .61 .03 .00 .00 .00 .08 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .03	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00	DA1 FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .01 .01 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .01 .17 .00 .00 .07 .01	JUN	JUL	.00 .00 .00 .00 .02 .01 .00 .00 .36 .93 .00	.00 .30 .00 .00 .00 .24 .31 .00 .00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	.00 .00 .00 .61 .03 .00 .00 .00 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .79 .14 .00 .00 .03 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .01 .17 .00 .00 .07 .01 .00 .00 .07 .01 .00 .00	JUN	JUL	.00 .00 .00 .02 .01 .00 .00 .36 .93 .00 .00	.000 .300 .000 .000 .244 .311 .000 .000 .010 .000
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	.00 .00 .00 .61 .03 .00 .00 .08 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .03 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .01 .17 .00 .00 .07 .01 .00 .00	JUN	JUL	.00 .00 .00 .00 .02 .01 .00 .36 .93 .00 .00	.000 .300 .000 .000 .000 .244 .311 .000 .000 .010 .000 .000
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	.00 .00 .00 .61 .03 .00 .00 .08 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .00 .03 .00 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .01 .17 .00 .00 .07 .01 .00 .00 .00	JUN	JUL00 .00	.00 .00 .00 .02 .01 .00 .36 .93 .00 .00	.00 .30 .00 .00 .00 .00 .24 .31 .00 .00 .00 .00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	.00 .00 .00 .61 .03 .00 .00 .00 .00 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .03 .00 .00 .00 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .00 .00 .00 .01 .00 .00 .00 .00	ALUES APR .42 .01 .00 .00 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00	JUN	JUL00 .00 .00 .00	.00 .00 .00 .02 .01 .00 .36 .93 .00 .00 .00	.00 .30 .00 .00 .00 .00 .24 4 .31 .00 .00 .00 .00 .00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	.00 .00 .00 .61 .03 .00 .00 .08 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .00 .03 .00 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .01 .17 .00 .00 .07 .01 .00 .00 .00	JUN	JUL00 .00	.00 .00 .00 .02 .01 .00 .36 .93 .00 .00	.00 .30 .00 .00 .00 .00 .24 .31 .00 .00 .00 .00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	.00 .00 .00 .61 .03 .00 .00 .00 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .03 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01 .01 .01	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .00 .00 .00 .01 .00 .00 .00 .01 .00 .00	ALUES APR .42 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAY .48 .46 .00 .36 .00 .01 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00 .00	JUN	JUL00 .00 .00 .00	.00 .00 .00 .02 .01 .00 .36 .93 .00 .00 .00	.00 .30 .00 .00 .00 .00 .24 4 .31 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	.00 .00 .00 .61 .03 .00 .00 .00 .00 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .03 .00 .00 .00 .00 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .00 .01 .00 .00 .00 .01 .00 .00	ALUES APR .42 .01 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00	JUN	JUL	.00 .00 .00 .02 .01 .00 .36 .93 .00 .00 .00	.000 .300 .000 .000 .244 .311 .000 .000 .000 .166
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	.00 .00 .00 .61 .03 .00 .00 .00 .00 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .03 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01 .01 .00	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .01 .00 .00 .01 .00 .00 .01 .00 .00	ALUES APR .42 .01 .00 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN	JUL	.00 .00 .00 .00 .02 .01 .00 .00 .036 .93 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	.000 .300 .000 .000 .000 .244 .311 .000 .000 .011 .000 .000 .166 .011 .000 .577 .399
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	.00 .00 .00 .61 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .03 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01 .01 .00 .01 .00	DAI FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .00 .01 .00 .00 .00 .00 .00 .00	ALUES APR .42 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAY .48 .46 .00 .36 .00 .01 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN	JUL	.00 .00 .00 .00 .02 .01 .00 .36 .93 .00 .00 .00 .00 .00 .00 .00	.00 .30 .00 .00 .00 .00 .24 .31 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	.00 .00 .00 .61 .03 .00 .00 .00 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01 .01 .00 .01 .00	DAT FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN	JUL	.00 .00 .00 .00 .01 .00 .00 .00 .36 .93 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	.000 .300 .000 .000 .000 .244 .311 .000 .000 .010 .000 .000 .000 .000
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	.00 .00 .00 .61 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .03 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01 .01 .00 .01 .00 .01 .00 .00	DAT FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .11 .01 .00 .00 .24 .27 .00 .00 .01 .00 .00 .01 .00 .00 .00 .01 .00 .00	ALUES APR .42 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAY .48 .46 .00 .36 .00 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN	JUL	.00 .00 .00 .00 .01 .00 .36 .93 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	.00 .30 .00 .00 .00 .00 .24 4 .31 .00 .00 .00 .00 .00 .00 .57 .39 .00 .09 .00 .00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	.00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .03 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01 .01 .00 .01 .00 .01 .00 .00	DAT FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .01 .01 .01 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .04 .96 .00 .00 .00 .42 .00 .97 .12 .00 .67 .10 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAY .48 .46 .00 .36 .00 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN	JUL	.00 .00 .00 .02 .01 .00 .00 .036 .93 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	.000 .300 .000 .000 .244 .311 .000 .000 .010 .000 .166 .011 .000 .577 .399 .000 .090 .000 .000 .000 .000 .000
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	.00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01 .01 .01 .00 .01 .00 .00 .0	DAT FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .01 .01 .00 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN	JUL	.00 .00 .00 .00 .01 .00 .36 .93 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	.000 .300 .000 .000 .000 .000 .001 .000 .000
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	.00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .03 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01 .01 .00 .01 .00 .01 .00 .00	DAT FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .01 .01 .01 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .04 .96 .00 .00 .00 .42 .00 .97 .12 .00 .67 .10 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAY .48 .46 .00 .36 .00 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN	JUL	.00 .00 .00 .02 .01 .00 .00 .036 .93 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	.000 .300 .000 .000 .244 .311 .000 .000 .010 .000 .166 .011 .000 .577 .399 .000 .090 .000 .000 .000 .000 .000
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	.00	NOV	DEC .00 .01 .25 .08 .00 .23 .04 .00 .00 .79 .14 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .32 .32 .09 .07 1.44 .39 .72 .02 .00 .01 .05 .00 .30 .00 .01 .01 .01 .01 .00 .01 .00 .00 .0	DAT FEB .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAR .02 .00 .00 .01 .01 .00 .00 .24 .27 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .42 .01 .00 .00 .00 .00 .00 .04 .96 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .48 .46 .00 .36 .00 .01 .17 .00 .00 .07 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN	JUL	.00 .00 .00 .00 .01 .00 .00 .36 .93 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	.000 .300 .000 .000 .000 .244 .311 .000 .000 .011 .000 .000 .000 .000

WTR YR 1998 TOTAL 24.40

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

415307080414500 AB-134 NR KINGSVILLE OH-Continued

DEICING SALT LBS/LANE-MILE DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				1200								
2												
3												
4												
5			2400									
6			600									
7												
8												
9												
10						1800						
10						1000						
11		1500				1200						
12		1200										
13				1200								
14		400				1800						
15		2200		2200								
16												
17												
18												
19												
20												
21						1200						
22				900								
23		1200		1200								
24												
25												
23												
26												
27												
28												
29												
30												
31												
TOTAL		6500	3000	6700		6000						

WTR YR 1998 TOTAL 22200

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

GROUND-WATER RECORDS

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415307080414600. Local number, AB-140.
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LOCATION.--Lat 41°53'07" Long 80°41'46", Hydrologic Unit 04120101, along State Route 84 near Kingsville, OH. Owner.--USGS/Ohio State University (OARDC-Grape Research Branch).

AQUIFER .-- Sand and Gravel of Pleistocene age

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 20.8 ft. Cased with Sch 40 PVC to 5.8 ft; .020 in. screen from 5.8 to 20.8 ft.

INSTRUMENMay 6, 1997TATION - Data logger--60 minute record. At this well there are 4 conductivity/water temperature probes at increasing depths within the well to better document vertical movement of high conductivity water on an hourly basis. Conductance/water temperature probes are set at 8.3 (level 4), 12.3 (level 3), 16.3 (level 2), and 20.3 (level 1) feet below land surface.

DATUM.--Elevation of land-surface datum is 772.22 feet above sea level.

Measuring point: top of PVC casing 1.70 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceding tables.

PERIOD OF RECORD .-- July 1992 to current year.

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PERIOD OF DAILY RECORD. --
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SPECIFIC CONDUCTANCE: (FOUR LEVELS): July 1992 to current year

WATER TEMPERATURE: (FOUR LEVELS): July 1992 to current year

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EXTREMES FOR PERIOD OF DAILY RECORD. -
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SPECIFIC CONDUCTANCE:
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LEVEL 1- Maximum, 3480 microsiemens December 1-2, 1997; minimum, 837 microsiemens January 30-31, 1995.

LEVEL 2- Maximum, 3670 microsiemens May 6, 1997; minimum, 359 microsiemens January 18, 1996.

LEVEL 3- Maximum, 3560 microsiemens May 5-6, 1997; minimum, 322 microsiemens March 13, 1995.

LEVEL 4- Maximum, 3610 microsiemens May 5, 1997; minimum, 254 microsiemens October 21, 1995.

WATER TEMPERATURE.

LEVEL 1- Maximum, 12.3°C many days in October, November, December, 1993, 1996; minimum, 7.2°C March 31,

April 2-3, 1993.

LEVEL 2- Maximum, 13.0° C many days in October, November, 1992,1995,1996; minimum, 6.7° C March 23, 1993, and 1994.

LEVEL 3- Maximum, 14.8°C September 30, 1995, October 1, 2, 1996; minimum, 5.7°C March 22, 1994.

LEVEL 4- Maximum, 17.8°C August 12, 1994, July 27, 1997; minimum, 3.8°C March 23-24, 1993.

EXTREMES FOR CURRENT YEAR . - -

SPECIFIC CONDUCTANCE:

LEVEL 1- Maximum, 3480 microsiemens December 1-2, 1997; minimum, 1050 microsiemens February 2-7, 1998.

LEVEL 2- Maximum, 3390 microsiemens September 28-29, 1998; minimum, 735 microsiemens January 12, 1998.

LEVEL 3- Maximum, 3220 microsiemens April 17-18, 1998; minimum, 734 microsiemens January 12, 1998.

LEVEL 4- Maximum, 3110 microsiemens April 22-23, 1998; minimum, 728 microsiemens January 12, 1998.

WATER TEMPERATURE:

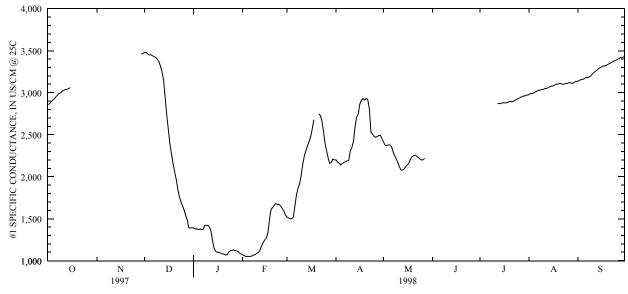
LEVEL 1- Maximum, 12.0°C December 3, 1997; minimum, 8.3°C March 27-28, 1998.

LEVEL 2- Maximum, 12.3°C several days in October, November, December, 1997, September, 1998; minimum,

7.9°C March 22, 1998.

 $\label{eq:level 3-Maximum, 13.7°C September 29, 1998; minimum, 7.2°C March 21, 30, 1998. }$

LEVEL 4- Maximum, 11.4°C November 29-December 6, 1997; minimum, 6.2°C March 29, 1998.



Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

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415307080414600 AB-140 NR KINGSVILLE, OH-Continued

#1 (22.0' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

					CROSIEMENS						SEPIEMBER I	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCT	OBER	NOVE	MBER	DECE	MBER	JAN	UARY	FEBR	UARY	MA	RCH
1	2860	2850			3480	3470	1390	1380	1070	1060	1520	1500
2	2870	2850			3480	3460	1380	1380	1060	1050	1510	1490
3	2890	2860			3460	3440	1380	1360	1050	1050	1500	1490
4	2910	2880			3450	3370	1370	1340	1050	1050	1500	1490
5	2930	2900			3450	3440	1380	1370	1050	1050	1520	1500
6	2950	2920			3440	3430	1370	1370	1050	1050	1660	1520
7 8	2970 2990	2940 2970			3430 3420	3410 3400	1370 1420	1340 1370	1060 1070	1050 1060	1790 1860	1660 1790
9	3000	2970			3420	3370	1420	1410	1070	1060	1920	1860
10	3020	3000			3370	3320	1420	1410	1070	1070	2020	1920
11	3030	3020			3320	3250	1400	1350	1100	1090	2150	2020
12	3040	3030			3250	3140	1350	1240	1130	1100	2250	2150
13	3040	3040			3150	2950	1240	1140	1180	1130	2310	2250
14	3050	3040			2950	2730	1140	1110	1220	1180	2370	2310
15	3060	3050			2730	2550	1110	1100	1250	1220	2420	2370
16					2550	2400	1100	1100	1270	1250	2480	2420
17					2400	2270	1100	1090	1340	1270	2580	2480
18					2270	2160	1090	1080	1510	1340	2680	2580
19					2160	2060	1080	1070	1610	1510		
20					2060	1970	1080	1070	1640	1610		
21					1970	1850	1070	1060	1660	1630	2750	2730
22					1850	1760	1070	1060	1680	1660	2730	2670
23					1760	1700	1100	1070	1670	1650	2670	2550
24					1700	1650	1120	1100	1670	1650	2550	2400
25					1650	1600	1120	1120	1650	1610	2400	2310
26					1600	1540	1130	1120	1620	1580	2310	2220
27					1540	1480	1120	1110	1590	1540	2220	2160
28					1480	1390	1120	1110	1540	1520	2160	2100
29			3460	3440	1390	1360	1110	1090			2170	2110
30			3470	3460	1390	1370	1090	1080			2210	2160
31					1390	1390	1080	1070			2200	2190
MONTH	3060	2850	3470	3440	3480	1360	1420	1060	1680	1050	2750	1490
#1 ((22.0' BL	S) SPECIE	FIC CONDUCT	TANCE (MI	CROSIEMENS	S/CM AT 2	DEG.C), W	VATER YEAR	OCTOBER	1997 TO S	SEPTEMBER 1	.998
DAV	MAY	MIN	MAV	MIN	MAV	MIN	MAV	MIN	MAY	MIN	MAV	MIN
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY		MIN RIL		MIN AY	MAX JU			MIN	MAX AUG			MIN EMBER
	AP	RIL	М	AY					AUG	UST	SEPT	'EMBER
1	AP 2200	RIL 2170	M 2410	AY 2350	JU 	NE 	JU		AUG 2980	UST 2970	SEPT 3140	EMBER 3130
1 2	AP 2200 2170	RIL 2170 2140	M 2410 2370	AY 2350 2340	ວບ 	NE 	ວບ 	LY 	AUG 2980 2990	UST 2970 2980	SEPT 3140 3150	3130 3130
1 2 3	AP 2200 2170 2160	RIL 2170 2140 2140	M 2410 2370 2370	2350 2340 2350	JU 	NE 	JU 	LY 	AUG 2980 2990 2990	UST 2970 2980 2990	SEPT 3140 3150 3160	3130 3130 3130 3130
1 2 3 4	AP 2200 2170 2160 2140	RIL 2170 2140 2140 2130	M 2410 2370 2370 2380	2350 2340 2350 2350 2350	JU 	NE 	JU 	 	AUG 2980 2990 2990 3000	UST 2970 2980 2990 2990	SEPT 3140 3150 3160 3160	3130 3130 3130 3130 3140
1 2 3 4 5	AP 2200 2170 2160 2140 2160	2170 2140 2140 2130 2140	M 2410 2370 2370 2380 2380	2350 2340 2350 2350 2360	JU 	NE 	JU 	L.Y 	AUG 2980 2990 2990 3000 3010	UST 2970 2980 2990 2990 3000	SEPT 3140 3150 3160 3160 3170	3130 3130 3130 3130 3140 3150
1 2 3 4 5	2200 2170 2160 2140 2160 2170	2170 2140 2140 2130 2140 2150	M 2410 2370 2370 2380 2380 2360	2350 2340 2350 2350 2350 2360 2300	JU 	NE 	JU 	LY	AUG 2980 2990 2990 3000 3010 3020	2970 2980 2990 2990 3000 3010	SEPT 3140 3150 3160 3160 3170 3180	3130 3130 3130 3130 3140 3150 3160
1 2 3 4 5 6 7	2200 2170 2160 2140 2160 2170 2180	RIL 2170 2140 2140 2130 2140 2150 2160	M 2410 2370 2370 2380 2380 2360 2300	2350 2340 2350 2350 2360 2300 2250	JU 	NE 	JU 	LY	AUG 2980 2990 2990 3000 3010 3020 3030	2970 2980 2990 2990 3000 3010 3020	SEPT 3140 3150 3160 3160 3170 3180 3180	3130 3130 3130 3130 3140 3150 3160 3170
1 2 3 4 5 6 7 8	2200 2170 2160 2140 2160 2170 2180 2190	RIL 2170 2140 2140 2130 2140 2150 2160 2170	M 2410 2370 2370 2380 2380 2360 2300 2250	2350 2340 2350 2350 2350 2360 2300 2250 2210	JU 	NE	JU 	LY	AUG 2980 2990 2990 3000 3010 3020 3030 3030	2970 2980 2990 2990 3000 3010 3020 3010	SEPT 3140 3150 3160 3170 3180 3180 3190	3130 3130 3130 3140 3150 3160 3170 3180
1 2 3 4 5 6 7 8 9	2200 2170 2160 2140 2160 2170 2180 2190 2190	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160	M 2410 2370 2370 2380 2380 2360 2300 2250 2210	2350 2340 2350 2350 2350 2360 2300 2250 2210 2170	JU 	NE	JU 	LY	AUG 2980 2990 2990 3000 3010 3020 3030 3030 3040	2970 2980 2990 2990 3000 3010 3020 3010 3020	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3200	3130 3130 3130 3130 3140 3150 3160 3170 3180 3190
1 2 3 4 5 6 7 8	2200 2170 2160 2140 2160 2170 2180 2190	RIL 2170 2140 2140 2130 2140 2150 2160 2170	M 2410 2370 2370 2380 2380 2360 2300 2250	2350 2340 2350 2350 2350 2360 2300 2250 2210	JU 	NE	JU 	LY	AUG 2980 2990 2990 3000 3010 3020 3030 3030	2970 2980 2990 2990 3000 3010 3020 3010	SEPT 3140 3150 3160 3170 3180 3180 3190	3130 3130 3130 3140 3150 3160 3170 3180
1 2 3 4 5 6 7 8 9	2200 2170 2160 2140 2160 2170 2180 2190 2190 2310	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190	M 2410 2370 2370 2380 2380 2380 2300 2250 2210 2170	2350 2340 2350 2350 2350 2360 2300 2250 2210 2170 2120		NE		LY	AUG 2980 2990 2990 3000 3010 3020 3030 3030 3040 3040	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3200 3220	3130 3130 3130 3140 3150 3160 3170 3180 3190 3200
1 2 3 4 5 6 7 8 9 10	2200 2170 2160 2140 2160 2170 2180 2190 2190 2310	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2300	M 2410 2370 2370 2380 2380 2360 2300 2250 2210 2170 2120	2350 2340 2350 2350 2350 2360 2300 2250 2210 2170 2120		NE		LY	AUG 2980 2990 2990 3000 3010 3020 3030 3030 3040 3040 3050	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3030	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3220 3240	3130 3130 3130 3140 3150 3160 3170 3180 3190 3200
1 2 3 4 5 6 7 8 9 10	2200 2170 2160 2140 2160 2170 2180 2190 2190 2310 2350 2420	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2300 2350	M 2410 2370 2370 2380 2380 2360 2300 2250 2210 2170 2120 2080	2350 2340 2350 2350 2350 2360 2300 2250 2210 2170 2120 2080 2070		NE		LY 2860	AUG 2980 2990 2990 3000 3010 3020 3030 3030 3040 3040 3050	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3030 3040	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3220 3240 3260	3130 3130 3130 3140 3150 3160 3170 3180 3190 3200 3220 3240
1 2 3 4 5 6 7 8 9 10 11 12 13	2200 2170 2160 2140 2160 2170 2180 2190 2190 2310 2350 2420 2600	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2300 2350 2420	M 2410 2370 2370 2380 2380 2360 2300 2250 2210 2170 2120 2080 2080	2350 2340 2350 2350 2350 2360 2250 2210 2170 2120 2080 2070 2070		NE		LY 2860 2870	AUG 2980 2990 3000 3010 3020 3030 3040 3040 3050 3060	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3030 303	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3200 3220 3240 3260 3270	3130 3130 3130 3140 3150 3170 3180 3190 3200 3220 3240 3250
1 2 3 4 5 6 7 8 9 10 11 12 13	2200 2170 2160 2140 2160 2170 2180 2190 2310 2310 2420 2600 2710	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2350 2420 2600	M 2410 2370 2370 2380 2380 2380 2250 2210 2170 2080 2080 2090	2350 2340 2350 2350 2350 2360 2360 2250 2210 2170 2120 2080 2070 2070 2080		NE		LY 2860 2870 2870	AUG 2980 2990 3000 3010 3020 3030 3040 3040 3050 3050 3060 3070	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3030 303	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3200 3220 3240 3260 3270 3290	3130 3130 3130 3140 3150 3160 3170 3180 3190 3200 3220 3240 3250 3260
1 2 3 4 5 6 7 8 9 10 11 12 13 14	2200 2170 2160 2140 2160 2170 2180 2190 2310 2350 2420 2600 2710 2750	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2170 2160 2190 2300 2350 2420 2600 2710	M 2410 2370 2370 2380 2380 2360 2300 2250 2210 2170 2120 2080 2080 2090 2120	2350 2340 2350 2350 2350 2360 2250 2210 2170 2120 2080 2070 2070 2080 2090		NE		LY 2860 2870 2870 2860	AUG 2980 2990 3000 3010 3020 3030 3040 3040 3050 3060 3070 3080	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3030 303	3140 3150 3160 3160 3170 3180 3180 3190 3200 3220 3240 3260 3270 3290 3300	3130 3130 3130 3140 3150 3160 3170 3180 3190 3200 3220 3240 3250 3260 3270
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	2200 2170 2160 2140 2160 2170 2180 2190 2190 2310 2350 2420 2600 2710 2750 2860	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2350 2420 2600 2710 2750	M 2410 2370 2370 2380 2380 2380 2250 2210 2170 2080 2080 2090 2120 2140	2350 2340 2350 2350 2350 2360 2300 2250 2210 2170 2120 2080 2070 2080 2090		NE		LY 2860 2870 2860 2860	AUG 2980 2990 3000 3010 3020 3030 3040 3040 3050 3050 3070 3080 3080	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3030 303	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3200 3220 3240 3260 3270 3290 3300 3310	3130 3130 3130 3140 3150 3160 3170 3180 3190 3200 3240 3250 3260 3270 3280
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	2200 2170 2160 2140 2160 2170 2180 2190 2310 2350 2420 2600 2710 2750 2860 2910	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2350 2420 2420 2600 2710 2750 2850	M 2410 2370 2370 2380 2380 2360 2250 2210 2170 2120 2080 2090 2120 2140 2160	2350 2340 2350 2350 2350 2360 2360 2210 2170 2120 2080 2070 2070 2080 2090 2120 2120		NE		LY 2860 2870 2870 2860 2860 2860	AUG 2980 2990 3000 3010 3020 3030 3030 3040 3040 3050 3050 3060 3070 3080 3080	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3040 3050 3050 3060 3070	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3200 3220 3240 3260 3270 3290 3300 3310 3320	3130 3130 3130 3140 3150 3160 3170 3180 3200 3220 3240 3250 3270 3280 3290
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	2200 2170 2160 2140 2160 2170 2180 2190 2310 2350 2420 2600 2710 2750 2860 2910 2930	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2300 2350 2420 2600 2710 2750 2850 2890	M 2410 2370 2370 2380 2380 2360 2300 2250 2210 2170 2120 2080 2090 2120 2140 2160 2210	2350 2340 2350 2350 2350 2360 2300 2250 2210 2170 2120 2080 2070 2070 2080 2090 2120 2120 2160		NE		LY 2860 2870 2870 2860 2870 2860 2870	AUG 2980 2990 3000 3010 3020 3030 3040 3050 3050 3060 3070 3080 3080 3090 3100	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3040 3050 3060 3070 3080	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3220 3240 3260 3270 3290 3300 3310 3320 3320	3130 3130 3130 3140 3150 3160 3170 3180 3200 3220 3240 3250 3250 3270 3280 3290 3310
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	2200 2170 2160 2140 2160 2170 2180 2190 2190 2310 2350 2420 2600 2710 2750 2860 2910 2930 2910	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2170 2160 2170 2350 2420 2600 2710 2750 2850 2890 2880	2410 2370 2370 2380 2380 2380 2360 2300 2250 2210 2170 2120 2080 2090 2120 2140 2160 2210 2240	2350 2340 2350 2350 2350 2360 2250 2210 2170 2120 2080 2070 2070 2080 2090 2120 2120 2120 2120 2120 2120 212		NE		LY 2860 2870 2870 2860 2870 2870	AUG 2980 2990 3000 3010 3020 3030 3040 3050 3050 3060 3070 3080 3090 3100 3100	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3030 3040 3050 3060 3070 3080 3080 3080	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3200 3220 3240 3260 3270 3290 3300 3310 3320 3320 3330	3130 3130 3130 3140 3150 3160 3170 3180 3190 3220 3240 3250 3260 3270 3280 3290 3320
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	2200 2170 2160 2140 2160 2170 2180 2190 2310 2350 2420 2600 2710 2750 2860 2910 2930	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2300 2350 2420 2600 2710 2750 2850 2890	M 2410 2370 2370 2380 2380 2360 2300 2250 2210 2170 2120 2080 2090 2120 2140 2160 2210	2350 2340 2350 2350 2350 2360 2300 2250 2210 2170 2120 2080 2070 2070 2080 2090 2120 2120 2160		NE		LY 2860 2870 2870 2860 2870 2860 2870	AUG 2980 2990 3000 3010 3020 3030 3040 3050 3050 3060 3070 3080 3080 3090 3100	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3040 3050 3060 3070 3080	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3220 3240 3260 3270 3290 3300 3310 3320 3320	3130 3130 3130 3140 3150 3160 3170 3180 3200 3220 3240 3250 3250 3270 3280 3290 3310
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	2200 2170 2160 2140 2160 2170 2180 2190 2310 2350 2420 2600 2710 2750 2860 2910 2930 2930	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2300 2350 2420 2600 2710 2750 2850 2890 2880 2870	2410 2370 2370 2380 2380 2380 2360 2250 2210 2170 2120 2080 2080 2090 2120 2140 2160 2210 2240 2250	2350 2340 2350 2350 2350 2360 2300 2250 2210 2170 2120 2080 2070 2070 2080 2090 2120 2120 2160 2200 2230		NE		LY 2860 2870 2870 2860 2870 2860 2870 2860	AUG 2980 2990 3000 3010 3020 3030 3040 3050 3050 3060 3070 3080 3090 3100 3110	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3040 3050 3060 3070 3080 3080 3080 3090	SEPT 3140 3150 3160 3160 3170 3180 3180 3190 3220 3240 3260 3270 3290 3300 3310 3320 3320 3330 3340	3130 3130 3130 3140 3150 3160 3170 3180 3190 3200 3220 3240 3250 3260 3270 3280 3290 3310 3320 3330
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	2200 2170 2160 2140 2160 2170 2180 2190 2190 2310 2350 2420 2600 2710 2750 2860 2910 2930 2930 2920	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2170 2160 2710 2350 2420 2600 2710 2750 2850 2890 2880 2870 2810	2410 2370 2370 2380 2380 2380 2360 2300 2250 2210 2170 2120 2080 2090 2120 2140 2160 2210 2240 2250	2350 2340 2350 2350 2350 2350 2360 2250 2210 2170 2120 2080 2070 2070 2080 2090 2120 2120 2120 2120 2120 2120 212		NE		LY 2860 2870 2870 2860 2870 2860 2870 2870 2880	AUG 2980 2990 3000 3010 3020 3030 3040 3050 3050 3060 3070 3080 3090 3100 3110 3110	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3040 3050 3060 3070 3080 3080 3080 3090	3140 3150 3160 3160 3170 3180 3190 3200 3220 3240 3260 3270 3290 3300 3310 3320 3320 3330 3340	3130 3130 3130 3140 3150 3160 3170 3180 3190 3220 3240 3250 3260 3270 3280 3290 3310 3320 3330 3340
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	2200 2170 2160 2140 2160 2170 2180 2190 2310 2350 2420 2600 2710 2750 2860 2910 2930 2930 2930 2920 2810	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2300 2350 2420 2600 2710 2750 2850 2890 2890 2870 2810 2530	M 2410 2370 2370 2380 2380 2380 2250 2210 2170 2120 2080 2090 2120 2140 2160 2210 2210 2210 2210 2210 2210 221	2350 2340 2350 2350 2350 2360 2360 2210 2170 2120 2080 2070 2070 2080 2090 2120 2120 2120 2120 2120 2120 2230 223		NE		LY 2860 2870 2870 2860 2870 2860 2870 2860 2870 2880 2890	AUG 2980 2990 2990 3000 3010 3020 3030 3040 3040 3050 3050 3060 3070 3080 3090 3100 3110 3110 3110	2970 2980 2990 2990 3000 3010 3020 3010 3020 3030 3040 3050 3060 3070 3080 3070 3080 3090 3090	3140 3150 3160 3160 3170 3180 3190 3200 3220 3240 3260 3270 3290 3300 3310 3320 3320 3340 3350 3360	3130 3130 3130 3140 3150 3160 3170 3180 3190 3200 3240 3250 3240 3250 3260 3270 3280 3290 3310 3320 3330 3340 3350
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	2200 2170 2160 2140 2160 2190 2190 2310 2350 2420 2600 2710 2750 2860 2910 2930 2930 2930 2920 2810 2530	RIL 2170 2140 2140 2130 2140 2150 2160 2170 2160 2190 2350 2420 2600 2710 2750 2850 2890 2890 2870 2810 2530 2500	2410 2370 2370 2380 2380 2380 2360 2250 2210 2170 2120 2080 2080 2090 2120 2140 2160 2210 2210 2210 2120 2120 2120 212	2350 2340 2350 2350 2350 2360 2360 2210 2170 2120 2080 2070 2070 2070 2080 2090 2120 2120 2120 2120 2230 2240 2230 2210		NE		LY 2860 2870 2870 2860 2870 2870 2870 2870 2870 2870 2890 2890	AUG 2980 2990 3000 3010 3020 3030 3040 3040 3050 3060 3070 3080 3080 3090 3100 3110 3110 3110 3100 3100	2970 2980 2990 2990 3000 3010 3020 3030 3030 3040 3050 3050 3070 3080 3070 3080 3090 3090 3080	3140 3150 3160 3160 3170 3180 3180 3190 3200 3220 3240 3260 3270 3290 3300 3310 3320 3330 3340 3350 3360 3370	TEMBER 3130 3130 3140 3150 3160 3170 3180 3190 3220 3240 3250 3250 3260 3270 3280 3290 3310 3320 3340 3350 3360
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YEAR

3390

735

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

415307080414600 AB-140 NR KINGSVILLE, OH-Continued

#2 (18.0' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAI												
		OBER		EMBER		EMBER		NUARY		RUARY		ARCH
1	2910	2890			3050	2930	1540	1510	1170	1160	1940	1920
2	2930	2900			2930	2760	1510	1460	1190	1170	1950	1940
3	2950	2920			2760	2680	1460	1450	1220	1190	1960	1950
4	2970	2950			2680	2270	1620	1450	1240	1220	1970	1960
5	3000	2970			2270	2020	1620	1610	1250	1240	2000	1970
6	3020	2990			2020	1770	1610	1370	1260	1240	2030	2000
7	3040	3010			2080	1770	1670	1410	1280	1260	2060	2030
8	3060	3030			2350	2080	1720	986	1300	1270	2100	2050
9	3080	3050			2330	1570	987	836	1310	1290	2180	2100
10	3080	3060			1570	1560	836	806	1350	1310	2290	2180
11	3080	3080			1570	1560	809	768	1380	1350	2360	2290
12	3090	3080			1590	1570	812	735	1440	1380	2400	2360
13	3100	3090			1590	1560	1050	812	1530	1440	2440	2390
14	3100	3080			1560	1520	1190	1050	1570	1530	2460	2430
15	3100	3090			1530	1500	1210	1190	1610	1570	2510	2460
16					1500	1480	1220	1190	1640	1610	2570	2510
17					1480	1470	1190	1160	1770	1640	2690	2570
18					1470	1450	1180	1160	2060	1770	2790	2690
19					1460	1430	1200	1180	2210	2060		
20					1440	1410	1200	1190	2220	2200		
21					1410	1380	1220	1200	2230	2220	2720	2640
22					1420	1380	1240	1220	2230	2210	2720	2160
23					1520	1420	1350	1240	2220	2000	2270	2190
24					1490	1310	1380	1350	2010	1960	2330	2270
25					1310	886	1380	1200	1960	1860	2390	2330
26					886	818	1200	1100	1900	1870	2440	2370
27					879	811	1190	1170	1910	1890	2600	2440
28					1230	879	1200	1190	1920	1890	2700	2600
29			3060	3030	1470	1230	1200	1200			2780	2700
30			3060	3020	1540	1470	1210	1200			2790	2640
31					1550	1540	1200	1160			2640	2560
MONTH	3100	2890	3060	3020	3050	811	1720	735	2230	1160	2790	1920
#2.	118.0' BL		F. LC. CONDUC		TOROSTEMEN							1998
		D, DILCI	110 001,000	TANCE (F		B/CM AI	25 DEG.C),	WAIER YEA	AR OCTOBER	1997 10	SEFIENDER	1000
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY	MAX AP	MIN	MAX	MIN YAY	MAX JI	MIN	MAX J	MIN	MAX	MIN GUST	MAX SEP	MIN TEMBER
DAY 1	MAX AP 2710	MIN RIL 2640	MAX N 2250	MIN MAY 2210	МАХ JI 	MIN UNE	MAX J	MIN ULY	MAX AU0 2960	MIN GUST 2950	MAX SEP 3130	MIN TEMBER 3110
DAY 1 2	MAX AP 2710 2750	MIN RIL 2640 2710	MAX 1 2250 2690	MIN MAY 2210 2250	XAM JT 	MIN UNE 	MAX J 	MIN ULY 	MAX AUC 2960 2970	MIN GUST 2950 2950	MAX SEP 3130 3140	MIN TEMBER 3110 3120
DAY 1 2 3	MAX AP 2710 2750 2770	MIN RIL 2640 2710 2740	MAX 2250 2690 2720	MIN MAY 2210 2250 2630	XAM JI 	MIN UNE 	MAX J 	MIN ULY	MAX AUC 2960 2970 2970	MIN GUST 2950 2950 2950	MAX SEP 3130 3140 3140	MIN TEMBER 3110 3120 3120
DAY 1 2 3 4	MAX AP 2710 2750 2770 2770	MIN RIL 2640 2710 2740 2560	MAX 2250 2690 2720 2630	MIN 2210 2250 2630 2490	XAM JT 	MIN UNE 	MAX J 	MIN ULY 	MAX AUC 2960 2970 2970 2980	MIN 2950 2950 2950 2960	MAX SEP 3130 3140 3140 3140	MIN TEMBER 3110 3120 3120 3130
DAY 1 2 3 4 5	MAX AP 2710 2750 2770 2770 2660	MIN 2640 2710 2740 2560 2600	MAX 2250 2690 2720 2630 2590	MIN 2210 2250 2630 2490 2310	MAX 	MIN UNE	MAX J 	MIN	MAX 2960 2970 2970 2980 2990	MIN 2950 2950 2950 2950 2960 2970	MAX SEP 3130 3140 3140 3140 3160	MIN TEMBER 3110 3120 3120 3130 3140
DAY 1 2 3 4 5	MAX AP 2710 2750 2770 2770 2660 2680	MIN 2640 2710 2740 2560 2600 2640	MAX 2250 2690 2720 2630 2590 2310	MIN 2210 2250 2630 2490 2310 2210	MAX JI 	MIN	MAX J 	MIN	MAX 2960 2970 2970 2980 2990 3000	MIN 2950 2950 2950 2960 2970 2980	MAX SEP 3130 3140 3140 3160 3160	MIN TEMBER 3110 3120 3120 3130 3140 3150
DAY 1 2 3 4 5 6 7	MAX AP 2710 2750 2770 2770 2660 2680 2710	MIN RIL 2640 2710 2740 2560 2600 2640 2670	MAX 2250 2690 2720 2630 2590 2310 2380	MIN 2210 2250 2630 2490 2310 2210 2270	MAX JI 	MIN	MAX J 	MIN	MAX 2960 2970 2970 2980 2990 3000 3000	MIN 2950 2950 2950 2960 2970 2980 2980	MAX SEP 3130 3140 3140 3160 3160 3160	MIN TEMBER 3110 3120 3120 3130 3140 3150 3160
DAY 1 2 3 4 5 6 7 8	MAX AP 2710 2750 2770 2770 2660 2680 2710 2730	MIN RIL 2640 2710 2740 2560 2600 2640 2670 2710	MAX 2250 2690 2720 2630 2590 2310 2380 2460	MIN 2210 2250 2630 2490 2310 2210 2270 2380	MAX	MIN	MAX J	MIN	MAX AUC 2960 2970 2970 2980 2990 3000 3000 3000	MIN 2950 2950 2950 2960 2970 2980 2980 2990	MAX SEP 3130 3140 3140 3140 3160 3160 3180 3200	MIN TEMBER 3110 3120 3120 3130 3140 3150 3160 3180
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DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	MAX AP 2710 2750 2770 2770 2660 2680 2710 2730 2820 3020 3060 3100 3110 2980 3000 3160 3240 3240 3240 3250 3050 3060 3050 3060 3050 3060 2850 2760 2800 2810 2680 2690	MIN RIL 2640 2710 2740 2560 2600 2640 2670 2710 2720 2820 3050 2980 2860 2870 3000 3160 3220 2710 2750 2730 2750 2730 2700 2840 2710 2690 2660 2230	MAX 2250 2690 2720 2630 2590 2310 2380 2460 25520 2570 2610 2640 2660 2710 2740 2770 2790 2810 2830 2840 2850 2840 2850 2840 2850 2840 2850 2860	MIN #AY 2210 2250 2630 2490 2310 2270 2380 2460 2520 2570 2600 2620 2670 2770 2790 2800 2810 2820 2820 2830 2830 2830 2830	MAX JI	MIN UNE	MAX J 2800 2800 2810 2820 2820 2830 2850 2860 2870 2880 2910 2920 2940 2950 2960 2970 2970	MIN ULY 2780 2780 2780 2780 2810 2820 2830 2850 2850 2860 2870 2880 2990 2990 2990 2940 2950 2950 2940	MAX AUC 2960 2970 2980 2990 3000 3000 3000 3010 3020 3030 3040 3050 3060 3070 3070 3070 3070 3070 3080 3080 3090 3110 3110 3120	MIN SUST 2950 2950 2950 2960 2970 2980 2980 2990 3000 3010 3010 3010 3050 3050 3050 305	MAX SEP 3130 3140 3140 3140 3140 3160 3160 3200 3210 3230 3250 3260 3270 3280 3300 3310 3310 3310 3320 3330 3340 3350 3360 3370 3370 3380 3390 3390 3390	MIN TEMBER 3110 3120 3130 3140 3150 3160 3180 3200 3200 3200 3250 3260 3280 3270 3280 3290 3310 3310 3310 3310 3310 3310 3310 33
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX AP 2710 2750 2770 2770 2660 2680 2710 2730 2820 3020 3060 3110 2980 3000 3160 3240 3240 3230 3050 3060 3050 3050 2850 2760 2800 2810 2680 2690	MIN RIL 2640 2710 2740 2560 2600 2640 2670 2710 2720 2820 3050 2980 2860 2870 3000 3160 3220 2710 2750 2730 2700 3020 2840 2710 2690 2760 2660 2230	MAX 2250 2690 2720 2630 2590 2310 2380 2460 25520 2570 2610 2640 2660 2710 2740 2770 2790 2810 2830 2840 2850 2840 2850 2840 2850 2860	MIN 2210 2250 2630 2490 2310 2210 2270 2380 2460 2520 2670 2600 2620 2650 2680 2710 2790 2800 2810 2820 2830 2830 2830 2830 2830	MAX JI	MIN UNE	MAX J 2800 2800 2810 2820 2820 2820 2820 2820	MIN ULY 2780 2780 2780 2780 2800 2810 2820 2830 2850 2860 2870 2880 2870 2880 2990 2990 2940 2950 2950	MAX AUC 2960 2970 2980 2990 3000 3000 3000 3010 3020 3030 3040 3050 3060 3070 3070 3070 3070 3070 3070 3080 308	MIN 2950 2950 2950 2950 2960 2970 2980 2980 2990 3010 3010 3010 3010 3050 3050 3050 305	MAX SEP 3130 3140 3140 3140 3140 3160 3180 3200 3210 3230 3250 3260 3270 3280 3300 3310 3310 3310 3310 3310 3310 33	MIN TEMBER 3110 3120 3130 3140 3150 3160 3180 3200 3200 3220 3230 3250 3260 3280 3270 3280 3290 3310 3310 3310 3310 3310 3310 3350 3360 3370 3360 3370 3370

415307080414600 AB-140 NR KINGSVILLE, OH-Continued

#3 (14.0' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

#3	(14.0′ BL	S) SPECI	FIC CONDUC	1111101 (11.	ICROSIEMENS	5/ CII III 2	S DEG.C),	WIII DIC I DI	IK OCTOBER		DELIBRIDER	1000
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCIM	OBER	MOM	EMBER	DECE	MDED	T 7.7	NUARY	HEDI	RUARY		IARCH
	OCI	OBER	NOVI	EMBEK	DECE	MBEK	JAI	NUARI	FEBI	KUAKI	Iv	IARCH
1	2600	2580			2680	1830	1540	1500	1170	1160	1940	1910
2	2610	2590			1830	1810	1500	1460	1190	1170	1950	1930
3	2610	2590			1810	1800	1460	1440	1220	1190	1960	1940
4	2610	2590			1810	1800	1600	1440	1240	1220	1960	1940
5	2620	2580			1810	1790	1620	1280	1250	1230	1990	1960
6	2620	2610			1790	1770	1420	1310	1260	1240	2030	1990
7	2620	2610			1770	1760	1610	1420	1280	1250	2050	2030
8	2620	2610			1810	1690	1690	986	1300	1270	2090	2050
9	2620	2600			1700	1570	986	835	1310	1290	2170	2090
10	2620	2600			1570	1550	836	802	1350	1310	2270	2170
11	2610	2600			1570	1550	807	762	1380	1350	2340	2270
12	2610	2600			1590	1570	820	734	1430	1380	2400	2340
13	2610	2590			1580	1550	1060	820	1520	1430	2420	2390
14	2600	2590			1560	1520	1200	1060	1570	1520	2460	2280
15	2600	2590			1530	1500	1220	1200	1610	1570	2310	2290
16					1510	1480	1220	1190	1630	1600	2330	2300
17					1480	1460	1190	1160	1740	1630	2670	2320
18					1470	1450	1180	1160	2030	1740	2780	2670
19					1450	1430	1190	1170	2180	2030		
20					1440	1400	1200	1180	2220	2180		
21					1400	1380	1210	1200	2210	2020	2140	2020
22					1420	1390	1210	1210	2030	1980	2140	2050
23												
					1510	1420	1340	1230	2000	1870	2280	2180
24					1490	1300	1380	1340	1890	1720	2330	2270
25					1300	877	1380	1000	1870	1790	2390	2320
26					877	816	1170	1080	1890	1860	2440	2360
27					897	812	1180	1160	1900	1880	2600	2440
28					1240	897	1200	1180	1920	1890	2700	2600
29			2810	2680	1460	1240	1200	1190			2770	2690
30			2710	2680	1540	1460	1200	1190			2770	
												2460
31					1550	1530	1190	1160			2630	2530
MONTH	2620	2580	2810	2680	2680	812	1690	734	2220	1160	2780	1910
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#3	(14.0' BL	S) SPECI	.FIC CONDUC	TANCE (M	ICROSTEMENS	3/CM AT 2	15 DEG.C),	WATER YEA	R OCTOBER	1997 10	SEPTEMBER	1990
#3 DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	MAX		MAX		MAX		MAX		MAX		MAX	
DAY	MAX AP	MIN	XAM	MIN YAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX SEF	MIN TEMBER
DAY 1	MAX AP 2690	MIN RIL 2630	MAX 1 2230	MIN MAY 2120	MAX JU	MIN	XAM	MIN	MAX AUC 2680	MIN GUST 2670	MAX SEF 2690	MIN PTEMBER 2690
DAY 1 2	MAX AP 2690 2730	MIN RIL 2630 2670	MAX 1 2230 2480	MIN MAY 2120 2220	MAX JU 	MIN NE 	ХАМ ЛС 	MIN ULY 	MAX AUG 2680 2690	MIN GUST 2670 2670	MAX SEF 2690 2700	MIN PTEMBER 2690 2690
DAY 1 2 3	MAX AP 2690 2730 2670	MIN RIL 2630 2670 2430	MAX 2230 2480 2470	MIN MAY 2120 2220 2250	MAX JU 	MIN NE	XAM JU 	MIN ULY 	MAX AUG 2680 2690 2690	MIN GUST 2670 2670 2670	MAX SEF 2690 2700 2700	MIN PTEMBER 2690 2690 2690
DAY 1 2 3 4	MAX AP 2690 2730 2670 2590	MIN RIL 2630 2670 2430 2450	MAX 2230 2480 2470 2250	MIN 2120 2220 2250 2140	MAX JU 	MIN NE	XAM JI 	MIN ULY 	MAX AUC 2680 2690 2690 2690	MIN GUST 2670 2670 2670 2670	MAX SEF 2690 2700 2700 2700	MIN PTEMBER 2690 2690 2690 2700
DAY 1 2 3	MAX AP 2690 2730 2670	MIN RIL 2630 2670 2430	MAX 2230 2480 2470	MIN MAY 2120 2220 2250	MAX JU 	MIN NE	XAM JU 	MIN ULY 	MAX AUG 2680 2690 2690	MIN GUST 2670 2670 2670	MAX SEF 2690 2700 2700	MIN PTEMBER 2690 2690 2690
DAY 1 2 3 4	MAX AP 2690 2730 2670 2590	MIN RIL 2630 2670 2430 2450	MAX 2230 2480 2470 2250	MIN 2120 2220 2250 2140	MAX JU 	MIN NE	XAM JI 	MIN ULY 	MAX AUC 2680 2690 2690 2690	MIN GUST 2670 2670 2670 2670	MAX SEF 2690 2700 2700 2700	MIN PTEMBER 2690 2690 2690 2700
DAY 1 2 3 4 5	MAX AP 2690 2730 2670 2590 2650	MIN 2630 2670 2430 2450 2580	MAX 2230 2480 2470 2250 2140	MIN 2120 2220 2250 2140 1960	MAX JU 	MIN	MAX JT 	MIN 	MAX AUC 2680 2690 2690 2690 2680	MIN GUST 2670 2670 2670 2670 2670	MAX SEF 2690 2700 2700 2700 2700	MIN PTEMBER 2690 2690 2690 2700 2700
DAY 1 2 3 4 5 6 7	MAX AP 2690 2730 2670 2590 2650 2660 2700	MIN RIL 2630 2670 2430 2450 2580 2630 2660	MAX 2230 2480 2470 2250 2140 2270 2380	MIN 2120 2220 2250 2140 1960 2080 2270	MAX JU 	MIN NE	MAX JT 	MIN	MAX AUC 2680 2690 2690 2690 2680 2680	MIN 2670 2670 2670 2670 2670 2680 2680	MAX SEF 2690 2700 2700 2700 2700 2710	MIN PTEMBER 2690 2690 2690 2700 2700 2700 2690
DAY 1 2 3 4 5 6 7 8	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570	MAX 2230 2480 2470 2250 2140 2270 2380 2460	MIN 2120 2220 2250 2140 1960 2080 2270 2380	MAX JU 	MIN	MAX JT 	MIN	MAX AUC 2680 2690 2690 2690 2680 2680 2680	MIN 2670 2670 2670 2670 2670 2680 2680 2680	MAX SEF 2690 2700 2700 2700 2710 2710 2710	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690
DAY 1 2 3 4 5 6 7 8 9	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790	MIN 2630 2670 2430 2450 2580 2630 2660 2570 2500	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460	MAX	MIN	MAX JT	MIN	MAX 2680 2690 2690 2690 2680 2680 2680 2680	MIN 2670 2670 2670 2670 2670 2680 2680 2680 2680	MAX SEE 2690 2700 2700 2700 2710 2710 2710 2690 2700	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2690
DAY 1 2 3 4 5 6 7 8 9 10	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2500 2790	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510	MAX	MIN	MAX JT	MIN	MAX AUC 2680 2690 2690 2690 2680 2680 2680 2680 2680 2690	MIN 2670 2670 2670 2670 2670 2670 2680 2680 2680 2680 2660	MAX SEE 2690 2700 2700 2700 2710 2710 2690 2710 2710	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2690 2690 2700
DAY 1 2 3 4 5 6 7 8 9	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790	MIN 2630 2670 2430 2450 2580 2630 2660 2570 2500	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460	MAX	MIN	MAX JT	MIN	MAX 2680 2690 2690 2690 2680 2680 2680 2680	MIN 2670 2670 2670 2670 2670 2680 2680 2680 2680	MAX SEE 2690 2700 2700 2700 2710 2710 2710 2690 2700	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2690
DAY 1 2 3 4 5 6 7 8 9 10	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2500 2790	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510	MAX	MIN	MAX JT	MIN	MAX AUC 2680 2690 2690 2690 2680 2680 2680 2680 2680 2690	MIN 2670 2670 2670 2670 2670 2670 2680 2680 2680 2680 2660	MAX SEE 2690 2700 2700 2700 2710 2710 2690 2710 2710	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2690 2690 2700
DAY 1 2 3 4 5 6 7 8 9 10 11	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2500 2790 2990	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560	MAX	MIN	MAX JT	MIN	MAX AUC 2680 2690 2690 2690 2680 2680 2680 2680 2680 2690 2700	MIN 2670 2670 2670 2670 2670 2670 2670 2680 2680 2680 2680 2660 2670	MAX SEE 2690 2700 2700 2700 2710 2710 2710 2690 2710 2710 2720	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2690 2690 2710
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2790 2990 2670	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2550 2560 2590 2620	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590	MAX	MIN NE	MAX JI	MIN	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2680 2680 2680 2690 2710	MIN GUST 2670 2670 2670 2670 2680 2680 2680 2660 2670 2670 2690	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2710 2710 2720 2730	MIN PTEMBER 2690 2690 2700 2700 2690 2690 2690 2690 2790 2710 2710 2710 2720 2720
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2500 2790 2990 2670 2590 2570	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560 2590 2650 2650 2660	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620	MAX JU	MIN NE	MAX JI 2660 2660 2660	MIN 2640 2650	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2680 26700 2710 2710 2700	MIN GUST 2670 2670 2670 2670 2670 2680 2680 2680 2680 2680 2670 2670 2700	MAX SEF 2690 2700 2700 2700 2710 2710 2690 2710 2710 2720 2730 2730 2730	MIN 2690 2690 2700 2700 2690 2690 2700 2690 2690 2690 2710 2710 2720 2720 2720
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2500 2790 2990 2670 2590 2570 2610	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560 2590 2620 2650 2660 2640	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620	MAX JU	MIN NE	MAX JI 2660 2660 2660 266	MIN 2640 2650 2650 2650	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2680 2700 2710 2710 2700 2700	MIN 2670 2670 2670 2670 2670 2670 2680 2680 2680 2680 2660 2670 2670 2700 2700 2690	MAX SEE 2690 2700 2700 2700 2710 2710 2710 2690 2710 2710 2720 2730 2730 2730 2730 2730	MIN PTEMBER 2690 2690 2700 2700 2690 2690 2690 2690 2710 2710 2720 2720 2720 2720
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650 3140	MIN RIL 2630 2670 2430 2450 2580 2660 2570 2500 2790 2990 2670 2590 2570 2610 2630	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560 2590 2650 2650 2660 2640 2670	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620	MAX JU	MIN NE	MAX JI 2660 2660 2660 2670	MIN 2640 2650 2650 2660	MAX AUC 2680 2690 2690 2680 2680 2680 2680 26700 2710 2710 2700 2700 2690	MIN 2670 2670 2670 2670 2670 2680 2680 2680 2660 2700 2700 2700 2690 2670 2670	MAX SEF 2690 2700 2700 2700 2710 2710 2690 2710 2720 2730 2730 2730 2730 2730 2730 2720	MIN PTEMBER 2690 2690 2700 2700 2690 2690 2690 2690 2690 2710 2720 2720 2720 2720 2720 2720
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX AP 2690 2730 2670 2590 2650 2660 2700 2790 3010 3050 3020 2670 2610 2650 3140 3220	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2790 2990 2670 2590 2570 2590 2610 2630 3140	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560 2590 2620 2650 2640 2670 2680	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2630 2670	MAX JU	MIN NE	MAX JI 2660 2660 2660 2670 2680	MIN 2640 2650 2650 2660 2670	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2680 2700 2710 2710 2700 2700 2690 2680	MIN 26707 2670 2670 2670 2670 2680 2680 2680 2680 2690 2700 2700 2690 2670 2660	MAX SEF 2690 2700 2700 2700 2710 2710 2690 2710 2720 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2700 2710 2720 2720 2720 2720 2720 272
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650 3140	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2790 2990 2670 2590 2570 2610 2630 3140 2530	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560 2590 2650 2650 2660 2640 2670	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620	MAX JU	MIN NE	MAX JI 2660 2660 2660 2670	MIN 2640 2650 2650 2660	MAX AUC 2680 2690 2690 2680 2680 2680 2680 26700 2710 2710 2700 2700 2690	MIN 2670 2670 2670 2670 2670 2680 2680 2680 2660 2700 2700 2700 2690 2670 2670	MAX SEF 2690 2700 2700 2700 2710 2710 2690 2710 2720 2730 2730 2730 2730 2730 2730 2720	MIN PTEMBER 2690 2690 2700 2700 2690 2690 2690 2690 2690 2710 2720 2720 2720 2720 2720 2720
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650 3140 3220 3220 2530	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2500 2790 2670 2590 2670 2590 2670 2630 3140 2530 2400	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560 2660 2660 2660 2660 2660 26	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2680	MAX JU	MIN NE	MAX JI 2660 2660 2660 2660 266	MIN ULY 2640 2650 2650 2650 2650 2660 2670 2680 2670	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2700 2690 2680 2680 2690	MIN GUST 2670 2670 2670 2670 2670 2680 2680 2680 2680 2690 2700 2700 2690 2700 2690 2700 2690 2600 2660	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2710 2730 2730 2730 2730 2730 2730 2730 2720 272	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2710 2720 2720 2720 2720 2720 2720 2700 2700 2690
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650 3140 3220 3220	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2790 2990 2670 2590 2570 2610 2630 3140 2530	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2550 2660 2650 2660 2640 2670 2680 2680	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2630 2670 2680	MAX JU	MIN NE	MAX JI 2660 2660 2660 2660 266	MIN 2640 2650 2650 2660 2670 2680	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2700 2680 2680 2680	MIN GUST 2670 2670 2670 2670 2680 2680 2680 2680 2690 2700 2700 2690 2700 2690 2700 2690 2700 2690	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2710 2730 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2690 2710 2720 2720 2720 2720 2720 2700 270
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650 3140 3220 3220 2530 2780	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2790 2990 2670 2590 2670 2590 2610 2630 3140 2530 2400 2470	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2550 2660 2650 2660 2640 2670 2680 2680 2690 2710	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2690	MAX JU	MIN NE	MAX JI 2660 2660 2660 2660 26	MIN ULY 2640 2650 2650 2650 2650 2670 2680 2670 2680	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2700 2680 2680 2680 2680	MIN GUST 2670 2670 2670 2670 2680 2680 2680 2680 2690 2700 2700 2690 2700 2690 2700 2690 2600 2660 2660	MAX SEE 2690 2700 2700 2700 2710 2710 2710 2710 2690 2730 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2710 2710 2720 2720 2720 2720 2720 272
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650 3140 3220 3220 2530 2780 2700	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2500 2790 2590 2570 2610 2630 3140 2530 2400 2470 2580	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560 2660 2660 2660 2660 2660 26	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2690 2710	MAX JU	MIN NE	MAX JU 2660 2660 2660 2660 26	MIN ULY 2640 2650 2650 2650 2650 2660 2670 2680 2670 2680	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2700 2690 2680 2660 2660 2660	MIN GUST 2670 2670 2670 2670 2680 2680 2680 2700 2700 2700 2690 2660 2660 2660 2660 2660 2660 26	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2710 2720 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2690 2690 2720 2710 2720 2720 2720 2720 2720 2730 2730
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650 3140 3220 3220 2780 2780 2700 3040	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2500 2790 2990 2570 2610 2630 3140 2530 2400 2470 2580 2680	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560 2650 2660 2640 2670 2680 2680 2690 2710 2720	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2690 2710 2710	MAX JU	MIN NE	MAX JU 2660 2660 2660 2660 26	MIN ULY 2640 2650 2650 2650 2650 2660 2670 2680 2670 2680 2680 2680	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2700 2710 2700 2690 2680 2680 2680	MIN GUST 2670 2670 2670 2670 2680 2680 2680 2700 2700 2700 2690 2660 2660 2660 2660 2660 2660 26	MAX SEE 2690 2700 2700 2700 2710 2710 2690 2710 2710 2720 2730 2730 2730 2730 2730 2720 272	MIN PTEMBER 2690 2690 2700 2700 2690 2690 2690 2710 2720 2720 2720 2720 2720 2720 2700
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX AP 2690 2730 2670 2590 2650 2660 2700 2790 3010 3050 3020 2670 2650 3140 3220 3220 2530 2780 2780 2700 3040 3050	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2790 2670 2590 2570 2610 2630 3140 2530 2470 2580 2680 2900	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2550 2660 2650 2660 2640 2670 2680 2680 2690 2710	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2680 2680 2690 2710 2690	MAX JU	MIN NE	MAX JT 2660 2660 2660 2660 266	MIN ULY 2640 2650 2650 2650 2650 2670 2680 2670 2680 2680 2680	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2700 2680 2680 2680 2680 2680 2680 2690 2700 2710 2710 2700 2700 2700 2700 270	MIN GUST 2670 2670 2670 2670 2680 2680 2680 2690 2700 2690 2660 2660 2660 2660 2660 2660 26	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2730 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2700 2710 2720 2720 2720 2720 2720 272
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650 3140 3220 2530 2780 2700 3040 3050 2900	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2790 2670 2590 2670 2590 2670 2590 2670 2590 2670 2610 2630 3140 2530 2400 2470 2580 2680 2900 2710	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2550 2660 2650 2660 2640 2670 2680 2680 2690 2710 2720 2710 2690	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2690 2710 2690 2680	MAX JU	MIN NE	MAX JT 2660 2660 2660 2660 266	MIN ULY 2640 2650 2650 2650 2650 2660 2670 2680 2670 2680 2690	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2710 2700 2680 2680 2680 2680 2680 2680 2670 2670 2670	MIN GUST 2670 2670 2670 2680 2680 2680 2700 2700 2690 2660 2660 2660 2660 2660 2660 26	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2730 2730 2730 2730 2730 2730 2750 2800 2830 2830	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2710 2720 2720 2720 2720 2720 2720 272
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX AP 2690 2730 2670 2590 2650 2660 2700 2790 3010 3050 3020 2670 2650 3140 3220 3220 2530 2780 2780 2700 3040 3050	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2790 2670 2590 2570 2610 2630 3140 2530 2470 2580 2680 2900	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2550 2660 2650 2660 2640 2670 2680 2680 2690 2710	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2680 2680 2690 2710 2690	MAX JU	MIN NE	MAX JT 2660 2660 2660 2660 266	MIN ULY 2640 2650 2650 2650 2650 2670 2680 2670 2680 2680 2680	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2700 2680 2680 2680 2680 2680 2680 2690 2700 2710 2710 2700 2700 2700 2700 270	MIN GUST 2670 2670 2670 2670 2680 2680 2680 2690 2700 2690 2660 2660 2660 2660 2660 2660 26	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2730 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2700 2710 2720 2720 2720 2720 2720 272
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX AP 2690 2730 2670 2590 2650 2660 2700 2790 3010 3050 3020 2670 2610 2650 3140 3220 2530 2780 2780 2700 3040 3050 2900 2710	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2790 2670 2590 2570 2610 2630 3140 2530 2400 2470 2580 2680 2900 2710 2560	MAX 2230 2480 2470 2250 2140 2270 2380 2460 25520 2560 2650 2660 2640 2670 2680 2680 2690 2710 2720 2710 2690 2690	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2690 2710 2690 2690 2690 2690 2690 2690 2690 269	MAX JU	MIN NE	MAX JT 2660 2660 2660 2660 2690 2690 2700 2700 2710	MIN ULY 2640 2650 2650 2650 2650 2670 2680 2670 2680 2670 2680 2690 2680	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2710 2700 2690 2660 2660 2660 2660 2670 2670 2670	MIN GUST 2670 2670 2670 2670 2680 2680 2660 2660 2660 2660 2660 2650 2650 265	MAX SEE 2690 2700 2700 2700 2710 2710 2710 2710 2720 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2700 2710 2720 2720 2720 2720 2720 272
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650 3140 3220 2530 2780 2790 3040 3050 2900 2710 2740	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2790 2670 2590 2670 2590 2670 2590 2670 2590 2670 2580 2630 2410 2580 2400 2470 2580 2900 2710 2560 2530	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2550 2660 2650 2660 2640 2670 2680 2690 2710 2720 2710 2690 2690 2660	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2690 2710 2710 2690 2680 2690 2630	MAX JU	MIN NE	MAX JU 2660 2660 2660 266	MIN ULY 2640 2650 2650 2650 2650 2670 2680 2670 2680 2690 2690 2690 2700	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2700 2680 2660 2660 2670 2670 2670 2680	MIN GUST 2670 2670 2670 2670 2680 2680 2660 2660 2660 2660 2660 2650 2650 2660 266	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2730 2730 2730 2730 2730 2730 2730 2750 2880 2890	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2710 2720 2720 2720 2720 2720 2720 272
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3670 2610 2650 3140 3220 2530 2780 2700 3040 3050 2900 2710 2740 2770	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2570 2610 2630 3140 2530 2470 2580 2680 2990 25710 2580 2680 2900 2710 2560 2530 2510	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2560 2660 2640 2670 2680 2690 2710 2720 2710 2690 2690 2660 2660 2660 2660	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2690 2710 2710 2690 2680 2690 2710 2690 2680 2690 2710 2690 2630 2630 2630	MAX JU	MIN NE	MAX JU 2660 2660 2660 266	MIN ULY 2640 2650 2650 2650 2650 2660 2670 2680 2670 2680 2690 2690 2690 2700	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2690 2660 2660 2660 2670 2670 2670 2670 2680 2680	MIN GUST 2670 2670 2670 2670 2680 2680 2690 2700 2690 2660 2660 2660 2660 2650 2650 2650 2660 266	MAX SEE 2690 2700 2700 2700 2710 2710 2710 2710 2720 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2710 2720 2720 2720 2720 2720 2720 2730 2790 2690 2700 2700 2700 2880 2880 2880
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 2670 2610 2650 3140 3220 2530 2780 2700 3040 3050 2900 2710 2740 2770 2510	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2500 2790 2990 2570 2610 2630 3140 2530 2470 2580 2680 2900 2710 2580 2530 2510 2130	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2520 2650 2660 2640 2670 2680 2690 2710 2720 2710 2690 2690 2660 2660 2640	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2620 2620 2620 2620 2630 2670 2680 2690 2710 2690 2710 2690 2690 2630 2670 2680 2690	MAX JU	MIN NE	MAX JU 2660 2660 2660	MIN ULY 2640 2650 2650 2650 2650 2660 2670 2680 2670 2680 2690 2690 2690	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2690 2660 2660 2660 2670 2670 2670 2680 2680 2680 2680	MIN SUST 2670 2670 2670 2670 2680 2680 2690 2700 2690 2660 2660 2660 2660 2660 2650 2650 265	MAX SEE 2690 2700 2700 2700 2710 2710 2690 2710 2710 2720 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2690 2690 2690 2710 2710 2720 2720 2720 2720 2720 2730 2700 270
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX AP 2690 2730 2670 2590 2650 2660 2700 2790 3010 3050 3020 2670 2650 3140 3220 3220 2530 2780 2780 2700 3040 3050 2900 2710 2740 2770 2510 2130	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2590 2670 2590 2570 2610 2630 3140 2530 2470 2580 2680 2990 2710 2560 2530 2510 2130 1920	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2550 2660 2650 2660 2640 2670 2680 2680 2690 2710 2720 2710 2690 2660 2660 2630	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2690 2710 2690 2690 2690 2690 2710 2690 2680 2690 2710 2690 2680 2690	MAX JU	MIN NE	MAX JU 2660 2660 2660	MIN ULY 2640 2650 2650 2650 2650 2670 2680 2670 2680 2690 2690 2690 2700 2700 2690 2670	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2700 2680 2660 2660 2670 2670 2680 2680 2680 2670 2670 2670	MIN GUST 2670 2670 2670 2680 2680 2680 2660 2660 2660 2660 266	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2710 2720 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2700 2710 2720 2720 2720 2720 2720 272
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DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX AP 2690 2730 2670 2590 2650 2660 2700 2790 3010 3050 3020 2670 2650 3140 3220 3220 2530 2780 2780 2700 3040 3050 2900 2710 2740 2770 2510 2130	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2590 2670 2590 2570 2610 2630 3140 2530 2470 2580 2680 2990 2710 2560 2530 2510 2130 1920	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2550 2660 2650 2660 2640 2670 2680 2680 2690 2710 2720 2710 2690 2660 2660 2630	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2690 2710 2690 2690 2690 2690 2710 2690 2680 2690 2710 2690 2680 2690	MAX JU	MIN NE	MAX JU 2660 2660 2660	MIN ULY 2640 2650 2650 2650 2650 2670 2680 2670 2680 2690 2690 2690 2700 2700 2690 2670	MAX AUC 2680 2690 2690 2680 2680 2680 2680 2700 2710 2710 2700 2700 2680 2660 2660 2670 2670 2680 2680 2680 2670 2670 2670	MIN GUST 2670 2670 2670 2680 2680 2680 2660 2660 2660 2660 266	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2710 2720 2730 2730 2730 2730 2730 2730 273	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2700 2710 2720 2720 2720 2720 2720 272
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX AP 2690 2730 2670 2590 2650 2660 2700 2720 2790 3010 3050 3020 2670 2610 2650 3140 3220 2530 2780 2700 3040 3050 2900 2710 2740 2770 2510 2130 2130	MIN RIL 2630 2670 2430 2450 2580 2630 2660 2570 2590 2670 2590 2670 2590 2670 2590 2670 2590 2670 2590 2670 2590 2670 2590 2670 2590 2670 2590 2670 2610 2630 3140 2530 2400 2470 2580 2900 2710 2560 2530 2510 2130 1920 2030	MAX 2230 2480 2470 2250 2140 2270 2380 2460 2550 2660 2650 2660 2640 2670 2680 2690 2710 2720 2720 2710 2690 2660 2640 2670 2690 2650 2710 2720 2710 2690 2690 2650	MIN 2120 2220 2250 2140 1960 2080 2270 2380 2460 2510 2560 2590 2620 2620 2620 2630 2670 2680 2690 2710 2690 2690 2710 2690 2630 2630 2630 2630 2630 2630 2630 263	MAX JU	MIN NE	MAX JT 2660 2660 2660 2660 2690 2690 2700 2700 2710 2710 2710 2700 2700 270	MIN ULY 2640 2650 2650 2650 2650 2670 2680 2670 2680 2690 2690 2700 2700 2690 2670 2670	MAX AUC 2680 2690 2690 2690 2680 2680 2680 2680 2700 2710 2700 2710 2700 2680 2660 2660 2670 2670 2670 2680 2680 2680 2680 2680	MIN GUST 2670 2670 2670 2680 2680 2680 2690 2700 2690 2660 2660 2660 2660 2650 2650 2650 265	MAX SEF 2690 2700 2700 2700 2710 2710 2710 2690 2710 2720 2730 2730 2730 2730 2730 2750 2800 2830 2890 2890 2890	MIN PTEMBER 2690 2690 2700 2700 2700 2690 2690 2710 2720 2720 2720 2720 2720 2720 272

YEAR

3220

YEAR

3110

728

PROJECT DATA

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

415307080414600 AB-140 NR KINGSVILLE, OH-Continued

#4 (10.0' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

#4	(10.0, BF	S) SPECII	FIC CONDUC	IMMCE (III	ICROSIEMENS	o/ Chi Ai Z	5 DEG.C), I	WAIDK IDA	K OCTOBER .		DEFIENDER .	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCT	OBER	MOME	MBER	DECE	MBER	TAN	IUARY	FEBR	117 D.V	M7	ARCH
	0010	OBER	NOVE	MBEK	DECE	MBEK	JAN	IUARI	FEBR	UARY	IVI <i>E</i>	ARCH
1					1910	1880	1580	1530	1200	1190	1630	1550
2					1880	1860	1540	1480	1220	1200	1560	1550
3					1860	1850	1490	1470	1240	1220	1560	1490
4					1850	1850	1640	1470	1260	1240	1490	1460
5					1850	1840	1650	1300	1270	1260	1460	1450
6					1840	1610	1450	1340	1280	1260	1480	1450
7					1630	1600	1620	1450	1300	1120	1490	1470
8					1770	1630	1710	993	1310	1080	1650	1490
9					1740	1550	1000	829	1340	1110	1710	1650
10					1610	1590	841	808	1350	1160	1800	1710
11					1610	1590	812	762	1410	1220	1710	1680
12					1640	1610	848	728	1420	1160	1690	1670
13					1630	1590	1100	848	1360	1220	1810	1690
14					1590	1560	1230	1100	1380	1220	1860	1680
15					1560	1530	1240	1230	1430	1380	1790	1710
15					1360	1530	1240	1230	1430	1360	1/90	1/10
16					1540	1510	1240	1200	1420	1380	1930	1790
17					1510	1500	1210	1180	1760	1390	2360	1930
18					1500	1490	1200	1180	2050	1760	2800	2360
19					1490	1470	1220	1200	2210	2050		
20					1470	1430	1220	1210	2250	2050		
21					1440	1410	1240	1220	2050	1690	2080	2030
22					1460	1430	1260	1240	1690	1650	2220	2080
23					1540	1450	1350	1260	1700	1660	2300	2220
24					1520	1100	1400	1000	1810	1700	2350	2300
25					1100	862	1110	989	1900	1770	2430	2340
26					862	805	1190	1110	1930	1760	2480	2300
27					930	808	1220	1190	1820	1670	2650	2480
28					1300	930	1220	1210	1710	1590	2760	2650
29			1940	1930	1510	1300	1230	1210			2780	2370
30			1930	1910	1580	1510	1230	1210			2620	2430
31			1930		1590	1570	1210	1180			2620	2500
31					1590	15/0	1210	1100			2690	2500
MONTH			1940	1910	1910	805	1710	728	2250	1080	2800	1450
		a) appar	ETC CONDITC		TODOGTEMENO				D OCHODED	1005 50	י משמששמשים	1000
# 4	(10 0' BT.											
#4	(10.0' BL	S) SPECII	FIC CONDUC	TANCE (M	ICROSIEMENS	3/CM AT 2	5 DEG.C), N	WATER YEA	R OCTOBER .	1997 TO S	DEPIEMBER I	1990
#4 DAY	(10.0' BL:	MIN	MAX	TANCE (M MIN	TCROSTEMENS MAX	S/CM AT 2 MIN	MAX	MIN	MAX	MIN	MAX	MIN
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	MAX		MAX			MIN	MAX			MIN	MAX	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY 1 2	MAX API	MIN RIL	MAX M	MIN IAY	MAX JU	MIN	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPI	MIN CEMBER
DAY 1	MAX API 2730	MIN RIL 2520	MAX M 2210	MIN IAY 2170	MAX JU	MIN NE	MAX JU	MIN JLY	MAX AUG	MIN UST	MAX SEPT	MIN TEMBER
DAY 1 2	MAX API 2730 2520	MIN RIL 2520 2330	MAX M 2210 2310	MIN MAY 2170 2160	MAX JU 	MIN NE	MAX JU 	MIN 	MAX AUG 	MIN UST 	MAX SEPT 	MIN CEMBER
DAY 1 2 3	MAX APP 2730 2520 2520	MIN RIL 2520 2330 2380	MAX M 2210 2310 2300	MIN AY 2170 2160 1730	MAX JU 	MIN NE	MAX JU 	MIN ULY 	MAX AUG 	MIN UST 	MAX SEP1 	MIN CEMBER
DAY 1 2 3 4 5	MAX API 2730 2520 2520 2530 2480	MIN RIL 2520 2330 2380 2430 2430	MAX M 2210 2310 2300 1930 2120	MIN 2170 2160 1730 1780 1930	MAX JU 	MIN	MAX JU 	MIN	MAX AUG	MIN UST 	MAX SEPT 	MIN TEMBER
DAY 1 2 3 4 5	MAX APP 2730 2520 2520 2530 2480 2430	MIN RIL 2520 2330 2380 2430 2430 2430	MAX M 2210 2310 2300 1930 2120 2320	MIN 2170 2160 1730 1780 1930 2120	MAX JU 	MIN NE	MAX JU 	MIN	MAX AUG	MIN UST 	MAX SEPT 	MIN CEMBER
DAY 1 2 3 4 5 6 7	MAX API 2730 2520 2520 2530 2480 2430 2270	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120	MAX 2210 2310 2300 1930 2120 2320 2430	MIN 2170 2160 1730 1780 1930 2120 2320	MAX JU 	MIN	MAX JU 	MIN	MAX AUG	MIN UST	MAX SEPT	MIN CEMBER
DAY 1 2 3 4 5 6 7 8	MAX AP: 2730 2520 2520 2530 2480 2430 2270 2120	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950	MAX 2210 2310 2300 1930 2120 2320 2430 2510	MIN 2170 2160 1730 1780 1930 2120 2320 2430	MAX	MIN	MAX	MIN	MAX AUG	MIN UST	MAX SEPT	MIN TEMBER
DAY 1 2 3 4 5 6 7 8 9	MAX APP 2730 2520 2520 2530 2480 2430 2270 2120 2300	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2500	MAX	MIN	MAX	MIN	MAX AUG	MIN UST	MAX SEPT	MIN TEMBER
DAY 1 2 3 4 5 6 7 8	MAX AP: 2730 2520 2520 2530 2480 2430 2270 2120	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950	MAX 2210 2310 2300 1930 2120 2320 2430 2510	MIN 2170 2160 1730 1780 1930 2120 2320 2430	MAX	MIN	MAX	MIN	MAX AUG	MIN UST	MAX SEPT	MIN TEMBER
DAY 1 2 3 4 5 6 7 8 9	MAX APP 2730 2520 2520 2530 2480 2430 2270 2120 2300	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2500	MAX	MIN	MAX	MIN	MAX AUG	MIN UST	MAX SEPT	MIN TEMBER
DAY 1 2 3 4 5 6 7 8 9 10	MAX AP: 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630	MIN RIL 2520 2330 2380 2430 2430 24270 2120 1950 1800 2300	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2500 2570	MAX	MIN	MAX	MIN	MAX AUG	MIN UST	MAX SEPT	MIN CEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11	MAX APP 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2500 2570	MAX	MIN	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN CEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2500 2570 2570 2540	MAX	MIN NE	MAX	MIN	MAX AUG	MIN UST	MAX SEPT	MIN "EMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060	MIN RIL 2520 2330 2380 2430 2430 2430 2120 1950 1800 2300 2100 2050 2030	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2500 2570 2570 2540 2540	MAX	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210	MIN RIL 2520 2330 2380 2430 2430 2430 2120 1950 1800 2300 2100 2050 2030 2010 2100	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2580 2550	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2500 2570 2570 2540 2550 2550 2520	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX APP 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770	MIN RIL 2520 2330 2380 2430 2430 2430 2120 1950 1800 2300 2100 2050 2010 2100 2050	MAX 2210 2310 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2580 2550 2540	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2500 2570 2570 2540 2550 2550 2520	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2010 2100 2050 2470	MAX M 2210 2310 2300 1930 2120 2320 2430 2570 2620 2630 2570 2580 2580 2550 2540 2570	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2540 2550 2520 2520	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN "EMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2470 2320	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2550 2540 2570 2580	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2540 2550 2520 2520 2570	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN TEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470 2520	MIN RIL 2520 2330 2330 2430 2430 2430 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2470 2320 2420	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2550 2540 2570 2580 2590	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2570 2540 2550 2520 2520 2520 2570 2570	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2470 2320	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2550 2540 2570 2580	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2540 2550 2520 2520 2570	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN TEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470 2520	MIN RIL 2520 2330 2330 2430 2430 2430 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2470 2320 2420	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2550 2540 2570 2580 2590	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2570 2540 2550 2520 2520 2520 2570 2570	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470 2520 2600	MIN RIL 2520 2330 2380 2430 2430 2430 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2470 2320 2420 2520	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2550 2540 2570 2580 2590 2600	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2500 2570 2570 2540 2550 2520 2520 2520 2570 2570 2570 2580	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN "EMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470 2520 2600 2750	MIN RIL 2520 2330 2430 2430 2430 2430 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2420 2420 2520 2600	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2580 2550 2540 2570 2580 2590 2600	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2540 2550 2520 2520 2520 2570 2570 2580 2580	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2770 2960 2470 2520 2600 2750 3110	MIN RIL 2520 2330 2380 2430 2430 2430 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2470 2320 2420 2520 2600 2750	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2580 2550 2540 2570 2680 2590 2600 2600 2600 2590	MIN 2170 2160 1730 1780 1930 2120 2320 2430 2500 2570 2570 2540 2550 2520 2520 2570 2570 2580 2580 2580	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2770 2960 2470 2520 2600 2750 3110 3110	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2320 2470 2320 2420 2520 2600 2750 2840 2600	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2550 2540 2570 2580 2590 2600 2600 2590 2580 2520	MIN LAY 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2540 2550 2520 2570 2570 2580 2580 2580 2580 2490	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN "EMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470 2520 2600 2750 3110 3110 2840 2600	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2030 2010 2100 2470 2320 2420 2520 2600 2750 2840 2600 2500	MAX 2210 2310 2300 1930 2120 2320 2430 2570 2620 2630 2570 2580 2550 2540 2570 2580 2590 2600 2590 2580 2520 2490	MIN LAY 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2540 2550 2520 2570 2570 2580 2580 2580 2580 2580 2490 2400	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX API 2730 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470 2520 2600 2750 3110 3110 2840 2600 2540	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2470 2320 2420 2520 2600 2750 2840 2600 2500 2400	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2550 2540 2570 2580 2590 2600 2600 2690 2580 2520 2490 2410	MIN LAY 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2550 2550 2550 2550 2550 2570 2580 2580 2580 2580 2580 2580 2580 258	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN "EMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470 2520 2600 2750 3110 3110 2210 2540 2530	MIN RIL 2520 2330 2430 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2420 2520 2600 2750 2840 2600 2500 2400 1640	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2580 2550 2540 2570 2580 2590 2600 2600 2690 2590 2600 2410 2310	MIN LAY 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2550 2520 2520 2520 2520 2570 2580 2580 2580 2580 2580 2580 2580 258	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX API 2730 2520 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470 2520 2600 2750 3110 3110 2840 2600 2540 2530 1910	MIN RIL 2520 2330 2380 2430 2430 2430 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2470 2320 2420 2520 2600 2750 2840 2600 2750 2840 2600 2750 2840 2600 2750 2840 2600 2750 2840 2600 2750 2840 2600 2750 2840 2600 2750 2840 2600 2750 2840 2600 2750	MAX 2210 2310 2300 1930 2120 2320 2430 2510 2570 2620 2630 2570 2580 2580 2580 2580 2590 2600 2600 2690 2590 2630 2410 2310	MIN LAY 2170 2160 1730 1780 1930 2120 2320 2430 2500 2570 2540 2550 2520 2520 2520 2570 2580 2580 2580 2580 2580 2580 2580 258	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX API 2730 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470 2520 2600 2750 3110 3110 2840 2600 2540 2530 1910 2060	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2010 2100 2050 2470 2320 2420 2520 2600 2750 2840 2600 2500 2400 1640 1670 1910	MAX 2210 2310 2300 1930 2120 2320 2430 2570 2620 2630 2570 2580 2570 2580 2570 2580 2590 2600 2600 2690 2690 2410 2310 2310	MIN LAY 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2540 2550 2520 2570 2570 2580 2580 2580 2580 2490 2400 2310 2290	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX API 2730 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2520 2600 2750 3110 3840 2600 2540 2530 1910 2060 2180	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2470 2320 2420 2520 2600 2750 2840 2600 2500 2400 1640 1670 1910 2060	MAX 2210 2310 2300 1930 2120 2320 2430 2570 2620 2630 2570 2580 2550 2540 2570 2580 2590 2600 2600 2690 2690 2690 2410 2310	MIN LAY 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2540 2550 2520 2570 2570 2580 2580 2580 2580 2580 2580 2580 258	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX API 2730 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2960 2470 2520 2600 2750 3110 3110 2840 2600 2540 2530 1910 2060	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2010 2100 2050 2470 2320 2420 2520 2600 2750 2840 2600 2500 2400 1640 1670 1910	MAX 2210 2310 2300 1930 2120 2320 2430 2570 2620 2630 2570 2580 2570 2580 2570 2580 2590 2600 2600 2690 2690 2410 2310 2	MIN LAY 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2540 2550 2520 2570 2570 2580 2580 2580 2580 2490 2400 2310 2290	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX API 2730 2520 2530 2480 2430 2270 2120 2300 2630 2510 2100 2060 2110 2210 2770 2520 2600 2750 3110 3840 2600 2540 2530 1910 2060 2180	MIN RIL 2520 2330 2380 2430 2430 2430 2270 2120 1950 1800 2300 2100 2050 2030 2010 2100 2050 2470 2320 2420 2520 2600 2750 2840 2600 2500 2400 1640 1670 1910 2060	MAX 2210 2310 2300 1930 2120 2320 2430 2570 2620 2630 2570 2580 2550 2540 2570 2580 2590 2600 2600 2690 2690 2690 2410 2310	MIN LAY 2170 2160 1730 1780 1930 2120 2320 2430 2570 2570 2540 2540 2550 2520 2570 2570 2580 2580 2580 2580 2580 2580 2580 258	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	MIN PEMBER

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

415307080414600 AB-140 NR KINGSVILLE, OH-Continued

#1 (22.0' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

					WAIER (DE		WAIER IEAR					
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCT	OBER	NOVE	MDED	DECE	MDED	T7.N	TITADV	FFDF	UARY	M:	ARCH
	001	LOBER	NOVE	MBEK	DECE	MBEK	JAN	IUARY	FEBR	CUARY	MIZ	ARCH
1	11.2	11.2			11.8	11.8	10.3	10.3	9.5	9.4	9.5	9.3
2	11.4	11.1			11.8	11.8	10.3	10.3	9.5	9.5	9.5	9.3
3	11.4	11.2			12.0	11.8	10.3	10.3	9.5	9.5	9.5	9.3
	11.4	11.2			11.8	11.8		10.3	9.5	9.4	9.5	
4							10.5					9.3
5	11.4	11.2			11.8	11.8	10.7	10.5	9.5	9.4	9.3	9.3
6	11.4	11.2			11.8	11.8	11.0	10.7	9.5	9.4	9.3	9.3
7	11.4	11.2			11.8	11.8	10.7	10.7	9.5	9.4	9.3	
												9.2
8	11.4	11.2			11.8	11.8	11.1	10.3	9.5	9.4	9.3	9.3
9	11.4	11.4			11.8	11.8	11.1	10.7	9.6	9.4	9.3	9.1
10	11.4	11.4			11.8	11.8	10.7	10.3	9.5	9.4	9.3	9.2
11	11.4	11.4			11.8	11.8	10 2	9.9	9.5	9.5	9.3	9.2
							10.3					
12	11.4	11.4			11.8	11.6	10.1	9.8	9.5	9.5	9.3	9.2
13	11.4	11.4			11.6	11.4	9.9	9.7	9.5	9.5	9.3	9.2
14	11.4	11.4			11.4	11.4	9.9	9.8	9.5	9.4	9.5	9.3
15	11.4	11.4			11.4	11.1	9.9	9.8	9.5	9.4	9.5	9.4
16					11.2	11.1	9.9	9.9	9.5	9.4	9.5	9.4
17					11.2	11.1	9.9	9.9	9.5	9.5	9.5	9.3
18					11.1	11.1	9.9	9.6	9.5	9.3	9.3	8.9
19					11.2	10.9	9.9	9.7	9.5	9.3		
20					11.1	10.9	9.9	9.6	9.3	9.3		
20					11.1	10.5	٥.,	5.0	5.5	5.5		
21					10.9	10.9	9.9	9.6	9.7	9.3	9.9	9.7
22					10.9	10.9	9.9	9.6	9.9	9.7	9.9	9.7
23					10.9	10.7	9.9	9.7	10.1	9.9	9.9	9.8
24					10.7	10.5	9.9	9.7	10.1	9.9	9.9	9.4
25					11.1	10.7	10.3	9.9	10.1	9.7	9.4	8.9
26					11.1	10.9	10.3	9.7	9.9	9.5	8.9	8.5
27					10.9	10.3	9.7	9.5	9.5	9.3	8.5	8.3
28					10.3	10.3	9.7	9.4	9.3	9.3	8.5	8.3
29			11.8	11.8	10.5	10.3	9.7	9.4			8.7	8.5
30			11.8	11.8	10.5	10.3	9.7	9.5			9.1	8.7
31					10.5	10.3	9.7	9.4			9.3	8.5
MONTH	11.4	11.1	11.8	11.8	12.0	10.3	11.1	9.4	10.1	9.3	9.9	8.3
		111 /00 01	DIG) MEM		MAMED /DE			OCHODED	1007 MO CEE	menanen :	1000	
		#1 (22.01	BLS) TEM	PERATURE.	WATER OUR	G. C).	WATER YEAR (OCTOBER	1997 10 555	THIMBER.	1998	
							WATER YEAR					
DAY	MAX	#1 (22.0°	MAX	MIN	MAX	G. C), MIN	WATER YEAR (MIN	MAX	MIN	MAX	MIN
DAY		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
DAY			MAX		MAX		MAX		MAX		MAX	MIN FEMBER
	AI	MIN PRIL	MAX M	MIN	MAX	MIN	MAX	MIN	MAX AUG	MIN	MAX SEP	rember
1	AE 8.7	MIN PRIL 8.5	MAX M 9.5	MIN AY 9.5	MAX JU	MIN NE	МАХ JU 	MIN JLY	MAX AUG 10.4	MIN GUST 10.3	MAX SEP	TEMBER
1 2	AE 8.7 8.9	MIN PRIL 8.5 8.7	MAX M 9.5 9.5	MIN AY 9.5 8.9	MAX JU 	MIN NE 	MAX JU 	MIN JLY 	MAX AUG 10.4 10.4	MIN GUST 10.3 10.3	MAX SEP 11.0 11.2	TEMBER 10.9 11.0
1 2 3	8.7 8.9 9.1	MIN PRIL 8.5 8.7 8.9	MAX M 9.5 9.5 9.3	MIN 9.5 8.9 8.9	MAX JU 	MIN NE 	МАХ JT 	MIN JLY 	MAX AUG 10.4 10.4 10.4	MIN GUST 10.3 10.3	MAX SEP ¹ 11.0 11.2 11.2	10.9 11.0 10.9
1 2 3 4	8.7 8.9 9.1 9.3	MIN PRIL 8.5 8.7 8.9 9.1	MAX 9.5 9.5 9.3 9.5	MIN 9.5 8.9 8.9 9.3	MAX JU 	MIN NE 	MAX JT 	MIN JLY 	MAX AUG 10.4 10.4 10.4 10.4	MIN SUST 10.3 10.3 10.3	MAX SEP 11.0 11.2 11.2	10.9 11.0 10.9 10.9
1 2 3	8.7 8.9 9.1	MIN PRIL 8.5 8.7 8.9	MAX M 9.5 9.5 9.3	MIN 9.5 8.9 8.9	MAX JU 	MIN NE 	МАХ JT 	MIN JLY 	MAX AUG 10.4 10.4 10.4	MIN GUST 10.3 10.3	MAX SEP ¹ 11.0 11.2 11.2	10.9 11.0 10.9
1 2 3 4 5	8.7 8.9 9.1 9.3 9.3	MIN PRIL 8.5 8.7 8.9 9.1 8.7	MAX 9.5 9.5 9.3 9.5 9.5	MIN 9.5 8.9 8.9 9.3 9.3	MAX JU 	MIN NE	MAX JT 	MIN	MAX AUG 10.4 10.4 10.4 10.4	MIN SUST 10.3 10.3 10.3 10.3	MAX SEP' 11.0 11.2 11.2 11.2	10.9 11.0 10.9 10.9 10.9
1 2 3 4 5	8.7 8.9 9.1 9.3 9.3	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6	MAX 9.5 9.5 9.3 9.5 9.5	MIN 9.5 8.9 8.9 9.3 9.3	MAX JU 	MIN NE	MAX 	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.4 10.4	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3	MAX SEP 11.0 11.2 11.2 11.2 11.2	10.9 11.0 10.9 10.9 10.9 11.0
1 2 3 4 5	8.7 8.9 9.1 9.3 9.3 8.9	MIN 8.5 8.7 8.9 9.1 8.7 8.6 8.7	MAX 9.5 9.5 9.3 9.5 9.5 9.6	MIN 9.5 8.9 8.9 9.3 9.3 9.3	MAX JU 	MIN NE	MAX 	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.4	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3	MAX SEPT 11.0 11.2 11.2 11.2 11.2	10.9 11.0 10.9 10.9 10.9 11.0
1 2 3 4 5 6 7 8	8.7 8.9 9.1 9.3 9.3 8.9 8.9	MIN 8.5 8.7 8.9 9.1 8.7 8.6 8.7	MAX 9.5 9.5 9.3 9.5 9.5 9.6 9.6	MIN 9.5 8.9 9.3 9.3 9.3 9.3	MAX JU 	MIN NE	MAX 	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.4 10.4 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2	10.9 11.0 10.9 10.9 10.9 11.0 11.0
1 2 3 4 5 6 7 8	8.7 8.9 9.1 9.3 9.3 8.9 8.9	MIN 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9	MAX 9.5 9.5 9.3 9.5 9.6 9.6 9.5	MIN 9.5 8.9 8.9 9.3 9.3 9.3 9.3 9.1	MAX	MIN	MAX 	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.4 10.4 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	10.9 11.0 10.9 10.9 10.9 11.0 11.0 11.2
1 2 3 4 5 6 7 8	8.7 8.9 9.1 9.3 9.3 8.9 8.9	MIN 8.5 8.7 8.9 9.1 8.7 8.6 8.7	MAX 9.5 9.5 9.3 9.5 9.5 9.6 9.6	MIN 9.5 8.9 9.3 9.3 9.3 9.3	MAX JU 	MIN NE	MAX 	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.4 10.4 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2	10.9 11.0 10.9 10.9 10.9 11.0 11.0
1 2 3 4 5 6 7 8 9	8.7 8.9 9.1 9.3 9.3 8.9 8.9 8.9	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9	MAX 9.5 9.5 9.3 9.5 9.6 9.6 9.5 9.3 9.1	MIN 9.5 8.9 9.3 9.3 9.3 9.3 9.5 9.3 9.5	MAX	MIN NE	MAX	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.4 10.4 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 10.9 11.0 11.0 11.2 11.2
1 2 3 4 5 6 7 8 9 10	8.7 8.9 9.1 9.3 9.3 8.9 8.9 8.9 9.1 8.9	MIN 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.6 8.7 8.9 8.9 8.7	MAX 9.5 9.5 9.3 9.5 9.6 9.6 9.6 9.1 8.9	MIN 9.5 8.9 8.9 9.3 9.3 9.3 9.5 9.1 8.9 8.9	MAX	MIN NE	MAX	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.4	MAX SEP 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.2 11.2 11.1
1 2 3 4 5 6 7 8 9 10	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9	MIN 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 8.7 8.9	MAX 9.5 9.5 9.3 9.5 9.6 9.6 9.6 9.5 9.3 9.1 8.9	MIN 9.5 8.9 8.9 9.3 9.3 9.3 9.5 9.3 9.5 8.9	MAX	MIN NE	MAX	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13	8.7 8.9 9.1 9.3 9.3 8.9 8.9 8.9 9.1 8.9	MIN 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.9 8.7 8.9 9.1	MAX 9.5 9.5 9.5 9.6 9.6 9.6 9.1 8.9 8.9	MIN 9.5 8.9 9.3 9.3 9.3 9.1 8.9 8.9 8.9	MAX	MIN NE	MAX	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.4 10.5 10.5	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 10.9 11.0 11.0 11.2 11.2 11.1 11.2 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.3	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.9 8.7 8.9 9.1 9.3	MAX 9.5 9.5 9.5 9.6 9.6 9.6 9.1 8.9 8.9 9.0	MIN 9.5 8.9 9.3 9.3 9.3 9.1 8.9 8.9 8.9 8.9	MAX JU	MIN NE	MAX JU 10.0 10.0	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	10.9 11.0 10.9 10.9 11.0 11.0 11.0 11.2 11.2 11.1 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13	8.7 8.9 9.1 9.3 9.3 8.9 8.9 8.9 9.1 8.9	MIN 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.9 8.7 8.9 9.1	MAX 9.5 9.5 9.5 9.6 9.6 9.6 9.1 8.9 8.9	MIN 9.5 8.9 9.3 9.3 9.3 9.1 8.9 8.9 8.9	MAX	MIN NE	MAX	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.4 10.5 10.5	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	8.7 8.9 9.1 9.3 9.3 8.9 8.9 8.9 9.1 9.3 9.5 9.5	MIN 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.9 9.1 9.3 9.3	MAX 9.5 9.5 9.5 9.6 9.6 9.5 9.1 8.9 8.9 9.0	MIN 9.5 8.9 9.3 9.3 9.3 9.5 9.3 9.5 9.8 9.9 8.9 8.9 8.9 8.9	MAX JU	MIN NE	MAX JT 10.0 10.0 10.0 10.	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.4 10.5 10.5 10.5	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 10.9 11.0 11.0 11.2 11.2 11.2 11.2 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.9 8.7 8.9 8.7 8.9 8.7 8.9 8.7	MAX 9.5 9.5 9.3 9.5 9.6 9.6 9.5 9.3 9.1 8.9 8.9 9.0 9.1	MIN 9.5 8.9 9.3 9.3 9.3 9.3 9.1 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN NE	MAX JU 10.0 10.0 10.1 10.1	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.4 10.5 10.5 10.5	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 10.9 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.5 9.5 9.5	MIN 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.9 8.7 8.9 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.9 8.7	MAX 9.5 9.5 9.3 9.5 9.6 9.6 9.6 9.1 8.9 8.9 9.0 9.1	MIN 9.5 8.9 8.9 9.3 9.3 9.3 9.5 9.1 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN 9.9 9.9 9.9 9.9	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 10.9 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 9.3 8.9 8.7 8.9	MAX 9.5 9.5 9.3 9.5 9.6 9.6 9.5 9.3 9.1 8.9 8.9 9.0 9.1	MIN 9.5 8.9 8.9 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.4 10.5 10.5 10.5	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 10.9 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 8.7 8.9 9.1 9.3 9.3	MAX 9.5 9.5 9.3 9.5 9.6 9.6 9.6 9.1 8.9 8.9 9.0 9.1	MIN 9.5 8.9 8.9 9.3 9.3 9.3 9.5 9.1 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN NE	MAX JT 10.0 10.0 10.0 10.1 10.1	MIN 9.9 9.9 9.9 9.9 9.9 10.0 10.0	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 10.9 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 9.3 8.9 8.7 8.9	MAX 9.5 9.5 9.5 9.6 9.6 9.6 9.5 9.3 9.1 8.9 8.9 9.0 9.0	MIN 9.5 8.9 8.9 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN 9.9 9.9 9.9 9.9 9.9 10.0	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEP 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.2 11.2 11.2 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.9 8.7 8.9 9.1	MAX M 9.5 9.5 9.5 9.6 9.6 9.5 9.1 8.9 8.9 9.0 9.1 9.1 9.2 9.2	MIN (AY) 9.5 8.9 8.9 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.0 9.1	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN JLY 9.9 9.9 9.9 9.9 9.9 10.0 10.0	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.4 10.5 10.5 10.5 10.5 10.5 10.5	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.2 11.2 11.2 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.9 8.7 8.9 9.1	MAX 9.5 9.5 9.5 9.6 9.6 9.5 9.3 9.1 8.9 8.9 9.0 9.1 9.1 9.2 9.3 9.3	MIN (AY 9.5 8.9 9.3 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1	MAX JU	MIN NE	MAX JT 10.0 10.0 10.0 10.1 10.1	MIN 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.0	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.5 10.5 10.5 10.5 10.5 10.6 10.6 10.6	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.9 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.9 9.3 9.3 8.9	MAX 9.5 9.5 9.6 9.6 9.6 9.5 9.1 8.9 8.9 9.0 9.1 9.1 9.1 9.2 9.3 9.3	MIN (AY 9.5 8.9 9.3 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.1 9.1 9.1	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.	MIN 9.9 9.9 9.9 9.9 9.	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.5 10.5 10.5 10.5 10.6 10.6 10.6 10.6	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.9 8.7 8.9 9.1	MAX 9.5 9.5 9.5 9.6 9.6 9.5 9.3 9.1 8.9 8.9 9.0 9.1 9.1 9.2 9.3 9.3	MIN (AY 9.5 8.9 9.3 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1	MAX JU	MIN NE	MAX JT 10.0 10.0 10.0 10.1 10.1	MIN 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.0	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.5 10.5 10.5 10.5 10.5 10.6 10.6 10.6	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.9 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.9 9.3 9.3 8.9	MAX 9.5 9.5 9.6 9.6 9.6 9.5 9.1 8.9 8.9 9.0 9.1 9.1 9.1 9.2 9.3 9.3	MIN (AY 9.5 8.9 9.3 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.1 9.1 9.1	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.	MIN 9.9 9.9 9.9 9.9 9.	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.4 10.6 10.5 10.5 10.5 10.5 10.6 10.6 10.6 10.6	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	8.7 8.7 8.9 9.1 9.3 9.3 8.9 9.1 8.9 9.1 9.5 9.5 9.5 9.5 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.7 8.9 9.3 9.3 8.7 8.9 8.7 8.9	MAX M 9.5 9.5 9.6 9.6 9.6 9.7 9.9 8.9 8.9 8.9 9.0 9.1 9.1 9.2 9.2 9.3 9.3 9.3	MIN (AY 9.5 8.9 8.9 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1 9.1 9.1 9.3 9.1	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.2 10.2 10.2 10.2	MIN 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.0 10.1 10.1	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8 10.8	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEP 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.2 11.2 11.2 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.9 9.3 9.3 8.7 8.9 9.3 9.3	MAX M 9.5 9.5 9.5 9.6 9.6 9.5 9.1 8.9 8.9 9.0 9.1 9.2 9.2 9.3 9.3 9.3 9.3 9.3	MIN (AY (9.5) 8.9 8.9 9.3 9.3 9.3 9.5 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1 9.1 9.1 9.3 9.1	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.0 10.1 10.1	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8 10.8 11.0	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.5 9.5 9.5 9.5 9.5 9.3	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.7 8.9 9.3 9.3 9.3 9.3 9.3	MAX M 9.5 9.5 9.6 9.6 9.6 9.3 9.1 8.9 8.9 9.0 9.1 9.2 9.3 9.3 9.3 9.3 9.3	MIN (AY) 9.5 8.9 8.9 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1 9.1 9.1 9.1 9.3 9.3	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.1 10.1	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8 10.8 11.0 11.0	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEP 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.2 11.2 11.2 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.9 9.3 9.3 8.7 8.9 9.3 9.3	MAX M 9.5 9.5 9.5 9.6 9.6 9.5 9.1 8.9 8.9 9.0 9.1 9.2 9.2 9.3 9.3 9.3 9.3 9.3	MIN (AY (9.5) 8.9 8.9 9.3 9.3 9.3 9.5 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1 9.1 9.1 9.3 9.1	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.0 10.1 10.1	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8 10.8 11.0	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.1 9.3 9.5 9.5 9.5 9.5 9.5 9.3	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.7 8.9 9.3 9.3 9.3 9.3 9.3	MAX M 9.5 9.5 9.6 9.6 9.6 9.3 9.1 8.9 8.9 9.0 9.1 9.2 9.3 9.3 9.3 9.3 9.3	MIN (AY) 9.5 8.9 8.9 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1 9.1 9.1 9.1 9.3 9.3	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.1 10.1	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8 10.8 11.0 11.0	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEP 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.2 11.2 11.2 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	8.7 8.9 9.1 9.3 9.3 8.9 8.9 9.1 8.9 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.9 8.7 8.9 9.3 9.3 8.9 9.3 9.3 8.7 8.9 9.3 9.3 9.3 9.3 9.3	MAX 9.5 9.5 9.6 9.6 9.5 9.8 9.9 9.0 9.1 9.2 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3	MIN (AY) 9.5 8.9 9.3 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1 9.1 9.1 9.1 9.3 9.3 9.3	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN JLY 9.9 9.9 9.9 9.9 9.	MAX AUG 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8 11.0 11.0	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.5 10.6 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.0 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	8.7 8.7 8.9 9.1 9.3 9.3 8.9 9.1 8.9 9.1 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.9 8.7 8.9 9.3 9.3 9.3 9.3 9.3 9.3	MAX M 9.5 9.5 9.6 9.6 9.6 9.7 9.9 8.9 9.0 9.1 9.2 9.2 9.3 9.3 9.3 9.3 9.3 9.3	MIN (AY 9.5 8.9 8.9 9.3 9.3 9.3 9.5 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1 9.1 9.1 9.3 9.1 9.3 9.3	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN JLY 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.1 10.1	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8 11.0 11.0 11.0	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.2 11.2 11.2 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	8.7 8.9 9.1 9.3 9.3 8.9 9.1 8.9 9.1 9.3 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3	MAX M 9.5 9.5 9.5 9.6 9.6 9.5 9.1 8.9 8.9 9.0 9.1 9.2 9.2 9.3 9.3 9.3 9.3 9.3 9.3	MIN (AY) 9.5 8.9 8.9 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1 9.1 9.1 9.1 9.3 9.3 9.3 9.3	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.0 10	MIN JLY 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.1 10.1	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8 11.0 11.0 11.0	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEP 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5 11.1 11.6 11.6	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.2 11.2 11.2 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	8.7 8.7 8.9 9.1 9.3 9.3 8.9 9.1 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 8.9 8.7 8.9 9.3 9.3 9.3 9.3 9.3 9.3	MAX M 9.5 9.5 9.6 9.6 9.6 9.7 9.9 8.9 9.0 9.1 9.2 9.2 9.3 9.3 9.3 9.3 9.3 9.3	MIN (AY 9.5 8.9 8.9 9.3 9.3 9.3 9.5 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1 9.1 9.1 9.3 9.1 9.3 9.3	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.1 10.1	MIN JLY 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.1 10.1	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8 11.0 11.0 11.0	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEPT 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.2 11.2 11.2 11.2 11.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	8.7 8.9 9.1 9.3 9.3 8.9 9.1 8.9 9.1 9.3 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5	MIN PRIL 8.5 8.7 8.9 9.1 8.7 8.6 8.7 8.9 8.7 8.9 9.1 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3	MAX M 9.5 9.5 9.5 9.6 9.6 9.5 9.1 8.9 8.9 9.0 9.1 9.2 9.2 9.3 9.3 9.3 9.3 9.3 9.3	MIN (AY) 9.5 8.9 8.9 9.3 9.3 9.5 9.3 9.1 8.9 8.9 8.9 8.9 8.9 8.9 9.0 9.1 9.1 9.1 9.1 9.1 9.3 9.3 9.3 9.3	MAX JU	MIN NE	MAX JU 10.0 10.0 10.0 10.0 10	MIN JLY 9.9 9.9 9.9 9.9 9.9 10.0 10.0 10.1 10.1	MAX AUG 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.8 10.8 10.8 10.8 10.8 11.0 11.0 11.0	MIN SUST 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.	MAX SEP 11.0 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5 11.1 11.6 11.6	TEMBER 10.9 11.0 10.9 11.0 11.0 11.0 11.2 11.2 11.2 11.2 11.2

YEAR

12.0

YEAR

12.3

7.9

PROJECT DATA

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

415307080414600 AB-140 NR KINGSVILLE, OH-Continued

#2 (18.0' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

		#2 (18.0)	BLS) IEME	PERATURE,	WATER (DE	sG. C),	WATER YEAR	OCTOBER	1997 TO SEP	I NACMAI	1998	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OC'	TOBER	NOVE	MBER	DECE	MBER	JΑ	NUARY	FEBR	UARY	MZ	ARCH
1	12.1	11.8			12.3	12.3	10.3	10.3	9.5	9.4	9.3	9.3
2	12.0	11.8			12.3	12.2	10.3	10.3	9.5	9.5	9.3	9.3
3	12.1	11.8			12.3	12.0	10.3	10.3	9.5	9.5	9.5	9.3
4	11.9	11.8			12.0	12.0	10.3	10.3	9.5	9.4	9.3	9.3
5	12.1	11.8			12.0	12.0	10.7	10.3	9.5	9.4	9.3	9.3
6	12.1	11.8			12.0	11.6	10.7	9.7	9.5	9.4	9.3	9.3
7									9.5			
8	12.1	11.8			12.0	11.6	10.3	10.1		9.4	9.3	9.1
	12.1	11.9			12.0	12.0	10.7	8.9	9.5	9.4	9.3	8.9
9	12.1	11.9			12.0	11.4	9.5	9.1	9.5	9.4	9.1	8.9
10	12.1	12.1			11.4	11.4	9.7	9.4	9.5	9.4	9.0	8.8
11	12.1	12.0			11.4	11.4	9.7	9.4	9.5	9.3	9.0	8.8
12	12.1	12.0			11.4	11.1	9.7	9.4	9.5	9.3	9.1	8.8
13	12.1	12.1			11.4	11.1	9.7	9.6	9.5	9.3	9.1	8.8
14	12.3	12.1			11.4	11.1	9.9	9.6	9.5	9.3	9.3	9.1
15	12.1	12.0			11.4	11.1	9.9	9.7	9.5	9.4	9.3	9.3
16					11.2	11.1	9.9	9.9	9.5	9.4	9.4	9.2
17					11.2	11.1	9.9	9.6	9.5	9.1	9.3	8.9
18					11.1	11.1	9.9	9.6	9.3	8.9	8.9	8.9
19					11.1	10.9	9.9	9.6	9.1	8.9		
20					11.1	10.9	9.7	9.6	9.3	8.9		
21					10.9	10.9	9.7	9.6	9.5	9.3	9.3	9.1
22					10.9	10.7	9.7	9.6	9.7	9.5	9.4	7.9
23					10.9	10.5	9.7	9.5	9.5	9.1	8.5	8.1
24					10.9	10.5	9.9	9.5	9.5	9.5	8.5	8.3
25					11.1	10.1	10.3	9.3	9.5	8.9	8.7	8.5
26					10.3	10.1	9.7	9.3	9.3	9.1	8.7	8.3
27					10.3	10.1	9.7	9.4	9.3	9.1	8.4	8.3
28					10.3	10.1	9.7	9.4	9.3	9.1	8.5	8.3
20 29			12.3						9.3	9.1	8.6	
				12.3	10.3	10.3	9.5	9.4				8.3
30			12.3	12.3	10.3	10.3	9.7	9.5			9.0	8.0
31					10.3	10.3	9.5	9.4			8.4	8.0
MONTH	12.3	11.8	12.3	12.3	12.3	10.1	10.7	8.9	9.7	8.9	9.5	7.9
		/10 0/	DIG) MEN		HAMED (DE	aa a)		OCHODED	1000 00 000	MEMPER 1	000	
		#2 (10.0	DEG, IEH	EKAIUKE,	WAILK (DE	sG. C),	WAILK ILAK	OCIOBER	1997 TO SEP	I DINDER I		
DAY	MAX	#2 (18.0°	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
DAY			MAX		MAX		MAX		MAX		MAX	MIN
DAY 1		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
	A	MIN PRIL	MAX M	MIN	MAX JU	MIN	MAX J	MIN	MAX AUG	MIN	MAX SEPI	TEMBER
1	A: 8.5 8.7	MIN PRIL 8.3 8.5	MAX M 8.7 8.9	MIN AY 8.3 8.3	MAX JU	MIN INE	MAX J	MIN ULY	MAX AUG 10.8 10.8	MIN SUST 10.6 10.6	MAX SEPT 11.6 11.6	TEMBER 11.4 11.4
1 2 3	A:5 8.7 8.9	MIN PRIL 8.3 8.5 8.7	MAX M 8.7 8.9 8.9	MIN AY 8.3 8.3 8.9	MAX JU 	MIN NE	MAX J 	MIN ULY	MAX AUG 10.8 10.8 11.0	MIN FUST 10.6 10.6 10.7	MAX SEPT 11.6 11.6 11.6	TEMBER 11.4 11.4 11.4
1 2 3 4	8.5 8.7 8.9 9.1	MIN PRIL 8.3 8.5 8.7 8.1	MAX M 8.7 8.9 8.9	MIN AY 8.3 8.3 8.9 8.7	MAX JU 	MIN UNE	MAX J 	MIN ULY	MAX AUG 10.8 10.8 11.0	MIN SUST 10.6 10.6 10.7	MAX SEPT 11.6 11.6 11.6 11.7	11.4 11.4 11.4 11.6
1 2 3 4 5	8.5 8.7 8.9 9.1 8.7	MIN PRIL 8.3 8.5 8.7 8.1 8.3	MAX M 8.7 8.9 8.9 8.9	MIN 8.3 8.3 8.3 8.7 8.7	MAX JU 	MIN	MAX J 	MIN ULY	MAX AUG 10.8 10.8 11.0 11.0	MIN 2UST 10.6 10.6 10.7 10.8 10.8	MAX SEPT 11.6 11.6 11.6 11.7	11.4 11.4 11.4 11.6 11.4
1 2 3 4 5	8.5 8.7 8.9 9.1 8.7	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.3	MAX M 8.7 8.9 8.9 8.9 8.9	MIN 8.3 8.3 8.9 8.7 8.7	MAX JU 	MIN	MAX J 	MIN	MAX AUG 10.8 10.8 11.0 11.0 11.0	MIN 2UST 10.6 10.6 10.7 10.8 10.8	MAX SEPT 11.6 11.6 11.6 11.7 11.7	11.4 11.4 11.4 11.6 11.6
1 2 3 4 5 6 7	8.5 8.7 8.9 9.1 8.7 8.7	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.3 8.3	MAX M 8.7 8.9 8.9 8.9 8.9 8.9	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5	MAX JU 	MIN	MAX J 	MIN	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0	MIN 2UST 10.6 10.6 10.7 10.8 10.8 10.8	MAX SEPT 11.6 11.6 11.7 11.7 11.7	11.4 11.4 11.4 11.6 11.6 11.6
1 2 3 4 5 6 7 8	8.5 8.7 8.9 9.1 8.7 8.7 8.7	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.3 8.5 8.5 8.5	MAX M 8.7 8.9 8.9 8.9 8.9	MIN 8.3 8.3 8.9 8.7 8.7 8.7	MAX JU 	MIN	MAX J 	MIN	MAX AUG 10.8 10.8 11.0 11.0 11.0	MIN 2UST 10.6 10.6 10.7 10.8 10.8	MAX SEPT 11.6 11.6 11.6 11.7 11.7	11.4 11.4 11.4 11.6 11.6
1 2 3 4 5 6 7	8.5 8.7 8.9 9.1 8.7 8.7	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.3 8.3	MAX M 8.7 8.9 8.9 8.9 8.9 8.9	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5	MAX JU 	MIN	MAX J 	MIN	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0	MIN 2UST 10.6 10.6 10.7 10.8 10.8 10.8	MAX SEPT 11.6 11.6 11.7 11.7 11.7	TEMBER 11.4 11.4 11.4 11.6 11.6 11.6 11.6 11.
1 2 3 4 5 6 7 8	8.5 8.7 8.9 9.1 8.7 8.7 8.7	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.3 8.5 8.5 8.5	MAX M 8.7 8.9 8.9 8.9 8.9 8.9 8.9	MIN 8.3 8.3 8.9 8.7 8.7 8.7	MAX	MIN	MAX J	MIN	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0	MIN OUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.6	TEMBER 11.4 11.4 11.4 11.6 11.6 11.6 11.6
1 2 3 4 5 6 7 8 9	8.5 8.7 8.9 9.1 8.7 8.7 8.7 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.7 8.1 8.3 8.5 8.7 8.3	MAX M 8.7 8.9 8.9 8.9 8.9 8.9 8.7 8.7	MIN 8.3 8.3 8.9 8.7 8.7 8.7 8.4 8.5 8.7 8.5 8.7	MAX	MIN	MAX J	MIN	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.6 11.8	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.6
1 2 3 4 5 6 7 8 9 10	8.5 8.7 8.9 9.1 8.7 8.7 8.7 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.7 8.3 8.5 8.7 8.5 8.7 8.8	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7	MIN AY 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7	MAX	MIN	MAX J	MIN ULY	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.8	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.
1 2 3 4 5 6 7 8 9 10	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.7 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.5 8.5 8.5 8.7 8.3	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9	MIN 8.3 8.3 8.9 8.7 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7	MAX	MIN	MAX J 10.3	MIN ULY 10.1	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.8 11.9	11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.6
1 2 3 4 5 6 7 8 9 10 11 12 13	A: 8.5 8.7 9.1 8.7 8.7 8.9 8.9 8.7	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.7 8.5 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.7 8.9	MIN 8.3 8.3 8.9 8.7 8.7 8.6 8.7 8.5 8.7 8.5 8.7 8.5 8.7 8.7 8.7 8.7	MAX	MIN	MAX J 10.3 10.4	MIN ULY 10.1	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.7 10.8 10.8 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.8 11.8 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14	8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.7 8.9	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.5 8.7 8.5 8.7	MAX JU	MIN	MAX J 10.3 10.4 10.3	MIN ULY 10.1 10.1	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.8 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.7 11.7
1 2 3 4 5 6 7 8 9 10 11 12 13	A: 8.5 8.7 9.1 8.7 8.7 8.9 8.9 8.7	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.7 8.5 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.7 8.9	MIN 8.3 8.3 8.9 8.7 8.7 8.6 8.7 8.5 8.7 8.5 8.7 8.5 8.7 8.7 8.7 8.7	MAX	MIN	MAX J 10.3 10.4	MIN ULY 10.1	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.7 10.8 10.8 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.8 11.8 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14	8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.7 8.9	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.5 8.7 8.5 8.7	MAX JU	MIN	MAX J 10.3 10.4 10.3	MIN ULY 10.1 10.1	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.8 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.7 11.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 9.0	MIN 8.3 8.3 8.9 8.7 8.7 8.7 8.5 8.7 8.5 8.7 8.7 8.5 8.7 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4	MIN ULY 10.1 10.1 10.1 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN SUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.8 11.8 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.7 11.8
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.7 8.9 9.1 8.9 9.1 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.3 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.5	MAX 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7	MIN AY 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4	MIN ULY 10.1 10.1 10.1 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.8 11.9 11.9 11.9 11.9 12.1	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.7 11.8 11.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.7 8.9 9.1 8.9 9.1	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.7 8.9 9.0 9.0	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4	MIN ULY 10.1 10.1 10.1 10.1 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN DUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.9 11.9 11.9 11.9 12.1 12.1	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.7 11.7 11.8 11.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.9 8.7 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.7 8.9 9.0 9.0	MIN 8.3 8.3 8.9 8.7 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4	MIN ULY 10.1 10.1 10.1 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.6 10.7 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.8 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.7 11.8 11.7 11.8 11.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.7 8.9 9.1 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.0 9.0 9.1	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MIN ULY 10.1 10.1 10.1 10.1 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN SUST 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.9 11.9 11.9 11.9 11.9 12.1 12.1 12.1	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.7 11.7 11.8 11.7 11.8 11.9 11.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.1	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MIN ULY 10.1 10.1 10.1 10.1 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN SUST 10.6 10.6 10.7 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.8 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.7 11.8 11.7 11.8 11.9 11.9 11.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.7 8.9 9.1 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.0 9.0 9.1	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MIN ULY 10.1 10.1 10.1 10.1 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN SUST 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.9 11.9 11.9 11.9 11.9 12.1 12.1 12.1	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.7 11.7 11.8 11.7 11.8 11.9 11.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.1	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MIN ULY 10.1 10.1 10.1 10.1 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN SUST 10.6 10.6 10.7 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.8 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.7 11.8 11.7 11.8 11.9 11.9 11.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A: 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.7 9.0 9.0 9.0 9.1 9.1	MIN 8.3 8.3 8.9 8.7 8.7 8.6 8.7 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MIN ULY 10.1 10.1 10.1 10.1 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN SUST 10.6 10.6 10.7 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.6 11.8 11.8 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.7 8.9 9.1 8.9 8.9 8.7 9.1 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.0 9.1 9.1 9.3	MIN AY 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MIN ULY 10.1 10.1 10.1 10.1 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN SUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.6 11.8 11.8 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.7 11.7 11.8 11.7 11.8 11.9 11.9 12.1 12.1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.7 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX 8.7 8.9 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.1 9.1 9.1 9.3 9.3 9.3	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 9.1 9.1 8.9 9.1	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.4 10.6 10.6 10.6	MIN ULY 10.1 10.1 10.1 10.3 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN DUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.6 11.8 11.8 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	A: 8.5 8.7 8.9 9.1 8.7 8.9 8.7 8.9 9.1 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.1 9.1 9.1 9.1 9.3 9.3	MIN 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.6 10.6 10.6	MIN ULY 10.1 10.1 10.1 10.1 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN SUST 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.9 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.7 8.9 9.1 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.1 9.1 9.1 9.1 9.3 9.3 9.3	MIN AY 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6	MIN ULY 10.1 10.1 10.1 10.1 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.8 11.8 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.7 11.8 11.7 11.8 11.7 11.8 11.7 11.8 11.7 11.8 11.7 11.8 11.7 11.8 11.7 11.8 11.9 11.9 11.9 11.9 11.9 11.9 12.1 12.1 12.1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	A: 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX M 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.1 9.1 9.1 9.1 9.3 9.3 9.3	MIN AY 8.3 8.3 8.9 8.7 8.7 8.6 8.7 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6	MIN ULY 10.1 10.1 10.1 10.1 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN SUST 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.1 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.6 11.6 11.8 11.8 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.1 9.1 9.3 9.3 9.3 9.3	MIN AY 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 9.1 9.1 9.1 9.1	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN ULY 10.1 10.1 10.1 10.3 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.7 11.6 11.6	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	A: 8.5 8.7 8.9 9.1 8.7 8.9 8.7 8.9 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.1 9.1 9.1 9.1 9.3 9.3 9.3 9.3	MIN AY 8.3 8.3 8.9 8.7 8.7 8.6 8.7 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN ULY 10.1 10.1 10.1 10.3 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN DUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.7 11.6 11.8 11.8 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	A: 8.5 8.7 8.9 9.1 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.1 9.1 9.3 9.3 9.3 9.3	MIN AY 8.3 8.3 8.9 8.7 8.7 8.4 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 9.1 9.1 9.1 9.1	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN ULY 10.1 10.1 10.1 10.3 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.0	MIN SUST 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.7 11.6 11.6	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	A: 8.5 8.7 8.9 9.1 8.7 8.9 8.7 8.9 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MIN PRIL 8.3 8.5 8.7 8.1 8.3 8.5 8.5 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	MAX 8.7 8.9 8.9 8.9 8.9 8.7 8.7 8.7 8.7 8.9 9.0 9.0 9.1 9.1 9.1 9.1 9.3 9.3 9.3 9.3	MIN AY 8.3 8.3 8.9 8.7 8.7 8.6 8.7 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	MAX JU	MIN	MAX J 10.3 10.4 10.3 10.4 10.4 10.4 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN ULY 10.1 10.1 10.1 10.3 10.3 10.3 10.3 10.3	MAX AUG 10.8 10.8 11.0 11.0 11.0 11.0 11.0 11.2 11.2 11.2	MIN DUST 10.6 10.6 10.7 10.8 10.8 10.8 11.0 11.0 11.0 11.0 11.0	MAX SEPT 11.6 11.6 11.7 11.7 11.7 11.7 11.6 11.8 11.8 11.9 11.9 11.9 11.9 11.9 11.9	TEMBER 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

415307080414600 AB-140 NR KINGSVILLE, OH-Continued #3 (14.0' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

		#3 (14.0)	BLS) TEMP	ERATURE,	WATER (DE	G. C),	WATER YEAR (OCTOBER	1997 TO SEP	LEMBER I	998	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	ОСТ	OBER	NOVE	MBED	DECE	MBED	.TAN	UARY	FEBR	IIVDA	MΛ	RCH
			NOVE	MDER								
1	13.2	13.0			12.3	11.6	10.1	9.8	9.2	8.9	9.3	8.9
2	13.3	13.0			11.8	11.6	10.1	9.7	9.3	8.9	9.3	8.9
3	13.3	13.0			11.8	11.8	10.3	9.9	9.3	8.9	9.3	9.1
4	13.3	13.0			11.8	11.6	10.3	10.1	9.3	8.9	9.3	8.9
5	13.3	13.0			11.8	11.6	10.3	9.3	9.3	9.1	9.1	8.9
6	13.3	13.0			11.8	11.8	9.7	9.5	9.3	9.0	9.1	8.9
7	13.3	13.0			12.0	11.6		9.5	9.3	9.0	9.1	8.9
8							10.1		9.3			
9	13.3	13.0			11.6	11.4	10.3 9.3	8.7	9.4	9.1	9.1 8.9	8.9
	13.3	13.0			11.6	11.1		8.9		9.1		8.7
10	13.3	13.0			11.4	11.4	9.3	8.9	9.3	8.9	9.0	8.8
11	13.3	13.0			11.4	11.1	9.3	8.9	9.3	8.9	9.0	8.8
12	13.3	13.0			11.1	10.9	9.3	8.9	9.3	9.1	9.1	8.8
13	13.3	13.0			11.1	10.9	9.5	9.3	9.3	9.1	9.1	8.9
14	13.3	13.2			11.1	10.9	9.5	9.2	9.3	9.2	9.1	8.5
15	13.2	13.2			11.1	10.9	9.7	9.3	9.4	9.1	8.7	8.7
16					11.0	10.9	9.7	9.4	9.3	9.1	8.9	8.6
17					10.9	10.7	9.5	9.4	9.3	9.1	9.3	8.1
18					10.9	10.7	9.5	9.3	9.1	8.9	8.9	8.5
19					10.9	10.7	9.5	9.2	8.9	8.9		
20					10.9	10.7	9.5	9.3	9.1	8.9		
21					10.7	10.5	9.5	9.2	9.5	8.7	7.9	7.2
22					10.5	10.3	9.5	9.4	9.1	8.7	8.1	7.3
23					10.7	10.3	9.5	9.3	9.3	8.7	8.1	7.7
24					10.5	10.3	9.7	9.3	8.7	7.7	8.3	8.1
25					10.7	9.7	9.9	8.3	8.9	8.1	8.3	8.1
26					9.9	9.5	9.3	8.9	8.9	8.5	8.3	8.0
27					9.7	9.5	9.3	9.1	8.9	8.7	8.0	7.8
28					10.1	9.7	9.3	9.1	9.1	8.9	8.1	7.8
29			12.5	12.3	10.1	9.9	9.3	8.9			8.7	8.1
30			12.3	12.3	10.1	9.9	9.3	9.1			8.7	7.2
31					10.1	9.8	9.3	9.1			8.1	7.6
MONTHIT	12.2	12.0	10 5	10.0	10.2	0 5	10.2	0 0	0 5		0 0	
MONTH	13.3	13.0	12.5	12.3	12.3	9.5	10.3	8.3	9.5	7.7	9.3	7.2
		#3 (14.0'	BLS) TEMP	ERATURE,	WATER (DE	G. C), 1	WATER YEAR O	OCTOBER	1997 TO SEP	TEMBER 1	998	
Dan	147.17		147.17		1/27/		M2.77	14737	242.77		142.17	14717
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY		MIN		MIN AY	MAX JU		MAX JU		MAX AUG			MIN EMBER
	AP	RIL	M	AY	JU	NE	JU	LY	AUG	UST	SEPT	EMBER
1	AP	RIL 7.9	M. 8.5	AY 8.1	JU.	NE 	JU 	LY 	AUG 12.1	UST 12.1	SEPT	EMBER
1 2	AP 8.3 8.7	7.9 8.1	M2 8.5 8.5	8.1 8.3	JU. 	NE 	JU 	LY 	AUG 12.1 12.3	UST 12.1 12.1	SEPT 13.0 13.0	EMBER 13.0 13.0
1 2 3	AP 8.3 8.7 8.1	7.9 8.1 7.4	8.5 8.5 8.4	8.1 8.3 8.3	JU. 	NE 	JU 	LY 	AUG 12.1 12.3 12.3	UST 12.1 12.1 12.1	SEPT 13.0 13.0 13.0	13.0 13.0 13.0
1 2 3 4	8.3 8.7 8.1 8.1	7.9 8.1 7.4 7.5	M. 8.5 8.5 8.4 8.4	8.1 8.3 8.3 8.3	JU. 	NE 	JU 	LY 	AUG 12.1 12.3 12.3 12.3	UST 12.1 12.1 12.1 12.1	SEPT 13.0 13.0 13.0 13.0	13.0 13.0 13.0 13.0
1 2 3	AP 8.3 8.7 8.1	7.9 8.1 7.4	8.5 8.5 8.4	8.1 8.3 8.3	JU. 	NE 	JU 	LY 	AUG 12.1 12.3 12.3	UST 12.1 12.1 12.1	SEPT 13.0 13.0 13.0	13.0 13.0 13.0
1 2 3 4	8.3 8.7 8.1 8.1	7.9 8.1 7.4 7.5	M. 8.5 8.5 8.4 8.4	8.1 8.3 8.3 8.3	JU. 	NE 	JU 	LY 	AUG 12.1 12.3 12.3 12.3	UST 12.1 12.1 12.1 12.1	SEPT 13.0 13.0 13.0 13.0	13.0 13.0 13.0 13.0
1 2 3 4 5	8.3 8.7 8.1 8.1 8.5	7.9 8.1 7.4 7.5 8.1	M. 8.5 8.5 8.4 8.4	8.1 8.3 8.3 8.3 8.3	JU. 	NE 	JU 	LY	AUG 12.1 12.3 12.3 12.3	12.1 12.1 12.1 12.1 12.1 12.3	SEPT 13.0 13.0 13.0 13.0 13.1	13.0 13.0 13.0 13.0 13.0
1 2 3 4 5	8.3 8.7 8.1 8.1 8.5	7.9 8.1 7.4 7.5 8.1 8.3 8.5	8.5 8.5 8.4 8.4 8.5	8.1 8.3 8.3 8.3 8.3	JU. 	NE	JU 	LY	AUG 12.1 12.3 12.3 12.3 12.3 12.4	12.1 12.1 12.1 12.1 12.3 12.3 12.3	SEPT. 13.0 13.0 13.0 13.0 13.1 13.1 13.2	13.0 13.0 13.0 13.0 13.0 13.0
1 2 3 4 5 6 7 8	8.3 8.7 8.1 8.1 8.5 8.7 8.7	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9	8.5 8.5 8.4 8.4 8.5 8.7 8.8	8.1 8.3 8.3 8.3 8.3 8.3 8.3	JU. 	NE	JU 	LY	AUG 12.1 12.3 12.3 12.3 12.3 12.4 12.4	UST 12.1 12.1 12.1 12.1 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2	13.0 13.0 13.0 13.0 13.0 13.0 13.0
1 2 3 4 5	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.7	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9	M. 8.5 8.5 8.4 8.4 8.5 8.7 8.8 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.3	JU.	NE	JU 	LY	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.4	UST 12.1 12.1 12.1 12.1 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.1 13.2 13.2 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.7 8.9	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3	M. 8.5 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.3 8.5 8.7	JU.	NE	JU 	LY	AUG 12.1 12.3 12.3 12.3 12.3 12.4 12.4 12.4 12.4	12.1 12.1 12.1 12.1 12.3 12.3 12.3 12.3	SEPT. 13.0 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.7 8.9 8.9	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.7 8.7	JU.	NE	JU 	LY	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.4 12.5	12.1 12.1 12.1 12.1 12.3 12.3 12.3 12.3	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.2 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.9	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7	JU.	NE	JU 11.4	LY 11.2	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.4 12.5 12.5	UST 12.1 12.1 12.1 12.1 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3	13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0
1 2 3 4 5 6 7 8 9 10 11 12 13	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.7 8.9 8.9 8.9	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.7	JU	NE	JU 11.4	LY	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.5 12.6 12.6	UST 12.1 12.1 12.1 12.1 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.7 8.9 8.9 8.7	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.8	JU	NE	JU 11.4 11.4	LY 11.2 11.2	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.5 12.6 12.6 12.6	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2 13.2
1 2 3 4 5 6 7 8 9 10 11 12 13	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.7 8.9 8.9 8.9	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.7	JU	NE	JU 11.4	LY	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.5 12.6 12.6	UST 12.1 12.1 12.1 12.1 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.7	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.7 8.7 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 11.5	LY 11.2 11.2 11.4	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.5 12.6 12.6 12.6 12.6	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.7 8.9 8.9 8.7 8.3 8.0 7.9 8.0	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 7.9 7.9 7.9 7.9	M. 8.5 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9 8.9 8.9 9.1	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.8 8.8	JU	NE	JU 11.4 11.4 11.5	LY 11.2 11.2 11.4 11.4	AUG 12.1 12.3 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.5 12.6 12.6 12.6 12.6 12.6	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.9 8.0 7.9 8.0	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 8.5	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.8	JU	NE	JU 11.4 11.4 11.5 11.4 11.4	LY 11.2 11.2 11.4 11.4 11.4	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.6 12.8 12.8	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.9 8.7 8.3 8.0 7.9 8.0	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.8	JU.	NE	JU 11.4 11.4 11.5 11.4 11.4 11.5	LY 11.2 11.2 11.4 11.4 11.4 11.4	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.9 8.9 8.0 7.9 8.0	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9 8.9 9.1 8.9 9.0	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.8 8.9	JU	NE	JU 11.4 11.4 11.5 11.4 11.4 11.5	LY 11.2 11.2 11.4 11.4 11.4 11.4	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.1 13.2 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.9 8.7 8.3 8.0 7.9 8.0	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.8	JU.	NE	JU 11.4 11.4 11.5 11.4 11.4 11.5	LY 11.2 11.2 11.4 11.4 11.4 11.4	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.9 8.9 8.0 7.9 8.0	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9 8.9 9.1 8.9 9.0	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.8 8.9	JU	NE	JU 11.4 11.4 11.5 11.4 11.4 11.5	LY 11.2 11.2 11.4 11.4 11.4 11.4	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.1 13.2 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.7 8.3 8.0 7.9 8.0 8.7 8.7 8.7	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.8 8.8	JU	NE	JU 11.4 11.4 11.5 11.4 11.4 11.6 11.7	LY 11.2 11.2 11.2 11.4 11.4 11.4 11.4	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.9 8.7 8.9 8.7 8.9	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 9.0 8.9	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 11.5 11.4 11.5 11.7 11.7	LY 11.2 11.2 11.4 11.4 11.4 11.4 11.6	AUG 12.1 12.3 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.1 13.2 13.2 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.7 8.9 8.0 7.9 8.0 7.9 8.7 8.7 8.1 8.3	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 9.0 9.0 9.1	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 11.5 11.4 11.4 11.5 11.7 11.7	LY 11.2 11.4 11.4 11.4 11.4 11.4 11.4 11.6 11.6	AUG 12.1 12.3 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.7 8.3 8.0 7.9 8.0 8.7 8.7 8.1 8.1 8.3 8.5	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 8.9 9.0 9.0 9.0 9.0	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 11.5 11.4 11.5 11.7 11.7	LY 11.2 11.2 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.7 8.0 8.0 7.9 8.0 8.7 8.1 8.1 8.1 8.1 8.1 8.1	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 9.0 9.0 9.0 9.0 9.0	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 11.5 11.4 11.5 11.7 11.7 11.7 11.7 11.9 11.9	LY 11.2 11.2 11.2 11.4 11.4 11.4 11.4 11.6 11.6 11.6 11.6	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8 13.0 13.0	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3 13.3 13.3 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.7 8.0 7.9 8.0 8.7 8.7 8.7 8.1 8.1 8.3 8.1 8.1 8.3	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 8.9 9.1 9.1 9.3 9.3	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	JU.	NE	JU 11.4 11.4 11.5 11.4 11.5 11.4 11.7 11.7 11.7 11.7 11.7 11.9 11.9	LY 11.2 11.2 11.2 11.4 11.4 11.4 11.4 11.4	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3 13.3 13.3 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.0 7.9 8.0 8.7 8.7 7.9 8.1 8.1 8.3 8.7 8.1 8.1 8.3	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 8.9 9.1 9.3 9.3 9.4	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 11.5 11.4 11.5 11.4 11.7 11.7 11.7 11.9 11.9 11.9 11.9	LY	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8 13.0 13.0 13.0	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.3 13.3 13.3 13.3 13.3 13.3 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.0 7.9 8.0 8.7 8.7 7.9 8.1 8.1 8.3 8.5 8.1 8.3	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.1 9.1 9.3 9.3 9.4 9.4	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 11.5 11.4 11.4 11.7 11.7 11.7 11.7 11.9 11.9 11.9 11.9	LY 11.2 11.2 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.1	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3 13.3 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.7 8.0 8.0 8.7 8.7 8.1 8.1 8.3 8.5 8.1 8.3 8.5 8.7	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 9.0 9.0 9.0 9.0 9.1 9.3 9.3 9.4 9.4 9.4	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 1	LY 11.2 11.2 11.4 11.4 11.4 11.4 11.6 11.6 11.6 11.6	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.1 13.1	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3 13.3 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.7 8.0 8.9 8.7 7.9 8.1 8.1 8.3 8.5 8.1 8.3	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 9.0 9.0 9.0 9.0 9.1 9.1 9.3 9.3 9.3	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	JU.	NE	JU 11.4 11.4 11.5 11.4 11.5 11.7 11.7 11.7 11.7 11.7 11.9 11.9 11.9	LY 11.2 11.2 11.2 11.4 11.4 11.4 11.4 11.6 11.6 11.6 11.6	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.1 13.1	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3 13.3 13.3 13.5	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.7 8.0 8.0 8.7 8.7 8.1 8.1 8.3 8.5 8.1 8.3 8.5 8.7	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 9.0 9.0 9.0 9.0 9.1 9.3 9.3 9.4 9.4 9.4	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 1	LY 11.2 11.2 11.4 11.4 11.4 11.4 11.6 11.6 11.6 11.6	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.1 13.1	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3 13.3 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.7 8.0 8.7 8.0 8.7 8.1 8.1 8.1 8.5 8.7 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 9.0 9.0 9.0 9.0 9.1 9.1 9.3 9.3 9.3	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	JU.	NE	JU 11.4 11.4 11.5 11.4 11.5 11.7 11.7 11.7 11.7 11.7 11.9 11.9 11.9	LY 11.2 11.2 11.2 11.4 11.4 11.4 11.4 11.6 11.6 11.6 11.6	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.1 13.1	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3 13.3 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 MONTH	8.3 8.7 8.1 8.1 8.7 8.7 8.7 8.9 8.9 8.7 8.0 7.9 8.0 8.7 8.7 8.7 8.1 8.1 8.3 8.5 8.1 8.3 8.5 8.1 8.5	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 9.0 9.0 9.0 9.1 9.3 9.1 9.3	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 11.5 11.4 11.5 11.7 11.7 11.7 11.7 11.7 11.9 11.9 11.9	LY 11.2 11.2 11.4 11.4 11.4 11.4 11.6 11.6 11.6 11.6	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.1 13.1 13.0 13.0	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3 13.3 13.3 13.5	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	8.3 8.7 8.1 8.1 8.5 8.7 8.7 8.9 8.9 8.7 8.0 8.7 8.0 8.7 8.1 8.1 8.1 8.5 8.7 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1	7.9 8.1 7.4 7.5 8.1 8.3 8.5 7.9 7.9 8.3 8.3 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9 7.9	M. 8.5 8.5 8.4 8.4 8.5 8.7 8.8 8.9 8.9 8.9 8.9 9.1 8.9 9.0 9.0 9.0 9.0 9.0 9.1 9.3 9.1 9.3	8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.7 8.7 8.7 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	JU	NE	JU 11.4 11.4 11.5 11.4 11.5 11.7 11.7 11.7 11.7 11.7 11.9 11.9 11.9	LY 11.2 11.2 11.4 11.4 11.4 11.4 11.6 11.6 11.6 11.6	AUG 12.1 12.3 12.3 12.3 12.4 12.4 12.4 12.5 12.6 12.6 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.1 13.1 13.0 13.0	UST 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.	SEPT. 13.0 13.0 13.0 13.1 13.1 13.2 13.2 13.3 13.3 13.3 13.3 13.3 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	EMBER 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

415307080414600 AB-140 NR KINGSVILLE, OH-Continued

#4 (10.0' BLS) EMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

		#4 (10.0'	BLS) EMP	ERATURE,	WATER (DEG	. C), WA	TER YEAR OC	TOBER 19	97 TO SEPT	EMBER 19	98	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	ОСП	ODED	NOVE	MDED	DECEM	DED	JANU	17 D 17	HEDDI	17 D37	MAR	CII
	OCTO	JBEK	NOVE	MBEK	DECEM	BEK	JANU	JAKI	FEBRU	JARI	MAN	CH
1					11.4	11.4	9.2	9.0	8.3	8.1	7.0	6.7
2					11.4	11.3	9.3	8.9	8.1	8.1	6.8	6.8
3					11.4	11.3	9.5	9.1	8.3	8.1	6.8	6.6
4					11.4	11.4	9.5	9.5	8.3	8.1	6.6	6.6
5					11.4	11.4	9.5	8.1	8.3	8.1	6.7	6.6
_					11 4	10 5	0 0	0 5	0 0	0 0	6 5	
6					11.4	10.7	8.9	8.7	8.3	8.3	6.7	6.6
7					10.9	10.7	9.3	8.9	8.5	7.4	6.8	6.6
8					10.9	10.5	9.5	7.4	8.5	7.3	6.8	6.6
9					10.9	10.3	8.3	7.9	8.5	7.5	6.8	6.7
10					10.9	10.7	8.1	7.9	8.3	7.3	7.0	6.8
11					10.9	10.5	8.1	7.9	8.5	7.7	7.0	6.8
12					10.5	10.3	8.3	7.9	8.3	7.4	6.8	6.8
13					10.3	10.1	8.5	8.3	7.5	7.3	6.8	6.8
14					10.3	10.3	8.7	8.4	7.7	7.5	6.8	6.6
15					10.3	10.1	8.7	8.5	7.7	7.2	6.8	6.8
16					10.3	10.1	8.9	8.7	7.6	7.2	6.8	6.7
17					10.3	10.1	8.7	8.5	8.5	7.2	7.4	6.8
18					10.1	9.9	8.7	8.5	8.3	7.9	8.1	7.0
19					10.1	9.9	8.7	8.5	7.9	7.9		
20					10.1	9.9	8.7	8.5	8.3	7.4		
21					9.9	9.4	8.5	8.5	7.4	6.8	7.0	6.8
22					9.9	9.4	8.7	8.5	6.8	6.6	7.2	6.8
23					9.9	9.3	8.7	8.5	6.8	6.6	7.3	7.2
24					9.7	8.9	8.9	7.7	7.5	6.8	7.4	7.2
25					9.3	8.7	8.1	7.7	7.9	7.2	7.6	6.8
					5.5	0.7	0.1	, . ,	7.5	7.2	7.0	0.0
26					8.7	8.3	8.3	8.1	8.1	7.2	7.3	6.7
27					8.7	8.3	8.3	8.1	7.4	6.7	7.2	7.0
28					9.1	8.7	8.3	8.1	7.2	6.8	7.4	7.2
29			11.4	11.4	9.3	9.0	8.5	8.1			7.6	6.2
30			11.4	11.4	9.3	9.0	8.5	8.3			7.1	6.5
31					9.2	9.0	8.3	8.1			7.3	6.5
MONTH			11 4	11 4	11 4	8.3	0 5	7.4	0 5		0 1	6.2
MONTH			11.4	11.4	11.4	8.3	9.5	7.4	8.5	6.6	8.1	6.2
	4	±4 (10 0'	BLS) TEMP	ERATURE.	WATER (DEG	. C). WA	TER YEAR O	CTOBER 1	997 TO SEPT	EMBER 19	98	
	7	m 1 (10.0				, ,						
DAV									MAY	MIN	MAY	MIN
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY		MIN	MAX			MIN		MIN	MAX AUGU		MAX SEPTE	
	MAX API	MIN	MAX M	MIN	MAX JUN	MIN	MAX JUL	MIN	AUGU	JST	SEPTE	MBER
1	MAX API 7.2	MIN RIL 6.5	MAX M. 8.1	MIN AY	MAX JUN	MIN E	MAX JUL	MIN Y	AUGU	JST 	SEPTE	MBER
1 2	MAX API 7.2 6.5	MIN RIL 6.5 6.3	MAX M. 8.1 8.1	MIN AY 7.9 7.9	MAX JUN 	MIN E 	MAX JUL 	MIN Y 	AUGU 	JST 	SEPTE 	EMBER
1 2 3	MAX API 7.2 6.5 7.2	MIN RIL 6.5 6.3 6.5	MAX MAX 8.1 8.1 8.2	MIN 7.9 7.9 8.1	MAX JUN 	MIN E 	MAX JUL 	MIN Y	AUGU 	JST 	SEPTE 	EMBER
1 2 3 4	MAX APP 7.2 6.5 7.2 7.0	MIN RIL 6.5 6.3 6.5 6.6	MAX M. 8.1 8.2 8.2	MIN 7.9 7.9 8.1 8.1	MAX JUN 	MIN E 	MAX JUL 	MIN 	AUGU 	JST 	SEPTE 	EMBER
1 2 3	MAX API 7.2 6.5 7.2	MIN RIL 6.5 6.3 6.5	MAX MAX 8.1 8.1 8.2	MIN 7.9 7.9 8.1	MAX JUN 	MIN E 	MAX JUL 	MIN Y	AUGU 	JST 	SEPTE 	EMBER
1 2 3 4	MAX APP 7.2 6.5 7.2 7.0	MIN RIL 6.5 6.3 6.5 6.6	MAX M. 8.1 8.2 8.2	MIN 7.9 7.9 8.1 8.1	MAX JUN 	MIN E 	MAX JUL 	MIN 	AUGU 	JST 	SEPTE 	EMBER
1 2 3 4 5	MAX 7.2 6.5 7.2 7.0 6.8	MIN 6.5 6.3 6.5 6.6	MAX 8.1 8.1 8.2 8.2 8.3	MIN 7.9 7.9 8.1 8.1 8.1	MAX JUN 	MIN E	MAX JUI 	MIN	AUGU 	JST 	SEPTE 	MBER
1 2 3 4 5	MAX APP 7.2 6.5 7.2 7.0 6.8 6.8	MIN 6.5 6.3 6.5 6.6 6.6	MAX 8.1 8.1 8.2 8.2 8.3 8.4	MIN 7.9 7.9 8.1 8.1 8.1 8.2	MAX JUN 	MIN E 	MAX JUL 	MIN	AUGU 	JST 	SEPTE	EMBER
1 2 3 4 5	MAX APP 7.2 6.5 7.2 7.0 6.8 6.8 6.9	MIN 6.5 6.3 6.5 6.6 6.6 6.6	MAX MAX 8.1 8.1 8.2 8.2 8.3 8.4 8.5	7.9 7.9 8.1 8.1 8.1 8.2	MAX JUN 	MIN E	MAX JUI 	MIN	AUGU 	UST	SEPTE	EMBER
1 2 3 4 5 6 7 8	MAX APP 7.2 6.5 7.2 7.0 6.8 6.8 6.9 6.9	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.6	MAX M. 8.1 8.1 8.2 8.2 8.3 8.4 8.5	7.9 7.9 8.1 8.1 8.1 8.2 8.3	MAX	MIN E	MAX	MIN	AUGU 	UST	SEPTE	MBER
1 2 3 4 5 6 7 8 9	MAX APP 7.2 6.5 7.2 7.0 6.8 6.8 6.9 6.9 7.0 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 6.8 7.0	MAX M. 8.1 8.2 8.2 8.3 8.4 8.5 8.5 8.7	MIN 7.9 7.9 7.9 8.1 8.1 8.1 8.1 8.5 8.5	MAX	MIN E	MAX JUL	MIN	AUGU	JST	SEPTE	EMBER
1 2 3 4 5 6 7 8 9 10	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 6.8 7.0	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7	MIN AY 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.5 8.7	MAX	MIN E	MAX	MIN	AUGU	UST	SEPTE	EMBER
1 2 3 4 5 6 7 8 9 10	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.0	MAX M. 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7	MIN 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7	MAX	MIN E	MAX JUL	MIN	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 7.0 7.0 7.1	MAX M. 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.7	MIN 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7	MAX	MIN E	MAX JUI	MIN	AUGU	JST	SEPTE	EMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.1 7.2	MAX M. 8.1 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.7 9.9	MIN 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7	MAX	MIN E	MAX JUI	MIN .yy	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 7.0 7.0 7.1	MAX M. 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.7	MIN 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7	MAX	MIN E	MAX JUI	MIN	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 7.0 7.0 7.1 7.2 7.2	MAX M. 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.7 8.9 9.0 9.0	MIN 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.7 8.9	MAX	MIN E	MAX JUI	MIN .yy	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.1 7.2	MAX M. 8.1 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.7 9.9	MIN 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7	MAX	MIN E	MAX JUI	MIN	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.0 9.1 9.1	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.7 8.9 8.9	MAX JUN	MIN E	MAX JUI	MIN .yy	AUGU	JST	SEPTE	EMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.4 7.4	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.7 8.9 8.9 9.1	MAX JUN	MIN E	MAX JUL	MIN .yy	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.6 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.4	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4	MIN AY 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 9.1 9.1	MAX JUN	MIN E	MAX JUL	MIN .Y	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.4 7.4	MAX M. 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.4	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1	MAX JUN	MIN E	MAX JUL	MIN .Y	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.4 7.4 7.5	MAX M. 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.1 9.2 9.4 9.4	MIN AY 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 9.1 9.1 9.3	MAX JUN	MIN E	MAX JUI	MIN .Y	AUGU	JST	SEPTE	EMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.6 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.4 7.4 7.5 7.7	MAX M. 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.1 9.2 9.4 9.4 9.5 9.5	MIN AY 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.9 9.1 9.1 9.3 9.5	MAX JUN	MIN E	MAX JUI	MIN .Y	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.9	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.5 9.5 9.7	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.3 9.3 9.5 9.5	MAX JUN	MIN E	MAX JUL	MIN .Y	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.8 7.9 7.8	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.4 7.4 7.5 7.7	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.5 9.7 9.7	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.3 9.3 9.5 9.5	MAX JUN	MIN E	MAX JUL	MIN .Y	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.9	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.5 9.5 9.7	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.3 9.3 9.5 9.5	MAX JUN	MIN E	MAX JUL	MIN .Y	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.9 9.0 9.1 9.2 9.4 9.5 9.5 9.7 9.7 9.9	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.3 9.3 9.5 9.5 9.7	MAX JUN	MIN E	MAX JUL	MIN .yy	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.8 7.9 7.9 7.9	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.4 7.4 7.5 7.7 7.7	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.5 9.7 9.7 9.9	MIN 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 8.9 9.1 9.1 9.3 9.5 9.5 9.7	MAX JUN	MIN E	MAX JUL	MIN .Y	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.8 7.9 7.9 7.9 7.9	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.6 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7 7.7	MAX 8.1 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.4 9.5 9.7 9.7 9.9 9.9 10.0	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.9 8.9 9.1 9.1 9.3 9.3 9.5 9.5 9.7 9.7	MAX JUN	MIN E	MAX JUI	MIN .Y	AUGU	JST	SEPTE	EMBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.9 7.9 8.0	MIN 6.5 6.3 6.6 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7 7.7 7.7	MAX 8.1 8.1 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.4 9.5 9.7 9.7 9.7 9.7 9.9 9.9	MIN 7.9 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 9.1 9.1 9.3 9.5 9.5 9.5 9.5	MAX JUN	MIN E	MAX JUI	MIN .Y	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.9 8.0 8.0	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7 7.7 7.7	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.5 9.7 9.7 9.9 9.9 10.0	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.3 9.3 9.5 9.5 9.7 9.7	MAX JUN	MIN E	MAX JUL	MIN .Y	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.9 7.9 7.9 8.0 8.0 8.0	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7 7.7 7.7	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.4 9.5 9.7 9.7 9.9 9.9 10.0	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.3 9.3 9.5 9.5 9.7 9.7	MAX JUN	MIN E	MAX JUL	MIN .YY	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.9 7.9 8.0 8.0 8.0	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7 7.7 7.7	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.5 9.7 9.7 9.9 9.9 10.0	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.3 9.3 9.5 9.5 9.7 9.7 9.9	MAX JUN	MIN E	MAX JUL	MIN .Y	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.9 7.9 7.9 8.0 8.0 8.0	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.6 6.8 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7 7.7 7.7	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.4 9.5 9.7 9.7 9.9 9.9 10.0	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.3 9.3 9.5 9.5 9.7 9.7	MAX JUN	MIN E	MAX JUL	MIN .YY	AUGU	JST	SEPTE	MBER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	MAX API 7.2 6.5 7.2 7.0 6.8 6.8 6.9 7.0 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.8 7.9 7.9 7.9 8.0 8.0 8.0	MIN 6.5 6.3 6.5 6.6 6.6 6.6 6.8 7.0 7.0 7.1 7.2 7.2 7.2 7.2 7.2 7.2 7.7 7.7 7.7 7.7	MAX 8.1 8.2 8.2 8.3 8.4 8.5 8.7 8.7 8.7 8.9 9.0 9.1 9.1 9.2 9.4 9.5 9.7 9.7 9.9 9.9 10.0	MIN AY 7.9 8.1 8.1 8.1 8.2 8.3 8.5 8.7 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.3 9.3 9.5 9.5 9.7 9.7 9.9	MAX JUN	MIN E	MAX JUI	MIN .YY	AUGU	JST	SEPTE	MBER

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

GROUND-WATER RECORDS

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413551083481200. Local number, LU-20.
LOCATION.--Lat 41°35'51" Long 83°48'12", Hydrologic Unit 04100009, along State Route 2 near Holland, OH.
 Owner. -- USGS/Toledo Express Airport.
AOUIFER. -- Sand of Ouaternary age.
WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 31 ft. Cased with Sch
40 PVC to 6.0 ft; .010 in. screen from 6.0 to 31 ft.
INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket
rain gauge. Also collected: air temperature, soil temperature, water temperature, and specific conductance. At this
well there are 4 conductivity/water temperature probes at various depths within the well to better document
vertical movement of high conductivity water on an hourly basis. Conductivity/water temperature probes set at 8.6
(level 4), 13.6 (level 3), 21.6 (level 2), and 26.6 (level 1) feet below land surface.
DATUM. -- Elevation of land-surface datum is 676.13 feet above sea level.
 Measuring point: shelter shelf 2.38 ft above land-surface datum.
REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation
concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby
wells is available in preceding tables. Incomplete data this year due to damage to wiring by animals or problems
with recorder.
PERIOD OF RECORD. -- February 1991 to current year.
PERIOD OF DAILY RECORD . --
  SPECIFIC CONDUCTANCE (FOUR LEVELS): February 1991 to current year.
 AIR TEMPERATURE: February 1991 to current year.
 WATER TEMPERATURE (FOUR LEVELS): February 1991 to current year.
  SOIL TEMPERATURE: February 1991 to current year.
  PRECIPITATION: February 1991 to current year.
EXTREMES FOR PERIOD OF DAILY RECORD . --
  SPECIFIC CONDUCTANCE.
     LEVEL 1- Maximum, 1260 microsiemens August 13, 1991; minimum, 247 microsiemens April 4-6, 1998.
     LEVEL 2- Maximum, 953 microsiemens July 1, 1991; minimum, 201 microsiemens February 7-11, 1998.
     LEVEL 3- Maximum, 785 microsiemens April 25, 1991; minimum, 99 microsiemens June 9-10, 1993.
     LEVEL 4- Maximum, 634 microsiemens January 29, 1994; minimum, 70 microsiemens July 14-17, 19, 1996.
 AIR TEMPERATURE: Maximum, 38.2°C July 14, 1995; minimum, -28.1°C January 19,1994.
  WATER TEMPERATURE:
     LEVEL 1- Maximum, 12.7°C several days in November, December 1991; minimum, 7.8°C August 5-6, 1997.
     LEVEL 2- Maximum, 13.6°C several days in November, 1991; minimum, 7.8°C August 5, 1997.
     LEVEL 3- Maximum, 15.2°C many days in October 1991; minimum, 7.6°C March 26, 28, 1993.
     LEVEL 4- Maximum, 17.5°C many days in 1991; minimum, 6.0°C March 24-26, 1993.
  SOIL TEMPERATURE: Maximum, 31.3°C June 19, 1994; minimum, -4.7°C February 6, 1994.
EXTREMES FOR CURRENT YEAR --
 SPECIFIC CONDUCTANCE:
     LEVEL 1- Maximum, 798 microsiemens January 31, 1998; minimum, 247 microsiemens April 4-6, 1998.
     LEVEL 2- Maximum, 718 microsiemens January 9, 1998; minimum, 201 microsiemens February 7-11, 1998.
     LEVEL 3- Maximum, 398 microsiemens May 19-20, 1998; minimum, 103 microsiemens June 2-5, 1998.
     LEVEL 4- Maximum, 331 microsiemens February 27, 1998; minimum, 85 microsiemens June 4,8, 1998.
 AIR TEMPERATURE: Maximum, 36.5°C June 25, 1998; minimum, -12.4°C December 31, 1997.
  WATER TEMPERATURE.
     LEVEL 1- Maximum, 12.2°C December 14-19, 1997, January 2-7, 1998; minimum, 10.2°C May 19-21, 1998.
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LEVEL 2- Maximum, 12.4°C October 29-31, November 2-30, December 1-15, 17, 1997; minimum, 9.2°C March 26, 29,

LEVEL 3- Maximum, 15.1°C September 24, 28-30, 1998; minimum, 8.6°C March 26, 1998.

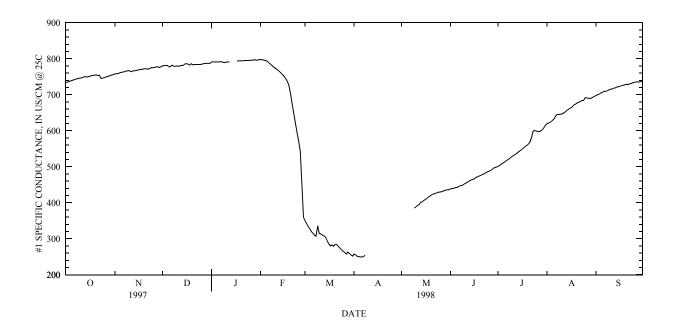
SOIL TEMPERATURE: Maximum, 28.2C June 28, 1998; minimum, 1.2°C January 1-2, 16-20, 1998.

LEVEL 4- Maximum, 17.4°C September 10-12, 14, 1998; minimum, 7.4°C March 18-19, 21-26, 1998.

April 8, 1998.

PROJECT DATA Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413551083481200 LU-20 NR HOLLAND OH-Continued



Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413551083481200 LU-20 NR HOLLAND OH-Continued

#1 (26.6' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

#1 (2	26.6' BLS	S) SPECIF	IC CONDUCT	ANCE (MIC	CNIDING I CON.	/ CM AI 25	DEG.C), V	VATER YEAR	COCTOBER 1		EPTEMBER I	990
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTO	משמ	MOMEN	ADED.	DECE	ADED.	T 7 N	TIADV	EEDDI	TA DA	MAI	RCH
	OCTO	DBEK	NOVE	MBEK	DECE	MBEK	JAN	UARY	FEBRU	JARY	MAI	RCH
1	734	732	758	756	780	774	791	786	797	792	350	342
2	735	734	758	757	781	775	791	786	797	791	342	334
3	737	735	759	758	781	776	791	786	796	790	334	327
4	738	736	761	759	781	775	791	784	795	790	328	320
5	740	738	762	761	777	775	791	786	793	789	320	314
6	741	739	763	762	778	776	791	787	789	785	315	309
7	743	741	764	762	782	778	792	786	785	781	309	304
8	744	742	766	764	779	778	790	780	781	778	307	303
9	745	744	766	761	779	779	789	783	778	774	336	305
10	746	741	767	762	780	779	790	784	774	771	315	313
11	747	743	764	763	779	778	791	786	771	767	313	310
12	749	744	766	764	780	778	791	786	768	763	310	308
13	750	745	766	765	781	780			764	758	308	304
14	749	745	767	766	781	780			759	754	304	293
15	750	745	768	767	785	781			755	749	294	285
1.0	851	E46	7.60	E.C.O.	T06	E01				E 4.2	0.05	0.770
16	751	746	769	768	786	781	702	700	749	743	285	278
17 18	753 753	747 748	770 770	768 769	785 782	781 780	793 794	789 789	743 735	735 724	280 283	276 276
19	754	750	770	770	786	781	794	789	733	698	279	278
20	755	750	772	771	783	782	794	793	698	672	284	271
21	753	752	772	770	784	783	794	794	672	646	284	275
22	754	734	771	769	784	784	795	794	646	620	279	272
23	745	742	773	769	784	783	795	793	620	594	274	269
24	746	745	775	773	784	783	795	794	594	571	269	264
25	747	746	775	775	784	780	795	795	571	542	265	262
26	749	747	776	775	785	782	796	795	542	450	262	257
27	750	749	777	773	786	785	796	795	450	359	257	254
28	752	750	777	774	787	786	797	796	359	350	263	253
29	753	752	776	774	787	786	796	795			259	254
30	755	753	778	776	787	786	796	794			255	251
31	756	755			787	786	798	793			252	250
MONTH	756	732	778	756	787	774	798	780	797	350	350	250
11 1 / 6	0 C DT	3) appar	T G GONTDITGE	331CD /34TC	TO COT TIMESTO	/ CN4 3 FF OF	DEG (4) F		00000000	000 00 0	DDWDWDDD 1	000
#1 (2	26.6' BLS	S) SPECIF	IC CONDUCT	ANCE (MIC	ROSIEMENS	/CM AT 25	DEG.C), V	NATER YEAR	COTOBER 1	.997 TO S	EPTEMBER 1	998
#1 (2 DAY	26.6' BLS MAX	S) SPECIF	IC CONDUCT MAX	ANCE (MIC	ROSIEMENS MAX	/CM AT 25 MIN	DEG.C), W	NATER YEAF MIN	R OCTOBER 1	.997 TO S MIN	EPTEMBER 1:	998 MIN
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY	MAX API	MIN	MAX MA	MIN	MAX JUI	MIN	MAX	MIN	MAX AUGU	MIN JST	MAX SEPTI	MIN EMBER
DAY 1	MAX APF 257	MIN RIL 250	MAX MA	MIN AY	MAX JUI 439	MIN NE 434	MAX JU 501	MIN LY 499	MAX AUGU 620	MIN JST 616	MAX SEPTI 698	MIN EMBER 692
DAY 1 2	MAX APF 257 255	MIN RIL 250 250	MAX MA 	MIN AY 	MAX JUI 439 439	MIN NE 434 435	MAX JU 501 504	MIN LY 499 501	MAX AUGU 620 621	MIN JST 616 620	MAX SEPTI 698 700	MIN EMBER 692 694
DAY 1 2 3	MAX APF 257 255 251	MIN 250 250 250	MAX MA 	MIN 	MAX JUI 439 439 440	MIN NE 434 435 437	MAX JU 501 504 507	MIN LY 499 501 504	MAX AUGU 620 621 624	MIN JST 616 620 621	MAX SEPTI 698 700 702	MIN EMBER 692 694 697
DAY 1 2 3 4	MAX APF 257 255 251 250	MIN RIL 250 250 250 247	MAX M2	MIN AY 	MAX JUI 439 439 440 442	MIN NE 434 435 437 438	MAX JU 501 504 507 510	MIN 499 501 504 507	MAX AUGU 620 621 624 627	MIN JST 616 620 621 624	MAX SEPTI 698 700 702 705	MIN EMBER 692 694 697 700
DAY 1 2 3 4 5	MAX APF 257 255 251 250 249	MIN 250 250 250 247 247	MAX	MIN	MAX JUI 439 439 440 442 442	MIN NE 434 435 437 438 439	MAX JU 501 504 507 510 513	MIN 499 501 504 507 510	MAX AUGU 620 621 624 627 631	MIN JST 616 620 621 624 627	MAX SEPTI 698 700 702 705 707	MIN EMBER 692 694 697 700 702
DAY 1 2 3 4 5	MAX APF 257 255 251 250 249 249	MIN 250 250 250 247 247	MAX	MIN	MAX JUI 439 439 440 442 442 445	MIN NE 434 435 437 438 439 440	MAX JU 501 504 507 510 513	MIN 499 501 504 507 510	MAX AUGU 620 621 624 627 631	MIN JST 616 620 621 624 627 631	MAX SEPTI 698 700 702 705 707	MIN EMBER 692 694 697 700 702
DAY 1 2 3 4 5 6 7	MAX APF 257 255 251 250 249 249 250	MIN 250 250 250 247 247 247 248	MAX	MIN	MAX JUI 439 439 440 442 442 445 447	MIN NE 434 435 437 438 439 440 442	MAX JU 501 504 507 510 513 516 519	MIN 499 501 504 507 510 513 516	MAX AUGU 620 621 624 627 631 638 644	MIN JST 616 620 621 624 627 631 638	MAX SEPTI 698 700 702 705 707 709 709	MIN EMBER 692 694 697 700 702 704 706
DAY 1 2 3 4 5 6 7 8	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 250 247 247 247 248 249	MAX M2	MIN	MAX JUI 439 439 440 442 442 442 445 447 448	MIN NE 434 435 437 438 439 440 442 444	MAX JU 501 504 507 510 513 516 519 522	MIN LY 499 501 504 507 510 513 516 519	MAX AUGU 620 621 624 627 631 638 644 645	MIN JST 616 620 621 624 627 631 638 644	MAX SEPTH 698 700 702 705 707 709 709 711	MIN EMBER 692 694 697 700 702 704 706 709
DAY 1 2 3 4 5 6 7 8 9	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 247 247 247 248 249	MAX M2	MIN 382	MAX JUI 439 439 440 442 442 442 445 447 448 450	MIN 434 435 437 438 439 440 442 444 446	MAX JU 501 504 507 510 513 516 519 522 525	MIN 499 501 504 507 510 513 516 519 522	MAX AUGU 620 621 624 627 631 638 644 645	MIN JST 616 620 621 624 627 631 638 644 644	MAX SEPTH 698 700 702 705 707 709 709 711 713	MIN EMBER 692 694 697 700 702 704 706 709 711
DAY 1 2 3 4 5 6 7 8	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 250 247 247 247 248 249	MAX M2	MIN 382 384	MAX JUI 439 439 440 442 442 442 445 447 448 450 453	MIN NE 434 435 437 438 439 440 442 444 446 448	MAX JU 501 504 507 510 513 516 519 522 525 529	MIN LY 499 501 504 507 510 513 516 519 522 525	MAX AUGU 620 621 624 627 631 638 644 645 645	MIN JST 616 620 621 624 627 631 638 644 644 645	MAX SEPTH 698 700 702 705 707 709 709 711 713 715	MIN EMBER 692 694 697 700 702 704 706 709 711
DAY 1 2 3 4 5 6 7 8 9 10	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 250 247 247 247 248 249	MAX M2 385 388 392	MIN 382 384 387	MAX JUI 439 440 442 442 445 447 448 450 453	MIN NE 434 435 437 438 439 440 442 444 446 448 451	MAX JU 501 504 507 510 513 516 519 522 525 529 532	MIN 499 501 504 507 510 513 516 519 522 525 527	MAX AUGU 620 621 624 627 631 638 644 645 645 646	MIN JST 616 620 621 624 627 631 638 644 645 646	MAX SEPTI 698 700 702 705 707 709 711 713 715	MIN EMBER 692 694 697 700 702 704 706 709 711 713
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX APP 257 255 251 250 249 249 250 254	MIN 250 250 250 247 247 247 248 249	MAX M2	MIN 382 384 387 391	MAX JUI 439 439 440 442 442 445 447 448 450 453 455 458	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535	MIN 499 501 504 507 510 513 516 519 522 525 527 529	MAX AUGU 620 621 624 627 631 638 644 645 645 646	MIN JST 616 620 621 624 627 631 638 644 645 646 648	MAX SEPTI 698 700 702 705 707 709 711 713 715 716 718	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401	MIN 382 384 387 391 394	MAX JUI 439 439 440 442 442 445 447 448 450 453 455 458 461	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538	MIN 499 501 504 507 510 513 516 519 522 525 527 529 532	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654	MIN JST 616 620 621 624 627 631 638 644 644 645 646 648	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715 716 718
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 247 247 247 248 249	MAX M2	MIN 382 384 387 391 394 398	MAX JUI 439 439 440 442 442 445 447 448 450 453 455 458 461 463	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536	MAX AUGU 620 621 624 627 631 638 644 645 645 645 646	MIN JST 616 620 621 624 627 631 638 644 644 645 646 648 651 654	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715 716 718 716
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401	MIN 382 384 387 391 394	MAX JUI 439 439 440 442 442 445 447 448 450 453 455 458 461	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538	MIN 499 501 504 507 510 513 516 519 522 525 527 529 532	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654	MIN JST 616 620 621 624 627 631 638 644 644 645 646 648	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715 716 718
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 247 247 247 248 249	MAX M2	MIN 382 384 387 391 394 398	MAX JUI 439 439 440 442 442 445 447 448 450 453 455 458 461 463	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536	MAX AUGU 620 621 624 627 631 638 644 645 645 645 646	MIN JST 616 620 621 624 627 631 638 644 644 645 646 648 651 654	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715 716 718 716
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406	MIN 382 384 387 391 394 398 402	MAX JUI 439 440 442 442 445 447 448 450 453 455 458 461 463 465	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538	MAX AUGU 620 621 624 627 631 638 644 645 645 645 646 648 651 654 658 661	MIN JST 616 620 621 624 627 631 638 644 644 645 646 648 651 654 658	MAX SEPTI 698 700 702 705 707 709 711 713 715 716 718 719 721	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409	MIN	MAX JUI 439 439 440 442 442 445 447 448 450 453 455 461 463 465	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543	MAX AUGU 620 621 624 627 631 638 644 645 645 645 646 648 651 654 658 661	MIN JST 616 620 621 624 627 631 638 644 644 645 646 648 651 654 658	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419	MIN AY 382 384 387 391 394 398 402 405 408 412 415	MAX JUI 439 439 440 442 442 445 447 448 450 453 455 458 461 463 465 466 470 472 474	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555 559	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552	MAX AUGU 620 621 624 627 631 638 644 645 646 648 651 654 658 661 664 667 672 674	MIN JST 616 620 621 624 627 631 638 644 645 646 645 656 660 666 665	MAX SEPTI 698 700 702 705 707 709 711 713 715 716 718 719 721 722 723 725 726 727	MIN 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718 718 720 721
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416	MIN AY 382 384 387 391 394 398 402 405 408 412	MAX JUI 439 440 442 442 445 447 448 450 453 455 458 461 463 465 466 470 472	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555	MIN 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654 658 661 664 667 672	MIN JST 616 620 621 624 627 631 638 644 645 646 645 646 651 658 660 664 665	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726	MIN 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718 718 718 718 718 720 721
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX APF 257 255 251 250 249 250 254	MIN RIL 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419 422	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418	MAX JUI 439 440 442 442 445 447 448 450 453 455 458 461 463 465 470 472 474 476	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471	MAX JU 501 504 507 510 513 516 519 522 525 529 532 538 541 545 548 552 555 559 562	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654 658 661 664 667 672 674 677	MIN JST 616 620 621 624 627 631 638 644 645 646 645 646 655 660 661 6671	MAX SEPTI 698 700 702 705 707 709 711 713 715 716 718 719 721 722 723 725 726 727	MIN 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718 718 721 723 725
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX APP 257 255 251 250 249 250 254	MIN RIL 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419 422 424	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418	MAX JUI 439 440 442 442 445 447 448 450 453 455 458 461 463 465 466 470 472 474 476 478	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471 474	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555 559 562 567	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556	MAX AUGU 620 621 624 627 631 638 644 645 646 648 651 654 658 661 664 667 672 677	MIN JST 616 620 621 624 627 631 638 644 645 646 645 646 655 669 671 673	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726 727 729	MIN 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718 720 721 723 725
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX APF 257 255 251 250 249 249 250 254	MIN RIL 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419 422	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418	MAX JUI 439 440 442 442 445 447 448 450 453 455 458 461 463 465 470 472 474 476	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471	MAX JU 501 504 507 510 513 516 519 522 525 529 532 538 541 545 548 552 555 559 562	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654 658 661 664 667 672 674 677	MIN JST 616 620 621 624 627 631 638 644 645 646 645 646 655 660 661 6671	MAX SEPTI 698 700 702 705 707 709 711 713 715 716 718 719 721 722 723 725 726 727	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718 720 721 723 725 726 725
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419 422 424 425	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418 419 421	MAX JUI 439 449 440 442 445 447 448 450 453 455 458 461 463 465 470 472 474 476 478 480	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471 474 476	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 559 562 567 579	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556 560 565	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654 658 661 664 667 672 679 681	MIN JST 616 620 621 624 627 631 638 644 645 645 648 651 654 658 660 664 665 669 671 673 676	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726 727 729 728 730	MIN 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718 720 721 723 725
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 247 247 247 248 249	MAX MAX MAX MAX 385 388 392 395 401 402 406 409 412 416 419 422 424 425 427	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418 419 421 424	MAX JUI 439 440 442 442 445 447 448 450 453 455 466 470 472 474 476 478 480 483	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471 474 476 478	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555 559 562 567 579 597	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556 560 565 579	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654 658 661 664 667 672 674 677 679 681 684	MIN JST 616 620 621 624 627 631 638 644 645 646 648 651 654 658 660 664 665 669 671 673 676 678	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726 727 729 728 730 731	MIN 692 694 697 700 702 704 706 709 711 713 715 716 718 718 718 720 721 723 725 726
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX APF 257 255 251 250 249 249 250 254	MIN RIL 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419 422 424 425 427 429 429	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418 419 421 424 424	MAX JUI 439 440 442 442 445 447 448 450 453 455 458 461 463 465 466 470 472 474 476 478 480 483 485 487	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471 474 476 478 480 483	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555 559 562 567 579 597 601 599	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556 560 565 579 596 595	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654 658 661 664 667 672 674 677 679 681 684 684 692	MIN JST 616 620 621 624 627 631 638 644 645 646 648 651 654 658 660 664 665 669 671 673 676 678 680 684	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726 727 729 728 730 731 733 734	MIN 692 694 697 700 702 704 706 709 711 713 715 716 718 718 718 720 721 723 725 726 728 729
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX APP 257 255 251 250 249 249 250 254	MIN RIL 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419 422 424 425 427 429 429	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418 419 421 424 427 427	MAX JUI 439 440 442 445 447 448 450 453 455 458 461 463 465 466 470 472 474 476 478 480 483 485 487	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471 474 476 478 480 483 485	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555 559 562 567 77 579 597 601 599	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556 560 565 579 596 595	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654 658 661 664 667 672 674 677 679 681 684 684 692	MIN JST 616 620 621 624 627 631 638 644 645 646 645 646 651 654 655 669 671 673 676 678 680 684	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726 727 729 728 730 731 733 734	MIN 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718 720 721 723 725 726 725 726 725 726 728 729
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX APF 257 255 251 250 249 249 250 254	MIN RIL 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419 422 424 425 427 429 429 430 432	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418 419 421 424 427 427 428	MAX JUI 439 440 442 445 447 448 450 453 455 466 470 472 474 476 478 480 483 485 487 489 491	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471 474 476 478 480 483 485 487	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555 559 562 567 579 597 601 599 598 597	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556 560 565 579 596 595	MAX AUGU 620 621 624 627 631 638 644 645 646 648 651 654 658 661 664 667 672 679 681 684 682 692	MIN JST 616 620 621 624 627 631 638 644 645 646 645 651 654 658 660 664 665 669 671 673 676 678 680 684 689	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726 727 729 728 730 731 733 734 735 736	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718 720 721 723 725 726 725 726 728 729 730 731
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX APP 257 255 251 250 249 249 250 254	MIN RIL 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419 422 424 425 427 429 430 432 433	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418 419 421 424 427 427 428 429	MAX JUI 439 449 440 442 445 447 448 450 453 455 466 470 472 474 476 478 480 483 485 487 489 491	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471 474 476 478 480 483 485 487	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555 559 562 567 579 597 601 599 598 597 599	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556 560 565 579 596 595 594 595	MAX AUGU 620 621 624 627 631 638 644 645 646 648 651 654 657 679 681 684 684 692 691 690 689	MIN JST 616 620 621 624 627 631 638 644 645 646 651 654 658 660 664 665 669 671 673 676 678 680 684 689 688	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726 727 729 728 730 731 733 734 735 736 735	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718 720 721 723 725 726 728 729 730 731 733
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX APF 257 255 251 250 249 249 250 254	MIN 250 250 250 250 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419 422 424 425 427 429 429 430 432	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418 419 421 424 427 427 428	MAX JUI 439 440 442 445 447 448 450 453 455 466 470 472 474 476 478 480 483 485 487 489 491	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471 474 476 478 480 483 485 487	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555 559 562 567 579 597 601 599 598 597 599 603	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556 560 565 579 596 595	MAX AUGU 620 621 624 627 631 638 644 645 646 648 651 654 658 661 664 667 672 679 681 684 682 692	MIN JST 616 620 621 624 627 631 638 644 645 646 645 651 654 658 660 664 665 669 671 673 676 678 680 684 689	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726 727 729 728 730 731 733 734 735 736	MIN 692 694 700 702 704 706 709 711 713 715 716 718 718 720 721 723 725 726 728 729 730 731 733 735
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX APF 257 255 251 250 249 249 250 254	MIN RIL 250 250 250 247 247 247 248 249	MAX	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418 419 421 424 427 427 427 427 428 429 431	MAX JUI 439 440 442 442 445 447 448 450 453 455 466 470 472 474 476 478 480 483 485 487 489 491 496 497	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471 474 476 478 480 483 485 487 490 493	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555 559 562 567 579 597 601 599 598 597 599	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556 560 565 579 596 595 594 595 597	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654 658 661 664 667 672 674 677 679 681 684 684 692 691 690 689 691	MIN JST 616 620 621 624 627 631 638 644 645 646 648 651 654 665 669 671 673 676 678 680 684 689 688	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726 727 729 728 730 731 733 734 735 736 735 736	MIN EMBER 692 694 697 700 702 704 706 709 711 713 715 716 718 716 718 720 721 723 725 726 728 729 730 731 733
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX APF 257 255 251 250 249 249 250 254	MIN RIL 250 250 250 247 247 247 248 249	MAX M2 385 388 392 395 401 402 406 409 412 416 419 422 424 425 427 429 429 430 432 433 435 436	MIN AY 382 384 387 391 394 398 402 405 408 412 415 418 419 421 424 427 427 428 429 431	MAX JUI 439 440 442 442 445 447 448 450 453 455 458 461 463 465 470 472 474 476 478 480 483 485 487 489 491 496 497 499	MIN NE 434 435 437 438 439 440 442 444 446 448 451 453 456 459 460 462 465 468 470 471 474 476 478 480 483 485 487 490 493 496	MAX JU 501 504 507 510 513 516 519 522 525 529 532 535 538 541 545 548 552 555 559 562 567 579 597 601 599 598 597 601 599 603 609	MIN LY 499 501 504 507 510 513 516 519 522 525 527 529 532 536 538 543 546 549 552 556 560 565 579 596 595 594 594 595 597 602	MAX AUGU 620 621 624 627 631 638 644 645 645 646 648 651 654 658 661 664 667 672 674 677 679 681 684 684 692 691 690 689	MIN JST 616 620 621 624 627 631 638 644 645 646 645 651 654 658 660 667 673 676 678 680 684 689 688 689 688	MAX SEPTI 698 700 702 705 707 709 709 711 713 715 716 718 719 721 722 723 725 726 727 729 728 730 731 733 734 735 736 735 736 738	MIN 692 694 700 702 704 706 709 711 713 715 716 718 716 718 720 721 723 725 726 725 726 728 729 730 731 733 735 736

YEAR

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YEAR

718

201

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413551083481200 LU-20 NR HOLLAND OH-Continued

#2 (21.6' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTO	DBER	NOVE	IBER	DECEM	MBER	JANU	JARY	FEBRU	JARY	М	ARCH
1	589	588	650	646	699	696	677	673	209	206	340	332
2	590	589	657	649	696	689	676	672	208	206	332	325
3	591	590	660		689		672	667	207	205	326	317
4	591			656		684	667		205	203		
		591	663	660	688	684		660			318	310
5	592	591	666	663	689	688	666	655	204	202	310	304
6	593	592	667	666	689	687	655	647	203	202	305	298
7	593	590	667	666	687	685	649	627	203	201	300	294
8	593	590	670	666	686	684	717	649	203	201	297	292
9	593	590	667	665	684	682	718	716	203	201	317	296
10	590	590	666	665	682	681	716	712	203	201	306	303
11	591	590	665	664	686	681	713	679	205	201	304	300
12	591	590	665	664	688	683	679	612	206	204	301	298
13	592	591	665	664	689	684			207	205	299	292
14	592	591	664	664	689	685			206	205	295	284
15	595	589	664	663	689	684			207	205	284	276
16	597	591	665	664	687	685			207	205	277	269
17	601	595	668	665	686	682	388	337	714	207	271	266
18	604	598	676	668	686	685	337	257	715	704	274	269
19	606	601	681	676	690	686	257	204	704	679	272	265
20	608	603	683	680	687	686	206	203	681	653	272	261
21	610	605	688	683	687	685	206	204	654	627	274	267
22	609	601	707	688	688	683	207	205	628	602	270	264
23	615	606	712	707	686	682	209	206	602	577	268	261
24	621	615	712	707	686	682	210	208	577	551	261	256
25	625	621	707	699	693	685	211	210	551	522	258	254
26	626	623	699	691	693	687	211	210	522	376	255	249
27	629	624	695	692	687	681	212	209	380	345	250	245
28	633	629	695	693	681	676	210	208	347	339	253	244
29	639	630	699	695	676	673	209	207			252	246
30	644	638	699	698	676	672	208	207			248	244
31	646	643			678	673	207	206			245	242
MONTH	646	588	712	646	699	672	718	203	715	201	340	242
					CDCCTEMENC		: דבר ר/ עו	ומשע סשתת			SEPTEMBER	1998
#2 (21.6' BLS	S) SPECIF	TC CONDUCT.	ANCE (MI	CKOSIEMENS	/ CM AI 25	DEG.C/, W2	חבות ונות	K OCTOBER I	99/10	OBLIBRIDER	1000
#2 (DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
		MIN		MIN		MIN		MIN		MIN	MAX	
DAY	MAX APF	MIN	MAX	MIN	MAX JUN	MIN	MAX JUL	MIN	MAX AUGU	MIN IST	MAX SEP	MIN TEMBER
DAY 1	MAX APF 249	MIN RIL 243	MAX MA	MIN	MAX JUN 429	MIN NE 428	MAX JUL 492	MIN Y 489	MAX AUGU 514	MIN ST 511	MAX SEP 494	MIN TEMBER 490
DAY 1 2	MAX APF 249 248	MIN RIL 243 241	MAX MA 	MIN AY 	MAX JUN 429 431	MIN NE 428 429	MAX JUL 492 495	MIN 489 492	MAX AUGU 514 514	MIN ST 511 511	MAX SEP 494 495	MIN TEMBER 490 491
DAY 1 2 3	MAX APF 249 248 244	MIN RIL 243 241 240	MAX MA	MIN AY	MAX JUN 429 431 432	MIN NE 428 429 429	MAX JUL 492 495 498	MIN 489 492 495	MAX AUGU 514 514 515	MIN UST 511 511 512	MAX SEP 494 495 497	MIN TEMBER 490 491 493
DAY 1 2 3 4	MAX APF 249 248 244 244	MIN RIL 243 241 240 239	MAX MA 	MIN AY 	MAX JUN 429 431 432 433	MIN 428 429 429 430	MAX JUL 492 495 498 500	MIN 489 492 495 498	MAX AUGU 514 514 515 512	MIN JST 511 511 512 512	MAX SEP 494 495 497 499	MIN TEMBER 490 491 493 495
DAY 1 2 3 4 5	MAX APF 249 248 244 244	MIN 243 241 240 239 238	MAX	MIN	MAX JUN 429 431 432 433 435	MIN 428 429 429 430 431	MAX JUI 492 495 498 500 503	MIN 489 492 495 498 500	MAX AUGU 514 514 515 512 513	MIN UST 511 511 512 512 512	MAX SEP 494 495 497 499 500	MIN TEMBER 490 491 493 495 498
DAY 1 2 3 4 5	MAX APF 249 248 244 244 242	MIN RIL 243 241 240 239 238 238	MAX	MIN	MAX JUN 429 431 432 433 435	MIN NE 428 429 429 430 431 433	MAX JUL 492 495 498 500 503	MIN 489 492 495 498 500 503	MAX AUGU 514 514 515 512 513 523	MIN UST 511 511 512 512 512 512	MAX SEP 494 495 497 499 500	MIN TEMBER 490 491 493 495 498
DAY 1 2 3 4 5 6 7	MAX APF 249 248 244 244	MIN RIL 243 241 240 239 238 238	MAX 	MIN	MAX JUN 429 431 432 433 435 436 436	MIN 428 429 429 430 431 433 435	MAX JUL 492 495 498 500 503 506 510	MIN 489 492 495 498 500 503 506	MAX AUGU 514 514 515 512 513 523 534	MIN ST 511 511 512 512 512 512 512 523	MAX SEP 494 495 497 499 500 500	MIN TEMBER 490 491 493 495 498 500 500
DAY 1 2 3 4 5	MAX APF 249 248 244 244 242	MIN RIL 243 241 240 239 238 238	MAX	MIN	MAX JUN 429 431 432 433 435	MIN NE 428 429 429 430 431 433	MAX JUL 492 495 498 500 503	MIN 489 492 495 498 500 503	MAX AUGU 514 514 515 512 513 523	MIN UST 511 511 512 512 512 512	MAX SEP 494 495 497 499 500	MIN TEMBER 490 491 493 495 498
DAY 1 2 3 4 5 6 7	MAX APF 249 248 244 244 242 242	MIN RIL 243 241 240 239 238 238	MAX	MIN	MAX JUN 429 431 432 433 435 436 439 440 442	MIN 428 429 429 430 431 433 435	MAX JUI 492 495 498 500 503 506 510 513 516	MIN 489 492 495 498 500 503 506	MAX AUGU 514 514 515 512 513 523 534 534 526	MIN 511 511 512 512 512 512 512 523 526 517	MAX SEP 494 495 497 500 500 503 506 507	MIN TEMBER 490 491 493 495 498 500 500 503 503
DAY 1 2 3 4 5 6 7 8	MAX APF 249 248 244 244 242 242 247	MIN RIL 243 241 240 239 238 238 238 239 240	MAX	MIN	MAX JUN 429 431 432 433 435 436 439 440	MIN 428 429 429 430 431 433 435 436	MAX JUI 492 495 498 500 503 506 510 513	MIN 489 492 495 498 500 503 506 510	MAX AUGU 514 514 515 512 513 523 534 534	MIN UST 511 511 512 512 512 512 523 526	MAX SEP 494 495 497 499 500 500 503 506	MIN TEMBER 490 491 493 495 498 500 500 503
DAY 1 2 3 4 5 6 7 8 9 10	MAX APF 249 248 244 242 242 243 247	MIN RIL 243 241 240 239 238 238 238 239 240	MAX	MIN	MAX JUN 429 431 432 433 435 436 439 440 442 444	MIN 428 429 430 431 433 435 436 438 440	MAX JUI 492 495 498 500 503 506 510 513 516 520	MIN 489 492 495 498 500 503 506 510 513 514	MAX AUGU 514 514 515 512 513 523 534 534 526 517	MIN JST 511 512 512 512 512 512 512 513	MAX SEP 494 495 497 499 500 503 506 507 508	MIN TEMBER 490 491 493 495 498 500 500 503 503 505
DAY 1 2 3 4 5 6 7 8 9 10	MAX APF 249 248 244 242 242 247	MIN 243 241 240 239 238 238 239 240	MAX MA 378 382 385	MIN 375 377 381	MAX JUN 429 431 432 433 435 436 439 440 442 444	MIN 428 429 429 430 431 433 435 436 438 440 442	MAX JUL 492 495 498 500 503 506 510 513 516 520 522	MIN 489 492 495 498 500 503 506 510 513 514	MAX AUGU 514 515 512 513 523 534 534 534 526 517	MIN JST 511 512 512 512 512 512 512 513 526 517 513 508	MAX SEP 494 495 497 499 500 503 506 507 508	MIN TEMBER 490 491 493 495 498 500 500 503 503 505
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX APF 249 248 244 242 242 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	MIN 375 377 381 383	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449	MIN 428 429 429 430 431 433 435 436 438 440 442 445	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525	MIN 489 492 495 498 500 503 506 510 513 514 517 520	MAX AUGU 514 515 512 513 523 534 534 526 517 514 510	MIN 5ST 511 511 512 512 512 512 512 513 526 517 513 508 507	MAX SEP 494 495 497 499 500 503 506 507 508	MIN TEMBER 490 491 493 495 498 500 500 503 503 503 505
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX APF 249 248 244 242 242 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAX 378 382 385 389 393	MIN	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522	MAX AUGU 514 515 512 513 523 534 534 534 526 517 514 510 511	MIN JST 511 512 512 512 512 512 513 526 517 513 508 507 508	MAX SEP 494 495 497 499 500 503 506 507 508 508	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX APF 249 248 244 242 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MA 378 382 385 389 393 396	MIN	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522	MAX AUGU 514 514 515 512 513 523 534 534 534 516 517 514 510 511	MIN IST 511 511 512 512 512 512 512 513 526 517 513 508 507 508 508	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505	MIN TEMBER 490 491 493 495 498 500 503 503 505 506 505 505
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX APF 249 248 244 242 242 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAX 378 382 385 389 393	MIN	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522	MAX AUGU 514 515 512 513 523 534 534 534 526 517 514 510 511	MIN JST 511 512 512 512 512 512 513 526 517 513 508 507 508	MAX SEP 494 495 497 499 500 503 506 507 508 508	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX APF 249 248 244 242 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MA 378 382 385 389 393 396	MIN	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522	MAX AUGU 514 514 515 512 513 523 534 534 534 516 517 514 510 511	MIN IST 511 511 512 512 512 512 512 513 526 517 513 508 507 508 508	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505	MIN TEMBER 490 491 493 495 498 500 503 503 505 506 505 505
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX APF 249 248 244 242 242 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAX	MIN	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522	MAX AUGU 514 515 512 513 523 534 534 534 516 517 514 510 511 509	MIN IST 511 511 512 512 512 512 512 513 526 517 513 508 507 508 508	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504	MIN TEMBER 490 491 493 495 498 500 503 503 505 506 505 504 503
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX APF 249 248 244 242 242 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX	MIN	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 523	MAX AUGU 514 514 515 512 513 523 534 534 534 526 517 514 510 511 509 510	MIN IST 511 511 512 512 512 512 512 513 526 517 513 508 507 508 509 509	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504	MIN TEMBER 490 491 493 495 498 500 503 503 505 506 505 506 505 504 503
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX APF 249 248 244 244 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX	MIN 375 377 381 383 387 393 394 397 400	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 457	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525 526 524	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 522 523 523	MAX AUGU 514 515 512 513 523 534 534 534 526 517 514 510 511 511 509 510 512	MIN SST 511 511 512 512 512 512 513 526 517 513 508 507 508 509 509 510	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 504 503 501 500 500
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX APF 249 248 244 242 242 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MP 378 382 385 389 393 396 398 402 404 408	MIN 375 377 381 383 387 393 394 397 400 403	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 464	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 460	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525 525 526 524 524 524	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 523 523 523	MAX AUGU 514 514 515 512 513 523 534 534 534 531 526 517 514 510 511 511 509 510 512 518 521	MIN IST 511 511 512 512 512 512 512 523 526 517 513 508 507 508 509 509 510 512 518	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504 504 503 502	MIN TEMBER 490 491 493 495 498 500 500 503 503 505 506 505 504 503 501 500 499
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX APF 249 248 244 242 242 247	MIN RIL 243 241 240 239 238 238 239 240	MAX	MIN 375 377 381 383 387 393 394 397 400 403 407 409	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 464 466	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 457 460 462 462	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525 525 526 524 524 524 523	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 523 523 523 523 523	MAX AUGU 514 514 515 512 513 523 534 526 517 514 510 511 509 510 512 518 521 522	MIN IST 511 511 512 512 512 512 512 513 526 517 513 508 507 508 508 509 510 512 518 521	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504 504 504 502 502 502	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 504 503 501 500 499 499
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX APF 249 248 244 242 242 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAX MAX MAX MAX MAX MAX	MIN 375 377 381 383 387 393 394 397 400 403 407 409 412	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 466 469	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 457 460 462 462 466	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525 525 525 526 524 524 524 523 524	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 523 523 523 523 523 523	MAX AUGU 514 514 515 512 513 523 534 534 534 536 517 514 510 511 511 509 510 512 518 521 522	MIN IST 511 511 512 512 512 512 512 523 526 517 513 508 507 508 509 509 510 512 518 521	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504 504 504 502 502 502	MIN TEMBER 490 491 493 495 498 500 500 503 505 505 505 504 503 501 500 499 499
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX APF 249 248 244 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAX MAX MAX MAX MAX MAX	MIN AY 375 377 381 383 387 393 394 397 400 403 407 409 412 415	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 466 469 471	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 457 460 462 466 467	MAX JUI 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525 525 525 526 524 524 524 523 524 532	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 522 522 523 523 523 523 523	MAX AUGU 514 514 515 512 513 523 534 534 534 536 517 514 510 511 509 510 512 518 521 522 522 523	MIN IST 511 511 512 512 512 512 512 523 526 517 513 508 507 508 509 509 510 512 518 521 522 522	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 508 507 505 504 504 503 502 502 500 500	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 504 503 501 500 499 499
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX APF 249 248 244 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAX MAX MAX MAX MAX MAX	MIN AY 375 377 381 383 387 393 394 400 403 407 409 412 415 416	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 466 469 471 473	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 457 460 462 466 467 469	MAX JUL 492 498 500 503 506 510 513 516 520 522 525 525 525 525 524 524	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 522 523 523 523 523 523 523	MAX AUGU 514 515 512 513 523 534 534 526 517 514 510 511 510 511 519 510 512 518 521 522 523 523	MIN IST 511 511 512 512 512 512 513 526 517 513 508 507 508 509 510 512 518 521 522 523	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504 504 503 502 502 500 500 501	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 506 505 504 500 499 499 499 500 500
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX APF 249 248 244 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MP 378 382 385 389 393 396 398 402 404 408 412 414 417 418 420 422	MIN 375 377 381 383 387 393 394 397 400 403 407 409 412 415 416 418	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 464 466 469 471 473 476	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 460 462 466 467 469 471	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525 525 525 525 525	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 523 523 523 523 523 523 523	MAX AUGU 514 514 515 512 513 523 534 534 526 517 514 510 511 509 510 512 518 521 522 522 523 523 523 524	MIN IST 511 511 512 512 512 512 513 526 517 513 508 507 508 509 509 510 512 518 521 522 523 523 523	MAX SEP 494 495 497 499 500 500 503 506 507 508 508 508 507 505 504 504 504 504 502 502 500 500 501 502	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 505 506 500 499 499 499 499 500 500 500
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX APF 249 248 244 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAX MAX MAX MAX MAX MAX	MIN AY 375 377 381 383 387 393 394 400 403 407 409 412 415 416	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 466 469 471 473	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 457 460 462 466 467 469	MAX JUL 492 498 500 503 506 510 513 516 520 522 525 525 525 525 524 524	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 522 523 523 523 523 523 523	MAX AUGU 514 515 512 513 523 534 534 526 517 514 510 511 510 511 519 510 512 518 521 522 523 523	MIN IST 511 511 512 512 512 512 513 526 517 513 508 507 508 509 510 512 518 521 522 523	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504 504 503 502 502 500 500 501	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 506 505 504 500 499 499 499 500 500
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX APF 249 248 244 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX	MIN 375 377 381 383 387 391 387 391 400 403 407 409 412 415 416 418 421	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 466 469 471 473 476 478	MIN 428 429 430 431 433 435 436 438 440 442 445 448 451 453 455 460 462 466 467 469 471 473	MAX JUL 492 498 500 503 506 510 513 516 520 522 525 525 525 525 524 524	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 522 522 523 523 523 523 523	MAX AUGU 514 515 512 513 523 534 534 534 526 517 514 510 511 509 510 512 518 521 522 523 523 524 558	MIN IST 511 511 512 512 512 512 513 526 517 513 508 507 508 509 510 512 518 521 522 523 523 523 521	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504 504 504 503 502 502 502 500 501 502 502	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 506 505 500 499 499 499 500 500 500 501
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX APF 249 248 244 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MP 378 382 385 389 393 396 398 402 404 408 412 414 417 418 420 422 422 423	MIN 375 377 381 383 387 393 394 397 400 403 407 409 412 415 416 418 421	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 464 466 469 471 473 476 478 480	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 457 460 462 462 466 467 469 471 473	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525 525 525 526 524 524 524 524 523 524 532 549 549 545 531	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 523 523 523 523 523 523 523 523	MAX AUGU 514 514 515 512 513 523 534 526 517 514 510 511 509 510 512 518 521 522 523 524 558 558	MIN IST 511 511 512 512 512 512 513 526 517 513 508 507 508 509 509 510 512 518 521 522 523 521 528	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504 504 504 502 502 502 502 500 500 501 502 502 502	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 504 503 501 500 499 499 499 500 500 500 501
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX APF 249 248 244 242 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAX MAX MAX MAX MAX MAX	MIN AY 375 377 381 383 387 393 394 397 400 403 407 409 412 415 416 418 421 421	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 466 469 471 473 476 478 480 483	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 460 462 462 466 467 469 471 473 475 478	MAX JUL 492 498 500 503 506 510 513 516 520 522 525 525 525 526 524 524 524	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 523 523 523 523 523 523 524 532 525 529 520 515	MAX AUGU 514 514 515 512 513 523 534 534 534 536 517 514 510 511 511 509 510 512 518 521 522 522 523 524 558 558 558	MIN IST 511 511 512 512 512 512 523 526 517 513 508 507 508 509 509 510 512 518 521 522 523 521 528 511	MAX SEP 494 495 497 499 500 500 503 506 507 508 508 508 507 505 504 504 502 502 502 500 501 502 502 502 502 502 503 504	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 504 503 501 500 499 499 499 500 500 500 501 502 503
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX APF 249 248 244 242 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAX MAX MAX MAX MAX MAX	MIN 375 377 381 383 387 393 394 397 400 403 407 409 412 415 416 418 421 421 421	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 466 469 471 473 476 478 480 483 485	MIN 428 429 429 430 431 433 435 436 438 440 442 445 448 451 453 455 460 462 466 467 469 471 473 475 478 481	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525 526 524 524	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 522 522 522 523 523 523 523	MAX AUGU 514 514 515 512 513 523 534 534 534 536 517 514 510 511 511 509 510 512 518 521 522 522 523 523 524 558 558 558 528 511	MIN IST 511 511 512 512 512 512 523 526 517 513 508 509 509 510 512 518 521 522 523 523 521 528 511 496	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 505 504 504 504 502 502 502 500 501 502 502 502 500 501 502 502	MIN TEMBER 490 491 493 495 498 500 500 503 505 505 505 504 503 501 500 500 500 500 500 500 500 500 500
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DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX APF 249 248 244 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MP 378 382 385 389 393 396 398 402 404 408 412 414 417 418 420 422 422 422 423 424 425 426 426	MIN AY 375 377 381 383 387 393 394 397 400 403 407 409 412 415 416 418 421 421 421 422 424	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 464 466 469 471 473 476 478 480 483 485 486 489	MIN 428 429 430 431 433 435 436 438 440 442 445 448 451 453 455 460 462 466 467 469 471 473 475 478 481 486	MAX JUL 492 495 498 500 503 506 510 513 516 520 522 525 525 525 525 524 524	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 522 523 523 523 523 523 523	MAX AUGU 514 514 515 512 513 523 534 534 526 517 514 510 511 509 510 512 518 521 522 522 523 523 524 558 558 558 528 511 496 495	MIN IST 511 511 512 512 512 512 512 523 526 517 513 508 507 508 509 509 510 512 518 521 522 523 523 521 528 511 496 493 493	MAX SEP 494 495 497 499 500 500 503 506 507 508 508 508 507 505 504 504 504 502 502 500 500 500 501 502 502 502 500 500 501 502 502 502 507	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 505 506 500 499 499 499 499 500 500 501 502 503 503 501 502 503 503
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX APF 249 248 244 242 243 247	MIN RIL 243 241 240 239 238 238 239 240	MAX MAX MAX MAX MAX MAX MAX MAX	MIN AY 375 377 381 383 387 393 394 400 403 407 409 412 415 416 418 421 421 421 422 424	MAX JUN 429 431 432 433 435 436 439 440 442 444 445 449 452 454 456 457 460 464 466 469 471 473 476 478 480 483 485 486	MIN 428 429 430 431 433 435 436 438 440 442 445 448 451 453 455 460 462 466 467 469 471 473 475 481 484	MAX JUL 492 498 500 503 506 510 513 516 520 522 525 525 525 525 524 524	MIN 489 492 495 498 500 503 506 510 513 514 517 520 522 522 522 523 523 523 523 523 523 523	MAX AUGU 514 514 515 512 513 523 534 534 534 526 517 514 510 511 519 510 511 509 510 512 518 521 522 523 524 558 558 558 558 558 511 496	MIN IST 511 511 512 512 512 512 513 526 517 513 508 507 508 509 510 512 518 521 522 523 523 521 528 511 496 493	MAX SEP 494 495 497 499 500 503 506 507 508 508 508 507 500 501 502 502 502 502 503 504 505 505	MIN TEMBER 490 491 493 495 498 500 500 503 505 506 505 505 504 500 500 499 499 499 499 500 500 501 502 503 503

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#3 (13.6' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

#3 (13.6' BLS	S) SPECIF	IC CONDUCT	'ANCE (MIC	ROSIEMENS	/CM AT 25	DEG.C), W	ATER YEAR	OCTOBER 1	.997 TO SE	PTEMBER 19	998
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
2111												
	OCTO	OBER	NOVE	MBER	DECEN	MBER	JANU	JARY	FEBRU	JARY	MAI	RCH
1	203	202	271	270	143	142	162	160	201	200	328	322
2	203	202	271	270	143	142	163	162	201	199	322	314
3	203	202	280	276	142	142	164	163	199	197	315	307
4	204	202	283	280	142	141	167	164	199	196	308	307
5	203	202	283	281	143	142	169	167	198	195	301	294
6	202	202	283	281	143	142	170	168	197	195	294	289
7	202	202	282	279	143	143	171	169	196	195	290	285
8	202	201	279	276	144	143	175	170	197	195	288	283
9	201	198	276	275	144	143	181	175	196	194	298	285
10	200	199	276	273	144	142	186	181	197	195	297	294
11	200	199	274	273	143	143	190	185	198	196	295	291
12	200	199	274	272	144	143	197	189	200	198	291	287
13	201	199	273	272	146	144			201	199	288	283
14	210	201	273	270	146	145			200	199	284	275
15	217	210	273	270	146	145			201	199	275	266
1.0	000	018	0.77	0.00	146	1.45			000	000	0.68	0.61
16	223	217	277	272	146	145			202	200	267	261
17	226	223	281	277	148	146	198	197	206	202	262	258
18	228	226	283	281	150	148	198	195	207	204	264	260
19	230	228	283	277	150	149	198	195	217	206	262	256
20	233	230	277	275	151	150	198	196	228	217	259	253
21	235	233	276	274	151	150	199	197	234	227	262	258
22	239	218	298	275	153	151	200	198	240	234	260	256
23	240	234	305	287	154	152	202	199	247	240	258	253
24	244	240	287	144	156	154	204	201	253	246	253	248
25	249	244	144	142	158	156	204	203	260	252	249	245
26	254	249	142	141	159	158	204	202	322	260	247	242
27	260	254	141	140	159	157	204	203	340	322	243	238
28	266	260	141	140	159	157	204	200	336	328	244	237
29	270	266	142	140	159	158	202	200			244	240
30	271	270	143	142	160	158	201	199			240	236
31	273	271			160	159	201	199			238	235
31	275	2/1			100	133	201	100			230	233
MONTH	273	198	305	140	160	141	204	160	340	194	328	235
11011111												
	12 <i>61</i> DT 0	e) coecte	TC CONDITOR	יאאכי (MTC	DOCTEMENC	/CM AT 25	מר כי) W	אייבים עביאם	OCTOPED 1	007 TO CE	ים ממשתיתי	000
	13.6′ BL	S) SPECIF	IC CONDUCT	ANCE (MIC	ROSIEMENS	/CM AT 25	DEG.C), W	ATER YEAR	OCTOBER 1	.997 TO SE	PTEMBER 19	998
	13.6' BLS	S) SPECIF	IC CONDUCT	ANCE (MIC	ROSIEMENS MAX	/CM AT 25 MIN	DEG.C), WAX	ATER YEAR MIN	OCTOBER 1	.997 TO SE MIN	PTEMBER 19	998 MIN
#3 (MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
#3 (MIN	MAX			MIN		MIN		MIN		MIN
#3 (MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
#3 (DAY	MAX API	MIN	MAX MA	MIN	MAX JUN	MIN NE	MAX JUI	MIN	MAX AUGU	MIN JST	MAX SEPTI	MIN EMBER
#3 (DAY	MAX APF 240	MIN RIL 235	MAX MA	MIN AY	MAX JUN 105	MIN NE 104	MAX JUI 134	MIN JY 131	MAX AUGU 175	MIN JST 169	MAX SEPTI 191	MIN EMBER 189
#3 (DAY	MAX APF 240 239	MIN RIL 235 234	MAX MA 	MIN 	MAX JUN 105 105	MIN NE 104 103	MAX JUI 134 136	MIN 131 134	MAX AUGU 175 177	MIN JST 169 174	MAX SEPTI 191 195	MIN EMBER 189 191
#3 (DAY	MAX APF 240 239 235	MIN RIL 235 234 232	MAX 	MIN 	MAX JUN 105 105 103	MIN NE 104 103 103	MAX JUI 134 136 136	MIN JY 131 134 135	MAX AUGU 175 177 178	MIN JST 169 174 177	MAX SEPTE 191 195 199	MIN EMBER 189 191 195
#3 (DAY	MAX APF 240 239 235 235 233	MIN RIL 235 234 232 231 231	MAX	MIN	MAX JUN 105 105 103 104 104	MIN NE 104 103 103 103 103	MAX JUI 134 136 136 135 132	MIN 131 134 135 131 131	MAX AUGU 175 177 178 181 185	MIN JST 169 174 177 178 181	MAX SEPTE 191 195 199 202 204	MIN EMBER 189 191 195 198 201
#3 (DAY 1 2 3 4 5	MAX APF 240 239 235 235 233 233	MIN 235 234 232 231 231	MAX	MIN	MAX JUN 105 105 103 104 104 105	MIN NE 104 103 103 103 103 104	MAX JUI 134 136 136 135 132	MIN .Y 131 134 135 131 131 132	MAX AUGU 175 177 178 181 185	MIN JST 169 174 177 178 181 185	MAX SEPTH 191 195 199 202 204 206	MIN EMBER 189 191 195 198 201
#3 (DAY 1 2 3 4 5 6 7	MAX APF 240 239 235 235 233 233	MIN RIL 235 234 232 231 231 231 231	MAX	MIN	MAX JUN 105 105 103 104 104 105	MIN 104 103 103 103 103 104 105	MAX JUI 134 136 136 135 132	MIN 131 134 135 131 131 132 131	MAX AUGU 175 177 178 181 185 198 204	MIN JST 169 174 177 178 181 185 198	MAX SEPTH 191 195 199 202 204 206 209	MIN EMBER 189 191 195 198 201 204 205
#3 (DAY 1 2 3 4 5 6 7 8	MAX APP 240 239 235 235 233 233 233 237	MIN RIL 235 234 232 231 231 231 231 233	MAX	MIN	MAX JUN 105 105 103 104 104 105 105	MIN NE 104 103 103 103 103 104 105 104	MAX JUI 134 136 136 135 132 133 132	MIN .Y 131 134 135 131 131 131 132 131 131	MAX AUGU 175 177 178 181 185 198 204 203	MIN JST 169 174 177 178 181 185 198 200	MAX SEPTH 191 195 199 202 204 206 209 213	MIN EMBER 189 191 195 198 201 204 205 209
#3 (DAY 1 2 3 4 5 6 7 8 9	MAX APP 240 239 235 235 233 233 233 237	MIN RIL 235 234 232 231 231 231 231 233	MAX M2	MIN 364	MAX JUN 105 105 103 104 104 105 105 105	MIN 104 103 103 103 103 104 105 104 105	MAX JUI 134 136 136 135 132 133 132 131 135	MIN .Y 131 134 135 131 131 131 132 131 131	MAX AUGU 175 177 178 181 185 198 204 203 200	MIN JST 169 174 177 178 181 185 198 200 196	MAX SEPTH 191 195 199 202 204 206 209 213 214	MIN EMBER 189 191 195 198 201 204 205 209 213
#3 (DAY 1 2 3 4 5 6 7 8	MAX APP 240 239 235 235 233 233 233 237	MIN RIL 235 234 232 231 231 231 231 233	MAX	MIN	MAX JUN 105 105 103 104 104 105 105	MIN NE 104 103 103 103 103 104 105 104	MAX JUI 134 136 136 135 132 133 132	MIN .Y 131 134 135 131 131 131 132 131 131	MAX AUGU 175 177 178 181 185 198 204 203	MIN JST 169 174 177 178 181 185 198 200	MAX SEPTH 191 195 199 202 204 206 209 213	MIN EMBER 189 191 195 198 201 204 205 209
#3 (DAY 1 2 3 4 5 6 7 8 9 10	MAX APP 240 239 235 235 233 233 233 237	MIN RIL 235 234 232 231 231 231 231 233	MAX M2	MIN 364 367	MAX JUN 105 105 103 104 104 105 105 106 107	MIN NE 104 103 103 103 103 104 105 104 106	MAX JUI 134 136 136 135 132 133 132 131 135 138	MIN .Y 131 134 135 131 131 131 132 131 131 131 135	MAX AUGU 175 177 178 181 185 198 204 203 200 196	MIN JST 169 174 177 178 181 185 198 200 196 190	MAX SEPTH 191 195 199 202 204 206 209 213 214 215	MIN EMBER 189 191 195 198 201 204 205 209 213 214
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11	MAX APP 240 239 235 235 233 233 233	MIN RIL 235 234 232 231 231 231 231 233	MAX M2 M2 M2 M3	MIN 364 367	MAX JUN 105 105 103 104 104 105 105 105 107 109	MIN NE 104 103 103 103 104 105 104 106 107	MAX JUI 134 136 136 135 132 133 132 131 135 138 142	MIN 131 134 135 131 131 132 131 131 131 137	MAX AUGU 175 177 178 181 185 198 204 203 200 196	MIN JST 169 174 177 178 181 185 198 200 196 190 187	MAX SEPTH 191 195 199 202 204 206 209 213 214 215	MIN SMBER 189 191 195 198 201 204 205 209 213 214 214
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX APF 240 239 235 235 233 233 233	MIN RIL 235 234 232 231 231 231 231 233	MAX M2	MIN 364 367 371	MAX JUN 105 105 103 104 104 105 105 105 107 109 114	MIN NE 104 103 103 103 104 105 104 106 107 109	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143	MIN .Y 131 134 135 131 131 132 131 131 131 131 137 141	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215	MIN SMBER 189 191 195 198 201 204 205 209 213 214 214 214
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX APF 240 239 235 235 233 233 237	MIN 235 234 232 231 231 231 231 233	MAX M2	MIN 364 367 371 374 378	MAX JUN 105 105 103 104 104 105 105 105 107 109 114 116	MIN NE 104 103 103 103 104 105 104 106 107 109 114	MAX JUI 134 136 135 132 133 132 131 135 138 142 143 141	MIN .Y 131 134 135 131 131 132 131 131 131 137 141 138	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 214 213
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231 233	MAX M2 368 371 374 378 383 385	MIN 364 367 371 374 378 383	MAX JUN 105 105 103 104 104 105 105 105 107 109 114 116 116	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139	MIN .Y 131 134 135 131 131 132 131 131 131 135 137 141 138 136	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214	MIN SMBER 189 191 195 198 201 204 205 209 213 214 214 214 213 213
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX APF 240 239 235 235 233 233 237	MIN 235 234 232 231 231 231 231 233	MAX M2	MIN 364 367 371 374 378	MAX JUN 105 105 103 104 104 105 105 105 107 109 114 116	MIN NE 104 103 103 103 104 105 104 106 107 109 114	MAX JUI 134 136 135 132 133 132 131 135 138 142 143 141	MIN .Y 131 134 135 131 131 132 131 131 131 137 141 138	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 214 213
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231 233	MAX M2 368 371 374 378 383 385	MIN 364 367 371 374 378 383	MAX JUN 105 105 103 104 104 105 105 105 107 109 114 116 116	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139	MIN .Y 131 134 135 131 131 132 131 131 131 135 137 141 138 136	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214	MIN SMBER 189 191 195 198 201 204 205 209 213 214 214 214 213 213
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231 233	MAX M2 368 371 374 378 383 385 387	MIN 364 367 371 374 378 383 385	MAX JUN 105 105 103 104 104 105 105 105 106 107 109 114 116 116 115	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113	MAX JUI 134 136 135 132 133 132 131 135 138 142 143 141 139 141	MIN .Y 131 134 135 131 131 132 131 131 131 131 135 137 141 138 136 138	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214 213	MIN SMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX M2 368 371 374 378 383 385 387	MIN 364 367 371 374 378 383 385 387	MAX JUN 105 105 103 104 104 105 105 106 107 109 114 116 116 115	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139 141 146	MIN .Y 131 134 135 131 131 132 131 131 131 135 137 141 138 136 138 141	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214 213 213	MIN SMBER 189 191 195 198 201 204 205 209 213 214 214 214 213 213 213
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX M2 368 371 374 378 383 385 387 390 393	MIN 364 367 371 374 378 383 385 387 390	MAX JUN 105 105 103 104 104 105 105 105 106 107 109 114 116 116 115 115 122 123	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122	MAX JUI 134 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151	MIN 131 134 135 131 131 132 131 131 131 135 137 141 138 136 138 141 143 147	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 215 214 213 214	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 213 213 214
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX M2 368 371 374 378 383 385 387 390 393 396	MIN AY 364 367 371 374 378 383 385 387 390 392	MAX JUN 105 105 103 104 104 105 105 106 107 109 114 116 116 115 115 122	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147	MIN 131 134 135 131 131 132 131 131 131 135 137 141 138 136 138 141 143	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214 213 214 213	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 214 213 213 213
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX M2 368 371 374 378 383 385 387 390 393 396 398 398	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394	MAX JUN 105 105 103 104 104 105 105 106 107 109 114 116 116 115 115 122 123 123 123	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122	MAX JUI 134 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163	MIN .Y 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 214 213 213 214 215 216 216	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 213 213 214 215 216
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX M2 368 371 374 378 383 385 387 390 393 396 398 398 397	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279	MAX JUN 105 105 103 104 104 105 105 105 106 107 109 114 116 116 115 115 122 123 123 122 123	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122	MAX JUI 134 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177	MIN .Y 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 206	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214 213 213 214 215 216 216 217	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 213 213 213 214 215 216
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX M2 368 371 374 378 383 385 387 390 393 396 398 398 397 279	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184	MAX JUN 105 105 103 104 104 105 105 106 107 109 114 116 116 115 122 123 123 123 123 123	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122	MAX JUI 134 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177 185	MIN .Y 131 134 135 131 131 132 131 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 208	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 206 207	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214 213 213 214 215 216 216 217 218	MIN SMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 213 213 215 216 216 217
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX M2 368 371 374 378 383 385 387 390 393 396 398 398 397 279 184	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180	MAX JUN 105 103 104 104 105 105 105 106 107 109 114 116 115 115 122 123 123 123 122 123 123 122	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122 122	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177 185 202	MIN .Y 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 208 209	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 206 207 208	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 215 214 213 214 213 214 217 218 219	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 213 214 215 216 216 217 218
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX MAX MAX MAX MAX MAX MAX MAX	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180 182	MAX JUN 105 105 103 104 104 105 105 105 106 107 109 114 116 116 115 115 122 123 123 122 123 123 122 123	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122 122 122 122 122 129 129	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177 185 202 202	MIN 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185 197	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 207 208 209 210	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 206 207 208 208	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 215 214 213 213 214 215 216 217 218 219 220	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 213 214 215 216 216 217 218 219
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX M2 368 371 374 378 383 385 387 390 393 396 398 398 397 279 184	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180	MAX JUN 105 103 104 104 105 105 105 106 107 109 114 116 115 115 122 123 123 123 122 123 123 122	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122 122	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177 185 202	MIN .Y 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 208 209	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 206 207 208	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 215 214 213 214 213 214 217 218 219	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 213 214 215 216 216 217 218
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX MAX MAX MAX MAX MAX MAX MAX	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180 182 125	MAX JUN 105 103 104 104 105 105 105 106 107 109 114 116 115 115 122 123 123 123 122 123 123 122 123 123	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122 122 122 122 122 129 119 11	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177 185 202 202 197	MIN 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185 197 190	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 208 209 210 230	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 207 208 208 209	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 215 214 213 214 217 218 219 220 221	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 213 214 215 216 216 217 218 219 220
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180 182 125	MAX JUN 105 105 103 104 104 105 105 106 107 109 114 116 115 115 122 123 123 122 123 122 123 122 123 123	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122 122 122 122 122 122	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177 185 202 202 197 190	MIN .Y 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185 197 190 183	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 207 208 209 210 230 231	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 206 207 208 208 209 217	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 215 214 213 214 215 216 216 217 218 219 220 221	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 215 216 216 217 218 219 220 221
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX M2 368 371 374 378 383 385 387 390 398 398 398 397 279 184 191 191 125 107	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180 182 125 107 105	MAX JUN 105 105 103 104 105 105 105 106 107 109 114 116 115 115 122 123 123 122 123 122 123 122 123 122 123 122 123 122 123 124 120 120 121	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 113 115 122 122 122 122 122 122 122 122 122	MAX JUI 134 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177 185 202 202 197 190 183	MIN .Y 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185 197 190 183 175	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 208 209 210 230 231 218	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 207 208 208 208 209 217 203	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214 213 213 214 215 216 216 217 218 219 220 221	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 213 213 213 213 217 216 216 217 218 219 220 221
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX M2 368 371 374 378 383 385 387 390 393 396 398 397 279 184 191 191 125 107 105	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180 182 125 107 105 105	MAX JUN 105 105 103 104 104 105 105 105 106 107 109 114 116 115 115 122 123 123 122 123 122 120 120 121 124 128	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122 122 122 122 122 122	MAX JUI 134 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177 185 202 202 197 190 183 175	MIN .Y 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185 197 190 183 175 170	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 208 209 210 230 231 218 203	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 207 208 208 209 217 203 193	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214 213 213 214 217 218 219 220 221 221	MIN SMBER 189 191 195 198 201 204 205 209 213 214 214 213 213 213 213 213 213 213 213 213 213
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX MAX MAX MAX MAX 368 371 374 378 383 385 387 390 393 396 398 397 279 184 191 191 125 107 105 105	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180 182 125 107 105 105	MAX JUN 105 103 104 104 105 105 105 106 107 109 114 116 115 115 122 123 123 122 123 122 120 120 121 124 128 132	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122 122 122 122 122 122	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 146 147 151 158 163 177 185 202 202 197 190 183 175 170	MIN .Y 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185 197 190 183 175 170 167	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 208 209 210 230 231 218 203 193	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 207 208 208 208 209 217 203 193 189	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 215 214 213 213 214 215 216 216 217 218 219 220 221 221 221 222 222	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 214 213 213 213 213 214 215 216 216 217 218 219 220 221
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX MAX MAX MAX MAX MAX MAX MAX	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180 182 125 107 105 105 104 104	MAX JUN 105 105 103 104 104 105 105 105 106 107 109 114 116 116 115 115 122 123 123 122 123 122 123 122 123 123	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122 122 122 122 122 122	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177 185 202 202 197 190 183 175 170 167	MIN 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185 197 190 183 175 170 166	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 207 208 209 210 230 231 218 203 193 189	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 207 208 208 209 217 203 193 189 188	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214 213 213 214 215 216 217 218 219 220 221 221 222 222 223 223	MIN EMBER 189 191 195 198 201 204 205 209 213 214 215 216 216 217 218 220 221 220 221 221
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX MAX MAX MAX MAX 368 371 374 378 383 385 387 390 393 396 398 397 279 184 191 191 125 107 105 105	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180 182 125 107 105 105	MAX JUN 105 103 104 104 105 105 105 106 107 109 114 116 115 115 122 123 123 122 123 122 120 120 121 124 128 132	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122 122 122 122 122 122	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 146 147 151 158 163 177 185 202 202 197 190 183 175 170	MIN .Y 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185 197 190 183 175 170 167	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 208 209 210 230 231 218 203 193	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 207 208 208 208 209 217 203 193 189	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 215 214 213 213 214 215 216 216 217 218 219 220 221 221 221 222 222	MIN EMBER 189 191 195 198 201 204 205 209 213 214 214 214 213 213 213 213 213 214 215 216 216 217 218 219 220 221
#3 (DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX APF 240 239 235 235 233 233 237	MIN RIL 235 234 232 231 231 231 231	MAX MAX MAX MAX MAX MAX MAX MAX	MIN AY 364 367 371 374 378 383 385 387 390 392 395 394 279 184 180 182 125 107 105 105 104 104	MAX JUN 105 105 103 104 104 105 105 105 106 107 109 114 116 116 115 115 122 123 123 122 123 122 123 122 123 123	MIN NE 104 103 103 103 104 105 104 106 107 109 114 115 113 113 115 122 122 122 122 122 122 122 122 122	MAX JUI 134 136 136 135 132 133 132 131 135 138 142 143 141 139 141 146 147 151 158 163 177 185 202 202 197 190 183 175 170 167	MIN 131 134 135 131 131 132 131 131 135 137 141 138 136 138 141 143 147 151 157 162 177 185 197 190 183 175 170 166	MAX AUGU 175 177 178 181 185 198 204 203 200 196 190 187 188 191 193 197 199 204 206 207 207 207 208 209 210 230 231 218 203 193 189	MIN JST 169 174 177 178 181 185 198 200 196 190 187 186 187 188 191 192 196 198 204 206 207 208 208 209 217 203 193 189 188	MAX SEPTH 191 195 199 202 204 206 209 213 214 215 215 215 214 213 213 214 215 216 217 218 219 220 221 221 222 222 223 223	MIN EMBER 189 191 195 198 201 204 205 209 213 214 215 216 216 217 218 220 221 220 221 221

YEAR

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Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413551083481200 LU-20 NR HOLLAND OH-Continued

#4 (8.6' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

#4	(8.6' BLS											
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTO	OBER	NOVE	MBER	DECE	MBER	JANU	UARY	FEBRU	JARY	MA	RCH
1	97	95	99	99	141	140	157	156	197	194	319	311
2	97	96	99	99	140	139	159	157	197	193	311	304
3	96	96	100	99	140	139	160	159	194	192	304	298
4	96	96	101	100	140	139	163	160	192	190	298	291
5	96	96	102	101	141	139	165	163	191	190	291	285
6	96	96	102	101	141	140		164	191	190		281
7	96 96	96	102	101	141	140	167 168	165	191	189	285 281	276
8	96	96	102	102	141	140	170	166	190	189	282	275
9	96	95	103	102	142	140	175	170	190	189	291	274
10	96	95	104	102	141	140	180	175	190	190	292	285
11 12	96 96	96 96	104 104	103 104	141 142	140 141	185 191	180 185	192 194	190 192	288 285	282 280
13	97	96	104	104	143	141	203	190	194	192	281	274
14	97	97	106	105	143	142	203		194	192	275	268
15	98	97	107	106	143	143			194	192	269	261
16	98	98	108	107	144	143	195	192	195	193	261	254
17	98	98	110	108	146	143	194	191	199	195	257	250
18 19	98 98	97 97	112 114	110 112	147 147	144 146	193 194	190 190	202 212	198 200	258 256	252 248
20	99	97	114	114	148	146	194	190	221	211	251	245
21	99	97	119	116	149	146	194	191	228	219	256	249
22	104	97	123	119	149	147	193	192	234	227	255	247
23	100	99	129	123	151	148	197	192	240	233	251	245
24	99	99	142	128	152	150	198	196	247	239	247	241
25	99	98	140	138	154	151	198	196	251	244	243	237
26	99	99	139	138	156	154	200	197	289	251	238	234
27	99	98	139	137	156	153	200	196	331	289	234	230
28	99	99	139	138	155	153	199	196	324	317	236	230
29	99	99	141	138	155	153	198	194			236	233
30	100	99	141	140	156	154	195	194			233	229
31	100	99			156	155	196	193			230	228
MONTH	104	95	142	99	156	139	203	156	331	189	319	228
#4	(8.6' BLS	S) SPECIFI	C CONDUCT.	ANCE (MIC						997 TO S	SEPTEMBER 1	998
					ROSIEMENS	/CM AT 25	DEG.C), W	ATER YEAR	OCTOBER 1		SEPTEMBER 1	
#4 DAY	(8.6' BLS	S) SPECIFI MIN	IC CONDUCT	ANCE (MIC						997 TO S	SEPTEMBER 1 MAX	998 MIN
	MAX		MAX		ROSIEMENS	/CM AT 25	DEG.C), W	ATER YEAR	OCTOBER 1	MIN	MAX	
DAY	MAX API	MIN RIL	MAX	MIN	ROSIEMENS, MAX JUI	/CM AT 25 MIN NE	DEG.C), WAX	ATER YEAR MIN LY	OCTOBER 1 MAX AUGU	MIN JST	MAX SEPT	MIN EMBER
	MAX	MIN	MAX M	MIN	ROSIEMENS, MAX	/CM AT 25	DEG.C), WAX	ATER YEAR	OCTOBER 1	MIN	MAX	MIN
DAY 1	MAX API 232	MIN RIL 228	MAX MA	MIN AY	ROSIEMENS, MAX JUI 86	/CM AT 25 MIN NE 86	DEG.C), WAX JUI	ATER YEAR MIN LY 88	OCTOBER 1 MAX AUGU 93	MIN JST 92	MAX SEPT 93	MIN EMBER 93
DAY 1 2	MAX API 232 231	MIN RIL 228 226	MAX MA 	MIN AY 	ROSIEMENS, MAX JUI 86 86	/CM AT 25 MIN NE 86 86	DEG.C), WAX JUI 88 89	ATER YEAR MIN LY 88 88	OCTOBER 1 MAX AUGU 93 93	MIN JST 92 92	MAX SEPT 93 93	MIN EMBER 93 93 93 93
DAY 1 2 3	MAX APP 232 231 227	MIN RIL 228 226 225	MAX 	MIN	ROSIEMENS, MAX JUI 86 86 86 86	/CM AT 25 MIN NE 86 86 86 86	DEG.C), WAX JUI 88 89 89	MIN LY 88 88 88	OCTOBER 1 MAX AUGU 93 93 93 93	MIN JST 92 92 92	MAX SEPT 93 93 93	MIN EMBER 93 93 93
DAY 1 2 3 4 5	MAX APP 232 231 227 226 225	MIN RIL 228 226 225 223 223	MAX M2	MIN AY 	MAX JUI 86 86 86 86 86	/CM AT 25 MIN NE 86 86 86 85 86	DEG.C), WAX JUI 88 89 89 89 89	MIN LY 88 88 88 88 88	OCTOBER 1 MAX AUGU 93 93 93 93 93	MIN 92 92 92 92 92 92	MAX SEPT 93 93 93 93 93	MIN EMBER 93 93 93 93
DAY 1 2 3 4 5	MAX APP 232 231 227 226 225 224	MIN RIL 228 226 225 223 223 223	MAX	MIN	ROSIEMENS, MAX JUI 86 86 86 86 86	/CM AT 25 MIN NE 86 86 86 86 85	DEG.C), WAX JUI 88 89 89 89	MIN LY 88 88 88 88	OCTOBER 1 MAX AUGU 93 93 93 93 93	MIN JST 92 92 92 92	MAX SEPT 93 93 93 93	MIN EMBER 93 93 93 93 93
DAY 1 2 3 4 5	MAX APP 232 231 227 226 225	MIN RIL 228 226 225 223 223	MAX MAX	MIN	ROSIEMENS, MAX JUI 86 86 86 86 86 86	/CM AT 25 MIN NE 86 86 86 85 86	DEG.C), WAX JUI 88 89 89 89 89 89	ATER YEAR MIN LY 88 88 88 88 88	OCTOBER 1 MAX AUGU 93 93 93 93 93 93	MIN JST 92 92 92 92 92 92 93	MAX SEPT 93 93 93 93 93	MIN EMBER 93 93 93 93
DAY 1 2 3 4 5 6 7	MAX APP 232 231 227 226 225 224 225	MIN RIL 228 226 225 223 223 223 223	MAX	MIN	ROSIEMENS, MAX JUI 86 86 86 86 86 87 87	/CM AT 25 MIN NE 86 86 86 85 86 86	DEG.C), WAX JUI 88 89 89 89 89 89	ATER YEAR MIN LY 88 88 88 88 88 88	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98	MIN 92 92 92 92 92 92 93 97	MAX SEPT 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8	MAX APP 232 231 227 226 225 224 225 229	MIN RIL 228 226 225 223 223 223 223 225	MAX M2	MIN 91	ROSIEMENS, MAX JUI 86 86 86 86 87 87	/CM AT 25 MIN NE 86 86 86 85 86 86 85	DEG.C), WAX JUI 88 89 89 89 89 89 89	ATER YEAR MIN LY 88 88 88 88 88 88 88	OCTOBER 1 MAX AUGU 93 93 93 93 93 93 97 98 98	MIN 92 92 92 92 92 92 97 94	MAX SEPT 93 93 93 93 93 93 94	MIN EMBER 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10	MAX APP 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 223 225 228	MAX	MIN 91 90 89	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 86 86	/CM AT 25 MIN NE 86 86 86 85 86 86 86 86	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 89 89	MIN LY 88 88 88 88 88 88 88 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98 98 94 93	MIN 92 92 92 92 92 92 93 97 94 93 93	MAX SEPT 93 93 93 93 93 94 94 94 93	MIN EMBER 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10	MAX APP 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 223 225 228	MAX Mi 93 91 90	MIN 91 90 89	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 86 86	/CM AT 25 MIN NE 86 86 86 85 86 86 86 86 86 86	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 89	ATER YEAR MIN LY 88 88 88 88 88 88 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98 98 98 94 93	MIN 92 92 92 92 92 93 97 94 93 93 93	MAX SEPT 93 93 93 93 93 94 94 93 93	MIN EMBER 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10	MAX APP 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 223 225 228	MAX	MIN 91 90 89	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 86 86	/CM AT 25 MIN NE 86 86 86 85 86 86 86 86	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 89 89	MIN LY 88 88 88 88 88 88 88 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98 98 94 93	MIN 92 92 92 92 92 92 93 97 94 93 93	MAX SEPT 93 93 93 93 93 94 94 94 93	MIN EMBER 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 223 223 225 228	MAX M2	MIN 91 90 89 89 89	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 86 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 86 86 86	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 8	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98 98 98 94 93 93 93	MIN 92 92 92 92 92 92 93 97 94 93 97 94 93 93	MAX SEPT 93 93 93 93 94 94 94 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 223 225 228	MAX M2	MIN 91 90 89 89 89 89	ROSIEMENS, MAX JUI 86 86 86 87 87 86 86 86 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 86 86 86 87	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 89 89 89	ATER YEAR MIN LY 88 88 88 88 88 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 93 93	MIN 92 92 92 92 92 93 97 94 93 93 97 94 93 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 223 225 228	MAX M2	MIN 91 90 89 89 89 89 89 89	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 86 87 87	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 89 89 89 89	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 93 93 93 93	MIN 92 92 92 92 93 97 94 93 97 94 93 92 92 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 225 228	MAX M2 M2 M2 M3	MIN 91 90 89 89 89 89 89 89 89	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87 86 86	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 89 89 89 89	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98 98 94 93 93 93 93 93 93 93 93 93 93	MIN 92 92 92 92 93 97 94 93 93 97 94 93 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 225 228	MAX Mi 93 91 90 90 90 90 90 90 89 89	MIN 91 90 89 89 89 89 89 89 89 89 89	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87	MAX JUI 88 89 89 89 89 89 89 89 89 89 89 89 89	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98 98 94 93 93 93 93 93 93 93 93 92 92 93	MIN 92 92 92 92 93 97 94 93 93 93 92 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 225 228	MAX M2 93 91 90 90 90 90 90 90 89 89 88 88	MIN 91 90 89 89 89 89 89 89 89 89 89	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87 87	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 8	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98 98 94 93 93 93 93 93 93 93	MIN 92 92 92 92 92 93 97 94 93 97 94 93 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 225 228	MAX Mi 93 91 90 90 90 90 90 90 89 89	MIN 91 90 89 89 89 89 89 89 89 89 89	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87	MAX JUI 88 89 89 89 89 89 89 89 89 89 89 89 89	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98 98 94 93 93 93 93 93 93 93 93 92 92 93	MIN 92 92 92 92 93 97 94 93 93 93 92 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 225 228	MAX Mi	MIN AY 91 90 89 89 89 89 89 89 89 87 87	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 87 87 87 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87 87 87	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 8	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 90 90 90 90 90 90 90 90 90 90 90	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 93 93 93 93 92 92	MIN 92 92 92 92 93 97 94 93 97 94 93 92 92 92 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 92 92 93 92 93 92 93 92 93 92 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 225 228	MAX Mi	MIN AY 91 90 89 89 89 89 89 89 89 89 87 87 87	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 87 87 87 87 87 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 87 87 87 87	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 89 89 89 89	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 93 93 93 93 92 92 93 93 93 93 93 93	MIN 92 92 92 92 93 97 94 93 93 97 94 93 92 92 92 92 92 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 92 92 93 92 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 225 228	MAX M2 93 91 90 90 90 90 90 89 89 88 88 88 88	MIN AY 91 90 89 89 89 89 89 89 87 87 87	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 87 87 87 87 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 86 87 87 87 87	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 89 89 90 90 90 91 91 91 92 96	ATER YEAR MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 90 90 90 90 90 90	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN JST 92 92 92 92 93 97 94 93 93 97 94 93 92 92 92 92 92 92 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 92 93 93 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 225 228	MAX M2 93 91 90 90 90 90 90 89 89 88 88 88 88 88	MIN AY 91 90 89 89 89 89 89 89 89 87 87 87 87 86 86	ROSIEMENS, MAX JUI 86 86 86 86 87 87 87 87 87 87 87 87 87 87 87 88 88	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87 87 87 87	DEG.C), WA MAX JUI 88 89 89 89 89 89 89 89 89 8	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98 98 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN JST 92 92 92 92 93 97 94 93 93 97 94 92 92 92 92 92 92 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 223 225 228	MAX Mi	MIN AY 91 90 89 89 89 89 89 89 87 87 87 87 87 86 86 86	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 86 87 87 87 87 87 87 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87 87 87 87	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 90 90	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 93 97 98 98 94 93 93 93 93 93 92 92 92 93 93 93 93 93 93 93	MIN JST 92 92 92 92 93 97 94 93 93 97 94 92 92 92 92 92 92 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 92 92 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 223 223 225 228	MAX M2 93 91 90 90 90 90 90 89 89 88 88 88 88 88 88	MIN 91 90 89 89 89 89 89 89 87 87 87 87 87 86 86 86 86	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 86 87 87 87 87 87 87 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 86 87 87 87 87 87	DEG.C), WA MAX JUI 88 89 89 89 89 89 89 89 90 90	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 89	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 92 92 92 93 93 93 93 93 93 93 93 91 93	MIN JST 92 92 92 92 93 97 94 93 93 97 94 92 92 92 92 92 92 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 93 94 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 225 228	MAX Mi	MIN AY 91 90 89 89 89 89 89 89 87 87 87 87 87 86 86 86 86	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 86 87 87 87 87 87 87 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87 87 87 87 87 87	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 90 90	MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 90 90 90 90 90 90 90 90 90 90 90 90 90	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN JST 92 92 92 92 93 97 94 93 97 94	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 92 92 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 225 228	MAX Mi	MIN AY 91 90 89 89 89 89 89 89 89 89 89 89 88 87 87 87 87 86 86 86 86 86	ROSIEMENS, MAX JUI 86 86 86 87 87 87 86 86 87 87 87 87 87 87 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87 87 87 87 87 87 87 87 87	DEG.C), WAX JUI 88 89 89 89 89 89 89 89 89 89 89 89 89	ATER YEAR MIN LY 88 88 88 88 88 89 89 89 89 89 89 89 90 90 90 90 90 90 91 92 96 110 93	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 93 93 92 92 93 93 93 93 93 93 91 91 91 91 91 91	MIN JST 92 92 92 92 93 97 94 93 93 92 92 92 92 92 92 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 92 92 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 225 228	MAX Mi	MIN AY 91 90 89 89 89 89 89 89 87 87 87 87 86 86 86 86 86 86	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 87 87 87 87 87 87 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87 87 87 87 87 87 87 87 87 87	DEG.C), WA MAX JUI 88 89 89 89 89 89 89 89 89 8	ATER YEAR MIN LY 88 88 88 88 88 89 89 89 89 89 89 90 90 90 90 90 91 92 96 110 93 92 92	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN JST 92 92 92 92 93 97 94 93 92 92 92 92 92 92 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 93 94 94 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 92 92 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 225 228	MAX Mi 93 91 90 90 90 90 90 89 89 88 88 88 88 88 88 88 88 88 88	MIN AY 91 90 89 89 89 89 89 89 87 87 87 87 87 86 86 86 86 86 86 86	ROSIEMENS, MAX JUI 86 86 86 86 87 87 87 87 87 87 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87 87 86 87 87 87 87 87 87 87 87	DEG.C), WA MAX JUI 88 89 89 89 89 89 89 89 89 8	ATER YEAR MIN LY 88 88 88 88 88 89 89 89 89 89 89 90 90 90 90 90 90 90 91 92 96 110 93 92 92 92	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 93 93 92 92 92 92 93 93 93 93 93 91 16 116 94 93 93	MIN JST 92 92 92 92 93 97 94 93 93 92 92 92 92 92 92 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 94 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 93 93 93
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX API 232 231 227 226 225 224 225 229 232	MIN RIL 228 226 225 223 223 223 223 223 223 225 228	MAX Mi	MIN AY 91 90 89 89 89 89 89 89 87 87 87 87 86 86 86 86 86 86	ROSIEMENS, MAX JUI 86 86 86 86 87 87 86 86 87 87 87 87 87 87 87 87 87 87 87 87 87	/CM AT 25 MIN NE 86 86 86 86 86 86 86 87 87 87 87 87 87 87 87 87 87 87	DEG.C), WA MAX JUI 88 89 89 89 89 89 89 89 89 8	ATER YEAR MIN LY 88 88 88 88 88 89 89 89 89 89 89 90 90 90 90 90 91 92 96 110 93 92 92	OCTOBER 1 MAX AUGU 93 93 93 93 97 98 98 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN JST 92 92 92 92 93 97 94 93 92 92 92 92 92 92 92 92 92 92 92 92 92	MAX SEPT 93 93 93 93 93 94 94 94 93 93 93 93 93 93 93 93 93 93 93 93 93	MIN EMBER 93 93 93 93 93 93 93 93 93 93 92 92 93 93 93 93 93 93 93 93 93 93 93

MONTH

YEAR

PROJECT DATA 213 Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413551083481200 LU-20 NR HOLLAND OH-Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MTN MAX MTN MAX MTN MTN MTN MAX MAX MAX OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH 12.7 3.9 9.2 14.8 5.0 8.4 3.2 -3.0 -9.1 -4.0 8.4 2.4 1 -3 4 2 19 8 3 8 8 4 4 0 5 3 -3 6 9 7 1 8 6 6 4 3 . 9 3 27.1 12.1 5.2 . 9 5.3 -1.5 12.9 6.9 2.9 -5.7 3.9 - . 6 -2.6 4 28.5 15.2 5.8 1.0 4.5 -1.1 11.7 2.1 2.5 -4.2 3.5 5 29.2 10.6 6.1 1.4 .2 -4 9 13.8 9.1 3.2 -35 2.9 -2.6 10.9 13.9 5.8 6 28.8 15.9 2.5 -.3 -4.9 9.6 -6.0 5.3 29.2 15.3 11.3 4.8 2.0 9.7 6.1 -4.7 6.9 -1.1 -.3 3.2 8 28.6 13.7 13.2 2.4 -.2 -.9 4.4 2.7 6.1 -5.6 11.8 2.7 9 24.8 17.3 5.9 1.7 -.9 5.0 7 8.1 -7.7 11.8 . 6 -5.5 -1.9 -2.2 -6.4 -7.8 10 19.5 6.8 1.4 1.5 12.1 -5.6 -3.6 6.5 11 19.8 5.1 5.6 -2.1 -.5 -2.8 -2.7 -8.6 6.3 3.5 -3.3 -10.2 12 27.3 6.5 1.0 -6.7 -.4 -3.8 4.2 -3.9 5.5 -1.1 -8.9 . 4 2.8 13 25.4 9.5 3.3 -8.8 -2.0 -3.3 2.6 -1.8 -8.5 . 4 -6.8 14 2.9 . 6 -3.2 -1.2 -5.2 2.5 -3.0 3.5 -4.3 15 11.4 -.3 1.2 -4.3 4.7 -2.9 ___ ___ 10.1 -3.4 3.4 -6.8 16 12.0 3.1 -.7 -7.6 7.6 .1 -2.5 -4.1 7.0 -.2 2.5 -5.3 -1 4 -4 6 2 7 17 11 8 2 8 -8 4 6 6 - 7 -2 9 4 8 6 5 -1 2 .0 18 14.7 2.3 -10.36.7 -5.2 -1.5 -3.7 5.3 3.4 11.4 3.8 - . 4 19 16.3 1.5 -4.5 10.0 -.9 -.2 -3.8 4.7 2.1 10.9 1.6 2.0 11 7 . 9 7.0 -5.7 3.0 -2 2 -.1 -4.2 4.1 1 5 1.6 -.4 7.5 2.6 4.6 21 11.8 -.6 . 8 -1.5 -.3 -3.1 . 4 . 1 -.9 22 5.3 -3.2 3.3 2.5 - . 5 . 2 -2.4 9.4 -3.3 6.2 -3.7 . 3 23 -2.1 3.3 -2.3 2.7 -1.3 . 7 6.8 6.3 -3.7 -.8 . 0 24 11.1 4.8 1.0 -6.2 3.0 - 1 . 6 -1.6 5.0 -2.7 8.2 -4.3 25 11.7 1.0 11.7 11.9 4.7 -3.8 5.6 -.2 -2.0 -1.1 13.4 - . 6 26 7.3 2.9 11.9 1.7 1.0 -1.9 6.6 -2.6 8.8 1.5 24.0 10.1 27 2 9 9.0 -1.8 1.2 -2.5 6.7 -3.6 15.4 3.6 25.8 14.2 . 4 9.1 28 -.9 11.6 4.1 .6 -7.4 2.2 -3.6 13.8 -1.2 20.0 12.9 29 14.0 1.4 9.0 6.0 1.2 -4.3 5.0 -.9 25.2 6.9 30 17.1 7.3 -1.0 -6.4 2.2 ___ ___ 27.0 18.0 . 1 3.2 -.3 8.7 -12.4 ---___ 31 -6.4 -2.2 24.9 -3 2 13 2 10 0 -12 4 27 0 -10 2 MONTH 29 2 -10 3 13 9 -9 1 15 4 -77 TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 MTN MTN MTN DAY MAX MAX MAX MAX MTN MAX MTN MAX MTN APRIL MAY JUNE JULY AUGUST 1 15.9 5.4 23.1 9.6 27.5 15.8 26.8 12 4 24.3 2 11.0 3.8 ------29.1 12.4 29.3 13.7 28.8 10.6 24.1 12.9 ---3 8 5 1.5 ---17.0 6.1 31.5 17 3 30.4 14 7 25.0 10 5 4 11.5 ___ ___ 20.6 5.6 25.2 16.0 22.8 19.3 25.4 . 3 14.6 15.3 29.0 5 -2.7 ------12.3 5.3 26.3 12.7 22.5 19.5 10.9 6 14.5 -1.5 ------17.0 2.2 30.3 15.2 28.8 19.7 32.9 19.9 15.2 19.0 8.0 26.8 21.1 30.3 21.4 24.4 13.6 . 4 16.8 8 6.7 14.4 23.0 27.0 32.6 19.6 18.8 18.1 4.4 19.9 9.3 7.0 17.4 9 8.2 22.8 12.2 12.9 28.7 19.2 29.3 21.8 20.1 8.3 10 19.7 27.2 26.2 30.6 ---9.4 13.6 13.9 20.0 24.5 8.4 11 ---19.4 12.9 24.2 15.5 26.8 10.4 26.4 18.5 28.1 12.8 ---22.5 12.5 30.3 17.8 29.1 12 10.7 24.9 15.4 30.5 15.6 27.1 13.4 24.9 16.4 30.9 13.8 26.4 14.4 31.7 13.2 13 _ _ _ 30.3 13.3 25.8 14.8 30.7 16.9 28.2 15.8 32.5 13.6 26.9 17.0 33.1 20.2 29.0 16.0 27.3 21.9 15 ------27 7 15.0 23.6 16.9 33.5 21 0 29.5 17.0 18.0 16 25.1 17 ------29.0 13.1 29.0 16.2 28.8 17.0 30.8 17.5 25.9 14.2 18 ---31.5 11.3 31.1 15.2 31.8 14.8 25.7 14.9 27.6 11.4 19 ___ 30.9 17.3 29.9 19.4 32.7 17.8 23.1 10.0 30.3 13.8 20 ------31.4 18.3 31.6 16.7 33.4 19.8 27.1 9.6 31.4 18.3 21 23.7 10.5 31.2 17.8 35.7 20.5 30.4 20.0 27.4 16.9 ---------32.2 29.8 22 ---18.1 8.0 19.5 20.1 29.8 20.1 20.3 9.8 ------10.4 23 20.8 31.9 20.9 27.8 17.0 30.7 20.1 19.8 5.8 ------2.4 19.2 11.9 34.4 19.0 25.3 14.3 28.8 19.8 19.4 5.2 2.5 ------19.4 12.5 36.5 23.7 24.9 13.1 27.9 19.0 27.9 14.2 26.6 26 9.3 32.7 19.4 27.3 13.1 26.6 14.7 33.1 27 ---28.8 10.0 31.2 20.7 27.9 15.4 28.3 15.2 28 30.0 14.0 32.8 22.0 30.0 19.1 26.3 14.6 22.8 10.4 29 ------28.9 22.0 28.5 28.8 27.4 7.9 31.4 17.3 18.9 18.4 13.5 30.6 14.7 25.8 30 26.4 19.4 15.0 28.7 15.6 25.0 31 26.5 30.3 13.5 13.4 26.2 13.6 MONTH 18.1 -2.7 32.5 8.0 36.5 2.2 35.7 10.4 32.6 9.6 33.1 5.2

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36.5

-12.4

413551083481200 LU-20 NR HOLLAND OH-Continued #1 (26.6' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MTN MAX MTN MAX MTN MTN MAX MIN MAX MAX OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH 11.9 11.3 11.3 11.7 11.7 12.1 11.9 12.1 11.9 11.7 11.1 10.8 1 12 2 2 11 3 11 3 11 7 11 7 12 1 11 9 11 9 11 9 11 7 11 0 10 8 3 11.3 11.3 11.7 11.7 12.1 11.9 12.2 11.9 11.9 11.7 11.0 10.8 4 11.3 11.3 11.7 11.7 12.1 11.9 12.2 11.9 11.9 11.7 11.0 10.8 5 11.3 11.3 11.7 11.7 12.1 12.1 12.2 11.9 11.7 11.7 11.0 10.8 11.7 12.1 12.2 11.9 6 11.3 11.3 11.7 12.1 11.7 11.7 12.1 11.9 12.2 11.9 10.8 11.3 11.3 11.7 11.7 11.7 11.7 11.0 11.3 11.3 11.7 11.7 12.1 12.1 12.1 11.9 11.7 11.7 10.8 10.8 9 11.3 11.9 11.7 12.1 12.1 12.1 11.9 11.7 11.7 10.8 10.8 11.3 10 11.5 11.3 11.9 11.7 12.1 12.1 12.1 11.9 11.7 11.7 10.8 10.8 11 11.5 11.3 11.9 11.9 12.1 12.1 12.1 11.9 11.7 11.7 10.8 10.8 12 11.5 11.3 11.9 11.9 12.1 12.1 12.1 11.9 11.7 11.7 10.8 10 8 11.5 12.1 11.3 11.9 11.9 12.1 11.7 11.7 10.8 13 10.8 11.7 11.5 11.9 11.9 12.2 12.1 ------11.7 11.7 10.8 15 11.7 11.5 11.9 11.9 12.2 11.9 ---___ 11.7 11.7 10.8 10.8 16 11.7 11.5 11.9 11.9 12.2 11.9 11.7 11.7 10.8 10.8 12 2 12 1 11 9 17 11 7 11 5 11 9 11 9 11 9 11 7 11 7 10 8 10 8 18 11.7 11.5 11.9 11.9 12.2 12.1 12.1 11.9 11.7 11.5 10.8 10.8 19 11.7 11.5 11.9 11.9 12.2 11.9 12.1 11.9 11.5 11.5 10.8 10.8 2.0 11.7 11.5 11.9 11.9 12.1 12.1 11.9 11.9 11.5 11.3 10.8 10.8 11.7 11.9 11.9 12.1 12.1 11.9 11.9 11.5 11.3 21 11.7 10.8 10.6 2.2 11.7 11.7 11.9 11.9 12.1 12.1 11.9 11.9 11.5 11.3 10.8 10.6 23 11.7 11.7 11.9 11.9 12.1 12.1 11.9 11.9 11.5 10.8 11.3 10.6 24 11.7 11.7 11.9 11.9 12.1 12.1 11.9 11.9 11.5 11.2 10.8 10.6 25 11.9 11.7 11.7 11.9 12.1 12.1 11.9 11.9 11.5 11.2 10.8 10.6 26 11.7 11.7 11.9 11.9 12.1 12.1 11.9 11.9 11.3 11.3 10.7 10.6 27 11.7 11.7 12.1 11.9 12.1 12.1 11.9 11.9 11.3 10 8 10 7 10.6 28 11.7 11.7 11.9 11.9 12.1 12.1 11.9 11.9 11.1 10.8 10.6 10.6 29 11.7 11.7 11.9 11.9 12.1 12.1 11.9 11.9 10.7 10.6 30 11.9 11.9 ___ ___ 10.7 11.7 11.7 11.9 12.1 12.1 11.9 10.6 ---11.7 11.7 12.1 11.9 10.7 12 2 10 6 MONTH 11 7 11 3 12 1 11 7 11 9 12 2 11 7 11 9 10 8 11 1 #1 (26.6' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 MTN MTN DAY MAX MTN MAX MAX MAX MTN MAX MTN MAX MTN APRIL MAY JUNE JULY AUGUST 10.7 1 10.6 10.6 ---10.6 10.3 10.6 10.9 10 8 11.3 2 10.6 10.6 ------10.6 10.4 10.7 10.6 10.9 10.8 11.3 11.1 ---11.1 3 10.6 10.6 ---10.6 10.4 10.7 10.6 10.9 10 9 11.3 10.6 10.6 ___ ___ 10.6 10.4 10.7 10.6 10.9 10.9 4 11.3 5 10.6 10.6 ---10.6 10.4 10.7 10.6 10.9 10.9 11.3 11.1 6 10.6 10.6 ------10.6 10.4 10.7 10.6 10.9 10.9 11.4 11.1 10.7 10.6 10.9 10.6 10.6 10.6 10.4 10.9 11.3 11.3 _ _ _ ---8 10.6 10.4 10.7 10.6 10.9 10.9 10.6 10.6 11.3 11.3 10.3 10.5 9 ------10.6 10.4 10.7 10.6 10.9 10.9 11.3 11.3 10 10.6 10.9 ---10.4 10.6 10.4 10.7 10.6 10.9 11.3 11.3 11 ---10.6 10.4 10.6 10.4 10.8 10.6 10.9 10.9 11.3 11.3 10.9 10.6 12 ---10.6 10.4 10.6 10.4 10.9 10.9 11.3 10.6 10.4 10.7 10.4 10.9 10.6 10.9 10.9 11.4 13 11.3 10.6 10.3 10.7 10.4 10.9 10.6 10.9 10.9 10.5 10.3 10.7 10.9 10.6 10.9 10.9 15 10.4 11.5 11.3 10.5 ------10.3 10.7 10.4 10.9 10.6 10.9 10 9 16 11.5 11.3 17 ------10.5 10.3 10.7 10.4 10.9 10.6 10.9 10.9 11.5 11.3 18 10.5 10.3 10.7 10.4 10.9 10.7 11.1 10.9 11.6 11.3 19 ___ ___ 10.5 10.2 10.7 10.4 10.9 10.7 11.1 10.9 11.6 11.3 20 ---10.5 10.2 10.7 10.4 10.9 10.7 11.1 10.9 11.6 11.3 21 10.6 10.2 10.7 10.4 10.9 10.7 11.1 10.9 11.6 11.5 ---------10.9 2.2 ---10.6 10.4 10.7 10.4 10.9 10.7 11.1 11.7 11.5 ---10.7 23 ---10.5 10.3 10.7 10.4 10.9 11.1 10.9 11.7 11.5 ------2.4 10.6 10.4 10.7 10.4 10.9 10.7 11.1 11.1 11.7 11.5 2.5 ------10.6 10.4 10.7 10.4 10.9 10.7 11.1 10.9 11.8 11.5 26 10.6 10.3 10.7 10.5 10.9 10.7 11.1 11.1 11.8 11.5 27 ------10.6 10.3 10.7 10.5 10.9 10.7 11.1 11.1 11.8 28 10.6 10.3 10.7 10.5 10.9 10.7 11.1 11.1 11.8 11.7 ------29 10.5 10.3 10.7 10.5 10.9 10.7 11.1 11.1 11.8 11.7 30 ---10.5 10.9 11.8 11.7 10.3 10.7 10.9 11.3 11.1 10.6 31 10.5 10.4 10.9 10.8 11.3 11.1 MONTH 10.6 10.6 10.6 10.2 10.7 10.3 10.9 10.6 11.3 10.8 11.8 11.1

YEAR

12.2

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413551083481200 LU-20 NR HOLLAND OH-Continued

#2 (21.6' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

		π2 (ZI.0	DEG, IEII	EKAIUKE,	WAIER (DE	G. C/,	WATER YEAR	MAGOLIOO	1997 IO SEE	12112210	1000	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	ОСТ	OBER	NOVE	MRER	DECE	MRER	.ΤΔΝ	IUARY	FERE	RUARY	M	ARCH
1	11.8	11.7	12.2	12.2	12.4	12.4	11.9	11.7	10.4	10.2	10.0	9.8
2	11.8	11.7	12.4	12.2	12.4	12.4	11.7	11.7	10.4	10.2	10.0	9.8
3	11.8	11.7	12.4	12.4	12.4	12.4	11.7	11.7	10.4	10.1	10.0	9.8
4	11.8	11.7	12.4	12.4	12.4	12.4	11.7	11.7	10.2	10.2	10.0	9.8
5	11.8	11.7	12.4	12.4	12.4	12.4	11.7	11.7	10.2	10.2	10.0	9.7
6	11.8	11.7	12.4	12.4	12.4	12.4	11.7	11.5	10.2	10.1	10.0	9.6
7	12.0	11.7	12.4	12.4	12.4	12.4	11.7	11.5	10.2	10.1	10.0	9.6
8	12.0	11.8	12.4	12.2	12.4	12.4	11.7	11.7	10.2		9.8	9.6
9	12.0	11.8	12.4	12.4	12.4	12.4	11.7	11.7	10.2	10.1	10.0	9.5
10	12.0	11.9	12.4	12.4	12.4	12.4	11.7	11.7	10.2	10.0	9.9	9.5
	10.0		10.4		10.4		11 0		10.0	10.0	0 0	
11	12.0	11.9	12.4	12.4	12.4	12.1	11.7	11.7	10.2	10.0	9.9	9.5
12	12.0	11.9	12.4	12.3	12.4	12.1	11.7	11.4	10.0	10.0	9.9	9.5
13	12.0	11.9	12.4	12.3	12.4	12.1			10.0	9.9	9.8	9.5
14	12.0	11.9	12.4	12.4	12.4	12.1			10.0	9.9	9.8	9.5
15	12.1	11.9	12.4	12.4	12.4	12.1			10.0	9.8	9.8	9.5
16	12.1	11.9	12.4	12.4	12.2	12.1			10.0	10.0	9.7	9.4
17	12.2	11.9	12.4	12.3	12.4	12.1	10.8	10.6	10.8	9.8	9.8	9.3
18	12.1	11.9	12.4	12.3	12.2	12.1	10.6	10.4	10.8	10.8	9.8	9.4
19	12.2	11.9	12.4	12.4	12.2	11.9	10.4	10.4	10.8	10.6	9.6	9.4
20	12.2	11.9	12.4	12.4	12.1	12.1	10.6	10.4	10.8	10.6	9.6	9.4
21	12.2	11.9	12.4	12.4	12.1	12.1	10.6	10.4	10.8	10.6	9.6	9.3
21	12.2	11.9	12.4	12.4	12.1	12.1	10.6	10.4	10.8	10.6	9.6	9.3
	12.2	12.1		12.4		11.9	10.4	10.4		10.6		9.3
23			12.4		12.1				10.6		9.6	
24 25	12.2 12.2	12.1 12.1	12.4 12.4	12.4 12.4	12.1 11.9	11.9 11.9	10.4 10.4	10.4	10.8 10.6	10.6 10.4	9.6 9.6	9.3 9.3
			12.4				10.4					
26	12.2	12.1	12.4	12.4	11.9	11.9	10.4	10.4	10.6	9.8	9.6	9.2
27	12.1	12.1	12.4	12.4	11.9	11.9	10.6	10.4	10.0	9.8	9.6	9.4
28	12.2	12.1	12.4	12.4	11.9	11.9	10.6	10.4	10.0	9.8	9.6	9.4
29	12.4	12.1	12.4	12.4	11.9	11.9	10.4	10.4			9.4	9.2
30	12.4	12.1	12.4	12.4	11.9	11.7	10.4	10.4			9.4	9.4
31	12.4	12.2			11.9	11.6	10.4	10.4			9.4	9.4
MONTH	12.4	11.7	12.4	12.2	12.4	11.6	11.9	10.4	10.8	9.8	10.0	9.2
							MATER YEAR (1998	
		#2 (21.0	DUS/ IEMI	EKAIUKE,	WATER (DE	G. C),		остовык	10001	IBMDBK .		
DAY	MAX	#2 (21.6 MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
DAY	MAX AF	MIN	MAX M	MIN	MAX JU	MIN NE	XAM JU	MIN	MAX AUC	MIN GUST	MAX SEP	TEMBER
1	MAX AF 9.4	MIN PRIL 9.4	MAX M	MIN AY	MAX JU 9.6	MIN NE 9.6	МАХ JU 10.1	MIN JLY 10.0	MAX AUG 10.6	MIN GUST 10.4	MAX SEP	TEMBER
1 2	MAX AF 9.4 9.6	MIN PRIL 9.4 9.4	MAX M	MIN AY 	MAX JU 9.6 9.6	MIN NE 9.6 9.6	MAX JU 10.1 10.1	MIN JLY 10.0 10.0	MAX AUG 10.6 10.6	MIN GUST 10.4 10.4	MAX SEP 11.3 11.3	TEMBER 11.1 11.1
1 2 3	MAX AF 9.4 9.6 9.4	MIN PRIL 9.4 9.4 9.4	MAX M 	MIN AY	MAX JU 9.6 9.6 9.8	MIN NE 9.6 9.6 9.6	MAX JU 10.1 10.1 10.1	MIN JLY 10.0 10.0	MAX AUG 10.6 10.6 10.7	MIN GUST 10.4 10.4 10.5	MAX SEP ⁴ 11.3 11.3 11.3	TEMBER 11.1 11.1 11.1
1 2 3 4	MAX AF 9.4 9.6 9.4 9.6	MIN PRIL 9.4 9.4 9.4 9.4 9.4	MAX M 	MIN	MAX JU 9.6 9.6 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6	MAX JU 10.1 10.1 10.1 10.1	MIN JLY 10.0 10.0 10.0	MAX AUG 10.6 10.6 10.7 10.7	MIN GUST 10.4 10.4 10.5	MAX SEP 11.3 11.3 11.3	TEMBER 11.1 11.1 11.1 11.1
1 2 3	MAX AF 9.4 9.6 9.4	MIN PRIL 9.4 9.4 9.4	MAX M 	MIN AY	MAX JU 9.6 9.6 9.8	MIN NE 9.6 9.6 9.6	MAX JU 10.1 10.1 10.1	MIN JLY 10.0 10.0	MAX AUG 10.6 10.6 10.7	MIN GUST 10.4 10.4 10.5	MAX SEP ⁴ 11.3 11.3 11.3	TEMBER 11.1 11.1 11.1
1 2 3 4 5	MAX AF 9.4 9.6 9.4 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.4 9.3	MAX M 	MIN	MAX JU 9.6 9.8 9.8 9.8	MIN 9.6 9.6 9.6 9.6 9.6	MAX JU 10.1 10.1 10.1 10.1	MIN JLY 10.0 10.0 10.0 10.0	MAX 10.6 10.6 10.7 10.7	MIN GUST 10.4 10.4 10.5 10.6	MAX SEP' 11.3 11.3 11.3 11.3	TEMBER 11.1 11.1 11.1 11.1 11.3
1 2 3 4 5	MAX 9.4 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.4 9.3	MAX M 	MIN	MAX JU 9.6 9.8 9.8 9.8	MIN 9.6 9.6 9.6 9.6 9.6	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1	MIN JLY 10.0 10.0 10.0 10.0 10.0	MAX AUC 10.6 10.6 10.7 10.7 10.7	MIN 5UST 10.4 10.4 10.5 10.6 10.6	MAX SEP 11.3 11.3 11.3 11.3 11.3	11.1 11.1 11.1 11.1 11.3
1 2 3 4 5 6 7	MAX 9.4 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.4 9.3	MAX M 	MIN	MAX JU 9.6 9.8 9.8 9.8 9.8	MIN 9.6 9.6 9.6 9.6 9.6 9.6	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.1	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0	MAX AUC 10.6 10.7 10.7 10.7 10.7	MIN 10.4 10.4 10.5 10.6 10.6 10.6	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3	11.1 11.1 11.1 11.1 11.3 11.3
1 2 3 4 5 6 7 8	MAX 9.4 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.4 9.3	MAX M	MIN	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8	MIN 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MAX JT 10.1 10.1 10.1 10.1 10.1 10.1 10.1	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.3	11.1 11.1 11.1 11.1 11.3 11.3 11.3
1 2 3 4 5 6 7	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.3 9.3 9.3 9.4 9.2	MAX M 	MIN	MAX JU 9.6 9.8 9.8 9.8 9.8	MIN 9.6 9.6 9.6 9.6 9.6 9.6	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.1	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0	MAX AUC 10.6 10.7 10.7 10.7 10.7	MIN 10.4 10.4 10.5 10.6 10.6 10.6	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.3 9.3 9.3	MAX M	MIN 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8	MIN 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.3 11.	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10	MAX AF 9.4 9.6 9.4 9.6 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.3 9.3 9.3	MAX M	MIN AY 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.	MIN 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MAX SEP 11.3 11.3 11.3 11.3 11.3 11.3 11.4 11.3 11.5 11.5	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.3 9.3	MAX M 9.4 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.0 10.1 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.5	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JT 10.1 10.1 10.1 10.1 10.1 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.5	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.3 9.3 9.3	MAX M	MIN 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JT 10.1 10.1 10.1 10.1 10.1 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9	MIN SUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.6 10.7 10.7	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.5	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JT 10.1 10.1 10.1 10.1 10.1 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.5	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.3 9.3 9.3	MAX M	MIN 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JT 10.1 10.1 10.1 10.1 10.1 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9	MIN SUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.6 10.7 10.7	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.5	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.3 9.3 9.2	MAX M 9.4 9.6 9.6 9.6 9.6 9.5 9.6	MIN 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JT 10.1 10.1 10.1 10.1 10.1 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.7 10.7	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.6 11.6 11.6	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6 9.5 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JT 10.1 10.1 10.1 10.1 10.1 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9	MIN SUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.9	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.6 11.6 11.6 11.6 11.7	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX 9.4 9.6 9.6 9.6 9.6	MIN 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.0 10.1 10.2 10.2	MIN 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9	MAX SEP 11.3 11.3 11.3 11.3 11.3 11.5 11.6 11.6 11.6 11.6 11.7 11.8	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.0 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9	MAX SEP 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.6 11.6 11.6 11.6 11.7 11.8 11.8	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.4	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.8 10.8	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.6 11.6 11.6 11.6 11.6 11.8 11.8	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.4 9.2	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.2 10.2 10.2 10.2 10.3 10.3 10.3 10.3 10.3 10.3 10.3	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.8 10.8	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.5 11.5 11.5 11.5 11.6 11.6 11.6 11.6 11.8 11.8 11.8	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.4 9.2	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JT 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.8 10.8	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.5 11.5 11.5 11.6 11.6 11.6 11.6 11.8 11.8 11.8	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX AF 9.4 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.0 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MAX SEP 11.3 11.3 11.3 11.3 11.3 11.5 11.6 11.6 11.6 11.6 11.6 11.8 11.8 11.8	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.0 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.8 10.8 10.8	MAX SEP 11.3 11.3 11.3 11.3 11.3 11.4 11.3 11.5 11.5 11.6 11.6 11.6 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX AF 9.4 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.0 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.6 11.6 11.6 11.6 11.6 11.8 11.8 11.8	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.4 9.2	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.0 10.1 10.2 10.2	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.5 11.5 11.6 11.6 11.6 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	TEMBER 11.1 11.1 11.3 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.2 10.2 10.2 10.2 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.5 11.5 11.6 11.6 11.6 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	TEMBER 11.1 11.1 11.3 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.4 9.2	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.2 10.2 10.2 10.2 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.5 10.5 10.5	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MAX SEPT 11.3 11.3 11.3 11.3 11.3 11.3 11.5 11.5	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX AF 9.4 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 11.1 11.1	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MAX SEP 11.3 11.3 11.3 11.3 11.3 11.5 11.5 11.5 11.6 11.6 11.6 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.9	TEMBER 11.1 11.1 11.3 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 11.1 11.1	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 11.1 11.1	MAX SEP 11.3 11.3 11.3 11.3 11.3 11.4 11.3 11.5 11.5 11.5 11.6 11.6 11.6 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	TEMBER 11.1 11.1 11.3 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX AF 9.4 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 11.1 11.1	MIN GUST 10.4 10.5 10.6 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MAX SEP 11.3 11.3 11.3 11.3 11.3 11.5 11.5 11.5 11.6 11.6 11.6 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.9	TEMBER 11.1 11.1 11.1 11.3 11.3 11.3 11.3 11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX AF 9.4 9.6 9.6 9.6 9.6 9.6	MIN PRIL 9.4 9.4 9.4 9.3 9.3 9.3	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MIN AY 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX JU 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MIN NE 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	MAX JU 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.	MIN JLY 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	MAX AUC 10.6 10.6 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 11.1 11.1	MIN GUST 10.4 10.4 10.5 10.6 10.6 10.6 10.6 10.7 10.7 10.7 10.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 11.1 11.1	MAX SEP 11.3 11.3 11.3 11.3 11.3 11.4 11.3 11.5 11.5 11.5 11.6 11.6 11.6 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	TEMBER 11.1 11.1 11.3 11.3 11.3 11.3 11.3 11

YEAR

12.4

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413551083481200 LU-20 NR HOLLAND OH-Continued #3 (13.6' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MTN MAX MTN MAX MTN MIN MAX MIN MAX MAX OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH 11.0 10.8 9.9 1 14.1 14.1 14.4 14.1 12.4 12.4 10.2 9.4 9.2 2 14 3 14 1 14 3 14 3 12 6 12 4 11 0 10 8 10 0 9 8 9 4 9 4 3 14.4 14.1 14.3 14.1 12.4 12.4 10.8 10.8 10.0 9.9 9.4 9.4 4 14.1 14.1 14.3 14.1 12.4 12.4 10.8 10.8 10.0 9.7 9.4 9.3 5 14.1 14.1 14.3 14.1 12.4 12.1 10.8 10.6 10.0 9.7 9.4 9.3 14.1 12.4 10.8 10.6 10.0 6 14.2 14.1 14.3 12.1 9.7 9.4 9.1 14.2 12.1 12.1 10.8 10.6 10.0 9.5 9.4 14.1 14.1 14.1 9.2 14.4 14.1 14.1 13.9 12.1 11.9 10.8 10.4 9.9 9.6 9.4 9.1 9 14.1 14.1 12.1 11.9 10.6 10.4 9.8 9.5 9.4 9.1 14.4 14.1 10 14.1 14.1 13.8 12.1 11.9 10.6 10.4 9.8 9.5 9.4 9.1 14.4 11 14.4 14.1 14.1 13.8 11.9 11.9 10.6 10.4 9.8 9.6 9.3 9.1 12 14.4 14.1 14.1 13.8 11.9 11.9 10.6 10.4 9.8 9.6 9.4 9.1 14.4 14.1 13 13.8 13.8 11.9 11.7 9.6 9.4 9.3 ------9.1 14.4 14.3 13.8 13.8 11.7 11.7 ------9.6 9.4 9.2 15 14.4 14.3 13.8 13.8 11.7 11.7 ---___ 9.6 9.3 9.2 8.9 16 14.4 14.3 13.8 13.8 11.7 11.7 9.6 9.3 9.2 8.9 10 4 10 6 17 14 4 14 3 13 8 13 8 11 7 11 7 9 6 9 4 9 2 8 9 18 14.4 14.3 13.8 13.6 11.7 11.5 10.6 10.2 9.4 9.0 9.2 9.0 19 14.4 14.3 13.8 13.5 11.7 11.5 10.6 10.2 9.2 9.0 9.0 9.0 2.0 14.4 14.3 13.6 13.5 11.5 11.4 10.4 10.1 9.2 8.9 9.1 8.9 14.4 13.6 13.3 11.7 11.2 10.4 10.2 9.2 21 14.3 9.0 9.0 8.9 2.2 14.3 14.3 13.6 13.3 11.5 11.2 10.4 10.2 9.2 8.9 9.1 8.8 23 14.3 13.6 13.1 11.5 11.2 10.4 10.2 9.2 8.9 9.0 14.3 24 14.3 13.3 12.6 11.3 11.2 10.4 10.2 9.2 9.0 9.0 8.8 14.3 25 12.6 9.2 14.4 14.3 12.6 11.0 10.2 10.2 9.0 9.0 8.8 11.3 26 14.3 14.3 12.6 12.6 11.3 11.0 10.2 10.0 9.4 9.0 9.0 8.6 27 14.3 14.3 12.6 12.6 11.2 11.0 10.2 10.0 9.4 9.2 9.0 8.8 28 14.4 14.3 12.6 12.6 11.2 11.0 10.2 9.9 9.4 9.2 9.0 8.8 29 14.4 14.3 12.6 12.4 11.2 11.0 10.2 10.0 9.0 30 14.4 12.4 10.8 10.2 ___ ___ 9.0 14.3 12.4 11.0 10.0 8.8 ---14.4 11.0 10.2 9.0 12 6 MONTH 14 4 14 1 12 4 10 8 11 0 9 9 10 2 9 4 8 6 14 4 8 9 #3 (13.6' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 MTN MTN DAY MAX MTN MAX MAX MAX MTN MAX MTN MAX MTN APRIL MAY JUNE JULY AUGUST SEPTEMBER 1 9.2 9 0 ---10.3 10.0 11.6 11.3 13.1 12 9 14.4 14 3 2 9.2 9.0 ------10.3 10.2 11.6 11.5 13.2 12.9 14.4 14.4 ---3 9 2 9 0 ---10.2 10.2 11.6 11 5 13.2 13 1 14 6 14 3 9.2 9.0 ___ ___ 10.3 10.2 11.8 11.5 13.1 13.1 4 14.6 9.2 5 9.0 ---10.4 10.2 11.8 11.7 13.1 13.1 14.6 14.4 6 9.2 9.0 ------10.4 10.2 11.8 11.7 13.2 13.1 14.7 14.4 9.2 10.4 11.8 11.7 13.4 9.0 10.4 13.1 14.6 14.6 _ _ _ ---8 9.2 10.6 10.4 11.8 11.7 13.4 9.2 13.4 14.6 14.6 10.0 9.8 9 ------10.6 10.4 12.0 11.7 13.4 13.4 14.6 14.6 10 10.0 11.8 ---10.0 10.7 10.6 12.0 13.7 13.4 14.7 14.6 11 10.0 10.0 10.7 10.6 12.0 11.9 13.7 13.4 14.9 14.6 12.0 12 ---10.1 10.0 10.7 10.6 11.9 13.6 13.6 14.9 10.1 10.0 10.7 10.6 12.2 12.0 13.7 13.6 14.9 13 14.6 10.1 10.0 10.9 10.6 12.2 12.0 13.7 13.6 10.1 10.0 10.9 12.3 12.2 13.9 13.6 14.9 15 10.9 10.1 ------10.0 10.9 10.9 12.4 12.2 13.9 13.6 16 14.9 14 9 17 ------10.1 9.9 10.9 10.9 12.5 12.2 13.9 13.7 14.9 14.9 18 10.1 10.0 10.9 10.9 12.5 12.4 13.9 13.9 14.9 19 ___ ___ 10.1 10.0 10.9 10.9 12.5 12.4 13.9 13.8 14.9 14.9 20 ---10.1 9.8 10.9 10.9 12.5 12.4 13.9 13.8 14.9 14.9 21 10.0 9.8 11.1 10.9 12.7 12.4 13.9 13.9 14.9 14.9 ---------2.2 ---10.0 9.8 11.1 10.9 12.7 12.4 13.9 13.9 14.9 14.9 ---23 ---10.0 9.8 11.1 11.1 12.7 12.4 13.9 13.9 14.9 14.8 ------2.4 10.0 9.8 11.1 11.1 12.7 12.6 14.1 13.9 15.1 14.8 2.5 ------10.0 9.8 11.1 11.1 12.7 12.6 14.1 13.9 14.9 14.9 26 10.0 9.8 11.4 11.1 12.7 12.6 14.4 13.9 14.9 27 ---10.0 9.8 11.4 11.1 12.9 12.6 14.4 14.1 14.9 28 10.1 9.8 11.4 11.3 12.9 12.7 14.4 14.1 15.1 14.9 ------10.0 29 10.1 11.3 12.9 12.7 14.4 14.1 14.9 11.3 15.1 30 ---12.9 10.1 10.0 11.5 12.9 14.4 14.9 11.3 14.1 15.1 31 10.2 10.0 12.9 12.9 14.4 14.4 10.2 MONTH 9.2 9.0 9.8 11.5 10.0 12.9 11.3 14.4 12.9 15.1 14.3

YEAR

15.1

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413551083481200 LU-20 NR HOLLAND OH-Continued

#4 (8.6' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCT	OBER	NOVE	MBER	DECE	MBER	JAN	UARY	FEBR	UARY	MA	RCH
1	15.7	15.6	14.4	14.3	11.9	11.7	10.0	9.8	9.0	8.5	8.0	7.8
2 3	15.7 15.7	15.6 15.6	14.3	14.3 14.1	11.9	11.7 11.7	10.0 9.8	9.8 9.6	8.6 8.7	8.6 8.4	8.0 8.2	7.8 8.0
4	15.7	15.7	14.3 14.3	14.1	11.9 11.9	11.7	10.0	9.6	8.8	8.6	8.0	8.0
5	15.7	15.6	14.1	13.8	11.7	11.7	10.0	9.6	8.6	8.4	8.2	7.8
6	15.7	15.7	14.1	13.8	11.7	11.7	9.8	9.6	8.6	8.4	8.2	7.8
7	15.7	15.7	13.8	13.8	11.7	11.5	9.8	9.4	8.6	8.4	8.0	7.8
8	15.7	15.4	13.9	13.8	11.7	11.5	9.6	9.4	8.6	8.3	8.0	7.8
9 10	15.7 15.7	15.7 15.6	13.8 13.8	13.8 13.6	11.7 11.5	11.2 11.2	9.6 9.6	9.4 9.3	8.5 8.4	8.3 8.3	8.2 8.2	7.8 7.6
11	15.7	15.4	13.8	13.6	11.5	11.0	9.5	9.3	8.4	8.4	8.2	7.6
12	15.7	15.4	13.6	13.5	11.2	11.2	9.6	9.3	8.4	8.2	8.2	7.6
13	15.7	15.4	13.6	13.3	11.2	11.0			8.4	8.2	8.0	7.6
14	15.7	15.6	13.6	13.3	11.3	11.0			8.4	8.2	8.0	7.6
15	15.7	15.6	13.3	13.1	11.1	10.8			8.4	8.2	8.0	7.6
16	15.7	15.6	13.3	13.1	11.1	10.8			8.4	8.2	8.0	7.6
17	15.7	15.6	13.1	13.1	11.0	10.8	9.4	9.1	8.4	8.2	8.0	7.6
18	15.7	15.4	13.1	12.8	11.0	10.6	9.6 9.4	9.1	8.2	7.6	8.0	7.4
19 20	15.6 15.6	15.4 15.4	12.9 12.9	12.8 12.6	10.8 10.8	10.6 10.6	9.4	9.1 9.1	8.2 8.2	7.6 7.6	7.8 7.8	7.4 7.6
21	15.6	15.3	12.9	12.6	10.8	10.6	9.4	8.9	8.2	7.6	8.0	7.4
22	15.4	14.8	12.6	12.6	10.6	10.4	9.1	8.9	8.0	7.6	7.8	7.4
23	15.1	15.1	12.6	12.4	10.8	10.4	9.4	8.9	8.0	7.6	7.6	7.4
24	15.1	15.1	12.6	12.4	10.6	10.4	9.1	8.8	8.2	7.6	7.8	7.4
25	15.1	14.8	12.4	12.4	10.6	10.2	8.9	8.7	8.0	7.6	7.8	7.4
26	14.8	14.8	12.4	12.4	10.4	10.2	9.0	8.7	8.2	7.6	7.7	7.4
27		14.8	12.4	12.1	10.4	10.2	9.0	8.6	8.0	7.8	7.7	7.5
28		14.6	12.2	12.1	10.4	9.9	9.0	8.6	8.0	7.8	7.7	7.5
29	14.6	14.6	12.2 11.9	11.9	10.4	9.9	8.9	8.6			7.8	7.6
30 31	14.6 14.6	14.4 14.3	11.9	11.9	10.2 9.9	9.9 9.9	8.8 9.0	8.6 8.6			7.9 7.9	7.7 7.8
MONTH	15.7	14.3	14.4	11.9	11.9	9.9	10.0	8.6	9.0	7.6	8.2	7.4
		#1 (0 61										
DAV	MAY	#4 (8.6'										MTN
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	AP	MIN	MAX M	MIN	MAX JU	MIN NE	MAX JU	MIN	MAX AUG	MIN UST	MAX SEPT	EMBER
1	AF	MIN PRIL 7.8	MAX M	MIN AY	MAX JU 11.8	MIN NE 11.5	MAX JU 13.9	MIN LY 13.9	MAX AUG	MIN UST 15.7	MAX SEPT	EMBER 17.0
	AP	MIN PRIL 7.8 8.0	MAX M	MIN	MAX JU 11.8 11.8	MIN NE 11.5 11.7	MAX JU 13.9 13.9	MIN LY 13.9 13.8	MAX AUG 16.0 16.0	MIN UST 15.7 15.9	MAX SEPT: 17.1 17.1	EMBER 17.0 17.0
1 2	AF 8.0 8.2	MIN PRIL 7.8	MAX M 	MIN AY 	MAX JU 11.8	MIN NE 11.5	MAX JU 13.9	MIN LY 13.9	MAX AUG	MIN UST 15.7	MAX SEPT	EMBER 17.0
1 2 3	8.0 8.2 8.2	MIN PRIL 7.8 8.0 8.0	MAX M 	MIN AY	MAX JU. 11.8 11.8 11.7	MIN NE 11.5 11.7 11.7	MAX JU 13.9 13.9 13.9	MIN LY 13.9 13.8 13.9	MAX AUG 16.0 16.0 16.0	MIN UST 15.7 15.9 15.9	MAX SEPT: 17.1 17.1 17.1	17.0 17.0 17.0
1 2 3 4	8.0 8.2 8.2 8.4	MIN 7.8 8.0 8.0 8.2	MAX M 	MIN	MAX JU. 11.8 11.8 11.7 12.0	MIN NE 11.5 11.7 11.7	MAX JU 13.9 13.9 13.9 14.1	MIN LY 13.9 13.8 13.9 13.9	MAX AUG 16.0 16.0 16.0 16.0	MIN UST 15.7 15.9 15.9	MAX SEPT: 17.1 17.1 17.1	17.0 17.0 17.0 17.0
1 2 3 4 5	8.0 8.2 8.2 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2	MAX M 	MIN	MAX JU 11.8 11.8 11.7 12.0 12.0	MIN NE 11.5 11.7 11.7 11.7 11.9	MAX JU 13.9 13.9 13.9 14.1 14.4	MIN 13.9 13.8 13.9 13.9 14.1	MAX AUG 16.0 16.0 16.0 16.0	MIN UST 15.7 15.9 15.9 15.9	MAX SEPT: 17.1 17.1 17.1 17.1	17.0 17.0 17.0 17.0 17.0
1 2 3 4 5 6 7 8	8.0 8.2 8.2 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2 8.2	MAX M 	MIN	MAX JU. 11.8 11.8 11.7 12.0 12.0	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1	MAX JU 13.9 13.9 13.9 14.1 14.4	MIN LY 13.9 13.8 13.9 13.9 14.1 14.2	MAX AUG 16.0 16.0 16.0 16.0 16.2	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3	17.0 17.0 17.0 17.0 17.0
1 2 3 4 5 6 7 8 9	8.0 8.2 8.2 8.4 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M	MIN 9.2	MAX JU. 11.8 11.8 11.7 12.0 12.0 12.2 12.4 12.4	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2	MAX JU 13.9 13.9 13.9 14.1 14.4 14.4 14.6 14.7	MIN LY 13.9 13.8 13.9 13.9 14.1 14.2 14.4 14.4	MAX AUG 16.0 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 15.9 15.9 16.2	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.1	17.0 17.0 17.0 17.0 17.0 17.0 17.1 17.1
1 2 3 4 5 6 7 8 9	8.0 8.2 8.2 8.4 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M	MIN 9.2 9.4	MAX JU. 11.8 11.8 11.7 12.0 12.0 12.2 12.4 12.4 12.5	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.4	MAX AUG 16.0 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 15.9 16.2 16.2	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4	EMBER 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.
1 2 3 4 5 6 7 8 9 10	8.0 8.2 8.2 8.4 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M	MIN AY 9.2 9.4	MAX JU. 11.8 11.7 12.0 12.0 12.2 12.2 12.4 12.4 12.5	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.6 14.6	MAX AUGI 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3	MIN 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.2	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4	17.0 17.0 17.0 17.0 17.0 17.0 17.1 17.1
1 2 3 4 5 6 7 8 9 10	8.0 8.2 8.2 8.4 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6	MIN AY 9.2 9.4 9.4 9.4	MAX JU. 11.8 11.7 12.0 12.0 12.2 12.2 12.4 12.4 12.5	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.4 14.6 14.6	MAX AUGI 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.3	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.2 16.2	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4	17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.1 17.1
1 2 3 4 5 6 7 8 9 10 11 12 13	8.0 8.2 8.2 8.4 8.4 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6 9.6	MIN 9.2 9.4 9.4 9.4 9.4	MAX JU. 11.8 11.7 12.0 12.2 12.2 12.4 12.4 12.5 12.4 12.5 12.4	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.4 14.6 14.6 14.6 14.9	MAX AUG 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.2 16.2 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4	17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.1 17.1
1 2 3 4 5 6 7 8 9 10	8.0 8.2 8.2 8.4 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6	MIN AY 9.2 9.4 9.4 9.4	MAX JU. 11.8 11.7 12.0 12.0 12.2 12.2 12.4 12.4 12.5	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.4 14.6 14.6	MAX AUGI 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.3	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.2 16.2	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4	17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.1 17.1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	8.0 8.2 8.2 8.4 8.4 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6 9.6 9.8 9.9	MIN AY 9.2 9.4 9.4 9.4 9.6 9.6	MAX JU. 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.5 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.2 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.4 14.6 14.6 14.6 14.9 14.9	MAX AUG 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.2 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1	17.0 17.0 17.0 17.0 17.0 17.0 17.1 17.1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	8.0 8.2 8.2 8.4 8.4 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2 8.4 8.4	MAX M 9.4 9.6 9.6 9.6 9.8 9.9	MIN AY 9.2 9.4 9.4 9.4 9.4 9.6 9.6 9.8	MAX JU. 11.8 11.7 12.0 12.2 12.2 12.4 12.4 12.5 12.4 12.5 12.7 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.6 14.9 14.9	MAX AUG 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.2 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1	17.0 17.0 17.0 17.0 17.0 17.0 17.1 17.1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN 7.8 8.0 8.0 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6 9.6 9.8 9.9	MIN AY 9.2 9.4 9.4 9.4 9.6 9.6	MAX JU. 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.5 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.2 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.4 14.6 14.6 14.6 14.9 14.9	MAX AUG 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.2 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1	EMBER 17.0 17.0 17.0 17.0 17.0 17.1 17.1 17.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	8.0 8.2 8.2 8.4 8.4 8.4 8.4	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6 9.8 9.9 10.1 10.1 10.3 10.3	MIN AY 9.2 9.4 9.4 9.4 9.6 9.6 9.8 10.0 10.0 10.2	MAX JU. 11.8 11.7 12.0 12.0 12.2 12.4 12.5 12.4 12.5 12.7 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.7 14.7 14.7 14.7 14.9 14.9 14.9 15.2	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.9 14.9 14.9	MAX AUG 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.0 17.1 17.1 17.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN PRIL 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6 9.6 9.8 9.9 10.1 10.1	MIN AY 9.2 9.4 9.4 9.4 9.6 9.6 9.8 10.0 10.0	MAX JU. 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.5 12.7 12.7 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 15.2	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.9 14.9 14.9	MAX AUGI 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.2 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.0 17.1 17.1 17.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6 9.8 9.9 10.1 10.3 10.3 10.3 10.4	MIN (AY 9.2 9.4 9.4 9.4 9.6 9.6 9.8 10.0 10.0 10.2 10.2	MAX JU. 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.5 12.7 12.7 12.7 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 14.9 15.2 15.2 15.2	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.9 14.9 14.9 14.9 14.9 15.1 15.1	MAX AUGI 16.0 16.0 16.0 16.0 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.0 17.1 17.1 17.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN 7.8 8.0 8.0 8.2 8.2 8.4 8.4	MAX M 9.4 9.6 9.6 9.6 9.8 9.9 10.1 10.3 10.3 10.3 10.4 10.5 10.7	MIN (AY 9.2 9.4 9.4 9.4 9.6 9.6 9.8 10.0 10.0 10.2 10.2 10.2	MAX JU. 11.8 11.7 12.0 12.2 12.4 12.4 12.5 12.4 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.2 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 15.2 15.2 15.2 15.2	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.9 14.9 14.9 14.9 15.1 15.1	MAX AUG 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.8 16.8 16.8 16.8	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	17.0 17.0 17.0 17.0 17.0 17.0 17.1 17.1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.6 9.6 9.6 9.6 9.6 10.1 10.3 10.3 10.3 10.3 10.3 10.4	MIN (AY) 9.2 9.4 9.4 9.4 9.6 9.6 9.8 10.0 10.0 10.2 10.2 10.2 10.2	MAX JU. 11.8 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.9 14.9 14.9 14.9 15.2 15.2 15.2 15.2 15.2	MIN LY 13.9 13.9 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.9 14.9 14.9 14.9 15.1 15.1 15.1 14.9	MAX AUGI 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.0 17.1 17.1 17.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN PRIL 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6 9.6 9.8 9.9 10.1 10.3 10.3 10.3 10.4 10.5 10.7 10.9 10.9	MIN (AY 9.2 9.4 9.4 9.4 9.6 9.6 9.6 9.8 10.0 10.0 10.2 10.2 10.2 10.2 10.8	MAX JU. 11.8 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.5 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 15.2 15.2 15.2 15.2 15.2 15.2	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.9 14.9 14.9 14.9 15.1 15.1 15.1 15.1	MAX AUGI 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.1 17.1 17.0 17.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN PRIL 7.8 8.0 8.0 8.2 8.2 8.4 8.4	MAX M 9.4 9.6 9.6 9.6 9.8 9.9 10.1 10.3 10.3 10.3 10.3 10.7 10.9 10.9	MIN (AY 9.2 9.4 9.4 9.4 9.6 9.6 9.6 10.0 10.2 10.2 10.2 10.2 10.8 10.8	MAX JU. 11.8 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.5 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 15.2 15.2 15.2 15.2 15.2 15.7 15.7	MIN LY 13.9 13.9 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.9 14.9 14.9 14.9 15.1 15.1 15.1 15.1 15.1	MAX AUGI 16.0 16.0 16.0 16.0 16.2 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.0 17.1 17.1 17.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN PRIL 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6 9.8 9.9 10.1 10.3 10.3 10.4 10.5 10.7 10.9 10.9 11.1	MIN (AY 9.2 9.4 9.4 9.4 9.6 9.6 9.8 10.0 10.2 10.2 10.2 10.2 10.2 10.8 10.8	MAX JUL 11.8 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.5 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.4 12.4 12.4 12.4 12.4 12.6 12.6 12.7 12.6 12.7 12.6 12.7 12.9 13.0 13.1	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 15.2 15.2 15.2 15.2 15.2 15.7 15.7	MIN LY 13.9 13.9 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.9 14.9 14.9 15.1 15.1 15.1 15.1 15.4	MAX AUGI 16.0 16.0 16.0 16.0 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.1 17.1 17.0 17.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX MAX MAX MAX MAX MAX MAX MAX	MIN (AY 9.2 9.4 9.4 9.4 9.6 9.6 9.8 10.0 10.0 10.2 10.2 10.2 10.2 10.4 10.6 10.8 10.8 10.8	MAX JUL 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.4 12.4 12.4 12.4 12.4 12.6 12.6 12.7 12.6 12.7 12.6 12.7 12.9 13.0 13.1	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 14.9 15.2 15.2 15.2 15.2 15.2 15.7 15.7	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.9 14.9 14.9 14.9 14.9 15.1 15.1 15.1 15.1 15.1 15.7	MAX AUGI 16.0 16.0 16.0 16.0 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5 16.8 16.8 16.8 16.8 16.8 16.8 16.8 16.8	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.1 17.1 17.0 17.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN PRIL 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX MAX MAX MAX MAX MAX MAX MAX	MIN (AY 9.2 9.4 9.4 9.4 9.6 9.8 10.0 10.0 10.2 10.2 10.2 10.2 10.8 10.8 10.8 10.8	MAX JUL 11.8 11.7 12.0 12.2 12.4 12.4 12.5 12.4 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 15.2 15.2 15.2 15.2 15.2 15.7 15.7	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.9 14.9 14.9 14.9 14.9 15.1 15.1 15.1 15.1 15.7	MAX AUGI 16.0 16.0 16.0 16.0 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5 16.8 16.8 16.8 16.8 16.8 16.8 16.8 16.8	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.0 17.1 17.1 17.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN 7.8 8.0 8.0 8.2 8.2 8.4 8.4	MAX MAX MAX MAX MAX MAX MAX MAX	MIN (AY 9.2 9.4 9.4 9.4 9.6 9.6 9.8 10.0 10.0 10.2 10.2 10.2 10.2 10.4 10.6 10.8 10.8 10.8	MAX JUL 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.4 12.4 12.4 12.4 12.4 12.6 12.6 12.7 12.6 12.7 12.6 12.7 12.9 13.0 13.1	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 14.9 15.2 15.2 15.2 15.2 15.2 15.7 15.7	MIN LY 13.9 13.8 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.9 14.9 14.9 14.9 14.9 15.1 15.1 15.1 15.1 15.1 15.7	MAX AUGI 16.0 16.0 16.0 16.0 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5 16.8 16.8 16.8 16.8 16.8 16.8 16.8 16.8	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.1 17.1 17.0 17.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN PRIL 7.8 8.0 8.0 8.2 8.2 8.4 8.4	MAX MAX MAX MAX MAX MAX MAX MAX	MIN (AY) 9.2 9.4 9.4 9.4 9.6 9.6 9.8 10.0 10.0 10.2 10.2 10.2 10.2 10.8 10.8 10.8 11.1 11.1	MAX JU. 11.8 11.8 11.7 12.0 12.2 12.4 12.5 12.4 12.5 12.7	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.2 12.4 12.4 12.4 12.4 12.4	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 15.2 15.2 15.2 15.2 15.2 15.7 15.7	MIN LY 13.9 13.9 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.9 14.9 14.9 14.9 15.1 15.1 15.1 15.1 15.7	MAX AUGI 16.0 16.0 16.0 16.0 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.1 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.1 17.1 17.0 17.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	8.0 8.2 8.2 8.4 8.4 8.4 8.4 	MIN PRIL 7.8 8.0 8.0 8.2 8.2 8.2 8.4 8.4	MAX M 9.4 9.4 9.6 9.6 9.8 9.9 10.1 10.3 10.3 10.3 10.4 10.5 10.7 10.9 10.9 11.1 11.3 11.1 11.3 11.1	MIN (AY 9.2 9.4 9.4 9.4 9.6 9.6 9.6 10.0 10.2 10.2 10.2 10.2 10.8 10.8 10.8 11.1 11.1 11.3 11.3	MAX JUL 11.8 11.8 11.7 12.0 12.2 12.2 12.4 12.5 12.4 12.5 12.7 12	MIN NE 11.5 11.7 11.7 11.7 11.9 11.9 12.0 12.1 12.2 12.4 12.4 12.4 12.4 12.4 12.6 12.6 12.7 12.6 12.7 12.6 12.7 12.6 12.7 12.9 13.0 13.1 13.1 13.4 13.4 13.6	MAX JU 13.9 13.9 14.1 14.4 14.4 14.6 14.7 14.7 14.7 14.9 14.9 14.9 15.2 15.2 15.2 15.2 15.2 15.7 15.7 15.7	MIN LY 13.9 13.9 13.9 14.1 14.2 14.4 14.4 14.6 14.6 14.6 14.9 14.9 14.9 14.9 15.1 15.1 15.1 15.1 15.7 15.7	MAX AUGI 16.0 16.0 16.0 16.0 16.0 16.3 16.3 16.3 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MIN UST 15.7 15.9 15.9 15.9 15.9 15.9 16.2 16.2 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	MAX SEPT: 17.1 17.1 17.1 17.3 17.1 17.3 17.4 17.4 17.4 17.4 17.1 17.1 17.1 17.1	EMBER 17.0 17.0 17.0 17.0 17.1 17.1 17.0 17.0

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413551083481200 LU-20 NR HOLLAND OH—Continued
TEMPERATURE, SOIL (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

			TEMPERATURE,	SOIL	(DEG. C),	WATER YEAR	OCTOBER	1997 TO	SEPTEMBER	1998		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCT	OBER	NOVEME	DD.	חבכו	EMBER	JANU	אסע	FEBRU	עם גוז	MA	RCH
1	17.1	15.1		10.8	7.0	5.4	1.4	1.2	3.2	2.1	7.1	5.9
2	16.4 18.1	14.2 15.3	11.1 9.2	9.2	5.4 4.9	4.3	2.2 5.6	1.2	3.3	3.0 2.1	6.3 5.2	5.2 4.6
4	19.1	17.0	8.0	7.3	5.0	4.5	6.2	5.3	2.3	1.9	4.7	3.7
5	19.5	17.2	7.7	7.1	4.5	3.3	7.6	5.3	2.4	1.8	4.1	3.2
6 7	20.3	18.2 18.3	8.3 8.8	6.9 7.7	3.3	2.7	8.8 8.6	7.6 7.1	2.6 2.9	1.7 1.8	4.4 5.5	3.3
8	20.4	18.6	9.7	8.3	3.0	2.8	7.1	5.8	2.9	1.8	5.5	4.7
9	20.0	18.9	9.2	7.7	3.2	2.7	5.8	4.4	2.9	1.8	6.7	4.8
10	19.3	17.2	8.1	7.4	3.2	2.9	4.4	3.1	3.5	1.8	4.8	3.2
11	17.9	15.6	7.4	6.2	2.9	2.9	3.1	2.1	4.1	3.3	3.2	2.2
12	17.7	15.4	6.5	4.9	2.9	2.5	2.1	2.1	4.2	3.4	2.2	1.6
13	18.0	17.1	4.9	3.8	2.5	2.3	2.0	1.8	3.4	2.7	1.6	1.4
14	17.4	14.9	4.4	4.3	2.3	2.2			3.5	2.7	1.7	1.4
15	14.9	12.4	4.3	4.2	2.2	2.2			3.8	2.3	2.5	1.5
16	13.5	11.8	4.2	4.0	2.3	2.2	1.2	1.2	3.5	2.7	3.4	1.9
17	12.9	11.8	4.0	3.6	2.3	2.1	1.3	1.2	3.9	3.5	3.3	2.3
18	12.7	10.3	3.6	3.3	2.2	1.9	1.3	1.2	4.6	3.9	5.4	3.3
19	12.7	10.1	3.4	3.3	4.1	2.0	1.3	1.2	4.7	4.2	6.2	5.4
20	12.8	11.4	3.3	3.0	3.6	2.7	1.3	1.2	4.7	4.3	5.9	3.7
21	12.1	10.2	4.7	3.1	2.9	2.6	1.4	1.3	4.5	4.0	3.7	2.9
22	10.8	8.9	4.7	4.1	2.9	2.4	1.4	1.4	5.0	3.1	4.4	2.7
23	9.6	8.3	4.6	3.8	3.2	2.9	1.4	1.3	5.1	3.7	4.5	2.8
24	10.0	9.2	3.8	3.0	3.1	2.7	1.4	1.3	4.8	3.3	5.3	3.0
25	10.9	9.8	4.7	2.7	3.7	3.1	1.5	1.4	5.8	3.0	6.0	3.5
26	10.6	9.3	5.8	4.7	3.6	2.6	2.6	1.5	5.6	4.3	9.6	6.0
27	9.3	7.3	5.5	4.3	2.6	2.3	3.0	2.0	7.3	4.9	11.9	9.5
28	8.2	6.7	7.3	5.3	2.3	1.9	2.8	2.1	7.1	4.8	11.6	10.7
29 30	9.5 9.8	7.2 7.7	7.5 7.5	7.3 7.0	1.9 1.7	1.7 1.5	3.0 2.8	2.4			13.3 14.8	9.8 12.3
31	11.0	9.3	7.5		1.6	1.4	3.3	2.3			14.6	13.2
MONTH	20.4	6.7	11.3	2.7	7.0	1.4	8.8	1.2	7.3	1.7	14.8	1.4
			TEMPERATURE,	SOIL	(DEG. C),	WATER YEAR	OCTOBER	1997 TO	SEPTEMBER	1998		
DAY	MAX	MIN	TEMPERATURE,	SOIL	(DEG. C),	WATER YEAR MIN	OCTOBER MAX	1997 TO MIN	SEPTEMBER MAX	1998 MIN	MAX	MIN
DAY			MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN		
	AP	RIL	MAX MAY	MIN	MAX	MIN UNE	MAX JUI	MIN	MAX AUGU	MIN UST	SEPT	EMBER
1	AP	RIL 11.2	MAX MAY	MIN	MAX JI 22.6	MIN UNE 19.7	MAX JUI 26.3	MIN JY 22.7	MAX AUGU 26.0	MIN UST 22.2	SEPT	EMBER 21.2
1 2	AP 14.1 11.2	RIL 11.2 9.4	MAX MAY	MIN	MAX JI 22.6 22.6	MIN UNE 19.7 20.4	MAX JUI 26.3 26.6	MIN 22.7 22.6	MAX AUGU 26.0 26.0	MIN UST 22.2 22.1	SEPT 24.2 23.9	EMBER 21.2 20.5
1 2 3	AP 14.1 11.2 9.8	RIL 11.2 9.4 8.0	MAX MAY 	MIN	MAX JI 22.6 22.6 22.1	MIN UNE 19.7 20.4 19.3	MAX JUI 26.3 26.6 26.4	MIN 22.7 22.6 23.4	MAX AUGU 26.0 26.0 25.7	MIN UST 22.2 22.1 22.9	SEPT 24.2 23.9 24.0	EMBER 21.2 20.5 19.8
1 2	AP 14.1 11.2	RIL 11.2 9.4	MAX MAY	MIN	MAX JI 22.6 22.6	MIN UNE 19.7 20.4	MAX JUI 26.3 26.6	MIN 22.7 22.6	MAX AUGU 26.0 26.0	MIN UST 22.2 22.1	SEPT 24.2 23.9	EMBER 21.2 20.5
1 2 3 4 5	AP 14.1 11.2 9.8 10.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1	MAX 	MIN	MAX JI 22.6 22.6 22.1 20.1 19.9	MIN 19.7 20.4 19.3 17.4	MAX JUI 26.3 26.6 26.4 25.8 25.9	MIN 22.7 22.6 23.4 23.7 21.5	MAX AUGU 26.0 26.0 25.7 25.4 23.0	MIN 22.2 22.1 22.9 23.0 22.0	SEPT 24.2 23.9 24.0 25.0 24.7	21.2 20.5 19.8 21.0 20.7
1 2 3 4 5	AP 14.1 11.2 9.8 10.4 10.8 11.1	RIL 11.2 9.4 8.0 7.7 7.1 7.8	MAX 	MIN	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4	MIN 19.7 20.4 19.3 17.4 17.4	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4	MIN 22.7 22.6 23.4 23.7 21.5	MAX AUGT 26.0 26.0 25.7 25.4 23.0 24.1	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8	SEPT 24.2 23.9 24.0 25.0 24.7	21.2 20.5 19.8 21.0 20.7 22.1
1 2 3 4 5	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7	11.2 9.4 8.0 7.7 7.1 7.8 8.3	MAX	MIN	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4 17.5	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8 22.6	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1	21.2 20.5 19.8 21.0 20.7 22.1 21.8
1 2 3 4 5	AP 14.1 11.2 9.8 10.4 10.8 11.1	RIL 11.2 9.4 8.0 7.7 7.1 7.8	MAX MAY 15.5	MIN	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4	MIN 19.7 20.4 19.3 17.4 17.4	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4	MIN 22.7 22.6 23.4 23.7 21.5	MAX AUGT 26.0 26.0 25.7 25.4 23.0 24.1	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8	SEPT 24.2 23.9 24.0 25.0 24.7	21.2 20.5 19.8 21.0 20.7 22.1
1 2 3 4 5 6 7 8	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9	MAX MAY 15.5 17.6	MIN 15.3	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4 17.5 18.8	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0	MAX AUGU 26.0 26.7 25.7 25.4 23.0 24.1 25.6 26.0	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4
1 2 3 4 5 6 7 8 9	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6	MIN 15.3 14.3 14.8	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2	MAX AUGt 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1	SEPT 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2
1 2 3 4 5 6 7 8 9	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1	MIN 15.3 14.3 14.8	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2	MAX AUGT 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1	SEPT 24.2 23.9 24.0 25.0 24.7 25.7 25.7 25.1 21.8 21.2	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2
1 2 3 4 5 6 7 8 9 10 11 12 13	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1	MIN 15.3 14.3 14.8 15.3 15.2 15.9	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3
1 2 3 4 5 6 7 8 9 10 11 12 13 14	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4	MIN 15.3 14.3 14.8 15.3 15.2 15.9 16.7	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.6	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5	SEPT 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3
1 2 3 4 5 6 7 8 9 10 11 12 13	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4	MIN 15.3 14.3 14.8 15.3 15.2 15.9	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0	MIN 15.3 14.3 14.8 15.3 15.2 15.9 16.7 18.1	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.7 22.5 22.2	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.6	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4	SEPT 24 . 2 23 . 9 24 . 0 25 . 0 24 . 7 25 . 7 25 . 1 21 . 8 21 . 2 22 . 1 22 . 8 23 . 7 24 . 5 23 . 6 23 . 5 23 . 2	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3	MIN 15.3 14.3 14.8 15.3 15.2 15.9 16.7 18.1	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.0 20.2 19.2	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.6 25.5 25.8 26.5	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.2 24.5	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 22.1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0	MIN 15.3 14.3 14.8 15.3 15.2 15.9 16.7 18.1	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 19.2 20.2	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 27.1	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.6 25.5 25.8	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.6 23.5 24.5 24.5	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 22.1 22.1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3	MIN 15.3 14.8 15.3 15.2 15.9 16.7 18.1 19.7 18.7 18.9	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 19.2 20.2 22.3	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 27.1 26.8	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.4 25.5 25.6 25.5 25.8 26.5 25.8	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3 20.4	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.2 24.5 24.5 24.1 24.3	EMBER 21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 21.0 20.5 20.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.8	MIN 15.3 14.3 14.8 15.3 15.2 15.9 16.7 18.1 19.7 18.9 19.4 20.1	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6 25.8	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 19.2 20.2 22.3 22.1	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 27.1 26.8 28.0	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.6 25.5 25.8 26.5 25.8	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3 20.4 20.0	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.2 24.5 24.5 24.5	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 22.1 20.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.8 22.8	MIN 15.3 14.8 15.3 15.2 15.9 16.7 18.1 19.7 18.9 19.4 20.1	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6 25.8	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 22.3 22.1 22.9	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 27.1 26.8 28.0 27.2	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 23.9	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.4 25.5 25.6 25.5 25.8 26.5 25.8 26.5 25.1 24.6	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3 20.4 20.0 22.2	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.2 24.5 24.1 24.3 24.8 24.7	EMBER 21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 21.0 20.5 20.9 21.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.8 22.8	MIN 15.3 14.3 14.8 15.2 15.9 16.7 18.1 19.7 18.7 18.9 19.4 20.1	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6 25.8 25.4 26.2	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 19.2 20.2 22.3 22.1 22.9 22.5	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 28.0 27.5 28.0 27.5 28.0 27.2 26.1	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 23.9 23.9	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.6 25.5 25.8 26.5 25.8 26.5 25.8 26.5	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 22.7 22.4 22.5 22.7 22.4 22.6 23.3 20.4 20.0 22.2 22.6	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.2 24.5 24.1 24.3 24.8 24.7 23.4	EMBER 21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 21.0 20.5 20.9 21.9 22.3 21.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.8 22.4 21.7 20.8	MIN 15.3 14.3 14.8 15.3 15.2 15.9 16.7 18.1 19.7 18.9 19.4 20.1 19.7	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6 25.8 25.4 26.2 26.3	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 21.2 22.3 22.1 22.9 22.5 23.7	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 28.0 27.5 27.1 26.8 28.0 27.2 26.1 26.3	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 23.9 23.9 23.9 23.3 23.0	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.8 26.5 25.8 26.5 25.8 26.7	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3 20.4 20.0 22.2 22.6 23.3	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 24.5 24.1 24.3 24.8 24.7 24.7	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 22.1 21.0 20.5 20.9 21.9 22.3 21.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.8 22.4 21.7 20.8 20.4	MIN	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6 25.8 25.4 26.2 26.3 26.9	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 21.2 22.3 22.1 22.9 22.3 22.1 22.9 22.5 23.7 23.7	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 27.1 26.8 28.0 27.2 26.1 26.3 25.6	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 23.9 23.9 23.9 23.9 23.9 23.0 21.6	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.6 25.5 25.8 26.5 25.8 26.7 25.7	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3 20.4 20.0 22.2 22.6 23.3 20.3 23.5	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.6 23.5 24.5 24.5 24.7 24.8 24.7 24.8	21.2 20.5 19.8 21.0 20.7 22.1 21.8 4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 22.1 21.0 20.5 20.9 21.9 22.3 21.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.8 22.4 21.7 20.8 20.4 18.3	MIN 15.3 14.3 14.8 15.3 15.2 15.9 16.7 18.1 19.7 18.9 19.4 20.1 19.7 18.9 19.4 20.1	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6 25.8 25.4 26.2 26.3 26.9 27.5	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 19.2 20.2 22.3 22.1 22.9 22.5 23.7 23.7 24.4	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 27.1 26.8 28.0 27.5 27.1 26.8 28.0 27.5 27.1 26.8 28.0 27.5 27.1	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 23.9 23.9 23.9 23.9 23.9 23.9 23	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.8 26.5 25.8 26.7 24.6	MIN 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3 20.4 20.0 22.2 22.6 23.3 23.5 21.4	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.6 23.5 24.5 24.1 24.3 24.8 24.7 23.4 21.7 20.7 21.6	EMBER 21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 21.0 20.5 20.9 21.9 21.9 18.5 17.8 18.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.8 22.4 21.7 20.8 20.4 18.3	MIN 15.3 14.3 14.8 15.3 15.2 15.9 16.7 18.1 19.7 18.9 19.4 20.1 19.7 19.0 19.7 19.0 19.7 19.0	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 23.0 24.9 25.6 25.8 25.4 26.2 26.3 26.9 27.5	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.0 20.2 21.2 22.3 22.1 22.9 22.3 22.1 22.9 22.5 23.7 24.4 24.3	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 27.1 26.8 28.0 27.2 26.1 26.3 25.6 24.6	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 23.9 24.3 22.9 23.9 24.3 22.9 23.9 24.3 22.9	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.6 25.5 25.8 26.5 25.8 26.7 24.6 25.7 24.5 25.9	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 20.0 22.4 20.0 22.2 22.6 23.3 20.4 20.0 22.1 22.6 23.3 20.4 20.0	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.6 23.5 24.5 24.5 24.7 24.3 24.8 24.7 24.8 24.7 23.4 21.7 20.7 21.6	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 22.1 22.1 22.1 21.0 20.5 20.9 21.9 22.3 21.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.0 22.3 22.8 22.4 21.7 20.8 20.4 18.3 20.7 21.5	MIN 15.3 14.8 15.3 15.2 15.9 16.7 18.1 19.7 19.7 19.0 18.1 19.7 19.0 18.1 19.7	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6 25.8 25.4 26.2 26.3 26.9 27.5 27.1 26.9	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 19.2 20.2 22.3 22.1 22.9 22.5 23.7 23.7 24.4 24.3 24.3	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 27.1 26.8 28.0 27.2 26.1 26.3 25.6 24.6	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 23.3 22.9 23.3 22.9 23.3 23.0 21.6 21.3 20.5 22.0	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.4 25.5 25.6 25.5 25.8 26.5 25.8 26.7 24.6 25.7 24.6	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3 20.4 20.0 22.2 22.6 23.3 20.4 20.0 22.1 22.6 23.3 20.4 20.0	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.2 24.5 24.1 24.3 24.8 24.7 23.4 21.7 23.4 21.7 20.7 21.6 23.6 23.3	EMBER 21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 21.0 20.5 20.9 21.9 22.3 21.0 18.5 17.8 18.4 20.5 21.6
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.8 22.4 21.7 20.8 20.4 18.3 20.7 21.5 21.6	MIN 15.3 14.3 14.8 15.3 15.2 15.9 16.7 18.1 19.7 18.9 19.4 20.1 19.7 19.0 19.7 19.0 19.7 19.0	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 23.0 24.9 25.6 25.8 25.4 26.2 26.3 26.9 27.5	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.0 20.2 21.2 22.3 22.1 22.9 22.3 22.1 22.9 22.5 23.7 24.4 24.3	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 27.1 26.8 28.0 27.2 26.1 26.3 25.6 24.6	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 23.9 24.3 22.9 23.9 24.3 22.9 23.9 24.3 22.9	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.6 25.5 25.8 26.5 25.8 26.7 24.6 25.7 24.5 25.9	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 20.0 22.4 20.0 22.2 22.6 23.3 20.4 20.0 22.1 22.6 23.3 20.4 20.0	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 23.6 23.5 24.5 24.5 24.7 24.3 24.8 24.7 24.8 24.7 23.4 21.7 20.7 21.6	21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.3 22.1 22.1 22.1 22.1 22.1 21.0 20.5 20.9 21.9 22.3 21.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.8 22.4 21.7 20.8 20.4 18.3 20.7 21.5 21.6 22.8	MIN 15.3 14.8 15.3 15.2 15.9 16.7 18.1 19.7 18.9 19.4 20.1 19.7 19.0 18.1 19.7 19.0 18.1 19.7	MAX JI 22.6 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6 25.8 26.9 27.5 27.1 26.9 28.2	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 21.2 22.3 22.1 22.9 22.5 23.7 24.4 24.3 24.3 24.1	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 27.5 28.0 27.5 28.0 27.5 27.1 26.8 28.0 27.2 26.1 26.3 25.6 24.6	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 23.9 23.3 23.0 21.6 21.3 20.5 22.0 23.0	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.4 25.5 25.6 25.5 25.8 26.5 25.8 26.5 25.8 26.7 24.6 25.7 24.6 25.7 24.6	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3 20.4 20.0 22.2 22.6 23.3 20.4 20.0 22.2 22.6 23.3 23.5 21.4 20.8 21.5 21.9	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 24.5 24.1 24.3 24.8 24.7 23.4 21.7 20.7 21.6 23.6 23.3 22.8	EMBER 21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.0 20.5 20.9 21.9 22.3 21.0 18.5 17.8 18.4 20.5 21.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.8 22.4 21.7 20.8 20.4 18.3 20.7 21.5 21.6 22.8 23.4	MIN 15.3 14.3 14.8 15.3 15.2 15.9 16.7 18.1 19.7 18.9 19.4 20.1 19.0 18.1 19.7 18.2 16.7 15.9 17.6 18.8 20.1	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6 25.8 25.4 26.2 26.3 26.9 27.5 27.1 26.9 28.2 27.9	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 19.2 20.2 22.3 22.1 22.9 22.5 23.7 23.7 24.4 24.3 24.3 24.1 25.2	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 28.0 27.5 27.1 26.8 28.0 27.5 27.1 26.8 28.0 27.5 27.1 26.8 28.0 27.2 26.1 26.3 25.6 24.6	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 24.3 22.9 23.9 24.3 22.9 23.9 23.9 23.9 23.9 23.9 23.9 23	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.8 26.5 25.8 26.7 25.7 24.6 26.7 25.7 24.5	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3 20.4 20.0 22.2 22.6 23.3 23.5 21.4 20.8 21.5 21.9 21.9	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 24.5 24.1 24.3 24.8 24.7 23.4 21.7 20.7 21.6 23.6 23.6 23.6 23.6 23.6	EMBER 21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 21.0 20.5 20.9 21.9 22.3 21.0 18.5 17.8 18.4 20.5 21.9 21.9 21.9 22.3 21.0 20.5 20.9 21.9 21.9 21.0 21.9 21.9 21.9 22.3 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	AP 14.1 11.2 9.8 10.4 10.8 11.1 10.7 11.4 10.8	RIL 11.2 9.4 8.0 7.7 7.1 7.8 8.3 8.9 9.2	MAX MAY 15.5 17.6 17.1 16.8 17.7 19.1 21.4 22.0 22.4 22.3 22.0 22.3 22.8 22.4 21.7 20.8 20.4 18.3 20.7 21.5 21.6 22.8 23.4 23.0	MIN	MAX JI 22.6 22.1 20.1 19.9 17.4 17.5 18.8 18.6 19.8 19.6 22.0 21.0 21.7 22.5 22.2 23.0 24.9 25.6 25.8 25.4 26.2 26.3 26.9 27.5 27.1 26.9 27.1	MIN UNE 19.7 20.4 19.3 17.4 17.4 15.2 15.4 15.3 17.0 16.5 18.2 18.8 19.0 18.8 19.6 20.2 22.3 22.1 22.9 22.3 22.1 22.9 22.3 22.1 22.9 22.5 23.7 23.7 24.4 24.3 24.3 24.1 25.2 24.4	MAX JUI 26.3 26.6 26.4 25.8 25.9 26.4 25.8 25.1 27.0 26.6 26.3 26.7 26.9 26.3 27.5 27.1 26.8 28.0 27.5 27.1 26.8 28.0 27.5 27.1 26.8 28.0 27.5 27.1 26.8 28.0 27.5 27.1 26.8 28.0	MIN 22.7 22.6 23.4 23.7 21.5 22.4 24.0 23.0 22.7 23.2 22.0 22.1 22.8 23.6 24.2 25.0 24.6 23.9 24.3 22.9 23.9 24.3 22.9 23.9 23.3 22.9 23.9 23.9 23.9 23	MAX AUGU 26.0 26.0 25.7 25.4 23.0 24.1 25.6 26.0 26.6 27.5 27.0 26.4 25.5 25.8 25.1 24.6 25.5 25.8 25.7 24.5 25.8 25.7 24.5 25.8 25.7 25.7 24.5	MIN UST 22.2 22.1 22.9 23.0 22.0 21.8 22.6 22.9 23.8 24.1 23.5 23.0 22.4 22.5 22.7 22.4 22.6 23.3 20.4 20.0 22.2 22.6 23.3 23.5 21.4 20.8 21.5 21.9 21.9 21.5 21.1	SEPT. 24.2 23.9 24.0 25.0 24.7 25.7 25.1 21.8 21.2 22.1 22.8 23.7 24.5 23.6 23.5 24.1 24.3 24.8 24.7 23.4 21.7 20.7 21.6 23.6 23.6 23.6 23.6 23.6 23.6 23.6 23	EMBER 21.2 20.5 19.8 21.0 20.7 22.1 21.8 18.4 16.9 17.2 18.5 19.4 20.3 22.1 22.1 21.0 20.5 20.9 21.9 21.9 22.3 21.0 18.5 17.8 18.4 20.5 21.6 19.4 18.3 19.5

413551083481200 LU-20 NR HOLLAND OH-Continued

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY SUM VALUES OCT DAY NOV DEC FEB MAR MAY JUN AUG SEP JAN APR JUL 1 .01 .14 .00 .02 .00 .02 .12 ___ .00 .00 .00 .00 2 .00 .01 .00 .00 .00 .00 .00 .00 .00 .00 .07 .03 .13 .00 ---.00 .05 .02 .00 .00 .00 .01 .00 .02 .00 .27 .00 .00 .00 .00 .10 .13 .00 5 .01 .00 .00 .17 .00 .00 .01 .00 .00 .00 .48 .00 .00 ---6 .00 .00 .00 .00 .00 .01 .00 .46 .00 .00 .06 .49 .00 .00 .00 .29 .00 .00 _ _ _ .00 .26 .11 8 .00 .00 .00 .23 .00 .10 .00 .00 .19 .17 .00 .00 .00 q .01 .00 .01 .00 .98 .26 .03 .00 .00 .00 10 .00 .00 .09 .00 .00 .00 ---.01 .12 .00 .03 .00 .01 .25 .01 .00 11 .00 .00 .00 .00 .16 .00 .00 ---12 .00 .00 .02 .05 .00 .00 .00 .05 .00 .11 .00 .00 .00 13 .06 .01 .01 .00 .00 ---.05 .02 .00 .00 14 .03 .00 .03 .00 .00 .03 .00 .00 .00 .00 15 .02 .09 ---.00 ---.00 .35 .00 .04 .00 .00 .00 16 .00 .00 .00 .00 .13 .00 ---.00 .16 .00 .01 .01 .00 .00 .09 .00 .01 .75 .00 .00 .00 .00 .02 .00 .09 ---.00 .00 .37 18 .00 .01 .16 .00 ---19 .01 .02 .00 .01 .04 .01 .00 .09 .27 .00 .00 20 .00 .01 .00 .05 .00 .00 .00 .00 .00 .12 .11 .00 .01 21 .00 .09 .00 .06 ---.00 .04 1.21 .11 .00 .01 .01 22 .00 .07 .09 .00 .03 ---.01 .22 .00 .00 .00 .00 ---.00 .12 23 .00 .01 .09 .00 .02 .14 .00 .01 .00 .00 .00 2.4 .28 .06 .00 .10 .00 .39 .00 25 .01 .00 .07 .01 .00 .00 ---.00 .00 .00 .75 .01 26 .27 .00 .00 .00 .00 .00 .00 .24 .00 .00 .00 27 .22 .00 .04 ---.00 .08 .00 .06 .04 .00 .00 .00 28 .00 .08 .00 .00 .05 .26 ---.00 .04 .00 .06 .00 29 .00 .07 .00 .04 ---.00 .00 .00 .00 .00 .00 .00 .00 .00 ---.00 ---.00 .00 .00 30 .01 .02 .04 ------31 .06 ---.00 .00 .09 .01 ---.00 .00 ---

1.95

0.48

0.27

1.16

2.17

3.71

0.80

0.61 WTR YR 1998 TOTAL 15.60

0.81

0.82

1.33

1.49

TOTAL

DEICING SALT LBS/LANE-MILE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY SUM VALUES DAY ОСТ NOV FEB MAR TITT. AUG SEP DEC JAN APR MAY .TITN 2 ------------------3 ------4 5 ------400 ---------_ _ _ ------6 600 ------------------------------------8 ------___ ------800 ------------------1800 10 1000 ---11 ---------------------------------12 ---------------------------------13 ---_ _ _ ---600 _ _ _ ------_ _ _ ------_ _ _ _ _ _ 14 ---400 ---------------------------15 ---800 ---800 ------------------------16 17 ---------------18 --19 ---------------------------20 400 21 1000 22 ---------400 ---------------------23 600 ---------------___ ---------25 26 ------------------------------------2.7 ---------------------------------2.8 ---_ _ _ ------_ _ _ ------_ _ _ ---------_ _ _ 29 ------------------------------------30 ---800 ------------------------------31 600 _ _ _ _ _ _ ------TOTAL 1200 4200 2800 2800

WTR YR 1998 TOTAL 11000

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

GROUND-WATER RECORDS

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413547083481400. Local number, LU-23.
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LOCATION.--Lat 41°35'47" Long 83°48'14", Hydrologic Unit 04100009, along State Route 2 near Holland, OH. Owner.--USGS/Toledo Express Airport.

AOUIFER. -- Sand of Ouaternary age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 29.4 ft. Cased with Sch 40 PVC to 4.4 ft; .010 in. screen from 4.4 to 29.4 ft.

INSTRUMENTATION - Data logger -- 60 minute record. At this well there are 4 conductivity/water temperature probes at increasing depths within the well to better document vertical movement of high conductivity water on an hourly basis. Conductivity/water temperature probes are set at 6.9 (level 4), 10.4 (level 3), 16.9 (level 2), and 25.4 (level 1) feet below land surface.

DATUM.--Elevation of land-surface datum is 676.97 feet above sea level. Measuring point: top of PVC casing 0.58 ft above land-surface datum.

REMARKS .-- This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceding tables.

PERIOD OF RECORD. -- February 1991 to current year.

PERIOD OF DAILY RECORD. --

SPECIFIC CONDUCTANCE (FOUR LEVELS): February 1991 to current year.

WATER TEMPERATURE (FOUR LEVELS): February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD. --

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SPECIFIC CONDUCTANCE:
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LEVEL 1- Maximum, 1640 microsiemens September 30, 1998; minimum, 259 microsiemens March 23, 1998.

LEVEL 2- Maximum, 1790 microsiemens July 15, 1991; minimum, 249 microsiemens March 23, 1998.

LEVEL 3- Maximum, 1530 microsiemens July 22-23, 1991; minimum, 243 microsiemens March 23, 1998. LEVEL 4- Maximum, 1360 microsiemens April 26, 1998; minimum, 107 microsiemens August 31, 1991.

WATER TEMPERATURE:

LEVEL 1- Maximum, 13.9°C many days in 1991; minimum, 9.5°C April 1-2, 1998.

LEVEL 2- Maximum, 17.7°C August 25, 1998; minimum, 6.8°C April 1, 1998.

LEVEL 3- Maximum, 17.5°C many days in 1991; minimum, 1.5°C April 1, 1998.

LEVEL 4- Maximum, 19.0° C many days in 1991; minimum, 3.1° C April 1, 1998.

EXTREMES FOR CURRENT YEAR . - -

SPECIFIC CONDUCTANCE:

LEVEL 1- Maximum, 1640 microsiemens September 30, 1998; minimum, 259 microsiemens March 23, 1998.

LEVEL 2- Maximum, 1540 microsiemens September 29-30, 1998; minimum, 249 microsiemens March 23, 1998.

LEVEL 3- Maximum, 1510 microsiemens September 29-30, 1998; minimum, 243 microsiemens March 23, 1998.

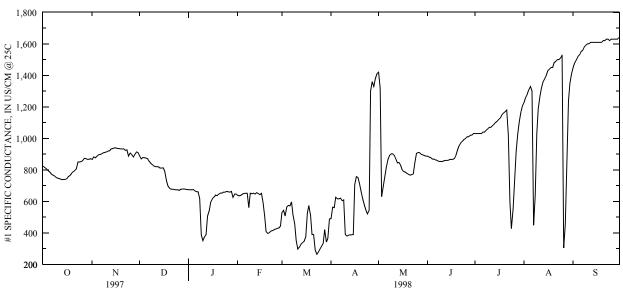
LEVEL 4- Maximum, 1360 microsiemens April 26, 1998; minimum, 217 microsiemens August 25, 1998.

WATER TEMPERATURE:

LEVEL 1- Maximum, 13.6°C many days in November, December, 1997, January 1, 1998; minimum, 9.5°C April 1-2,

LEVEL 2- Maximum, 17.7°C August 25, 1998; minimum, 6.8°C April 1, 1998. LEVEL 3- Maximum, 15.5°C August 25, 1998; minimum, 1.5°C April 1, 1998.

LEVEL 4- Maximum, 18.3°C August 25, 1998; minimum, 3.1°C April 1, 1998.



Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413547083481400 LU-23 NR HOLLAND OH-Continued

#1 (25.4' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

#1 (25.4′ BL	S) SPECIF	IC CONDUCT	ANCE (MI	CROSIEMENS	S/CM AT 2	DEG.C),	WATER YEAR	R OCTOBER	1997 TO	SEPTEMBER	1998
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCT	OBER	NOVE	MDED	DECE	MDED	тл.	NUARY	EEDI	RUARY	M	ARCH
1	824	812	867	855	889	865	674	670	638	538	530	437
2	815 808	805 794	883 877	867 869	870 878	851 838	674 673	672 671	635 638	539 535	544 507	456 461
4	798	784	885	872	877	844	675	654	647	547	564	493
5	788	773	895	879	875	860	666	649	650	560	574	462
6 7	776 768	764 759	897 902	885 891	871 856	851 841	662 660	655	651 651	525 561	571 597	469
8	763	759 753	902	891	842	834	618	618 386	561	518	515	464 456
9	754	748	910	896	834	777	386	351	651	517	456	353
10	748	745	914	903	825	777	351	349	648	539	353	298
	745	738		911	820	784	375	351				292
11 12	745	738	919 921	911	820 820	784 780	375	374	652 647	514 556	298 310	292
13	738	732	933	917	819	799	506	391	656	550	328	310
14	739	736	935	927	811	796	542	506	650	517	337	327
15	740	734	940	930	812	798	596	540	644	504	346	337
16	744	735	939	924	812	789	617	596	651	593	375	344
17	758	740	936	911	789	729	627	617	593	507	527	357
18	764	754	935	906	729	696	639	627	507	407	573	372
19	777	762	933	893	696	683	636	608	407	394	511	386
20	789	771	933	897	683	677	646	600	396	392	389	385
21	796	782	933	916	677	674	652	592	401	396	389	291
22	806	743	924	874	677	672	653	587	410	400	291	260
23	851	779	927	872	675	670	659	592	415	407	264	259
24	850	844	888	870	673	669	659	611	421	414	280	263
25	852	848	907	874	674	667	663	602	424	420	299	279
26	858	849	897	870	670	667	661	607	429	424	317	299
27	873	858	882	864	677	669	659	550	431	426	334	317
28	872	859	900	861	678	673	664	614	444	429	421	334
29	867	855	915	900	679	674	626	549			342	329
30	867	848	910	883	677	671	647	544			366	336
31	871	854			675	670	647	549			489	350
MONTH	873	732	940	855	889	667	675	349	656	392	597	259
#1 (25 // DT	c) corcir	TC CONDITOR	יאאכיב (אודי	ODOCTEMENTO	ב /כיאו אידי או	DEC C)	שאיים עבאו		1007 TO	CEDTEMBED	1000
											SEPTEMBER	
#1 (25.4′ BL MAX	S) SPECIF MIN	IC CONDUCT	CANCE (MIC	CROSIEMENS MAX	S/CM AT 2	DEG.C),	WATER YEAR	R OCTOBER MAX	1997 TO MIN	SEPTEMBER MAX	1998 MIN
	MAX		MAX			MIN	MAX		MAX		MAX	
DAY	MAX AP	MIN RIL	MAX M	MIN	MAX JU	MIN	MAX J	MIN	MAX AUG	MIN GUST	MAX SEP	MIN TEMBER
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY 1	MAX AP 490	MIN RIL 362	MAX MA 1420	MIN AY 1320	MAX JU 887	MIN NE 859	MAX J 1030	MIN ULY 1020	MAX AUC 1230	MIN SUST 1200	MAX SEP 1450	MIN TEMBER 1410
DAY 1 2 3 4	MAX AP 490 563 560 626	MIN RIL 362 366 415 411	MAX Mi 1420 1320 630 695	MIN 1320 619 609 630	MAX JU 887 881 878 868	MIN NE 859 855 859 851	MAX J 1030 1030 1030 1030	MIN ULY 1020 1020 1020 1020	MAX AUC 1230 1260 1280 1310	MIN FUST 1200 1230 1260 1280	MAX SEP 1450 1480 1500 1520	MIN TEMBER 1410 1450 1470 1500
DAY 1 2 3	MAX AP 490 563 560	MIN RIL 362 366 415	MAX M2 1420 1320 630	MIN AY 1320 619 609	MAX JU 887 881 878	MIN NE 859 855 859	MAX J 1030 1030 1030	MIN ULY 1020 1020 1020	MAX AUC 1230 1260 1280	MIN GUST 1200 1230 1260	MAX SEP 1450 1480 1500	MIN TEMBER 1410 1450 1470
DAY 1 2 3 4	MAX AP 490 563 560 626	MIN RIL 362 366 415 411	MAX Mi 1420 1320 630 695	MIN 1320 619 609 630	MAX JU 887 881 878 868	MIN NE 859 855 859 851	MAX J 1030 1030 1030 1030	MIN ULY 1020 1020 1020 1020	MAX AUC 1230 1260 1280 1310	MIN FUST 1200 1230 1260 1280	MAX SEP 1450 1480 1500 1520	MIN TEMBER 1410 1450 1470 1500
DAY 1 2 3 4 5	MAX AP 490 563 560 626 616	MIN RIL 362 366 415 411 421	MAX M2 1420 1320 630 695 758	MIN 1320 619 609 630 695	MAX JU 887 881 878 868 869	MIN NE 859 855 859 851 853	MAX J 1030 1030 1030 1030 1030	MIN ULY 1020 1020 1020 1020 1020	MAX AUG 1230 1260 1280 1310 1330	MIN EUST 1200 1230 1260 1280 1300	MAX SEP 1450 1480 1500 1520 1530	MIN TEMBER 1410 1450 1470 1500
DAY 1 2 3 4 5 6 7 8	MAX AP 490 563 560 626 616 616 620 605	MIN RIL 362 366 415 411 421 402 440 414	MAX MAX 1420 1320 630 695 758 820 867 892	MIN 1320 619 609 630 695 758 820 867	MAX JU 887 881 878 868 869 863 861 854	MIN 859 855 859 851 853 847 841 837	MAX J 1030 1030 1030 1030 1030 1040 1040 1050	MIN ULY 1020 1020 1020 1020 1020 1020 1020 10	MAX AUC 1230 1260 1280 1310 1330 1300 448 636	MIN 1200 1230 1260 1280 1300 448 388 395	MAX SEP 1450 1480 1500 1520 1530 1550 1560	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550
DAY 1 2 3 4 5 6 7 8 9	MAX AP 490 563 560 626 616 616 620 605 610	MIN RIL 362 366 415 411 421 402 440 414 360	MAX Mi 1420 1320 630 695 758 820 867 892 901	MIN 1320 619 609 630 695 758 820 867 892	MAX JU 887 881 878 868 869 863 861 854	MIN NE 859 855 859 851 853 847 841 837 840	MAX J 1030 1030 1030 1030 1030 1040 1040 1050 1060	MIN 1020 1020 1020 1020 1020 1020 1020 10	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030	MIN 1200 1230 1260 1280 1300 448 388 395 636	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570
DAY 1 2 3 4 5 6 7 8	MAX AP 490 563 560 626 616 616 620 605	MIN RIL 362 366 415 411 421 402 440 414	MAX MAX 1420 1320 630 695 758 820 867 892	MIN 1320 619 609 630 695 758 820 867	MAX JU 887 881 878 868 869 863 861 854	MIN 859 855 859 851 853 847 841 837	MAX J 1030 1030 1030 1030 1030 1040 1040 1050	MIN ULY 1020 1020 1020 1020 1020 1020 1020 10	MAX AUC 1230 1260 1280 1310 1330 1300 448 636	MIN 1200 1230 1260 1280 1300 448 388 395	MAX SEP 1450 1480 1500 1520 1530 1550 1560	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550
DAY 1 2 3 4 5 6 7 8 9	MAX AP 490 563 560 626 616 616 620 605 610	MIN RIL 362 366 415 411 421 402 440 414 360	MAX Mi 1420 1320 630 695 758 820 867 892 901	MIN 1320 619 609 630 695 758 820 867 892	MAX JU 887 881 878 868 869 863 861 854	MIN NE 859 855 859 851 853 847 841 837 840	MAX J 1030 1030 1030 1030 1030 1040 1040 1050 1060	MIN 1020 1020 1020 1020 1020 1020 1020 10	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030	MIN 1200 1230 1260 1280 1300 448 388 395 636 1030	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866	MIN 1320 619 609 630 695 758 820 867 892 888 866 835	MAX JU 887 881 878 868 869 863 861 854 854 853 855 860	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836	MAX J 1030 1030 1030 1030 1030 1040 1040 1050 1060 1070 1070 1080	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320	MIN SUST 1200 1230 1260 1280 1300 448 388 395 636 1030 1190 1270	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1590 1600 1600	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1590
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844	MIN 1320 619 609 630 695 758 820 867 892 888 866 835 818	MAX JU 887 881 878 868 869 863 861 854 854 853 855 860 860	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837	MAX J 1030 1030 1030 1030 1030 1040 1040 1050 1060 1070 1070 1080 1090	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360	MIN SUST 1200 1230 1260 1300 448 388 395 636 1030 1190 1270 1320	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1600 1610	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 388	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386	MAX M2 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846	MIN 1320 619 609 630 695 758 820 867 892 888 866 835 818	MAX JU 887 881 878 868 869 863 861 854 854 853 855 860 860 861	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 839	MAX J 1030 1030 1030 1030 1030 1040 1050 1060 1070 1070 1080 1090 1100	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1060 1070 1080 1090	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380	MIN SUST 1200 1230 1260 1300 448 388 395 636 1030 1190 1270 1320 1360	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1590 1600 1610 1610	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1590
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796	MAX JU 887 881 878 868 869 863 861 854 853 855 860 860 861 867	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837	MAX J 1030 1030 1030 1030 1030 1040 1040 1050 1060 1070 1070 1080 1090	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360	MIN SUST 1200 1230 1260 1380 1390 1448 388 395 636 1030 1190 1270 1320 1360 1380	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1600 1610	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 384	MAX M2 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828	MIN 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770	MAX JU 887 881 878 868 869 863 861 854 854 855 860 860 861 867	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 839 841	MAX J 1030 1030 1030 1030 1030 1040 1050 1060 1070 1070 1080 1090 1100 1110	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1060 1070 1080 1090 1100	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380 1400	MIN SUST 1200 1230 1260 1380 1390 1380 1400	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1610 1610 1610 1610	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1570 1580 1590 1600 1590 1600
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 386	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 789	MIN 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769	MAX JU 887 881 878 868 869 863 861 854 853 855 860 860 861 867	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 839 841 843 854	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1070 1100 1110 1120 1130	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080 1090 1100 1120	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380 1400 1430 1440	MIN SUST 1200 1230 1260 1280 1300 448 388 395 636 1030 1190 1270 1320 1360 1380 1400 1430	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1610 1610 1610 1610 1610 1610	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 386 386 712	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 789	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760	MAX JU 887 881 878 868 869 863 861 854 854 853 855 860 860 861 867 866 867 874	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 839 841 843 854	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1070 1100 1110 1120 1130 1150	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1060 1070 1080 1090 1100 1120 1130	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380 1400 1430 1440	MIN SUST 1200 1230 1260 1280 1300 448 388 395 636 1030 1190 1270 1320 1360 1380 1400 1410	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1690 1600 1610 1610 1610 1610 1610 161	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600 1600
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 386 712 662	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 789 785 777	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756	MAX JU 887 881 878 868 869 863 861 854 853 855 860 860 861 867 866 867 874 894	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 839 841 843 854 860 865	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1070 1100 1110 1120 1130 1150 1160	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080 1090 1100 1120 1130 1140	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380 1400 1430 1440 1450	MIN SUST 1200 1230 1260 1380 1400 1410 1410	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1560 1580 1610 1610 1610 1610 1610 1610 1610 16	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1690 1600 1600 1600
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 386 386 386 386 60 60 60 60 60 60 60 60 60 60 60 60 60	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751	MAX JU 887 881 878 868 869 863 861 854 853 865 860 860 861 867 866 867 874 894 928	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 839 841 843 854 860 865 894	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1100 1120 1130 1150 1160 1170	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380 1400 1430 1440 1450 1450 1480	MIN SUST 1200 1230 1260 1280 1300 448 388 395 636 1030 1270 1320 1360 1380 1400 1450	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1610 1610 1610 1610 1610 1610 16	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600 1600 1600 1600
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662 616	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 386 571 662 616	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772 766	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751	MAX JU 887 881 878 868 869 863 861 854 853 855 860 860 861 867 866 867 874 894 928	MIN NE 859 855 859 851 853 847 841 837 840 835 839 841 843 856 837 839 841 843 854 860 865 894	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1070 1120 1130 1150 1160 1170	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160 1020	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1360 1380 1400 1430 1440 1450 1450 1480	MIN SUST 1200 1230 1260 1380 1410 1410 1450 1480	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1560 1600 1610 1610 1610 161	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1690 1600 1600 1600 1600 1600
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662 616 577	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 577 544	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772 766 770	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751 743 750	MAX JU 887 881 878 868 869 863 861 854 855 860 861 867 866 867 874 894 928	MIN NE 859 855 859 851 853 847 841 837 840 835 839 841 843 854 860 865 894 924 954	MAX J 1030 1030 1030 1030 1030 1040 1050 1060 1070 1070 1100 1110 1120 1130 1150 1160 1170 1180 1020	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160 1020 592	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380 1400 1430 1440 1450 1450 1450 1480	MIN SUST 1200 1230 1260 1380 1490 1440 1450 1480 1480	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1610 1610 1610 1610 1610 1610 16	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600 1600 1600 1600 1600
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662 616 577 544	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 386 576 712 662 616 577 544 516	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772 766 770 774	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751 743 750 751	MAX JU 887 881 878 868 869 863 861 854 853 855 860 860 861 867 874 894 928 955 972 982	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 841 843 854 860 865 894 924 967	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1170 1180 1160 1170 1180 1020 595	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160 1020 592 422	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 636 1030 1190 1270 1320 1360 1480 1400 1450 1450 1480 1490 1500	MIN SUST 1200 1230 1260 1280 1300 448 388 395 636 1030 1270 1320 1360 1440 1440 1440 1440 1440 1440 1440 14	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1610 1610 1610 1610 1610 1610 16	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600 1600 1600 1600 1600 16
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662 616 577 544 521	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 386 571 662 616 577 544 516 495	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772 766 770 774 848	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751 743 750 751 744	MAX JU 887 881 878 868 869 863 861 854 854 853 855 860 860 861 867 874 894 928 955 972 982 994	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 839 841 843 854 860 865 894 924 967 978	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1100 1110 1120 1130 1150 1160 1170 1180 1020 595 427	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160 1020 592 422 415	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380 1400 1450 1450 1450 1450 1490 1500 1500	MIN SUST 1200 1230 1260 1280 1300 448 388 395 636 1030 1270 1320 1360 1380 1410 1400 1450 1480 1490 1490	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1690 1600 1610 1610 1610 1610 1610 161	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600 1600 1600 1600 1610 1610 1610
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662 616 577 544 521 544	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 386 512 662 616 577 544 516 495 489	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772 766 770 774 848 905	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751 743 750 751 744 848	MAX JU 887 881 878 868 869 863 861 854 854 853 855 860 860 861 867 874 894 928 955 972 982 994 1000	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 841 843 854 860 865 894 924 954 967 978 988	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1070 1180 1150 1160 1170 1180 1020 595 427 554	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160 1020 592 422 415 427	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1480 1450 1450 1450 1450 1450 1500 1500 1510	MIN SUST 1200 1230 1260 1280 1300 448 388 395 636 1030 1270 1320 1360 1440 1440 1440 1440 1440 1440 1440 14	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1690 1610 1610 1610 1610 1610 1610 1620 1630 1630	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600 1600 1600 1600 1610 1610 1610 1620 162
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX AP 490 563 560 626 616 616 620 605 610 389 385 388 389 706 757 752 712 662 616 577 544 521 544	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 712 662 616 577 544 516 495 489	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 789 785 777 772 766 770 774 848 905	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751 743 750 751 744 848	MAX JU 887 881 878 868 869 863 861 854 854 853 855 860 860 861 867 874 894 928 955 972 982 994 1000 1010	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 839 841 843 854 860 865 894 924 957 978 988	MAX J 1030 1030 1030 1030 1030 1040 1050 1060 1070 1070 1180 1120 1130 1150 1160 1170 1180 1020 595 427 554	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080 1090 1120 1130 1140 1160 1020 592 422 415 427 554	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380 1400 1450 1450 1450 1450 1450 1500 1510 1530	MIN SUST 1200 1230 1260 1280 1300 448 388 395 636 1030 1270 1320 1360 1380 1410 1440 1450 1480 1490 289 291	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1690 1600 1610 1610 1610 1610 1610 161	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1690 1600 1600 1600 1600 1600 1610 161
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662 616 577 544 521 544 1300 1360	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 571 662 616 577 544 516 495 489 483 1300	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772 766 770 774 848 905 910 909	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751 743 750 751 744 848 891 882	MAX JU 887 881 878 868 869 863 861 854 853 865 860 860 861 867 874 894 928 955 972 982 994 1000 1010	MIN NE 859 855 859 851 853 847 841 837 840 835 839 841 843 856 837 839 841 843 854 860 865 894 924 954 967 978 988 996 1000	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1100 1120 1130 1150 1160 1170 1180 1020 595 427 554 738 918	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160 1020 592 422 415 427 554 738	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380 1400 1430 1440 1450 1450 1480 1490 1500 1510 1530 304 455	MIN SUST 1200 1230 1260 1380 1410 1450 1480 1490 1490 289 291 304	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1610 1610 1610 1610 1610 1610 16	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600 1600 1600 1600 1610 1610 1610 1620 162
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662 616 577 544 521 544 1300 1360 1330	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 712 662 616 577 544 516 495 489 483 1300 1310	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772 766 770 774 848 905 910 909 898	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751 743 750 751 744 848 891 882 869	MAX JU 887 881 878 868 869 863 861 854 853 855 860 861 867 866 867 874 894 928 955 972 982 994 1000 1010 1020	MIN NE 859 855 859 851 853 847 841 837 840 835 839 841 843 854 860 865 894 924 954 967 978 988 996 1000 1010	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1070 1100 1110 1120 1130 1150 1160 1170 1180 1020 595 427 554 738 918 1030	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160 1020 592 422 415 427 554 738 918	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1360 1380 1400 1430 1440 1450 1450 1480 1490 1500 1510 1530 304 455 927	MIN SUST 1200 1230 1260 1380 1490 1440 1450 1490 289 291 304 455	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1600 1610 1610 1610 1610 1610 16	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600 1600 1600 1600 1610 1610 1610 1620 162
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662 616 577 544 521 544 1300 1360	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 571 662 616 577 544 516 495 489 483 1300	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772 766 770 774 848 905 910 909	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751 743 750 751 744 848 891 882	MAX JU 887 881 878 868 869 863 861 854 853 865 860 860 861 867 874 894 928 955 972 982 994 1000 1010	MIN NE 859 855 859 851 853 847 841 837 840 835 839 841 843 856 837 839 841 843 854 860 865 894 924 954 967 978 988 996 1000	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1100 1120 1130 1150 1160 1170 1180 1020 595 427 554 738 918	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160 1020 592 422 415 427 554 738	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1380 1400 1430 1440 1450 1450 1480 1490 1500 1510 1530 304 455	MIN SUST 1200 1230 1260 1380 1410 1450 1480 1490 1490 289 291 304	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1610 1610 1610 1610 1610 1610 16	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1690 1600 1600 1600 1600 1610 161
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662 616 577 544 521 544 1300 1360 1330 1380	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 386 516 577 544 516 495 489 483 1300 1310 1330	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772 766 770 774 848 905 910 909 898 895	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751 743 750 751 744 848 891 882 869 868	MAX JU 887 881 878 868 869 863 861 854 853 855 860 860 861 867 874 894 928 955 972 982 994 1000 1010 1010 1020 1020	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 841 843 854 860 865 894 924 967 978 988 996 1000 1010 1010	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1170 1180 1150 1160 1170 1180 1020 595 427 554 738 918 1030 1110	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160 1020 592 422 415 427 554 738 918 1030	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 636 1030 1190 1270 1320 1360 1440 1450 1450 1480 1450 1450 1500 1510 1530 304 455 927 1240	MIN SUST 1200 1230 1260 1280 1300 448 388 395 636 1030 1270 1320 1360 1440 1440 1440 1440 1440 1440 1440 14	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1600 1610 1610 1610 1610 1610 1620 1630 1630 1630 1630	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600 1600 1600 1600 1600 16
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX AP 490 563 560 626 616 616 620 605 610 389 380 385 388 389 706 757 752 712 662 616 577 544 521 544 1300 1360 1330 1310 1380 1410	MIN RIL 362 366 415 411 421 402 440 414 360 360 375 380 384 386 386 386 386 4706 712 662 616 577 544 516 495 489 483 1300 1310 1330 1380	MAX Mi 1420 1320 630 695 758 820 867 892 901 901 891 866 844 846 828 799 785 777 772 766 770 774 848 905 910 909 898 895 890	MIN AY 1320 619 609 630 695 758 820 867 892 888 866 835 818 824 796 770 769 760 756 751 743 750 751 744 848 891 882 869 868 864	MAX JU 887 881 878 868 869 863 861 854 854 853 855 860 860 861 867 874 894 928 955 972 982 994 1000 1010 1010 1020 1020 1030	MIN NE 859 855 859 851 853 847 841 837 840 835 839 836 837 839 841 843 854 860 865 894 924 957 978 988 996 1000 1010 1020	MAX J 1030 1030 1030 1030 1040 1040 1050 1060 1070 1100 1110 1120 1150 1160 1170 1180 1020 595 427 554 738 918 1030 1110 1170	MIN ULY 1020 1020 1020 1020 1020 1030 1030 1040 1050 1050 1060 1070 1080 1090 1100 1120 1130 1140 1160 1020 592 422 415 427 554 738 918 1030 1110	MAX AUC 1230 1260 1280 1310 1330 1300 448 636 1030 1190 1270 1320 1360 1480 1490 1450 1450 1450 1450 1500 1510 1530 304 455 927 1240 1350	MIN SUST 1200 1230 1260 1280 1300 448 388 395 636 1030 1270 1320 1360 1480 1440 1440 1450 1480 1490 289 291 304 455 927 1240	MAX SEP 1450 1480 1500 1520 1530 1550 1560 1580 1690 1600 1610 1610 1610 1610 1610 1620 1630 1630 1630 1630 1630 1630 1630	MIN TEMBER 1410 1450 1470 1500 1520 1530 1540 1550 1570 1580 1590 1600 1600 1600 1600 1600 1610 1610 16

YEAR

1640

#2 (16.9' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

413547083481400 LU-23 NR HOLLAND OH-Continued

#2	(16.9′ BL	S) SPECI	FIC CONDUCT	ANCE (PI	CKOSIEMENS	/ (11 111 2	J DEG.C/, W	III DIC I DII	K OCTOBER .	233, 20	DEF TEMBER	1330
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCT	OPED	NOVE	MDED	DECEM	/DFD	JANU	TADV	FEBR	TIN DV	м	ARCH
									r EBK	UAKI	111	ARCH
1	755	749	803	800	839	838	664	657	522	514	416	403
2	753	748	803	801	839	837	658	654	520	513	419	411
3	752	744	804	801	837	835	654	648	514	508	421	417
4	748	741	802	798	835	831	658	646	513	503	432	417
5	746	738	802	798	835	829	648	618	510	501	427	422
_	E 40	F12.6	011	0.01	000	000	610		F.0.0	F 0 1	424	404
6	743	736	811	801	833	828	619	606	508	501	434	424
7	737	736	815	807	830	824	606	591	507	498	439	424
8	738	737	820	813	824	817	591	360	507	498	438	429
9	738	733	821	815	820	811	360	340	498	491	430	312
10	737	732	825	820	815	810	340	337	495	490	312	284
11	737	732	830	824	816	814	350	339	493	483	285	282
12	738	732	831	823	814	809	371	350	490	483	298	284
13	737	732	838	830	809	802	404	371	485	477	311	298
14	738	736	838	833	803	796	442	404	490	478	322	311
15	739	734	845	835	797	789	469	442	486	480	330	322
16	740	735	849	843	793	786	492	469	486	476	339	329
17	739	734	854	844	786	777	509	491	497	483	359	339
18	739	733	859	848	777	769	519	508	483	390	363	355
19	739	733	860	858	769	762	527	517	391	380	378	363
20	741	735	859	851	762	752	536	525	381	378	373	369
0.1	7.41	726	0.50	0.27	750	742	F20	F 2 1	202	379	271	272
21	741	736	852	837	752	743	538	531	383		371	
22	789	737	845	837	743	734	540	534	388	382	272	250
23	786	780	840	838	734	725	540	535	392	387	254	249
24	788	779	842	836	728	719	542	535	395	390	268	253
25	791	783	841	836	725	711	541	534	397	393	287	268
26	787	786	840	837	711	689	538	532	400	395	303	287
27	788	785	840	835	689	683	536	531	402	398	319	303
28	792	787	839	834	686	679	532	525	405	400	334	319
29	796	789	836	835	683	676	534	526			326	316
30	801	793	839	836	676	669	527	519			340	321
31	806	798			670	663	526	519			344	339
31											311	
MONTH	806	732	860	798	839	663	664	337	522	378	439	249
#2	(16 9' BT.	S) SDECT	FIC CONDITOR	NOT (MI	CDOSTEMENS	/CM AT 2	5 DEG.C), W	ATED VEA	D OCTOBED 1	1997 ™∩	CEDTEMBED	1998
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	MAX AP	MIN	MAX MA	MIN	MAX JUN	MIN NE	MAX JUL	MIN	MAX AUG	MIN UST	MAX SEP	MIN TEMBER
DAY 1	MAX AP 379	MIN RIL 344	MAX MA 1380	MIN AY 1070	MAX JUN 828	MIN NE 820	MAX JUL 842	MIN LY 835	MAX AUG 961	MIN UST 914	MAX SEP 1160	MIN TEMBER 1070
DAY 1 2	MAX AP 379 378	MIN RIL 344 357	MAX MAX 1380 1100	MIN AY 1070 599	MAX JUN 828 825	MIN NE 820 816	MAX JUL 842 847	MIN Y 835 840	MAX AUG 961 1000	MIN UST 914 961	MAX SEP 1160 1210	MIN TEMBER 1070 1160
DAY 1	MAX AP 379	MIN RIL 344	MAX MA 1380	MIN AY 1070	MAX JUN 828	MIN NE 820	MAX JUL 842	MIN LY 835	MAX AUG 961	MIN UST 914	MAX SEP 1160 1210 1270	MIN TEMBER 1070
DAY 1 2	MAX AP 379 378 370 367	MIN RIL 344 357	MAX MAX 1380 1100	MIN AY 1070 599	MAX JUN 828 825	MIN NE 820 816 815 811	MAX JUL 842 847	MIN Y 835 840	MAX AUG 961 1000	MIN UST 914 961	MAX SEP 1160 1210	MIN TEMBER 1070 1160
DAY 1 2 3	MAX AP 379 378 370	MIN RIL 344 357 346	MAX 1380 1100 621	MIN AY 1070 599 591	MAX JUN 828 825 822	MIN NE 820 816 815	MAX JUL 842 847 853	MIN 835 840 845	MAX AUG 961 1000 1040	MIN UST 914 961 1000	MAX SEP 1160 1210 1270	MIN TEMBER 1070 1160 1210
DAY 1 2 3 4 5	MAX AP 379 378 370 367 405	MIN RIL 344 357 346 364 363	MAX M2 1380 1100 621 685 749	MIN 1070 599 591 621 685	MAX JUN 828 825 822 818 812	MIN NE 820 816 815 811 808	MAX JUI 842 847 853 857 862	MIN 835 840 845 851 853	MAX AUG 961 1000 1040 1060 1080	MIN UST 914 961 1000 1040 1050	MAX SEP 1160 1210 1270 1300 1310	MIN TEMBER 1070 1160 1210 1270 1290
DAY 1 2 3 4 5	MAX AP 379 378 370 367 405	MIN RIL 344 357 346 364 363 390	MAX MAX 1380 1100 621 685 749 808	MIN AY 1070 599 591 621 685 749	MAX JUN 828 825 822 818 812 809	MIN NE 820 816 815 811 808 805	MAX JUL 842 847 853 857 862 863	MIN 835 840 845 851 853 855	MAX AUG 961 1000 1040 1060 1080	MIN UST 914 961 1000 1040 1050 340	MAX SEP 1160 1210 1270 1300 1310	MIN TEMBER 1070 1160 1210 1270 1290
DAY 1 2 3 4 5 6 7	MAX AP 379 378 370 367 405 401 417	MIN RIL 344 357 346 364 363 390 387	MAX 1380 1100 621 685 749 808 853	MIN 1070 599 591 621 685 749 808	MAX JUN 828 825 822 818 812 809 806	MIN NE 820 816 815 811 808 805 798	MAX JUL 842 847 853 857 862 863 870	MIN 835 840 845 851 853 855 862	MAX AUG 961 1000 1040 1060 1080 1050 340	MIN UST 914 961 1000 1040 1050 340 310	MAX SEP 1160 1210 1270 1300 1310 1340 1350	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310
DAY 1 2 3 4 5 6 7 8	MAX AP 379 378 370 367 405 401 417 415	MIN RIL 344 357 346 364 363 390 387 401	MAX 1380 1100 621 685 749 808 853 874	MIN 1070 599 591 621 685 749 808 853	MAX JUN 828 825 822 818 812 809 806 804	MIN 820 816 815 811 808 805 798 797	MAX JUI 842 847 853 857 862 863 870 876	MIN 835 840 845 851 853 855 862 868	MAX AUG 961 1000 1040 1060 1080 1050 340 311	MIN UST 914 961 1000 1040 1050 340 310 307	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290
DAY 1 2 3 4 5 6 7 8 9	MAX AP 379 378 370 367 405 401 417 415 419	MIN RIL 344 357 346 364 363 390 387 401 324	MAX 1380 1100 621 685 749 808 853 874 883	MIN 1070 599 591 621 685 749 808 853 874	MAX JUN 828 825 822 818 812 809 806 804 801	MIN NE 820 816 815 811 808 805 798 797 800	MAX JUL 842 847 853 857 862 863 870 876 881	MIN 835 840 845 851 853 855 862 868 873	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369	MIN UST 914 961 1000 1040 1050 340 310 307 309	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1290
DAY 1 2 3 4 5 6 7 8	MAX AP 379 378 370 367 405 401 417 415	MIN RIL 344 357 346 364 363 390 387 401	MAX 1380 1100 621 685 749 808 853 874	MIN 1070 599 591 621 685 749 808 853	MAX JUN 828 825 822 818 812 809 806 804	MIN 820 816 815 811 808 805 798 797	MAX JUI 842 847 853 857 862 863 870 876	MIN 835 840 845 851 853 855 862 868	MAX AUG 961 1000 1040 1060 1080 1050 340 311	MIN UST 914 961 1000 1040 1050 340 310 307	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290
DAY 1 2 3 4 5 6 7 8 9	MAX AP 379 378 370 367 405 401 417 415 419	MIN RIL 344 357 346 364 363 390 387 401 324	MAX 1380 1100 621 685 749 808 853 874 883	MIN 1070 599 591 621 685 749 808 853 874	MAX JUN 828 825 822 818 812 809 806 804 801	MIN NE 820 816 815 811 808 805 798 797 800	MAX JUL 842 847 853 857 862 863 870 876 881	MIN 835 840 845 851 853 855 862 868 873	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369	MIN UST 914 961 1000 1040 1050 340 310 307 309	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1290
DAY 1 2 3 4 5 6 7 8 9 10	MAX AP 379 378 370 367 405 401 417 415 419 381	MIN RIL 344 357 346 364 363 390 387 401 324 347	MAX 1380 1100 621 685 749 808 853 874 883 883	MIN 1070 599 591 621 685 749 808 853 874 867	MAX JUN 828 825 822 818 812 809 806 804 801 801	MIN NE 820 816 815 811 808 805 798 797 800 794	MAX JUI 842 847 853 857 862 863 870 876 881	MIN 835 840 845 851 853 855 862 868 873 877	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670	MIN UST 914 961 1000 1040 1050 340 310 307 309 369	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1330	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1290 1320
DAY 1 2 3 4 5 6 7 8 9 10	MAX AP 379 378 370 367 405 401 417 415 419 381 370	MIN RIL 344 357 346 364 363 390 387 401 324 347 365	MAX 1380 1100 621 685 749 808 853 874 883 883 869	MIN 1070 599 591 621 685 749 808 853 874 867	MAX JUN 828 825 822 818 812 809 806 804 801 801	MIN NE 820 816 815 811 808 805 798 797 800 794	MAX JUL 842 847 853 857 862 863 870 876 881 881	MIN 835 840 845 851 853 855 862 868 873 877 880	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1330 1350	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1290 1320
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814	MAX JUN 828 825 822 818 812 809 806 804 801 801 800 799	MIN NE 820 816 815 811 808 805 798 797 800 794 794 785	MAX JUL 842 847 853 857 862 863 870 876 881 881 881	MIN 835 840 845 851 853 855 862 868 873 877 880 884	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020	MAX SEP 1160 1210 1270 1300 1310 1350 1310 1350 1370 1410	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373	MAX 1380 1100 621 685 749 808 853 874 883 889 846 825 825	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797	MIN 820 816 815 811 808 805 798 797 800 794 785 788 790	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120	MIN UST 914 961 1000 1040 1050 340 310 307 309 3670 896 1020 1080	MAX SEP 1160 1210 1270 1300 1310 1350 1310 1350 1370 1410 1440	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 14410 1440
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806	MIN 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778	MAX JUN 828 825 822 818 812 809 806 804 801 801 800 799 796 797 800	MIN NE 820 816 815 811 808 805 798 797 800 794 794 785 788 790 792	MAX JUI 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120	MAX SEP 1160 1210 1270 1300 1310 1350 1310 1350 1370 1410 1440 1460 1480	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373	MAX 1380 1100 621 685 749 808 853 874 883 889 846 825 825 806 778	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150	MIN UST 914 961 1000 1040 1050 340 310 307 309 367 896 1020 1080 1120 1150	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1410 1440 1440 1440 1440 1480	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1340 1370 1440 1440 1460
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 754	MIN 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732	MAX JUN 828 825 822 818 812 809 806 804 801 801 800 799 796 797 800 814 816	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809	MAX JUI 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120 1150	MAX SEP 1160 1210 1270 1300 1310 1350 1310 1350 1370 1410 1440 1440 1480 1490	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460 1480
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 754 736	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120 1150 881	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1440 1440 1440 1440 1460 1480	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460 1480 1480 1490
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 754 736 719	MIN 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 808	MIN NE 820 816 815 811 808 805 798 797 800 794 794 785 788 790 792 797 809 804 792	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940	MAX AUG' 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120 1150 881 833	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1460 1480 1490 1490 1500	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460 1480 1480 1490
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 754 736	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120 1150 881	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1440 1440 1440 1440 1460 1480	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460 1480 1480 1490
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 736 719 714	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 808 794	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804 792 773	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895 1040	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120 1150 881 833 895	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1450 1440 1460 1480 1490 1490 1500 1510	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460 1480 1480 1490 1490 1500
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 754 736 719 714 708	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702	MAX JUN 828 825 822 818 812 809 806 804 801 801 800 799 796 797 800 814 816 816 808 794	MIN NE 820 816 815 811 808 805 798 797 800 794 794 785 788 790 792 797 809 804 792 773 770	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895 1040 1060	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120 1150 881 833 895 1040	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1490 1490 1490 1490 1500 1510	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460 1480 1480 1490 1500
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562 529	MAX 1380 1100 621 685 749 808 853 874 883 889 846 825 825 806 778 754 736 719 714 708 708	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702 699	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 808 794 777 779	MIN NE 820 816 815 811 808 805 798 797 800 794 794 785 788 790 792 797 809 804 792 773 770 772	MAX JUI 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953 968 710	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895 1040 1060 1080	MIN UST 914 961 1000 1040 1050 340 310 307 309 670 896 1020 1080 1120 1150 1150 881 883 895 1040 1060	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1460 1480 1490 1490 1500 1510 1510	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1340 1370 1440 1440 1440 1440 1480 1490 1490 1490 1500
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563 529	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562 529 504	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 825 806 778 754 736 719 714 708 708 712	MIN 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702 699 705	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 816 808 794 777 779 783	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804 792 773 770 772 776	MAX JUI 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953 968 710 552	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456 378	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1150 1160 1170 895 1040 1060 1080 1130	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1150 1150 881 833 895 1040 1060 1080	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1460 1480 1490 1500 1510 1510	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1460 1480 1490 1490 1500 1500
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563 529 504	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562 529 504 483	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 778 714 708 708 712 835	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702 699 705 709	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 808 794 777 779 783 796	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804 792 773 770 772 776 779	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953 968 710 552 384	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456 378 377	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895 1040 1060 1080 1130 1190	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120 1150 881 833 895 1040 1060 1080 1130	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1440 1450 1410 1440 1460 1480 1490 1500 1510 1510	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1440 1440 1450 1490 1500 1500 1510
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563 529 504 485	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562 529 504 483 477	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 714 708 708 712 835 860	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702 699 705 709 835	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 808 794 777 779 783 796 804	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804 792 773 770 772 776 779 792	MAX JUI 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953 968 710 552 384 384	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456 378 377	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895 1040 1080 1130 1190 1130	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1150 1150 881 833 895 1040 1060 1080 1130 275	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1460 1480 1490 1500 1510 1510 1520 1520 1520	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1440 1440 1450 1490 1500 1500 1510 1510
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563 529 504 485	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562 529 504 483 477 473	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 736 719 714 708 708 708 712 835 860	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702 699 705 709 835	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 808 794 777 779 783 796 804 809	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804 792 773 770 772 776 779 792 799	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953 968 710 552 384 384 419	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456 378 377 377 384	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895 1040 1060 1080 1130 1190 1130	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1150 1150 881 833 895 1040 1060 1080 1130 275 287	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1450 1410 1440 1460 1480 1490 1500 1510 1510 1520 1520 1520	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1390 1290 1320 1340 1370 1410 1440 1460 1480 1490 1500 1500 1510 1510
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563 529 504 485 1340 1340	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562 529 504 483 477 473 1280	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 754 736 719 714 708 708 712 835 860 858	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702 699 705 709 835 852 842	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 808 794 777 779 783 796 804 809 815	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804 792 773 770 772 776 779 792 799 806	MAX JUI 842 847 853 857 862 863 870 876 881 886 893 902 906 916 925 934 942 950 953 968 710 552 384 384 419 528	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456 378 377 384 419	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895 1040 1080 1130 1190 1130 291	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120 1150 881 833 895 1040 1060 1080 1130 275 287 288	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1460 1480 1490 1500 1510 1510 1520 1520 1520 1520 1530	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460 1480 1480 1490 1500 1500 1510 1510 1510
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563 529 504 485	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562 529 504 483 477 473	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 736 719 714 708 708 708 712 835 860	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702 699 705 709 835	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 808 794 777 779 783 796 804 809	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804 792 773 770 772 776 779 792 799	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953 968 710 552 384 384 419	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456 378 377 377 384	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895 1040 1060 1080 1130 1190 1130	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1150 1150 881 833 895 1040 1060 1080 1130 275 287	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1450 1410 1440 1460 1480 1490 1500 1510 1510 1520 1520 1520	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1390 1290 1320 1340 1370 1410 1440 1460 1480 1490 1500 1500 1510 1510
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563 529 504 485 1340 1340	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562 529 504 483 477 473 1280	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 754 736 719 714 708 708 712 835 860 858	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702 699 705 709 835 852 842	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 808 794 777 779 783 796 804 809 815	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804 792 773 770 772 776 779 792 799 806	MAX JUI 842 847 853 857 862 863 870 876 881 886 893 902 906 916 925 934 942 950 953 968 710 552 384 384 419 528	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456 378 377 384 419	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895 1040 1080 1130 1190 1130 291	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120 1150 881 833 895 1040 1060 1080 1130 275 287 288	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1460 1480 1490 1500 1510 1510 1520 1520 1520 1520 1530	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460 1480 1480 1490 1500 1500 1510 1510 1510
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563 529 504 485 1340 1340 1300	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562 529 504 483 477 473 1280 1270	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 754 736 719 714 708 708 708 712 835 860 858 852 842	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 717 710 702 702 699 705 709 835 852 842 830	MAX JUN 828 825 822 818 812 809 806 804 801 800 799 796 797 800 814 816 816 808 794 777 779 783 796 804 809 815 817	MIN NE 820 816 815 811 808 805 798 797 800 794 794 785 788 790 792 797 809 804 792 773 770 772 776 779 792 799 806 812	MAX JUI 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953 968 710 552 384 384 419 528 669	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456 378 377 384 419 528	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1150 1160 1170 895 1040 1080 1130 1190 1130 291 290 321	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1080 1120 1150 1150 1150 1150 1150 1150 115	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1490 1490 1490 1500 1510 1510 1520 1520 1520 1520 1530 1530	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460 1480 1490 1500 1500 1510 1510 1510 1510 1510 15
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563 529 504 485 1340 1340 1350	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 374 373 729 694 645 600 562 529 504 483 477 473 1280 1270 1300	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 825 806 778 714 708 719 714 708 708 712 835 860 858 852 842 835	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702 699 705 709 835 852 842 830 826	MAX JUN 828 825 822 818 812 809 806 804 801 801 800 799 796 797 800 814 816 816 808 794 777 779 783 796 804 809 815 817 827	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804 792 773 770 772 776 779 792 799 806 812 813	MAX JUI 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953 968 710 552 384 384 419 528 669 769	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456 378 377 384 419 528 669	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1150 1160 1170 895 1040 1080 1130 1190 1130 291 290 321 619	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1150 1150 881 833 895 1040 1080 1130 275 287 288 321	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1450 1410 1440 1460 1480 1490 1500 1510 1520 1520 1520 1520 1530 1530 1530	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1460 1480 1490 1500 1500 1510 1510 1510 1510 1520 152
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX AP 379 378 370 367 405 401 417 415 419 381 370 373 376 379 380 731 743 729 694 645 600 563 529 504 485 1340 1340 1350 1350 1380	MIN RIL 344 357 346 364 363 390 387 401 324 347 365 369 371 373 729 694 645 600 562 529 504 483 477 473 1280 1270 1300 1350	MAX 1380 1100 621 685 749 808 853 874 883 883 869 846 825 825 806 778 714 708 708 714 708 708 712 835 860 858 852 842 835 831	MIN AY 1070 599 591 621 685 749 808 853 874 867 843 814 801 804 778 752 732 717 710 702 702 699 705 709 835 852 842 830 826 823	MAX JUN 828 825 822 818 812 809 806 804 801 801 800 799 796 797 800 814 816 816 808 794 777 779 783 796 804 809 815 817 827 836	MIN NE 820 816 815 811 808 805 798 797 800 794 785 788 790 792 797 809 804 792 773 770 772 776 779 792 799 806 812 813 824	MAX JUL 842 847 853 857 862 863 870 876 881 881 886 893 902 906 916 925 934 942 950 953 968 710 552 384 384 419 528 669 769 851	MIN 835 840 845 851 853 855 862 868 873 877 880 884 891 899 906 916 920 933 940 947 710 456 378 377 384 419 528 669 769	MAX AUG 961 1000 1040 1060 1080 1050 340 311 369 670 896 1020 1080 1120 1150 1160 1170 895 1040 1060 1130 1190 1130 291 290 321 619 913	MIN UST 914 961 1000 1040 1050 340 310 307 309 369 670 896 1020 1150 1150 1150 881 833 895 1040 1060 1080 1130 275 287 288 288 288 288	MAX SEP 1160 1210 1270 1300 1310 1340 1350 1310 1340 1440 1440 1440 1450 1490 1500 1510 1510 1520 1520 1520 1520 152	MIN TEMBER 1070 1160 1210 1270 1290 1310 1310 1290 1320 1340 1370 1410 1440 1460 1480 1490 1500 1500 1510 1510 1510 1510 1510 15

YEAR

1540

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413547083481400 LU-23 NR HOLLAND OH-Continued

#3 (10.4' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

#3 (10.4' BL	S) SPECIF	IC CONDUCT	'ANCE (MIC	ROSIEMENS	/CM AT 25	DEG.C), W	ATER YEAR	OCTOBER 1	.997 TO S	EPTEMBER 1	998
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
					DEGEN							
	OCT	OBER	NOVE	MBEK	DECEN	IBER	JANU	JARY	FEBRU	JARY	MA	RCH
1	746	742	740	737	807	803	645	638	510	502	408	395
2	745	740	745	740	807	803	639	631	506	501	407	403
3	745	739	746	744	806	803	634	629	502	496	413	406
4 5	744 742	737 730	747 752	746 747	807 806	801 799	635 625	625 597	500 496	492 487	423 422	409 415
	742		752	747	808			597	496	40/	422	415
6	735	727	752	751	803	798	599	586	494	485	426	417
7	731	723	757	752	801	794	586	572	493	484	429	418
8	728	722	758	752	795	788	573	341	493	488	430	420
9	727	721	759	757	792	783	341	326	488	480	420	290
10	725	720	764	758	786	782	330	326	485	478	293	279
11	724	722	766	760	785	782	339	329	484	474	280	277
12	724	720	770	765	784	779	358	339	479	473	292	279
13	724	718	774	767	779	772	388	357	478	468	305	290
14	722	718	776	773	776	769	424	388	479	468	315	305
15	722	717	778	775	771	763	451	424	478	470	324	315
16	722	716	784	777	766	758	473	451	474	467	332	323
17	721	715	789	781	759	751	491	473	487	443	351	332
18	721	715	790	788	752	745	503	491	443	379	354	349
19	722	716	797	790	746	738	511	502	380	371	366	353
20	723	720	799	793	738	729	519	511	373	370	369	358
21	722	716	803	798	730	724	522	516	375	370	358	258
22	736	717	804	802	724	715	524	519	379	373	258	245
23	747	736	803	801	715	704	524	519	383	377	249	243
24	749	747	805	800	706	696	525	519	386	382	262	248
25	751	749	808	800	699	685	525	520	390	385	279	261
26	753	751	805	800	688	667	523	517	393	388	298	279
27	753	752	804	799	668	662	521	516	395	389	313	298
28	757	752	803	797	665	658	519	513	398	392	328	313
29	755	744	799	796	662	653	520	515			315	309
30	745	729	806	797	656	649	517	509			334	315
31	738	731			651	642	513	508			340	334
MONTH	757	715	808	737	807	642	645	326	510	370	430	243
#3 (10.4' BL	S) SPECIF	'IC CONDUCT	'ANCE (MIC	ROSIEMENS	/CM AT 25	DEG.C), W	ATER YEAR	OCTOBER 1	.997 TO S	EPTEMBER 1	998
#3 (DAY	10.4' BL MAX	S) SPECIF MIN	'IC CONDUCT MAX	'ANCE (MIC MIN	ROSIEMENS MAX	/CM AT 25 MIN	DEG.C), WAX	ATER YEAR MIN	OCTOBER 1	.997 TO S MIN	EPTEMBER 1 MAX	998 MIN
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY	MAX AP	MIN	MAX MA	MIN	MAX JUN	MIN	MAX JUI	MIN	MAX AUGU	MIN JST	MAX SEPT	MIN EMBER
DAY 1	MAX AP	MIN RIL 340	MAX MA 1370	MIN AY 967	MAX JUN 830	MIN NE 823	MAX JUI 814	MIN JY 804	MAX AUGU 681	MIN JST 605	MAX SEPT 814	MIN EMBER 642
DAY 1 2	MAX AP 382 372	MIN RIL 340 351	MAX MA 1370 967	MIN AY 967 576	MAX JUN 830 824	MIN NE 823 817	MAX JUI 814 816	MIN 3Y 804 810	MAX AUGU 681 756	MIN JST 605 681	MAX SEPT 814 925	MIN EMBER 642 814
DAY 1 2 3	MAX AP 382 372 362	MIN RIL 340 351 341	MAX MA 1370 967 626	MIN AY 967 576 576	MAX JUN 830 824 822	MIN NE 823 817 810	MAX JUI 814 816 821	MIN JY 804 810 813	MAX AUGU 681 756 821	MIN JST 605 681 756	MAX SEPT 814 925 962	MIN EMBER 642 814 925
DAY 1 2 3 4	MAX AP 382 372 362 362	MIN RIL 340 351 341 359	MAX MAX 1370 967 626 691	MIN 967 576 576 626	MAX JUN 830 824 822 818	MIN NE 823 817 810 810	MAX JUI 814 816 821 828	MIN SY 804 810 813 820	MAX AUGU 681 756 821 876	MIN JST 605 681 756 819	MAX SEPT 814 925 962 947	MIN EMBER 642 814 925 927
DAY 1 2 3 4 5	MAX AP 382 372 362 362 394	MIN RIL 340 351 341 359 358	MAX 1370 967 626 691 756	MIN 967 576 576 626 691	MAX JUN 830 824 822 818 815	MIN NE 823 817 810 810 809	MAX JUI 814 816 821 828 832	MIN 804 810 813 820 824	MAX AUGU 681 756 821 876 916	MIN JST 605 681 756 819 692	MAX SEPT 814 925 962 947 945	MIN EMBER 642 814 925 927 916
DAY 1 2 3 4 5	MAX AP 382 372 362 362 394 396	MIN RIL 340 351 341 359 358	MAX MA 1370 967 626 691 756 814	MIN 967 576 576 626 691 756	MAX JUN 830 824 822 818 815	MIN NE 823 817 810 810 809 808	MAX JUI 814 816 821 828 832 840	MIN 804 810 813 820 824 832	MAX AUGU 681 756 821 876 916	MIN JST 605 681 756 819 692 307	MAX SEPT 814 925 962 947 945	MIN EMBER 642 814 925 927 916 945
DAY 1 2 3 4 5 6 7	MAX AP 382 372 362 362 394 396 403	MIN RIL 340 351 341 359 358 387 384	MAX 1370 967 626 691 756 814 854	MIN 967 576 576 626 691 756 814	MAX JUN 830 824 822 818 815 813	MIN 823 817 810 810 809 808 803	MAX JUI 814 816 821 828 832 840 848	MIN 804 810 813 820 824 832 840	MAX AUGT 681 756 821 876 916 692 309	MIN JST 605 681 756 819 692 307 288	MAX SEPT 814 925 962 947 945 996 1090	MIN EMBER 642 814 925 927 916 945 560
DAY 1 2 3 4 5 6 7 8	MAX AP 382 372 362 362 394 396 403 406	MIN RIL 340 351 341 359 358 387 384 397	MAX M2 1370 967 626 691 756 814 854 872	MIN 967 576 576 626 691 756 814 854	MAX JUN 830 824 822 818 815 813 809 808	MIN NE 823 817 810 810 809 808 803 802	MAX JUI 814 816 821 828 832 840 848 854	MIN .Y 804 810 813 820 824 832 840 846	MAX AUGU 681 756 821 876 916 692 309 289	MIN JST 605 681 756 819 692 307 288 282	MAX SEPT 814 925 962 947 945 996 1090 560	MIN EMBER 642 814 925 927 916 945 560 407
DAY 1 2 3 4 5 6 7 8 9	MAX AP 382 372 362 362 394 396 403 406 399	MIN RIL 340 351 341 359 358 387 384 397 265	MAX MAX 1370 967 626 691 756 814 854 872 879	MIN 967 576 576 626 691 756 814 854 871	MAX JUN 830 824 822 818 815 813 809 808 803	MIN 823 817 810 810 809 808 803 802 802	MAX JUI 814 816 821 828 832 840 848 854 861	MIN .Y 804 810 813 820 824 832 840 846 853	MAX AUGU 681 756 821 876 916 692 309 289 307	MIN JST 605 681 756 819 692 307 288 282 283	MAX SEPT 814 925 962 947 945 996 1090 560 459	MIN EMBER 642 814 925 927 916 945 560 407 418
DAY 1 2 3 4 5 6 7 8 9 10	MAX AP 382 372 362 362 394 396 403 406 399 383	MIN RIL 340 351 341 359 358 387 384 397 265 358	MAX MAX 1370 967 626 691 756 814 854 872 879 880	MIN 967 576 576 626 691 756 814 854 871 866	MAX JUN 830 824 822 818 815 813 809 808 803 802	MIN 823 817 810 810 809 808 803 802 802 797	MAX JUI 814 816 821 828 832 840 848 854 861 862	MIN .Y 804 810 813 820 824 832 840 846 853 857	MAX AUGU 681 756 821 876 916 692 309 289 307 319	MIN JST 605 681 756 819 692 307 288 282 283 307	MAX SEPT 814 925 962 947 945 996 1090 560 459 544	MIN EMBER 642 814 925 927 916 945 560 407 418 459
DAY 1 2 3 4 5 6 7 8 9 10	MAX AP 382 372 362 362 394 396 403 406 399 383 366	MIN RIL 340 351 341 359 358 387 384 397 265 358 361	MAX MI 1370 967 626 691 756 814 854 872 879 880 868	MIN 967 576 576 626 691 756 814 854 871 866	MAX JUN 830 824 822 818 815 813 809 808 803 802	MIN 823 817 810 810 809 808 803 802 797 797	MAX JUI 814 816 821 828 832 840 848 854 861 862 867	MIN	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387	MIN JST 605 681 756 819 692 307 288 282 283 307 317	MAX SEPT 814 925 962 947 945 996 1090 560 459 544	MIN EMBER 642 814 925 927 916 945 560 407 418 459
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX AP 382 372 362 362 394 396 403 406 399 383 366 367	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365	MAX 1370 967 626 691 756 814 854 872 879 880 868 844	MIN 967 576 576 626 691 756 814 854 871 866 844 816	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 803	MIN NE 823 817 810 810 809 808 803 802 802 797 797 799	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845	MIN 642 814 925 927 916 945 560 407 418 459 544 680
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX AP 382 372 362 362 394 396 403 406 399 383 366 367 371	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366	MAX M2 1370 967 626 691 756 814 854 872 879 880 868 844 828	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 803 802	MIN NE 823 817 810 810 809 808 803 802 797 797 792 796	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX AP 382 372 362 362 394 396 403 406 399 383 366 367 371 377	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369	MAX M2 1370 967 626 691 756 814 854 872 879 880 868 844 828 828	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799 806	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 802	MIN NE 823 817 810 810 809 808 803 802 802 797 797 792 796 797	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 874	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865 868	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX AP 382 372 362 362 394 396 403 406 399 383 366 367 371	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366	MAX M2 1370 967 626 691 756 814 854 872 879 880 868 844 828	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 803 802	MIN NE 823 817 810 810 809 808 803 802 797 797 792 796	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX AP 382 372 362 362 394 396 403 406 399 383 366 367 371 377 375 761	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369	MAX M2 1370 967 626 691 756 814 854 872 879 880 868 844 828 828 809 783	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799 806 781 759	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 802	MIN NE 823 817 810 810 809 808 803 802 802 797 797 792 796 797 797 798	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882	MIN 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 375 761 756	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 828 809 783 761	967 576 576 626 691 756 814 854 871 866 844 816 799 806 781	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 799 810 812	MIN 823 817 810 810 809 808 803 802 797 797 799 799 799 799 798 806	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 871 874 880 882 886	MIN 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330	MIN 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1300
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 377 7756 721	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 799 810 812 817	MIN 823 817 810 810 809 808 803 802 797 797 792 796 797 797 798 806 806	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 888	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1300 1320
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 377 375 761 756 721 690	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 799 810 812 817 817	MIN NE 823 817 810 809 808 803 802 802 797 797 799 796 797 799 798 806 806 811	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891 899	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1300 1320 1340
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 377 7756 721	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 799 810 812 817	MIN 823 817 810 810 809 808 803 802 797 797 792 796 797 797 798 806 806	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 888	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1300 1320
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 377 375 761 756 721 690	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 799 810 812 817 817	MIN NE 823 817 810 809 808 803 802 802 797 797 799 796 797 799 798 806 806 811	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891 899	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1300 1320 1340
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 375 761 756 721 690 646	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 803 802 803 801 802 803 801 802 803 801 801 801 801 801 801 801 801 801 801	MIN NE 823 817 810 809 808 803 802 802 797 797 799 798 806 801 795	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891 899 900	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888 893	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360 1370	MIN 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1300 1320 1340 1350
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 375 761 756 721 690 646 602 563 531	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602 563 531 504	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714 709 709 712	MIN 967 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706 703 704 706	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 799 810 812 817 817 811 795 786 780	MIN 823 817 810 810 809 808 803 802 797 797 792 796 797 799 806 806 811 795 783 779 775	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 871 874 880 882 886 891 899 900 902 515 416	MIN 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888 893 515 397 363	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292 334 395 548	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282 292 334 395	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360 1370 1390 1410 1430	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845; 1160 1260 1300 1320 1340 1350 1370 1370 1390 1410
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 377 375 761 756 721 690 646 602 563 531 505	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602 563 531 504 484	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714 709 709 712 848	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706 703 704 706 711	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 801 802 802 799 810 812 817 817 811 795 786 780 781	MIN 823 817 810 810 809 808 803 802 797 797 792 796 797 797 798 806 806 811 795 783 779 776	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891 899 900 902 515 416 385	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888 893 515 397 363 380	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292 334 395 548 633	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282 292 334 395 459	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360 1370 1390 1410 1430 1450	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1300 1320 1340 1350 1370 1370 1390 1410 1430
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 375 761 756 721 690 646 602 563 531	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602 563 531 504	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714 709 709 712	MIN 967 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706 703 704 706	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 799 810 812 817 817 811 795 786 780	MIN 823 817 810 810 809 808 803 802 797 797 792 796 797 799 806 806 811 795 783 779 775	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 871 874 880 882 886 891 899 900 902 515 416	MIN 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888 893 515 397 363	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292 334 395 548	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282 292 334 395	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360 1370 1390 1410 1430	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845; 1160 1260 1300 1320 1340 1350 1370 1370 1390 1410
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 377 375 761 756 721 690 646 602 563 531 505	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602 563 531 504 484	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714 709 709 712 848	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706 703 704 706 711	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 801 802 802 799 810 812 817 817 811 795 786 780 781	MIN 823 817 810 810 809 808 803 802 797 797 792 796 797 797 798 806 806 811 795 783 779 776	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891 899 900 902 515 416 385	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888 893 515 397 363 380	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292 334 395 548 633	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282 292 334 395 459	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360 1370 1390 1410 1430 1450	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1300 1320 1340 1350 1370 1370 1390 1410 1430
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 377 375 761 756 721 690 646 602 563 531 505 484	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602 563 531 504 484 474	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714 709 709 712 848 861	MIN 967 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706 703 704 706 711 848	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 799 810 812 817 817 811 795 786 780 781 781	MIN 823 817 810 810 809 808 803 802 797 797 792 796 797 798 806 806 811 795 783 779 776 776	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891 899 900 902 515 416 385 385	MIN 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888 893 515 397 363 380 379	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292 334 395 548 633 459	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282 292 334 395 459 246	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360 1370 1390 1410 1430 1450 1470	MIN 642 814 925 927 916 945 560 407 418 459 544 680 845 9160 1300 1320 1340 1350 1370 1390 1410 1430 1440
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 377 756 721 690 646 602 563 531 505 484 1400	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602 563 531 504 484 474 472	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714 709 709 712 848 861 862	MIN 967 576 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706 703 704 706 711 848 853	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 802 799 810 812 817 817 811 795 786 780 781 781	MIN NE 823 817 810 810 809 808 803 802 802 797 797 792 796 797 798 806 811 795 783 779 776 776 776	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891 899 900 902 515 416 385 385	MIN .Y 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888 893 515 397 363 380 379 381	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292 334 395 548 633 459	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282 292 334 395 459 246 293	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360 1370 1390 1410 1430 1450 1470	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1300 1320 1340 1350 1370 1370 1390 1410 1430 1440 1470
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 375 761 756 721 690 646 602 563 531 505 484 1400 1370 1300 1370	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602 563 531 504 484 474 472 1250 1260 1300	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714 709 709 712 848 861 862 854 845 838	MIN 967 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706 703 704 706 711 848 853 845 834 830	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 799 810 812 817 817 811 795 786 780 781 781 781 781	MIN 823 817 810 810 809 808 803 802 797 797 792 796 797 797 798 806 806 811 795 783 779 776 776 774 781 787	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891 899 900 902 515 416 385 385 387 389	MIN 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888 893 515 397 363 380 379 381 385 387 407	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292 334 395 548 633 459 299	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282 292 334 395 459 246 293 296 297 296	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360 1370 1490 1410 1480 1450 1470 1480 1490 1500 1510	MIN 642 814 925 927 916 945 560 407 418 459 544 680 845 1160 1300 1320 1340 1350 1370 1390 1410 1430 1440 1470 1470 1490 1490
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 377 375 761 756 721 690 646 602 563 531 505 484 1400 1370 1300 1370 1390	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602 563 531 504 484 474 472 1250 1260 1300 1370	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714 709 709 712 848 861 862 854 845 838	MIN 967 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706 703 704 706 711 848 853 845 834 830 827	MAX JUN 830 824 822 818 815 813 809 808 803 802 802 799 810 812 817 817 811 795 786 780 781 781 781 781 781 781 781 781 781 781	MIN NE 823 817 810 810 809 808 803 802 802 797 797 792 796 797 797 798 806 806 811 795 783 779 776 776 776 774 781 787	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891 899 900 902 515 416 385 385 387 389 407 453 531	MIN	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292 334 395 548 633 459 299 299 298 299 426	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282 292 334 395 459 246 293 296 297 296 298	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1340 1360 1370 1390 1410 1430 1450 1470 1480 1490 1500 1510	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1320 1340 1350 1370 1370 1410 1430 1440 1470 1490 1490 1500
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 375 761 756 721 690 646 602 563 531 505 484 1400 1370 1300 1370	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602 563 531 504 484 474 472 1250 1260 1300	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714 709 709 712 848 861 862 854 845 838	MIN 967 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706 703 704 706 711 848 853 845 834 830	MAX JUN 830 824 822 818 815 813 809 808 803 802 803 802 799 810 812 817 817 811 795 786 780 781 781 781 781 781 781 781 781 781 781	MIN 823 817 810 810 809 808 803 802 797 797 792 796 797 797 798 806 806 811 795 783 779 776 776 774 781 787	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 871 874 880 882 886 891 899 900 902 515 416 385 385 387 389 407 453	MIN 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888 893 515 397 363 380 379 381 385 387 407	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292 334 395 548 633 459 299 298 299	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282 292 334 395 459 246 293 296 297 296	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1330 1340 1360 1370 1490 1410 1480 1450 1470 1480 1490 1500 1510	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 9160 1300 1320 1340 1350 1370 1390 1410 1430 1440 1470 1470 1490 1490
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX AP 382 372 362 394 396 403 406 399 383 366 367 371 377 375 761 756 721 690 646 602 563 531 505 484 1400 1370 1300 1370 1390	MIN RIL 340 351 341 359 358 387 384 397 265 358 361 365 366 369 370 369 721 690 646 602 563 531 504 484 474 472 1250 1260 1300 1370	MAX 1370 967 626 691 756 814 854 872 879 880 868 844 828 809 783 761 740 722 714 709 709 712 848 861 862 854 845 838	MIN 967 576 626 691 756 814 854 871 866 844 816 799 806 781 759 737 722 714 706 703 704 706 711 848 853 845 834 830 827	MAX JUN 830 824 822 818 815 813 809 808 803 802 802 799 810 812 817 817 811 795 786 780 781 781 781 781 781 781 781 781 781 781	MIN NE 823 817 810 810 809 808 803 802 802 797 797 792 796 797 797 798 806 806 811 795 783 779 776 776 776 774 781 787 791	MAX JUI 814 816 821 828 832 840 848 854 861 862 867 871 871 874 880 882 886 891 899 900 902 515 416 385 385 387 389 407 453 531	MIN 804 810 813 820 824 832 840 846 853 857 859 863 865 868 870 877 878 883 888 893 515 397 363 380 379 381 385 387 407 453	MAX AUGU 681 756 821 876 916 692 309 289 307 319 387 580 773 890 956 965 933 926 287 292 334 395 548 633 459 299 299 298 299 426	MIN JST 605 681 756 819 692 307 288 282 283 307 317 387 580 773 890 933 916 287 277 282 292 334 395 459 246 293 296 297 296 298	MAX SEPT 814 925 962 947 945 996 1090 560 459 544 680 845 982 1160 1260 1310 1340 1360 1370 1390 1410 1430 1450 1470 1480 1490 1500 1510	MIN EMBER 642 814 925 927 916 945 560 407 418 459 544 680 845 982 1160 1260 1320 1340 1350 1370 1370 1390 1410 1430 1440 1470 1470 1490 1490 1500

MONTH YEAR

1510

413547083481400 LU-23 NR HOLLAND OH-Continued

#4 (6.9' BLS) SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

#4	(6.9' BL	S) SPECIF.	IC CONDUCT.	HIVEE (MIC	KOSI EMENS,	CI1 111 25	DEG.C/, WA	IIIII IIIII	OCTOBBR 1		DI IDNDDK 3	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCT	OBER	NOVE	MBER	DECE	MBER	JANU	JARY	FEBRU	JARY	MZ	ARCH
1	714	709	717	710	783	781	626	622	495	488	392	381
2	713	708	721	717	786	781	622	616	491	487	393	390
3	711	705	727	721	784	780	618	613	488	481	398	392
4	711	704	728	723	785	780	618	607	485	478	407	396
5	712	707	729	728	784	778	607	578	479	473	406	401
6	711	702	724	729	700	777	F00	567	470	470	411	4.01
6 7	711 707	702	734 734	729	782 778	771	582 567	567 552	479 478	472 469	411 413	401 403
8	707	698	735	733	775	765	552	327	478	471	414	403
9	701	690	736	734	769	760	327	318	472	465	405	282
10	694	689	741	735	765	760	320	318	470	463	282	269
11	694	688	743	737	766	761	329	319	468	458	270	267
12	695	691	749	742	764	759	346	329	465	457	282	269
13 14	691 694	690 690	751 754	745 751	759 754	754 747	374 411	346 374	461 463	453 454	294 305	282 294
15	694	689	756	753	749	747	439	411	462	454	314	305
16	694	690	763	755	744	736	461	439	457	451	323	314
17	694	689	766	763	736	728	476	461	469	427	339	322
18	692	688	768	766	728	724	488	476	427	367	341	338
19	692	688	775	768	724	715	496	488	368	360	354	338
20	695	690	776	770	717	708	504	495	361	357	356	345
21	693	689	777	775	711	702	506	501	363	358	345	249
22	702	688	782	777	702	693	508	504	367	361	249	236
23	710	697	781	779	697	685	509	503	371	366	240	235
24	719	710	782	778	688	678	510	505	374	370	252	240
25	719	709	784	777	680	666	509	505	377	373	270	252
26	714	689	783	778	666	646	508	503	380	375	287	270
27	695	692	781	777	652	644	506	501	382	377	302	287
28	701	695	779	774	647	641	505	498	384	379	314	301
29	705	700	779	774	644	638	505	499			303	296
30	709	702	782	779	639	631	501	493			322	303
31	710	709			632	626	498	493			327	321
MONTH	719	688	784	710	786	626	626	318	495	357	414	235
#4	(6.9' BL	S) SPECIF.	IC CONDUCT	ANCE (MIC	ROSIEMENS	CM AT 25	DEG.C.). WA	ATER YEAR	OCLOBER I	997 TO S.	ELLEMBEK 1	1998
							,					
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	MAX					MIN	MAX	MIN				
DAY	MAX AF	PRIL	MZ	AY	JUI	MIN NE	MAX JUI	MIN	AUGU	JST	SEPT	TEMBER
DAY 1	MAX AF 363	PRIL 327	MA 1280	AY 885	JUI 793	MIN NE 786	MAX JUI 757	MIN LY 752	AUGU 503	JST 442	SEPT	TEMBER 455
DAY 1 2	MAX AF 363 354	PRIL 327 337	MA 1280 885	AY 885 525	JUI 793 791	MIN NE 786 785	MAX JUI 757 763	MIN TY 752 756	AUGU 503 587	JST 442 503	SEP1 619 731	TEMBER 455 619
DAY 1 2 3	MAX AF 363 354 348	PRIL 327 337 328	M2 1280 885 602	885 525 543	JUI 793 791 789	MIN NE 786 785 772	MAX JUI 757 763 766	MIN 752 756 762	AUGU 503 587 660	JST 442 503 587	SEPT 619 731 764	TEMBER 455 619 729
DAY 1 2 3 4	MAX AF 363 354 348 349	PRIL 327 337 328 345	M2 1280 885 602 664	885 525 543 602	JUI 793 791 789 788	MIN NE 786 785 772 781	MAX JUI 757 763 766 775	MIN 752 756 762 765	AUGU 503 587 660 715	442 503 587 660	SEP1 619 731 764 750	ΓΕΜΒΕR 455 619 729 703
DAY 1 2 3 4 5	MAX AF 363 354 348 349 378	327 337 328 345 345	M2 1280 885 602 664 724	885 525 543 602 664	JU <u>1</u> 793 791 789 788 786	MIN 786 785 772 781 781	MAX JUI 757 763 766 775 777	MIN 752 756 762 765 770	AUGU 503 587 660 715 760	442 503 587 660 524	SEPT 619 731 764 750 703	455 619 729 703 679
DAY 1 2 3 4 5	MAX AF 363 354 348 349 378 379	327 337 328 345 345 372	1280 885 602 664 724	885 525 543 602 664 724	JUI 793 791 789 788 786	MIN 786 785 772 781 781 776	MAX JUI 757 763 766 775 777	MIN 752 756 762 765 770 774	AUGU 503 587 660 715 760	442 503 587 660 524 286	SEPT 619 731 764 750 703 741	455 619 729 703 679
DAY 1 2 3 4 5 6 7	MAX AF 363 354 348 349 378 379 388	327 337 328 345 345 372 369	1280 885 602 664 724 780 817	885 525 543 602 664 724 780	JUI 793 791 789 788 786 781	MIN 786 785 772 781 781 776 773	MAX JUI 757 763 766 775 777 780 781	MIN 752 756 762 765 770 774 774	AUGU 503 587 660 715 760 524 287	442 503 587 660 524 286 264	SEPT 619 731 764 750 703 741 804	455 619 729 703 679 694 360
DAY 1 2 3 4 5 6 7 8	MAX AF 363 354 348 349 378 379 388 392	327 337 328 345 345 345 372 369 383	1280 885 602 664 724 780 817 838	885 525 543 602 664 724 780 817	JUI 793 791 789 788 786 781 779	MIN 786 785 772 781 781 776 773 768	MAX JUI 757 763 766 775 777 780 781 786	MIN 752 756 762 765 770 774 774 778	AUGU 503 587 660 715 760 524 287 271	442 503 587 660 524 286 264 265	SEPT 619 731 764 750 703 741 804 360	455 619 729 703 679 694 360 304
DAY 1 2 3 4 5 6 7 8 9	MAX AF 363 354 348 349 378 379 388 392 383	327 337 328 345 345 372 369 383 249	1280 885 602 664 724 780 817 838 844	885 525 543 602 664 724 780 817 838	793 791 789 788 786 781 779 777	MIN 786 785 772 781 781 776 773 768 767	MAX JUI 757 763 766 775 777 780 781 786 792	MIN 752 756 762 765 770 774 774 778 784	AUGU 503 587 660 715 760 524 287 271 273	442 503 587 660 524 286 264 265 269	SEP7 619 731 764 750 703 741 804 360 316	455 619 729 703 679 694 360 304 307
DAY 1 2 3 4 5 6 7 8	MAX AF 363 354 348 349 378 379 388 392	327 337 328 345 345 345 372 369 383	1280 885 602 664 724 780 817 838	885 525 543 602 664 724 780 817	JUI 793 791 789 788 786 781 779	MIN 786 785 772 781 781 776 773 768	MAX JUI 757 763 766 775 777 780 781 786	MIN 752 756 762 765 770 774 774 778	AUGU 503 587 660 715 760 524 287 271	442 503 587 660 524 286 264 265	SEPT 619 731 764 750 703 741 804 360	455 619 729 703 679 694 360 304
DAY 1 2 3 4 5 6 7 8 9 10	MAX AF 363 354 348 349 378 379 388 392 383 371 352	327 337 328 345 345 372 369 383 249 344 345	M2 1280 885 602 664 724 780 817 838 844 845	885 525 543 602 664 724 780 817 838 830	793 791 789 788 786 781 779 777 773 771	MIN NE 786 785 772 781 781 776 773 768 767 766 762	MAX JUI 757 763 766 775 777 780 781 786 792 794	MIN 752 756 762 765 770 774 774 778 784 786 791	AUGU 503 587 660 715 760 524 287 271 273 298	442 503 587 660 524 286 264 265 269 272	SEPT 619 731 764 750 703 741 804 360 316 337	455 619 729 703 679 694 360 304 307 315
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX AF 363 354 348 349 378 379 388 392 388 392 383 371 352 353	327 337 328 345 345 345 372 369 383 249 344 345 350	M2 1280 885 602 664 724 780 817 838 844 845	885 525 543 602 664 724 780 817 838 830	793 791 789 788 786 781 779 777 773 771 767	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803	MIN 752 756 762 765 770 774 778 784 786 791 796	AUGU 503 587 660 715 760 524 287 271 273 298 311 384	442 503 587 660 524 286 264 265 269 272 297 311	SEPT 619 731 764 750 703 741 804 360 316 337 376 462	455 619 729 703 679 694 360 304 307 315 336
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356	327 337 328 345 345 345 372 369 383 249 344 345 350 353	1280 885 602 664 724 780 817 838 844 845 830 807 790	885 525 543 602 664 724 780 817 838 830 807 782 766	793 791 789 788 786 781 779 777 773 771 767 768	MIN 786 785 772 781 781 776 773 768 767 766 762 761 763	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529	442 503 587 660 524 286 264 265 269 272 297 311 384	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537	455 619 729 703 679 694 360 304 307 315 336 462
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362	RIL 327 337 328 345 345 372 369 383 249 344 345 350 353 356	1280 885 602 664 724 780 817 838 844 845 830 807 790 790	885 525 543 602 664 724 780 817 838 830 807 782 766 772	793 791 789 788 786 781 779 777 773 771 767 768 768	MIN 786 785 772 781 781 776 773 768 767 766 762 761 763 762	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 803 805	MIN 752 756 762 765 770 774 778 784 786 791 796 799 800	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661	442 503 587 660 524 286 264 265 269 272 297 311 384 529	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625	7EMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356	327 337 328 345 345 345 372 369 383 249 344 345 350 353	1280 885 602 664 724 780 817 838 844 845 830 807 790	885 525 543 602 664 724 780 817 838 830 807 782 766	793 791 789 788 786 781 779 777 773 771 767 768	MIN 786 785 772 781 781 776 773 768 767 766 762 761 763	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529	442 503 587 660 524 286 264 265 269 272 297 311 384	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537	455 619 729 703 679 694 360 304 307 315 336 462
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362	RIL 327 337 328 345 345 372 369 383 249 344 345 350 353 356	1280 885 602 664 724 780 817 838 844 845 830 807 790 790	885 525 543 602 664 724 780 817 838 830 807 782 766 772	793 791 789 788 786 781 779 777 773 771 767 768 768	MIN 786 785 772 781 781 776 773 768 767 766 762 761 763 762	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 803 805	MIN 752 756 762 765 770 774 778 784 786 791 796 799 800	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661	442 503 587 660 524 286 264 265 269 272 297 311 384 529	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625	7EMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750	793 791 789 788 786 781 779 777 773 771 767 768 768 768	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799 800 802	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722	7EMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537 625
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 356 369 692 663	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 790 772 750 724 700	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 700 683	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 762 764 766	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 695 650 256	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931	455 619 729 703 679 694 360 307 315 336 376 462 537 625 722 784 845
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 354 692 663 620	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 700 683 678	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772 776	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 762 764 766 766 767	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818 822	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 256	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 695 650 256 248	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931 1020	7EMBER 455 619 729 703 679 694 360 304 307 315 336 462 537 625 722 784 845 931
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 356 369 692 663	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 790 772 750 724 700	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 700 683	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 762 764 766	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 695 650 256	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931	455 619 729 703 679 694 360 307 315 336 376 462 537 625 722 784 845
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 354 692 663 620	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 700 683 678	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772 776	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 762 764 766 766 767	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818 822	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 256	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 695 650 256 248	SEPT 619 731 764 750 703 741 804 316 337 376 462 537 625 722 784 845 931 1020 1080	455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 356 357	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686 682	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 700 683 678 668	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772 776 776 777	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 762 766 767 767	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829 829 832	MIN 752 756 762 765 770 774 778 784 786 791 796 799 800 802 808 814 818 822 826	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 256	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 695 650 256 248 250	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931 1020	7EMBER 455 619 729 703 679 694 360 304 307 315 336 462 537 625 722 784 845 931
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 354 620 577 541	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686 682 674	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 700 683 678 668 669 670 671	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772 776 776 776 776 776 776	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 764 766 767 761 753 747	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829 832 834	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818 822 826 493	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 256 263	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 650 256 248 250 263 267 280	SEPT 619 731 764 750 703 741 804 336 337 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1180	455 619 729 703 679 694 360 304 307 315 336 462 537 625 722 784 845 931 1020
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508 482	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 354 692 663 620 577 541 508 482 463	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686 682 674 677 826	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 750 683 678 668 669 670 671 676	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772 776 776 776 776 776 776 776 776 776	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 764 766 767 761 753 747 748	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829 832 834 493 375 369	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818 822 826 493 366 325 341	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 263 267 280 295 327	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 650 256 248 250 263 267 280 284	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1180 1200	7EMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1170
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508	327 337 328 345 345 372 369 383 249 344 345 350 353 356 355 354 692 663 620 577 541 508 482	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686 682 674 674	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 700 683 678 668 669 670 671	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772 776 776 776 776 776 776 776 776 776	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 764 766 767 761 753 747	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829 829 832 834 493 375	MIN 752 756 762 765 770 774 778 784 786 791 796 799 800 802 808 814 818 822 826 493 366 325	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 256 263 267 280 295	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 650 256 248 250 263 267 280	SEPT 619 731 764 750 703 741 804 336 337 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1180	7EMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020 1080 1120 1160
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508 482 463	327 337 328 345 345 372 369 383 249 344 345 350 353 356 355 354 692 663 620 577 541 508 482 463 453	1280 885 602 664 724 780 817 838 844 845 830 807 790 772 750 724 700 686 682 674 677 826 822	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 750 683 678 668 669 670 671 676 818	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772 776 776 766 777 766 775 753 753	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 764 766 767 761 753 747 748 745	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829 832 834 493 375 369 348	MIN 752 756 762 765 770 774 774 778 784 786 791 796 802 808 814 818 822 826 493 366 325 341 345	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 263 267 280 295 327 284	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 650 256 248 250 263 267 280 284 217	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1180 1200 1200	7EMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1170 1190
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508 482	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 354 692 663 620 577 541 508 482 463	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686 682 674 677 826	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 750 683 678 668 669 670 671 676	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772 776 776 776 776 776 776 776 776 776	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 764 766 767 761 753 747 748	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829 832 834 493 375 369	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818 822 826 493 366 325 341	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 263 267 280 295 327	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 650 256 248 250 263 267 280 284	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1180 1200	7EMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1170
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508 482 463 1360	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 354 692 663 620 577 541 508 482 463 453	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686 682 674 677 826 822 826	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 700 683 678 668 669 670 671 676 818	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772 776 776 776 776 776 776 776 776 777 775 777 777	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 762 764 766 767 761 753 747 747 748 745	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829 829 832 834 493 375 369 348 359	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818 822 826 493 366 325 341 345	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 263 267 280 295 327 284	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 695 650 256 248 250 263 267 280 284 217	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1180 1200 1200	7EMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1170 1190
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508 482 463 1360 1310	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 354 692 663 620 577 541 508 482 463 453 453	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686 682 674 674 677 826 822	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 700 683 678 668 669 670 671 676 818 819 809	793 791 789 788 786 781 777 773 771 767 768 768 768 770 774 772 776 776 776 776 776 776 777 775 775 775	MIN NE 786 785 772 781 781 776 773 768 767 766 762 762 762 762 762 766 767 761 753 747 748 745 745	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 832 834 493 375 369 348 359 371	MIN 752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818 822 826 493 366 325 341 345 346 359	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 256 263 267 280 295 327 284	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 650 256 248 250 263 267 280 284 217	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1180 1200 1200 1210 1220	455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1170 1190 1200 1210
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508 482 463 1360 1310 1250 1310 1340	327 337 328 345 345 345 347 369 383 249 344 345 350 353 356 355 354 692 663 620 577 541 508 482 463 453 452 1170 1210 1250 1280	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686 682 674 677 826 822 823 810 804 799	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 750 683 678 668 669 670 671 676 818 819 809 800 796 792	793 791 789 788 786 781 777 773 771 767 768 768 768 770 774 772 776 776 776 776 776 776 776 776 777 77	MIN NE 786 785 772 781 781 776 773 768 767 766 762 762 762 762 764 766 767 761 753 747 748 745 745 745 747	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 805 811 816 822 829 829 832 834 493 375 369 348 359 371 373 381 409	752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818 822 826 493 366 325 341 345 346 359 370 371 381	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 263 267 280 295 327 284 286 289 288	442 503 587 660 524 286 265 269 272 297 311 384 529 661 695 650 256 248 250 263 267 280 284 217	\$EPT 619 731 764 750 703 741 804 316 337 376 462 537 625 722 784 845 931 1020 1080 1120 1180 1200 1200 1220 122	TEMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1170 1190 1200
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508 482 463 1360 1310 1250 1310	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 354 692 663 620 577 541 508 482 463 453 452 1170 1250	1280 885 602 664 724 780 817 838 844 845 830 807 790 772 750 724 700 686 682 674 677 826 822 826 823 810 804	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 700 683 678 668 669 670 671 676 818 819 809 800 796	793 791 789 788 786 781 777 773 771 767 768 768 768 770 774 772 776 766 757 752 753 753 750 751 749 751	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 764 766 767 761 753 747 748 745 745 745	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829 832 834 493 375 369 348 359 371 373 381	MIN 752 756 762 765 770 774 778 784 786 791 796 799 800 802 808 814 818 822 826 493 366 325 341 345 346 359 370 371	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 263 267 280 295 327 284 286 289 288	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 695 650 256 248 250 267 280 281 277 280 281 277 280 281	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931 1020 1080 1120 1180 1200 1200 1210 1220 1230 1230	TEMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1170 1190 1200 1220
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508 482 463 1360 1310 1250 1310 1340	327 337 328 345 345 345 372 369 383 249 344 345 350 353 356 355 354 692 663 620 577 541 508 482 463 453 452 1170 1210 1250 1280	1280 885 602 664 724 780 817 838 844 845 830 807 790 792 750 724 700 686 682 674 677 826 822 826 823 810 804 799 799	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 750 683 678 668 669 670 671 676 818 819 809 800 796 792 792	793 791 789 788 786 781 779 777 773 771 767 768 768 768 770 774 772 776 766 777 767 752 753 753 750 751 749 755	MIN NE 786 785 772 781 781 776 773 768 767 766 762 761 763 762 762 764 766 767 761 753 747 748 745 745 745 745 747 745	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 803 805 811 816 822 829 829 832 834 493 375 369 348 359 371 373 381 409 443	MIN 752 756 762 765 770 774 774 778 784 786 791 796 802 808 814 818 822 826 493 366 325 341 345 346 359 370 371 381 409	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 263 267 280 295 327 284 286 289 288 287 310 455	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 650 256 248 250 263 267 280 284 217 278 286 285 284 284 310	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1180 1200 1200 1210 1220 1230 1230 1240	TEMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1170 1190 1210 1220 1230
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX AF 363 354 348 349 378 379 388 392 383 371 352 353 356 362 361 743 730 692 663 620 577 541 508 482 463 1360 1310 1250 1310 1340	327 337 328 345 345 345 347 369 383 249 344 345 350 353 356 355 354 692 663 620 577 541 508 482 463 453 452 1170 1210 1250 1280	1280 885 602 664 724 780 817 838 844 845 830 807 790 790 772 750 724 700 686 682 674 677 826 822 823 810 804 799	885 525 543 602 664 724 780 817 838 830 807 782 766 772 750 722 750 683 678 668 669 670 671 676 818 819 809 800 796 792	793 791 789 788 786 781 777 773 771 767 768 768 768 770 774 772 776 776 776 776 776 776 776 776 777 77	MIN NE 786 785 772 781 781 776 773 768 767 766 762 762 762 762 764 766 767 761 753 747 748 745 745 745 747	MAX JUI 757 763 766 775 777 780 781 786 792 794 799 803 805 811 816 822 829 829 832 834 493 375 369 348 359 371 373 381 409	752 756 762 765 770 774 774 778 784 786 791 796 799 800 802 808 814 818 822 826 493 366 325 341 345 346 359 370 371 381	AUGU 503 587 660 715 760 524 287 271 273 298 311 384 529 661 748 761 695 656 263 267 280 295 327 284 286 289 288 287 310	442 503 587 660 524 286 264 265 269 272 297 311 384 529 661 650 256 248 250 263 267 280 284 217 278 286 284 284	SEPT 619 731 764 750 703 741 804 360 316 337 376 462 537 625 722 784 845 931 1020 1080 1120 1180 1200 1200 1210 1220 1230 1230 1230 1240	TEMBER 455 619 729 703 679 694 360 304 307 315 336 376 462 537 625 722 784 845 931 1020 1080 1120 1160 1170 1190 1210 1220 1220 1230

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413547083481400 LU-23 NR HOLLAND OH—Continued

#1 (25.4' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

			BLS) TEM				WATER YEAR (TEMBER .	1998	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCI	OBER	NOVE	MBER	DECE	MBER	JAN	IUARY	FEBR	RUARY	M.	ARCH
1	13.0	12.7	13.4	13.2	13.6	13.4	13.6	13.3	12.9	12.4	12.2	12.0
2	13.0	12.7	13.4	13.4	13.6	13.4	13.4		12.9		12.2	12.0
3	13.0	12.7	13.4	13.4	13.6	13.4	13.4	13.4	12.7	12.4	12.0	12.0
4	13.0	12.7	13.4	13.4	13.6	13.6		13.4	12.9	12.4	12.2	12.0
5	13.0	12.7	13.4	13.4	13.6	13.6	13.4	13.2	12.9	12.4	12.2	11.8
6	13.0	12.7	13.4	13.4	13.6	13.6		13.2	12.9	12.4	12.2	11.8
7	13.0	12.7	13.4	13.4	13.6	13.6	13.4	13.1	12.9	12.5	12.3	11.8
8	13.0	12.7	13.4	13.4	13.6	13.6	13.1	12.9	12.7		12.0	11.8
9	13.0	12.7	13.4	13.4	13.6	13.6	13.1	12.9	12.9	12.4	11.8	11.3
10	13.0	12.9	13.4	13.4	13.6	13.6	13.1	13.1	12.9	12.4	11.8	11.5
11	13.2	12.9	13.4	13.4	13.6	13.6	13.4	13.1	12.9	12.4	12.0	11.7
12	13.2	12.9	13.4	13.4	13.6	13.6	13.1	13.1	12.9	12.4	12.0	11.8
13	13.2	12.9	13.4	13.4	13.6	13.6	13.4	13.1	12.9	12.4	12.0	11.7
14	13.0	12.9	13.4	13.4	13.6	13.4	13.4	13.3	12.9	12.4	11.8	11.8
15	13.1	12.9	13.4	13.4	13.6	13.4	13.4	13.4	12.5	12.4	11.8	11.7
16	13.1	12.9	13.4	13.4	13.6	13.4	13.4	13.4	12.9	12.4	11.8	11.5
17	13.2	12.9	13.4	13.4	13.6	13.4	13.4	13.4	12.4	12.2	12.2	11.5
18	13.2	12.9	13.4	13.3	13.6	13.4	13.4		12.2	11.6	12.2	11.6
19	13.2	12.9	13.4	13.4	13.6	13.4	13.4	13.1	12.2	12.0	11.8	11.6
20	13.2	12.9	13.4	13.4	13.6	13.4	13.4	12.9	12.2	12.2	11.8	11.5
2.1	12.2	12 1	12 4	12 4	12 6	12 6	12 1	12.0	10.0	10 0	11 5	11 2
21 22	13.2 13.2	13.1 13.1	13.4 13.4	13.4 13.4	13.6 13.6	13.6 13.4	13.1 13.1	12.9 12.9	12.2 12.4	12.2 12.2	11.5 11.6	11.3 11.3
23	13.2	13.1	13.4	13.4	13.6	13.4		12.9	12.4		11.6	11.5
24	13.2	13.1	13.6	13.4	13.6	13.4	13.1	12.9	12.4		11.8	11.5
25	13.2	13.1	13.6	13.4	13.6	13.4	13.1	12.9	12.5	12.2	11.8	11.5
26	13.2	13.1	13.4	13.4	13.4	13.4	13.2	12.7	12.2	12.2	11.6	11.4
27	13.4	13.1	13.6	13.4	13.6	13.4	13.1	12.7	12.3	12.0	11.6	11.4
28	13.2	13.1	13.4	13.4	13.6	13.4	13.1	12.7	12.3	12.0	11.4	11.2
29	13.4	13.1	13.4	13.4	13.6	13.4	12.9	12.7			11.6	11.3
30	13.4	13.1	13.6	13.4	13.6	13.4	12.9	12.7			11.6	11.4
31	13.4	13.2			13.6	13.3	12.9	12.7			11.6	11.2
MONTH	13.4	12.7	13.6	13.2	13.6	13.3	13.6	12.7	12.9	11.6	12.3	11.2
											1000	
		#1 (25.4)	' BLS) TEMI	PERATURE.	. WATER (DE	G. C). 1	WATER YEAR (OCTOBER	1997 TO SEP	TEMBER 1	1998	
Day		#1 (25.4										
DAY	MAX	#1 (25.4° MIN	' BLS) TEMI MAX	PERATURE, MIN	WATER (DE MAX	G. C), MIN	WATER YEAR (OCTOBER MIN	1997 TO SEF MAX	MIN	MAX	MIN
DAY			MAX			MIN	MAX			MIN	MAX	MIN TEMBER
	AI	MIN	MAX M	MIN AY	MAX JUI	MIN NE	MAX JU	MIN	MAX AUG	MIN SUST	MAX SEP	TEMBER
1	AF	MIN PRIL 9.5	MAX M 11.6	MIN AY 11.4	MAX JUI 11.6	MIN NE 11.4	MAX JU 11.9	MIN JLY 11.6	MAX AUG 12.1	MIN GUST 12.0	MAX SEP	TEMBER
1 2	AF 11.6 10.7	MIN PRIL 9.5 9.5	MAX M 11.6 11.6	MIN AY 11.4 10.7	MAX JUI 11.6 11.6	MIN NE 11.4 11.4	MAX JU 11.9 11.9	MIN JLY 11.6 11.6	MAX AUG 12.1 12.1	MIN GUST 12.0 12.0	MAX SEP 12.8 12.8	TEMBER 12.5 12.5
1 2 3	AE 11.6 10.7 11.8	MIN PRIL 9.5 9.5 10.7	MAX M 11.6 11.6 11.4	MIN AY 11.4 10.7 11.1	MAX JUI 11.6 11.6 11.4	MIN NE 11.4 11.4 11.3	MAX JU 11.9 11.9 11.9	MIN JLY 11.6 11.6 11.6	MAX AUG 12.1 12.1 12.3	MIN GUST 12.0 12.0 12.0	MAX SEP 12.8 12.8 12.8	TEMBER 12.5 12.5 12.5
1 2	AF 11.6 10.7	MIN PRIL 9.5 9.5 10.7 11.3	MAX M 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4	MAX JUI 11.6 11.6	MIN NE 11.4 11.4 11.3 11.3	MAX JU 11.9 11.9	MIN JLY 11.6 11.6 11.6	MAX AUG 12.1 12.1 12.3 12.3	MIN SUST 12.0 12.0 12.0	MAX SEP 12.8 12.8 12.8 12.8	12.5 12.5 12.5 12.5
1 2 3 4 5	AH 11.6 10.7 11.8 12.0 12.1	MIN PRIL 9.5 9.5 10.7 11.3 11.3	MAX M 11.6 11.6 11.4 11.4	MIN AY 11.4 10.7 11.1 11.4 11.4	MAX JUI 11.6 11.6 11.4 11.6 11.4	MIN NE 11.4 11.4 11.3 11.3	MAX JU 11.9 11.9 11.9 11.9	MIN JLY 11.6 11.6 11.6 11.6	MAX AUG 12.1 12.1 12.3 12.3	MIN 12.0 12.0 12.0 12.0 12.0	MAX SEP 12.8 12.8 12.8 12.8	12.5 12.5 12.5 12.5 12.5
1 2 3 4 5	AH 11.6 10.7 11.8 12.0 12.1 11.6	MIN 9.5 9.5 10.7 11.3 11.3	MAX M 11.6 11.4 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4	MAX JUI 11.6 11.4 11.6 11.4 11.6	MIN NE 11.4 11.3 11.3 11.3	MAX JU 11.9 11.9 11.9 11.9 11.9	MIN JLY 11.6 11.6 11.6 11.6 11.6	MAX AUG 12.1 12.3 12.3 12.3 12.3	MIN 12.0 12.0 12.0 12.0 12.0 12.0	MAX SEP 12.8 12.8 12.8 12.8 12.8	12.5 12.5 12.5 12.5 12.5 12.5
1 2 3 4 5 6 7	AH 11.6 10.7 11.8 12.0 12.1 11.6 12.0	MIN 9.5 9.5 10.7 11.3 11.3 11.2	MAX M 11.6 11.6 11.4 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.3	MAX JU 11.9 11.9 11.9 11.9 11.9	MIN 11.6 11.6 11.6 11.6 11.6 11.6	MAX AUG 12.1 12.1 12.3 12.3 12.3 12.5	MIN 12.0 12.0 12.0 12.0 12.0 12.0 12.1	MAX SEP 12.8 12.8 12.8 12.8 12.8	12.5 12.5 12.5 12.5 12.7
1 2 3 4 5 6 7 8	AH 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6	MIN 9.5 9.5 10.7 11.3 11.3 11.2 11.3 11.2	MAX M 11.6 11.4 11.4 11.6 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4	MAX JUI 11.6 11.6 11.4 11.6 11.4 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.3 11.3	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9	MIN 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.	MAX AUG 12.1 12.1 12.3 12.3 12.3 12.3 12.3	MIN 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.	MAX SEP 12.8 12.8 12.8 12.8 12.8 13.0 13.0	12.5 12.5 12.5 12.5 12.5 12.7 12.7
1 2 3 4 5 6 7 8 9	AH 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8	MIN 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9	MAX M 11.6 11.4 11.4 11.6 11.6 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.4 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.3 11.4 11.3	MAX JU 11.9 11.9 11.9 11.9 11.9 11.8 11.9	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.1 12.3 12.3 12.3 12.5 12.5 12.5 12.3	MIN 12.0 12.0 12.0 12.0 12.0 12.1 12.0 12.1	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0	12.5 12.5 12.5 12.5 12.5 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9	AH 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4	MIN 9.5 9.5 10.7 11.3 11.3 11.2 10.9 10.9	MAX M 11.6 11.4 11.4 11.6 11.6 11.6 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4	MAX JUI 11.6 11.6 11.4 11.6 11.4 11.6 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.3 11.4 11.3	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.1 12.3 12.3 12.3 12.3 12.5 12.5 12.3 12.3	MIN 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.	MAX SEP 12.8 12.8 12.8 12.8 12.8 13.0 13.0 13.0	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10	11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4	MIN 9.5 9.5 10.7 11.3 11.3 11.2 11.3 11.2 10.9 10.9	MAX M 11.6 11.4 11.4 11.6 11.6 11.6 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.3 11.4 11.4 11.4	MAX JU 11.9 11.9 11.9 11.9 11.9 11.8 11.9 11.9	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.0 12.1 12.1	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10	AH 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4	MIN 9.5 9.5 10.7 11.3 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3	MAX M 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.4 11.3 11.3 11.3 11.3 11.4 11.4	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.1 12.1	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13	AF 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4	MIN 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.3	MAX 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.3 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.1 12.1	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14	AF 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4	MIN 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.4	MAX M 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.1 12.3 12.3 12.3 12.5 12.3 12.3 12.3 12.3 12.3 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.1 12.	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.0 13.0	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13	AF 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4	MIN 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.3	MAX 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.3 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.1 12.1	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14	AF 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4	MIN 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.4	MAX M 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.1 12.3 12.3 12.3 12.5 12.3 12.3 12.3 12.3 12.3 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.1 12.	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.0 13.0	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	AH 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.6 11.6 11.6	MIN 9.5 9.5 10.7 11.3 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.4 11.3	MAX M 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.3 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.0 12.1 12.1	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.0 13.0	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	AF 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.6 11.6 11.6	MIN 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.4 11.3 11.4 11.3 11.2 11.3	MAX 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.1 12.	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2	12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	AH 11.6 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.6 11.6 11.4 11.4 11.4 11.4	MIN PRIL 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.4 11.3 11.4 11.3 11.2 11.3 11.4 11.3	MAX M 11.6 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.4 11.3 11.3 11.3 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.1 12.1	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.0 13.1 13.0 13.0	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	AH 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.6 11.6 11.4 11.4 11.4	MIN 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.4 11.3 11.4 11.3 11.2 11.3	MAX M 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.7	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.1 12.	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.8 12.9 13.0 13.0 12.9 12.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	AH 11.6 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.6 11.6 11.4 11.4 11.4 11.4	MIN PRIL 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.4 11.3 11.4 11.3 11.2 11.3 11.4 11.3	MAX M 11.6 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.4 11.3 11.3 11.3 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.1 12.1	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.0 13.1 13.0 13.0	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	AH 11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.6 11.6 11.4 11.4 11.4 11.4 11.4	MIN PRIL 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.3 11.3 11.4 11.3 11.3 11.3	MAX M 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUL 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.3	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2	TEMBER 12.5 12.5 12.5 12.7 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.9 13.0 12.9 12.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	AH 11.6 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.6 11.6 11.4 11.4 11.4 11.4 11.4	MIN 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.4 11.3 11.4 11.3 11.2 11.3 11.3 11.4 11.3	MAX M 11.6 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.7 11.6 11.9	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN SUST	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2 13.2	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.8 12.9 13.0 13.0 12.9 12.9 13.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	AH 11.6 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.6 11.6 11.6 11.4 11.4 11.4 11.4	MIN 9.5 9.5 9.5 10.7 11.3 11.3 11.2 10.9 10.9 11.3 11.3 11.4 11.3 11.4 11.3 11.2 11.3 11.4 11.3 11.4	MAX M 11.6 11.4 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.7 11.6 11.7 11.6 11.9 11.9	MIN NE 11.4 11.3 11.3 11.3 11.3 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.1 12.1 12.1 12.1	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0	12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	AF 11.6 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.6 11.6 11.4 11.4 11.4 11.4 11.4	MIN 9.5 9.5 10.7 11.3 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.3 11.3 11.3 11.3 11.3 11	MAX M 11.6 11.6 11.4 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.7 11.6 11.7 11.9 11.9	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.3	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	AH 11.6 12.0 12.1 11.6 12.0 11.6 11.6 11.4 11.4 11.4 11.4 11.4 11.4	MIN PRIL 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.3 11.4 11.3 11.3 11.3 11.3	MAX M 11.6 11.6 11.4 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUI 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.9 11.9 11.9 11.9	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.3 12.6 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.3	MAX SEP 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2 13.3 13.3	TEMBER 12.5 12.5 12.5 12.7 12.5 12.7 12.7 12.7 12.7 12.7 12.9 13.0 13.0 12.9 12.9 13.0 13.0 13.0 13.0 13.0 13.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	AH 11.6 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.6 11.4 11.4 11.4 11.4 11.4 11.6 11.6	MIN PRIL 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.3 11.4 11.3 11.3 11.3 11.3	MAX M 11.6 11.6 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUL 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.9 11.9 11.9 11.9	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.3 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.8 13.5	MIN SUST 12.0 12.0 12.0 12.0 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.3	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.9 13.0 13.0 12.9 12.9 13.0 13.0 13.1 13.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	AH 11.6 12.0 12.1 11.6 12.0 11.6 11.4 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.7 11.6	MIN PRIL 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.3 11.4 11.3 11.3 11.4 11.3 11.2 11.3 11.3 11.1 11.3 11.3 11.3	MAX M 11.6 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUL 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.9 11.9 11.9 11.9 11.9 11.9	MIN NE 11.4 11.4 11.3 11.3 11.3 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.0 12.1 12.3 12.3 12.3 12.3 12.3 12.3 12.3	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.8 12.9 13.0 13.0 12.9 12.9 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	11.6 10.7 11.8 12.0 12.1 11.6 12.0 11.6 11.8 11.4 11.4 11.4 11.4 11.4 11.4 11.6 11.6	MIN PRIL 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.4 11.3 11.4 11.3 11.4 11.3 11.1 11.3 11.1 11.3 11.1 11.3 11.1 11.3 11.1	MAX M 11.6 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUL 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.9	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.3 12.3 12.3	MIN SUST	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.3 13.3 13.3	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.9 13.0 13.0 12.9 12.9 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	AH 11.6 12.0 12.1 11.6 12.0 11.6 11.4 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.7 11.6	MIN PRIL 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.3 11.4 11.3 11.3 11.4 11.3 11.2 11.3 11.3 11.1 11.3 11.3 11.3	MAX M 11.6 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUL 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.9 11.9 11.9 11.9 11.9 11.9	MIN NE 11.4 11.4 11.3 11.3 11.3 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.0 12.1 12.3 12.3 12.3 12.3 12.3 12.3 12.3	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.8 12.9 13.0 13.0 12.9 12.9 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	AH 11.6 12.0 12.1 11.6 12.0 11.6 11.6 11.4 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.1 11.6	MIN PRIL 9.5 9.5 10.7 11.3 11.3 11.2 11.3 11.3 11.3 11.3 11.3	MAX M 11.6 11.6 11.4 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUL 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.9	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.8 11.8	MAX AUG 12.1 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.3 12.3 12.3	MIN SUST 12.0 12.0 12.0 12.0 12.1 12.1 12.1 12.3 12.3 12.3 12.3 12.3	MAX SEP 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2 13.3 13.3	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.9 13.0 13.0 13.0 13.0 13.1 13.2 13.2 13.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	AH 11.6 12.0 12.1 11.6 12.0 11.6 11.4 11.4 11.4 11.4 11.4 11.6 11.4 11.6 11.4 11.6 11.4 11.6 11.6 11.4	MIN PRIL 9.5 9.5 10.7 11.3 11.2 11.3 11.2 10.9 10.9 11.3 11.3 11.3 11.4 11.3 11.3 11.3 11.3	MAX M 11.6 11.6 11.4 11.6	MIN AY 11.4 10.7 11.1 11.4 11.4 11.4 11.4 11.4 11.4 11	MAX JUL 11.6 11.6 11.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.9	MIN NE 11.4 11.3 11.3 11.3 11.4 11.4 11.4 11.	MAX JU 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.9 11.10 11.10 11.11 12.1	MIN JLY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX AUG 12.1 12.1 12.3 12.3 12.5 12.5 12.3 12.3 12.3 12.3 12.3 12.3 12.3 12.3	MIN SUST 12.0 12.0 12.0 12.0 12.0 12.1 12.1 12.	MAX SEP 12.8 12.8 12.8 12.8 13.0 13.0 13.0 13.0 13.0 13.2 13.2 13.2 13.2 13.2 13.2 13.3 13.3	TEMBER 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.9 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0

YEAR

13.6 9.5

PROJECT DATA Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413547083481400 LU-23 NR HOLLAND OH-Continued

#2 (16.9' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MAX MIN MAX MIN MAX MAX MIN DECEMBER OCTOBER NOVEMBER JANUARY FEBRUARY MARCH 14.9 14.6 15.2 15.1 14.1 14.1 12.9 12.7 11.6 11.4 10.7 1 10.5 15.1 12.9 12 7 2 14.9 14 6 15 1 14 1 14 1 11.6 11 3 10 7 10 5 3 15.0 14.6 15.1 15.1 14.1 14.1 12.7 12.7 11.6 11.3 10.7 10.5 15.1 4 15.0 14.7 15.1 14.1 14.1 12.9 12.4 11.6 11.3 10.7 10.5 5 15.0 14.7 15.1 15.1 14.1 13.9 12.5 12.4 11.5 11.3 10.7 10.5 6 15.0 14.7 15.2 14.9 14.1 13.9 12.5 12.5 11.5 11.3 15.0 14.9 15.2 14.9 13.9 13.9 12.5 12.4 11.4 10.7 11.3 10.5 15.2 11.5 15.0 14.9 14.9 13.9 13.9 12.4 11.6 11.3 10.7 9 15.2 14.9 15.1 15.1 13.9 13.6 12.2 11.8 11.4 11.3 10.5 9.6 15.1 10 12.4 12.2 10.5 9.8 15.2 14.9 15.1 13.9 13.6 11.6 11.3 14.9 12.4 12.2 11.3 11 15.2 14.9 15.1 13.6 13.6 11.3 10.5 10.2 12 15.2 14.9 15.1 15.1 13.6 13.6 12.4 12.2 11.3 11.3 10.5 10.4 13 15.2 14.9 15.1 14.9 13.6 13.6 12.4 12.2 11.3 11.1 10.5 10.4 15.1 14.9 14.9 13.6 13.4 12.4 12.2 11.3 15 15.1 14.9 15.1 14.9 13.6 13.4 12.2 12.2 11.3 11.1 10.5 10.4 16 15.1 14.9 15.1 14.9 13.6 13.4 12.4 12.2 11.3 11.1 10.5 10.3 15.1 15.1 10.5 14 9 14 9 13 4 12.2 12 2 10 1 17 13 4 11.1 10.3 15.1 14.9 18 15.2 14.9 14.8 13.4 13.4 12.2 12.0 10.3 9.7 10.5 10.3 10.5 19 15.2 14.9 14.9 13.4 13.4 12.2 12.0 10.7 10.1 10.3 20 15.2 14.9 14.9 14.9 13.4 13.4 12.2 12.0 10.9 10.5 10.5 10.1 21 15.1 14.9 14.9 14.6 13.4 13.4 12.2 12.0 10.9 10.7 10.1 9.4 22 15.1 14.9 14.9 14.6 13.4 13.4 12.0 11.8 10.9 10.7 10.1 9.6

22	15.1	14.9	14.9	14.6	13.4	13.4	12.0	11.8	10.9	10.7	10.1	9.6
23	15.1	14.9	14.6	14.6	13.4	13.1	12.0	11.8	10.9	10.7	10.3	10.0
24	15.2	14.9	14.6	14.4	13.4	13.1	12.0	11.8	10.9	10.7	10.3	10.0
25												
25	15.2	14.9	14.6	14.4	13.1	13.1	12.0	11.8	10.9	10.7	10.3	10.0
26	15.1	15.1	14.4	14.4	13.1	13.1	11.8	11.8	10.9	10.7	10.3	10.1
27	15.1	15.1		14.1		12.9	11.8	11.8	10.9	10.5	10.3	10.1
28	15.2	14.9		14.1	13.1	12.9	11.8	11.5	10.7	10.5		9.9
29	15.2	14.9	14.1	14.1	13.1	12.9	11.8	11.5			10.3	9.9
30	15.2	14.9	14.1	14.1	12.9	12.9	11.8	11.5			10.4	10.1
31	15.2	14.9			12.9	12.9	11.8	11.5			10.3	10.1
MONTH	15.2	14.6	15.2	14.1	14.1	12.9	12.9	11.5	11.6	9.7	10.7	9.4
		#2 (16 0	י סופ\ ייפא	ם מוזיי ג מיינו	אואיינים (הו	FC C) I	WATER YEAR (OCTORED 1	007 TO CET	TEMPED 10	000	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	A	PRIL	M	IAY	JU	NE	JU	LY	AUG	UST	SEPT	EMBER
1	10.1	6.8		10.1	11.4	11.1	12.1	11.8	13.5	13.2	15.2	14.9
2	8.9	7.0	10.5	9.9	11.4	11.1	12.1	11.8	13.5	13.2	15.2	14.9
3	10.3	8.9	10.5	10.1	11.4	11.2	12.1	11.8	13.5	13.2	15.2	14.9
4	10.3	10.1		10.5	11.4	11.2	12.1	11.8	13.7	13.2	15.2	14.9
5	10.3	10.1		10.5	11.4	11.3	12.1	11.8	14.2	13.4	15.2	14.9
5	10.3	10.1	10.6	10.5	11.4	11.3	12.1	11.0	14.2	13.4	15.2	14.9
6	10.3	10.1	10.8	10.5	11.4	11.3	12.3	12.0	15.7	14.2	15.2	15.2
7	10.3	10.1	10.8	10.5	11.6	11.4	12.3	12.1	14.5	14.2	15.7	15.2
8	10.3	10.1		10.5	11.6	11.3	12.3	12.0	14.2	13.7	15.5	15.2
9	10.3	9.5				11.4				13.7	15.5	
				10.5	11.4		12.3	12.0	13.9			15.2
10	9.9	9.5	10.8	10.5	11.6	11.4	12.3	12.1	13.9	13.7	15.5	15.2
11	10.3	9.9	10.8	10.5	11.6	11.4	12.5	12.2	13.9	13.7	15.5	15.2
12	10.3	10.1		10.5	11.6	11.4	12.5	12.2	14.0	13.7	15.5	15.4
13	10.5	10.1		10.5	11.6	11.4	12.6	12.3	14.0	13.7	15.7	15.4
14	10.3	10.1	11.0	10.7	11.6	11.4	12.6	12.3	14.0	13.9	15.7	15.4
15	10.3	10.1	11.0	10.7	11.6	11.4	12.6	12.3	14.2	13.9	15.7	15.4
16	10.3	9.9	11.0	10.7	11.6	11.4	12.8	12.3	14.2	13.9	15.7	15.4
17	10.3	10.1		10.7	11.6	11.4	12.8	12.5	14.4	14.2	15.8	15.4
18	10.5	10.1		10.7	11.7	11.4	12.8	12.5	14.7	14.2	15.8	15.4
19	10.5	10.3	11.0	10.7	11.6	11.4	12.8	12.5	14.5	14.1	15.8	15.4
20	10.5	10.3	11.0	10.7	11.7	11.4	12.8	12.5	14.5	14.1	15.8	15.4
							40 =					
21	10.5	10.3	11.0	10.7	11.6	11.4	13.5	12.5	14.5	14.2	15.8	15.4
22	10.5	10.3	11.2	10.8	11.7	11.4	13.9	13.2	14.5	14.2	15.7	15.4
23	10.6	10.3	11.2	10.9	11.8	11.4	15.2	13.2	14.7	14.2	15.7	15.4
24	10.8	10.3	11.1	10.9	11.8	11.6	13.7	13.2	14.7	14.4	15.7	15.7
25	10.8	10.3	11.2	10.9	11.9	11.6	13.2	13.0	17.7	14.4	16.0	15.7
26	10.5	10.1	11.2	11.0	11.9	11.6	13.2	12.9	16.0	14.9	16.0	15.7
27	10.5	10.1	11.2	11.0	11.9	11.6	13.2	12.9	15.2	14.7	16.0	15.7
28	10.5	10.3	11.4	11.1	11.9	11.6	13.2	13.0	15.0	14.6	16.0	15.7
29	10.7	10.3	11.4	11.2	12.1	11.6	13.3	13.0	14.9	14.7	16.0	15.7
30	10.5	10.5	11.4	11.1	12.1	11.8	13.2	13.0	15.0	14.7	16.0	15.7
31			11.4	11.1			13.2	13.0	15.0	14.7		
MONTH	10.8	6.8	11.4	9.9	12.1	11.1	15.2	11.8	17.7	13.2	16.0	14.9
YEAR	17.7	6.8										

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413547083481400 LU-23 NR HOLLAND OH—Continued

#3 (10.4' BLS) TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCT	'OBER	NOVE	MBER	DECEN	MBER	JAN	UARY	FEBRU	JARY	MA	RCH
1	14.7	14.4	13.4	13.4	11.1	11.1	9.2	9.0	7.4	7.2	6.3	6.1
2	14.7	14.4	13.4	13.4	11.1	10.9	9.1	8.9	7.4	7.2	6.3	6.1
3	14.7	14.4	13.4	13.4	11.1	10.9	9.1	8.9	7.4	7.2	6.3	6.1
4	14.7	14.4	13.4	13.4	11.1	10.9	9.1	8.9	7.4	7.2	6.3	6.1
5	14.7	14.4	13.4	13.1	10.9	10.7	8.9	8.7	7.4	7.2	6.3	6.1
6	14.7	14.4	13.2	13.1	10.9	10.7	8.9	8.5	7.4	7.0	6.3	6.1
7	14.7	14.4	13.2	12.9	10.9	10.7	8.7	8.5	7.4	7.0	6.3	6.1
8	14.7	14.4	13.2	12.9	10.7	10.7	8.5	7.4	7.3	7.0	6.3	6.0
9	14.7	14.4	12.9	12.9	10.7	10.5	8.3	7.9	7.2	7.0	6.2	5.3
10	14.7	14.4	12.9	12.7	10.5	10.5	8.5	8.3	7.2	7.0	5.8	5.4
11	14.4	14.4	10.0	10 7	10 5	10 5	0 5	8.3	7 0	7 0	6.0	5.8
11	14.4	14.4 14.2	12.9 12.7	12.7 12.4	10.5 10.5	10.5 10.5	8.5 8.5	8.3	7.2 7.0	7.0 6.8	6.0 6.1	5.8
12 13	14.4 14.4	14.2	12.7	12.4	10.5	10.3	8.3	8.3	7.0	6.8	6.1	5.9
14	14.4	14.2	12.4	12.4	10.5	10.3	8.3	8.2	7.0	6.8	6.1	5.9
15	14.4	14.1	12.4	12.4	10.3	10.0	8.3	8.1	7.0	6.7	6.0	5.8
16	14.4	14.1	12.4	12.2	10.3	10.1	8.3	8.1	6.8	6.7	6.0	5.8
17	14.4	14.1	12.4	12.2	10.1	9.9	8.3	8.1	6.8	5.6	6.0	5.6
18 19	14.4 14.4	14.1 14.1	12.2 12.2	12.2 12.0	10.1 9.9	9.9 9.9	8.1 8.1	8.1 7.9	5.8 6.1	5.3 5.8	6.0 5.8	5.6 5.6
20	14.4	14.1	12.2	12.0	9.9	9.7	8.1	7.9	6.3	6.1	6.0	5.3
21	14.4	14.1	12.0	11.8	9.9	9.6	8.1	7.9	6.3	6.1	5.3	4.6
22		14.1	11.8	11.8	9.6	9.6	7.9	7.7	6.3	6.1	5.3	4.8
23	14.1	14.1	11.8	11.8	9.7	9.6	7.9	7.9	6.5	6.1	5.5	5.3
24	14.1	14.1	11.8	11.5	9.6	9.6	7.9	7.7	6.5	6.3	5.6	5.3
25	14.1	14.1	11.7	11.4	9.7	9.4	7.9	7.7	6.5	6.1	5.7	5.3
26	14.1	14.1	11.6	11.3	9.6	9.4	7.9	7.5	6.5	6.1	5.7	5.3
27		14.1	11.6	11.3	9.5	9.2	7.7	7.5	6.3	6.1	5.7	5.3
28	14.1	13.9	11.4	11.3	9.4	9.2	7.7	7.5	6.3	6.1	5.7	5.3
29	13.9	13.6	11.4	11.3	9.4	9.2	7.6	7.4			5.5	5.3
30	13.9	13.6	11.3	11.1	9.3	9.0	7.6	7.3			5.7	5.3
31	13.7	13.4			9.2	9.0	7.4	7.3			5.7	5.5
MONTH	14.7	13.4	13.4	11.1	11.1	9.0	9.2	7.3	7.4	5.3	6.3	4.6
		#3 (10 4'	BLS) TEME	ERATURE.	WATER (DE	G C). W	ATER YEAR (CTOBER 1	1997 TO SEPT	rember 1	998	
		110 (10.1	220, 12112	DIGIT OND,	miii bic (DE	0. 0, ,	TIPIC IPINC C	,010221.	1997 10 021			
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY		MIN		MIN AY	MAX JUL		MAX JU		MAX AUGU		MAX SEPT	
	AP	RIL	M	AY	IUL	NE	JU	LY	AUGU	JST	SEPT	EMBER
1	AP 5.5	RIL 1.5	M. 6.3	AY 6.0	JU1 7.8	NE 7.6	JU 9.5	LY 9.3	AUGU	UST 11.6	SEPT	EMBER
1 2	AF 5.5 4.7	PRIL 1.5 2.4	M. 6.3 6.5	AY 6.0 6.2	JUN 7.8 8.0	7.6 7.8	JU 9.5 9.6	LY 9.3 9.3	AUGU 11.8 11.9	JST 11.6 11.6	SEPT 13.5 13.5	EMBER 13.2 13.4
1	AP 5.5	RIL 1.5	M. 6.3	AY 6.0	JU1 7.8	NE 7.6	JU 9.5	LY 9.3	AUGU	UST 11.6	SEPT	EMBER
1 2 3	AF 5.5 4.7 5.8	PRIL 1.5 2.4 4.7	M. 6.3 6.5 6.5	6.0 6.2 6.3	JUN 7.8 8.0 8.0	7.6 7.8 7.8	Ј <mark></mark> Ј 9.5 9.6 9.7	9.3 9.3 9.3 9.5	AUGU 11.8 11.9 11.9	11.6 11.6 11.6	SEPT 13.5 13.5 13.7	EMBER 13.2 13.4 13.4
1 2 3 4 5	5.5 4.7 5.8 5.8 6.0	1.5 2.4 4.7 5.6 5.7	M. 6.3 6.5 6.5 6.5 6.7	6.0 6.2 6.3 6.3 6.5	7.8 8.0 8.0 8.2 8.1	7.6 7.8 7.8 7.9 7.9	JU 9.5 9.6 9.7 9.7 9.8	9.3 9.3 9.5 9.5	AUGU 11.8 11.9 11.9 12.1 12.7	11.6 11.6 11.6 11.6 11.8	SEPT 13.5 13.5 13.7 13.7	EMBER 13.2 13.4 13.4 13.4
1 2 3 4 5	5.5 4.7 5.8 5.8 6.0	1.5 2.4 4.7 5.6 5.7	M. 6.3 6.5 6.5 6.5 6.7	6.0 6.2 6.3 6.3 6.5	JUN 7.8 8.0 8.0 8.2 8.1	7.6 7.8 7.8 7.9 7.9	JU 9.5 9.6 9.7 9.7 9.8	9.3 9.3 9.5 9.5 9.5	AUGU 11.8 11.9 11.9 12.1 12.7	11.6 11.6 11.6 11.6 11.8	SEPT 13.5 13.5 13.7 13.7 13.7	13.2 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5	5.5 4.7 5.8 5.8 6.0	1.5 2.4 4.7 5.6 5.7 5.7	M. 6.3 6.5 6.5 6.5 6.7 6.7	6.0 6.2 6.3 6.3 6.5 6.5	JUN 7.8 8.0 8.0 8.2 8.1 8.2	7.6 7.8 7.8 7.9 7.9 8.0 8.1	JU 9.5 9.6 9.7 9.7 9.8 9.9	9.3 9.3 9.5 9.5 9.5 9.7	AUGU 11.8 11.9 11.9 12.1 12.7 13.9	11.6 11.6 11.6 11.6 11.8 12.7 12.7	SEPT 13.5 13.5 13.7 13.7 13.7 13.7	13.2 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5	5.5 4.7 5.8 5.8 6.0 6.0	1.5 2.4 4.7 5.6 5.7	M. 6.3 6.5 6.5 6.5 6.7	6.0 6.2 6.3 6.3 6.5	JUN 7.8 8.0 8.0 8.2 8.1	7.6 7.8 7.8 7.9 7.9	JU 9.5 9.6 9.7 9.7 9.8	9.3 9.3 9.5 9.5 9.5	AUGU 11.8 11.9 11.9 12.1 12.7	11.6 11.6 11.6 11.6 11.8	SEPT 13.5 13.5 13.7 13.7 13.7	13.2 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8	5.5 4.7 5.8 5.8 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7	M. 6.3 6.5 6.5 6.5 6.7 6.7 6.7	6.0 6.2 6.3 6.3 6.5 6.5	JUN 7.8 8.0 8.0 8.2 8.1 8.2 8.4	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.1	9.5 9.6 9.7 9.7 9.8 9.9 9.9	9.3 9.3 9.5 9.5 9.5 9.7 9.7	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.7	SEPT 13.5 13.5 13.7 13.7 13.7 13.7 13.7	13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9	5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3	M. 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7	JUN 7.8 8.0 8.0 8.2 8.1 8.2 8.4 8.4 8.3	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.1 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	13.2 13.4 13.4 13.4 13.4 13.4 13.2 13.4 13.4
1 2 3 4 5 6 7 8 9 10	5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3	M. 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.9	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7	JUN 7.8 8.0 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.1 8.3 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7 9.7	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3 12.3	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9	5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3	M. 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.9	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7	JUN 7.8 8.0 8.0 8.2 8.1 8.2 8.4 8.4 8.3	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.1 8.3 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7 9.7	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3 12.3	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10	5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 5.7 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.6	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.9 6.9	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7	JUN 7.8 8.0 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.1 8.3 8.3 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9	9.3 9.3 9.5 9.5 9.5 9.7 9.7 9.7 9.7 9.7	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3 12.3 12.3	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10 11 12 13	AF 5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 5.7 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.3	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.9 6.9 6.9	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7	7.8 8.0 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.5	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.1 8.3 8.3 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7 9.7 9.9	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3 12.3 12.3 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14	AF 5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 5.7 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.3 5.3	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7	7.8 8.0 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.5 8.6 8.6	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.1 8.3 8.3 8.3 8.3 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7 9.7 9.9 10.1 10.1	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	PRIL 1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.6 5.8 5.8 5.8 5.8 5.8	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.5 8.6 8.6 8.6	7.6 7.8 7.9 7.9 8.0 8.1 8.1 8.3 8.3 8.3 8.3 8.3 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7 9.7 9.9 10.1 10.1	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.8 5.3 5.3 5.8 5.8 5.8 5.8 5.8	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9 6.9	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.5 8.6 8.6 8.6 8.6	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.3 8.3 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.4	9.3 9.3 9.5 9.5 9.5 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.5 12.3 12.3 12.3 12.3 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	PRIL 1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.6 5.8 5.8 5.8 5.8 5.8	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.5 8.6 8.6 8.6	7.6 7.8 7.9 7.9 8.0 8.1 8.1 8.3 8.3 8.3 8.3 8.3 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7 9.7 9.9 10.1 10.1	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.8 5.8 5.8 5.8 5.8	M. 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9 6.9	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.6 8.6 8.6 8.6 8.7 8.8	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.3 8.3 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.4 10.4	9.3 9.3 9.5 9.5 9.5 9.7 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	AF 5.5 4.7 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.8 5.8 5.8 5.8 6.1 6.2 6.1	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9 6.9 7.1	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.6 8.6 8.6 8.6 8.7 8.8 8.8	7.6 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.3 8.3 8.3	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.4 10.6 10.6 10.8	9.3 9.3 9.5 9.5 9.5 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1 10.3 10.3 10.3	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.2 13.4 13.4 13.2 13.2 13.2 13.2 13.2 13.2 13.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	AF 5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.6 5.8 5.8 5.8 6.1 6.2 6.1	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9 7.1 7.1	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.8 8.8	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.5 8.5 8.5	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.4 10.6 10.6 10.8 10.8	9.3 9.3 9.5 9.5 9.5 9.7 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1 10.3 10.3 10.3 10.5	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.2 13.4 13.4 13.2 13.4 13.4 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	AF 5.5 4.7 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.6 5.8 5.8 5.8 5.8 5.8 6.1 6.2 6.1 6.2 6.2	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9 6.9 7.1 7.1	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.6 8.6 8.6 8.6 8.7 8.8 8.8 8.8 9.0	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.5 8.5 8.5	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.4 10.6 10.6 10.8 10.8 11.7 12.3	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1 10.3 10.3 10.3 10.5 11.4	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	AF 5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.2 6.2 6.2 6.2 6.4 6.4 6.4 6.4 6.4 6.4 6.4	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.8 5.8 5.8 6.1 6.2 6.1 6.2 6.1 6.2	M. 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9 7.1 7.1 7.1 7.2 7.4 7.5	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.6 8.6 8.6 8.7 8.8 8.8 8.8 9.0 9.0 9.1 9.2 9.2	7.6 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.5 8.5 8.7 8.7 8.7 8.9 8.9	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.4 10.6 10.6 10.8 10.8 11.7 12.3 13.4 12.3 11.6	9.3 9.3 9.5 9.5 9.5 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1 10.3 10.3 10.3 10.5 11.4 11.4 11.4 11.4	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	AF 5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.8 5.8 5.8 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9 7.1 7.1 7.1 7.1 7.2 7.4 7.5 7.5	6.0 6.2 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.6 8.6 8.6 8.9 9.0 9.1 9.2 9.2 9.3 9.3	7.6 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.5 8.5 8.5 8.7 8.7 8.7 8.9 8.9	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.4 10.6 10.6 10.8 10.8 11.7 12.3 13.4 12.3 11.6 11.4	9.3 9.5 9.5 9.5 9.7 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1 10.3 10.3 10.3 10.5 11.4 11.4 11.4 11.4 11.4	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.9 13.0 13.0 13.0 13.0 13.0	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	AF 5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.3 5.8 5.8 5.8 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2	M. 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9 7.1 7.1 7.1 7.1 7.2 7.4 7.5 7.5	6.0 6.2 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.6 8.6 8.6 8.9 9.0 9.1 9.2 9.2 9.3 9.3	7.6 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.5 8.5 8.5 8.7 8.7 8.7 8.9 8.9	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.4 10.6 10.6 10.8 10.8 11.7 12.3 13.4 12.3 11.6 11.4	9.3 9.5 9.5 9.5 9.7 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1 10.3 10.3 10.3 10.5 11.4 11.4 11.4 11.4 11.4	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.2 13.4 13.4 13.4 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	AF 5.7 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.8 5.3 5.8 5.8 5.8 5.8 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2	M. 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 6.9 7.1 7.1 7.1 7.2 7.4 7.5 7.6 7.7	6.0 6.2 6.3 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.6 8.6 8.6 8.7 8.8 8.8 8.8 9.0 9.1 9.2 9.2 9.3 9.3 9.4	7.6 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.5 8.5 8.7 8.7 8.7 8.9 8.9 9.1 9.1	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.6 10.6 10.8 11.7 12.3 11.6 11.4 11.4 11.4 11.6 11.6	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1 10.3 10.3 10.3 10.5 11.4 11.4 11.4 11.2 11.2 11.4 11.1	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	5.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.8 5.3 5.8 5.8 5.8 5.8 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2	6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 7.1 7.1 7.1 7.2 7.4 7.5 7.6 7.8	6.0 6.2 6.3 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.4 8.6 8.6 8.6 8.6 8.7 8.8 8.8 9.0 9.1 9.2 9.2 9.3 9.3 9.4 9.4 9.3	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.5 8.5 8.5 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.1	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.6 10.6 10.8 11.7 12.3 13.4 12.3 11.6 11.4 11.6 11.6 11.6 11.6	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1 10.3 10.3 10.3 10.5 11.4 11.4 11.4 11.4 11.4 11.4 11.4	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.5 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	5.5 4.7 5.8 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	1.5 2.4 4.7 5.6 5.7 5.7 5.7 5.8 5.3 5.8 5.8 5.8 5.8 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.1 6.2	6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.9 6.9 6.9 6.9 6.9 7.1 7.1 7.1 7.2 7.4 7.5 7.5 7.6	6.0 6.2 6.3 6.5 6.5 6.5 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	JUN 7.8 8.0 8.2 8.1 8.2 8.4 8.4 8.3 8.6 8.6 8.6 8.6 8.6 8.7 8.8 8.8 8.8 9.0 9.1 9.1 9.2 9.2 9.3 9.3 9.4 9.4	7.6 7.8 7.8 7.9 7.9 8.0 8.1 8.3 8.3 8.3 8.3 8.3 8.5 8.5 8.5 8.7 8.7 8.7 8.9 8.9 8.9 9.1 9.1 9.1	9.5 9.6 9.7 9.7 9.8 9.9 9.9 10.0 9.9 10.1 10.2 10.4 10.4 10.4 10.6 10.6 10.8 11.7 12.3 11.6 11.4 11.4 11.4 11.6 11.6 11.6	9.3 9.3 9.5 9.5 9.7 9.7 9.7 9.7 9.9 10.1 10.1 10.1 10.3 10.3 10.3 10.5 11.4 11.4 11.4 11.2 11.2 11.4 11.4 11.4	AUGU 11.8 11.9 11.9 12.1 12.7 13.9 13.5 12.8 12.6 12.6 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	11.6 11.6 11.6 11.6 11.8 12.7 12.5 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	SEPT 13.5 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	EMBER 13.2 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413547083481400 LU-23 NR HOLLAND OH WELL-Continued

		#4 (6.9'	BLS) TEMP	ERATURE,	WATER (DEG.	C), V	NATER YEAR	OCTOBER	1997 TO SEP	TEMBER 19	98	
DAY	MAX	MIN										
	OC'	TOBER	NOVE	MBER	DECEME	BER	JA	ANUARY	FEBF	RUARY	MA	RCH
1	16.8	16.5	14.9	14.6	12.2	12.2	10.0	9.9	8.3	8.3	7.4	7.2
2	16.8	16.5	14.6	14.6		12.0	9.9	9.7	8.3	8.3	7.4	7.2
3 4	16.8 16.8	16.5 16.5	14.6 14.6	14.4 14.4	12.2 12.0	12.0 11.8	9.9 9.9	9.7 9.7	8.3 8.3	8.3 8.3	7.4 7.4	7.2
5	16.6	16.3	14.4	14.4		11.8	9.7	9.7	8.3	8.1	7.4	7.2
6	16.6	16.3	14.4	14.1		11.8	9.7	9.5	8.3	8.1	7.4	7.2
7	16.6	16.3	14.1	14.1		11.5	9.7	9.5	8.3	8.1	7.4	7.2
8	16.6	16.2	14.4	14.1	11.8	11.5	9.5	8.5	8.3	8.1	7.4	7.0
9	16.5	16.2	14.1	14.1		11.5	9.1	8.7	8.3	7.9	7.0	6.1
10	16.5	16.2	14.1	13.9	11.5	11.3	9.3	9.0	8.1	7.9	6.8	6.5
11	16.5	16.2	14.1	13.9		11.3	9.3	9.1	8.1	7.9	7.2	6.8
12 13	16.3 16.3	16.0 16.2	13.9 13.8	13.6 13.6		11.3 11.3	9.3 9.3	9.0 9.1	8.1 8.1	7.9 7.9	7.2 7.2	7.0 7.0
14	16.3	16.0	13.6	13.6	11.3	11.1	9.2	9.0	8.1	7.9	7.0	7.0
15	16.2	16.0	13.6	13.6	11.3	11.1	9.2	9.0	8.1	7.8	7.0	6.8
16	16.2	16.0	13.6	13.4	11.1	11.1	9.1	9.0	7.9	7.7	7.0	6.8
17	16.2	15.9	13.4	13.4		10.9	9.1		7.9	6.7	7.0	6.8
18	16.3	15.9	13.4	13.3		10.9	9.1	9.0	6.7	6.3	7.0	6.7
19 20	16.2 16.0	15.9 15.7	13.4 13.4	13.1 13.1	10.9 10.9	10.7 10.7	9.1 9.1	8.9 8.9	7.0 7.2	6.7 7.0	6.8 6.8	6.7 6.6
21 22	15.9 15.9	15.7 15.4	13.2 13.1	13.1 12.9		10.7 10.5	9.0 8.9	8.8 8.9	7.4 7.4	7.2 7.2	6.6 6.5	6.0 6.1
23	15.7	15.6	12.9	12.9	10.7	10.5	8.9	8.7	7.4	7.2	6.7	6.5
24	15.7	15.4	12.9	12.7	10.5	10.5	8.9	8.7	7.4	7.2	6.7	6.6
25	15.7	15.4	12.9	12.5	10.5	10.5	8.9	8.6	7.6	7.2	6.7	6.6
26	15.4	15.4	12.7	12.4		10.3	8.7	8.5	7.4	7.2	6.9	6.7
27	15.4	15.4 15.1	12.7 12.5	12.4 12.4	10.5 10.4	10.3	8.7 8.5	8.5 8.3	7.4	7.0 7.2	6.9	6.7
28 29	15.4 15.2	14.9	12.5	12.4	10.4	10.1	8.5	8.3	7.4	7.2	6.7 6.9	6.5 6.5
30	15.2	14.9	12.2	12.2	10.1	10.0	8.5	8.3			6.9	6.7
31	14.9	14.9			10.1	9.9	8.3	8.3			7.1	6.7
MONTH	16.8	14.9	14.9	12.2	12.2	9.9	10.0	8.3	8.3	6.3	7.4	6.0
		#4 (6.9'	BLS) TEMP	ERATURE,	WATER (DEG.	C), W	VATER YEAR	OCTOBER	1997 TO SEP	TEMBER 19	98	
DAY	MAX	MIN										
		PRIL		AY	JUNE			JULY		BUST		EMBER
1												
1 2	6.9 6.1	3.1 3.9	8.2 8.3	7.9 7.9	10.6 10.6	10.3	12.6 12.8	12.3 12.5	15.2 15.5	15.2 15.1	16.8 16.8	16.5 16.5
3	7.2	6.1	8.4	8.1	10.7	10.5	12.8	12.5	15.5	15.2	16.9	16.8
4	7.4	7.0	8.3	8.1		10.5	12.8	12.5	15.5	15.2	17.1	16.8
5	7.4	7.2	8.4	8.1	10.7	10.5	13.0	12.7	15.7	15.2	16.9	16.5
6	7.4	7.2	8.6	8.3		10.7	13.0	12.7	17.1	15.7	16.9	16.5
7 8	7.4 7.6	7.2 7.4	8.5 8.3	8.3 8.3		10.7	13.2 13.2	13.0 13.0	16.8 16.3	16.3 15.7	17.4 17.1	16.5 16.8
9	7.4	6.7	8.6	8.3	11.1	10.9	13.3	13.0	16.0	15.7	16.8	16.5
10	7.2	6.8	8.5	8.3	11.2	10.9	13.5	13.0	16.0	15.7	16.9	16.5
11	7.6	7.2	8.5	8.3	11.4	11.1	13.5	13.2	16.0	15.7	16.9	16.5
12	7.6	7.4	8.7	8.5	11.4	11.2	13.5	13.2	16.0	15.7	16.9	16.5
13 14	7.6 7.4	7.4 7.4	8.9 8.8	8.5 8.7	11.4 11.4	11.1 11.1	13.7 13.7	13.4 13.4	16.0 16.0	15.7 15.7	16.9 16.9	16.5 16.5
15	7.4	7.4	8.8	8.7	11.4	11.1	13.7	13.4	16.3	16.0	16.8	16.5
16	7.6	7.4	9.0	8.7	11.6	11.2	13.7	13.4	16.3	16.0	16.8	16.5
17	7.8	7.4	9.0	8.7	11.6	11.4	13.7	13.4	16.5	16.0	16.8	16.5
18	7.8	7.6	9.1	8.9	11.6	11.4	13.7	13.4	16.9	16.0	16.8	16.5
19	7.8	7.7	9.2	8.9	11.6	11.4	13.9	13.4	16.6	16.2	16.6	16.3
20	7.8	7.6	9.3	8.9	11.7	11.4	14.0	13.7	16.6	16.2	16.6	16.5
21	8.0	7.7	9.3	9.1	11.6	11.4	14.7	13.7	16.6	16.3	16.6	16.3
22 23	8.0 8.0	7.8 7.9	9.3 9.5	9.1 9.3	11.8 11.9	11.4 11.6	15.2 16.3	14.4 14.7	16.6 16.6	16.3 16.3	16.5 16.6	16.3 16.2
24	8.2	7.9	9.9	9.5	11.9	11.6	15.5	14.9	16.8	16.3	16.5	16.2
25	8.2	7.9	9.9	9.7	12.1	11.6	15.0	14.7	18.3	16.5	16.6	16.2
26	7.9	7.9	10.0	9.7	12.1	11.8	15.0	14.7	17.7	17.1	16.6	16.3
27	7.9	7.8	10.0	9.7		11.8	15.0	14.7	17.1	16.8	16.6	16.3
28 29	8.2 8.2	7.9 8.0	10.1 10.2	9.9 9.9	12.3 12.3	12.1 12.1	15.0 15.2	14.7 14.9	16.8 16.9	16.5 16.5	16.6 16.5	16.2 16.2
30	8.2	7.9	10.2	10.1	12.5	12.1	15.2	14.9	16.9	16.5	16.5	16.2
31			10.4	10.1			15.2	14.9	16.9	16.5		
MONTH	8.2	3.1	10.4	7.9	12.5	10.3	16.3	12.3	18.3	15.1	17.4	16.2
YEAR	18.3	3.1										

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

GROUND-WATER RECORDS

413547083481500. Local number, LU-24.

 $\label{location.--Lat 41°35'47" Long 83°48'15", Hydrologic Unit 04100009, along State Route 2 near Holland, OH. Owner.--USGS/Toledo Express Airport.$

AQUIFER. -- Sand of Quaternary age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 18.7 ft. Cased with Sch 40 PVC to 8.7 ft; .010 in. screen from 8.7 to 18.7 ft.

INSTRUMENTATION - Data logger--60 minute record. Water-level data only was collected at this well.

DATUM.--Elevation of land-surface datum is 677.21 feet above sea level.

Measuring point: shelter floor 2.12 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in adjacent tables.

PERIOD OF RECORD. -- February 1991 to current year.

PERIOD OF DAILY RECORD. --

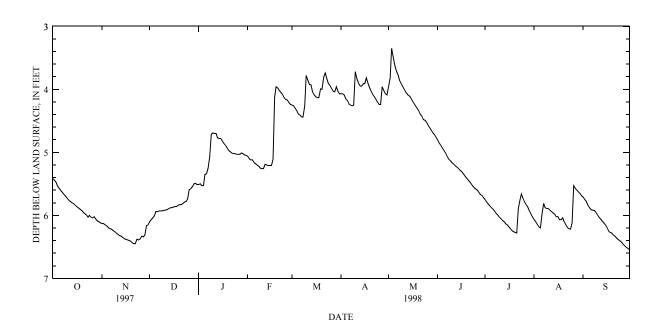
WATER LEVEL: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD. --

WATER LEVEL: Maximum daily low, 8.10 ft. below land-surface datum, October 24, 1991; maximum daily high, 3.21 ft. below land-surface data, May 2-3, 1998.

EXTREMES FOR CURRENT YEAR. --

WATER LEVEL: Maximum daily low, 6.54 ft. below land-surface datum, September 30, 1998; maximum daily high, 3.21 ft. below land-surface datum, May 2-3, 1998.



Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413547083481500 LU-24 NR HOLLAND OH-Continued

	D	EPTH BELO	OW LAND	SURFACE (V	VATER LEV	EL) (FEET)	, WATER	YEAR OCT	OBER 1997	TO SEPTE	MBER 199	3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER		I	DECEMBER			JANUARY	
1	5.42	5.38	5.41	6.13	6.12	6.13	6.10	6.07	6.09	5.51	5.48	5.49
2	5.45	5.42	5.44	6.13	6.10	6.11	6.07	6.04	6.06	5.50	5.49	5.50
3	5.48	5.45	5.46	6.15	6.12	6.14	6.04	6.01	6.02	5.53	5.50	5.51
4 5	5.54 5.58	5.48 5.54	5.51 5.56	6.17 6.20	6.15 6.17	6.16 6.19	6.01 5.94	5.94 5.94	5.97 5.94	5.53 5.35	5.35 5.34	5.42 5.35
6 7	5.61 5.64	5.58 5.61	5.59 5.63	6.21 6.22	6.20 6.21	6.21 6.22	5.94 5.93	5.93 5.93	5.93 5.93	5.34 5.25	5.25 5.07	5.29 5.22
8	5.67	5.64	5.66	6.24	6.22	6.23	5.93	5.93	5.93	5.25	4.71	4.81
9	5.70	5.67	5.68	6.26	6.24	6.25	5.93	5.92	5.92	4.71	4.69	4.69
10	5.73	5.70	5.71	6.28	6.26	6.27	5.92	5.91	5.91	4.69	4.69	4.69
11	5.76	5.73	5.74	6.30	6.28	6.29	5.92	5.91	5.91	4.70	4.69	4.69
12	5.78	5.76	5.77	6.32	6.30	6.31	5.91	5.89	5.90	4.70	4.69	4.70
13	5.80	5.78	5.79	6.33	6.32	6.33	5.89	5.88	5.88	4.77	4.70	4.74
14	5.81	5.80	5.80	6.35	6.33	6.34	5.88	5.88	5.88	4.78	4.74	4.77
15	5.84	5.81	5.83	6.37	6.35	6.36	5.88	5.87	5.87	4.78	4.74	4.76
16	5.86	5.84	5.85	6.38	6.37	6.38	5.87	5.86	5.87	4.82	4.78	4.80
17	5.88	5.86	5.87	6.39	6.38	6.39	5.86	5.86	5.86	4.86	4.82	4.83
18	5.90	5.88	5.89	6.40	6.39	6.40	5.86	5.84	5.85	4.89	4.86	4.88
19 20	5.92 5.95	5.90 5.92	5.91 5.94	6.41 6.43	6.40 6.41	6.41 6.42	5.84 5.83	5.83 5.83	5.84 5.83	4.93 4.97	4.89 4.93	4.91 4.95
21	5.97	5.95	5.96	6.45	6.43	6.44	5.83	5.81	5.82	4.99	4.97	4.98
22 23	5.99 6.03	5.96 5.96	5.97 5.97	6.45 6.38	6.38 6.38	6.42 6.38	5.81 5.79	5.79 5.78	5.80 5.78	5.01 5.02	4.99 4.99	5.01 5.01
24	6.00	5.98	5.99	6.39	6.37	6.38	5.78	5.74	5.76	5.02	5.01	5.01
25	6.03	6.00	6.02	6.37	6.32	6.34	5.74	5.59	5.63	5.03	5.02	5.03
26	6.04	5.99	6.03	6.33	6.30	6.31	5.59	5.58	5.59	5.03	5.03	5.03
27	6.02	5.98	6.00	6.34	6.31	6.33	5.58	5.54	5.56	5.03	5.01	5.02
28	6.06	6.02	6.04	6.31	6.16	6.21	5.54	5.50	5.52	5.01	5.00	5.01
29	6.09	6.06	6.07	6.16	6.15	6.16	5.50	5.48	5.49	5.02	4.98	5.00
30	6.10	6.09	6.09	6.15	6.10	6.12	5.49	5.48	5.48	5.04	5.02	5.03
31	6.12	6.10	6.11				5.51	5.49	5.50	5.05	5.04	5.05
MONTH	6.12	5.38	5.82	6.45	6.10	6.29	6.10	5.48	5.82	5.53	4.69	5.01
	_			CLIDES OF A	יום בחחתי	DT \ (DDDM)			ODED 1005	mo chomb	MDED 100	2
	D	ELLH BET	OW LAND	SURFACE (V	VAIER LEV	EL) (FEET)	, WATER	YEAR OCT	JBER 1997	TO SEPTE	MDEK 1990	•
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	, WATER MAX	MIN	MEAN	MAX	MIN	MEAN
DAY			MEAN									
DAY 1		MIN	MEAN		MIN			MIN			MIN	
	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN 3.91 3.45
1 2 3	MAX 5.06 5.10 5.12	MIN FEBRUARY 5.05 5.06 5.10	MEAN 5.05 5.08 5.11	MAX 4.25 4.26 4.30	MIN MARCH 4.24 4.25 4.26	MEAN 4.24 4.25 4.28	MAX 4.07 4.07 4.09	MIN APRIL 3.98 4.02 4.07	MEAN 4.01 4.04 4.08	MAX 3.95 3.82 3.35	MIN MAY 3.82 3.21 3.21	MEAN 3.91 3.45 3.27
1 2 3 4	MAX 5.06 5.10 5.12 5.12	MIN FEBRUARY 5.05 5.06 5.10 5.12	MEAN 5.05 5.08 5.11 5.12	MAX 4.25 4.26 4.30 4.34	MIN MARCH 4.24 4.25 4.26 4.30	MEAN 4.24 4.25 4.28 4.32	MAX 4.07 4.07 4.09 4.15	MIN APRIL 3.98 4.02 4.07 4.09	MEAN 4.01 4.04 4.08 4.12	MAX 3.95 3.82 3.35 3.49	MIN MAY 3.82 3.21 3.21 3.35	MEAN 3.91 3.45 3.27 3.43
1 2 3 4 5	5.06 5.10 5.12 5.12 5.16	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12	5.05 5.08 5.11 5.12 5.14	MAX 4.25 4.26 4.30 4.34 4.39	MIN MARCH 4.24 4.25 4.26 4.30 4.34	MEAN 4.24 4.25 4.28 4.32 4.37	MAX 4.07 4.07 4.09 4.15 4.18	MIN APRIL 3.98 4.02 4.07 4.09 4.15	MEAN 4.01 4.04 4.08 4.12 4.17	MAX 3.95 3.82 3.35 3.49 3.62	MIN MAY 3.82 3.21 3.21 3.35 3.49	MEAN 3.91 3.45 3.27 3.43 3.56
1 2 3 4 5	MAX 5.06 5.10 5.12 5.12 5.16 5.18	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16	MEAN 5.05 5.08 5.11 5.12 5.14 5.17	MAX 4.25 4.26 4.30 4.34 4.39 4.41	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39	MEAN 4.24 4.25 4.28 4.32 4.37 4.40	MAX 4.07 4.07 4.09 4.15 4.18 4.23	MIN APRIL 3.98 4.02 4.07 4.09 4.15	MEAN 4.01 4.04 4.08 4.12 4.17	3.95 3.82 3.35 3.49 3.62 3.71	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62	MEAN 3.91 3.45 3.27 3.43 3.56
1 2 3 4 5 6 7	5.06 5.10 5.12 5.12 5.16 5.18 5.20	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18	5.05 5.08 5.11 5.12 5.14 5.17 5.19	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23	MEAN 4.01 4.04 4.08 4.12 4.17 4.21 4.24	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71	3.91 3.45 3.27 3.43 3.56 3.66 3.74
1 2 3 4 5 6 7 8	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20	MEAN 5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24	MEAN 4.01 4.04 4.08 4.12 4.17 4.21 4.24 4.25	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82
1 2 3 4 5 6 7	5.06 5.10 5.12 5.12 5.16 5.18 5.20	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18	5.05 5.08 5.11 5.12 5.14 5.17 5.19	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23	MEAN 4.01 4.04 4.08 4.12 4.17 4.21 4.24	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71	3.91 3.45 3.27 3.43 3.56 3.66 3.74
1 2 3 4 5 6 7 8 9	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60	4.01 4.04 4.08 4.12 4.17 4.21 4.24 4.25 4.05 3.66	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93
1 2 3 4 5 6 7 8 9 10	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24 5.26	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60 3.72	4.01 4.04 4.08 4.12 4.17 4.21 4.24 4.25 4.05 3.66	3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93
1 2 3 4 5 6 7 8 9	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60	4.01 4.04 4.08 4.12 4.17 4.21 4.24 4.25 4.05 3.66	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93
1 2 3 4 5 6 7 8 9 10	MAX 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.25 5.25 5.26 5.19	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24 5.24 5.26	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60 3.72 3.83	MEAN 4.01 4.04 4.08 4.12 4.17 4.21 4.24 4.25 4.05 3.66 3.77 3.87	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 3.98 4.03 4.05 4.08
1 2 3 4 5 6 7 8 9 10 11 12 13	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26 5.26 5.19 5.20	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24 5.24 5.24 5.18	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60 3.72 3.83 3.90	MEAN 4.01 4.04 4.08 4.12 4.17 4.21 4.24 4.25 4.05 3.66 3.77 3.87 3.92	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 4.03 4.05
1 2 3 4 5 6 7 8 9 10 11 12 13 14	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26 5.26 5.19 5.20 5.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24 5.26 5.24 5.19 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.95	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60 3.72 3.83 3.90 3.83	MEAN 4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.87 3.92 3.90	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 3.98 4.03 4.05 4.08
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX 5.06 5.10 5.12 5.12 5.16 5.22 5.25 5.26 5.26 5.26 5.21 5.21 5.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24 5.26 5.24 5.18 5.19 5.21 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.82	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60 3.72 3.83 3.90 3.83 3.85 3.63 3.68	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75	3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.88 3.93 4.03 4.05 4.03 4.12 4.15 4.20
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.25 5.26 5.26 5.29 5.21 5.21 5.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24 5.26 5.24 5.18 5.19 5.21 5.21 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 4.13	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.91 3.82 3.90	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 3.60 3.72 3.83 3.90 3.83 3.90 3.83 3.85 3.63 3.68 3.82	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.90 3.89 3.71 3.75 3.87	3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.11 4.18 4.22 4.26	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 4.05 4.03 4.12 4.15 4.20 4.24
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26 5.26 5.29 5.20 5.21 5.21 5.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85 3.90	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.26 5.24 5.18 5.19 5.21 5.21 5.21 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 3.99	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.82 3.90 3.97	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60 3.72 3.83 3.90 3.83 3.90 3.83 3.85 3.63 3.68 3.82 3.90	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.87	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 4.05 4.08 4.12 4.15 4.20 4.24
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	5.06 5.10 5.12 5.12 5.16 5.20 5.25 5.26 5.26 5.29 5.20 5.21 5.21 5.21 5.21 5.21 5.21 5.21 5.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85 3.90 3.96	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.26 5.24 5.26 5.22 5.21 5.21 5.21 5.21 5.21 5.21 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 3.99 4.00	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.91 3.91 3.92 3.90	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60 3.72 3.83 3.90 3.83 3.85 3.63 3.63 3.63 3.63 3.69 3.97	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.93 4.00	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 4.03 4.05 4.08 4.12 4.15 4.20 4.24 4.28 4.32
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26 5.26 5.29 5.20 5.21 5.21 5.21 4.12 3.96 3.98	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85 3.90 3.96 3.98	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24 5.26 5.24 5.18 5.19 5.21 5.21 5.21 5.21 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 3.99 4.00 3.81	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.82 3.90 3.97 4.03 4.08	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60 3.72 3.83 3.90 3.83 3.85 3.63 3.63 3.72 4.03	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.87	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.34	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 4.05 4.08 4.12 4.15 4.20 4.24 4.28 4.32
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26 5.26 5.20 5.21 5.21 5.21 5.21 5.21 5.21 5.21 5.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85 3.90 3.96 3.98 4.02	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24 5.26 5.24 5.18 5.19 5.21 5.21 5.21 5.21 5.21 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 3.99 4.00 3.81 3.74	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61 3.66	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69 3.71	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.82 3.90 3.97 4.03 4.08 4.12	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60 3.72 3.83 3.90 3.83 3.85 3.63 3.68 3.82 3.90 3.97 4.03 4.08	MEAN 4.01 4.04 4.08 4.12 4.17 4.21 4.24 4.25 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.93 4.00 4.06 4.10	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39	3.91 3.43 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 4.05 4.08 4.12 4.15 4.20 4.24 4.28 4.32
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.25 5.26 5.26 5.21 5.21 5.21 5.21 5.21 5.21 5.21 5.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85 3.90 3.96 3.98 4.02 4.05	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24 5.26 5.24 5.18 5.19 5.21 5.21 5.21 5.21 4.81 3.91 3.97 4.00 4.04 4.06	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.00 4.12 4.13 4.13 3.99 4.00 3.81 3.74 3.83	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61 3.66 3.74	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69 3.71 3.78	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.82 3.90 3.97 4.03 4.08 4.12 4.16	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 3.63 3.60 3.72 3.83 3.90 3.85 3.63 3.85 3.63 3.90 3.97 4.03 4.08 4.12	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.93 4.00 4.06 4.10 4.14	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.48	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.39 4.43	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.88 3.93 4.03 4.05 4.03 4.12 4.15 4.20 4.24 4.28 4.32 4.36 4.41 4.46
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26 5.26 5.20 5.21 5.21 5.21 5.21 5.21 5.21 5.21 5.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85 3.90 3.96 3.98 4.02	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.24 5.26 5.24 5.18 5.19 5.21 5.21 5.21 5.21 5.21 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 3.99 4.00 3.81 3.74	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61 3.66	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69 3.71	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.82 3.90 3.97 4.03 4.08 4.12	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 4.24 3.63 3.60 3.72 3.83 3.90 3.83 3.85 3.63 3.68 3.82 3.90 3.97 4.03 4.08	MEAN 4.01 4.04 4.08 4.12 4.17 4.21 4.24 4.25 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.93 4.00 4.06 4.10	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43	MIN MAY 3.82 3.21 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 4.05 4.02 4.12 4.15 4.20 4.24 4.28 4.32 4.36 4.41
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26 5.26 5.21 5.21 5.21 5.21 5.21 4.12 3.96 3.98 4.02 4.05 4.08 4.13 4.16	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.19 5.11 4.12 3.85 3.90 3.96 3.98 4.02 4.05 4.08 4.13	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.26 5.24 5.26 5.24 5.18 5.19 5.21 5.21 5.21 4.81 3.91 3.94 3.97 4.00 4.00 4.10 4.15	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 4.13 3.99 4.00 3.81 3.74 3.83 3.91 3.94	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61 3.66 3.74 3.83 3.91	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69 3.71 3.78 3.87 3.92	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.91 3.91 3.91 3.91 4.03 4.04 4.16 4.20 4.24	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 3.60 3.72 3.83 3.90 3.85 3.63 3.85 3.68 3.82 3.90 3.97 4.03 4.08 4.12 4.16 4.20	MEAN 4.01 4.04 4.08 4.12 4.17 4.21 4.24 4.25 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.93 4.00 4.06 4.10 4.14 4.18 4.23	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.48 4.49 4.52	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.37 4.44	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.93 4.05 4.08 4.12 4.15 4.20 4.24 4.28 4.32 4.32 4.34 4.44 4.44
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26 5.26 5.21 5.21 5.21 5.21 5.21 5.21 5.21 5.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.19 5.11 4.12 3.85 3.90 3.96 3.98 4.02 4.05 4.08	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.26 5.24 5.26 5.21 5.21 5.21 5.21 5.21 4.81 3.91 3.94 3.97 4.00 4.00 4.00 4.10	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 3.99 4.00 3.81 3.74 3.83 3.91	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61 3.66 3.74 3.83	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69 3.71 3.78 3.87	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.91 3.91 3.92 4.03 4.08 4.12 4.16 4.20	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 3.60 3.72 3.83 3.90 3.83 3.90 3.85 3.63 3.68 3.82 3.90 3.97 4.03 4.08 4.12 4.16	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.93 4.00 4.06 4.10 4.11 4.18	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.48 4.49	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.37 4.44	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 3.98 4.03 4.05 4.02 4.15 4.20 4.24 4.28 4.32 4.36 4.41 4.46 4.44
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.25 5.26 5.26 5.21 5.21 5.21 5.21 5.21 5.21 5.21 5.4.12 3.96 3.98 4.02 4.05 4.08 4.13 4.16 4.17	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85 3.90 3.96 3.98 4.02 4.05 4.08 4.13 4.16	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.26 5.24 5.26 5.21 5.21 5.21 5.21 5.21 5.21 5.21 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 3.99 4.00 3.81 3.74 3.83 3.91 3.94 3.99	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61 3.66 3.74 3.83 3.91 3.94	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69 3.71 3.78 3.87 3.92 3.96	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.91 3.91 3.92 4.03 4.08 4.12 4.16 4.20 4.24 4.24	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 3.60 3.72 3.83 3.90 3.83 3.90 3.85 3.68 3.82 3.90 3.97 4.03 4.08 4.12 4.16 4.20 3.85	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.93 4.00 4.10 4.10 4.11 4.18 4.23	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.48 4.49 4.52 4.57	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.37 4.44	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.93 4.05 4.08 4.12 4.15 4.20 4.24 4.28 4.32 4.32 4.34 4.44 4.44
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26 5.26 5.21 5.21 5.21 5.21 5.21 4.12 3.96 3.98 4.02 4.05 4.08 4.13 4.16 4.17 4.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85 3.90 3.96 3.98 4.02 4.05 4.08 4.13 4.16 4.15 4.21	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.26 5.24 5.26 5.24 5.18 5.19 5.21 5.21 5.21 4.00 4.04 4.06 4.10 4.15 4.16 4.18	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 4.13 3.99 4.00 3.81 3.74 3.83 3.91 3.94 3.99 4.03	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61 3.66 3.74 3.83 3.91 3.94 3.99 3.93	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69 3.71 3.78 3.87 3.92 3.96 4.01 3.99 3.95	MAX 4.07 4.07 4.09 4.15 4.18 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.91 3.82 3.90 3.97 4.03 4.02 4.16 4.20 4.24 4.24 4.24 4.24 4.24 4.24 4.26	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 3.60 3.72 3.83 3.90 3.85 3.63 3.68 3.82 3.90 3.97 4.03 4.12 4.16 4.20 3.85 3.87 3.96 4.02	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.93 4.00 4.10 4.14 4.18 4.23 4.04 3.92 3.92 3.99 4.04	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.34 4.39 4.43 4.48 4.49 4.52 4.57 4.61 4.65 4.69	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.37 4.44 4.52 4.57 4.61 4.65	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.98 4.03 4.05 4.08 4.12 4.15 4.20 4.24 4.28 4.32 4.36 4.41 4.46 4.44 4.48 4.59 4.67
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.25 5.26 5.26 5.21 5.21 5.21 5.21 5.21 5.21 4.12 3.96 3.98 4.02 4.05 4.03 4.13 4.16 4.17 4.21 4.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85 3.90 3.96 4.02 4.05 4.08 4.13 4.16 4.15 4.21	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.26 5.24 5.26 5.21 5.21 5.21 5.21 5.21 4.00 4.00 4.06 4.10 4.15 4.16 4.18 4.22	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 4.13 3.99 4.00 3.81 3.74 3.83 3.91 3.94 3.99 4.03 4.04	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61 3.66 3.74 3.83 3.91 3.94 3.99 3.93 3.93 3.96	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69 3.71 3.78 3.87 3.92 3.96 4.01 3.99 3.95 4.00	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.91 3.91 3.91 3.92 4.03 4.08 4.12 4.16 4.20 4.24 4.24 3.96 4.02 4.07 4.09	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 3.60 3.72 3.83 3.90 3.83 3.90 3.85 3.68 3.82 3.90 3.97 4.03 4.04 4.16 4.20 3.85 3.87 3.96 4.02 3.95	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.87 3.75 3.87 3.92 3.75 3.87 4.00 4.14 4.18 4.23 4.04 3.92 3.90 4.06	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.48 4.49 4.52 4.57 4.61 4.65 4.69 4.72	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.37 4.44 4.52 4.57 4.61 4.65 4.69	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 4.05 4.08 4.12 4.15 4.20 4.24 4.28 4.32 4.36 4.41 4.46 4.44 4.48 4.54 4.59 4.67 4.71
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.26 5.26 5.21 5.21 5.21 5.21 5.21 4.12 3.96 3.98 4.05 4.05 4.05 4.07 4.08 4.13 4.16 4.17 4.21 4.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.19 5.11 4.12 3.85 3.90 3.96 4.05 4.08 4.13 4.16 4.15 4.21	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.26 5.24 5.26 5.24 5.18 5.21 5.21 5.21 5.21 5.21 5.21 5.21 5.21	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 4.13 3.99 4.00 3.81 3.74 3.83 3.91 3.94 3.99 4.03 4.04	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61 3.66 3.74 3.83 3.91 3.94 3.99 3.93 3.93 3.94 3.99 3.99 3.99	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69 3.71 3.78 3.87 3.92 3.96 4.01 3.99 3.95 4.00 4.05	MAX 4.07 4.07 4.09 4.15 4.18 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.91 3.91 3.91 3.92 4.03 4.08 4.12 4.16 4.20 4.24 4.24 3.96 4.07 4.09	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 3.60 3.72 3.83 3.90 3.85 3.68 3.82 3.90 3.97 4.03 4.04 4.16 4.20 3.85 3.85 3.85 3.87 3.90	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.89 3.71 3.75 3.87 3.90 4.06 4.10 4.14 4.18 4.23 4.04 3.92 3.99 4.04 4.08	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.48 4.49 4.52 4.57 4.61 4.65 4.69 4.72 4.76	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.37 4.44 4.52 4.57 4.61 4.65 4.69 4.72	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 3.98 4.03 4.05 4.08 4.12 4.15 4.20 4.24 4.28 4.32 4.36 4.41 4.46 4.44 4.48 4.54 4.59 4.63 4.67 4.71 4.73
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	5.06 5.10 5.12 5.12 5.16 5.18 5.20 5.25 5.26 5.26 5.21 5.21 5.21 5.21 5.21 5.21 4.12 3.96 3.98 4.02 4.05 4.03 4.13 4.16 4.17 4.21 4.21	MIN FEBRUARY 5.05 5.06 5.10 5.12 5.16 5.18 5.20 5.22 5.25 5.17 5.16 5.19 5.19 5.21 5.11 4.12 3.85 3.90 3.96 4.02 4.05 4.08 4.13 4.16 4.15 4.21	5.05 5.08 5.11 5.12 5.14 5.17 5.19 5.21 5.26 5.24 5.26 5.21 5.21 5.21 5.21 5.21 4.00 4.00 4.06 4.10 4.15 4.16 4.18 4.22	MAX 4.25 4.26 4.30 4.34 4.39 4.41 4.44 4.26 3.78 3.85 3.92 3.93 4.04 4.09 4.12 4.13 4.13 3.99 4.00 3.81 3.74 3.83 3.91 3.94 3.99 4.03 4.04	MIN MARCH 4.24 4.25 4.26 4.30 4.34 4.39 4.41 4.26 3.67 3.67 3.78 3.85 3.92 3.93 4.04 4.09 4.12 3.99 3.98 3.81 3.61 3.66 3.74 3.83 3.91 3.94 3.99 3.93 3.93 3.96	MEAN 4.24 4.25 4.28 4.32 4.37 4.40 4.43 4.37 3.84 3.73 3.82 3.89 3.93 4.00 4.06 4.11 4.12 4.07 3.98 3.97 3.69 3.71 3.78 3.87 3.92 3.96 4.01 3.99 3.95 4.00	MAX 4.07 4.07 4.09 4.15 4.18 4.23 4.25 4.26 4.25 3.72 3.83 3.90 3.95 3.91 3.91 3.91 3.91 3.91 3.92 4.03 4.08 4.12 4.16 4.20 4.24 4.24 3.96 4.02 4.07 4.09	MIN APRIL 3.98 4.02 4.07 4.09 4.15 4.18 4.23 3.60 3.72 3.83 3.90 3.83 3.90 3.85 3.68 3.82 3.90 3.97 4.03 4.04 4.16 4.20 3.85 3.87 3.96 4.02 3.95	4.01 4.04 4.08 4.12 4.17 4.21 4.25 4.05 3.66 3.77 3.87 3.92 3.90 3.87 3.75 3.87 3.92 3.75 3.87 4.00 4.14 4.18 4.23 4.04 3.92 3.90 4.06	MAX 3.95 3.82 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.05 4.08 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.48 4.49 4.52 4.57 4.61 4.65 4.69 4.72	MIN MAY 3.82 3.21 3.35 3.49 3.62 3.71 3.77 3.86 3.91 3.96 4.00 4.02 4.05 4.10 4.13 4.18 4.22 4.26 4.30 4.34 4.39 4.43 4.37 4.44 4.52 4.57 4.61 4.65 4.69	3.91 3.45 3.27 3.43 3.56 3.66 3.74 3.82 3.88 3.93 4.05 4.08 4.12 4.15 4.20 4.24 4.28 4.32 4.36 4.41 4.46 4.44 4.48 4.54 4.59 4.67 4.71

PROJECT DATA Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

413547083481500 LU-24 NR HOLLAND OH-Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST				SEPTEMBER	
1	4.80	4.76	4.78	5.75	5.72	5.74	6.07	6.03	6.05	5.71	5.69	5.70
2	4.85	4.80	4.81	5.79	5.75	5.77	6.10	6.07	6.09	5.75	5.71	5.73
3	4.89	4.85	4.87	5.82	5.79	5.80	6.14	6.10	6.12	5.78	5.75	5.77
4	4.93	4.89	4.91	5.85	5.82	5.83	6.18	6.14	6.16	5.84	5.78	5.81
5	4.97	4.93	4.95	5.88	5.85	5.87	6.20	5.98	6.16	5.88	5.84	5.86
6	5.01	4.97	4.99	5.90	5.88	5.89	5.98	5.65	5.75	5.91	5.88	5.89
7	5.06	5.01	5.04	5.93	5.90	5.92	5.81	5.76	5.78	5.92	5.78	5.84
8	5.11	5.06	5.08	5.97	5.93	5.95	5.88	5.81	5.85	5.92	5.80	5.87
9	5.13	5.11	5.12	5.99	5.97	5.98	5.89	5.88	5.89	5.95	5.92	5.93
10	5.16	5.13	5.14	6.03	5.99	6.01	5.89	5.89	5.89	5.99	5.95	5.98
11	5.18	5.16	5.17	6.05	6.03	6.04	5.92	5.89	5.90	6.03	5.99	6.01
12	5.21	5.18	5.19	6.08	6.05	6.06	5.94	5.92	5.93	6.06	6.03	6.04
13	5.23	5.20	5.21	6.10	6.08	6.09	5.96	5.94	5.95	6.09	6.06	6.07
14	5.25	5.23	5.24	6.13	6.10	6.11	5.98	5.96	5.97	6.12	6.09	6.11
15	5.28	5.25	5.26	6.15	6.13	6.14	6.02	5.98	6.01	6.15	6.12	6.14
16	5.30	5.25	5.28	6.18	6.15	6.17	6.02	6.02	6.02	6.19	6.15	6.17
17	5.33	5.26	5.30	6.21	6.18	6.19	6.07	6.02	6.04	6.25	6.19	6.22
18	5.37	5.33	5.35	6.24	6.21	6.23	6.07	5.87	5.93	6.27	6.25	6.26
19	5.40	5.37	5.38	6.26	6.24	6.25	6.04	5.93	5.99	6.28	6.27	6.28
20	5.43	5.40	5.41	6.27	6.26	6.26	6.10	6.04	6.08	6.31	6.28	6.29
21	5.46	5.43	5.45	6.28	5.89	6.05	6.15	6.10	6.13	6.33	6.31	6.32
22	5.49	5.46	5.48	5.89	5.69	5.74	6.19	6.15	6.17	6.36	6.33	6.34
23	5.53	5.49	5.51	5.76	5.33	5.44	6.21	6.19	6.20	6.38	6.36	6.37
24	5.56	5.53	5.54	5.66	5.52	5.60	6.22	6.10	6.16	6.40	6.38	6.39
25	5.58	5.56	5.57	5.74	5.66	5.70	6.12	5.33	5.63	6.42	6.40	6.41
26	5.60	5.58	5.59	5.79	5.74	5.77	5.53	5.41	5.48	6.45	6.42	6.44
27	5.63	5.59	5.61	5.83	5.79	5.81	5.57	5.53	5.56	6.48	6.45	6.46
28	5.67	5.63	5.65	5.87	5.83	5.85	5.60	5.57	5.59	6.50	6.48	6.49
29	5.68	5.67	5.68	5.93	5.87	5.90	5.63	5.60	5.61	6.52	6.50	6.51
30	5.72	5.67	5.70	5.98	5.93	5.95	5.65	5.63	5.64	6.54	6.52	6.53
31				6.03	5.98	6.00	5.69	5.65	5.67			
MONTH	5.72	4.76	5.28	6.28	5.33	5.94	6.22	5.33	5.92	6.54	5.69	6.14
YEAR	6.54	3.21	5.26									

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

GROUND-WATER RECORDS

403923082325500. Local number, R-16.

LOCATION.--Lat 40°39'23" Long 82°32'55", Hydrologic Unit 05040002, along State Route 97 near Lexington, OH. Owner. -- USGS/Sam McBride.

AOUIFER. -- Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS. -- Observation well drilled by hollow stem auger, diameter 4.0 in., depth 18.9 ft. Cased with Sch 40 PVC to 8.9 ft; .010 in. screen from 8.9 to 18.9 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: water level, air temperature, soil temperature, water temperature, and specific conductance. Conductivity/water temperature probe set at 18.6 feet below land surface.

DATUM.--Elevation of land-surface datum is 1168.37 feet above sea level. Measuring point: shelter shelf 2.36 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceding tables. Incomplete data this year due to problems with recorder.

PERIOD OF RECORD. -- February 1991 to current year.

PERIOD OF DAILY RECORD . --

WATER LEVEL: February 1991 to current year. SPECIFIC CONDUCTANCE: February 1991 to current year. AIR TEMPERATURE: February 1991 to current year. WATER TEMPERATURE: February 1991 to current year. SOIL TEMPERATURE: February 1991 to current year. PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD .--

WATER LEVEL: Maximum daily low, 17.62 ft. below land-surface datum, November 30-December 3, 1991, November 26-28, 1994; maximum daily high, 10.56 ft. below land-surface datum, March 27, 1993. SPECIFIC CONDUCTANCE: Maximum, 774 microsiemens August 9, 1995; minimum, 157 microsiemens March 6, 1991. AIR TEMPERATURE: Maximum, 36.0° C August 1, 1991; minimum, -26.1° C January 19, 1992. WATER TEMPERATURE: Maximum, 12.6° C October 11-13, 1995; minimum, 7.7° C April 16-17, 1994, and March 22-April 8, 1996.

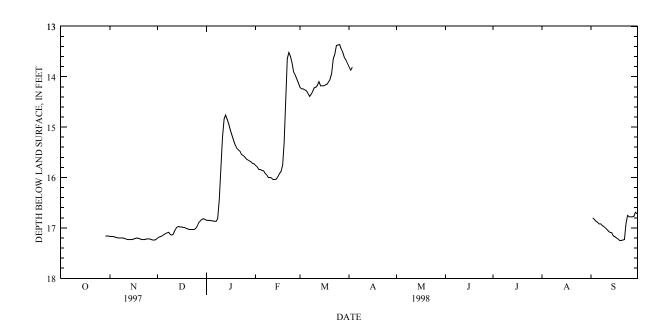
SOIL TEMPERATURE: Maximum, 29.3°C August 29, 1993, and June 19, 1994; minimum, -1.6°C February 6, 1996.

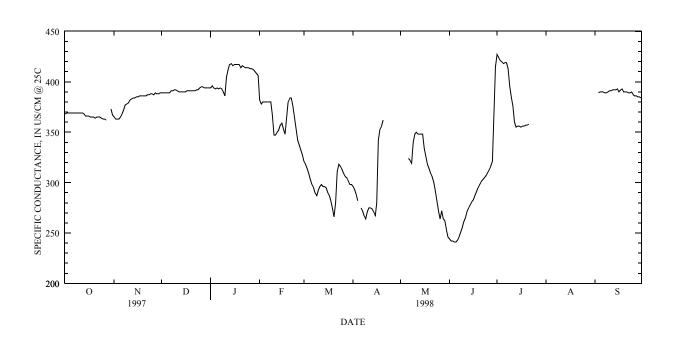
EXTREMES FOR CURRENT YEAR. --

WATER LEVEL: Maximum daily low, 17.25 ft below land-surface datum, September 19-20, 1998; maximum daily high, 13.31 ft below land-surface datum, March 26, 1998. SPECIFIC CONDUCTANCE: Maximum, 427 microsiemens July 1, 1998; minimum, 239 microsiemens June 1-2, 4, 1998. AIR TEMPERATURE: Maximum, 32.4°C September 6, 1998; minimum, -17.4°C December 31, 1997. WATER TEMPERATURE: Maximum, 12.1°C September 19-21, 25-30, 1998; minimum, 8.5°C April 16-18, 20, 1998. SOIL TEMPERATURE: Maximum, 23.8°C June 26, 28, 1998; minimum, 1.1°C January 1-2, 21-22, 1998.

PROJECT DATA Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

403923082325500 R-16 NR LEXINGTON OH-Continued





Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

403923082325500 R-16 NR LEXINGTON OH—Continued

	г	EPTH RELO	רוא ב.ז שר	SURFACE (W	06232550 ATER 1.EV		MATER			7 TO SEPTE	MRER 199	R
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
DAI	MAA	OCTOBER			NOVEMBER			DECEMBER		MAA	JANUARY	
1										16.05		
1 2				17.17 17.17	17.16 17.17	17.16 17.17	17.20 17.18	17.18 17.17	17.19 17.17	16.85 16.85	16.83 16.85	16.84 16.85
3				17.17	17.17	17.17	17.17	17.17	17.16	16.85	16.85	16.85
4				17.18	17.17	17.17	17.15	17.13	17.14	16.86	16.85	16.86
5				17.19	17.18	17.19	17.13	17.11	17.12	16.86	16.86	16.86
6 7				17.20	17.19	17.19	17.11	17.10	17.10	16.87	16.86	16.87
8				17.20 17.20	17.20 17.20	17.20 17.20	17.10 17.09	17.09 17.09	17.09 17.09	16.87 16.81	16.81 16.43	16.85 16.65
9				17.20	17.20	17.20	17.13	17.09	17.11	16.43	15.77	16.12
10				17.21	17.20	17.20	17.13	17.12	17.11	15.77	15.20	15.47
11				17.22	17.21	17.21	17.12	17.04	17.08	15.20	14.84	15.01
12				17.23	17.22	17.22	17.04	16.99	17.02	14.84	14.63	14.74
13				17.23	17.23	17.23	16.99	16.97	16.98	14.76	14.59	14.66
14				17.23	17.23	17.23	16.97	16.97	16.97	14.85	14.76	14.82
15				17.23	17.22	17.22	16.98	16.97	16.97	14.94	14.85	14.88
16				17.22	17.21	17.21	16.98	16.98	16.98	15.06	14.94	15.00
17				17.21	17.20	17.20	16.99	16.98	16.98	15.16	15.06	15.11
18				17.20	17.20	17.20	16.99	16.99	16.99	15.26	15.16	15.22
19				17.21	17.20	17.20	17.01	16.99	17.00	15.35	15.26	15.31
20				17.22	17.21	17.22	17.02	17.01	17.02	15.42	15.35	15.39
21				17.23	17.22	17.22	17.03	17.02	17.03	15.45	15.42	15.44
22				17.23	17.23	17.23	17.03	17.03	17.03	15.48	15.45	15.47
23				17.23	17.22	17.22	17.03	17.03	17.03	15.54	15.48	15.50
24				17.22	17.22	17.22	17.03	17.01	17.02	15.56	15.54	15.55
25				17.22	17.22	17.22	17.01	16.96	16.99	15.59	15.56	15.58
26				17.22	17.22	17.22	16.96	16.90	16.93	15.63	15.59	15.61
27				17.23	17.22	17.23	16.90	16.86	16.88	15.65	15.63	15.64
28				17.24	17.23	17.23	16.86	16.83	16.84	15.67	15.65	15.66
29	17.16	17.16	17.16	17.24	17.23	17.24	16.83	16.82	16.82	15.69	15.67	15.68
30	17.16	17.16	17.16	17.23	17.20	17.22	16.82	16.81	16.81	15.72	15.69	15.70
31	17.16	17.16	17.16				16.83	16.81	16.82	15.73	15.72	15.73
MONTH	17.16	17.16	17.16	17.24	17.16	17.21	17.20	16.81	17.02	16.87	14.59	15.74
MONTH			17.10			17.21						
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998												
	L	EPTH BELO	OW LAND	SURFACE (W	ATER LEV	EL) (FEET), WATER	YEAR OCT	OBER 1997	7 TO SEPTE	MBER 199	8
DAY	MAX	EPTH BELO	OW LAND MEAN	SURFACE (W	ATER LEV MIN	EL) (FEET) MEAN), WATER MAX	YEAR OCT MIN	OBER 1997 MEAN	7 TO SEPTE MAX	MBER 199 MIN	8 MEAN
DAY		MIN	MEAN		MIN			MIN			MIN	
DAY			MEAN									
1	MAX 15.76	MIN	MEAN	MAX 14.21	MIN MARCH 14.13	MEAN 14.18		MIN	MEAN 13.77		MIN MAY	MEAN
1 2	MAX 15.76 15.79	MIN FEBRUARY 15.73 15.76	MEAN 15.74 15.77	MAX 14.21 14.24	MIN MARCH 14.13 14.21	MEAN 14.18 14.23	MAX 13.81 13.87	MIN APRIL 13.74 13.81	MEAN 13.77 13.84	MAX 	MIN MAY 	MEAN
1 2 3	MAX 15.76 15.79 15.84	MIN FEBRUARY 15.73 15.76 15.79	MEAN 15.74 15.77 15.82	MAX 14.21 14.24 14.24	MIN MARCH 14.13 14.21 14.22	MEAN 14.18 14.23 14.23	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX 	MIN MAY 	MEAN
1 2 3 4	MAX 15.76 15.79 15.84 15.84	MIN FEBRUARY 15.73 15.76 15.79 15.83	MEAN 15.74 15.77 15.82 15.84	MAX 14.21 14.24 14.24 14.26	MIN MARCH 14.13 14.21 14.22 14.24	MEAN 14.18 14.23 14.23 14.25	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX 	MIN MAY 	MEAN
1 2 3	MAX 15.76 15.79 15.84	MIN FEBRUARY 15.73 15.76 15.79	MEAN 15.74 15.77 15.82	MAX 14.21 14.24 14.24	MIN MARCH 14.13 14.21 14.22	MEAN 14.18 14.23 14.23	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX 	MIN MAY 	MEAN
1 2 3 4	MAX 15.76 15.79 15.84 15.84	MIN FEBRUARY 15.73 15.76 15.79 15.83	MEAN 15.74 15.77 15.82 15.84	MAX 14.21 14.24 14.24 14.26	MIN MARCH 14.13 14.21 14.22 14.24	MEAN 14.18 14.23 14.23 14.25	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX 	MIN MAY 	MEAN
1 2 3 4 5	MAX 15.76 15.79 15.84 15.84	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.83	MEAN 15.74 15.77 15.82 15.84	MAX 14.21 14.24 14.24 14.26 14.28	MIN MARCH 14.13 14.21 14.22 14.24 14.25	MEAN 14.18 14.23 14.23 14.25 14.26	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY 	MEAN
1 2 3 4 5 6 7 8	15.76 15.79 15.84 15.86 15.87 15.92 15.95	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.83	MEAN 15.74 15.77 15.82 15.84 15.84	MAX 14.21 14.24 14.24 14.26 14.28 14.33 14.39 14.35	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27	MEAN 14.18 14.23 14.23 14.25 14.25 14.26	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.83 15.86 15.87 15.92 15.94	MEAN 15.74 15.77 15.82 15.84 15.84 15.87 15.90 15.93 15.97	MAX 14.21 14.24 14.24 14.26 14.28 14.33 14.39 14.35 14.29	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18	13.81 13.87 13.81 	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8	15.76 15.79 15.84 15.86 15.87 15.92 15.95	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.83 15.86 15.87 15.92	MEAN 15.74 15.77 15.82 15.84 15.84 15.87 15.90 15.93	MAX 14.21 14.24 14.24 14.26 14.28 14.33 14.39 14.35	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30	13.81 13.87 13.81 	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.83 15.86 15.87 15.92 15.94	MEAN 15.74 15.77 15.82 15.84 15.84 15.87 15.90 15.93 15.97	MAX 14.21 14.24 14.24 14.26 14.28 14.33 14.39 14.35 14.29	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18	13.81 13.87 13.81 	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.83 15.86 15.87 15.92 15.94 15.98	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 15.97 15.99	MAX 14.21 14.24 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.22	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06 14.08	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.00	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.83 15.86 15.87 15.92 15.94 15.98 16.00	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 15.97 16.01	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.22	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.32 14.06 14.08 14.16	MEAN 14.18 14.23 14.23 14.25 14.26 14.26 14.36 14.36 14.18 14.19	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10	MAX 15.76 15.79 15.84 15.84 15.86 15.92 15.95 16.00 16.00 16.01 16.04 16.04	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.92 15.94 15.98 16.00 16.01	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 15.97 16.01 16.03 16.03 16.01	MAX 14.21 14.24 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.21 14.17 14.10 14.18	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06 14.08 14.10 14.08 14.08	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.19 14.14 14.08 14.14	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13	MAX 15.76 15.79 15.84 15.86 15.87 15.92 16.00 16.00 16.01 16.04	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.94 15.98 16.00 16.01 16.03	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 15.97 16.01 16.03 16.03	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.21 14.17 14.10	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06 14.08 14.16 14.08	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.19	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX 15.76 15.79 15.84 15.86 15.87 15.92 16.00 16.00 16.00 16.01 16.04 16.03 15.98	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.94 15.98 16.00 16.01 16.03 15.98 15.92	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 15.97 16.01 16.03 16.03 16.01 15.96	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.21 14.17 14.10 14.18 14.18	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.06 14.06 14.08 14.10 14.08 14.10	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.19 14.14 14.08 14.17	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.01 16.04 16.03 15.98	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.94 16.00 16.01 16.03 15.98 15.92 15.88	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 16.03 16.03 16.03 16.03 16.01 15.96	MAX 14.21 14.24 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.22 14.21 14.17 14.10 14.18 14.18	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06 14.08 14.10 14.08 14.17 14.16	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.14 14.17 14.18	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX 15.76 15.79 15.84 15.86 15.87 15.92 16.00 16.00 16.00 16.01 16.04 16.03 15.98	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.94 15.98 16.00 16.01 16.03 15.98 15.92	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 15.97 16.01 16.03 16.03 16.01 15.96	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.21 14.17 14.10 14.18 14.18	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.06 14.06 14.08 14.10 14.08 14.10	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.19 14.14 14.08 14.17	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.00 16.01 16.04 16.04 16.03 15.98	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.94 15.98 16.00 16.01 16.03 15.98 15.92 15.98	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.99 16.01 16.03 16.03 16.03 16.01 15.96	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.22 14.17 14.10 14.18 14.18 14.18	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.32 14.06 14.08 14.16 14.10 14.08 14.17 14.16 14.17	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.11 14.18 14.17 14.18 14.17	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.00 16.01 16.04 16.04 16.03 15.98 15.98	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.98 16.00 16.01 16.03 15.98 15.98 15.98 15.98	MEAN 15.74 15.77 15.82 15.84 15.84 15.90 15.99 16.01 16.03 16.03 16.01 15.96 15.84 15.56	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.21 14.17 14.10 14.18 14.18 14.18 14.18	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06 14.08 14.16 14.08 14.16 14.08 14.10 14.08 14.10 14.08	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.14 14.08 14.14 14.17 14.18 14.15 14.08	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.04 16.03 15.98 15.98 15.75 15.33 14.45	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.98 16.00 16.01 16.03 15.98 15.98 15.98 15.98	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 16.01 16.03 16.03 16.01 15.96 15.88 15.56 14.95 13.97	MAX 14.21 14.24 14.24 14.26 14.33 14.39 14.35 14.29 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.16 14.15 14.05	MIN MARCH 14 .13 14 .21 14 .22 14 .24 14 .25 14 .26 14 .32 14 .27 14 .06 14 .08 14 .16 14 .08 14 .16 14 .08 14 .17 14 .05 13 .94	MEAN 14.18 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.14 14.08 14.17 14.18 14.17 14.18 14.19	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX 15.76 15.79 15.84 15.86 15.87 15.92 16.00 16.00 16.01 16.04 16.03 15.98 15.98 15.92 15.88 15.75 15.33 14.45	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.94 15.98 16.00 16.01 16.03 15.98 15.92 15.88 15.75 13.64 13.40	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 15.97 16.01 16.03 16.01 15.96 15.89 15.89 15.49 15.49	MAX 14.21 14.24 14.24 14.26 14.33 14.39 14.35 14.29 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18	MIN MARCH 14 .13 14 .21 14 .22 14 .24 14 .25 14 .26 14 .32 14 .06 14 .08 14 .16 14 .10 14 .08 14 .17 14 .15 14 .07 14 .05 13 .94 13 .65	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.14 14.08 14.14 14.17 14.18 14.15 14.08 14.06 13.99 13.80	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.04 16.03 15.98 15.98 15.75 15.33 14.45	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.98 16.00 16.01 16.03 15.98 15.98 15.98 15.98	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 16.01 16.03 16.03 16.01 15.96 15.88 15.56 14.95 13.97	MAX 14.21 14.24 14.24 14.26 14.33 14.39 14.35 14.29 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.16 14.15 14.05	MIN MARCH 14 .13 14 .21 14 .22 14 .24 14 .25 14 .26 14 .32 14 .27 14 .06 14 .08 14 .16 14 .08 14 .16 14 .08 14 .17 14 .05 13 .94	MEAN 14.18 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.14 14.08 14.17 14.18 14.17 14.18 14.19	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.04 16.03 15.98 15.92 15.85 15.33 14.45 13.64 13.52	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.94 15.98 16.00 16.01 16.03 15.98 15.92 15.88 15.75 15.33 14.45 13.64 13.40 13.39	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 15.97 15.99 16.03 16.03 16.01 15.96 15.89 15.84 15.56 14.95 13.49 13.43	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.22 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.16 14.15 14.10 14.65 13.94 13.65	MIN MARCH 14 .13 14 .21 14 .22 14 .24 14 .25 14 .26 14 .32 14 .06 14 .08 14 .10 14 .08 14 .10 14 .08 14 .17 14 .16 14 .15 14 .07 14 .05 13 .94 13 .65 13 .55	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.14 14.08 14.14 14.17 14.18 14.15 14.08 14.16 13.99 13.80 13.62	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.04 16.04 16.03 15.98 15.95 15.95 13.64 13.64 13.52 13.64	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.94 15.98 16.00 16.01 16.03 15.98 15.92 15.88 15.75 15.33 14.45 13.40 13.39 13.52	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.99 16.01 16.03 16.03 16.03 16.01 15.96 15.89 15.84 15.56 14.95 13.49 13.43 13.56	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.22 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.06 14.08 14.16 14.10 14.08 14.17 14.16 14.05 13.55 13.38	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.14 14.08 14.14 14.17 14.18 14.15 14.08 14.06 13.99 13.80 13.62 13.45	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.04 16.04 16.03 15.95 15.95 15.95 15.95 16.00 16.10 16.04 16.04 16.04 16.03 16.04 16.04 16.04 16.05 16.06 16.07 16.08 16.08 16.09 16.09 16.00 16.00 16.01 16.01 16.04 16.03 16.04 16.04 16.05 16.06 16.07 16.08 16.09 16.09 16.00 16.0	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.98 16.00 16.01 16.03 15.98 15.98 15.98 15.98 15.98 15.75 15.33 14.45 13.64 13.39 13.52 13.60 13.73	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 16.01 16.03 16.03 16.03 16.01 15.96 15.89 15.84 15.56 14.95 13.97 13.49 13.43 13.56 13.68 13.83	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.22 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.38 14.39 14.35 14.39 14.35 14.37	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06 14.08 14.16 14.10 14.08 14.16 14.08 14.15 14.07 14.16 13.94 13.65 13.38 13.34 13.34	MEAN 14.18 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.14 14.08 14.14 14.17 14.18 14.15 14.08 14.06 13.99 13.80 13.62 13.45 13.36 13.35	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.04 16.04 16.03 15.98 15.75 15.33 14.45 13.64 13.52 13.64 13.73 13.91	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.98 16.00 16.01 16.03 15.98 15.98 15.98 15.98 15.98 15.98 15.98 15.92 15.88 15.75 13.60 13.39 13.52 13.60 13.73	MEAN 15.74 15.77 15.82 15.84 15.84 15.90 15.93 16.01 16.03 16.03 16.01 15.96 15.84 15.56 14.95 13.97 13.49 13.43 13.56 13.68 13.83	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.22 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.15 14.10 14.05 13.94 13.65 13.55 13.38 13.37	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06 14.08 14.16 14.10 14.08 14.16 14.07 14.05 13.65 13.34 13.34 13.34	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.14 14.08 14.14 14.17 14.18 14.15 14.08 14.06 13.99 13.80 13.62 13.35 13.33	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.04 16.03 15.98 15.98 15.75 15.33 14.45 13.64 13.52 13.60 13.73 13.91 13.97 14.05	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.98 16.00 16.01 16.03 15.98 15.92 15.88 15.75 13.64 13.40 13.39 13.52 13.60 13.73 13.91 13.97	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 16.01 16.03 16.01 15.96 15.89 15.89 15.46 14.95 13.43 13.56 13.68 13.83 13.95 13.99	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.18 14.15 14.05 13.65 13.65 13.65 13.38 13.37	MIN MARCH 14 .13 14 .21 14 .22 14 .24 14 .25 14 .26 14 .32 14 .06 14 .08 14 .16 14 .08 14 .17 14 .16 14 .15 14 .07 14 .05 13 .94 13 .65 13 .38 13 .34 13 .34 13 .34	MEAN 14.18 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.14 14.08 14.17 14.18 14.15 14.08 14.06 13.99 13.80 13.62 13.45 13.36 13.35 13.33	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.04 16.04 16.03 15.98 15.75 15.33 14.45 13.64 13.52 13.64 13.73 13.91	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.98 16.00 16.01 16.03 15.98 15.98 15.98 15.98 15.98 15.98 15.98 15.92 15.88 15.75 13.60 13.39 13.52 13.60 13.73	MEAN 15.74 15.77 15.82 15.84 15.84 15.90 15.93 16.01 16.03 16.03 16.01 15.96 15.84 15.56 14.95 13.97 13.49 13.43 13.56 13.68 13.83	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.35 14.21 14.17 14.10 14.18	MIN MARCH 14 .13 14 .21 14 .22 14 .24 14 .25 14 .26 14 .32 14 .06 14 .08 14 .16 14 .10 14 .08 14 .17 14 .16 14 .15 14 .05 13 .94 13 .65 13 .38 13 .34 13 .34 13 .34	MEAN 14.18 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.14 14.08 14.14 14.17 14.18 14.15 14.08 14.14 13.15 14.08 13.36 13.36 13.35 13.36 13.35	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.04 16.03 15.98 15.92 15.83 14.45 13.64 13.52 13.60 13.73 14.05 14.13	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.94 15.98 16.00 16.01 16.03 15.98 15.92 15.88 15.75 15.33 14.45 13.64 13.40 13.39 13.52 13.60 13.73 13.91 13.97 14.05	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 16.93 15.97 16.01 16.03 16.01 15.96 15.89 15.84 15.56 14.95 13.43 13.56 13.68 13.83 13.95 14.09	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.18 14.15 14.05 13.65 13.65 13.65 13.38 13.37	MIN MARCH 14 .13 14 .21 14 .22 14 .24 14 .25 14 .26 14 .32 14 .06 14 .08 14 .16 14 .08 14 .17 14 .16 14 .15 14 .07 14 .05 13 .94 13 .65 13 .38 13 .34 13 .34 13 .34	MEAN 14.18 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.14 14.08 14.17 14.18 14.15 14.08 14.06 13.99 13.80 13.62 13.45 13.36 13.35 13.33	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.00 16.01 16.04 16.04 15.98 15.95 15.35 14.45 13.64 13.52 13.60 13.73 13.91 13.97 14.05	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.98 16.00 16.01 16.03 15.98 15.92 15.88 15.75 13.64 13.40 13.39 13.52 13.60 13.73 13.97 14.05	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 16.01 16.03 16.03 16.03 16.01 15.96 15.89 15.84 15.56 14.95 13.49 13.43 13.56 13.68 13.83 13.95 13.99	MAX 14.21 14.24 14.26 14.28 14.33 14.39 14.35 14.29 14.22 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.35 14.35 13.36 13.45 13.36 13.45 13.51 13.62	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06 14.08 14.16 14.10 14.08 14.17 14.16 14.05 13.65 13.94 13.65 13.38 13.34 13.31 13.33 13.34 13.31	MEAN 14.18 14.23 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.14 14.08 14.14 14.17 14.18 14.15 14.08 14.06 13.99 13.80 13.62 13.45 13.36 13.35 13.33 13.40 13.45 13.58	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	MAX 15.76 15.79 15.84 15.86 15.87 15.92 15.95 16.00 16.01 16.04 16.04 16.03 15.98 15.75 15.33 14.45 13.64 13.52 13.60 13.73 13.91 13.97 14.05	MIN FEBRUARY 15.73 15.76 15.79 15.83 15.86 15.87 15.92 15.98 16.00 16.01 16.03 15.98 15.98 15.98 15.98 13.15 13.64 13.40 13.39 13.52 13.60 13.73 13.97 14.05	MEAN 15.74 15.77 15.82 15.84 15.87 15.90 15.93 16.01 16.03 16.03 16.01 15.96 15.99 13.43 13.97 13.49 13.43 13.56 13.68 13.83 13.95 13.99 14.09	MAX 14.21 14.24 14.24 14.26 14.33 14.39 14.35 14.29 14.22 14.21 14.17 14.10 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.18 14.35 13.36 13.55 13.38 13.37 13.36 13.45 13.45 13.51 13.62 13.67	MIN MARCH 14.13 14.21 14.22 14.24 14.25 14.26 14.32 14.27 14.06 14.08 14.16 14.10 14.08 14.16 14.10 14.08 14.15 14.07 14.16 13.65 13.33 13.42 13.31 13.33 13.42 13.65	MEAN 14.18 14.23 14.25 14.26 14.29 14.36 14.30 14.18 14.19 14.19 14.14 14.08 14.14 14.17 14.18 14.15 14.08 14.06 13.99 13.80 13.62 13.35 13.35 13.35 13.35 13.36 13.35 13.35 13.45 13.58 13.65	MAX 13.81 13.87 13.81	MIN APRIL 13.74 13.81 13.46	MEAN 13.77 13.84 13.63	MAX	MIN MAY	MEAN

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DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MEAN MAX MIN MEAN MAX MIN MEAN MIN MEAN MAX JUNE JULY AUGUST SEPTEMBER ------1 ___ ------------------------16 80 16.77 16.79 ---------3 ------------------16.83 16.80 16.82 ---------------------------4 16.87 16.83 16.85 5 _ _ _ ------------------------16.89 16.87 16.88 16.92 16.89 6 16.91 ---------------16.92 16.92 16.92 ---16.95 16.92 16.93 9 ---16.97 16.95 16.96 ---------------------------17.00 10 16.97 16.98 17.00 ---11 17.03 17.02 12 ---------------------------17.07 17.03 17.05 ---------13 ------------------17.09 17.07 17.08 ------------------17.10 17.09 15 ---------------------------17.16 17.10 17.13 16 ---------------------------17.17 17.16 17.16 ---------------------------17 17 17 20 17.19 17 ------------18 ---------------17.22 17.20 17.21 ---------------------------17.22 19 17.25 17.24 ---------20 ------------------17.25 17.24 17.25 21 17.24 17.23 17.23 22 ---------------17.23 16.91 17.19 23 16.91 16.73 16.77 24 16.75 16.73 16.73 16.78 25 ---------------------------16.77 16.75 26 16.78 16.78 16.78 27 ---------------------------16.78 16.77 16.78 ---------28 ------------------16.77 16.64 16.67 29 ---------------------------16.69 30 ---------------------------16.72 16.69 ------------------------

YEAR 17.25 13.31 15.99

MONTH

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

17.25

16.64

16.96

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTO	OBER	NOVE	IBER	DECEM	IBER	JANU	JARY	FEBRU	JARY	MAR	RCH
1	368	366	365	363	389	386	394	391	382	375	321	314
2	369	366	363	361	389	386	396	391	378	374	318	313
3	369	366	363	360	389	386	394	392	380	376	314	309
4	369	366	363	361	389	386	393	393	380	378	309	303
5	369	366	365	362	389	387	394	393	380	378	303	296
6	369	366	368	364	389	389	393	393	380	377	298	293
7	369	366	372	367	391	386	394	393	380	378	295	290
8	369	366	377	372	391	386	393	390	380	368	290	287
9	369	366	378	375	392	389	390	385	368	345	287	285
10	369	366	379	377	392	387	386	382	347	344	292	287
11	369	365	382	378	391	386	405	376	347	345	296	292
12	369	365	383	380	390	388	412	405	350	345	298	295
13	368	364	384	381	390	387	417	412	352	348	296	295
14	366	364	384	381	390	387	418	413	357	352	296	293
15	366	363	385	382	390	387	416	413	359	351	295	290
16	366	363	385	382	390	387	417	412	353	347	290	285
17	365	363	386	382	391	387	417	414	348	347	287	282
18	365	362	386	383	391	387	417	414	365	348	282	274
19	365	362	386	383	391	388	417	412	380	365	274	266
20	364	362	386	383	391	388	414	411	384	380	266	259
21	365	362	386	384	391	389	416	411	384	375	280	259
22	365	362	387	384	391	389	415	410	376	364	311	280
23	365	361	387	384	392	389	414	410	365	353	318	309
24	364	361	388	385	392	390	414	409	353	342	316	311
25	363	360	388	385	394	390	414	411	342	337	313	309
26	363	360	387	385	395	390	413	410	337	332	309	306
27	362	360	389	385	395	392	413	409	332	327	306	303
28			388	386	394	391	412	407	327	321	305	301
29			388	386	394	390	410	406			301	296
30	373	367	389	386	394	391	408	404			298	295
31	367	365			394	391	406	382			298	295
MONTH	373	360	389	360	395	386	418	376	384	321	321	259

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	SPEC	IFIC CONI	DUCTANCE	(MICROSIE			C), WATER		OBER 1997	TO SEPTE	MBER 1998	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
2111		RIL		MAY		INE		JLY	AUG			TEMBER
1	296	292			244	239	427	415				
2	293	288			244	239	424	420				
3	288	282			242	240	421	416			389	387
4	282	279			241	239	420	417			390	386
5					241	240	418	414			390	388
6	275	272	324	319	243	241	419	415			390	387
7 8	272 267	267 264	322 319	319 318	246 251	243 245	419 413	411 396			389 389	389 387
9	264	262	340	319	255	250	396	384			390	387
10	271	264	348	340	261	255	385	376			391	388
11	275	271	350	347	265	260	376	359			391	389
12	275	272	348	347	271	265	360	351			392	389
13	274	269	348	345	275	270	355	349			392	389
14 15	271 267	266 266	348 348	345 334	278 281	274 278	356 356	352 352			392 393	389 389
											390	
16 17	280 342	266 280	334 326	324 316	283 287	280 282	355 356	351 352			390	390 390
18	353	342	318	311	291	285	356	352			393	390
19	356	353	314	308	295	290	357	353			390	388
20	362	356	309	305	298	292	357	353			390	387
21			306	300	301	296	358	354			390	387
22			300	292	303	298					389	388
23 24			292 282	282 272	305 307	302 304					389 390	387 385
25			272	264	310	306					387	384
26			264	258	313	308					386	384
27			272	251	316	311					386	383
28			264	259	321	314					385	383
29			262	251	372	321					385	382
30 31			253 246	244 242	415	372					384	382
				242		239	427				393	
MONTH	362	262	350	242	415	239	427	349			393	382
YEAR	427	239										
YEAR			PERATURE,	AIR, DEGR	REES CELSI	US, WATER	YEAR OCT	OBER 1997	TO SEPTE	MBER 1998	3	
DAY	MAX		PERATURE,	AIR, DEGR	REES CELSI	US, WATER	YEAR OCT	OBER 1997 MIN	TO SEPTE	MBER 1998 MIN	B MAX	MIN
	MAX	TEMP	MAX	•	MAX		MAX		MAX		MAX	MIN ARCH
	MAX	TEMP MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
DAY 1 2	MAX OCT 12.9 17.4	TEMP MIN OBER 1.0 -1.0	MAX NOV 15.4 8.7	MIN EMBER 5.9 4.0	MAX DECE 3.3 5.4	MIN EMBER .1 -5.4	MAX JAN 2.4 8.7	MIN NUARY -15.1 2.2	MAX FEBR 7.4 9.8	MIN TUARY -3.7 -1.9	MAX MA 7.6 4.3	ARCH 5 -1.7
DAY 1 2 3	MAX OCT 12.9 17.4 25.2	TEMP MIN OBER 1.0 -1.0 7.0	MAX NOV 15.4 8.7 5.1	MIN EMBER 5.9 4.0	MAX DECE 3.3 5.4 10.4	MIN SMBER .1 -5.4 7	MAX JAN 2.4 8.7 12.9	MIN NUARY -15.1 2.2 7.1	MAX FEBR 7.4 9.8 4.0	MIN CUARY -3.7 -1.9 -3.5	MAX 7.6 4.3 2.3	5 -1.7 -1.9
DAY 1 2	MAX OCT 12.9 17.4	TEMP MIN OBER 1.0 -1.0	MAX NOV 15.4 8.7	MIN EMBER 5.9 4.0	MAX DECE 3.3 5.4	MIN EMBER .1 -5.4	MAX JAN 2.4 8.7	MIN NUARY -15.1 2.2	MAX FEBR 7.4 9.8	MIN TUARY -3.7 -1.9	MAX MA 7.6 4.3	ARCH 5 -1.7
DAY 1 2 3 4 5	MAX OCT 12.9 17.4 25.2 27.2 27.2	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6	MAX NOV 15.4 8.7 5.1 3.7 6.4	MIN SEMBER 5.9 4.0 .44 -1.4	MAX DECE 3.3 5.4 10.4 7.27	MIN EMBER .1 -5.477 -6.4	MAX JAN 2.4 8.7 12.9 15.0 16.6	MIN NUARY -15.1 2.2 7.1 7.5 9.2	MAX FEBR 7.4 9.8 4.0 .4	MIN -3.7 -1.9 -3.5 -2.6 -2.3	MAX 7.6 4.3 2.3 2.4 2.4	5 -1.7 -1.9 -1.2 -1.9
DAY 1 2 3 4	MAX OCT 12.9 17.4 25.2 27.2	TEMP MIN OBER 1.0 -1.0 7.0 11.1	MAX NOV 15.4 8.7 5.1 3.7	MIN 5.9 4.0 .44	MAX DECE 3.3 5.4 10.4 7.2	MIN EMBER .1 -5.4 7 7	MAX JAN 2.4 8.7 12.9 15.0	MIN NUARY -15.1 2.2 7.1 7.5	MAX FEBR 7.4 9.8 4.0	MIN CUARY -3.7 -1.9 -3.5 -2.6	MAX 7.6 4.3 2.3 2.4	5 -1.7 -1.9 -1.2
DAY 1 2 3 4 5 6 7 8	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7	MIN EMBER 5.9 4.0 .44 -1.44 55	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0	MAX JAN 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7	MAX FEBR 7.4 9.8 4.0 .4 -1.1	MIN -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0	MAX MP 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6
DAY 1 2 3 4 5 6 7 8 9	MAX OCT 12.9 17.4 25.2 27.2 27.4 27.1 25.4 25.8	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4	MAX DECE 3.3 5.4 10.4 7.27 -2.7 -0 -1.0 1.0	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6	MAX JAN 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 .6	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1	MIN -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 25.4 25.8 20.6	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4	MIN EMBER 5.9 4.0 .44 -1.44 .5 5.3 3.4 2.8	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 1.0 2.0	MIN CMBER .1 -5.4 7 7 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0	MAX JAN 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 .6 -3.3	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6	MIN -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4	MAX MI 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3	5 -1 . 7 -1 . 9 -1 . 2 -1 . 9 -3 . 5 -3 . 8 4 . 6 -4 . 3 -7 . 8
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 25.4 25.8 20.6	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.6	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82	MAX DECE 3.3 5.4 10.4 7.27 -2.7 -0 -1.0 1.0 2.03	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0	MAX JAN 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 .6 -3.3 -7.7	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6	MIN -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3	5 -1 . 7 -1 . 9 -1 . 2 -1 . 9 -3 . 5 -3 . 8 4 . 6 -4 . 3 -7 . 8
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4 20.6 20.5 25.0	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.6	MIN EMBER 5.9 4.0 .44 -1.4 -5.3 3.4 2.82 -7.8	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 2.03 -1.1	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6 -3.3 -7.7 -2.0	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8	MIN -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 .1	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 25.4 25.8 20.6	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.6	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82	MAX DECE 3.3 5.4 10.4 7.27 -2.7 -0 -1.0 1.0 2.03	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0	MAX JAN 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 .6 -3.3 -7.7	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6	MIN -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3	5 -1 . 7 -1 . 9 -1 . 2 -1 . 9 -3 . 5 -3 . 8 4 . 6 -4 . 3 -7 . 8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4 25.8 20.6 20.5 25.0 25.8	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.6 2	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.5	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 2.03 -1.1 -1.1	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3	MAX JAN 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6 -3.3 -7.7 -2.0 -9.6	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1	MIN DUARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 .17	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4 25.8 20.6 20.5 25.0 25.8 15.3	TEMP MIN OBER 1.0 -1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.3	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.6 2 1.7	MIN EMBER 5.9 4.0 .4 -1.4 -1.4 -55 5.3 3.4 2.82 -7.8 -8.57	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 1.0 2.03 -1.17	MIN CMBER .1 -5.4 -7.7 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.7	MAX JAN 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 .4	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6 -3.3 -7.7 -2.0 -9.6 -13.5	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3	MIN -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 .1 -7 -3.6	MAX MI 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 25.4 25.8 20.6 20.5 25.8 15.3 12.2 10.3 14.3	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.34 -1.1 1.3	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 6.4 3.6 2 1.7 1.3 1.7	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 1.0 2.03 -1.1 -1.17 5.5	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.3 -4.7 -7.5 -2.8 -7.1	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 8.3 4.1.9 -1.73	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6-3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1	MIN UARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 .1 -7 -3.6 -5.0 .6 5.0	MAX 7.6 4.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4 20.6 20.5 25.0 25.8 15.3 12.2 10.3 14.3 15.8	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.3 -4 -1.1 1.3 1.9	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.6 2 1.7 1.3 .4	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 7.1	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 .4 1.9 -1.73 -1.8	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6-3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5	MIN DUARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 .17 -3.6 -5.0 .6 5.0 3.6	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8 -5.9 -1.1 6.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 25.4 25.8 20.6 20.5 25.8 15.3 12.2 10.3 14.3	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.34 -1.1 1.3	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 6.4 3.6 2 1.7 1.3 1.7	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 1.0 2.03 -1.1 -1.17 5.5	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.3 -4.7 -7.5 -2.8 -7.1	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 8.3 4.1.9 -1.73	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6-3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1	MIN UARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 .1 -7 -3.6 -5.0 .6 5.0	MAX 7.6 4.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4 25.8 20.6 20.5 25.0 25.8 15.3 12.2 10.3 14.3 15.8 16.6 12.3	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.34 -1.1 1.3 1.9 -1.2 -1.6	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.6 2 1.7 1.3 .4 7 7.2.8 8.9 10.3	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3 -2.8 -4.1	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 7.1 11.0 2.5	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5 -2.2 -4.2	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 .4 1.9 -1.73 -1.8 -2.1 -1.3	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6-3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5 -12.3 -9.4	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5 4.1 3.5	MIN DUARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 -1.7 -3.6 -5.0 -6.5 -5.0 3.6 2.9 2.3	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1 12.8 6.2	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8 -5.9 -1.1 6.8 5.7
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4 25.8 20.6 20.5 25.8 15.3 12.2 10.3 14.3 15.8 16.6	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.34 -1.1 1.3 1.9 -1.2	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.6 2 1.7 1.3 .4 7	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3 -2.8	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 11.0	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5 -2.2	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 .4 1.9 -1.7 -3 -1.8 -2.1	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6 -3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5 -12.3	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5 4.1	MIN CUARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 -17 -3.6 -5.0 -6 5.0 3.6 2.9	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1 12.8	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8 -5.9 -1.1 6.8 5.7
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 25.4 25.8 20.6 20.5 25.0 25.8 15.3 12.2 10.3 14.3 15.8 16.6 12.3 12.5 5.3 7.8	TEMP MIN OBER 1.0 -1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.34 -1.1 1.3 1.9 -1.2 -1.6 -4.0 -3.4 -6.2	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 6.4 3.6 2 1.7 1.3 4 7 2.8 8.9 10.3	MIN EMBER 5.9 4.0 .44 -1.44 .5 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3 -2.8 -4.1 1.0 1.7 -3.2	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 7.1 11.0 2.5 .2 7.3 5.4	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5 -2.2 -4.2 -2.3 -1.42	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 .4 1.9 -1.73 -1.8 -2.1 -1.35 2.6 5.8	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 4.0 2.7 -6 -3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5 -12.3 -9.4 -9.4 -2.7 -1.5	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5 4.1 3.5 5.0 8.6 4.8	MIN UARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 .17 -3.6 -5.0 3.6 2.9 2.3 -1.5 -3.9 1.4	MAX 7.6 4.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1 12.8 6.2 .8 3.5 5.3	-5-1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8 -5.9 -1.1 6.8 5.7 -7.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4 25.8 20.6 20.5 25.0 25.8 15.3 12.2 10.3 14.3 15.8 16.6 12.3 12.5 5.3 7.8 10.4	TEMP MIN OBER 1.0 -1.0 -1.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.3 -4 -1.1 1.3 1.9 -1.2 -1.6 -4.0 -3.4 -6.2 -2.3	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.6 2 1.7 1.3 .4 7 .7 2.8 8.9 10.3 10.6 4.6 3.2 .7	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3 -2.8 -4.1 1.0 1.7 -3.2 -8.0	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 7.1 11.0 2.5 .2 7.3 5.4 8.2	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5 -2.2 -4.2 -2.3 -1.4 -2.22	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 .4 1.9 -1.73 -1.8 -2.1 -1.35 2.6 5.86	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6-3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5 -12.3 -9.4 -9.4 -2.7 -1.5 -1.7	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5 4.1 3.5 5.0 8.6 4.8 3.8	MIN UARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 .17 -3.6 -5.0 .6 5.0 3.6 2.9 2.3 -1.5 -3.9 1.4 .5	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1 12.8 6.2 .8 3.5 5.3 7.7	-5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8 -5.9 -1.1 6.8 5.7 .7
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCT 12.9 17.4 25.2 27.2 27.4 27.1 25.4 20.6 20.5 25.8 10.3 12.2 10.3 14.3 15.8 16.6 12.3 12.5 5.3 7.8 10.4 10.9	MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.3 -4 -1.1 1.3 1.9 -1.2 -1.6 -4.0 -3.4 -6.2 -2.3	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 6.4 3.6 2 1.7 1.3 .4 7 2.8 8.9 10.3 10.6 4.6 4.6 3.2 2	MIN EMBER 5.9 4.0 .44 -1.44 .5 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3 -2.8 -4.1 1.0 1.7 -3.2 -8.0 -7.9	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 7.1 11.0 2.5 .2 7.3 5.4 8.2 8.2	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5 -2.2 -4.2 -2.3 -1.422 1.0	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 4.1 1.9 -1.73 -1.8 -2.1 -1.35 2.6 5.867	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6-3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5 -12.3 -9.4 -2.7 -1.5 -1.7 -3.0	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5 4.1 3.5 5.0 8.6 4.8 3.8 9.9	MIN UARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 .17 -3.6 -5.0 .6 2.9 2.3 -1.5 -3.9 1.4 .55	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1 12.8 6.2 8 3.5 5.3 7.7 12.9	-5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8 -5.9 -1.1 6.8 5.7 -7 -7 -1.8 -2.4 -4.1 -4.7
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4 25.8 20.6 20.5 25.0 25.8 15.3 12.2 10.3 14.3 15.8 16.6 12.3 12.5 5.3 7.8 10.4 10.9 10.6	TEMP MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.34 -1.1 1.3 1.9 -1.2 -1.6 -4.0 -3.4 -6.2 -2.3 .9 2.7	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.62 1.7 1.3 .47 2.8 8.9 10.3 10.6 4.6 3.22 11.5	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3 -2.8 -4.1 1.0 1.7 -3.2 -8.0 -7.9 2.5	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 7.1 11.0 2.5 .2 7.3 5.4 8.2 8.2 1.0	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5 -2.2 -4.2 -2.3 -1.422 1.08	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 .4 1.9 -1.73 -1.8 -2.1 -1.35 2.6 5.867	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6-3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5 -12.3 -9.4 -9.4 -2.7 -1.5 -1.7 -3.0 -3.6	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5 4.1 3.5 5.0 8.6 4.8 3.8 9.9	MIN DUARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 -1.7 -3.6 -5.0 -6.0 3.6 2.9 2.3 -1.5 -3.9 1.4 -5.0 0	MAX 7.6 4.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1 12.8 6.2 .8 3.5 5.3 7.7 12.9 23.0	-5-1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -5.9 -1.1 6.8 5.7 -7 -1.8 -2.4 -4.1 -4.7 -5.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX OCT 12.9 17.4 25.2 27.2 27.4 27.1 25.4 20.6 20.5 25.8 10.3 12.2 10.3 14.3 15.8 16.6 12.3 12.5 5.3 7.8 10.4 10.9	MIN OBER 1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.3 -4 -1.1 1.3 1.9 -1.2 -1.6 -4.0 -3.4 -6.2 -2.3	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.62 1.7 1.3 .47 2.8 8.9 10.3 10.6 4.6 3.2 .2 1.5 10.5 9.0	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3 -2.8 -4.1 1.0 1.7 -3.2 -8.0 -7.9 2.5 -5.3	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 11.0 2.5 .2 7.3 5.4 8.2 8.2 1.0 1.2	MIN CMBER .1 -5.4 -7.7 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5 -2.2 -4.2 -2.3 -1.42 -2.2 -1.08 -5.9	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 .4 1.9 -1.7 -3 -1.8 -2.1 -1.3 -55 2.6 5.8 -6 -7 4.9 8.0	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 4.0 2.7 -6.3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5 -12.3 -9.4 -2.7 -1.5 -1.7 -3.0 -3.6 -3.0	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5 4.1 3.5 5.0 8.6 4.8 3.8 9.9 15.1 16.5	MIN CUARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 -1.7 -3.6 -5.0 3.6 2.9 2.3 -1.5 -3.9 1.4 5.5 -5.0 0.1.2	MAX 7.6 4.3 2.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1 12.8 6.2 .8 3.5 5.3 7.7 12.9 23.0 25.9	5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8 -5.9 -1.1 6.8 5.7 .7 -1.8 -2.4 -4.1 -4.7 -5.4 8.6 11.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4 25.8 20.6 20.5 25.8 15.3 12.2 10.3 14.3 15.8 16.6 12.3 12.5 5.3 7.8 10.9 10.6 10.9	TEMP MIN OBER 1.0 -1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.34 -1.1 1.3 1.9 -1.2 -1.6 -4.0 -3.4 -6.2 -2.3 .9 2.77	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.62 1.7 1.3 .47 2.8 8.9 10.3 10.6 4.6 3.22 11.5	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3 -2.8 -4.1 1.0 1.7 -3.2 -8.0 -7.9 2.5	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 7.1 11.0 2.5 .2 7.3 5.4 8.2 8.2 1.0	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5 -2.2 -4.2 -2.3 -1.422 1.08	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 .4 1.9 -1.73 -1.8 -2.1 -1.35 2.6 5.867	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 6-3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5 -12.3 -9.4 -9.4 -2.7 -1.5 -1.7 -3.0 -3.6	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5 4.1 3.5 5.0 8.6 4.8 3.8 9.9	MIN DUARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 -1.7 -3.6 -5.0 -6.0 3.6 2.9 2.3 -1.5 -3.9 1.4 -5.0 0	MAX 7.6 4.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1 12.8 6.2 .8 3.5 5.3 7.7 12.9 23.0	-5-1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -5.9 -1.1 6.8 5.7 -7 -1.8 -2.4 -4.1 -4.7 -5.4
DAY 1 2 3 4 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 27.1 25.4 25.8 20.6 20.5 25.0 25.8 15.3 12.2 10.3 14.3 15.8 16.6 12.3 12.5 5.3 7.8 10.4 10.9 10.6 10.2	TEMP MIN OBER 1.0 -1.0 -1.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 .9 11.8 1.34 -1.1 1.3 1.9 -1.2 -1.6 -4.0 -3.4 -6.2 -2.3 .9 2.7 -7 -7 -7 -7 -7 -7 -7 -7 -7 -7 -7 -7 -7	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.62 1.7 1.3 .47 2.8 8.9 10.3 10.6 4.6 3.22 11.5 10.5 9.0 13.2 11.9 12.1	MIN EMBER 5.9 4.0 .44 -1.45 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3 -2.8 -4.1 1.0 1.7 -3.2 -8.0 -7.9 2.5 -5.3 4.8 8.8 3.3	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 7.1 11.0 2.5 .2 7.3 5.4 8.2 8.2 1.0 1.25 7 -1.8	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5 -2.2 -4.2 -2.3 -1.422 1.08 -5.9 -9.2 -5.7	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 .4 1.9 -1.73 -1.8 -2.1 -1.35 2.6 5.867 4.9 8.0 9.6 5.0 .3	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 .6 -3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5 -12.3 -9.4 -2.7 -1.5 -1.7 -3.0 -3.6 -3.0 -5.6 -4.2 -1.7	MAX FEER 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5 4.1 3.5 5.0 8.6 4.8 3.8 9.9 15.1 16.5 13.1	MIN UARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 -1.7 -3.6 -5.0 65.0 3.6 2.9 2.3 -1.5 -3.9 1.4 5.5 -5.0 0 1.2 -4.4	MAX M7 7.6 4.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1 12.8 6.2 .8 3.5 5.3 7.7 12.9 23.0 25.9 21.3 25.6	-5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8 -5.9 -1.1 6.8 5.7 .7 -1.8 -2.4 -4.1 -4.1 -4.1 -4.7 -5.4 8.6 11.0 9.9 18.5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 12.9 17.4 25.2 27.2 27.2 27.4 25.4 25.8 20.6 20.5 25.0 25.8 15.3 12.2 10.3 14.3 15.8 16.6 12.3 12.5 5.3 7.8 10.4 10.9 10.6 10.2	TEMP MIN OBER 1.0 -1.0 -1.0 7.0 11.1 12.6 11.4 9.8 10.2 10.5 5.5 1.8 10.2 11.8 10.3 10.9 11.8 10.3 10.9 11.8 10.3 10.9 11.8 10.3 10.9 11.8 10.3 10.9 11.8 10.3 10.9 11.8 10.3 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	MAX NOV 15.4 8.7 5.1 3.7 6.4 11.1 7.7 7.6 7.9 6.4 3.6 2 1.7 1.3 4 7 2.8 8.9 10.3 10.6 4.6 3.2 2 11.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5	MIN EMBER 5.9 4.0 .44 -1.44 .5 5.3 3.4 2.82 -7.8 -8.57 -4.0 -6.2 -8.2 -10.3 -2.8 -4.1 1.0 1.7 -3.2 -8.0 -7.9 2.5 -5.3 4.8 8.8	MAX DECE 3.3 5.4 10.4 7.27 -2.7 .0 -1.0 1.0 2.03 -1.1 -1.17 5.5 9.4 7.1 7.1 11.0 2.5 .2 7.3 5.4 8.2 8.2 1.0 1.25 .7	MIN CMBER .1 -5.477 -6.4 -7.1 -2.7 -2.0 -1.6 -1.0 -1.6 -3.3 -4.3 -4.3 -4.7 -7.5 -2.8 -7.1 -8.5 -2.2 -4.2 -2.3 -1.422 1.08 -5.9 -9.2 -5.7	MAX 2.4 8.7 12.9 15.0 16.6 16.5 14.7 9.6 8.2 3.0 1.3 8.3 8.3 8.3 4.1.9 -1.73 -1.8 -2.1 -1.35 2.6 5.867 4.9 8.0 9.6 5.0	MIN NUARY -15.1 2.2 7.1 7.5 9.2 12.7 4.0 2.7 4.0 2.7 -6 -3.3 -7.7 -2.0 -9.6 -13.5 -1.9 -2.6 -2.3 -10.5 -12.3 -9.4 -2.7 -1.5 -1.7 -3.0 -3.6 -3.0 -5.6 -4.2	MAX FEBR 7.4 9.8 4.0 .4 -1.1 6.4 9.2 8.1 11.1 11.6 11.2 5.8 1.1 3.3 7.9 8.8 9.1 8.5 4.1 3.5 5.0 8.6 4.8 3.8 9.9 15.1 16.5	MIN UARY -3.7 -1.9 -3.5 -2.6 -2.3 -3.9 -5.5 -5.0 -7.9 -4.4 3.9 .17 -3.6 -5.0 3.6 2.9 2.3 -1.5 -3.9 1.4 .55	MAX 7.6 4.3 2.4 2.4 6.5 11.5 13.1 13.0 -4.3 -6.4 -2.9 1.8 3.1 1.1 5.4 6.8 12.1 12.8 6.2 .8 3.5 5.3 7.7 12.9 23.0 25.9 21.3 25.2	-5 -1.7 -1.9 -1.2 -1.9 -3.5 -3.8 4.6 -4.3 -7.8 -9.8 -10.5 -11.2 -3.8 -4.8 -5.9 -1.1 6.8 5.7 -7 -1.8 -2.4 -4.1 -4.7 -5.4 8.6 11.0 9.9

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Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

403923082325500 R-16 NR LEXINGTON OH-Continued

		TEMP	ERATURE,	AIR, DEGR	EES CELSIUS	, WATER	YEAR OCTO	DBER 1997	TO SEPTEM	MBER 1998	3	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	Al	PRIL		MAY	JUNE	3	JU	LY	AUG	UST	SEPT	EMBER
1	15.9	7.5			21.3	10.9	25.9	14.5				
2	11.3	2.3			27.8	11.0	26.9	13.6				
3 4	12.1 6.8	-2.1 -2.7			18.7 18.8	8.1 6.8	28.6 25.3	13.4 17.2			24.6 25.2	6.6 11.2
5					12.1	7.8	24.6	13.5			27.3	8.6
6	13.9	-3.9	23.6	7.2	15.5	4.2	26.2	12.7			32.4	13.0
7	16.8	-2.3	20.0	11.4	16.8	4.5	27.0	14.8			24.1	11.2
8	21.2	8.8	18.2	14.6	20.4	1.4	28.2	21.3			17.1	7.5
9 10	12.9 10.7	7.5 -1.5	21.6 20.5	12.0 9.7	14.6 25.1	10.4	26.9 24.1	15.5 11.8			18.0 21.8	5.3 3.6
					21.1	12.6						
11 12	13.9 18.5	-4.1 -1.9	16.7 20.9	12.0 9.7	28.5	16.4	23.5 26.1	8.1 8.4			26.9 29.7	6.6 8.5
13	20.1	5.0	24.7	10.7	22.4	14.4	28.5	10.5			31.5	8.9
14	17.9	10.4	28.7	10.5	22.3	15.6	27.4	14.7			30.4	11.4
15	16.3	5.5	29.5	11.8	22.3	15.9	28.4	19.2			27.8	17.7
16	20.6	12.4	28.0	12.3	21.6	17.2	28.4	19.4			21.7	16.4
17 18	13.7 14.6	3.8 -2.0	26.0 28.6	8.7 7.7	26.4 29.5	17.0 14.8	26.5 27.1	14.4 13.6			24.1 27.4	12.0 9.1
19	9.3	5.4	29.6	8.3	27.3	19.2	28.1	15.2			27.5	15.2
20	15.6	4.9	29.3	17.4	29.4	14.0	29.6	19.3			28.9	16.7
21			22.0	8.7	27.4	15.0	31.5	18.8			25.6	17.2
22			19.8	6.0	30.4	19.6					20.4	8.7
23 24			21.3 21.6	9.8 9.8	26.7 30.7	18.8 17.2					16.5 20.5	4.6 1.6
25			18.4	13.5	32.1	20.6					27.4	13.3
26			23.0	8.4	31.3	19.6					30.9	19.2
27			25.4	7.3	30.8	18.7					28.3	18.3
28			27.2	8.3	30.5	19.4					22.2	7.7
29 30			30.9 27.9	14.2 13.8	25.3 24.8	19.8 17.0					25.6 24.5	4.2 9.7
31			26.8	16.1								
MONTH	21.2	-4.1	30.9	6.0	32.1	1.4	31.5	8.1			32.4	1.6
VEND	32 /	-17 /										
YEAR	32.4	-17.4	IDMDDD 3 MIN	DE MARIED	(DEG G) N	7000 VO	AD OGMODER	1007 FO	CEDMENDER	1000		
		Т			(DEG. C), W						Way	WT.Y
YEAR DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	MAX	Т	MAX			MIN	MAX			MIN		MIN RCH
DAY 1	MAX OC:	MIN FOBER 11.1	MAX NOV 11.6	MIN EMBER 11.6	MAX DECEME 11.8	MIN BER 11.6	MAX JAN 11.4	MIN UARY 11.1	MAX FEBR	MIN UARY 10.2	MA 9.4	RCH 9.1
DAY 1 2	MAX OC' 11.3 11.4	MIN TOBER 11.1 11.1	MAX NOV 11.6 11.8	MIN EMBER 11.6 11.6	MAX DECEME 11.8 11.8	MIN BER 11.6 11.5	MAX JAN 11.4 11.4	MIN UARY 11.1 10.9	MAX FEBR 10.5 10.5	MIN UARY 10.2 10.3	MA 9.4 9.4	RCH 9.1 9.0
DAY 1	MAX OC:	MIN FOBER 11.1	MAX NOV 11.6	MIN EMBER 11.6	MAX DECEME 11.8	MIN BER 11.6	MAX JAN 11.4	MIN UARY 11.1	MAX FEBR	MIN UARY 10.2	MA 9.4	RCH 9.1
DAY 1 2 3	MAX OC' 11.3 11.4 11.4	MIN FOBER 11.1 11.1 11.1	MAX NOV 11.6 11.8 11.8	MIN EMBER 11.6 11.6 11.6	MAX DECEME 11.8 11.8 11.8	MIN BER 11.6 11.5 11.6	MAX JAN 11.4 11.4 11.4	MIN UARY 11.1 10.9 11.1	MAX FEBR 10.5 10.5 10.5	MIN UARY 10.2 10.3 10.3	MA 9.4 9.3	9.1 9.0 9.0
DAY 1 2 3 4	MAX OCT 11.3 11.4 11.4 11.4	MIN FOBER 11.1 11.1 11.1 11.1	MAX NOV 11.6 11.8 11.8	MIN EMBER 11.6 11.6 11.6	MAX DECEME 11.8 11.8 11.8	MIN BER 11.6 11.5 11.6	MAX JAN 11.4 11.4 11.4	MIN UARY 11.1 10.9 11.1 11.1	MAX FEBR 10.5 10.5 10.5	MIN UARY 10.2 10.3 10.3	MA 9.4 9.3 9.3	9.1 9.0 9.0 9.0
DAY 1 2 3 4 5 6 7	MAX OCT 11.3 11.4 11.4 11.4 11.4 11.4	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1	MAX NOV 11.6 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6	MAX DECEMN 11.8 11.8 11.8 11.8 11.8 11.8	MIN BER 11.6 11.5 11.6 11.6 11.5 11.5 11.5	MAX JAN 11.4 11.4 11.4 11.2 11.2	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1	MAX FEBR 10.5 10.5 10.5 10.5 10.5	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.3	9.4 9.4 9.3 9.3 9.3 9.3	9.1 9.0 9.0 9.0 9.0 9.0
DAY 1 2 3 4 5 6 7 8	MAX OCT 11.3 11.4 11.4 11.4 11.4 11.4	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6	MAX DECEMN 11.8 11.8 11.8 11.8 11.8 11.8	MIN BER 11.6 11.5 11.6 11.5 11.5 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.2	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.5 10.3	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.3 10.1	9.4 9.4 9.3 9.3 9.3 9.3 9.3	9.1 9.0 9.0 9.0 9.0 9.0 9.0
DAY 1 2 3 4 5 6 7	MAX OCT 11.3 11.4 11.4 11.4 11.4 11.4	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6	MAX DECEME 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN BER 11.6 11.5 11.6 11.6 11.5 11.5 11.5	MAX JAN 11.4 11.4 11.4 11.2 11.2	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.5 10.3 10.3	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.3	9.4 9.4 9.3 9.3 9.3 9.3	9.1 9.0 9.0 9.0 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10	MAX OC: 11.3 11.4 11.4 11.4 11.4 11.4 11.4 11.4	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.	MAX DECEMB 11.8 11.8 11.8 11.8 11.8 11.6 11.8 11.8 11.8	MIN 3ER 11.6 11.5 11.6 11.5 11.5 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.2 11.1 11.1	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 11.	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.3 10.0 10.0	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3	9.1 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.1 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.4 11.4	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MAX DECEME 11.8 11.8 11.8 11.8 11.8 11.6 11.8 11.6 11.8 11.6	MIN BER 11.6 11.5 11.6 11.5 11.5 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 11.	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.3 10.0 10.0 10.0	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3	9.1 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OC* 11.3 11.4 11.4 11.4 11.4 11.4 11.4 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEMN 11.8 11.8 11.8 11.8 11.6 11.8 11.8 11.6 11.8 11.6 11.8	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 10.9 10.9	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.3	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.3 10.0 10.0 10.0	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.4 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.2 11.2 11.2 11.2 11.2 11.4	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEMN 11.8 11.8 11.8 11.8 11.6 11.8 11.8 11.6 11.6 11.6 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.2 11.1 11.1	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 10.9 10.9	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.3 10.3	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.3 10.0 10.0 10.0	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.1 9.2	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.3	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEMN 11.8 11.8 11.8 11.8 11.6 11.8 11.6 11.8 11.6 11.6 11.8	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.2 11.1 11.1	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 10.9 10.9	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.3 10.3	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.0	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.4 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.2 11.2 11.2 11.2 11.2 11.2 11.3 11.3	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEMN 11.8 11.8 11.8 11.8 11.6 11.8 11.8 11.6 11.6 11.6 11.6 11.6 11.6	MIN 3ER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.9	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 10.9 10.7 10.7 10.6 10.7 10.5	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.3 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.0	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.1 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEME 11.8 11.8 11.8 11.8 11.6 11.8 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 10.9 10.9 10.9 10.9 10.9 10.7 10.7	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 11.	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.3 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.0	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.1 9.1 9.1	PRCH 9.1 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEMN 11.8 11.8 11.8 11.8 11.6 11.8 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 10.9 10.9 10.9 10.9 10.7 10.7	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 10.9 10.9	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.3 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.0 10.0 10.1 10.0 10.1 10.1	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.1 9.1 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEMN 11.8 11.8 11.8 11.8 11.6 11.8 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.2 11.2 11.1 11.1 11.1 10.9 10.9 10.9 10.9 10.7 10.7 10.7	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 10.9 10.9	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.1 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.0	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.1 9.1 9.1 9.1 9.1	9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0 9.0 8.9 8.8 8.8 8.8 8.8 8.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.5 11.5	MAX DECEMN 11.8 11.8 11.8 11.8 11.6 11.8 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 10.9 10.9 10.9 10.9 10.7 10.7 10.7 10.7	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.7 11.7 10.9 10.7 10.7 10.7 10.7 10.6 10.7 10.5 10.5 10.5 10.4 10.4 10.4	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.1 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.1 10.1	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.1 9.1 9.1 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEMN 11.8 11.8 11.8 11.8 11.6 11.8 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.2 11.2 11.1 11.1 11.1 10.9 10.9 10.9 10.9 10.7 10.7 10.7	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 10.9 10.9	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.1 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.0	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.1 9.1 9.1 9.1 9.1	9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0 9.0 8.9 8.8 8.8 8.8 8.8 8.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEME 11.8 11.8 11.8 11.8 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 10.9 10.9 10.9 10.9 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 11.	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.1 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.1 10.1	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.2 9.2 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEME 11.8 11.8 11.8 11.8 11.6 11.8 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 10.9 10.9 10.9 10.7 10.7 10.7 10.7 10.7 10.7	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 11.	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.0	9.4 9.4 9.3 9.3 9.3 9.3 9.3 9.2 9.2 9.1 9.1 9.1 9.1 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.1 9.0 9.1 9.0 8.8 8.8 8.8 8.8 9.1 9.1 8.9 8.8 8.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEME 11.8 11.8 11.8 11.8 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 10.9 10.9 10.9 10.9 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.5 10.5	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 11.	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.1 10.1 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.1 10.1	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.2 9.2 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.2 11.2 11.2 11.2 11.2 11.3 11.3	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEME 11.8 11.8 11.8 11.8 11.8 11.6 11.8 11.6	MIN BER 11.6 11.5 11.6 11.5 11.5 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.9 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.5 10.5 10.5	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 11.	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.1 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.1 10.1	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEME 11.8 11.8 11.8 11.8 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 10.9 10.9 10.9 10.9 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.5 10.5	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 11.	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.1 10.1 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.1 10.1	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.2 9.2 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.1 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEME 11.8 11.8 11.8 11.8 11.6	MIN BER 11.6 11.5 11.6 11.5 11.3 11.3 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.5 10.5 10.5 10.5 10.5	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 11.	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.1 10.1 10.1	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.1 10.0 10.0 10.1 10.1	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.2 9.2 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.0 9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCC 11.3 11.4 11.4 11.4 11.4 11.4 11.6 11.6 11.6	MIN TOBER 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	MAX NOV 11.6 11.8 11.8 11.8 11.8 11.8 11.8 11.	MIN EMBER 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MAX DECEME 11.8 11.8 11.8 11.8 11.6	MIN BER 11.6 11.5 11.5 11.5 11.3 11.3 11.3 11.3 11.3	MAX JAN 11.4 11.4 11.1 11.2 11.2 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.7 10.5 10.5 10.5 10.5	MIN UARY 11.1 10.9 11.1 11.1 11.1 11.1 11.1 11.	MAX FEBR 10.5 10.5 10.5 10.5 10.5 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3	MIN UARY 10.2 10.3 10.3 10.3 10.3 10.0 10.0 10.0 10.0	MA 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.2 9.2 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1	RCH 9.1 9.0 9.0 9.0 9.0 9.0 9.0 9.0

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

403923082325500 R-16 NR LEXINGTON OH-Continued

			TEMPED A TITLE		/DEC C)					1000		
DAM	MAN	MIN	TEMPERATURE								MAN	MIN
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
		PRIL	MA			UNE	JU		AUGI			EMBER
1 2	8.9 8.9	8.7 8.7			9.5 9.5	9.3 9.3	10.4 10.4	10.1 10.1				
3	8.9	8.6			9.5	9.3	10.4	10.1			11.6	11.4
4	8.9	8.6			9.5	9.3	10.6	10.3			11.9	11.4
5					9.5	9.5	10.8	10.5			11.6	11.4
6	8.9	8.6	9.1	8.9	9.5	9.4	10.8	10.5			11.9	11.6
7	8.9	8.6	9.1	8.9	9.5	9.5	10.8	10.5			11.6	11.6
8 9	8.9 8.9	8.7 8.7	8.9 9.1	8.9 8.9	9.7 9.7	9.4 9.5	10.8 11.0	10.5 10.6			11.8 11.8	11.6 11.6
10	8.9	8.6	9.1	8.9	9.7	9.5	11.0	10.7			11.9	11.6
11	8.9	8.6	9.1	8.9	9.7	9.5	11.0	10.7			11.9	11.6
12	8.9	8.6	9.1	8.9	9.7	9.5	11.0	10.7			11.9	11.6
13	8.9	8.7	9.3	8.9	9.7	9.5	11.0	10.7			11.9	11.6
14	8.9	8.7	9.3	9.1	9.7	9.5	11.0	10.7			11.9	11.6
15	8.9	8.7	9.3	9.1	9.7	9.5	11.0	10.7			11.9	11.6
16	8.9	8.5	9.3	9.1	9.7	9.5	11.0	10.7			11.8	11.8
17 18	8.9 8.9	8.5 8.5	9.3 9.3	9.1 9.1	9.9 9.9	9.5 9.7	11.0 11.0	10.7 10.7			11.9 11.9	11.6 11.6
19	8.7	8.7	9.3	9.1	9.9	9.7	11.0	10.7			12.1	11.8
20	8.7	8.5	9.3	9.1	9.9	9.7	11.0	10.7			12.1	11.8
21			9.3	9.1	9.9	9.7	11.0	10.7			12.1	11.8
22			9.3	9.1	9.9	9.7					11.8	11.8
23			9.3	9.1	9.9	9.7					11.8	11.8
24 25			9.3 9.3	9.1 9.1	10.1 10.1	9.9 9.9					12.0 12.1	11.6
												11.8
26 27			9.3 9.5	9.1 9.3	10.1	9.9 9.9					12.1	11.8 11.8
28			9.5	9.3	10.1 10.2	9.9					12.1 12.1	11.8
29			9.5	9.3	10.1	9.9					12.1	11.8
30			9.5	9.3	10.1	9.9					12.1	11.8
31			9.5	9.3								
MONTH	8.9	8.5	9.5	8.9	10.2	9.3	11.0	10.1			12.1	11.4
YEAR	12.1	8.5										
YEAR	12.1	8.5	TEMPERATURI	E, SOIL	(DEG. C),	WATER YE.	AR OCTOBER	1997 TO	SEPTEMBER	1998		
			TEMPERATURI								MAX	MTN
YEAR DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY	MAX OCT	MIN OBER	MAX NOVE	MIN	MAX DEC	MIN EMBER	MAX JAN	MIN UARY	MAX FEBRU	MIN JARY	MA	ARCH
DAY 1	MAX OCT 15.9	MIN OBER 14.3	MAX NOVEN	MIN MBER 9.5	MAX DEC 7.9	MIN EMBER 5.9	MAX JAN 1.2	MIN UARY 1.1	MAX FEBRU 2.6	MIN JARY 1.5	MA 6.8	ARCH 5.9
DAY	MAX OCT	MIN OBER	MAX NOVE	MIN	MAX DEC	MIN EMBER	MAX JAN	MIN UARY	MAX FEBRU	MIN JARY	MA	ARCH
DAY 1 2	MAX OCT 15.9 15.0	MIN COBER 14.3 12.5	MAX NOVEN 10.7 10.7	MIN MBER 9.5 9.2	MAX DEC 7.9 5.9	MIN EMBER 5.9 4.9	MAX JAN 1.2 2.0	MIN UARY 1.1 1.1	MAX FEBRU 2.6 4.1	MIN JARY 1.5 2.2	MA 6.8 6.1	ARCH 5.9 5.0
DAY 1 2 3	MAX OCT 15.9 15.0 16.9	MIN COBER 14.3 12.5 14.3	MAX NOVEN 10.7 10.7 9.2	MIN MBER 9.5 9.2 7.9	MAX DEC 7.9 5.9 6.4	MIN EMBER 5.9 4.9 4.9	MAX JAN 1.2 2.0 4.7	MIN UARY 1.1 1.1 2.0	MAX FEBRU 2.6 4.1 3.5	MIN JARY 1.5 2.2 2.4	MA 6.8 6.1 5.0	5.9 5.0 4.2
DAY 1 2 3 4	MAX OCT 15.9 15.0 16.9 18.1	MIN COBER 14.3 12.5 14.3 15.9	MAX NOVEN 10.7 10.7 9.2 7.9	MIN MBER 9.5 9.2 7.9 7.3	MAX DEC 7.9 5.9 6.4 6.5	MIN EMBER 5.9 4.9 4.9 5.5	MAX JAN 1.2 2.0 4.7 6.2	MIN UARY 1.1 1.1 2.0 4.7	MAX FEBRO 2.6 4.1 3.5 2.7	MIN JARY 1.5 2.2 2.4 2.0	MA 6.8 6.1 5.0 4.3	5.9 5.0 4.2 3.7
DAY 1 2 3 4 5 6 7	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3	MIN COBER 14.3 12.5 14.3 15.9 17.0 17.5 17.2	MAX NOVER 10.7 10.7 9.2 7.9 7.7 8.1 7.9	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9	MIN EMBER 5.9 4.9 4.9 5.5 4.2 3.8 3.8	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3	MAX FEBRU 2.6 4.1 3.5 2.7 2.0 2.3 2.9	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4	6.8 6.1 5.0 4.3 4.3 5.1 6.2	5.9 5.0 4.2 3.7 3.3 3.4 3.4
DAY 1 2 3 4 5 6 7 8	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3	MIN COBER 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4	MAX NOVER 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.8	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9	MIN EMBER 5.9 4.9 4.9 5.5 4.2 3.8 3.8 3.8	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2	MAX FEBRU 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7	6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9	5.9 5.0 4.2 3.7 3.3 3.4 3.4 5.3
DAY 1 2 3 4 5 6 7 8 9	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 19.3 18.9	MIN COBER 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1	MAX NOVER 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.8 7.9	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8	MIN EMBER 5.9 4.9 4.9 5.5 4.2 3.8 3.8 3.7	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7	MAX FEBRU 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8	MAR 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5	5.9 5.0 4.2 3.7 3.3 3.4 3.4 5.3
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 19.3 18.9 18.7	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9	MAX NOVER 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.8 7.9 7.6	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8 3.7	MIN EMBER 5.9 4.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5	MAX FEBRU 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6	MAR 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5	5.9 5.0 4.2 3.7 3.3 3.4 5.3 5.9 3.8
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 19.3 18.9 18.7	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9	MAX NOVEN 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7	MIN 4BER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.8 7.9 7.6	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8 3.7	MIN 5.9 4.9 5.5 4.2 3.8 3.8 3.8 3.7 3.3	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5	MAX FEBRI 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3	MA 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9	5.9 5.0 4.2 3.7 3.3 3.4 5.3 5.9 3.8
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 19.3 18.9 18.7	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9	MAX NOVER 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.8 7.9 7.6	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8 3.7	MIN EMBER 5.9 4.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5	MAX FEBRU 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6	MAR 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5	5.9 5.0 4.2 3.7 3.3 3.4 5.3 5.9 3.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.9 19.3 19.3 18.9 18.7 17.0 16.9 18.0 17.6	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9 14.7	MAX NOVER 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.8	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.8 7.9 7.6 6.8 4.9 4.6	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8 3.7 3.5 3.2 2.8	MIN EMBER 5.9 4.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0	MAX FEBRU 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 3.8 3.8	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1	MA 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9 3.8 2.6 1.8	5.9 5.0 4.2 3.7 3.3 3.4 5.3 5.9 3.8 2.6 1.5 1.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 19.3 18.7 17.0 16.9 18.0 17.6 14.7	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9	MAX NOVEN 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.8 4.6	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.8 7.9 7.6 6.8 4.9 3.9 4.6 4.1	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8 3.7 3.5 3.2 2.8 2.2 2.5	MIN EMBER 5.9 4.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9 1.7	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9 2.4	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0 2.0	MAX FEBRU 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 4.9 3.8 3.8 4.1	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1 2.3	MA 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9 3.8 2.6 1.8 1.8 2.2	5.9 5.0 4.2 3.7 3.3 3.4 5.3 5.9 3.8 2.6 1.8 1.5 1.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 19.3 18.9 18.7 17.0 16.9 18.0 17.6 14.7	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9 14.7 12.4 11.4	MAX NOVER 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.8 4.6 4.1	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.8 7.9 7.6 6.8 4.9 4.6 4.1 3.4	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8 3.7 3.5 2.8 2.2 2.5 3.3	MIN EMBER 5.9 4.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9 1.7 2.0	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9 2.4	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0 2.0 2.1	MAX FEBRU 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 3.8 3.8 4.1 4.1	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1 2.3 3.1	MA 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9 3.8 2.6 1.8 1.8 2.2	5.9 5.0 4.2 3.7 3.3 3.4 5.3 5.9 3.8 2.6 1.5 1.4 1.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 18.9 18.7 17.0 16.9 18.0 17.6 14.7 12.8 12.4	MIN YOBER 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9 14.7 12.4	MAX NOVEN 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.8 4.6 4.1 3.4	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.6 6.8 4.9 3.9 4.6 4.1 3.4 2.7	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8 3.7 3.5 3.2 2.8 2.2 3.9 3.1	MIN EMBER 5.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9 1.7 2.0 2.1	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9 2.4 2.3 2.1	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0 2.0 2.1 2.0	MAX FEBRI 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 4.9 3.8 3.8 4.1 4.1 5.0	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1 2.3 3.1 4.0	MA 6.8 6.1 5.0 4.3 4.3 5.1 6.2 7.5 5.9 3.8 2.6 1.8 2.2 3.8 3.5	5.9 5.0 4.2 3.7 3.3 3.4 5.9 3.8 2.6 1.8 1.5 1.4 1.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 19.3 18.9 18.7 17.0 16.9 18.0 17.6 14.7	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9 14.7 12.4 11.4 10.9 11.1	MAX NOVER 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.8 4.6 4.1	MIN MEER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.6 6.8 4.9 3.9 4.6 4.1 3.4 2.7 2.3	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.8 3.7 3.5 3.2 2.8 2.2 2.5 3.3 3.1 2.6	MIN EMBER 5.9 4.9 5.5 4.2 3.8 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9 1.7 2.0 2.1 1.8	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9 2.4 2.3 2.1 2.0	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0 2.0 2.1 2.0 1.6	MAX FEBRU 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 3.8 3.8 4.1 4.1	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1 2.3 3.1	MA 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9 3.8 2.6 1.8 1.8 2.2	5.9 5.0 4.2 3.7 3.3 3.4 3.4 5.3 5.9 3.8 1.5 1.4 1.5 1.4 1.5 2.4 3.5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 19.3 18.7 17.0 16.9 18.0 17.6 14.7 12.8 12.4 13.1	MIN YOBER 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9 14.7 12.4	MAX NOVEN 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.8 4.6 4.1 3.4 2.9	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.6 6.8 4.9 3.9 4.6 4.1 3.4 2.7	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8 3.7 3.5 3.2 2.8 2.2 3.9 3.1	MIN EMBER 5.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9 1.7 2.0 2.1	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9 2.4 2.3 2.1	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0 2.0 2.1 2.0	MAX FEBRI 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 4.9 3.8 3.8 4.1 4.1 5.0 5.7	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1 2.3 3.1 4.0 5.0	MA 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9 3.8 2.6 1.8 1.8 2.2 3.8 3.5 5.8	5.9 5.0 4.2 3.7 3.3 3.4 5.9 3.8 2.6 1.8 1.5 1.4 1.4
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DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 18.9 18.7 17.0 16.9 18.0 17.6 14.7 12.8 12.4 13.1 12.8 12.5 11.3 10.5 9.3 9.7 10.5	MIN TOBER 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9 14.7 12.4 11.1 10.4 11.1 9.3 8.8 7.6 8.4 9.7	MAX NOVEN 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.8 4.6 4.1 3.4 2.9 4.5 5.0 5.7 5.7 5.6 4.6 4.8 5.9	MIN MEER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.6 6.8 4.9 3.9 4.6 4.1 3.4 2.7 2.3 2.8 3.3 4.7 5.6 4.6 3.1 2.6 4.8	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.8 3.7 3.5 3.2 2.8 2.2 2.5 3.3 3.1 2.6 4.1 3.6 3.1 3.6 3.1 3.6 4.1 4.0	MIN EMBER 5.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9 1.7 2.0 2.1 1.8 2.6 2.7 2.6 3.5 3.3 3.9 3.2	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9 2.4 2.3 2.1 2.0 1.6 1.3 1.3 1.3 1.4 2.2 2.0 1.7 2.6	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0 2.0 2.1 2.0 1.6 1.3 1.3 1.1 1.1 1.4 1.7 1.5 1.4	MAX FEBRI 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 3.8 3.8 4.1 4.1 5.0 5.7 5.4 5.0 4.8 5.4 4.9 4.5 6.5	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1 2.3 3.1 4.0 5.0 4.9 4.7 4.3 3.4 4.0 4.1 4.6	MA 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9 3.8 2.6 1.8 1.8 2.2 3.8 3.5 5.8 7.2 6.8 5.3 4.0 4.4 5.6 5.6	\$1.9 S.9 S.9 S.9 S.9 S.9 S.9 S.9 S.9 S.9 S
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 18.7 17.0 16.9 18.0 17.6 14.7 12.8 12.4 13.1 12.8 12.5 11.3 10.5 9.3 9.7 10.5	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9 14.7 12.4 10.9 11.1 10.4 11.1 9.3 8.8 7.6 8.4 9.7	MAX NOVEN 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.5 5.0 5.7 5.7 5.6 4.6 4.8	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.6 6.8 4.9 3.9 4.6 4.1 3.4 2.7 2.3 2.8 3.3 4.7 5.6 4.6 3.1 2.6	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.8 3.7 3.5 3.2 2.8 2.2 2.5 3.3 3.1 2.6 4.1 3.6 3.1 3.5 3.6 3.9 4.4	MIN EMBER 5.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9 1.7 2.0 2.1 1.8 2.6 2.7 2.6 3.5 3.3 3.9	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9 2.4 2.3 2.1 2.0 1.6 1.3 1.3 1.3 1.4 2.2 2.0 1.7	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0 2.0 1.6 1.3 1.3 1.1 1.1 1.4 1.7 1.5	MAX FEBRI 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 4.9 3.8 3.8 4.1 4.1 5.0 5.7 5.4 5.0 4.8 5.4 4.9 4.5 6.5	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1 2.3 3.1 4.0 5.0 4.9 4.7 4.3 3.4 4.3 4.0 4.1	MAR 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9 3.8 2.6 1.8 2.2 3.8 7.2 6.8 7.2 6.8 5.3 4.0 4.4 5.6 5.6	5.9 5.0 4.2 3.7 3.3 3.4 5.9 3.8 2.6 1.8 1.5 1.4 1.4 1.4 2.4 3.5 5.8 5.8 5.3 3.8 3.4 3.5 5.8 5.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 19.3 18.9 18.7 17.0 16.9 18.0 17.6 14.7 12.8 12.4 13.1 12.8 12.5 11.3 10.5 9.3 9.7 10.5	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9 14.7 12.4 11.1 10.9 11.1 10.4 11.1 9.3 8.8 7.6 8.4 9.7 9.3 7.6	MAX NOVEN 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.5 5.0 5.7 5.6 4.6 4.8 5.9 5.7 7.3 8.2	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.6 6.8 4.9 3.9 4.6 4.1 3.4 2.7 2.3 2.8 3.3 4.7 5.6 4.6 3.1 2.6 4.8 4.4 5.3 7.3	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8 3.7 3.5 3.2 2.8 2.2 2.5 3.3 3.1 2.6 4.1 3.6 3.1 3.5 3.6 3.9 4.4 4.0 3.2 2.7 1.9	MIN EMBER 5.9 4.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9 1.7 2.0 2.1 1.8 2.6 2.7 2.6 2.6 3.5 3.3 3.9 3.2 2.7 1.9 1.6	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9 2.4 2.3 2.1 2.0 1.6 1.3 1.3 1.3 1.3 1.4 2.2 2.0 1.7 2.6 3.5 3.7 3.0	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0 2.0 1.6 1.3 1.3 1.1 1.1 1.4 1.7 1.5 1.4 1.9 1.9 2.3	MAX FEBRI 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 4.9 3.8 3.8 4.1 4.1 5.0 5.7 5.4 5.0 4.8 5.4 4.9 4.5 6.5 6.3 7.8 7.8	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1 2.3 3.1 4.0 5.0 4.9 4.7 4.3 3.4 4.0 4.1 4.6 5.6 5.8	MAR 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9 3.8 2.6 1.8 2.2 3.8 3.5 5.8 7.2 6.8 5.3 4.0 4.4 5.6 5.6 9.2 11.6 11.3 13.3	5.9 5.0 4.2 3.7 3.3 3.4 5.9 3.8 2.6 1.8 1.5 1.4 1.5 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 18.9 18.7 17.0 16.9 18.0 17.6 14.7 12.8 12.4 13.1 12.8 12.5 11.3 10.5 9.3 9.7 10.5	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9 14.7 12.4 11.1 10.4 11.1 9.3 8.8 7.6 8.4 9.7 9.3 7.6 7.1	MAX NOVEN 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.5 5.0 5.7 5.7 5.6 4.6 4.8 5.9 5.7 7.3 8.2 8.6	MIN MEER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.6 6.8 4.9 3.9 4.6 4.1 3.4 2.7 2.3 2.8 3.3 4.7 5.6 4.6 3.1 2.6 4.8 4.4 5.3 7.9	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.8 3.7 3.5 3.2 2.8 2.2 2.5 3.3 3.1 2.6 4.1 3.6 3.1 3.6 3.1 4.0 3.2 2.7 1.9 1.7	MIN EMBER 5.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9 1.7 2.0 2.1 1.8 2.6 2.7 2.6 3.5 3.3 3.9 3.2 2.7 1.9 1.6 1.5	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9 2.4 2.3 2.1 2.0 1.6 1.3 1.3 1.4 2.2 2.0 1.7 2.6 3.5 3.7 3.0 2.8	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0 2.0 1.6 1.3 1.3 1.1 1.1 1.4 1.7 1.5 1.4 1.9 2.3 2.3	MAX FEBRI 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 4.9 3.8 3.8 4.1 4.1 5.0 5.7 5.4 5.0 4.8 5.4 4.9 4.5 6.5 6.3 7.8 7.8	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1 2.3 3.1 4.0 5.0 4.9 4.7 4.3 3.4 4.3 4.0 4.1 4.6 5.6 5.8	MA 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9 3.8 2.6 1.8 2.2 3.8 3.5 5.8 7.2 6.8 5.3 4.0 4.4 5.6 5.6 9.2 11.6 11.3 13.3 14.1	5.9 5.0 4.2 3.7 3.3 3.4 5.3 3.8 1.5 1.4 1.4 1.4 1.5 5.8 5.8 5.3 3.8 3.3 2.4 3.3 2.4 4.3 5.9 5.8 5.8 5.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 15.9 15.0 16.9 18.1 19.1 19.3 19.3 19.3 18.9 18.7 17.0 16.9 18.0 17.6 14.7 12.8 12.4 13.1 12.8 12.5 11.3 10.5 9.3 9.7 10.5	MIN **OBER** 14.3 12.5 14.3 15.9 17.0 17.5 17.2 17.4 17.1 16.9 14.6 13.7 15.9 14.7 12.4 11.1 10.9 11.1 10.4 11.1 9.3 8.8 7.6 8.4 9.7 9.3 7.6	MAX NOVEN 10.7 10.7 9.2 7.9 7.7 8.1 7.9 8.1 8.3 7.9 7.7 6.8 4.9 4.5 5.0 5.7 5.6 4.6 4.8 5.9 5.7 7.3 8.2	MIN MBER 9.5 9.2 7.9 7.3 7.0 6.7 7.3 7.6 6.8 4.9 3.9 4.6 4.1 3.4 2.7 2.3 2.8 3.3 4.7 5.6 4.6 3.1 2.6 4.8 4.4 5.3 7.3	MAX DEC 7.9 5.9 6.4 6.5 5.5 4.2 3.9 3.9 3.8 3.7 3.5 3.2 2.8 2.2 2.5 3.3 3.1 2.6 4.1 3.6 3.1 3.5 3.6 3.9 4.4 4.0 3.2 2.7 1.9	MIN EMBER 5.9 4.9 4.9 5.5 4.2 3.8 3.8 3.7 3.3 3.2 2.8 2.2 1.9 1.7 2.0 2.1 1.8 2.6 2.7 2.6 2.6 3.5 3.3 3.9 3.2 2.7 1.9 1.6	MAX JAN 1.2 2.0 4.7 6.2 7.3 8.3 9.3 8.4 7.5 5.7 4.5 4.2 4.4 2.9 2.4 2.3 2.1 2.0 1.6 1.3 1.3 1.3 1.3 1.4 2.2 2.0 1.7 2.6 3.5 3.7 3.0	MIN UARY 1.1 1.1 2.0 4.7 5.9 7.3 8.3 7.2 5.7 4.5 3.2 3.4 2.9 2.0 2.0 1.6 1.3 1.3 1.1 1.1 1.4 1.7 1.5 1.4 1.9 1.9 2.3	MAX FEBRI 2.6 4.1 3.5 2.7 2.0 2.3 2.9 3.6 3.9 4.6 4.9 4.9 3.8 3.8 4.1 4.1 5.0 5.7 5.4 5.0 4.8 5.4 4.9 4.5 6.5 6.3 7.8 7.8	MIN JARY 1.5 2.2 2.4 2.0 1.6 1.3 1.4 1.7 1.8 2.6 4.3 3.7 3.3 3.1 2.3 3.1 4.0 5.0 4.9 4.7 4.3 3.4 4.0 4.1 4.6 5.6 5.8	MAR 6.8 6.1 5.0 4.3 4.3 5.1 6.2 6.9 7.5 5.9 3.8 2.6 1.8 2.2 3.8 3.5 5.8 7.2 6.8 5.3 4.0 4.4 5.6 5.6 9.2 11.6 11.3 13.3	5.9 5.0 4.2 3.7 3.3 3.4 5.9 3.8 2.6 1.8 1.5 1.4 1.5 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5

403923082325500 R-16 NR LEXINGTON OH-Continued

TEMPERATURE, SOIL (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MIN MAX MIN MIN MIN MAX MAX MAX MAX APRIL MAY JUNE JULY AUGUST SEPTEMBER 1 13.6 11.8 19.6 17.9 22.2 20.8 ---------___ ___ 19 2 17 5 22 1 ___ ---2 11 8 10 4 20 3 17.7 3 10.7 8.8 ------18.5 16.8 22.3 20.2 ------19.1 ------------4 9.8 8.0 17.7 15.6 21.7 20.9 19.3 18.0 5 _ _ _ ---------16.9 15.1 22.2 20.7 ------19.2 17.6 21.9 20.0 6 9.6 6.6 16.4 13.7 15.4 14.0 20.2 18.1 9.1 7.0 15.8 15.7 21.6 20.3 14.8 14.2 20.3 19.4 8 11.5 8.8 16.0 15.1 16.1 13.3 22.8 21.3 19.4 17.3 9 11.0 10.4 16.4 15.0 15.7 14.9 22.8 21.6 17.3 16.2 20.6 ------10 10.7 14.9 17.8 15.0 22.1 15.2 9.1 16.1 16.8 11 10.3 7.5 15.6 14.8 17.5 16.3 21.0 19.1 17.4 15.4 12 11.3 7.9 16.0 14.6 20.1 17.3 20.8 18.6 ------18.0 16.1 13 11.2 9.0 17.1 14.6 19.4 18.5 21.1 18.7 ---18.5 16.4 11.4 10.5 15.3 19.1 18.1 21.3 19.6 ---19.0 17.2 15 11.8 10.3 19.1 16.2 18.9 18.2 22.2 20.6 _ _ _ ---19.8 18.6 16 13.5 11.5 19.8 17.5 19.0 18.4 22.6 21.2 ---19.7 19.2 ------20 1 18 4 22 2 ---17 13 4 11 5 18 7 16 6 20 9 19 5 18 8 18 11.9 9.7 18.7 15.9 21.1 18.7 21.9 20.2 ------19.2 17.6 ------19 11.5 10.0 19.1 16.1 21.3 20.2 22.1 20.4 19.9 18.5 20 11.5 9.4 20.0 17.8 21.4 19.5 22.7 21.0 ------20.6 19.3 19.5 17.8 19.7 21 20.9 23.6 22.1 20.7 19.9 2.2 18.2 16.1 22.3 20.2 20.3 18.4 23 18.5 16.3 21.6 20.7 18.4 16.4 24 17.8 16.2 22.5 20.6 14.8 16.4 25 ------------17.7 17.0 23.3 21.6 18.0 16.1 26 18.3 16.0 23.8 22.2 19.8 18.0 27 ------18.7 15.9 23.6 22.0 ------------20.0 18.9 ---28 ---18.5 16.2 23.8 21.9 ---------19.7 18.0 29 ------19.8 17.1 23.1 22.2 ------------18.0 30 ------20.4 18.1 ------------22.8 21.8 18.2 16.9 ------------------20.1 19.4 ___ ---MONTH 13.6 6.6 20 4 13 7 23 8 13 3 23 6 18 6 20 7 14 8 23.8 YEAR PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY SUM VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP .01 .07 .00 1 .00 .00 .00 . 01 20 ---.00 ---. 02 .00 .00 .00 .00 2 .00 .00 .00 _ _ _ .00 ---_ _ _ .00 .01 .12 3 .00 .08 .49 .00 .00 ___ .07 ___ .00 .00 .02 .01 .09 .00 .20 .00 .00 .10 .01 .00 .00 .00 .22 .00 .05 .00 ---.34 .00 ---.00 6 .00 .00 .00 .07 .07 .00 .00 .00 .00 .00 .00 .00 .17 .00 1.49 .00 .00 .38 .00 ---.06 .11 .24 .41 ---8 .00 .00 .00 . 00 . 31 .59 . 94 .00 .10 .11 .08 .00 ---9 .07 .00 .33 .00 .41 .49 .21 .00 .00 ___ 10 .00 .02 .71 .00 .00 0.0 .05 .00 .56 .00 .00 11 .00 .01 .00 .00 .32 .00 .00 .00 .38 .00 ---.00 12 .00 .00 .00 .00 .28 .00 .00 .00 1.41 .00 .00 .34 .00 .02 .00 .00 .00 .00 ---.00 13 .01 .16 .00 .18 .00 .00 .00 14 .15 .00 .00 .02 .41 .04 .00 .00 15 .01 .09 .10 .00 .00 .02 .00 .09 .00 .00 .00 .06 1.76 .00 16 .00 .00 .30 .00 .46 .08 ---.00 17 .00 .00 .00 .01 .78 .12 .00 .00 .00 .01 ---.00 .01 .00 .00 18 .00 .00 .74 .06 .00 .00 .00 ___ .00 19 .00 .00 .00 .02 .01 .00 .00 .22 1.55 .54 .15 ---20 .00 .00 .00 .04 .53 .00 .00 .00 .00 .08 .00 .00 .00 .01 .16 .00 .00 .37 21 . 51 ------.46 .45 .07 .01 ---.00 ---22 .00 .09 .00 .69 .41 .00 ------2.3 .00 .00 . 01 .25 . 00 .00 .00 . 02 ---.00 .09 2.4 .20 .00 .39 .00 .00 .00 ---.20 .00 ------___ ___ 25 .04 .00 .18 .01 .00 0.0 .02 .00 ---.00 26 .72 .00 .02 .00 .00 .00 .00 .31 .00 27 .00 .00 .00 .00 .04 .00 .00 5.54 .00 28 .31 .00 .44 ---.00 3.04 ---.00 .36 .00 ---29 .22 .00 .00 .00 .02 .82 .00 .00 .00 .09 30 .24 .00 .00 .00 .00 .00 ------------31 ---.00 .00 .00 .32 ------TOTAL 1.24 2.05 2.35 3.12 3.03 2.70 4.17 1.86 14.46 2.86 ---0.96

WTR YR 1998 TOTAL 38.80

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

403923082325500 R-16 NR LEXINGTON OH-Continued

DEICING SALT LBS/LANE-MILE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3						500						
4												
5			1750									
6												
7			250									
8			250									
9												
10												
10												
11												
12		1000										
13				250								
14												
15												
16												
17												
18				500								
19												
20				250								
21												
22			250	250								
23												
24												
25												
23												
26												
27												
28												
29												
30			750									
31			750									
TOTAL		1000	3750	1250		500						

WTR YR 1998 TOTAL 6500

GROUND-WATER RECORDS

411138081172500. Local number, PO-116.

LOCATION.--Lat 41°11'38" Long 81°17'25", Hydrologic Unit 04110002, along State Route 14 near Ravenna, OH. Owner. -- USGS/City of Akron, OH.

AOUIFER. -- Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 17.5 ft. Cased with Sch 40 PVC to 5.2 ft; .010 in. screen from 5.2 to 17.5 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: water level, air temperature, soil temperature, water temperature and specific conductance. Conductivity/water temperature probe set at 10.8 feet below land surface from February, 1991, through July, 1992, when removed; probe reinstalled August, 1994, through current year at depth of 13.4 feet below land

DATUM.--Elevation of land-surface datum is 1068.39 feet above sea level. Measuring point: shelter shelf 2.20 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceding tables.

PERIOD OF RECORD. -- February 1991 to current year.

PERIOD OF DAILY RECORD. --

WATER LEVEL: February 1991 to current year.

SPECIFIC CONDUCTANCE: February 1991 to July 1992; September, 1994 to current year.

AIR TEMPERATURE: February 1991 to current year.

SOIL TEMPERATURE: July 1992 to current year.

PRECIPITATION: February 1991 to current year. (Incomplete data this year due to malfunctioning of raingage).

WATER TEMPERATURE: February 1991 to July 1992; September, 1994, to current year.

EXTREMES FOR PERIOD OF DAILY RECORD:

WATER LEVEL: Maximum daily low, 9.45 ft. below land-surface datum, October 9-10, 1991; maximum daily high, 4.35 ft. below land-surface datum, April 13, 1994.

SPECIFIC CONDUCTANCE: Maximum, 2540 microsiemens December 19-20, 22-28, 1991; minimum, 242 microsiemens April 10, 1992.

AIR TEMPERATURE: Maximum, 36.0° C August 2, 1991; minimum, -32.2° C January 19, 1994. WATER TEMPERATURE: Maximum, 14.8°C October 1, 1991; minimum, 6.1°C March 23-28, 1996. SOIL TEMPERATURE: Maximum, 28.5°C August 11, 1992; minimum, -0.4°C February 10-14, 1994.

EXTREMES FOR CURRENT YEAR:

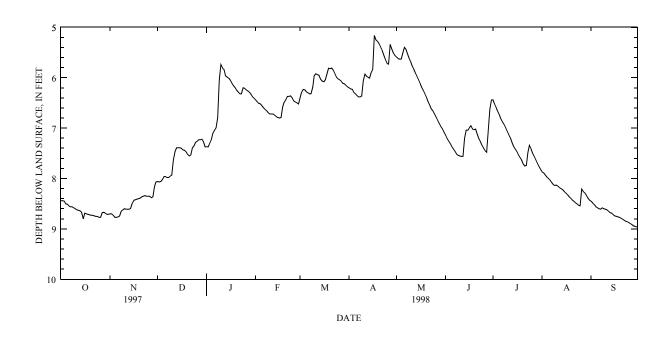
WATER LEVEL: Maximum daily low, 8.96 ft. below land-surface datum, September 30, 1998; maximum daily high, 5.11 ft. below land-surface datum, April 17, 1998.

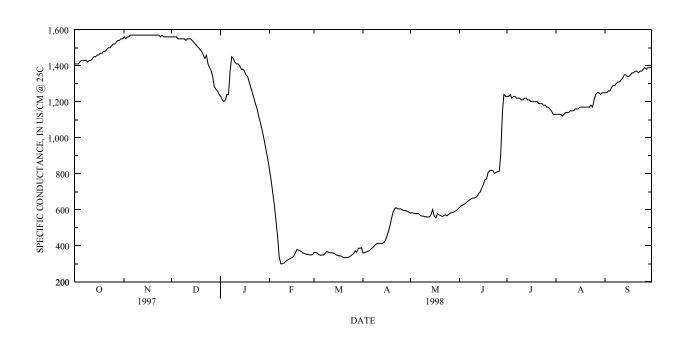
SPECIFIC CONDUCTANCE: Maximum, 1570 microsiemens November 5-23, 25, 1998; minimum, 296 microsiemens February 8-9, 1998.

AIR TEMPERATURE: Maximum, 34.3°C June 25, 1998; minimum, -17.3°C January 1, 1998. WATER TEMPERATURE: Maximum, 13.2°C September 15-30, 1998; minimum, 7.0°C March 26-27,

29-30, 1998. SOIL TEMPERATURE: Maximum, 22.3°C June 26, 1998; minimum, 0.5°C January 21-23, February 9, 1998.

411138081172500 PO-116 NR RAVENNA OH—Continued





411138081172500 PO-116 NR RAVENNA OH-Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MEAN MAX MIN MEAN MEAN MIN MEAN MAX MIN MTN MAX OCTOBER NOVEMBER DECEMBER JANUARY 7.32 1 8.44 8.42 8.42 8.70 8.68 8.69 8.06 8.05 8.06 7.37 7.34 7 30 7 35 2 8 44 8 44 8 44 8 70 8 68 8 69 8 07 8 06 8 06 7 37 3 8.45 8.44 8.44 8.73 8.70 8.72 8.06 8.02 8.04 7.30 7.22 7.25 7.10 7.15 4 8.50 8.45 8.47 8.77 8.73 8.75 8.02 7.96 7.98 7.22 5 8.51 8.50 8.51 8.77 8.76 8.77 7.96 7.96 7.96 7.10 7.04 7.07 8.76 8.75 7.96 7.95 6 8.54 8.51 8.53 8.74 7.95 7.04 6.99 7.02 8.56 8.54 8.74 8.65 8.71 7.98 7.95 7.97 6.99 6.79 8.54 6.95 7.98 8 8.56 8.56 8.56 8.65 8.62 8.63 7.95 7.97 6.79 6.04 6.31 9 8.58 8.56 8.57 8.62 8.60 8.61 7.95 7.93 7.94 6.04 5.72 5.85 7.93 7.63 7.80 5.72 10 8.60 8.58 8.59 8.60 8.59 8.60 5.74 5.71 11 8.62 8.60 8.61 8.61 8.60 8.61 7.63 7.47 7.54 5.81 5.74 5.77 12 8.63 8.62 8.63 8.61 8.61 8.61 7.47 7.39 7.43 5.84 5.81 5.83 8.64 8.61 8.59 8.60 7.39 7.37 7.37 5.96 13 8.63 8.64 5.84 5.91 8.67 8.64 8.59 8.49 8.54 7.39 7.37 7.38 5.99 5.96 5.97 15 8.80 8.67 8.69 8.49 8.43 8.45 7.39 7.38 7.39 6.01 5.97 5.99 16 8.69 8.69 8.69 8.43 8.42 8.42 7.40 7.39 7.39 6.05 6.01 6.03 8 70 7 43 7 39 17 8 69 8 69 8 42 8 41 8 41 7 41 6 11 6 05 6 07 18 8.71 8.70 8.71 8.41 8.40 8.40 7.44 7.43 7.44 6.16 6.11 6.13 7.47 7.44 19 8.72 8.71 8.71 8.40 8.39 8.39 7.46 6.20 6.16 6.18 20 8.73 8.72 8.72 8.39 8.36 8.38 7.52 7.47 7.49 6.25 6.20 6.23 8.35 8.36 7.55 7.52 7.54 21 8.73 8.72 8.73 8.36 6.29 6.25 6.27 2.2 8.74 8.73 8.74 8.35 8.34 8.35 7.53 7.39 7.49 6.32 6.29 6.31 23 8.75 8.74 8.75 8.34 8.33 8.33 7.39 7.35 7.37 6.32 6.20 6.26 8.75 24 8.75 8.75 8.35 8.33 8.34 7.35 7.28 7.32 6.20 6.17 6.18 7.28 25 8.77 7.26 7.27 8.75 8.76 8.35 8.32 8.33 6.21 6.17 6.19 26 8.77 8.68 8.74 8.35 8.31 8.32 7.26 7.23 7.25 6.24 6.21 6.23 27 8.68 8.66 8.67 8.38 8.35 8.37 7.23 7.21 7.22 6.26 6.24 6.25 6.29 28 8.67 8.67 8.67 8.36 8.16 8.26 7.23 7.22 7.22 6.26 6.28 29 8.69 8.67 8.68 8.16 8.07 8.10 7.22 7.19 7.21 6.33 6.29 6.30 30 8.71 8.70 7.27 7.19 8.69 8.07 8.04 8.05 7.22 6.38 6.33 8.71 8.70 8.70 7.37 7.27 7.33 6.41 6.38 7 19 7 37 MONTH 8 80 8 42 8 64 8 77 8 04 8 07 7 56 5 71 6 36 8 48 DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MTN MEAN MAX MTN MEAN MAX MTN MEAN MAX MTN MEAN FEBRUARY MARCH APRIL MAY 1 6.44 6.41 6.43 6.41 6.29 6.33 6.20 6.14 6.17 5 59 5.56 5.57 2 6.48 6.44 6.46 6.29 6.23 6.26 6.22 6.16 6.19 5.62 5.57 5.60 3 6.51 6.48 6 50 6.23 6.23 6 23 6.23 6.22 6.23 5.63 5.57 5.60 6.29 6.23 6.52 6.50 6.51 6.24 6.23 6.24 6.26 5.63 4 5.43 5 6.56 6.52 6.53 6.28 6.24 6.26 6.32 6.29 6.30 5.51 5.40 5.46 6 6.60 6.56 6.58 6.30 6.28 6.29 6.35 6.32 6.33 5.40 5.36 5.37 6.32 6.30 6.31 6.38 6.37 6.63 6.60 6.61 6.35 5.44 5.38 5.41 8 6.65 6.32 6.27 6.38 6.36 6.37 5.48 6.66 6.63 6.19 5.53 5.44 9 6.70 6.66 6.68 6.19 5.96 6.09 6.36 6.06 6.23 5.62 5.53 5.58 10 5.92 5.90 6.72 6.70 6.71 5.96 5.93 6.06 5.94 5.69 5.62 5.66 11 6.72 6.69 6.71 5.92 5.92 5.92 5.93 5.90 5.91 5.77 5.69 5.73 12 6.72 6.70 6.71 5.94 5.92 5.93 5.97 5.93 5.95 5.84 5.77 6.74 6.72 6.73 5.95 5.92 5.94 5.99 5.97 5.99 5.91 5.84 5.88 13 6.77 6.03 5.91 5.97 6.01 5.89 5.98 5.98 5.91 6.79 6.77 6.78 6.07 6.06 5.89 5.83 5.85 15 6.03 6.05 5.98 6.02 6.08 6.04 6.07 5.83 5.15 5.48 16 6.80 6.79 6.80 6.12 6.05 6.08 17 6.79 6.58 6.70 6.04 5.94 6.00 5.16 5.11 5.13 6.20 6.12 6.16 18 6.58 6.49 6.53 5.94 5.81 5.87 5.25 5.16 5.21 6.26 6.20 6.23 6.26 19 6.49 6.43 6.46 5.81 5.79 5.80 5.28 5.23 5.26 6.33 6.29 20 5.82 5.81 5.33 5.23 5.28 6.43 6.37 6.39 5.82 6.40 6.33 6.36 21 6.37 6.37 5.81 5.80 5.80 5.40 5.32 5.36 6.37 6.48 6.40 6.44 2.2 6.37 6.36 6.37 5.85 5.81 5.83 5.47 5.40 5.44 6.55 6.48 6.51 23 6.36 6.35 6.35 5.92 5.85 5.88 5.56 5.47 5.51 6.62 6.55 6.58 5.99 2.4 6.40 6.35 6.38 5.92 5.96 5.64 5.55 5.59 6.66 6.62 6.64 2.5 6.46 6.40 6.44 6.02 5.99 6.01 5.72 5.64 5.68 6.72 6.66 6.69 26 6.48 6.46 6.47 6.04 6.02 6.03 5.73 5.31 5.56 6.78 6.72 6.75 27 6.50 6.46 6.47 6.07 6.04 6.06 5.34 5.28 5.30 6.85 6.78 28 6.52 6.49 6.11 6.07 6.09 5.43 5.34 5.39 6.91 6.85 6.88 6.41 6.97 29 6.12 6.11 6.11 5.51 5.43 5.48 6.91 6.93 30 ---7.02 6.97 6.15 6.12 6.13 5.56 5.51 5.54 7.00 31 6.18 6.15 6.17 7.08 7.02 7.04 MONTH 6.80 6.35 6.56 6.41 5.79 6.05 6.38 5.11 5.78 7.08 5.36 6.13

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	DI	EPTH BEL	OW LAND SU	URFACE (W	ATER LEVE	L) (FEET),	WATER Y	EAR OCTO	BER 1997 T	O SEPTEMI	BER 199	8	
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
		JUNE			JULY		P	UGUST		S	EPTEMBE	ER	
1	7.14	7.08	7.11	6.44	6.38	6.40	7.87	7.82	7.85	8.45	8.43	8.44	
2	7.21	7.14	7.16	6.53	6.44	6.48	7.89	7.87	7.88	8.49	8.45	8.46	
3	7.26	7.21	7.23	6.60	6.53	6.56	7.93	7.89	7.91	8.52	8.49	8.50	
4 5	7.31 7.37	7.26 7.31	7.29 7.34	6.67 6.74	6.60 6.67	6.63 6.70	7.97 8.00	7.93 7.97	7.95 7.98	8.56 8.58	8.52 8.56	8.54 8.57	
6	7.42	7.37	7.39	6.82	6.74	6.78		8.00	8.01		8.58	8.59	
7	7.42	7.42	7.39	6.82	6.74	6.85	8.03 8.08	8.00	8.01	8.60 8.61	8.56	8.60	
8	7.52	7.46	7.49	6.93	6.88	6.90	8.12	8.08	8.10	8.58	8.56	8.57	
9	7.54	7.52	7.53	7.00	6.93	6.97	8.14	8.12	8.13	8.60	8.58	8.59	
10	7.55	7.54	7.54	7.07	7.00	7.04	8.13	8.10	8.11	8.61	8.60	8.61	
11	7.56	7.55	7.56	7.14	7.07	7.10	8.15	8.11	8.13	8.62	8.61	8.61	
12	7.56	7.20	7.32	7.20	7.14	7.17	8.18	8.15	8.17	8.65	8.62	8.63	
13 14	7.20 7.04	7.04 7.04	7.09 7.04	7.29 7.36	7.20 7.29	7.25 7.32	8.20 8.22	8.18 8.20	8.19 8.21	8.68 8.69	8.65 8.68	8.66 8.69	
15	7.04	6.98	7.01	7.42	7.36	7.32	8.26	8.22	8.24	8.72	8.69	8.70	
16	6.99	6.93	6.97	7.46	7.42	7.44	8.29	8.26	8.27	8.74	8.72	8.73	
17	6.95	6.92	6.93	7.53	7.46	7.49	8.32	8.29	8.30	8.75	8.74	8.74	
18	7.02	6.95	6.98	7.58	7.53	7.55	8.36	8.32	8.33	8.76	8.75	8.75	
19	7.03	6.93	6.97	7.63	7.58	7.60	8.39	8.36	8.37	8.77	8.76	8.77	
20	7.02	6.94	6.98	7.71	7.63	7.67	8.42	8.39	8.40	8.79	8.77	8.78	
21	7.12	7.02	7.06	7.75	7.71	7.73	8.45	8.42	8.43	8.81	8.79	8.80	
22	7.21	7.12	7.16	7.74	7.47	7.51	8.48	8.45	8.46	8.83	8.81	8.82	
23 24	7.27 7.34	7.21 7.27	7.24	7.48 7.34	7.31 7.30	7.34 7.31	8.50 8.53	8.48 8.50	8.49 8.52	8.85 8.86	8.83 8.85	8.84	
25	7.40	7.27	7.30	7.34	7.34	7.31	8.54	8.17	8.40	8.88	8.86	8.87	
26	7.45	7.40	7.42	7.50	7.42	7.45	8.21	8.16	8.18	8.90	8.88	8.89	
27	7.45	6.97	7.42	7.56	7.50	7.45	8.26	8.21	8.24	8.92	8.90	8.90	
28	6.97	6.62	6.78	7.63	7.56	7.59	8.29	8.26	8.28	8.94	8.92	8.93	
29	6.62	6.44	6.52	7.70	7.63	7.66	8.34	8.29	8.31	8.95	8.94	8.94	
30	6.44	6.39	6.42	7.76	7.70	7.73	8.39	8.34	8.36	8.96	8.95	8.96	
31				7.82	7.76	7.79	8.43	8.39	8.41				
MONTH	7.56	6.39	7.17	7.82	6.38	7.24	8.54	7.82	8.21	8.96	8.43	8.71	
	0 00												
YEAR	8.96	5.11	7.24										
YEAR				(MICROSI	EMENS/CM A	AT 25 DEG.	C), WATER	R YEAR OC	TOBER 1997	7 TO SEPT	EMBER 1	1998	
YEAR DAY				(MICROSI	EMENS/CM A	AT 25 DEG.	C), WATEF	R YEAR OC	TOBER 1997 MAX	7 TO SEPT		1998 1AX	MIN
	SPEC MAX	CIFIC COM	NDUCTANCE MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN		IAX	
DAY	SPEC MAX OCT	CIFIC COM MIN OBER	NDUCTANCE MAX NOV	MIN	MAX	MIN CEMBER	MAX JA	MIN	MAX FEE	MIN	И	MARCI	Н
DAY 1	SPEC MAX OCT 1410	CIFIC COM MIN COBER 1400	NDUCTANCE MAX NOV 1560	MIN EMBER 1550	MAX DEC 1560	MIN CEMBER 1550	MAX JA 1230	MIN ANUARY 1210	MAX FEE 819	MIN BRUARY 760	N 3	MARCI	Н 351
DAY	SPEC MAX OCT	CIFIC COM MIN OBER	NDUCTANCE MAX NOV	MIN	MAX	MIN CEMBER	MAX JA	MIN	MAX FEE	MIN	N 3	MARCI	Н
DAY 1 2 3 4	SPEC MAX OCT 1410 1410	MIN OBER 1400 1400	NDUCTANCE MAX NOV 1560 1550	MIN EMBER 1550 1550	MAX DEC 1560 1560	MIN CEMBER 1550 1550	MAX JF 1230 1210	MIN ANUARY 1210 1200	MAX FEE 819 760	MIN BRUARY 760 694	N 3 3 3	MARCE MARCE 362 363	H 351 359
DAY 1 2 3	SPEC MAX OCT 1410 1410 1410	MIN OBER 1400 1400 1400	NDUCTANCE MAX NOV 1560 1550 1560	MIN EMBER 1550 1550	MAX DEC 1560 1560 1560	MIN CEMBER 1550 1550	MAX JF 1230 1210 1200	MIN ANUARY 1210 1200 1200	MAX FEE 819 760 694	MIN BRUARY 760 694 623	N 3 3 3 3	MARCE MARCE 362 363 359	351 359 351
DAY 1 2 3 4	SPEC MAX OCT 1410 1410 1410 1420	MIN OBER 1400 1400 1400 1400	MAX NOV 1560 1550 1560 1560	MIN EMBER 1550 1550 1550	MAX DEC 1560 1560 1560	MIN CEMBER 1550 1550 1550	MAX JF 1230 1210 1200 1210	MIN ANUARY 1210 1200 1200	MAX FEE 819 760 694 623	MIN BRUARY 760 694 623 540	N 3 3 3 3	MARCH 862 863 859 851	351 359 351 346
DAY 1 2 3 4 5 6 7	SPEC MAX OCT 1410 1410 1410 1420 1430 1430	MIN OBER 1400 1400 1400 1400 1400 1410	MAX NOV 1560 1550 1560 1560 1570 1570	MIN EMBER 1550 1550 1550 1550 1560 1570	MAX DEC 1560 1560 1560 1560 1550 1550	MIN DEMBER 1550 1550 1550 1550 1550 1550 1550 15	MAX JF 1230 1210 1200 1210 1240 1240 1370	MIN ANUARY 1210 1200 1200 1200 1210 1230 1230	MAX FEE 819 760 694 623 540 451 338	MIN 760 694 623 540 451 338 297	N 3 3 3 3 3 3 3	MARCH 862 863 859 851 847 848	351 359 351 346 345 346 346 346
DAY 1 2 3 4 5 6 7 8	SPEC MAX OCT 1410 1410 1420 1430 1430 1430	MIN OBER 1400 1400 1400 1400 1410 1410	MAX NOV 1560 1550 1560 1560 1570 1570 1570	MIN 1550 1550 1550 1550 1550 1570 1570	MAX DEC 1560 1560 1560 1560 1560 1550 1550	MIN 2EMBER 1550 1550 1550 1550 1550 1550 1540 1540	MAX JF 1230 1210 1200 1210 1240 1240 1370 1450	MIN 1210 1200 1200 1200 1210 1230 1230 1370	MAX FEE 819 760 694 623 540 451 338 299	MIN 760 694 623 540 451 338 297 296	N 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MARCH 862 863 859 851 847 848 849 856	351 359 351 346 345 346 346 347
DAY 1 2 3 4 5 6 7 8 9	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1420	MIN OBER 1400 1400 1400 1400 1410 1410 1410	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570	MIN TEMBER 1550 1550 1550 1550 1550 1570 1560	MAX DEC 1560 1560 1560 1560 1550 1550 1550 1550	MIN 2EMBER 1550 1550 1550 1550 1550 1550 1550 15	MAX JF 1230 1210 1200 1210 1240 1240 1370 1450 1440	MIN ANUARY 1210 1200 1200 1210 1230 1230 1370 1420	MAX FEE 819 760 694 623 540 451 338 299 300	MIN 3RUARY 760 694 623 540 451 338 297 296 296	N 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MARCE 362 363 359 351 347 348 349 356 367	351 359 351 346 345 346 346 347 355
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430	MIN OBER 1400 1400 1400 1410 1410 1410 1410	MAX NOV 1560 1550 1560 1560 1560 1570 1570 1570 1570	MIN EMBER 1550 1550 1550 1550 1550 1570 1560 1570 1560 1570	MAX DEC 1560 1560 1560 1560 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1240 1370 1450 1440 1420	MIN 1210 1200 1200 1210 1230 1230 1370 1420 1410	MAX FEE 819 760 694 623 540 451 338 299 300 304	MIN 3RUARY 760 694 623 540 451 338 297 296 296 300	N 33 33 33 33 33 33 33 33 33 33 33 33 33	MARCE 862 863 859 851 847 848 849 856 867	351 359 351 346 345 346 346 347 355 360
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430	MIN OBER 1400 1400 1400 1410 1410 1410 1420	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570	MIN EMBER 1550 1550 1550 1550 1560 1570 1570 1570 1570	MAX DEC 1560 1560 1560 1560 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1550 1540 154	MAX JP 1230 1210 1200 1210 1240 1240 1370 1450 1440 1420	MIN ANUARY 1210 1200 1200 1210 1230 1230 1370 14420 1410 1400	MAX FEE 819 760 694 623 540 451 338 299 300 304	MIN BRUARY 760 694 623 540 451 338 297 296 300 304	N 33 33 33 33 33 33 33 33 33 33 33 33 33	MAX MARCH 162 163 155 155 1 144 7 144 145 166 166 166 166 166 166 166 166 166 16	351 359 351 346 345 346 347 355 360 358
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430	MIN OBER 1400 1400 1400 1410 1410 1410 1410	MAX NOV 1560 1550 1560 1560 1560 1570 1570 1570 1570	MIN EMBER 1550 1550 1550 1550 1550 1570 1560 1570 1560 1570	MAX DEC 1560 1560 1560 1560 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1240 1370 1450 1440 1420	MIN 1210 1200 1200 1210 1230 1230 1370 1420 1410	MAX FEE 819 760 694 623 540 451 338 299 300 304	MIN 3RUARY 760 694 623 540 451 338 297 296 296 300	N 33 33 33 33 33 33 33 33 33 33 33 33 33	MARCE 862 863 859 851 847 848 849 856 867	351 359 351 346 345 346 346 347 355 360
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1450 1450	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1430 1430	MAX NOV 1560 1550 1560 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1570 1570 1570 157	MAX DEC 1560 1560 1560 1550 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1410 1410 1410 1380	MIN ANUARY 1210 1200 1200 1210 1230 1370 1420 1410 1400 1380 1370	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 330	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324	N 33 33 33 33 33 33 33 33 33 33 33 33 33	MAX MARCH 6662 663 655 664 665 661 661 655 9 656 667 665 665 666 667 665 665 666 667 665 661 665 665 665 665 665 665 665 665	351 359 351 346 345 346 347 355 360 358 358 356 349
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1430 1430	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570	MIN EMBER 1550 1550 1550 1550 1570 1570 1570 157	MAX DEC 1560 1560 1560 1550 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1240 1370 1450 1440 1420 1410 1410	MIN 1210 1200 1200 1210 1230 1230 1370 1410 1400 1380	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319	N 33 33 33 33 33 33 33 33 33 33 33 33 33	MAX MARCH 662 663 663 6559 6551 647 648 649 656 665 665 661 665 6559	351 359 351 346 345 346 347 355 360 358 358 356
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1450 1450 1460	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1430 1440 1450	MAX NOV 1560 1550 1560 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1570 1570 1570 157	MAX DEC 1560 1560 1560 1550 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1410 1410 1380 1380 1370	MIN 1210 1200 1200 1210 1230 1370 1420 1400 1380 1370 1370 1350	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 330 334	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324 328	M 33 33 33 33 33 33 33 33 33 33 33 33 33	MAX MARCH 6662 663 655 664 667 665 661 661 661 664 694 694 6	351 359 351 346 345 346 347 355 360 358 358 356 349 345
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1450 1450 1450 1460 1460 1470	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1430 1440	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1560 1570 1570 1570 1570 1570 1570 1570 157	MAX DEC 1560 1560 1560 1560 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1550 1540 154	MAX JP 1230 1210 1200 1210 1240 1240 1450 1440 1420 1410 1410 1400 1380 1380 1370 1350	MIN ANUARY 1210 1200 1200 1210 1230 1230 1440 1440 1450 1370 1370 1370 1370 1370 1370 1370 137	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 330 334 340 356	MIN BRUARY 760 694 623 540 451 338 297 296 300 304 312 319 324 328 334 340	N 33 33 33 33 33 33 33 33 33 33 33 33 33	MARCH MARCH 862 163 159 151 147 148 149 156 167 166 161 161 169 169 149 144 144 144 144 144 144 14	351 359 351 346 345 346 347 355 360 358 358 358 356 349 345 343 341
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1450 1450 1450 1460 1460 1470	MIN OBER 1400 1400 1400 1410 1410 1420 1430 1430 1440 1450 1460 1460 1460	MAX NOV 1560 1550 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1570 1570 1570 157	MAX DEC 1560 1560 1560 1550 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1420 1410 1400 1380 1380 1370 1350 1340	MIN ANUARY 1210 1200 1200 1210 1230 1230 1440 1410 1400 1380 1370 1370 1350 1340 1310	MAX FEE 819 7600 694 623 540 451 338 299 300 304 312 319 325 3300 334 340 356 377	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324 328 334 340 356	N 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MAX MARCH	351 359 346 345 346 347 355 360 358 358 358 358 349 345 341 337
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1450 1450 1460 1470 1470 1480	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1430 1440 1450 1460 1460 1460	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1570 1570 1570 157	MAX DEC 1560 1560 1560 1550 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1410 1410 1400 1380 1380 1370 1350 1340 1310	MIN ANUARY 1210 1200 1200 1210 1230 1370 1420 1400 1380 1370 1350 1350 1310 1280	MAX FEE 819 7600 694 623 540 451 338 299 300 304 312 319 325 330 334 340 356 377 378	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324 328 334 340 356 374	N 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MAX MARCH	351 359 351 346 345 346 345 355 360 358 358 356 349 341 337 334
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1440 1450 1450 1460 1470 1470 1480 1480	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1440 1450 1460 1460 1470	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1570 1570 1570 157	MAX DEC 1560 1560 1560 1550 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1420 1410 1400 1380 1380 1370 1350 1340 1310 1280	MIN ANUARY 1210 1200 1200 1210 1230 1230 1370 1420 1400 1380 1370 1350 1350 1360 1310 1280 1250	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 330 334 340 356 377 378 374	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324 328 334 340 356 374 367	N	MAX MARCH	351 359 351 346 345 346 347 355 360 358 358 356 349 341 337 334 329
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1450 1450 1450 1460 1470 1470 1480 1480	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1440 1450 1460 1460 1470 1480	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1570 1570 1570 157	MAX DEC 1560 1560 1560 1550 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1240 1370 1450 1440 1420 1410 1400 1380 1380 1370 1350 1340 1310 1280	MIN ANUARY 1210 1200 1200 1200 1210 1230 1370 1420 1410 1400 1380 1370 1370 1350 1340 1310 1280 1250	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 330 334 340 356 377 378 374	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324 328 334 340 356 374 367	N 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MAX MARCH	351 359 351 346 345 346 345 355 360 358 358 356 349 341 337 334 329 333
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1440 1450 1450 1460 1470 1470 1480 1480	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1440 1450 1460 1460 1470	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1570 1570 1570 157	MAX DEC 1560 1560 1560 1550 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1420 1410 1400 1380 1380 1370 1350 1340 1310 1280	MIN ANUARY 1210 1200 1200 1210 1230 1230 1370 1420 1400 1380 1370 1350 1350 1360 1310 1280 1250	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 330 334 340 356 377 378 374	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324 328 334 340 356 374 367	N 33 33 33 33 33 33 33 33 33 33 33 33 33	MAX MARCH	351 359 351 346 345 346 347 355 360 358 358 356 349 341 337 334 329
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1450 1450 1460 1460 1470 1480 1490 1500 1500	MIN OBER 1400 1400 1400 1410 1410 1420 1430 1440 1460 1460 1460 1470 1480 1480 1490 1500	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1560 1570 1570 1560 1570 1570 1570 1560 1560 1560 1560 1560 1560 1560 156	MAX DEC 1560 1560 1560 1560 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1550 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1410 1410 1410 1400 1380 1380 1370 1350 1340 1310 1280 1250 1220 1190 1160	MIN ANUARY 1210 1200 1200 1210 1230 1230 1370 1440 1400 1380 1370 1350 1340 1280 1250 1220 1190 1160 1120	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 330 334 340 356 377 378 374 367 359 356 353	MIN BRUARY 760 694 623 540 451 338 297 296 300 304 312 319 324 328 334 340 356 374 367 359 354 353	N 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MAX MARCH	351 359 351 346 345 346 347 355 360 358 358 358 341 337 334 329 333 329 333
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1440 1450 1460 1470 1460 1470 1480 1480 1490 1500	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1440 1450 1460 1460 1470 1480 1490	MAX NOV 1560 1550 1560 1550 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1560 1570 1570 1570 1570 1570 1570 1570 157	MAX DEC 1560 1560 1560 1560 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1550 1540 154	MAX JP 1230 1210 1200 1210 1240 1240 1370 1450 1440 1420 1410 1410 1400 1380 1380 1370 1350 1340 1310 1280 1250 1220 1190	MIN ANUARY 1210 1200 1200 1210 1230 1230 1230 1440 1410 1400 1400 1380 1370 1370 1370 1350 1340 1280 1250 1220 1190 1160	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 330 334 340 356 377 378 374 367 359	MIN BRUARY 760 694 623 540 451 338 297 296 300 304 312 319 324 328 334 340 356 374 367 359 354 353	N 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MARCH	351 359 351 346 345 347 355 360 358 358 358 358 341 337 3341 337 3329 333
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1440 1450 1450 1460 1470 1480 1490 1500 1510 1520	MIN OBER 1400 1400 1400 1410 1410 1420 1430 1440 1450 1460 1460 1470 1480 1480 1490 1500 1510 1520	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1560 1570 1570 1570 1570 1570 1570 1570 157	MAX DEC 1560 1560 1560 1560 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1420 1410 1410 1400 1380 1380 1370 1350 1340 1310 1280 1250 1220 1190 1160 1120	MIN ANUARY 1210 1200 1200 1210 1230 1230 1370 1420 1410 1400 1380 1370 1370 1350 1340 1310 1280 1250 1220 1190 1160 1120 1090	MAX FEE 819 7600 694 623 540 451 338 299 300 304 312 319 325 3300 334 340 356 377 378 374 367 359 356 353 351	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324 328 334 340 356 374 367 359 354 353 349 347	N	MAX MARCH	351 359 351 346 345 346 347 355 360 358 358 356 347 337 334 329 333 329 333 329 333 343
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1440 1450 1460 1470 1480 1470 1480 1490 1500 1510 1520 1530	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1440 1450 1460 1460 1470 1480 1490 1500 1510 1520 1520	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1560 1570 1570 1570 1570 1570 1570 1560 1560 1560 1560 1560 1560 1560 156	MAX DEC 1560 1560 1560 1560 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1550 1540 154	MAX JF 1230 1210 1200 1210 1240 1240 1370 1450 1440 1410 1400 1380 1380 1370 1350 1340 1310 1280 1220 1190 1160 1120	MIN ANUARY 1210 1200 1200 1210 1230 1370 1420 1400 1380 1370 1350 1350 1280 1250 1220 1190 1160 1120 1090 1050 1010	MAX FEE 819 7600 694 623 540 451 338 299 300 304 312 339 334 340 356 377 378 374 367 359 356 353 351	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324 328 334 340 356 374 367 359 354 353 349 347 346 346	N 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MAX MARCH	351 359 351 346 345 346 345 355 358 358 356 349 341 337 334 329 333 329 336 343 343 356
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1440 1450 1460 1470 1460 1470 1480 1490 1500 1510 1520 1520 1530 1540	MIN OBER 1400 1400 1400 1410 1410 1410 1410 1450 1460 1460 1470 1480 1490 1510 1520 1530	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1570 1570 1570 157	MAX DEC 1560 1560 1560 1550 1550 1550 1550 1540 1550 1550 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1540 1540 1540 1540 1540 1540 154	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1380 1380 1370 1350 1340 1310 1280 1250 1290 1190 1160 1120 1090 1050 1010	MIN ANUARY 1210 1200 1200 1210 1230 1370 1420 1410 1400 1380 1370 1350 1370 1350 1340 1280 1250 120 1190 1160 1120 1090 1050 1010 966	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 330 334 340 356 377 378 374 367 359 356 353 351	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324 328 334 340 356 374 367 359 354 353 349 347	N 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MAX MARCH	351 359 351 346 345 346 347 355 360 358 358 358 341 337 3341 337 3341 337 339 339 330 336 345
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1430 1440 1450 1450 1460 1470 1470 1480 1490 1500 1510 1520 1520 1540 1540	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1440 1450 1460 1460 1470 1480 1490 1500 1510 1520 1530 1530	MAX NOV 1560 1550 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1560 1570 1570 1570 1570 1570 1570 1570 157	MAX DEC 1560 1560 1560 1560 1550 1550 1550 1550	MIN CEMBER 1550 1550 1550 1550 1550 1550 1540 154	MAX JF 1230 1210 1240 1240 1370 1450 1440 1420 1410 1410 1400 1380 1380 1370 1250 1340 1310 1280 1250 1220 1190 1160 1120 1090 1050 1010	MIN ANUARY 1210 1200 1200 1210 1230 1230 1230 1440 1410 1400 14380 1370 1370 1350 1340 1310 1280 1250 1190 1160 1120 1090 1050 966 920	MAX FEE 8199 7600 694 623 540 451 338 299 300 304 312 319 325 3300 334 340 356 377 378 374 367 359 350 349 351 350 349 351	MIN BRUARY 760 694 623 540 451 338 297 296 300 304 312 319 324 328 334 340 356 374 367 359 354 353 349 347 346 346 347	N	MARCH	351 359 351 346 345 346 347 355 360 358 358 358 341 337 339 339 339 339 339 339 339 339
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1440 1450 1460 1470 1460 1470 1480 1490 1500 1510 1520 1520 1530 1540	MIN OBER 1400 1400 1400 1410 1410 1410 1410 1450 1460 1460 1470 1480 1490 1510 1520 1530	MAX NOV 1560 1550 1560 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1570 1570 1570 157	MAX DEC 1560 1560 1560 1550 1550 1550 1550 1540 1550 1550 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1530 1540 1540 1540 1540 1540 1540 1540 154	MIN CEMBER 1550 1550 1550 1550 1550 1540 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1380 1380 1370 1350 1340 1310 1280 1250 1290 1190 1160 1120 1090 1050 1010	MIN ANUARY 1210 1200 1200 1210 1230 1370 1420 1410 1400 1380 1370 1350 1370 1350 1340 1280 1250 120 1190 1160 1120 1090 1050 1010 966	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 330 334 340 356 377 378 374 367 359 356 353 351	MIN BRUARY 760 694 623 540 451 338 297 296 296 300 304 312 319 324 328 334 340 356 374 367 359 354 353 349 347		MAX MARCH	351 359 351 346 345 346 347 355 360 358 358 358 341 337 3341 337 3341 337 339 339 330 336 345
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCT 1410 1410 1410 1420 1430 1430 1430 1430 1430 1450 1450 1450 1460 1470 1480 1490 1500 1500 1510 1520 1520 1530 1540 1550	MIN OBER 1400 1400 1400 1410 1410 1410 1420 1430 1440 1460 1460 1460 1470 1480 1490 1500 1510 1520 1530 1530 1530 1540	MAX NOV 1560 1550 1560 1570 1570 1570 1570 1570 1570 1570 157	MIN EMBER 1550 1550 1550 1550 1560 1570 1570 1570 1570 1570 1570 1570 157	MAX DEC 1560 1560 1560 1560 1550 1550 1550 155	MIN CEMBER 1550 1550 1550 1550 1550 1550 1540 154	MAX JF 1230 1210 1200 1210 1240 1370 1450 1440 1410 1410 1410 1400 1380 1380 1370 1350 1340 1310 1280 1250 1220 1190 1160 1120 1090 1050 1010 966 920	MIN ANUARY 1210 1200 1200 1200 1210 1230 1230 1370 1440 1410 1400 1380 1370 1370 1350 1340 1310 1280 1250 1220 1190 1160 1120 1090 1050 1010 966 920 871	MAX FEE 819 760 694 623 540 451 338 299 300 304 312 319 325 3300 334 340 356 377 378 374 367 359 350 349 351	MIN BRUARY 760 694 623 540 451 338 297 296 300 304 312 319 324 328 334 356 374 367 359 354 353 349 347 346 346 347		MARCH	351 359 351 346 345 346 347 355 360 358 358 358 343 341 337 334 329 333 343 343 343 343 343 345 346 345

411138081172500 PO-116 NR RAVENNA OH-Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MTN MAX MTN MAX MIN MAX MTN MAX APRIL MAY JUNE JULY AUGUST SEPTEMBER 1 359 356 581 580 614 601 1230 1220 1130 1110 1250 1240 578 1230 1220 2 362 357 584 622 613 1130 1110 1250 1240 3 366 362 581 575 627 617 1240 1220 1130 1110 1260 1250 573 4 369 366 578 631 624 1220 1210 1130 1110 1260 1250 5 373 368 579 570 638 631 1230 1210 1120 1120 1280 1250 579 1230 1210 6 380 371 568 646 638 1130 1110 1290 389 379 571 565 653 646 1220 1210 1140 1120 1290 1270 8 397 389 565 561 659 651 1220 1200 1140 1120 1300 1290 9 408 396 565 558 664 656 1220 1200 1140 1130 1310 1300 561 1210 10 408 556 665 660 1200 1150 1130 1310 1300 414 11 414 409 560 556 666 660 1210 1200 1150 1140 1320 1300 12 412 406 559 555 674 662 1220 1200 1150 1140 1330 1310 13 412 406 561 553 690 664 1220 1200 1160 1140 1350 1320 417 409 574 549 698 686 1210 1190 1160 1140 1350 1320 15 428 415 601 545 721 696 1210 1190 1160 1150 1340 1320 16 450 428 565 544 741 720 1200 1190 1170 1150 1340 1330 478 1200 1180 1170 1150 17 450 555 545 766 738 1350 1330 18 510 478 579 546 772 759 1200 1180 1170 1160 1360 1340 19 552 510 571 548 806 763 1200 1180 1170 1160 1360 1340 2.0 589 552 568 549 817 806 1200 1180 1170 1160 1370 1340 1190 1180 1170 21 607 587 563 555 819 809 1160 1370 1350 2.2 611 603 568 561 817 800 1190 1180 1170 1160 1360 1350 23 605 600 572 565 802 794 1190 1180 1180 1160 1370 1360 24 605 599 566 562 807 793 1180 1170 1170 1170 1370 1360 25 595 574 566 795 604 813 1180 1160 1210 1170 1370 1380 26 598 595 581 573 813 799 1170 1150 1240 1210 1390 1370 27 596 591 583 574 898 800 1170 1150 1250 1230 1380 1370 28 594 587 586 574 1140 898 1160 1150 1250 1230 1390 1370 29 591 584 592 579 1240 1140 1150 1120 1240 1230 1390 1380 30 597 584 1230 1130 1120 1250 1230 1390 586 581 1220 1380 604 595 1130 1120 1250 1230 MONTH 611 604 544 601 1240 1120 1250 1110 1390 1240 356 1240 1570 YEAR TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MAX MIN MAX MIN MAX MIN OCTOBER NOVEMBER DECEMBER TANIIARY FEBRUARY MARCH 5.1 1 13.2 1.3 13.0 2.8 . 8 2.2 -17.3 9.9 -6.8 9.4 - 7 -5.3 9.5 2 15.7 10.5 4.1 11.0 -1.9 8.2 -1.0 - .4 4.5 . 4 7.4 3 6.7 7.0 12.7 3.7 23.1 .1 10.5 -5.3 3.1 -2.2 -1.4 26.3 11.4 4.3 9.0 -.3 13.2 9.3 1.4 -2.4 1.9 -2.7 4 . 1 5 26.9 15.0 10.1 -.6 . 2 -3.1 17.0 6.7 2.3 -2.7 3.7 -4.9 6 28.2 12.8 10.1 -1.6 -2.1 -5.8 14.8 11.5 8.8 -8.3 6.8 -7.0 28.8 10.6 6.6 4.0 -2.1 14.7 6.0 9.4 -6.0 11.1 -5.0 8 27.7 12.6 6.6 4.8 -1.0 7.3 2.9 8.6 -6.3 10.1 9 27.1 11.4 11.0 4.5 1.9 -2.8 7.7 1.0 12.4 -8.3 12.2 -3.0 10 20.3 5.0 6.4 3.2 2.5 . 1 4.7 -1.9 14.0 -4.6 -3.0 -7.6 11 19.5 1.7 3.8 . 4 . 1 -1.6 1.0 -7.4 12.7 . 4 -6.7 -9.9 -7 2 . 5 12 24.5 1.7 2.9 -.9 -2.7 6.8 -84 7.0 -3.5 -97 13 27.4 8.3 4.1 -8.7 -.9 -2.5 9.1 -8.5 1.6 - . 5 . 6 -12.3 16.8 1.3 1.0 . 0 .6 -4.1 -2.1 -12.3 -4.9 1.8 -2.2 14 1.1 -.7 15 12.0 2.1 -3.0 6.1 -5.4 2.1 -3.9 7.8 -6.8 -.3 -6.5 16 11.8 -1.0 -1.5 -4.4 10.4 -1.8 -.8 -2.4 8.3 -2 2 4.4 -8.8 -2.3 7.4 17 15.9 1.2 -6.9 5.6 -6.7 . 5 7.1 3.5 -3.2 . 5 15.0 -10.7 7.1 - . 6 -8.5 9.2 18 - . 6 3.3 -8.8 5.5 13.1 3.4 7.5 -1.4 11.4 -2.1 -12.0 5.5 2.5 6.2 19 14.9 . 8 12.7 -2.9 -1.2 20 13.4 -.5 9.7 3.2 -3.8 -12.8 4.7 2.5 6.6 2.2 21 11.5 -1.4 10.4 . 9 1.9 -3.4 -1.5 -13.6 4.0 1.6 2.8 -1.6 22 4.9 . 9 5.1 3.4 5.9 -2.3 1.3 -3.1 8.2 -3.0 2.5 -4.5 10.0 23 5.4 -2.6 5.6 -.7 4.5 7.8 6.0 24 11.1 -.1 -9.2 5.7 . 0 -1.9 6.8 6.8 -5.2 25 10.8 9.9 -9.7 7.8 7.4 -2.5 6.0 1.8 -.3 -3.7 13.3 -6.2 9.9 2.6 10.6 4.4 5.2 1.8 - . 3 5.1 -1.9 10.6 -2.8 23.6 8.8 . 6 27 12.2 -.3 9.4 -1.3 2.7 -2 2 9.0 -2 1 15.0 26.5 13.0 2.8 9.3 -.1 11.0 3.4 . 9 -4.5 8.8 -4.2 8.7 . 6 26.2 10.7 6.5 29 13.9 -.5 9.1 6.7 1.9 -5.1 -4.3 24.5 10.6 ------30 16.6 -2.4 10.9 2.8 -1.1 -5.2 .5 ---26.8 12.4 31 19.3 .5 ----4.8 -11.5 1.7 -5.5 ------27.5 9.8 MONTH 28.8 -2.4 13.0 -10.7 11.4 -11.5 17.0 -17.3 15.0 -8.3 27.5 -12.3

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

411138081172500 PO-116 NR RAVENNA OH-Continued

		TE	MPERATURE.		81172500 REES CELSTI		R YEAR OCTO			IBER 199	8	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
		PRIL		MAY	JU		JU:		AUG			EMBER
1	21.5	7.1	18.1	13.8	22.3	8.7	25.9	13.2	27.4	8.7	26.2	10.4
2	9.9	3.4	17.5	13.2	26.8	9.8	28.1	10.1	29.2	8.7	22.8	9.4
3	10.4	-1.2	20.5	12.2	18.9	6.4	29.7	10.9	30.1	10.7	25.3	7.6
4	6.5	3.1	20.2	9.2	20.7	5.4	22.4	16.2	30.0	14.6	26.2	
5	9.8	-2.3	22.5				26.4		25.3		28.9	
6	13.6	-5.5	25.8	7.5	15.9	1.5	28.3 27.6 27.3 28.2	10.8	31.7	18.3	32.8	11.7
7		-4.7	23.3	10.2	10 6	6.3	27.6	14.5	32.9	17.5	23.6	11.3
8	22.2	7.2	17.9	14.6	21.7 16.7	2.6	27.3	18.7	32.1	17.4	17.3	
9		5.6	23.3	12.5	16.7	6.0	28.2	15.2	30.9		18.2	
10	12.2	5	23.3 17.9 23.3 21.8	10.6	23.8		24.9		26.2	18.8	22.4	
11	14.6		17.0 19.3 25.0	12.1	23.2 30.6 23.5	12.2	25.6	8.6	27.3		27.0	
12		-2.0	19.3	13.0	30.6	16.9	28.9 30.8 29.7	8.5	27.8 29.3	14.5	29.9	
13		1.5	25.0	9.7	23.5	16.1	30.8	10.1			31.3	
14 15	15.9 16.3	11.2 9.9	29.1 31.8	10.6 12.3	22.4 25.5	13.2 12.5	29.7 31.7	13.2 17.5	30.2 29.8	14.8 14.5	30.9 28.4	12.7 18.3
16	20.8	10.4	29.6	12.4	23.3 26.4 28.5 28.5	12.6	30.6 26.2 28.5	17.1	30.9	16.1	23.1	17.0
17		5.3	27.0 30.3 31.2	8.6	26.4	15.0	26.2	14.3	30.9		25.9	11.2
18		-1.2	30.3	8.5	28.5	12.7	20.5	10.5	25.4		27.7	
19		5.0	31.2	11.3	28.5 29.5	16.4 15.2	30.5 32.0	12.4	24.5 29.5	8.2	29.5 30.1	14.1
20	17.5											
21	19.0	.6 7.7	20.8	7.5	30.9	14.8	32.9	17.5	30.7	12.6	26.4	15.8
22	20.8	7.7 3.7	20.5	4.4	32.1 27.4 32.4	18.9	30.5	18.7	29.3		18.8	
23		3.7	22.2	7.5	27.4	19.5	27.3		32.2		18.7	
24	22.4	. 4					24.7		24.9		20.8	
25	18.6	.9	19.0		34.3		26.4	11.3	21.8	18.2	25.2	13.7
26	10.1	4.3		9.3	31.5 25.5 30.1	20.0	27.8	11.3	27.7		31.7	
27		. 4	27.9	6.5	25.5	18.9	28.8	11.1	28.8 29.5	12.8	28.7	17.2
28		-1.8	28.2 31.5 30.4	7.8	30.1	17.7	28.8 29.2 28.6	15.2	29.5	13.0	28.7 22.8 25.3	6.0
29	17.5		31.5	18.2	26.7 24.7		28.6	14.5	28.1			
30	18.1	13.2	30.4	13.9		16.1	28.1 26.9	11.8	29.7	14.2	24.5	
31			28.4	13.6			26.9	12.6	26.8	11.7		
MONTH	23.6	-5.5	31.8	4.4	34.3	1.5	32.9	8.5	32.9	6.1	32.8	1.9
YEAR												
	34.3	-17.3										
IEAR	34.3	-17.3	TEMDEDATII	סבי אואייבים	(DEC C)	WATED VI		1007 TC	CEDTEMBE	1000		
							EAR OCTOBER					
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
		MIN		MIN		MIN		MIN		MIN		MIN ARCH
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN		ARCH
DAY	MAX OCT	MIN TOBER	MAX NOV	MIN EMBER 12.0	MAX DECE	MIN MBER 11.1	MAX JAN	MIN UARY	MAX FEBR 9.0	MIN UARY	MA	RCH 7.5
DAY 1 2 3	MAX OCT 12.2 12.5 12.5	MIN TOBER 12.0 12.2 12.2	MAX NOV 12.2 12.2 12.2	MIN EMBER 12.0 12.2 12.0	MAX DECE 11.1 11.1 11.1	MIN CMBER 11.1 11.1 10.9	MAX JAN 10.0 9.8 9.6	MIN UARY 9.6 9.6 9.4	MAX FEBR 9.0 8.8 8.8	MIN UARY 8.8 8.6 8.6	MA 7.7 7.5 7.5	7.5 7.3 7.5
DAY 1 2 3 4	MAX OCT 12.2 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2	MAX NOV 12.2 12.2 12.2 12.2	MIN EMBER 12.0 12.2 12.0 12.2	MAX DECE 11.1 11.1 11.1	MIN SMBER 11.1 11.1 10.9 10.9	MAX JANU 10.0 9.8 9.6 9.6	MIN UARY 9.6 9.6 9.4 9.4	MAX FEBR 9.0 8.8 8.8 8.6	MIN UARY 8.8 8.6 8.6 8.6	MA 7.7 7.5 7.5 7.5	7.5 7.3 7.5 7.5
DAY 1 2 3	MAX OCT 12.2 12.5 12.5	MIN TOBER 12.0 12.2 12.2	MAX NOV 12.2 12.2 12.2	MIN EMBER 12.0 12.2 12.0 12.2	MAX DECE 11.1 11.1 11.1	MIN SMBER 11.1 11.1 10.9 10.9	MAX JAN 10.0 9.8 9.6	MIN UARY 9.6 9.6 9.4 9.4	MAX FEBR 9.0 8.8 8.8	MIN UARY 8.8 8.6 8.6 8.6	MA 7.7 7.5 7.5	7.5 7.3 7.5 7.5
DAY 1 2 3 4	MAX OCT 12.2 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2	MAX NOV 12.2 12.2 12.2 12.2	MIN EMBER 12.0 12.2 12.0 12.2 12.0	MAX DECE 11.1 11.1 11.1	MIN MBER 11.1 10.9 10.9 10.8	MAX JAN 10.0 9.8 9.6 9.6 9.6	MIN UARY 9.6 9.6 9.4 9.4	MAX FEBR 9.0 8.8 8.8 8.6 8.6	MIN UARY 8.8 8.6 8.6 8.6	MA 7.7 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.5
DAY 1 2 3 4 5	MAX OCT 12.2 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2	MAX NOV 12.2 12.2 12.2 12.2 12.2	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.2 12.0	MAX DECE 11.1 11.1 11.1 11.1 11.1	MIN MBER 11.1 11.1 10.9 10.9 10.8 10.8	MAX JAN 10.0 9.8 9.6 9.6 9.6	MIN UARY 9.6 9.6 9.4 9.4 9.2	MAX FEBR 9.0 8.8 8.8 8.6 8.6	MIN UARY 8.8 8.6 8.6 8.6 8.4	7.7 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3
DAY 1 2 3 4 5	MAX OCT 12.2 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2	MAX NOV 12.2 12.2 12.2 12.2 12.2	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.2 12.0	MAX DECE 11.1 11.1 11.1 11.1	MIN MBER 11.1 11.1 10.9 10.9 10.8 10.8	MAX JAN 10.0 9.8 9.6 9.6 9.6	MIN 9.6 9.6 9.4 9.4 9.2 9.2	MAX FEBR 9.0 8.8 8.8 8.6 8.6	MIN UARY 8.8 8.6 8.6 8.6 8.6 8.6 8.1	MA 7.7 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.2 12.0 12.0	MAX DECE 11.1 11.1 11.1 11.1 11.1 10.9 10.9 10.9	MIN MBER 11.1 11.1 10.9 10.8 10.8 10.6 10.6	MAX JANI 10.0 9.8 9.6 9.6 9.6 9.4 9.4 9.4	MIN 9.6 9.6 9.4 9.4 9.2 9.2 9.2	MAX FEBR 9.0 8.8 8.6 8.6 8.6	MIN 8.8 8.6 8.6 8.6 8.6 8.6 8.7 8.0 8.0	MA 7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2 12.2	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.2 12.0 12.0	MAX DECE 11.1 11.1 11.1 11.1 11.1 10.9 10.9 10.9	MIN MBER 11.1 11.1 10.9 10.8 10.8 10.6 10.6	MAX JANI 10.0 9.8 9.6 9.6 9.6 9.4 9.4 9.4	MIN 9.6 9.6 9.4 9.4 9.2 9.2 9.2	MAX FEBR 9.0 8.8 8.6 8.6 8.6 8.3	MIN 8.8 8.6 8.6 8.6 8.6 8.6 8.7 8.0 8.0	MA 7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.0 12.0	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.8 10.6	MIN MBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6	MAX JANI 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.6	MIN 9.6 9.6 9.4 9.2 9.2 9.2 9.2 9.0 9.0	MAX FEBR 9.0 8.8 8.6 8.6 8.6 8.3 8.3 8.3	MIN UARY 8.8 8.6 8.6 8.6 8.6 8.0 8.0 8.0 8.0 7.9	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 11.1 10.9 10.9 10.9	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.8 10.6 10.6 10.6	MAX JAN1 10.0 9.8 9.6 9.6 9.6 9.4 9.4 9.4 9.4	MIN UARY 9.6 9.6 9.4 9.2 9.2 9.2 9.2 9.0	MAX FEBR 9.0 8.8 8.6 8.6 8.6 8.3	MIN UARY 8.8 8.6 8.6 8.6 8.0 8.0 8.0 8.0	MA 7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.0 12.0 12.0 12.0	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.8 10.6	MIN MBER 11.1 11.1 10.9 10.9 10.8 10.8 10.6 10.6 10.6 10.6	MAX JAN 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.4 9.8	MIN UARY 9.6 9.6 9.4 9.2 9.2 9.2 9.2 9.2 9.0 9.0 9.4	MAX FEBR 9.0 8.8 8.6 8.6 8.3 8.3 8.3 8.1	MIN UARY 8.8 8.6 8.6 8.6 8.4 8.0 8.0 7.9 7.9	MA 7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.2	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.8 10.6 10.6 10.6	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.6 10.4	MAX JAN 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.4 9.8 9.8	MIN UARY 9.6 9.6 9.4 9.2 9.2 9.2 9.2 9.0 9.0 9.4 9.6 9.6	MAX FEBR 9.0 8.8 8.8 8.6 8.6 8.1 8.3 8.3 8.3 8.1	MIN UARY 8.8 8.6 8.6 8.6 8.4 8.0 8.0 7.9 7.9 7.8	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.6 10.6 10.6 10.6	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.6 10.6 10.4 10.4	MAX JAN 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.8 9.8	MIN UARY 9.6 9.4 9.4 9.2 9.2 9.2 9.0 9.0 9.0 9.6 9.6	MAX FEBR 9.0 8.8 8.6 8.6 8.4 8.3 8.3 8.3 8.1 8.1	MIN UARY 8.8 8.6 8.6 8.6 8.4 8.0 8.0 7.9 7.9 7.8 7.8	MA 7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2 12.0 12.0	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.6 10.6	MIN CMBER 11.1 11.1 10.9 10.8 10.6 10.6 10.6 10.6 10.4 10.4 10.4 10.4	MAX JANI 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.8 9.8 9.8	MIN UARY 9.6 9.6 9.4 9.2 9.2 9.2 9.0 9.0 9.6 9.6 9.6	MAX FEBR 9.0 8.8 8.6 8.6 8.3 8.3 8.3 8.3 8.3	MIN UARY 8.8 8.6 8.6 8.6 8.4 8.0 8.0 8.0 7.9 7.9 7.8 7.8 7.8	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2 12.0 12.0	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.6	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.4 10.4 10.4 10.4	MAX JAN 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.8 9.8 9.8 9.8	MIN UARY 9.6 9.4 9.2 9.2 9.2 9.0 9.0 9.6 9.6 9.6 9.6	MAX FEBR 9.0 8.8 8.8 8.6 8.6 8.4 8.3 8.3 8.1 8.1 8.1 8.0 8.0 8.0 8.1	MIN UARY 8.8 8.6 8.6 8.6 8.0 8.0 8.0 7.9 7.9 7.8 7.8 7.8	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2 12.0 12.0	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.6 10.6 10.7	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.4 10.4 10.4 10.4 10.4 10.4	MAX JANI 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.8 9.8 9.8 9.8	MIN UARY 9.6 9.4 9.4 9.2 9.2 9.2 9.0 9.6 9.6 9.6 9.6 9.6	MAX FEBR 9.0 8.8 8.8 8.6 8.6 8.4 8.3 8.3 8.3 8.1 8.1 8.1 8.1 8.0 8.0 8.0 8.1	MIN UARY 8.8 8.6 8.6 8.6 8.4 8.0 8.0 8.0 7.9 7.9 7.8 7.8 7.8 7.8	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX OCCI 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2 12.0 12.0	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.7	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MAX JAN 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.8 9.8 9.8 9.8	MIN UARY 9.6 9.4 9.2 9.2 9.2 9.0 9.0 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.4 9.4	MAX FEBR 9.0 8.8 8.8 8.6 8.6 8.4 8.3 8.3 8.3 8.1 8.1 8.1 7.9 7.9 7.8	MIN UARY 8.8 8.6 8.6 8.4 8.0 8.0 8.0 7.9 7.9 7.8 7.8 7.8 7.8 7.7 7.7	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.0 12.0 12.0	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MAX JAN 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.8 9.8 9.8 9.8	MIN UARY 9.6 9.4 9.4 9.2 9.2 9.2 9.0 9.0 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6	MAX FEBR 9.0 8.8 8.8 8.6 8.6 8.1 8.1 8.0 8.0 8.1 7.9	MIN UARY 8.8 8.6 8.6 8.4 8.0 8.0 8.0 7.9 7.9 7.8 7.8 7.8 7.8 7.8 7.7	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX OCCI 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.2 12.0 12.0	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.7	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MAX JAN 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.8 9.8 9.8 9.8	MIN UARY 9.6 9.4 9.2 9.2 9.2 9.0 9.0 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.4 9.4	MAX FEBR 9.0 8.8 8.8 8.6 8.6 8.4 8.3 8.3 8.3 8.1 8.1 8.1 7.9 7.9 7.8	MIN UARY 8.8 8.6 8.6 8.4 8.0 8.0 8.0 7.9 7.9 7.8 7.8 7.8 7.8 7.7 7.7	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN POBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.0 12.0 12.0	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.7 10.6 10.6 10.7 10.7 10.4	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MAX JAN 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.8 9.8 9.8 9.8	MIN UARY 9.6 9.4 9.4 9.2 9.2 9.2 9.0 9.0 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.4 9.4 9.4	MAX FEBR 9.0 8.8 8.8 8.6 8.6 8.4 8.3 8.3 8.1 8.1 8.1 8.0 8.0 8.0 8.1 8.1 7.9 7.9 7.8 7.7	MIN UARY 8.8 8.6 8.6 8.4 8.0 8.0 7.9 7.9 7.8 7.8 7.8 7.8 7.7 7.7	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.0 12.0 12.0	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.9 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.7 10.6 10.7 10.4 10.4	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MAX JAN 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.8 9.8 9.8 9.8 9.8	MIN UARY 9.6 9.4 9.2 9.2 9.2 9.0 9.0 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.4 9.4 9.4	MAX FEBR 9.0 8.8 8.8 8.6 8.6 8.4 8.3 8.3 8.1 8.1 8.1 7.9 7.9 7.7	MIN UARY 8.8 8.6 8.6 8.4 8.0 8.0 8.0 7.9 7.9 7.8 7.8 7.8 7.8 7.7 7.7 7.7	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.2 12.0 12.0 12.	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.7 10.6 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6 10.7 10.6	MIN CMBER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MAX JANI 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.8 9.8 9.8 9.8 9.8	MIN UARY 9.6 9.4 9.2 9.2 9.2 9.0 9.0 9.6 9.6 9.6 9.6 9.6 9.6 9.4 9.4 9.4 9.4 9.4	MAX FEBR 9.0 8.8 8.6 8.6 8.6 8.1 8.1 8.1 8.0 8.0 8.0 8.7 7.7	MIN UARY 8.8 8.6 8.6 8.6 8.4 8.0 8.0 8.0 7.9 7.9 7.8 7.8 7.8 7.8 7.7 7.7 7.7 7.5 7.5	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
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DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCT 12.2 12.5 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.0 12.2 12.2 12.2 12.2 12.2 12.2 12.	MAX NOV 12.2 12.2 12.2 12.2 12.0 12.0 12.0 12.0 12.0 12.1 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 11.9 11.8 11.7 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5	MIN EMBER 12.0 12.2 12.0 12.2 12.0 12.0 12.0 12.	MAX DECE 11.1 11.1 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.7 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.9 10.8 1	MIN MEER 11.1 11.1 10.9 10.9 10.8 10.6 10.6 10.6 10.6 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4	MAX JAN 10.0 9.8 9.6 9.6 9.4 9.4 9.4 9.4 9.8 9.8 9.8 9.8	MIN UARY 9.6 9.4 9.2 9.2 9.2 9.0 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	MAX FEBR 9.0 8.8 8.8 8.6 8.4 8.3 8.1 8.1 8.0 8.0 8.0 8.1 7.9 7.9 7.7 7.7 7.7 7.7 7.7 7.7	MIN UARY 8.8 8.6 8.6 8.6 8.4 8.0 8.0 7.9 7.9 7.8 7.8 7.8 7.8 7.5 7.5 7.5 7.5 7.5 7.5	7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	7.5 7.3 7.5 7.5 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1

411138081172500 PO-116 NR RAVENNA OH-Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MIN MAX MIN MAX MTN MTN MAX MTN MAX APRIL MAY JUNE JULY AUGUST SEPTEMBER 7.1 11.8 11.3 1 7.3 8.1 8.1 9.1 8.8 10.3 10.1 12.7 12.4 7 3 10 3 2 7 1 8 1 7 9 9 1 8 8 10 0 11 8 11 5 12 7 12 4 3 7.3 7.1 8.3 7.9 9.1 8.8 10.3 10.0 11.8 11.5 12.8 12.4 7.3 4 7.1 8.3 8.1 9.3 8.8 10.3 10.1 11.8 11.5 12.8 12.4 5 7.3 7.1 8.3 7.9 9.3 9.0 10.5 10.1 11.8 11.8 12.8 12.4 8.3 7.9 9.3 9.0 10.5 10.2 12.0 11.8 6 7.3 7.1 8.3 9.3 9.0 10.5 10.3 12.0 11.8 12.9 12.7 7.3 7.1 8.1 7.4 7.1 8.3 8.3 9.3 9.0 10.7 10.5 12.1 11.8 9 7.5 7.1 8.3 8.1 9.3 9.1 10.7 10.5 12.1 11.8 12.9 12.7 12.0 12.0 10 7.5 7.3 8.3 8.1 9.4 9.2 10.7 10.5 13.0 12.6 12.1 11 7.5 7.3 8.3 8.1 9.5 9.2 10.7 10.4 11.8 13.0 12.7 12 7.5 7.3 8.3 8.1 9.5 9.3 10.8 10.4 12.2 11.8 13.0 12 7 13 7.5 7.3 8.3 8.1 9.6 9.2 10.9 10.7 12.3 12.0 13.0 12.7 7.7 7.5 8.3 8.1 9.6 9.4 10.9 10.7 12.3 12.0 13.0 15 7.7 7.3 8.4 8.1 9.7 9.4 10.9 10.7 12.3 12.0 13.2 12.9 16 7.7 7.5 8.5 8.3 9.7 9.4 11.0 10.7 12.3 12.0 13.2 12.9 12 3 12 0 17 7 7 7 5 8 5 8 2 9 7 9 4 11 1 10 9 13 2 12 9 18 7.7 7.5 8.5 8.3 9.7 9.4 11.1 10.9 12.3 12.0 13.2 12.9 7.7 19 7.5 8.5 8.3 9.7 9.6 11.2 10.9 12.3 12.0 13.2 12.9 2.0 7.7 7.5 8.7 8.3 9.7 9.4 11.4 10.9 12.3 12.0 13.2 12.9 7.7 7.5 8.7 8.4 9.7 11.4 11.1 12.3 12.0 13.2 21 9.4 2.2 7.7 7.5 8.7 8.4 9.9 9.6 11.4 11.1 12.3 12.2 13.2 12.9 7.9 7.7 8.7 8.4 9.9 9.7 11.4 11.2 12.3 12.0 9.6 24 7.9 7.7 8.9 8.6 9.9 11.4 11.1 12.5 12.2 13.2 12.9 25 7.7 8.9 9.9 12.5 12.2 13.2 8.1 8.6 9.7 11.6 11.3 12.9 12.5 26 8.1 7.8 8.9 8.6 9.9 9.7 11.6 11.3 12.2 13.2 12.9 27 8.1 7.8 8.9 8.6 10.3 9.9 11.6 11.3 12.5 12.2 13.2 13.2 8.1 28 7.8 8.9 8.6 10.3 9.9 11.6 11.3 12.5 12.2 13.2 12.9 29 8.1 7.8 8.9 8.7 10.3 9.9 11.6 11.3 12.5 12.5 13.2 12.9 30 7.9 8.9 8.6 10.1 11.6 11.3 12.7 12.4 8.1 10.3 13.2 12.9 9.1 8.9 11.6 11.3 12.7 12.4 7 9 10 0 12 7 11 3 MONTH 8 1 7 1 9 1 10 3 8 8 11 6 13 2 12 4 13.2 YEAR TEMPERATURE, SOIL (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MAX MIN MIN MAX MIN OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH 1.3 1 14.1 12.9 8.2 7.3 5.7 4.5 1.0 1.4 . 7 4.9 4.1 2 12.9 11.1 8.2 7.7 3.7 1.7 2.2 3.7 4.5 . 9 . 9 4.3 3 7.7 7.1 4.4 3.0 3.9 1.7 1.9 1.3 3.0 13.6 11.6 3.8 7.1 14.7 12.8 6.4 4.6 4.2 5.0 3.9 1.5 1.1 3.2 2.8 4 5 15.8 14.3 7.1 6.2 4.2 3.2 6.0 4.7 1.4 1.0 2.8 2.4 6 16.3 14.6 6.4 5.6 3.2 2.2 6.9 6.0 1.3 2.4 7.9 16.1 14.4 6.6 6.1 2.6 2.2 6.7 1.5 . 6 3.3 8 16.6 15.2 6.8 6.5 2.6 2.5 7.7 6.5 1.4 4.3 9 16.2 14.7 7.4 6.7 2.6 2.4 6.5 5.3 . 5 3.0 10 16.2 14.8 7.2 6.8 2.7 2.6 5.3 4.1 2.3 . 6 4.6 11 14.8 12.8 6.8 6.1 2.6 2.5 4.1 2.8 2.8 1.6 3.0 2.5 12 13.8 11.7 6.1 4.9 2.6 2.1 2.8 2.0 2.9 2 3 2.5 2 2 13 14.7 12.4 4.9 3.5 2.1 1.7 3.1 2.2 2.3 1.9 2.2 1.6 14.6 12.8 4.1 3.8 1.7 1.5 2.2 1.2 2.0 1.6 1.7 14 1.7 15 12.8 10.8 4.0 3.8 1.8 1.3 1.3 1.1 1.9 . 9 1.7 1.7 10.9 9.7 3.8 3.6 2.5 2.0 16 1.5 1.4 1.3 9 1 7 1 3 2.0 17 11.0 9.4 3.7 2.8 2.1 1.4 1.6 1.4 3.0 2.0 1.0 18 10.5 2.8 2.0 1.0 3.9 8.8 1.6 1.6 1.4 3.0 4.1 2.0 2.4 19 9.9 3.4 3.0 1.5 1.0 3.8 3.5 8.3 1.5 5.3 4.1 20 9.9 8.6 3.8 2.7 2.4 1.6 1.3 1.0 3.6 3.4 5.1 4.5 21 9.5 8.3 4.4 3.6 2.1 1.6 1.0 . 5 3.5 3.2 4.5 3.5 22 8.8 7.8 4.6 4.4 2.0 1.3 . 5 . 5 3.7 2.5 3.5 4.8 4.2 2.0 1.1 3.8 23 8.1 6.9 2.4 2.9 3.3 24 8.1 7.3 4.2 2.8 2.6 2.2 1.1 3.8 4.0 2.1 25 3.1 1.9 3.3 2.6 4.0 4.2 8.7 8.1 1.1 . 8 3.3 1.8 4.3 1.7 3.9 2.7 7.5 2.6 8.6 8.2 3.1 3.1 2.4 1.0 4.2 27 8.7 7 5 4.5 3.6 2.5 2 2 2.1 1.0 4.6 3 5 9.8 7.4 2.8 7.7 6.9 5.0 4.0 2.3 1.6 2.1 1.1 4.4 3.6 10.2 8.3 29 7.8 6.3 5.6 5.0 1.6 1.1 1.9 1.1 11.7 9.0 ---30 7.9 6.1 6.0 5.6 1.3 1.1 1.9 1.5 ------12.3 10.0 31 8.1 6.5 ------1.3 1.1 1.7 1.2 ------12.6 10.5 MONTH 16.6 6.1 8.2 1.9 5.7 1.0 7.9 . 5 4.6 . 5 12.6 1.0

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

411138081172500 PO-116 NR RAVENNA OH-Continued

DAY MAX MIN MAX MIN MAX MIN MAX MIN MAX	98	
	MIN MAX	MIN
APRIL MAY JUNE JULY AUGUST	SEPT	EMBER
1 12.2 11.2 11.9 10.9 17.5 15.2 20.7 18.9 19.0 1	7.1 18.5	17.0
	6.6 18.6	17.6
	6.9 17.6	16.0
	7.5 17.4 8.5 17.4	15.6 15.5
	8.5 18.4	16.1
	8.9 18.1 9.1 17.2	17.2 15.8
	9.8 16.0	14.9
	0.0 15.3	13.7
11 9.2 6.4 14.4 13.6 15.4 13.8 19.1 17.1 20.9 1	9.4 15.8	13.8
	9.3 16.6	14.7
	8.3 17.2	15.7
14 9.8 9.1 16.3 13.3 17.4 16.6 19.3 17.4 20.0 1	8.4 17.6	15.9
15 10.5 9.2 17.3 14.2 17.2 15.9 20.2 18.3 20.1 1	8.4 18.1	17.1
16 11.3 9.9 17.2 15.0 17.1 16.0 20.7 18.7 20.6 1	8.7 18.0	17.6
17 11.4 10.1 16.9 14.2 18.1 16.4 20.6 19.2 20.8 1	9.1 17.8	16.8
	9.3 17.2	15.5
	7.3 17.8	16.2
	6.2 18.2	16.8
	7.0 18.5	17.7
	8.5 18.0	16.8
	8.3 16.8 9.3 14.8	14.6 13.1
	8.9 15.9	14.6
	8.3 17.6 7.9 18.0	15.5 16.9
	7.7 17.7	16.0
	8.9 16.0	14.0
30 11.2 9.8 18.4 15.9 20.7 19.8 19.8 18.3 19.7 1	8.3 16.3	14.9
31 17.9 16.8 19.7 17.9 19.3 1	8.1	
MONTH 12.2 5.3 18.4 10.9 22.3 11.8 21.3 16.5 21.0 1	6.2 18.6	13.1
YEAR 22.3 .5		
PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1 DAILY SUM VALUES	998	
PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1 DAILY SUM VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	998 JUL AUG	SEP
DAILY SUM VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG	
DAILY SUM VALUES		SEP .00 .02
DAILY SUM VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00 .00 .00 .00 .00 .00 .00 .00	JUL AUG	.00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00
DAILY SUM VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUL AUG .00 .00 .00 .00 .00 .00	.00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .00 .00 .00 .00	.00 .02 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00	.00 .02 .00 .00 .00 .00 .00 .08 .00 .01
DAILY SUM VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .00 .00 .00 .02 .00 .15	.00 .02 .00 .00 .00 .00 .08 .00 .01
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .00 .02 .00 .15 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00 .08 .00 .01 .00
DAILY SUM VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .00 .00 .00 .02 .00 .15	.00 .02 .00 .00 .00 .00 .00 .01 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .00 .00 .00 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00 .08 .00 .01 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00	.00 .02 .00 .00 .00 .00 .08 .00 .01 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .00 .00 .00 .02 .00 .05 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00 .08 .00 .01 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .00 .02 .00 .05 .00	.00 .02 .00 .00 .00 .00 .01 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00	.00 .02 .00 .00 .00 .00 .01 .00 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00	.00 .02 .00 .00 .00 .00 .01 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00	.00 .02 .00 .00 .00 .00 .01 .00 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00	.00 .02 .00 .00 .00 .00 .00 .01 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .0	.00 .02 .00 .00 .00 .00 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN 1 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .0	.00 .02 .00 .00 .00 .00 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00	.00 .02 .00 .00 .00 .00 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00 .00 .00 .00 .00
DAY OCT NOV DEC JAN FEB MAR APR MAY JUN	JUL AUG .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .02 .00 .00 .00 .00 .00 .00 .00 .00

WTR YR 1998 TOTAL 2.64

411138081172500 PO-116 NR RAVENNA OH-Continued

DEICING SALT LBS/LANE-MILE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3						900						
4						290						
5			750		986							
6			289									
7			1400									
8												
9												
10						2280						
11			300			2440						
12			600			1300						
13						320						
14		1100				1280						
15						900						
16												
17												
18				900								
19				1400								
20				1875								
21						500						
22				300								
23				700								
24		400		600								
25		300										
26												
27			353									
28			297									
29												
30			900									
31												
TOTAL		1800	4889	5775	986	10210						

WTR YR 1998 TOTAL 23660

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

GROUND-WATER RECORDS

393541083001100. Local number, PK-48.

LOCATION.--Lat 39°35'41" Long 83°00'11", Hydrologic Unit 05060002, along State Route 104 near Circleville, OH. Owner. -- USGS/Stacy and Clesson Thomas.

AOUIFER. -- Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 28 ft. Cased with Sch 40 PVC to 8 ft; .010 in. screen from 8 to 28 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: water level, air temperature, soil temperature, water temperature, and specific conductance. Conductivity/water temperature probe set at 16.0 feet below land surface.

DATUM.--Elevation of land-surface datum is 678.50 feet above sea level. Measuring point: shelter shelf 3.36 ft above land-surface datum.

REMARKS. - -

PERIOD OF RECORD. -- February 1991 to current year.

PERIOD OF DAILY RECORD. --

WATER LEVEL: February 1991 to current year.

SPECIFIC CONDUCTANCE: February 1991 to current year.

AIR TEMPERATURE: February 1991 to current year.

WATER TEMPERATURE: February 1991 to current year.

SOIL TEMPERATURE: February 1991 to current year.

PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD .--

WATER LEVEL: Maximum daily low, 13.11 ft. below land-surface datum, June 18, 1992; maximum daily high, 6.50 ft. below land-surface datum, June 20, 1996.

SPECIFIC CONDUCTANCE: Maximum, 933 microsiemens April 15, 1994; minimum, 565 microsiemens November 17-19, 24-25,

AIR TEMPERATURE: Maximum, 37.5°C July 15,1995; minimum, -34.1°C January 19, 1994.

WATER TEMPERATURE: Maximum, 15.0°C October 20-21 1991; minimum, 10.6°C April 29, 1993. SOIL TEMPERATURE: Maximum, 32.5°C September 16, 1991; minimum, -2.2°C February 12, 1994.

EXTREMES FOR CURRENT YEAR --

WATER LEVEL: Maximum daily low, 11.31 ft. below land-surface datum, December 7-10, 1997; maximum daily high, 7.01 ft. below land-surface datum, July 15, 1998.

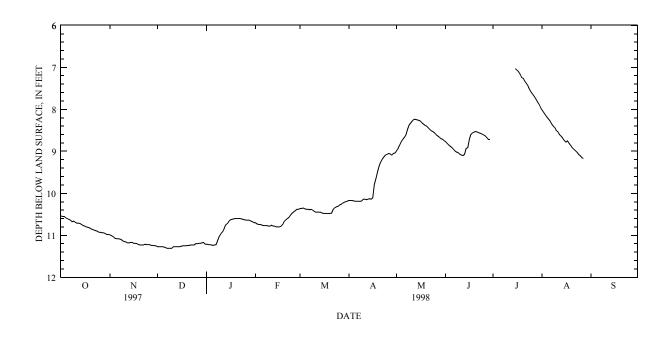
SPECIFIC CONDUCTANCE: Maximum, 715 microsiemens June 30, 1998; minimum, 565 microsiemens November 17-19, 24-25, 1997.

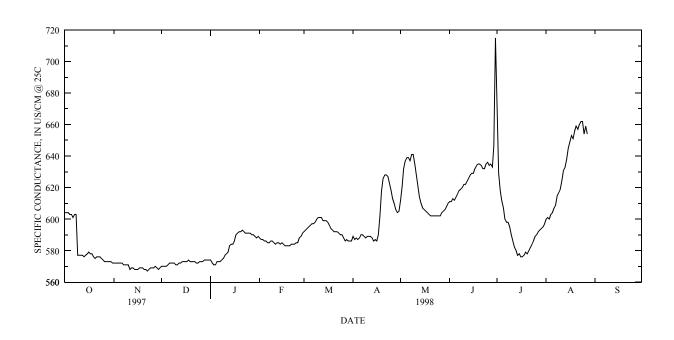
AIR TEMPERATURE: Maximum, 34.5° C August 7, 1998; minimum, -11.4° C March 13, 1998.

WATER TEMPERATURE: Maximum, 13.3°C several days in November, December, 1997, and January, 1998; minimum, 11.5°C May 2-6, 10, 1998.

SOIL TEMPERATURE: Maximum, 24.7°C June 28, 1998; minimum, 2.0°C January 22, February 9-10, 1998.

393541083001100 PK-48 NR CIRCLEVLE OH—Continued





Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

393541083001100 PK-48 NR CIRCLEVLE OH-Continued

	г	ובס עייסקו	OM LI MO.		NATED I.EV	/EL) (FEET)				7 TO SEDTE	MRED 100	Ω
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
DAI	MAA	OCTOBE			NOVEMBER			DECEMBER	MEAN	MAA	JANUAR	
1	10 E4								11 26	11 01		
1 2	10.54 10.55	10.51 10.53	10.52 10.54	10.99 11.01	10.98 10.99	10.98 11.00	11.27 11.27	11.25 11.27	11.26 11.27	11.21 11.22	11.21 11.21	11.21 11.21
3	10.55	10.53	10.54	11.01	11.01	11.00	11.27	11.26	11.27	11.22	11.21	11.22
4	10.58	10.55	10.56	11.03	11.03	11.05	11.27	11.26	11.27	11.23	11.22	11.23
5	10.60	10.58	10.59	11.08	11.07	11.08	11.28	11.27	11.28	11.24	11.23	11.23
6	10.62	10.60	10.61	11.08	11.08	11.08	11.29	11.28	11.29	11.23	11.22	11.23
7	10.64	10.62	10.63	11.09	11.08	11.09	11.31	11.29	11.30	11.22	11.12	11.19
8	10.68	10.63	10.64	11.10	11.09	11.10	11.31	11.31	11.31	11.12	11.02	11.06
9	10.66	10.64	10.65	11.13	11.10	11.12	11.31	11.31	11.31	11.02	10.96	10.99
10	10.69	10.66	10.68	11.15	11.13	11.14	11.31	11.27	11.28	10.96	10.92	10.94
11	10.71	10.69	10.70	11.16	11.15	11.15	11.27	11.27	11.27	10.92	10.84	10.88
12	10.71	10.71	10.71	11.18	11.16	11.17	11.27	11.27	11.27	10.84	10.76	10.80
13	10.72	10.71	10.71	11.18	11.17	11.18	11.27	11.25	11.26	10.76	10.72	10.74
14	10.74	10.72	10.73	11.17	11.16	11.16	11.27	11.26	11.26	10.72	10.67	10.70
15	10.77	10.74	10.75	11.17	11.17	11.17	11.27	11.26	11.27	10.67	10.63	10.65
16	10.78	10.77	10.78	11.19	11.17	11.18	11.26	11.24	11.25	10.63	10.62	10.62
17	10.80	10.78	10.79	11.19	11.19	11.19	11.25	11.24	11.24	10.62	10.61	10.61
18	10.81	10.80	10.81	11.20	11.19	11.20	11.25	11.25	11.25	10.61	10.60	10.60
19	10.82	10.81	10.81	11.22	11.20	11.21	11.25	11.24	11.25	10.60	10.60	10.60
20	10.85	10.82	10.83	11.23	11.22	11.23	11.24	11.24	11.24	10.60	10.60	10.60
21	10.86	10.85	10.85	11.23	11.23	11.23	11.24	11.23	11.24	10.60	10.60	10.60
22	10.88	10.86	10.87	11.23	11.20	11.21	11.23	11.22	11.22	10.60	10.59	10.60
23	10.89	10.88	10.89 10.90	11.21	11.19	11.19	11.23	11.22	11.23	10.61	10.59	10.60
24 25	10.90 10.93	10.89 10.90	10.90	11.22 11.22	11.21 11.21	11.22 11.21	11.23 11.20	11.20 11.20	11.21 11.20	10.62 10.63	10.60 10.62	10.61 10.63
26	10.93	10.91	10.93 10.92	11.22	11.19	11.20	11.20 11.19	11.19 11.18	11.19	10.64 10.64	10.63	10.64
27 28	10.94 10.94	10.91 10.94	10.92	11.24 11.24	11.22 11.23	11.23 11.23	11.19	11.18	11.18 11.18	10.64	10.63 10.64	10.64 10.64
29	10.94	10.94	10.94	11.24	11.23	11.24	11.19	11.16	11.17	10.64	10.64	10.64
30	10.98	10.96	10.97	11.25	11.24	11.24	11.17	11.16	11.16	10.68	10.66	10.67
31	10.98	10.98	10.98				11.21	11.17	11.19	10.70	10.68	10.69
MONTH	10.98	10.51	10.76	11.25	10.98	11.16	11.31	11.16	11.24	11.24	10.59	10.82
11011111												
						/EL) (FEET)						
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUAR	Y		MARCH			APRIL			MAY	
1	10.70	10.70	10.70	10.36	10.36	10.36	10.17	10.15	10.16	8.98	8.93	8.96
2	10.73	10.70	10.72	10.36	10.35	10.35	10.17	10.16	10.16	8.93	8.85	8.90
3	10.74	10.73	10.74	10.35	10.35	10.35	10.17	10.15	10.16	8.85	8.77	8.81
4	10.74	10.73	10.73	10.37	10.35	10.36	10.18	10.15	10.17	8.77	8.71	8.73
5	10.76	10.74	10.74	10.38	10.36	10.38	10.19	10.18	10.18	8.71	8.66	8.69
6	10.77	10.76	10.76	10.38	10.38	10.38	10.19	10.18	10.19	8.66	8.60	8.64
7	10.77	10.77	10.77	10.39	10.38	10.38	10.19	10.18	10.19	8.60	8.47	8.56
8	10.77	10.77	10.77	10.38	10.35	10.36	10.19	10.18	10.18	8.47	8.37	8.41
9	10.78	10.77 10.76	10.77	10.40	10.34	10.36	10.18	10.13	10.14	8.37	8.32	8.35
10	10.78		10.77	10.43	10.40	10.42	10.14	10.13	10.13	8.32	8.28	8.30
11	10.76	10.73	10.74	10.45	10.43	10.44	10.14	10.14	10.14	8.28	8.24	8.26
12	10.78	10.74	10.76	10.45	10.45	10 45						
13 14		10 70				10.45	10.15	10.14	10.14	8.24	8.24	8.24
1.1	10.78	10.78	10.78	10.45	10.41	10.44	10.14	10.12	10.13	8.24	8.23	8.24
15	10.80	10.78	10.78 10.79	10.45 10.45	10.41 10.41	10.44 10.43	10.14 10.13	10.12 10.12	10.13 10.12	8.24 8.25	8.23 8.24	8.24 8.24
15	10.80	10.78 10.80	10.78 10.79 10.80	10.45 10.45 10.47	10.41 10.41 10.45	10.44 10.43 10.47	10.14 10.13 10.14	10.12 10.12 10.11	10.13 10.12 10.13	8.24 8.25 8.26	8.23 8.24 8.24	8.24 8.24 8.25
16	10.80 10.80 10.80	10.78 10.80 10.78	10.78 10.79 10.80	10.45 10.45 10.47	10.41 10.41 10.45	10.44 10.43 10.47	10.14 10.13 10.14	10.12 10.12 10.11 9.79	10.13 10.12 10.13 9.91	8.24 8.25 8.26 8.28	8.23 8.24 8.24 8.25	8.24 8.24 8.25 8.26
16 17	10.80 10.80 10.80 10.78	10.78 10.80 10.78 10.74	10.78 10.79 10.80 10.79 10.76	10.45 10.45 10.47 10.48 10.48	10.41 10.41 10.45 10.47	10.44 10.43 10.47 10.48 10.48	10.14 10.13 10.14 10.11 9.79	10.12 10.12 10.11 9.79 9.65	10.13 10.12 10.13 9.91 9.72	8.24 8.25 8.26 8.28 8.32	8.23 8.24 8.24 8.25 8.28	8.24 8.24 8.25 8.26 8.31
16 17 18	10.80 10.80 10.80 10.78 10.74	10.78 10.80 10.78 10.74 10.67	10.78 10.79 10.80 10.79 10.76 10.72	10.45 10.45 10.47 10.48 10.48	10.41 10.45 10.47 10.47 10.47	10.44 10.43 10.47 10.48 10.48 10.47	10.14 10.13 10.14 10.11 9.79 9.65	10.12 10.12 10.11 9.79 9.65 9.49	10.13 10.12 10.13 9.91 9.72 9.57	8.24 8.25 8.26 8.28 8.32 8.35	8.23 8.24 8.24 8.25 8.28 8.32	8.24 8.24 8.25 8.26 8.31 8.34
16 17 18 19	10.80 10.80 10.78 10.74 10.67	10.78 10.80 10.78 10.74 10.67 10.63	10.78 10.79 10.80 10.79 10.76 10.72 10.65	10.45 10.47 10.48 10.48 10.48 10.48	10.41 10.45 10.47 10.47 10.47 10.47	10.44 10.43 10.47 10.48 10.48 10.47	10.14 10.13 10.14 10.11 9.79 9.65 9.49	10.12 10.12 10.11 9.79 9.65 9.49 9.35	10.13 10.12 10.13 9.91 9.72 9.57 9.41	8.24 8.25 8.26 8.28 8.32 8.35 8.38	8.23 8.24 8.24 8.25 8.28 8.32 8.35	8.24 8.24 8.25 8.26 8.31 8.34 8.36
16 17 18 19 20	10.80 10.80 10.78 10.74 10.67 10.63	10.78 10.80 10.78 10.74 10.67 10.63	10.78 10.79 10.80 10.79 10.76 10.72 10.65 10.61	10.45 10.45 10.47 10.48 10.48 10.48 10.48	10.41 10.45 10.47 10.47 10.47 10.47 10.47	10.44 10.43 10.47 10.48 10.48 10.47 10.47	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30	8.24 8.25 8.26 8.28 8.32 8.35 8.38 8.40	8.23 8.24 8.24 8.25 8.28 8.32 8.35 8.37	8.24 8.24 8.25 8.26 8.31 8.34 8.36 8.39
16 17 18 19 20	10.80 10.80 10.78 10.74 10.67 10.63	10.78 10.80 10.78 10.74 10.67 10.63 10.60	10.78 10.79 10.80 10.79 10.76 10.72 10.65 10.61	10.45 10.45 10.47 10.48 10.48 10.48 10.48 10.48	10.41 10.45 10.47 10.47 10.47 10.47 10.47 10.46	10.44 10.43 10.47 10.48 10.48 10.47 10.47 10.47	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30 9.21	8.24 8.25 8.26 8.28 8.32 8.35 8.38 8.40	8.23 8.24 8.24 8.25 8.28 8.32 8.35 8.37	8.24 8.24 8.25 8.26 8.31 8.34 8.36 8.39
16 17 18 19 20	10.80 10.80 10.78 10.74 10.67 10.63	10.78 10.80 10.78 10.74 10.67 10.63	10.78 10.79 10.80 10.79 10.76 10.72 10.65 10.61	10.45 10.45 10.47 10.48 10.48 10.48 10.48	10.41 10.45 10.47 10.47 10.47 10.47 10.47	10.44 10.43 10.47 10.48 10.48 10.47 10.47	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30	8.24 8.25 8.26 8.28 8.32 8.35 8.38 8.40	8.23 8.24 8.24 8.25 8.28 8.32 8.35 8.37	8.24 8.24 8.25 8.26 8.31 8.34 8.36 8.39 8.42 8.46
16 17 18 19 20 21	10.80 10.80 10.78 10.74 10.67 10.63 10.60 10.57	10.78 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52	10.78 10.79 10.80 10.79 10.76 10.72 10.65 10.61 10.58 10.55	10.45 10.47 10.48 10.48 10.48 10.48 10.48	10.41 10.45 10.47 10.47 10.47 10.47 10.46 10.38 10.34	10.44 10.43 10.47 10.48 10.48 10.47 10.47 10.47 10.47	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35 9.25 9.18	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30 9.21 9.15	8.24 8.25 8.26 8.28 8.32 8.35 8.38 8.40 8.44	8.23 8.24 8.24 8.25 8.28 8.32 8.35 8.37 8.40	8.24 8.24 8.25 8.26 8.31 8.34 8.36 8.39
16 17 18 19 20 21 22 23	10.80 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52	10.78 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47	10.78 10.79 10.80 10.76 10.72 10.65 10.61 10.58 10.55 10.49	10.45 10.45 10.47 10.48 10.48 10.48 10.48 10.48 10.48	10.41 10.45 10.47 10.47 10.47 10.47 10.46 10.38 10.34 10.32	10.44 10.43 10.47 10.48 10.48 10.47 10.47 10.47 10.47 10.47	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30 9.21 9.15 9.11	8.24 8.25 8.26 8.28 8.32 8.35 8.38 8.40 8.44 8.48	8.23 8.24 8.24 8.25 8.28 8.32 8.35 8.37 8.40 8.44	8.24 8.24 8.25 8.26 8.31 8.34 8.36 8.39 8.42 8.46 8.49
16 17 18 19 20 21 22 23 24 25	10.80 10.80 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47	10.78 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47 10.44	10.78 10.79 10.80 10.76 10.72 10.65 10.61 10.58 10.55 10.49 10.46 10.43	10.45 10.45 10.47 10.48 10.48 10.48 10.48 10.48 10.48 10.38	10.41 10.45 10.47 10.47 10.47 10.47 10.46 10.38 10.34 10.32 10.31	10.44 10.43 10.47 10.48 10.48 10.47 10.47 10.47 10.47 10.35 10.33 10.32	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30 9.21 9.15 9.11 9.08 9.06	8.24 8.25 8.26 8.32 8.35 8.38 8.40 8.44 8.51 8.53	8.23 8.24 8.24 8.25 8.28 8.32 8.37 8.40 8.44 8.48 8.51	8.24 8.24 8.25 8.26 8.31 8.34 8.39 8.42 8.49 8.51 8.54
16 17 18 19 20 21 22 23 24	10.80 10.80 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47	10.78 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47 10.44	10.78 10.79 10.80 10.76 10.72 10.65 10.61 10.58 10.55 10.49 10.46	10.45 10.45 10.47 10.48 10.48 10.48 10.48 10.48 10.34	10.41 10.45 10.47 10.47 10.47 10.47 10.46 10.38 10.34 10.32 10.31	10.44 10.43 10.47 10.48 10.47 10.47 10.47 10.47 10.44 10.35 10.33 10.32	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30 9.21 9.15 9.11 9.08	8.24 8.25 8.26 8.28 8.32 8.35 8.38 8.40 8.44 8.51 8.53	8.23 8.24 8.24 8.25 8.32 8.35 8.37 8.40 8.44 8.48	8.24 8.24 8.25 8.26 8.31 8.34 8.36 8.39 8.42 8.42 8.49 8.51
16 17 18 19 20 21 22 23 24 25	10.80 10.80 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47 10.44	10.78 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47 10.44 10.41	10.78 10.79 10.80 10.79 10.76 10.65 10.65 10.65 10.49 10.46 10.43	10.45 10.47 10.48 10.48 10.48 10.48 10.48 10.47 10.38 10.34 10.32 10.31	10.41 10.45 10.47 10.47 10.47 10.46 10.38 10.34 10.32 10.31 10.28	10.44 10.43 10.47 10.48 10.48 10.47 10.47 10.47 10.47 10.35 10.33 10.32 10.30	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07 9.05	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30 9.21 9.15 9.11 9.08 9.06	8.24 8.25 8.26 8.28 8.32 8.35 8.38 8.40 8.44 8.51 8.53 8.56	8.23 8.24 8.24 8.25 8.32 8.35 8.37 8.40 8.44 8.51 8.53	8.24 8.24 8.25 8.26 8.31 8.34 8.36 8.39 8.42 8.46 8.49 8.51 8.54
16 17 18 19 20 21 22 23 24 25 26 27 28 29	10.80 10.80 10.80 10.78 10.74 10.63 10.60 10.57 10.52 10.47 10.41 10.38 10.38	10.78 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47 10.44 10.41 10.38 10.38	10.78 10.79 10.80 10.79 10.76 10.72 10.65 10.61 10.55 10.49 10.46 10.43 10.38	10.45 10.47 10.48 10.48 10.48 10.48 10.48 10.38 10.34 10.32 10.31 10.28 10.26 10.23 10.21	10.41 10.45 10.47 10.47 10.47 10.46 10.38 10.34 10.32 10.31 10.28 10.26 10.23 10.21	10.44 10.43 10.47 10.48 10.47 10.47 10.47 10.47 10.35 10.33 10.32 10.30 10.27 10.25 10.22 10.21	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07 9.05 9.06	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07 9.05 9.04 9.05 9.05	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30 9.21 9.15 9.11 9.08 9.06 9.04	8.24 8.25 8.26 8.32 8.35 8.38 8.40 8.44 8.51 8.53 8.56 8.60 8.63 8.66 8.70	8.23 8.24 8.24 8.25 8.28 8.32 8.35 8.37 8.40 8.44 8.51 8.53 8.56 8.60 8.63 8.66	8.24 8.24 8.25 8.26 8.31 8.34 8.39 8.42 8.46 8.49 8.51 8.54 8.58 8.61 8.65 8.68
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	10.80 10.80 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47 10.44 10.38 10.38	10.78 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47 10.44 10.41 10.38 10.38	10.78 10.79 10.80 10.79 10.76 10.72 10.65 10.61 10.58 10.49 10.46 10.43 10.39 10.38	10.45 10.47 10.48 10.48 10.48 10.48 10.48 10.38 10.34 10.32 10.31 10.28 10.26 10.23 10.21	10.41 10.45 10.47 10.47 10.47 10.47 10.46 10.38 10.34 10.32 10.31 10.28 10.23 10.21 10.20 10.18	10.44 10.43 10.47 10.48 10.48 10.47 10.47 10.47 10.35 10.33 10.32 10.30 10.27 10.25 10.22 10.21 10.19	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07 9.05 9.06 9.09	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07 9.05 9.04 9.05 9.04	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30 9.21 9.15 9.11 9.08 9.04 9.05 9.04 9.02	8.24 8.25 8.26 8.32 8.35 8.38 8.40 8.44 8.51 8.53 8.56 8.60 8.63 8.70 8.71	8.23 8.24 8.24 8.25 8.28 8.32 8.37 8.40 8.44 8.51 8.53 8.56 8.60 8.63	8.24 8.24 8.25 8.26 8.31 8.34 8.39 8.42 8.46 8.49 8.51 8.54 8.61 8.61 8.68 8.71
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	10.80 10.80 10.80 10.78 10.74 10.63 10.60 10.57 10.52 10.47 10.44 10.41 10.38	10.78 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47 10.44 10.41 10.38 10.38	10.78 10.79 10.80 10.79 10.76 10.72 10.65 10.61 10.55 10.49 10.46 10.43 10.38 10.38	10.45 10.45 10.47 10.48 10.48 10.48 10.48 10.38 10.34 10.32 10.31 10.28 10.26 10.23 10.21 10.20 10.18	10.41 10.45 10.47 10.47 10.47 10.46 10.38 10.32 10.31 10.28 10.26 10.23 10.21 10.20 10.18 10.17	10.44 10.43 10.47 10.48 10.48 10.47 10.47 10.47 10.35 10.33 10.32 10.30 10.27 10.25 10.22 10.21 10.19	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07 9.05 9.06 9.09	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07 9.05 9.05 9.04	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30 9.21 9.15 9.11 9.08 9.06 9.04 9.05 9.04	8.24 8.25 8.26 8.32 8.35 8.38 8.40 8.44 8.51 8.53 8.60 8.60 8.63 8.70 8.71	8.23 8.24 8.24 8.25 8.28 8.32 8.35 8.37 8.40 8.44 8.51 8.53 8.56 8.60 8.63 8.66 8.69 8.71	8.24 8.24 8.25 8.26 8.31 8.34 8.36 8.49 8.51 8.54 8.65 8.65 8.67 8.71
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	10.80 10.80 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47 10.44 10.38 10.38	10.78 10.80 10.78 10.74 10.67 10.63 10.60 10.57 10.52 10.47 10.44 10.41 10.38 10.38	10.78 10.79 10.80 10.79 10.76 10.72 10.65 10.61 10.58 10.49 10.46 10.43 10.39 10.38	10.45 10.47 10.48 10.48 10.48 10.48 10.48 10.38 10.34 10.32 10.31 10.28 10.26 10.23 10.21	10.41 10.45 10.47 10.47 10.47 10.47 10.46 10.38 10.34 10.32 10.31 10.28 10.23 10.21 10.20 10.18	10.44 10.43 10.47 10.48 10.48 10.47 10.47 10.47 10.35 10.33 10.32 10.30 10.27 10.25 10.22 10.21 10.19	10.14 10.13 10.14 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07 9.05 9.06 9.09	10.12 10.12 10.11 9.79 9.65 9.49 9.35 9.25 9.18 9.13 9.09 9.07 9.05 9.04 9.05 9.04	10.13 10.12 10.13 9.91 9.72 9.57 9.41 9.30 9.21 9.15 9.11 9.08 9.04 9.05 9.04 9.02	8.24 8.25 8.26 8.32 8.35 8.38 8.40 8.44 8.51 8.53 8.56 8.60 8.63 8.70 8.71	8.23 8.24 8.24 8.25 8.28 8.32 8.37 8.40 8.44 8.51 8.53 8.56 8.60 8.63	8.24 8.24 8.25 8.26 8.31 8.34 8.39 8.42 8.46 8.49 8.51 8.54 8.58 8.61 8.65 8.65 8.71

393541083001100 PK-48 NR CIRCLEVLE OH-Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MEAN MAX MIN MEAN MAX MIN MEAN MIN MEAN MIN MAX JUNE JULY AUGUST SEPTEMBER 7.96 1 8.77 8.74 8.76 8.02 7.99 2 8 77 _ _ _ ___ ---___ ---8 81 8 78 8 07 8 02 8 04 3 8.85 8.81 8.83 ---------8.13 8.07 8.10 ---------------------_ _ _ 4 8.88 8.85 8.86 8.18 8.13 8.15 5 8.91 8.88 8.89 ---_ _ _ _ _ _ 8.23 8.18 8.20 _ _ _ ---_ _ _ 8.26 6 8.95 8.91 8.93 8.28 8.23 8.99 8.95 8.97 8.35 8.28 8.32 8 9.02 8.99 9.01 8.40 8.35 8.38 9 9.03 9.02 9.03 8.44 8.40 8.43 10 9.05 ---------------9.07 9.03 8.50 8.44 8.47 ------11 9.09 9.07 9.07 8.54 8.50 8.52 12 9.10 9.07 9.08 ---------8.60 8.54 8.57 ---___ _ _ _ 13 9.07 8.93 8.95 ---------8.64 8.60 8.62 ---___ _ _ _ 14 8.93 8.90 8.92 8.69 8.64 8.66 ---15 8.91 8.71 8.83 7.03 7.01 7.02 8.74 8.69 8.71 ---___ _ _ _ 16 8.71 8.60 8.65 7.06 7.03 7.04 8.78 8.71 8.75 ---------7 05 7 08 8 75 8 72 ---___ _ _ _ 17 8 60 8 56 8 58 7 10 8 69 18 8.56 8.53 8.55 7.16 7.10 7.13 8.81 8.75 8.78 ---------7.16 7.20 ------_ _ _ 19 8.54 8.51 8.53 7.24 8.86 8.81 8.84 20 8.53 8.52 8.52 7.26 7.20 7.23 8.91 8.86 8.88 _ _ _ ---_ _ _ 7.33 7.26 7.29 8.95 8.91 8.93 21 8.54 8.52 8.53 2.2 8.56 8.54 8.55 7.38 7.33 7.36 8.98 8.95 8.97 23 8.57 8.55 8.56 7.44 7.38 7.40 9.02 8.98 9.01 24 8.59 8.57 8.58 7.52 7.44 7.48 9.07 9.02 9.05 25 7.59 7.52 7.55 9.10 9.07 ------8.61 8.59 8.60 9.09 ---26 8.63 8.61 8.62 7.64 7.59 7.61 9.15 9.10 9.12 27 8.67 8.63 8.65 7.69 7.64 7.66 9.17 9.15 9.16 ---___ _ _ _ 28 8.72 8.67 8.69 7.75 7.69 7.72 ------___ ---29 8.72 7.50 7.73 7.82 7.75 7.78 ------------------30 7.88 7.82 7.84 ___ ---_ _ _ _ _ _ ---------------------___ _ _ _ 7.96 7.88 7.92 7 96 7 01 7 43 ___ _ _ _ момтн 9.10 7.50 8.73 9 17 7 96 8 62 ---

11.31

YEAR

7.01

9.93

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MAX MIN MAX MIN MAX MIN MIN NOVEMBER FEBRUARY DECEMBER JANUARY OCTOBER MARCH 1 604 602 572 570 570 569 574 571 588 584 592 588 572 571 570 572 2 604 602 568 569 587 583 593 590 3 604 601 572 568 570 568 571 570 587 585 594 590 4 603 602 572 569 570 569 571 570 586 582 595 591 5 570 603 601 572 567 571 573 569 586 582 596 592 6 601 600 572 567 572 568 573 569 585 582 597 593 571 571 573 570 585 597 603 600 567 572 580 593 8 571 572 570 570 579 603 568 567 574 586 598 575 577 571 567 572 568 575 574 586 580 600 595 10 577 575 571 567 571 570 577 572 585 581 601 594 11 577 575 568 567 571 571 578 574 584 583 601 594 12 577 575 569 567 572 571 579 575 585 584 601 595 13 576 575 569 566 572 570 583 578 585 581 599 595 14 577 575 568 567 573 568 584 579 584 580 599 595 15 578 574 568 567 573 569 584 580 585 581 599 595 16 579 574 568 568 573 569 586 581 584 580 598 593 578 574 573 590 17 569 565 569 583 583 582 596 592 578 573 569 565 574 570 591 584 583 582 594 593 18 576 572 573 570 19 569 565 592 588 583 582 593 591 20 575 573 568 566 573 571 592 589 583 583 592 588 21 576 573 568 567 573 572 593 588 584 583 592 588 567 571 592 588 576 573 567 573 584 581 592 588 576 23 572 568 567 572 572 591 588 584 583 591 24 575 573 569 565 572 572 591 588 585 581 590 25 574 572 569 565 573 571 591 587 585 590 587 581 569 588 2.6 573 572 567 573 569 591 587 582 588 585 27 573 572 570 568 573 570 590 586 589 585 586 585 2.8 573 570 569 567 574 570 590 585 591 586 587 585 29 573 570 568 567 574 570 589 585 586 585 30 573 570 569 568 574 570 588 585 _ _ _ _ _ _ 586 585 31 572 570 ---574 570 589 585 ------586 585 MONTH 604 568 572 565 574 568 593 569 591 579 601 585

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

393541083001100 PK-48 NR CIRCLEVLE OH-Continued

	CDEC	TETC COMP	TICTA NCE	/MTCDOCTEM			CIKCLEATE			TO CEDTE	4DED 1000	
D311									OBER 1997			
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
		RIL		MAY	JU			JLY	AUG			TEMBER
1 2	589 587	585 586	612 621	605 612	611 611	606 607	666 629	629 618	600 601	592 594		
3	588	584	632	619	613	608	618	612	600	594		
4	587	584	637	629	612	610	612	607	603	598		
5	588	584	639	635	614	612	607	598	604	601		
6	590	585	639	634	616	614	600	594	607	603		
7	590	583	637	636	618	616	598	594	609	605		
8 9	589 588	585 585	641 641	636 635	619 620	617 618	598 595	594 588	615 617	607 615		
10	589	587	635	628	622	620	590	584	619	616		
11	589	583	628	620	622	621	586	579	625	619		
12	589	585	620	614	624	622	582	575	631	622		
13	588	585	614	610	626	623	580	574	633	630		
14	586	585	610	606	628	625	577	574	638	632		
15	587	585	607	605	629	626	578	573	645	635		
16 17	586 590	584 585	606 605	604 602	629 632	627 629	576 576	575 574	649 653	642 645		
18	602	585	604	601	634	631	576 577	574 574	653	646		
19	618	602	603	601	635	631	579	576	656	650		
20	626	618	602	600	635	630	578	576	659	649		
21	628	625	602	601	634	631	580	578	657	649		
22	628	626	602	601	632	630	582	579	660	650		
23 24	627 623	622 618	602 602	601 601	632 635	631 631	584 586	581 583	662 662	649 650		
25	618	613	602	601	636	632	589	585	654	649		
26	613	610	602	601	634	632	590	586	659	650		
27	610	605	604	602	635	632	592	587	654	650		
28	606	603	605	603	633	631	593	590				
29	604	603	606	602	647	631	594	590				
30 31	605	603	608 610	604 605	715	647	595 597	590 591				
MONTH	628	583	641	600	715	606	666	573	662	592		
	715	565										
YEAR	/15											
YEAR	/15		ERATURE,	AIR, DEGRI	EES CELSIU	JS, WATER	YEAR OCT	OBER 1997	TO SEPTEM	IBER 1998		
DAY	MAX		ERATURE, MAX	AIR, DEGRI	EES CELSIU	JS, WATER	YEAR OCT	OBER 1997 MIN	TO SEPTEM	IBER 1998 MIN	MAX	MIN
	MAX	TEMP	MAX			MIN	MAX			MIN	MAX	MIN ARCH
	MAX	TEMPI MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
DAY 1 2	MAX OCT 16.7 20.3	TEMPI MIN OBER 1.0 -1.3	MAX NOVI 13.7 10.1	MIN EMBER 5.1 4.0	MAX DECE 4.2 5.1	MIN MBER .7	MAX JAN 3.3 9.3	MIN IUARY -10.7 2.8	MAX FEBR 9.0 11.9	MIN UARY -7.2 -1.9	MAX MZ 9.9 6.7	ARCH 1 -1.9
DAY 1 2 3	MAX OCT 16.7 20.3 26.3	TEMPI MIN OBER 1.0 -1.3 6.8	MAX NOVE 13.7 10.1 4.5	MIN EMBER 5.1 4.0	MAX DECE 4.2 5.1 11.9	MIN MBER .7 -1.2	MAX JAN 3.3 9.3 13.0	MIN JUARY -10.7 2.8 8.8	MAX FEBR 9.0 11.9 3.5	MIN UARY -7.2 -1.9 -3.0	MAX MA 9.9 6.7 2.9	1 -1.9 -2.1
DAY 1 2 3 4	MAX OCT 16.7 20.3 26.3 29.7	TEMPI MIN COBER 1.0 -1.3 6.8 11.3	MAX NOVE 13.7 10.1 4.5 4.1	MIN EMBER 5.1 4.0 .3 1	MAX DECE 4.2 5.1 11.9 7.7	MIN MBER .7 -1.2 .6 9	MAX JAN 3.3 9.3 13.0 16.4	MIN JUARY -10.7 2.8 8.8 3.7	MAX FEBR 9.0 11.9 3.5 7	MIN UARY -7.2 -1.9 -3.0 -2.2	MAX 9.9 6.7 2.9 2.9	1 -1.9 -2.1 -1.6
DAY 1 2 3 4 5	MAX OCT 16.7 20.3 26.3 29.7 29.0	TEMP: MIN OBER 1.0 -1.3 6.8 11.3 10.8	MAX NOVE 13.7 10.1 4.5 4.1 11.4	MIN EMBER 5.1 4.0 .3 1 1.5	MAX DECE 4.2 5.1 11.9 7.7 9	MIN MBER .7 -1.2 .69 -5.9	MAX JAN 3.3 9.3 13.0 16.4 16.2	MIN JUARY -10.7 2.8 8.8 3.7 5.4	MAX FEBR 9.0 11.9 3.5 7	MIN -7.2 -1.9 -3.0 -2.2 -2.2	MAX 9.9 6.7 2.9 2.9 3.2	1 -1.9 -2.1 -1.6 -3.5
DAY 1 2 3 4 5	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2	TEMP) MIN OBER 1.0 -1.3 6.8 11.3 10.8	MAX NOVI 13.7 10.1 4.5 4.1 11.4	MIN EMBER 5.1 4.0 .3 1 1.5	MAX DECE 4.2 5.1 11.9 7.7 9	MIN MBER .7 -1.2 .69 -5.9 -7.3	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5	MIN 1UARY -10.7 2.8 8.8 3.7 5.4 10.8	MAX FEBR 9.0 11.9 3.5 7 -1.0	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2	MAX 9.9 6.7 2.9 2.9 3.2	1 -1.9 -2.1 -1.6 -3.5
DAY 1 2 3 4 5	MAX OCT 16.7 20.3 26.3 29.7 29.0	TEMP: MIN OBER 1.0 -1.3 6.8 11.3 10.8	MAX NOVE 13.7 10.1 4.5 4.1 11.4	MIN EMBER 5.1 4.0 .3 1 1.5	MAX DECE 4.2 5.1 11.9 7.7 9	MIN MBER .7 -1.2 .69 -5.9	MAX JAN 3.3 9.3 13.0 16.4 16.2	MIN JUARY -10.7 2.8 8.8 3.7 5.4	MAX FEBR 9.0 11.9 3.5 7	MIN -7.2 -1.9 -3.0 -2.2 -2.2	MAX 9.9 6.7 2.9 2.9 3.2	1 -1.9 -2.1 -1.6 -3.5
DAY 1 2 3 4 5 6 7 8 9	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1	TEMPI MIN **OBER**** 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6	MAX FEBR 9.0 11.9 3.5 7 -1.0 .4 5.9 3.8 9.3	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8	MAX 9.9 6.7 2.9 3.2 10.0 13.8 16.2 14.4	1 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 6.3 -3.4
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1	TEMPI MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.6	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7 5.2	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1	MAX 9.9 6.7 2.9 3.2 10.0 13.8 16.2 14.4 -3.4	1 -1 . 9 -2 . 1 -1 . 6 -3 . 5 -3 . 0 -1 . 4 6 . 3 -3 . 4 -6 . 6
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1	TEMPI MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.6	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 14.5 12.4 7.7 5.2	MIN JUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7	MAX 9.9 6.7 2.9 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2	1 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 6.3 -3.4 -6.6
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8	TEMPI MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7 5.2 .4 7.8	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 .6	MAX 9.9 6.7 2.9 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4	1 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1	TEMPI MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.6	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 14.5 12.4 7.7 5.2	MIN JUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7	MAX 9.9 6.7 2.9 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2	1 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 6.3 -3.4 -6.6
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3	TEMP) MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 5.1 .6 6.7.9 -6.7	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.2	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7 5.2 .4 7.8 8.5	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 .67	MAX 9.9 6.7 2.9 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1	1 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 6.3 -3.4 -6.6 -9.9 -10.4 -11.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9	TEMP) MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.1	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7 5.2 .4 7.8 8.5 3.0	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.2	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 .6 -77 -2.6	MAX 9.9 6.7 2.9 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 6.3 -3.4 -6.6 -9.9 -10.4 -11.4 -4.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6	TEMPI MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.1 5	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.4 3 1.0	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 14.5 12.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 .6 -7.7 -2.6 -6.3 1.3 5.8	MAX 9.9 6.7 2.9 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 2.7 7.1 8.3	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6 14.1 15.0 15.9	TEMPI MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.1 -5 -6 3.7 4.1	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.4 3 1.0 4.8	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5 -9.6	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2 7.6	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0 -8.9	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8 -1.0	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8 -6.6	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8 7.8	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 .67 -2.6 -6.3 1.3 5.8 3.1	MAX 9.9 6.7 2.9 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 2.7 7.1 8.3 11.6	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -5.5 -5.5 -5.5 -5.5 -5.5 -5.5 -5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6	TEMPI MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.1 5	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.4 3 1.0	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 14.5 12.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 .6 -7.7 -2.6 -6.3 1.3 5.8	MAX 9.9 6.7 2.9 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 2.7 7.1 8.3	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6 14.1 15.0 15.9 18.3	TEMP) MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.156 3.7 4.1	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.4 3 1.0 4.8 10.2	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 5.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5 -9.6 -5.5	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2 7.6 12.8	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0 -8.9 -1.2	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8 -1.0 3	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8 -1.8 -6.6 -9.5	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8 7.8 5.2	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 .67 -2.6 -6.3 1.3 5.8 3.1 2.8	MAX 9.9 6.7 2.9 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 2.7 7.1 8.3 11.6 17.1	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1.1 -1.7
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DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6 14.1 15.0 15.9 18.3 15.8 14.3 8.1 11.8	TEMPI MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.1 5 6 3.7 4.1 .0 5 3 8.8 6	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.43 1.0 4.8 10.2 12.4 6.8 5.5 5.0	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5 -9.6 -5.5 -3.9 2.4 2.8 -4.4	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2 7.6 12.8 8.7 4.4 9.5 5.4	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0 -8.9 -1.2 -3.79 0 1.7	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 14.5 13.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8 -1.0 -3 -2.2 1.2 5.7 6.1	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8 -6.6 -9.5 -8.8 -8.8 -8.8	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8 7.8 5.2 4.7 6.6 10.0 4.8	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 .67 -2.6 -6.3 1.3 5.8 3.1 2.8 3.0 .9 2.1 1.5	MAX 9.9 6.7 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 2.7 7.1 8.3 11.6 17.1 9.4 1.7 3.6 6.5	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1 6.9 7.1 1.7 -1.2 -1.4 -3.9
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6 14.1 15.0 15.9 18.3 15.8 14.3 8.1 11.8	TEMPI MIN OBER 1.0 -1.3 -6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.156 3.7 4.1 .05 -3.8 -6.7 -8.2 -2.8	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.43 1.0 4.8 10.2 12.4 6.8 5.5 5.0 .3	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5 -9.6 -5.5 -3.9 2.4 2.8 -4.4 -7.1	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2 7.6 12.8 8.7 4.4 9.5 5.4 8.0	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0 -8.9 -1.2 -3.79 .0 1.7	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8 -1.0 -3 -2.2 1.2 5.7 6.1 .5	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8 -6.6 -9.5 -8.8 -8.288 -1.4	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8 7.8 5.2 4.7 6.6 10.0 4.8 6.2	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 -6 -7.7 -2.6 -6.3 1.3 5.8 3.1 2.8 3.0 .9 2.1 1.5 -2.7	MAX 9.9 6.7 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 2.7 7.1 8.3 11.6 17.1 9.4 1.7 3.6 6.5 7.8	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1 6.9 7.1 1.7 -1.2 -1.4 -3.9 -3.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6 14.1 15.0 15.9 18.3 15.8 14.3 8.1 11.8 8.8 14.7	TEMPI MIN OBER 1.0 -1.3 -6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.156 3.7 4.1 .05 -3.8 -6.7 -8.2 -2.8 7.0	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.43 1.0 4.8 10.2 12.4 6.8 5.5 5.0 .3 12.2	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5 -9.6 -5.5 -3.9 2.4 2.8 -4.4 -7.1 -6.7	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2 7.6 12.8 8.7 4.4 9.5 5.4 8.0 7.2	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0 -8.9 -1.2 -3.79 .0 1.7 1.5	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 14.5 14.5 3.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8 -1.0 -3 -2.2 1.2 5.7 6.1 .5 .3	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8 -6.6 -9.5 -8.8 -8.2888888888	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8 7.8 5.2 4.7 6.6 10.0 4.8 6.2 10.2	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 -6 -6.3 1.3 5.8 3.1 2.8 3.0 .9 2.1 1.5 -2.7 -2.2	MAX 9.9 6.7 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 2.7 7.1 8.3 11.6 17.1 9.4 1.7 3.6 6.5 7.8 10.6	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1 6.9 7.1 1.7 -1.2 -1.4 -3.9 -3.2 -4.1
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6 14.1 15.0 15.9 18.3 15.8 14.3 8.1 11.8 8.8 14.7	TEMPI MIN TOBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.156 3.7 4.1 .05 -3.8 -6.7 -8.2 -2.8 7.0 6.8	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.43 1.0 4.8 10.2 12.4 6.8 5.5 5.0 .3 12.2 11.5	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5 -9.6 -5.5 -3.9 2.4 2.8 -4.4 -7.1 -6.7	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.7 4.4 9.5 5.4 8.0 7.2 1.5	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0 -8.9 -1.2 -3.7 -9 .0 1.7 1.7 1.52	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8 -1.03 -2.2 1.2 5.7 6.1 .5 .3 7.3	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8 -6.6 -9.5 -8.8 -8.28 -1.4 -3.3 -5.7	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8 7.8 5.2 4.7 6.6 10.0 4.8 6.2 10.2	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 .67 -2.6 -6.3 1.3 5.8 3.1 2.8 3.0 .9 2.1 1.5 -2.7 -2.2 -2.3	MAX 9.9 6.7 2.9 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 7.1 8.3 11.6 17.1 9.4 1.7 3.6 6.5 7.8 10.6 23.0	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1 6.9 7.1 1.7 -1.2 -1.4 -3.9 -3.2 -4.1 6.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6 14.1 15.0 15.9 18.3 15.8 14.3 8.1 11.8 8.8 14.7	TEMPI MIN OBER 1.0 -1.3 -6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.156 3.7 4.1 .05 -3.8 -6.7 -8.2 -2.8 7.0	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.43 1.0 4.8 10.2 12.4 6.8 5.5 5.0 .3 12.2	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5 -9.6 -5.5 -3.9 2.4 2.8 -4.4 -7.1 -6.7	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2 7.6 12.8 8.7 4.4 9.5 5.4 8.0 7.2	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0 -8.9 -1.2 -3.79 .0 1.7 1.5	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 14.5 14.5 3.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8 -1.0 -3 -2.2 1.2 5.7 6.1 .5 .3	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8 -6.6 -9.5 -8.8 -8.2888888888	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8 7.8 5.2 4.7 6.6 10.0 4.8 6.2 10.2	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 -6 -6.3 1.3 5.8 3.1 2.8 3.0 .9 2.1 1.5 -2.7 -2.2	MAX 9.9 6.7 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 2.7 7.1 8.3 11.6 17.1 9.4 1.7 3.6 6.5 7.8 10.6	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1 6.9 7.1 1.7 -1.2 -1.4 -3.9 -3.2 -4.1
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6 14.1 15.0 15.9 18.3 15.8 14.3 8.1 11.8 8.8 14.7	TEMPI MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.156 3.7 4.1 .053.8 -6.7 -8.2 -2.8 7.0 6.8 2.0 -2.8 -2.1	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.43 1.0 4.8 10.2 12.4 6.8 5.5 5.0 .3 12.2 11.5 7.7 17.3 15.2	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5 -9.6 -5.5 -3.9 2.4 2.8 -4.4 -7.1 -6.7 .6 -4.5 5.3 8.3	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2 7.6 12.8 8.7 4.4 9.5 5.4 8.0 7.2 1.5 1.7 1.2 .9	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0 -8.9 -1.2 -3.79 0 1.7 1.52 -4.0 -8.6 -7.0	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8 -1.0 -3 -2.2 1.2 5.7 6.1 .5 .3 7.3 6.4 11.2 8.1	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8 -6.6 -9.5 -8.8 -8.28 -1.4 -3.3 -5.7 -2.3 -4.2 -1.8	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8 7.8 5.2 4.7 6.6 10.0 4.8 6.2 10.2 15.8 17.6 13.1	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 -6.7 -2.6 -6.3 1.3 5.8 3.1 2.8 3.0 .9 2.1 1.5 -2.7 -2.2 -2.3 4.1 2.1	MAX 9.9 6.7 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 2.7 7.1 8.3 11.6 17.1 9.4 1.7 3.6 6.5 7.8 10.6 23.0 24.9 22.5 25.8	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1 6.9 7.1 1.7 -1.2 -1.4 -3.9 -3.2 -4.1 6.2 9.8 9.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6 14.1 15.0 15.9 18.3 15.8 14.3 8.1 11.8 8.8 14.7 13.9 7.8 9.0 13.9 16.9	TEMPI MIN TOBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.156 3.7 4.1 .053.8 -6.7 -8.2 -2.8 7.0 6.8 2.0 -2.8 -2.1 -1.6	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.43 1.0 4.8 10.2 12.4 6.8 5.5 5.0 .3 12.2 11.5 7.7 17.3 15.2 11.6	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5 -9.6 -5.5 -3.9 2.4 2.8 -4.4 -7.1 -6.7 .6 -4.5 5.3 8.3 4.2	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2 7.6 12.8 8.7 4.4 9.5 5.4 8.0 7.2 1.5 1.7 1.2 .9 -1.7	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0 -8.9 -1.2 -3.79 .0 1.7 1.52 -4.0 -8.6 -7.0 -4.8	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 14.5 13.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8 -1.03 -2.2 1.2 5.7 6.1 .5 .3 7.3 6.4 11.2 8.1	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8 -6.6 -9.5 -8.8 -8.28 -1.4 -3.3 -5.7 -2.3 -4.2 -1.8 -1.0	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8 7.8 5.2 4.7 6.6 10.0 4.8 6.2 10.2 15.8 17.6 13.1	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 -6.6 -6.3 1.3 5.8 3.1 2.8 3.0 .9 2.1 1.5 -2.7 -2.2 -2.3 4.1 2.1	MAX 9.9 6.7 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 7.1 8.3 11.6 17.1 9.4 1.7 3.6 6.5 7.8 10.6 23.0 24.9 22.5 25.8 26.3	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1 6.9 7.1 1.7 -1.2 -1.4 -3.9 -3.2 -4.1 6.2 9.8 9.8 9.8 9.8 9.8 14.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 16.7 20.3 26.3 29.7 29.0 28.2 29.3 27.8 27.1 24.1 21.1 27.8 28.3 16.9 14.6 14.1 15.0 15.9 18.3 15.8 14.3 8.1 11.8 8.8 14.7	TEMPI MIN OBER 1.0 -1.3 6.8 11.3 10.8 10.1 10.6 9.6 11.7 8.2 2.7 1.4 13.6 2.156 3.7 4.1 .053.8 -6.7 -8.2 -2.8 7.0 6.8 2.0 -2.8 -2.1	MAX NOVI 13.7 10.1 4.5 4.1 11.4 10.3 8.8 7.0 8.3 7.6 6.9 3.2 3.5 1.7 1.43 1.0 4.8 10.2 12.4 6.8 5.5 5.0 .3 12.2 11.5 7.7 17.3 15.2	MIN EMBER 5.1 4.0 .31 1.5 1.2 .3 4.5 3.4 3.1 .6 -7.9 -6.7 .0 -3.3 -6.2 -8.5 -9.6 -5.5 -3.9 2.4 2.8 -4.4 -7.1 -6.7 .6 -4.5 5.3 8.3	MAX DECE 4.2 5.1 11.9 7.79 -3.58 1.3 2.2 6.1 1.65 3.23 6.4 9.8 8.2 7.6 12.8 8.7 4.4 9.5 5.4 8.0 7.2 1.5 1.7 1.2 .9	MIN MBER .7 -1.2 .69 -5.9 -7.3 -3.5 -2.4 -1.6 1.69 -1.4 -2.8 -8.7 -9.0 -7.1 -7.0 -8.9 -1.2 -3.79 0 1.7 1.52 -4.0 -8.6 -7.0	MAX JAN 3.3 9.3 13.0 16.4 16.2 14.5 14.5 13.4 7.7 5.2 .4 7.8 8.5 3.0 3.4 .6 .8 -1.0 -3 -2.2 1.2 5.7 6.1 .5 .3 7.3 6.4 11.2 8.1	MIN IUARY -10.7 2.8 8.8 3.7 5.4 10.8 7.6 5.8 1.6 -3.6 -7.4 -1.0 -7.7 -11.28 -1.8 -6.6 -9.5 -8.8 -8.28 -1.4 -3.3 -5.7 -2.3 -4.2 -1.8	MAX FEBR 9.0 11.9 3.57 -1.0 .4 5.9 3.8 9.3 11.0 10.3 4.7 3.8 6.6 9.8 7.0 10.8 7.8 5.2 4.7 6.6 10.0 4.8 6.2 10.2 15.8 17.6 13.1	MIN UARY -7.2 -1.9 -3.0 -2.2 -2.2 -5.6 -7.6 -7.7 -6.8 -3.1 4.7 -6.7 -2.6 -6.3 1.3 5.8 3.1 2.8 3.0 .9 2.1 1.5 -2.7 -2.2 -2.3 4.1 2.1	MAX 9.9 6.7 2.9 3.2 10.0 13.8 16.2 14.4 -3.4 -4.2 -2.4 3.1 4.7 2.7 7.1 8.3 11.6 17.1 9.4 1.7 3.6 6.5 7.8 10.6 23.0 24.9 22.5 25.8	-11 -1.9 -2.1 -1.6 -3.5 -3.0 -1.4 -6.6 -9.9 -10.4 -11.4 -9.3 -3.5 -1 6.9 7.1 1.7 -1.2 -1.4 -3.9 -3.2 -4.1 6.2 9.8 9.8

393541083001100 PK-48 NR CIRCLEVLE OH-Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MTN MAX MTN MTN MTN MAX MAX MTN MAX APRIL MAY JUNE JULY AUGUST SEPTEMBER 7.8 25.7 1 16.5 15.1 11.9 24.1 12.9 26.9 14.2 10.5 ---27 1 ___ 2 13 1 3 2 14 3 10 8 28 5 14 3 14 0 29 0 10 1 3 13.5 -1.3 20.3 8.4 21.8 9.2 28.5 12.6 30.9 13.1 ------7.0 ---4 8.1 . 5 19.0 19.2 10.5 26.9 17.3 30.7 13.4 5 ---20.9 8 2 15.6 9.2 25.5 16.6 29.5 15.9 _ _ _ ------23.7 7.5 28.2 13.6 6 15.1 -1.6 9.3 16.3 33.3 16.7 18.4 17.0 14.1 19.7 28.6 16.0 34.5 18.7 4.8 21.6 20.7 13.8 22.1 5.7 28.9 20.7 33.0 16.7 9 13.3 5.7 21.5 13.5 15.4 12.8 28.5 18.6 28.8 19.3 22.1 27.4 ---10 13.0 13.8 27.4 15.1 14.7 24.2 18.4 ---. 6 11 14.6 -2.2 18.7 10.7 20.4 17.6 23.9 10.1 28.9 15.9 12 19.0 -1.1 22.2 7.1 28.2 16.9 26.5 10.1 26.6 14.7 ------21.7 13 3.4 26.0 11.2 24.3 16.3 29.2 11.3 28.0 13.9 ---14 17.6 8.4 29.4 12.4 23.5 13.5 25.9 19.0 27.3 15.2 ---15 18.1 3.6 29.9 13.0 23.3 15.4 27.9 19.8 29.1 16.2 ---_ _ _ 16 21.7 12.2 27.6 15.4 23.9 16.2 27.8 20.2 30.6 16.8 ---- - ----27 1 27 1 16 5 28 2 30 5 _ _ _ 17 15 0 3.4 10 2 15 4 18 8 18 12.4 . 8 28.5 8.3 29.9 15.4 29.7 17.6 28.9 17.5 ---------_ _ _ 19 8.1 6.0 29.2 9.9 28.4 18.4 30.5 18.4 24.1 10.4 2.0 15.9 2.1 27.9 16.1 29.8 13.6 29.0 18.1 28.0 7 8 _ _ _ ---17.8 23.7 11.9 27.9 17.6 31.8 21.0 30.4 21 3.0 10.2 2.2 16.1 6.9 20.8 9.9 30.4 18.2 30.5 19.0 30.3 14.7 23 18.5 6.0 20.8 11.4 25.8 17.9 26.6 19.0 30.6 14.3 24 21.2 3.0 24.5 13.7 31.0 18.2 25.1 13.8 31.2 17.1 ---25 20.9 21.3 14.5 20.0 26.5 13.3 32.6 16.8 ---6.0 33.6 26 19.5 7.2 21.0 10.3 33.3 22.4 26.5 11.9 27.6 16.2 27 13 5 3.2 25.0 11.7 32.9 23.1 27.8 11.9 ------------28 18.6 -.5 27.4 12.9 32.0 19.5 28.3 14.3 ---------29 17.1 6.2 29.6 15.0 26.4 17.9 30.3 16.2 ------------30 29.5 17.2 17.7 25.9 18.1 ___ ___ ___ _ _ _ 16.1 12.6 26.3 ---------_ _ _ 31 27.0 19.1 25.4 14.3 7 0 7 8 ---___ MONTH 21 7 -2 2 29 9 31 8 10 1 34 5 33 6 4 8 YEAR 34.5 -11.4 TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MAX MIN MAX MIN MAX OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH 1 12.6 12.6 12.9 12 8 13.1 13.1 13.3 13.0 12.8 12.6 12.4 12 1 12.6 12.8 12.6 2 12.7 12.8 12.8 13.1 13.0 13.3 13.1 12.3 12.1 12.8 13.1 12.6 3 12.7 12.6 13.1 13.1 13.0 13.1 12.6 12.4 12.1 12.7 12.6 13.1 12.8 13.1 13.0 13.1 13.1 12.8 12.6 12.4 12.1 4 5 12.7 12.6 13.1 12.8 13.1 13.0 13.1 12.9 12.8 12.6 12.3 12.1 6 12.7 12.6 13.1 12.8 13.3 13.0 13.1 12.8 12.8 12.6 12.4 12.1 12.7 12.6 13.1 12.8 13.1 13.0 13.1 12.8 12.8 12.6 12.4 8 12.7 12.6 13.1 12.8 13.1 13.0 13.1 12.8 12.8 12.3 12.2 9 12.7 12.6 13.1 12.8 13.3 13.0 12.8 12.8 12.8 12.3 12.2 10 12.7 12.6 13.1 12.8 13.1 13.1 13.1 12.8 12.6 12.3 12.3 11.9 11 12.7 12.6 13.1 13.1 13.1 13.0 13.0 12.8 12.4 12.4 12.3 11.9 12 12.7 12.6 13.1 13.0 13.1 13.0 13.0 12.8 12.4 12.4 12.3 11 9 13 12.7 12.6 13.3 13.0 13.1 13.0 13.1 12.8 12.6 12.3 12.3 11.9 12.6 12.6 13.1 13.1 13.3 13.0 13.0 12.8 12.6 12.3 12.1 11.9 14 11.9 15 12.8 12.6 13.1 13.0 13.3 13.0 13.1 12.8 12.6 12.3 12.1 12.9 12.4 13.0 12.8 12.6 16 12.6 13.1 13.0 13.3 13.0 12 1 11 9 12.6 12.4 17 12.9 12.6 13.3 13.0 13.3 13.0 13.0 12.4 12.1 11.9 12.9 13.0 13.0 12.6 12.4 12.4 18 12.6 13.3 13.3 13.0 11.9 11.9 12.9 12.6 13.0 13.1 12.8 12.5 12.4 12.4 12.0 11.9 19 13.3 13.0 20 12.9 12.8 13.1 13.0 13.1 13.0 12.8 12.6 12.4 12.4 12.1 11.9 21 12.9 12.8 13.1 13.1 13.1 13.0 12.8 12.6 12.4 12.4 12.1 11.9 22 13.0 12.8 13.1 13.1 13.1 13.0 12.8 12.6 12.4 12.4 23 13.0 12.8 13.1 13.0 13.1 13.1 12.8 12.6 12.4 12.4 12.1 24 12.8 12.8 13.3 13.0 13.1 13.1 12.8 12.6 12.6 12.3 12.1 25 12.9 13.0 12.8 12.6 12.3 12.8 13.3 13.1 13.1 12.6 12.1 11.9 12.6 26 12.9 12.8 13.1 13.1 13.3 13.0 12.8 12.6 12.1 12.0 11.9 27 12.8 12.8 13.1 13.0 13.3 13.0 12.8 12.6 12.4 12.1 12.0 11.9 2.8 12.9 12.8 13.1 13.1 13.3 13.0 12.8 12.6 12.4 12.1 12.0 11.9 29 12.9 12.8 13.1 13.1 13.3 13.0 12.8 12.6 12.0 11.9 ------30 12.9 12.8 13.1 13.1 13.3 13.0 12.8 12.6 12 0 11.9 31 12.9 12.8 ------13.3 13.0 12.8 12.6 ------12.0 11.9 MONTH 13.0 12.6 13.3 12.8 13.3 13.0 13.3 12.5 12.8 12.1 12.4 11.9

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

393541083001100 PK-48 NR CIRCLEVLE OH-Continued

			TEMPERATURI		(DEC C)					2 1992		
DAY	MAX	MIN	MAX	MIN	MAX	, WAIER I MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAI		PRIL		MIN AY		UNE		LY	AUG			EMBER
-												
1 2	12.0 11.9	11.7 11.9	11.7 11.7	11.7 11.5	12.0 12.0	11.7 11.7	12.4 12.4	12.2 12.2	12.7 12.7	12.4 12.4		
3	12.1	11.9	11.8	11.5	12.0	11.7	12.4	12.1	12.7	12.6		
4	12.1	11.9	11.8	11.5	12.0	11.9	12.2	12.2	12.7	12.6		
5			11.8	11.5	11.9	11.9	12.4	12.2	12.7	12.6		
6	12.0	11.7	11.9	11.5	11.9	11.9	12.5	12.2	12.7	12.6		
7	12.1	11.7	11.7	11.7	12.0	11.9	12.5	12.2	12.7	12.6		
8 9	11.9 11.9	11.7 11.7	11.7 11.8	11.7 11.7	12.0 11.9	11.9 11.9	12.4 12.4	12.2 12.2	12.7 12.7	12.6 12.6		
10	11.7	11.7	11.8	11.5	12.0	11.9	12.4	12.2	12.7	12.6		
11	12.1	11.7	11.7	11.7	12.0	11.9	12.4	12.1	12.7	12.6		
12	11.9	11.7	11.8	11.7	12.0	11.9	12.4	12.2	12.7	12.6		
13	11.9	11.7	11.8	11.7	12.0	11.9	12.5	12.1	12.7	12.6		
14	11.7	11.7	11.8	11.7	12.0	11.9	12.4	12.2	12.7	12.6		
15	11.7	11.7	11.8	11.7	12.0	11.9	12.4	12.2	12.7	12.6		
16	11.8	11.7	11.8	11.7	12.0	11.9	12.5	12.4	12.7	12.6		
17	11.7	11.7	11.8	11.7	12.0	11.9	12.4	12.4	12.9	12.6		
18 19	11.9 11.7	11.7 11.7	11.8 11.8	11.7 11.7	12.0 12.0	11.9 11.9	12.5 12.5	12.4 12.4	12.9 12.9	12.6 12.6		
20	11.7	11.7	11.8	11.7	12.0	11.9	12.5	12.4	12.9	12.6		
21	11.9	11.7	11.8	11.7	12.0	11.9	12.5	12.4	12.9	12.6		
22	11.7	11.7	11.8	11.7	12.0	11.9	12.5	12.4	12.9	12.6		
23	11.7	11.7	11.8	11.7	12.0	11.9	12.4	12.4	12.9	12.6		
24	11.9	11.7	11.8	11.7	12.0	11.9	12.4	12.4	12.9	12.6		
25	11.8	11.7	11.8	11.7	12.0	11.9	12.4	12.4	12.9	12.7		
26	11.7	11.7	11.8	11.7	12.0	12.0	12.5	12.4	12.9			
27	11.7	11.7	11.8	11.7	12.0	12.0	12.5	12.4				
28 29	11.9 11.7	11.7 11.7	11.8 12.0	11.7 11.7	12.0 12.2	12.0 11.9	12.5 12.5	12.4 12.4				
30	11.7	11.7	12.0	11.7	12.4	12.2	12.6	12.4				
31			12.0	11.7			12.6	12.4				
MONTH	12.1	11.7	12.0	11.5	12.4	11.7	12.6	12.1	12.9	12.4		
	12 2	11 5										
YEAR	13.3	11.5	MUMPED A MITE	B 6011	(DEG G)	MARIED W	AD OGMODED	1007 50	CEDMEMBED	1000		
							EAR OCTOBER					
year DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
		MIN		MIN	MAX			MIN		MIN		MIN LRCH
DAY 1	MAX OCT 16.7	MIN OBER 15.7	MAX NOVE	MIN MBER 10.1	MAX DEC 8.9	MIN EMBER 7.3	MAX JAN 2.5	MIN UARY 2.2	MAX FEBR 3.3	MIN UARY 2.6	MA 7.0	RCH 6.2
DAY 1 2	MAX OCT 16.7 15.7	MIN COBER 15.7 14.1	MAX NOVE 10.9 11.0	MIN MBER 10.1 10.3	MAX DEC 8.9 7.3	MIN EMBER 7.3 6.7	MAX JAN 2.5 3.4	MIN UARY 2.2 2.2	MAX FEBR 3.3 4.0	MIN UARY 2.6 2.8	MA 7.0 6.8	6.2 6.0
DAY 1 2 3	MAX OCT 16.7 15.7 15.8	MIN COBER 15.7 14.1 14.4	MAX NOVE 10.9 11.0 10.3	MIN MBER 10.1 10.3 9.6	MAX DEC 8.9 7.3 7.1	MIN EMBER 7.3 6.7 6.6	MAX JAN 2.5 3.4 5.1	MIN UARY 2.2 2.2 3.4	MAX FEBR 3.3 4.0 3.8	MIN UARY 2.6 2.8 3.2	MA 7.0 6.8 6.0	6.2 6.0 5.3
DAY 1 2	MAX OCT 16.7 15.7	MIN COBER 15.7 14.1 14.4 15.4	MAX NOVE 10.9 11.0 10.3 9.6	MIN MBER 10.1 10.3 9.6 9.1	MAX DEC 8.9 7.3	MIN TEMBER 7.3 6.7 6.6 7.0	MAX JAN 2.5 3.4	MIN UARY 2.2 2.2	MAX FEBR 3.3 4.0	MIN UARY 2.6 2.8 3.2 2.1	MA 7.0 6.8	6.2 6.0 5.3 5.1
DAY 1 2 3 4 5	MAX OCT 16.7 15.7 15.8 16.8 17.4	MIN COBER 15.7 14.1 14.4 15.4 16.4	MAX NOVE 10.9 11.0 10.3 9.6 9.5	MIN MBER 10.1 10.3 9.6 9.1	MAX DEC 8.9 7.3 7.1 7.6 7.0	MIN 7.3 6.7 6.6 7.0 5.8	MAX JAN 2.5 3.4 5.1 5.9 6.2	MIN UARY 2.2 2.2 3.4 5.1 5.3	MAX FEBR 3.3 4.0 3.8 3.4 2.3	MIN UARY 2.6 2.8 3.2 2.1 2.1	7.0 6.8 6.0 5.5 5.2	6.2 6.0 5.3 5.1 4.7
DAY 1 2 3 4 5	MAX OCT 16.7 15.7 15.8 16.8 17.4	MIN COBER 15.7 14.1 14.4 15.4 16.4	MAX NOVE 10.9 11.0 10.3 9.6 9.5	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9	MAX DEC 8.9 7.3 7.1 7.6 7.0	MIN TEMBER 7.3 6.7 6.6 7.0 5.8 4.6	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1	MAX FEBR 3.3 4.0 3.8 3.4 2.3	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2	7.0 6.8 6.0 5.5 5.2	6.2 6.0 5.3 5.1 4.7
DAY 1 2 3 4 5	MAX OCT 16.7 15.7 15.8 16.8 17.4	MIN COBER 15.7 14.1 14.4 15.4 16.4	MAX NOVE 10.9 11.0 10.3 9.6 9.5	MIN MBER 10.1 10.3 9.6 9.1	MAX DEC 8.9 7.3 7.1 7.6 7.0	MIN 7.3 6.7 6.6 7.0 5.8	MAX JAN 2.5 3.4 5.1 5.9 6.2	MIN UARY 2.2 2.2 3.4 5.1 5.3	MAX FEBR 3.3 4.0 3.8 3.4 2.3	MIN UARY 2.6 2.8 3.2 2.1 2.1	7.0 6.8 6.0 5.5 5.2	6.2 6.0 5.3 5.1 4.7
DAY 1 2 3 4 5 6 7 8 9	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0	MIN COBER 15.7 14.1 14.4 15.4 16.4 16.4 16.8 16.9	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.4 9.1	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8	MIN TEMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.1 2.2 2.1	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0	6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9
DAY 1 2 3 4 5 6 7 8	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.4 17.6 17.7	MIN COBER 15.7 14.1 14.4 15.4 16.4 16.6 16.8	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.4	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6	MIN PEMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.6	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3	6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.6 17.7 18.0 18.0 17.5	MIN **OBER** 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.1 9.3	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.6 2.4 2.2 2.6 3.4	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 2.0 2.0 2.5	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9	ARCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX OCT 16.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 17.5	MIN **OBER** 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.1 9.3 9.1 8.7	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 3.0 2.0 2.5 3.4	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2	6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 17.5 16.1 17.5	MIN **OBER** 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.1 9.3 9.1 8.7 7.4	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5 5.8	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.0 2.0 2.5 3.4 3.6	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6	ARCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCT 16.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 18.0 17.5 16.1	MIN **OBER** 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 15.6	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.4 9.1 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 5.8	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5	MIN PEMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 5.0 4.8 4.5 3.9	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5 5.8 4.7	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 3.0 2.0 2.5 3.4 3.6 3.6	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7	6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.6 17.7 18.0 17.5 16.1 17.5 16.4 15.6	MIN YOBER 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 15.6 14.0	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.4 9.1 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5 5.8 4.7 3.8	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.0 2.0 2.0 2.5 3.4 3.6 3.6 3.0	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7 2.6	ARCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.2 2.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 16.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 18.0 17.5 16.1 17.5 16.4 15.6	MIN **OBER** 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 15.6 14.0	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.1 9.4 9.7 7.4 6.5 6.6 6.3	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9	MIN PEMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5 5.8 4.7 3.8 3.9	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 3.6 3.6 3.6 3.0 2.9	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7 2.6	ARCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.2 2.3 2.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.6 17.7 18.0 17.5 16.1 17.5 16.4 15.6	MIN YOBER 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 15.6 14.0	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.4 9.1 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5 5.8 4.7 3.8	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.0 2.0 2.0 2.5 3.4 3.6 3.6 3.0	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7 2.6	ARCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.2 2.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX OCT 16.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 17.5 16.1 17.5 16.4 15.6 14.1 13.5 13.5	MIN TOBER 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 15.6 14.0 13.0 13.0 12.9 12.4	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9 5.0 4.2 4.2	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 3.2 4.1	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.9 2.7 2.9	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5 5.8 4.7 3.8 3.9 3.9 3.8 3.5	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.6 3.5 2.7	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.5	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.0	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 2.6 2.7 2.6 2.7 2.6 5.4 7.3	ARCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.3 2.5 3.5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 17.5 16.1 17.5 16.4 15.6 14.1 13.5 13.5 13.3 13.1	MIN TOBER 15.7 14.1 14.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 15.6 14.0 13.0 13.0 12.9 12.4 12.4	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9 5.0 4.2 4.2 4.8	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 3.2 4.1 4.0	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.9 2.7 2.9 3.5	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5 5.8 4.7 3.8 3.9 3.9 3.9 3.8 3.5 2.7	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.5 2.7 2.3	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.6	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 3.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.0 5.2	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7 2.6 2.7 2.6 2.9 3.6 5.4 7.3	ARCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.5 5.4 6.5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.6 17.7 18.0 17.5 16.1 17.5 16.4 15.6 14.1 13.5 13.5 13.3 13.1 12.8	MIN YOBER 15.7 14.1 14.4 16.4 16.6 16.8 16.9 17.5 15.6 14.0 13.0 13.0 12.9 12.4 11.4	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9 5.0 4.2 4.8 5.2	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 4.0 4.1	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.9 2.7 2.9 3.5 3.8	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5 5.8 4.7 3.8 3.9 3.9 3.8 3.5 2.7	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.6 3.5 2.7 2.3 2.1	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 4.0 3.7 4.0 5.1 5.5 5.6 5.7	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.0 5.2	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 2.6 2.7 2.6 2.7 2.6 5.4 7.3 7.1	ARCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.3 2.5 3.5 4.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX OCT 16.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 18.0 17.5 16.1 17.5 16.4 15.6 14.1 13.5 13.3 13.1 12.8 12.1	MIN **OBER** 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 13.0 13.0 13.0 12.9 12.4 11.4 10.4	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.4 9.1 9.4 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7 5.8 6.5	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9 5.0 4.2 4.2 4.8 5.2 5.8	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 3.2 4.1 4.0 4.1 4.5	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.9 2.7 2.9 3.5 3.8 3.2	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5 5.8 4.7 3.8 3.9 3.9 3.8 3.5 2.7 2.3	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.6 3.6 3.5 2.7 2.3 2.1 2.0	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.6 5.7 6.1	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.0 5.2 5.3 5.4	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7 2.6 2.7 2.6 2.9 3.6 5.4 7.3 7.1	RCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.5 3.5 5.4 4.8 4.5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX OCT 16.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 18.0 17.5 16.1 17.5 16.4 15.6 14.1 13.5 13.3 13.1 12.8 12.1 10.5	MIN **OBER** 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 13.0 13.0 12.9 12.4 12.4 10.4 9.2	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7 5.8 6.5 6.7	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9 5.0 4.2 4.2 4.8 5.2 5.8 6.2	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 3.2 4.1 4.0 4.1 4.5 5.0	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.9 2.7 2.9 3.5 3.8 3.2 4.5	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.8 4.7 3.8 3.9 3.8 3.9 3.8 3.7 2.3 3.6	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.6 3.5 2.7 2.3 2.1 2.0 2.1	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.6 5.7 6.1 6.0	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.0 5.0 5.1 4.9	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 2.6 2.7 2.6 2.7 2.6 5.4 7.3 7.1 6.9 4.8	RCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5.6.9 4.2 2.6 2.2 2.3 2.3 2.5 3.5 5.4 6.5 4.8 4.5 4.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX OCT 16.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 18.0 17.5 16.1 17.5 16.4 15.6 14.1 13.5 13.3 13.1 12.8 12.1	MIN YOBER 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 13.0 13.0 12.9 12.4 11.4 10.4	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.4 9.1 9.4 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7 5.8 6.5	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9 5.0 4.2 4.2 4.8 5.2 5.8	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 3.2 4.1 4.0 4.1 4.5	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.9 2.7 2.9 3.5 3.8 3.2	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.5 5.8 4.7 3.8 3.9 3.9 3.8 3.5 2.7 2.3	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.6 3.6 3.5 2.7 2.3 2.1 2.0	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.6 5.7 6.1	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.0 5.2 5.3 5.4	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7 2.6 2.7 2.6 2.9 3.6 5.4 7.3 7.1	RCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.3 2.5 3.5 5.4 6.5 4.8 4.3 4.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.6 17.7 18.0 18.0 17.5 16.1 17.5 16.4 13.5 13.3 13.1 12.8 12.1 10.5 10.1 11.3	MIN POBER 15.7 14.1 14.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 13.0 12.9 12.4 12.4 10.4 9.2 9.1 9.7	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7 5.8 6.5 6.7 6.2 5.7	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9 6.3 5.9 5.0 4.2 4.2 4.8 5.2 4.5	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 3.2 4.1 4.0 4.1 4.5 5.0 5.6	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.9 2.7 2.9 3.5 3.8 3.2 4.5 4.4 5.0	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.8 4.7 3.8 3.9 3.8 3.9 3.8 3.5 2.7 2.3 2.9 3.6 3.5 3.4	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.5 2.7 2.3 2.1 2.0 2.1 3.3 3.1	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.6 5.7 6.1 6.0 5.3 5.4	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.0 5.2 5.3 5.4 4.9 4.6 4.7	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7 2.6 2.7 2.6 2.7 2.6 5.4 7.3 7.1 6.9 4.8 4.8 5.2	RCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.5 3.5 5.4 6.5 4.8 4.3 4.4 4.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 17.5 16.4 15.6 14.1 13.5 13.3 13.1 12.8 12.1 10.5 10.1 11.3	MIN TOBER 15.7 14.1 14.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 13.0 13.0 13.0 12.9 12.4 12.4 10.4 9.2 9.1 9.7 10.1	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7 5.8 6.7 6.2 5.7	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 5.8 6.3 5.9 5.0 4.2 4.8 5.2 5.8 6.2 5.2 4.5	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 4.0 4.1 4.5 5.0 5.6 5.5	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.7 2.9 3.5 3.8 3.2 4.5 4.4 5.0	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.8 4.7 3.8 3.9 3.9 3.8 3.5 2.7 2.3 2.9 3.6 3.5 3.4 3.2	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.5 2.7 2.3 2.1 2.0 2.1 3.3 3.1	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.6 5.7 6.1 6.0 5.3 5.4	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.2 5.3 5.4 4.9 4.6 4.7	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7 2.6 2.7 2.6 2.9 3.6 5.4 7.3 7.1 6.9 4.8 4.8 5.2 5.6	RCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.5 5.4 6.5 4.8 4.5 4.4 4.2 5.5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCT 16.7 15.7 15.8 16.8 17.4 17.6 17.7 18.0 18.0 17.5 16.1 17.5 16.4 13.5 13.3 13.1 12.8 12.1 10.5 10.1 11.3	MIN POBER 15.7 14.1 14.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 13.0 12.9 12.4 12.4 10.4 9.2 9.1 9.7	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7 5.8 6.5 6.7 6.2 5.7	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9 6.3 5.9 5.0 4.2 4.2 4.8 5.2 4.5	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 3.2 4.1 4.0 4.1 4.5 5.0 5.6	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.9 2.7 2.9 3.5 3.8 3.2 4.5 4.4 5.0	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.8 4.7 3.8 3.9 3.8 3.9 3.8 3.5 2.7 2.3 2.9 3.6 3.5 3.4	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.5 2.7 2.3 2.1 2.0 2.1 3.3 3.1	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.6 5.7 6.1 6.0 5.3 5.4	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.0 5.2 5.3 5.4 4.9 4.6 4.7	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7 2.6 2.7 2.6 2.7 2.6 5.4 7.3 7.1 6.9 4.8 4.8 5.2	RCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.5 3.5 5.4 6.5 4.8 4.3 4.4 4.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 16.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 18.0 17.5 16.4 15.6 14.1 13.5 13.3 13.1 12.8 12.1 10.5 10.1 11.3 11.2 11.5 10.5 10.0	MIN **OBER** 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 13.0 12.9 12.4 11.4 12.4 10.4 9.2 9.1 9.7 10.1 10.5 9.9 9.2	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7 5.8 6.5 6.7 6.5 6.7 6.5 7.8 8.6	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9 5.0 4.2 4.2 4.8 5.2 4.5 5.7 5.7 6.1 7.6	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 3.2 4.1 4.0 5.0 5.6 5.5 5.0 4.3 3.6	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.9 2.7 2.9 3.5 3.8 3.2 4.5 4.4 5.0 5.0 4.3 3.6 3.2	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.8 4.7 3.8 3.9 3.8 3.9 3.8 3.5 2.7 2.3 2.9 3.6 3.5 3.4 3.2 3.6 3.7 3.6	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.5 2.7 2.3 2.1 2.0 2.1 3.3 3.1 2.7 2.9 3.1 3.0	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.6 5.7 6.1 6.0 5.3 5.4 5.9 7.3	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.0 5.2 5.3 5.4 4.9 4.6 4.7 4.6 5.1 6.1	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 2.6 2.7 2.6 2.7 2.6 2.7 2.6 4.8 4.8 5.2 5.6 8.0 10.2 10.9 12.0	RCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.5 3.5 5.4 6.5 4.8 4.5 4.3 4.4 4.2 5.5 8.0 9.5 10.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCT 16.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 17.5 16.1 17.5 16.4 15.6 14.1 13.5 13.3 13.1 12.8 12.1 10.5 10.1 11.3 11.2 11.5 10.0 10.1	MIN **OBER** 15.7 14.1 14.4 16.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 13.0 12.9 12.4 10.4 9.2 9.1 9.7 10.1 10.5 9.9 9.2 9.0	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7 6.8 6.7 6.5 6.7 6.5 6.7 6.8 8.6 8.9	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 5.8 6.3 5.9 5.0 4.2 4.8 5.2 4.8 5.2 4.5 5.7 6.1 7.6 8.0	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 4.0 4.1 4.0 5.0 5.6 5.5 5.0 6.3 3.6 3.2	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.7 2.9 3.5 3.8 3.2 4.4 5.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.8 4.7 3.8 3.9 3.9 3.8 3.5 2.7 2.3 2.9 3.6 3.5 3.4 3.2 3.6 3.7 3.6 3.6 3.7 3.6 3.6	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.5 2.7 2.3 2.1 2.0 2.1 3.3 3.1 2.7 2.9 3.1 3.0 3.3	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.6 5.7 6.1 6.0 5.3 5.4 5.9 7.3 7.4	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.2 5.3 5.4 4.9 4.6 4.7 4.6 5.1 6.1	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 3.2 2.6 2.7 2.6 2.7 2.6 2.7 2.6 2.7 2.6 4.2 3.2 2.6 2.7 2.6 8.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	RCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.5 3.5 5.4 6.5 4.8 4.3 4.4 4.2 5.5 8.0 9.5 10.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 16.7 15.8 16.8 17.4 17.4 17.6 17.7 18.0 18.0 17.5 16.4 15.6 14.1 13.5 13.3 13.1 12.8 12.1 10.5 10.1 11.3 11.2 11.5 10.5 10.0	MIN **OBER** 15.7 14.1 14.4 15.4 16.4 16.6 16.8 16.9 17.5 15.8 14.7 16.0 13.0 12.9 12.4 11.4 12.4 10.4 9.2 9.1 9.7 10.1 10.5 9.9 9.2	MAX NOVE 10.9 11.0 10.3 9.6 9.5 9.4 9.1 9.4 9.3 9.1 8.7 7.4 6.5 6.6 6.3 5.9 5.0 5.2 5.7 5.8 6.5 6.7 6.5 6.7 6.5 7.8 8.6	MIN MBER 10.1 10.3 9.6 9.1 9.1 8.9 8.6 8.8 9.1 9.0 8.7 7.4 5.8 6.3 5.9 5.0 4.2 4.2 4.8 5.2 4.5 5.7 5.7 6.1 7.6	MAX DEC 8.9 7.3 7.1 7.6 7.0 5.8 4.6 4.7 4.8 5.5 5.4 5.0 4.8 4.5 3.9 3.5 3.4 3.2 4.1 4.0 5.0 5.6 5.5 5.0 4.3 3.6	MIN EMBER 7.3 6.7 6.6 7.0 5.8 4.6 4.4 4.5 4.2 4.2 5.0 4.8 4.5 3.9 3.3 3.0 2.9 2.7 2.9 3.5 3.8 3.2 4.5 4.4 5.0 5.0 4.3 3.6 3.2	MAX JAN 2.5 3.4 5.1 5.9 6.2 7.3 8.6 8.6 8.5 7.4 6.5 5.8 4.7 3.8 3.9 3.8 3.9 3.8 3.5 2.7 2.3 2.9 3.6 3.5 3.4 3.2 3.6 3.7 3.6	MIN UARY 2.2 2.2 3.4 5.1 5.3 6.1 7.3 7.9 7.4 6.5 5.2 4.9 4.7 3.5 3.3 3.6 3.5 2.7 2.3 2.1 2.0 2.1 3.3 3.1 2.7 2.9 3.1 3.0	MAX FEBR 3.3 4.0 3.8 3.4 2.3 2.6 2.6 2.4 2.2 2.6 3.4 3.9 3.9 4.0 3.7 4.0 5.1 5.5 5.6 5.7 6.1 6.0 5.3 5.4 5.9 7.3	MIN UARY 2.6 2.8 3.2 2.1 2.1 2.2 2.1 2.2 2.0 2.0 2.5 3.4 3.6 3.6 3.0 2.9 4.0 5.0 5.0 5.2 5.3 5.4 4.9 4.6 4.7 4.6 5.1 6.1	7.0 6.8 6.0 5.5 5.2 5.6 6.3 7.3 8.0 6.9 4.2 2.6 2.7 2.6 2.7 2.6 2.7 2.6 4.8 4.8 5.2 5.6 8.0 10.2 10.9 12.0	RCH 6.2 6.0 5.3 5.1 4.7 4.5 5.1 5.5 6.9 4.2 2.6 2.2 2.3 2.3 2.5 3.5 5.4 6.5 4.8 4.5 4.3 4.4 4.2 5.5 8.0 9.5 10.4

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Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

393541083001100 PK-48 NR CIRCLEVLE OH—Continued
TEMPERATURE, SOIL (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

		Tl	EMPERATURE	, SOIL (D	EG. C), V	WATER YEAR	OCTOBER	1997 TO S	SEPTEMBER	1998		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	API	OTT	MA	v	JUI	VIE.	JUI	rv	AUG	TICT.	SEPTE	MDED
1	13.0	12.2	13.1	12.1	20.2	19.4	23.1	22.3	22.1	20.8		
2	12.2 11.2	11.2 8.5	13.1 13.6	11.8	19.9 19.9	18.9 18.6	22.8 22.4	21.9 21.5	21.7 21.9	20.3		
4	10.3	8.5	13.6	11.2 12.6	18.6	17.8	22.4	21.5	22.1	20.7		
5			14.3	13.1	17.9	14.7	22.5	22.1	22.6	21.6		
6	9.3	8.2	14.9	13.6	16.7	16.2	22.4	21.6	23.2	21.9		
7 8	9.5 11.4	7.2 8.6	14.8 15.6	12.3 13.7	16.4 16.5	15.6 15.5	22.6 23.3	21.8 22.5	23.7 23.8	22.6 22.7		
9	11.4	10.8	16.0	15.7	16.5	15.9	23.3	22.7	23.8	22.7		
10	11.1	10.4	16.4	15.6	18.3	16.5	23.1	22.6	23.6	22.8		
11	10.7	9.3	16.3	15.6	18.3	17.0	22.9	21.4	23.4	22.4		
12 13	10.5 11.0	9.1 9.6	15.9	14.8 15.2	20.0 19.9	17.2 17.6	21.8	20.7 20.6	23.2 22.6	22.2 21.6		
14	11.0	10.4	16.4 17.2	15.2	19.9	18.2	21.8 22.3	20.6	22.6	21.6		
15	11.8	9.8	17.8	16.5	19.7	18.2	22.8	22.1	23.0	21.8		
16	13.4	10.1	18.4	17.4	20.0	19.2	23.2	22.5	23.0	22.1		
17 18	13.4 12.4	12.4 11.1	18.2 17.9	17.1 16.7	20.6 21.3	19.7 20.1	23.1 23.1	22.4 22.1	23.6 23.7	22.5 23.0		
19	11.4	9.9	18.2	16.7	21.3	21.1	23.1	22.1	23.7	21.9		
20	11.4	10.4	18.8	16.9	21.7	20.7	23.7	22.4	21.9	20.5		
21	11.8	10.6	18.7	16.1	21.7	21.1	24.6	23.3	21.6	20.3		
22	12.3	11.3	18.1	17.0	22.2	20.6	24.6	23.8	22.3	20.8		
23 24	12.5	11.4	17.4	14.4	22.1	20.6	24.5	23.3	22.8	21.6		
25	12.7 13.1	11.4 12.1	17.6 18.3	15.9 17.0	22.8 23.5	21.5 22.4	24.1 22.9	22.9	23.1 23.2	22.0 22.3		
26	13.1	11.0	18.2	17.5	24.0	23.0	22.5	21.4	23.1	22.2		
27	12.4	11.9	18.1	17.1	24.3	23.5	22.3	21.1				
28	12.3	11.1	18.8	17.5	24.7	22.9	22.7	21.4				
29 30	12.3 12.7	10.6 11.0	19.4 20.0	16.3 16.2	23.6 23.2	20.6 21.9	23.1 23.1	21.8 21.9				
31			20.0	19.5			22.8	22.1				
MONTH	13.4	7.2	20.3	11.2	24.7	14.7	24.6	20.6	23.8	20.3		
YEAR	24.7	2.0										
		PRI	CTPTTATTC	N, TOTAL,	INCHES	WATED VEN	D OCTODE	D 1007 TO	спртимор	R 1998		
				11, 101112,		ILY SUM V		R 1997 10	SEFIEMBE.	1 1550		
DAY	OCT	NOV	DEC		DA			MAY	JUN	JUL	AUG	SEP
DAY		NOV	DEC	JAN	DA FEB	AILY SUM V. MAR	ALUES APR	MAY	JUN	JUL		
1	.00	NOV	DEC	JAN	DA FEB .00	MAR	ALUES APR .56	MAY .31	JUN .00	JUL	.00	
1 2	.00	NOV .06 .01	DEC .00 .00	JAN .00 .00	DA FEB .00 .00	MAR .00	ALUES APR .56 .00	MAY .31 .43	JUN .00 .02	JUL .00 .00	.00	
1 2 3	.00	NOV .06 .01	DEC .00 .00	JAN .00 .00	DA FEB .00 .00	MAR .00 .00 .00	ALUES APR .56 .00	MAY .31 .43 .36	JUN .00 .02 .07	JUL .00 .00	.00	
1 2	.00	NOV .06 .01	DEC .00 .00	JAN .00 .00 .00 .00	DA FEB .00 .00 .00	MAR .00	ALUES APR .56 .00	MAY .31 .43	JUN .00 .02	JUL .00 .00	.00	
1 2 3 4 5	.00	NOV .06 .01 .02 .01	DEC .00 .00 .20 .00	JAN .00 .00 .00 .00 .28	DA FEB .00 .00 .00 .04 .18	MAR .00 .00 .01 .01 .04 .02	ALUES APR .56 .00 .03 .07	MAY .31 .43 .36 .08	JUN .00 .02 .07 .00	JUL .00 .00 .01 .00	.00 .00 .00 .00	
1 2 3 4 5	.00	NOV .06 .01 .02 .01 .00	DEC .00 .00 .20 .00 .01	JAN .00 .00 .00 .00 .28	DA FEB .00 .00 .00 .04 .18 .10	MAR .00 .00 .01 .01 .04 .02 .00	ALUES APR .56 .00 .03 .07 .00	MAY .31 .43 .36 .08 .00	JUN .00 .02 .07 .00 .04	JUL .00 .00 .01 .00 .24	.00 .00 .00 .00	
1 2 3 4 5 6 7	.00	NOV .06 .01 .02 .01 .00	DEC .00 .00 .20 .00 .01	JAN .00 .00 .00 .00 .28 .25	DA FEB .00 .00 .00 .04 .18 .10	MAR .00 .00 .01 .04 .02 .00 .00	APR .56 .00 .03 .07 .00 .00 .06	MAY .31 .43 .36 .08 .00 .00	JUN .00 .02 .07 .00 .04 .00	JUL .00 .00 .01 .00 .24 .03	.00	
1 2 3 4 5 6 7 8	.00	NOV .06 .01 .02 .01 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02	DA FEB .00 .00 .00 .04 .18 .10 .00	MAR .00 .00 .01 .04 .02 .00 .00 .00 .02 .00	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57	MAY .31 .43 .36 .08 .00 .00 .98	JUN .00 .02 .07 .00 .04 .00 .00	JUL .00 .00 .01 .00 .24 .03 .02 .00	.00	
1 2 3 4 5 6 7	.00	NOV .06 .01 .02 .01 .00	DEC .00 .00 .20 .00 .01	JAN .00 .00 .00 .00 .28 .25	DA FEB .00 .00 .00 .04 .18 .10	MAR .00 .00 .01 .04 .02 .00 .00	APR .56 .00 .03 .07 .00 .00 .06	MAY .31 .43 .36 .08 .00 .00	JUN .00 .02 .07 .00 .04 .00	JUL .00 .00 .01 .00 .24 .03	.00	
1 2 3 4 5 6 7 8 9	.00 .00 .00 .00 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .00 .00 .09 .68	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .01 .04 .02 .00 .00 .26 .31 .00	ALUES APR .56 .00 .03 .07 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00	.00 .00 .00 .00 .00 .00 .00 .00 .22	
1 2 3 4 5 6 7 8 9 10	.00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .18	MAR .00 .00 .01 .04 .02 .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57 .92 .02	MAY .31 .43 .36 .08 .00 .00 .00 .98 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00	.00 .00 .00 .00 .00 .00 .00 .00 .22 .39	
1 2 3 4 5 6 7 8 9 10	.00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .00 .27 .24 .00 .01 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .18 .01	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .00 .00 .43 .00 .74 1.19	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .22 .39	
1 2 3 4 5 6 7 8 9 10 11 12 13	.00 .00 .00 .00 .00 .00 .00 .00 .01	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .75	DEC .00 .00 .20 .00 .01 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57 .92 .02 .00 .00 .00	MAY .31 .43 .36 .08 .00 .00 .98 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .00 .00 .74 1.19 .28	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .22 .39 .01	
1 2 3 4 5 6 7 8 9 10	.00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .00 .27 .24 .00 .01 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .18 .01	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .00 .00 .43 .00 .74 1.19	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .22 .39	======================================
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	.00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .75 .10	DEC .00 .00 .20 .00 .01 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00	MAY .31 .43 .36 .08 .00 .00 .98 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .02 .07 .00 .04 .00 .00 .00 .00 .43 .00 .74 1.19 .28 .24 1.30	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .22 .39 .01 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	.00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .01 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .01 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00 .00 .00 .01 .03	.00 .00 .00 .00 .00 .00 .00 .22 .39 .01 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	.00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .05 .21 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .01 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .00 .25 .25	MAR .00 .00 .01 .04 .02 .00 .00 .26 .31 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .98 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00 .00 .00 .01 .03	.00 .00 .00 .00 .00 .00 .00 .00 .22 .39 .01 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	.00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .01 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .01 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00 .00 .00 .01 .03	.00 .00 .00 .00 .00 .00 .00 .22 .39 .01 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	.00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .05 .21 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .75 .10 .09 .00 .01 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .25 .25 .64	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00 .00 .03 .88 1.73 .02 .01 .50	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .00 .01	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .01 .03 .01 .03	.00 .00 .00 .00 .00 .00 .00 .00 .22 .39 .01 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	.00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .05 .21 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .75 .10 .09 .00 .01 .00 .00 .01 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .00 .25 .64 .05 .03	MAR .00 .00 .01 .04 .02 .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .98 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .00 .01	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00 .01 .03 .01 .03	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	.00 .00 .00 .00 .00 .00 .00 .01 .00 .05 .21 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .75 .10 .09 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .25 .25 .64 .05 .03	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00 .03 .88 1.73 .02 .01 .50 .00 .01	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .01 .00 .01	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .01 .03 .01 .03 .01 .00 .00 .62 .25	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	.00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .05 .21 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .00 .01 .00 .01 .00 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00 .01 .03 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .22 .39 .01 .00 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	.00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .05 .21 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .00 .00 .01 .00 .00 .75 .10 .09 .00 .01 .00 .00 .01 .00 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .25 .25 .64 .05 .03 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .26 .31 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .98 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .00 .01 .00 .01	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00 .01 .03 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	.00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .05 .21 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .00 .01 .00 .00 .75 .10 .00 .00 .01 .00 .00 .01 .00 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .25 .25 .64 .05 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .00 .01 .00 .01 .00	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .01 .03 .01 .00 .00 .62 .25 .00 .00 .26 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .00 .01 .00 .00 .75 .10 .09 .00 .01 .00 .00 .01 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .25 .25 .64 .05 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .98 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00 .01 .03 .01 .00 .00 .62 .25 .00 .00 .26 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .00 .75 .10 .09 .00 .01 .00 .00 .01 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .25 .25 .64 .05 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .01 .50 .00 .01 .50 .00 .01 .01 .00 .03 .51	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .00 .01 .00 .01 .00 .04 .19 .07 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .01 .03 .01 .00 .00 .62 .25 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .00 .75 .10 .09 .00 .01 .00 .00 .01 .00 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .29 .68 .00 .09 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57 .92 .02 .00 .00 .03 .88 1.73 .02 .01 .01 .00 .00 .01 .01 .00 .00 .03 .51 .00	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .01 .00 .01 .00 .04 .19 .07 .00 .00 .00 .00 .00	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .01 .03 .01 .00 .00 .01 .03 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
1 2 3 4 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	.00 .00 .00 .00 .00 .00 .00 .00 .00 .01 .00 .05 .21 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	NOV .06 .01 .02 .01 .00 .00 .00 .01 .00 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57 .92 .02 .00 .00 .00 .00 .03 .88 1.73 .02 .01 .50 .00 .01 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .00 .01 .00 .01 .00 .01 .00 .00 .00	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .01 .03 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .00 .75 .10 .09 .00 .01 .00 .00 .01 .00 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .29 .68 .00 .09 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57 .92 .02 .00 .00 .03 .88 1.73 .02 .01 .01 .00 .00 .01 .01 .00 .00 .03 .51 .00	MAY .31 .43 .36 .08 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .01 .00 .01 .00 .04 .19 .07 .00 .00 .00 .00 .00	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .01 .03 .01 .00 .00 .01 .03 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .00 .01 .00 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .00 .00 .00 .00 .00 .0	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .26 .31 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	ALUES APR .56 .00 .03 .07 .00 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .98 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .02 .07 .00 .04 .00 .03 .00 .43 .00 .74 1.19 .28 .24 1.30 .39 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .00	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .01 .03 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .06 .01 .02 .01 .00 .00 .27 .24 .00 .01 .00 .00 .00 .75 .10 .00 .00 .01 .00 .00 .01 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .00 .09 .68 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	JAN .00 .00 .00 .00 .28 .25 1.02 .39 .04 .00 .00 .02 .01 .00 .03 .00 .03 .00 .00 .00 .00 .00 .00	DA FEB .00 .00 .00 .04 .18 .10 .00 .00 .00 .00 .00 .00 .00 .00 .00	MAR .00 .00 .01 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	ALUES APR .56 .00 .03 .07 .00 .06 .57 .92 .02 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .31 .43 .36 .08 .00 .00 .98 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .02 .07 .00 .04 .00 .00 .43 .00 .74 1.19 .28 .24 1.30 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .01 .00 .00	JUL .00 .00 .01 .00 .24 .03 .02 .00 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	

WTR YR 1998 TOTAL 34.58

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

393541083001100 PK-48 NR CIRCLEVLE OH—Continued

DEICING SALT LBS/LANE-MILE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3												
4												
5			1000									
6			1000									
7			400									
8												
9			400									
10												
11												
12												
13				200								
14												
15		400										
16												
17				100								
18												
19												
20												
21												
22												
23												
24		400										
25												
26												
27												
28												
29												
30			1200									
31												
		0.00	4000	200								
TOTAL		800	4000	300								

WTR YR 1998 TOTAL 5100

GROUND-WATER RECORDS

400949083480100. Local number, CH-42.

LOCATION.--Lat 40°09'49" Long 83°48'01", Hydrologic Unit 05080001, along State Route 29 near Urbana, OH. Owner. -- USGS/Jack Sommers.

AOUIFER. -- Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS. -- Observation well drilled by hollow stem auger, diameter 4.0 in., depth 28.7 ft. Cased with Sch 40 PVC to 13.7 ft; .020 in. screen from 13.7 to 28.7 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data was collected with a propane-heated, tippingbucket rain gauge. Also collected: water level, air temperature, soil temperature, water temperature, and specific conductance. Conductivity/water temperature probe set at 23.7 feet below land surface.

DATUM.--Elevation of land-surface datum is 1029.89 feet above sea level. Measuring point: shelter shelf 2.32 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceding tables. Incomplete data this year due to problems with recorder.

PERIOD OF RECORD. -- February 1991 to current year.

PERIOD OF DAILY RECORD . --

WATER LEVEL: February 1991 to current year. SPECIFIC CONDUCTANCE: February 1991 to current year. AIR TEMPERATURE: February 1991 to current year. WATER TEMPERATURE: February 1991 to current year. SOIL TEMPERATURE: February 1991 to current year. PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD. --

WATER LEVEL: Maximum daily low, 10.62 ft. below land-surface datum, December 19, 1991; maximum daily high, 4.64 ft. below land-surface datum, May 11, 1996.

SPECIFIC CONDUCTANCE: Maximum, 919 microsiemens December 11-12, 1993; minimum, 712 microsiemens August 23-24, 1997.

AIR TEMPERATURE: Maximum, 37.6°C June 18, 1994; minimum, -33.6°C January 19, 1994.

WATER TEMPERATURE: Maximum, 13.2°C many days October, November 1992; minimum, 10.2°C many days in May, June, and July, 1996.

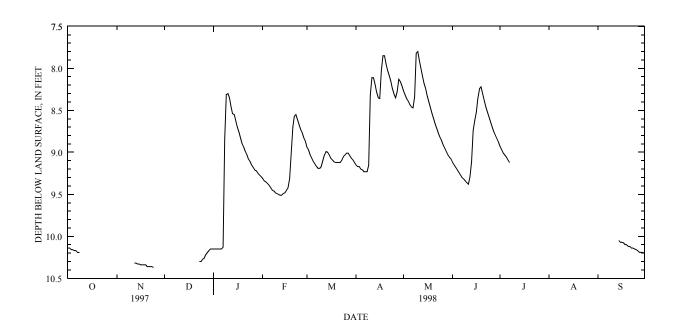
SOIL TEMPERATURE: Maximum, 30.5°C August 2, 1991; minimum, -1.8°C Februrary 10, 1994.

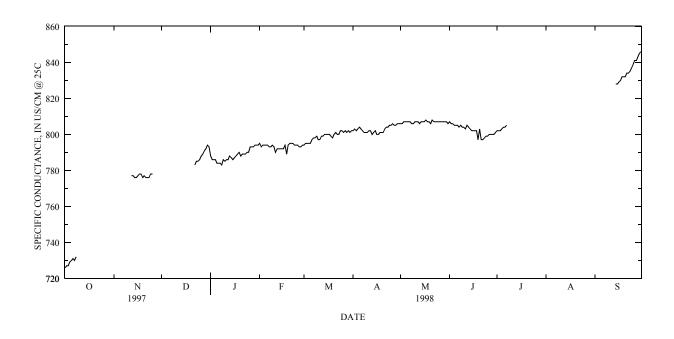
EXTREMES FOR CURRENT YEAR . - -

WATER LEVEL: Maximum daily low, 10.37 ft. below land-surface datum, November 24, 1997; maximum daily high, 7.74 ft. below land-surface datum, May 9-10, 1998.

SPECIFIC CONDUCTANCE: Maximum, 846 microsiemens September 30, 1998; minimum, 721 microsiemens October 1, 1997. AIR TEMPERATURE: Maximum, 33.6°C September 18, 1998; minimum, -15.0°C December 31, 1997. WATER TEMPERATURE: Maximum, 12.4°C many days in September 30, 1998; minimum, 10.8°C April 21-June 18, 20, 1998. SOIL TEMPERATURE: Maximum, 24.7°C June 28, 1998; minimum, 2.5°C January 1, 1998.

400949083480100 CH-42 NR URBANA OH-Continued





400949083480100 CH-42 NR URBANA OH-Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MEAN MAX MIN MEAN MAX MIN MEAN MEAN MIN MAX MTN OCTOBER NOVEMBER DECEMBER JANUARY 10.14 10.14 1 10.14 10.14 ---10.15 10.15 10 14 ___ ---------------2 10 14 10 14 10 15 10 15 10 15 3 10.16 10.14 10.16 ------------------10.15 10.15 10.15 ---------------4 10.16 10.16 10.16 10.15 10.15 10.15 5 10.17 10.16 10.17 ---_ _ _ _ _ _ ------_ _ _ 10.15 10.15 10.15 10.17 10.15 6 10.17 10.17 10.13 10.19 10.17 10.18 10.13 8.85 10.19 10.19 10.19 8.85 8.31 8.50 9 8.31 8.25 8 27 ---------------8.26 10 ---8.30 8.27 11 8.35 8.30 8.32 12 ---------10 32 10.32 10 32 ---------8.46 8.35 8 39 13 ---10.32 10.32 10.32 ---------8.54 8.46 ---10.33 10.32 10.32 ---------8.55 8.54 15 _ _ _ ------10.33 10.33 10.33 ------___ 8.62 8.55 8.58 16 10.34 10.33 10.33 ---------8.70 8.62 8.65 - - -------___ ___ ---_ _ _ 10 34 10 34 ------17 10 34 8 76 8 70 8 73 18 ---------10.34 10.34 10.34 ---------8.83 8.76 8.80 ---------------19 10.34 10.34 10.34 8.90 8.83 8.86 2.0 _ _ _ ------10.36 10.34 10.35 ------_ _ _ 8.94 8.90 8.92 10.36 10.36 10.36 ---21 8.99 8.94 8.97 2.2 10.36 10.36 10.36 9.03 8.99 9.02 10.36 10.36 10.36 10.30 10.30 10.30 9.08 9.03 9.06 24 10.37 10.36 10.37 10.30 10.27 10.29 9.11 9.08 9.10 25 10.27 10.26 10.26 ---9.15 9.11 9.13 ---------26 10.26 10.22 10.24 9.18 9.15 9.17 27 ------------------10.22 10.19 10.21 9.21 9.18 9.19 28 ---------------10.19 10.17 10.18 9.22 9.21 9.21 29 ------------------10.17 10.15 10.16 9.25 9.22 9.23 30 ___ ___ ___ _ _ _ ___ 10.15 10.15 10.15 9.27 9.25 9.26 _ _ _ ___ _ _ _ ___ 10.15 10.15 10.15 9.29 9.27 10 22 MONTH 10 19 10 14 10 16 10 37 10 32 10 34 10 30 10 15 10 15 8 25 9 11 DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MTN MEAN MAX MTN MEAN MAX MTN MEAN MAX MTN MEAN FEBRUARY MARCH APRIL MAY 1 9.31 9 29 9.30 8.94 8.87 8.90 9.15 9.12 9.13 8 27 8 21 8.23 2 9.34 9.31 9.33 8.97 8.94 8.96 9.17 9.15 9.16 8.32 8.27 8.29 3 9 35 9 34 9 35 9.03 8.97 9 00 9.17 9.17 9.17 8 36 8 32 8.34 9.36 9.37 9.35 9.07 9.03 9.05 9.20 9.17 9.19 8.39 8.36 4 8.37 5 9.39 9.37 9.38 9.11 9.07 9.09 9.21 9.20 9.21 8.43 8.39 8.41 6 9.42 9.39 9.41 9.14 9.11 9.12 9.23 9.21 9.21 8.46 8.43 8.45 9.42 9.17 9.16 9.23 9.23 9.23 8.47 9.45 9.43 9.14 8.34 8.46 8 9.45 9.45 9.19 9.17 9.18 9.23 9.15 9.19 7.82 8.01 9.46 8.34 7.74 9 9.48 9.46 9.47 9.19 9.17 9.17 9.15 8.32 8.78 7.82 7.77 10 7.80 7.74 7.76 9.49 9.48 9.49 9.17 9.10 9.14 8.32 8.11 8.19 8.05 11 9.50 9.49 9.49 9.10 9.03 9.06 8.11 8.07 7.90 7.80 7.84 8.05 8.08 12 9.51 9.50 9.50 9.03 8.99 9.01 8.11 8.00 7.90 7.95 9.51 9.49 9.50 8.99 8.96 8.98 8.19 8.11 8.15 8.09 8.00 8.05 13 9.49 9.48 9.49 9.00 8.95 8.98 8.28 8.19 8.23 8.18 8.09 9.48 9.45 9.47 9.03 9.00 9.01 8.35 8.28 8.32 8.24 8.18 15 8.21 9.45 9.43 9.07 9.03 9.05 8.36 8.03 8 21 8 33 16 9.42 8.24 8.29 17 9.42 9.31 9.38 9.09 9.07 9.08 8.03 7.85 7.93 8.40 8.33 8.37 18 9.31 9.02 9.17 9.11 9.09 9.10 7.85 7.80 7.82 8.47 8.40 19 9.02 8.70 8.85 9.12 9.11 9.12 7.85 7.79 7.81 8.54 8.47 8.51 20 8.70 8.57 9.12 9.12 9.12 7.95 7.85 7.91 8.60 8.62 8.54 8.57 21 8.57 8.54 8.55 9.12 9.12 9.12 8.03 7.95 7.99 8.66 8.60 8.63 8.06 8.72 2.2 8.55 8.54 8.55 9.12 9.09 9.11 8.09 8.03 8.66 8.69 8.09 8.77 23 8.61 8.55 8.57 9.09 9.05 9.07 8.16 8.13 8.72 8.74 9.05 2.4 8.67 8.61 8.64 9.03 9.04 8.24 8.16 8.20 8.82 8.77 8.79 2.5 8.73 8.67 8.71 9.03 9.01 9.02 8.31 8.24 8.28 8.86 8.82 8.84 26 8.77 8.73 8.75 9.01 9.00 9.00 8.35 8.28 8.33 8.91 8.86 27 8.83 8.77 9.01 9.00 9.01 8.13 8.19 8.91 28 8.87 8.83 8.85 9.04 9.01 9.02 8.13 8.11 8.11 8.99 8.95 8.97 9.07 9.03 29 9.04 9.06 8.16 8.11 8.13 8.99 9.01 30 9.09 9.07 9.08 8.21 9.06 9.03 9.04 8.16 8.19 9.12 9.11 9.08 9.06 9.07 31 9.09 MONTH 9.51 8.54 9.15 9.19 8.87 9.06 9.23 7.79 8.42 9.08 7.74 8.45

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

400949083480100 CH-42 NR URBANA OH-Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MEAN MIN MEAN MAX MIN MEAN MIN MEAN MIN MAX MAX JUNE JULY AUGUST SEPTEMBER 1 9.12 9.08 9.10 8.93 8.88 8.91 ---------------------2 9 15 9 12 9 13 8 97 8 93 8 95 3 9.18 9.15 9.17 9.01 8.97 8.99 ------------------------------4 9.21 9.18 9.20 9.03 9.01 9.02 5 9.24 9.21 9.23 9.06 9.03 9.04 ------_ _ _ ------_ _ _ 9.09 9.06 9.08 6 9.27 9.24 9.26 9.30 9.27 9.12 9.09 9.11 9.28 9.32 9.30 9.31 9 9.34 9.32 9.33 9.35 ---------------------------10 9.36 9.34 11 9.38 9.29 9.35 12 9.29 9.11 9.21 _ _ _ ------------------------13 9.11 8.74 8.91 ---------___ 8.74 8.62 8.67 ---------10.05 10.05 10.05 15 8.62 8.52 8.57 ------------------10.07 10.05 10.05 16 8.52 8.36 8.43 ------------------10.07 10.07 10.07 ___ ___ ------------10 08 10 07 17 8 36 8 24 8 30 10 07 18 8.24 8.18 8.20 ------------------10.10 10.08 10.09 ------------------19 8.22 8.18 8.19 10.10 10.10 10.10 20 8.30 8.22 8.26 ------_ _ _ ------_ _ _ 10.12 10.10 10.11 8.38 8.30 8.34 10.12 10.12 10.12 21 22 8.46 8.38 8.42 10.14 10.12 10.13 23 8.52 8.46 8.49 10.14 10.14 10.14 24 8.58 8.52 8.55 10.15 10.14 10.14 25 ------------8.64 8.58 ---10.16 10.15 10.16 8.61 26 8.70 8.64 8.66 10.17 10.16 10.16 27 8.75 8.70 8.72 _ _ _ ---------------10.19 10.17 10.18 28 8.80 8.75 8.78 ------------------10.19 10.19 10.19 29 8.84 8.80 8.83 ------------------10.19 10.19 10.19 30 ------------------8.88 8.84 10.20 10.19 10.19 ------------------___ ___ ---MONTH 9.38 9 12 8.88 9 01 10 20 10 05 10 13 8.18 8.82 10.37 7.74 YEAR 9.11

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MAX MIN MAX MIN MAX MIN MIN FEBRUARY OCTOBER NOVEMBER DECEMBER JANUARY MARCH 1 726 721 788 783 795 790 794 791 795 2 727 722 ---786 785 793 790 793 ---3 727 722 786 785 794 791 795 794 4 729 723 786 784 794 792 795 793 5 784 730 723 ------------783 794 793 795 793 6 731 725 ------------784 783 794 790 797 793 784 782 793 789 798 730 725 ------------790 798 732 783 781 793 ---790 799 786 781 794 795 10 785 781 793 789 797 11 ---------------786 780 790 790 797 795 777 773 12 _ _ _ ---------786 780 792 790 799 793 13 ------777 775 ------788 781 792 790 799 795 ---776 775 ---787 782 792 789 800 794 14 15 ------776 775 ------786 782 792 789 800 795 777 775 787 782 16 792 789 800 793 778 17 ------774 ------788 786 794 789 800 795 ---778 774 ---789 785 789 788 799 797 18 ------___ 776 773 790 798 796 785 794 789 19 20 ------777 774 ------788 787 795 789 800 797 21 ------776 775 ------789 788 795 788 801 799 775 782 789 795 787 776 783 788 800 797 ------776 775 785 783 789 787 794 789 800 797 775 778 785 784 790 788 794 789 797 25 778 774 786 785 790 789 794 789 802 ------------788 793 787 793 797 26 786 791 801 27 ------------789 787 793 787 793 791 802 796 2.8 ------------791 787 793 789 794 791 801 797 29 ------792 787 794 789 802 797 ---_ _ _ 30 ------794 787 794 789 ------801 797 31 ------------793 785 794 789 ------802 800 MONTH 732 721 778 773 794 782 794 780 795 787 802 791

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SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MIN MAX MIN MIN MAX MIN MAX MIN MAX MAX APRIL MAY JUNE JULY AUGUST SEPTEMBER 1 802 800 806 802 807 800 802 800 ------806 801 ___ ------_ _ _ 2 803 800 802 806 802 800 800 3 802 800 807 802 806 800 802 ------------807 _ _ _ ------4 803 801 802 805 799 803 802 5 804 799 807 802 805 800 804 802 _ _ _ _ _ _ _ _ _ ---807 801 804 6 802 798 807 801 804 799 805 803 8 801 806 805 9 801 799 806 800 804 799 10 807 799 ---------------801 799 800 804 ---11 802 799 807 801 803 798 12 802 799 807 801 805 799 ------------------13 800 799 806 801 804 796 ---___ 801 799 807 802 803 798 ---828 827 15 802 799 807 802 802 796 ------_ _ _ ---828 827 16 800 798 807 801 802 797 ------829 828 ------------796 ------17 800 798 808 801 802 830 828 18 801 799 807 802 802 795 ------------832 829 ------_ _ _ ---19 801 800 807 802 797 795 832 830 20 801 799 806 801 803 796 ---_ _ _ _ _ _ ---832 831 808 801 797 796 21 799 834 831 22 804 800 807 802 797 796 834 833 23 804 800 802 798 835 24 805 799 807 802 799 797 837 835 25 807 799 797 ---------805 800 803 839 836 26 806 801 807 802 800 798 841 838 27 805 801 807 802 800 799 ------------841 839 28 805 801 807 802 800 799 ---843 841 29 806 802 807 801 800 799 ------------845 842 30 807 801 801 799 ---_ _ _ ___ 846 842 806 802 ---------806 ___ MONTH 806 798 808 800 807 795 805 800 ---846 827 YEAR TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MIN MAX MIN MAX MIN MAX MIN MAX MAX OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH 1 18.8 1.5 5.4 -5.0 9.9 -5.7 8.0 -1.2 -2.0 10.8 2 20.7 ---5.4 9.9 -2.6 6.2 -2.9 ---3 13.8 10.8 4.0 3.3 -.8 27.1 10.1 -3.7 4 29.7 15.6 15.2 8.8 -.8 -2.6 1.5 -5.3 5 30.0 13.0 ------------15.4 11.6 -.9 -3.2 2.5 -5.5 6 29.6 12.1 ---------15.7 13.3 4.8 -3.1 8.4 -1.0 29.1 10.2 ---14.4 3.6 8.0 -5.1 11.7 -2.6 ------------8 9.5 -5.5 15.0 ---2.4 . 3 9.0 -6.5 13.7 -4.4 -7.6 10 2.8 11.7 -4.1 -3.7 -7.7 11 ------------------2.0 -3.5 8.7 4.2 -5.1 -9.6 .3 12 _ _ _ ---2 0 -9 N _ _ _ ---8 3 -5.0 5.0 -2.7 -11.1 13 ------1.8 -9.0 -------2.8 -11.2 5.3 -.6 2.9 -11.7 . 7 14 ----.3 ---. 5 -5.7 8.3 -1.8 4.3 -6.0 15 _ _ _ ---.8 -2.4 _ _ _ ---1.5 -1.9 8.9 -2.7 3.4 -7.3 7.1 1.5 16 -.8 -6.7 -.9 -3.1 6.6 -4.6 2.2 17 -------8.6 ------. 6 -2.1 9.6 5.8 7.7 . 5 ------5.2 -9.1 ----.1 -13.9 8.6 13.7 7.7 18 ---3.2 ----2.3 10.8 -4.0 4.8 2.8 7.3 19 -14.913.4 20 ------11.7 -5.8 -------2.3 -6.8 4.8 1.7 7.4 . 6 21 ------9.2 2.3 ------. 2 -6.8 6.2 1.8 . 6 -.8 ---5.2 2.6 -.2 9.4 2.2 5.5 -1.2 _ _ _ ---2.4 -.9 5.1 5.7 23 3.1 . 0 24 1.9 -8.2 8.5 2.3 .1 -1.6 8.8 -3.0 -3.5 25 2.8 -.1 -2.5 10.9 - . 4 11.4 -1.7 -2.6 ----------.2 14.1 2.6 26 -3.8 6.5 -4.3 23.9 8.1 27 _ _ _ ---------1.0 -8.0 9.8 -2.3 16.3 1.4 26.1 14.6 2.8 ------------1.7 -5.5 10.5 -5.7 15.4 -2.1 21.9 11.3 29 ---------1.1 -3.8 5.9 27.6 9.5 ------30 ----------1.4 -10.6 . 9 - 7 ---27.1 15.6 31 -------------4.7 -15.0 4.4 -3.9 ------24.4 12.5 MONTH 30.0 -2.0 11.7 -9.1 8.5 -15.0 15.7 -14.9 16.3 -6.5 27.6 -11.7

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

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		TEM	PERATURE,	AIR, DEGF	REES CELSIU	JS, WATER	YEAR OCTO	OBER 1997	TO SEPTEM	IBER 199	8	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	Al	PRIL	I	YAN	JUI	NE	JU	ILY	AUG	UST	SEPT	EMBER
1	17.0	7.9	16.9	12.3	25.1	12.5	27.7	13.6				
2	12.8	1.5	16.9	10.5	30.0	12.5	30.1	13.3				
3	12.7	-1.6	19.8	7.0	23.7	8.1	29.6	12.9				
4 5	9.3 14.7	-1.5 -3.9	19.3 22.0	6.4 6.4	19.3 13.1	8.7 5.9	27.8 30.8	18.3 15.1				
6 7	16.7 16.8	-1.9 3.6	24.1 18.2	8.1 14.9	19.3 19.5	3.1 4.4	27.6 27.2	14.2 16.3				
8	22.6	10.1	21.5	14.0	21.8	6.2						
9	14.6	5.0	20.6	12.5	16.3	13.7						
10	12.6	1.8	23.7	12.6	27.8	15.8						
11	15.4	-1.8	21.6	10.8	20.6	15.0						
12 13	19.8 21.5	.0 9.2	25.2 26.0	10.1 14.8	29.3 24.5	17.6 15.8						
14	17.5	8.6	30.3	11.8	23.7	13.1						
15	18.2	3.7	31.5	12.4	24.4	16.5					27.3	19.8
16	21.9	11.0	28.5	16.5	22.8	17.9					27.3	18.0
17	12.6	2.9	30.0	11.0	27.4	17.7					30.3	15.2
18	13.7	6	30.7	9.6	30.6	15.9					33.6	12.4
19 20	10.0	6.1	31.6	11.8	27.9	17.5					31.2 30.9	14.6
	17.2	. 4	28.6	15.2	30.7	14.2						16.3
21 22	16.0 17.3	4.2 7.1	27.9 20.4	12.7 10.6	25.5 30.9	20.3 18.4					30.2 26.7	17.0 7.5
23	20.2	6.5	23.0	11.2	28.2	18.5					21.4	4.5
24	22.9	2.3	24.0	14.1	31.9	19.9					22.6	2.5
25	21.9	5.9	20.0	12.8	32.8	21.9					28.7	15.8
26	18.7	5.5	26.5	9.1	32.4	20.9					32.7	17.4
27	13.8	2.4	26.5	10.5	32.2	25.1					31.1	17.8
28 29	17.1 17.5	.4 10.6	28.8 30.9	13.0 17.6	31.6 28.5	22.7 18.2					26.2 29.4	10.5 7.4
30	16.3	13.2	29.2	16.2	25.2	17.5					27.2	10.2
31			28.3	16.1								
MONTH	22.9	-3.9	31.6	6.4	32.8	3.1	30.8	12.9			33.6	2.5
	33.6	-15.0										
YEAR												
YEAR	33.0		רב אחבים אייוים	ב מאתבם	(DEC C)	WATED VE	יאם המייהם מגי	D 1007 TO	CEDTEMBEE	1000		
					(DEG. C),						May	
YEAR DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	MAX		MAX			MIN	MAX			MIN		MIN ARCH
DAY 1	MAX OCT	MIN FOBER 11.6	MAX NOVI	MIN EMBER	MAX DECEN	MIN MBER	MAX JAN 12.3	MIN WARY 12.1	MAX FEBR	MIN UARY 11.6	MA 11.4	RCH 11.4
DAY 1 2	MAX OC' 11.9 11.9	MIN TOBER 11.6 11.6	MAX NOVI	MIN EMBER 	MAX DECEN	MIN MBER 	MAX JAN 12.3 12.1	MIN UARY 12.1 12.1	MAX FEBR 11.8 11.6	MIN UARY 11.6 11.6	MA 11.4 11.4	11.4 11.4
DAY 1 2 3	MAX OCT 11.9 11.9 11.9	MIN FOBER 11.6 11.6 11.7	MAX NOVI	MIN EMBER	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1	MIN UARY 12.1 12.1 12.1	MAX FEBR	MIN UARY 11.6 11.6	MA 11.4 11.4 11.4	11.4 11.4 11.4
DAY 1 2	MAX OC' 11.9 11.9	MIN TOBER 11.6 11.6	MAX NOVI 	MIN EMBER 	MAX DECEI	MIN MBER 	MAX JAN 12.3 12.1	MIN UARY 12.1 12.1	MAX FEBR 11.8 11.6 11.6	MIN UARY 11.6 11.6	MA 11.4 11.4	11.4 11.4
DAY 1 2 3 4	MAX OCT 11.9 11.9 11.9	MIN FOBER 11.6 11.6 11.7 11.6	MAX NOV! 	MIN EMBER 	MAX DECE	MIN MBER 	MAX JAN 12.3 12.1 12.1 12.1 12.1	MIN JUARY 12.1 12.1 12.1	MAX FEBR 11.8 11.6 11.6	MIN UARY 11.6 11.6 11.6	MA 11.4 11.4 11.4	11.4 11.4 11.4 11.4 11.4
DAY 1 2 3 4 5	MAX OCT 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.6 11.7	MAX NOVI	MIN EMBER 	MAX DECEN	MIN MBER 	MAX JAN 12.3 12.1 12.1 12.1	MIN 1UARY 12.1 12.1 12.1 12.1	MAX FEBR 11.8 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6	MA 11.4 11.4 11.4 11.4	11.4 11.4 11.4 11.4
DAY 1 2 3 4 5 6 7 8	MAX OCT 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOV!	MIN EMBER	MAX DECEI	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.1	MIN 1UARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.6 11.7	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6	MA 11.4 11.4 11.4 11.4 11.4 11.4	11.4 11.4 11.4 11.4 11.4 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9	MAX OCT 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.6 11.7 11.7 11.7	MAX NOV!	MIN EMBER	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1	MIN JUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.6 11.7 11.7	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.	11.4 11.4 11.4 11.4 11.4 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCC 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.6 11.7 11.7 11.7	MAX NOV!	MIN EMBER	MAX DECEI	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.	11.4 11.4 11.4 11.4 11.4 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.6 11.7 11.7 11.7	MAX NOVI	MIN EMBER	MAX DECEI	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1	MIN TUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.7 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.	11.4 11.4 11.4 11.4 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCC 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.6 11.7 11.7 11.7	MAX NOV!	MIN EMBER	MAX DECEI	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.	11.4 11.4 11.4 11.4 11.4 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCC. 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN SMBER 12.3 12.3	MAX DECEI	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.	RCH 11.4 11.4 11.4 11.4 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OCC. 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.6 11.7 11.7 11.7	MAX NOVI	MIN EMBER 12.3 12.3	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12.1	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT. 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN SMBER 12.3 12.3 12.3 12.3	MAX DECEI	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCC 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER 12.3 12.3 12.3 12.3 12.3	MAX DECEI	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN TUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4	RCH 11.4 11.4 11.4 11.4 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCT. 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER	MAX DECEI	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCC 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER 12.3 12.3 12.3 12.3 12.3	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN TUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4	RCH 11.4 11.4 11.4 11.4 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCC. 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER 12.3 12.3 12.3 12.3 12.3 12.3 12.3	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5 11.4 11.6 11.7 11.8	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX OCT. 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 12	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5 11.4 11.6 11.7 11.8	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX OC: 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 11.8 11.8	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5 11.1	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX OCC 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 11.8 11.8	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5 11.1	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCC 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER 12.3 12.3 12.3 12.3 12.3 12.3 12.3 12.3	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 11.8 11.8	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5 11.1 11	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.0 11.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCC 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 11.8 11.8	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5 11.1	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.0 11.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCC 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER 12.3 12.3 12.3 12.3 12.3 12.3 12.3 12.3	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 11.8 11.8	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.5 11.1 11	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.0 11.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCC. 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 11.8 11.8	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCC 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 11.8 11.8	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCC. 11.9 11.9 11.9 11.9 11.9 11.9	MIN TOBER 11.6 11.7 11.7 11.7 11.7	MAX NOVI	MIN EMBER	MAX DECEN	MIN MBER	MAX JAN 12.3 12.1 12.1 12.1 12.1 12.1 12.1 12.	MIN IUARY 12.1 12.1 12.1 12.1 12.1 12.1 12.1 11.8 11.8	MAX FEBR 11.8 11.6 11.6 11.6 11.7 11.7 11.6 11.6 11.6	MIN UARY 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	MA 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2 11.2	RCH 11.4 11.4 11.4 11.2 11.2 11.2 11.2 11.

400949083480100 CH-42 NR URBANA OH-Continued

			TEMPERATURE				EYD OCHODEI			1000		
DAM	MAN	MIN									MAN	MIN
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
		RIL	MA			UNE	JU		AUGI			EMBER
1 2	11.0 11.0	11.0 11.0	11.0 11.0	10.8	11.0 11.0	10.8 10.8	11.0 11.0	11.0 11.0				
3	11.0	11.0	11.0	10.8	11.0	10.8	11.1	11.0				
4	11.0	11.0	11.0	10.8	11.0	10.8	11.0	11.0				
5	11.0	10.9	11.0	10.8	11.0	10.8	11.1	11.0				
6	11.0	11.0	11.0	10.8	11.0	10.8	11.0	11.0				
7	11.0	11.0	11.0	10.8	11.0	10.8	11.0	11.0				
8 9	11.0 11.0	11.0 11.0	11.0 11.0	10.8	11.0 11.0	10.8 10.8						
10	11.0	11.0	11.0	10.8	11.0	10.8						
11	11.0	10.9	11.0	10.8	11.0	10.8						
12	11.0	11.0	11.0	10.8	11.0	10.8						
13	11.0	11.0	11.0	10.8	11.0	10.8						
14	11.0	11.0	11.0	10.8	11.0	10.8					12.2	12.1
15	11.0	11.0	11.0	10.8	11.0	10.8					12.2	12.1
16	11.0	11.0	11.0	10.8	11.0	10.8					12.2	12.1
17 18	11.0 11.0	11.0 11.0	11.0 11.0	10.8	11.0 11.0	10.8 10.8					12.2 12.2	12.1 12.1
19	11.0	11.0	11.0	10.8	11.0	11.0					12.2	12.1
20	11.0	11.0	11.0	10.8	11.1	10.8					12.2	12.1
21	11.0	10.8	11.0	10.8	11.0	11.0					12.2	12.1
22	11.0	10.8	11.0	10.8	11.0	11.0					12.2	12.1
23	11.0	10.8	11.0	10.8	11.0	11.0					12.3	12.1
24 25	11.0 11.0	10.8	11.0 11.0	10.8	11.1 11.1	11.0 11.0					12.2 12.2	12.1 12.1
26 27	11.0 11.0	10.8	11.0 11.0	10.8	11.0 11.0	11.0 11.0					12.2 12.2	12.1 12.1
28	11.0	10.8	11.0	10.8	11.0	11.0					12.2	12.1
29	11.0	10.8	11.0	10.8	11.0	11.0					12.2	12.1
30	11.0	10.8	11.0	10.8	11.0	11.0	= = =				12.4	12.1
31			11.0	10.8								
MONTH	11.0	10.8	11.0	10.8	11.1	10.8	11.1	11.0			12.4	12.1
YEAR	10 4	100										
IDAN	12.4	10.8										
ILAN	12.4	10.8	TEMPERATURE	, SOIL	(DEG. C),	WATER YE	AR OCTOBER	1997 TO	SEPTEMBER	1998		
DAY	MAX	MIN	TEMPERATURE MAX	S, SOIL	(DEG. C),	WATER YE	CAR OCTOBER	1997 TO	SEPTEMBER MAX	1998 MIN	MAX	MIN
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN		
DAY	MAX OCT	MIN OBER	MAX NOVEM	MIN	MAX DEC	MIN EMBER	MAX JAN	MIN UARY	MAX FEBRI	MIN JARY	MA	RCH
DAY 1	MAX OCT 16.9	MIN OBER	MAX	MIN	MAX	MIN	MAX JAN 2.6	MIN UARY 2.5	MAX FEBRU	MIN UARY 3.2	MA 8.2	RCH 7.1
DAY	MAX OCT	MIN OBER	MAX NOVEM	MIN BER	MAX DEC	MIN EMBER	MAX JAN	MIN UARY	MAX FEBRI	MIN JARY	MA	RCH
DAY 1 2 3 4	MAX OCT 16.9 15.6 17.0 19.1	MIN COBER 15.6 13.4 14.7 16.4	MAX NOVEM 	MIN IBER	MAX DEC	MIN EMBER 	MAX JAN 2.6 4.4 6.9 7.7	MIN UARY 2.5 2.6 4.4 6.9	MAX FEBRU 4.3 5.3 4.8 4.4	MIN UARY 3.2 4.1 4.0 3.5	MA 8.2 7.4 6.4 5.6	7.1 6.4 5.6 5.1
DAY 1 2 3	MAX OCT 16.9 15.6 17.0	MIN OBER 15.6 13.4 14.7	MAX NOVEM 	MIN IBER	MAX DEC: 	MIN EMBER 	MAX JAN 2.6 4.4 6.9	MIN UARY 2.5 2.6 4.4	MAX FEBRU 4.3 5.3 4.8	MIN UARY 3.2 4.1 4.0	MA 8.2 7.4 6.4	7.1 6.4 5.6
DAY 1 2 3 4 5	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0	MIN OBER 15.6 13.4 14.7 16.4 17.5	MAX NOVEM 	MIN IBER	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2	MAX FEBRI 4.3 5.3 4.8 4.4 3.5	MIN JARY 3.2 4.1 4.0 3.5 3.3 3.2	MA 8.2 7.4 6.4 5.6 5.6	7.1 6.4 5.6 5.1 4.7
DAY 1 2 3 4 5 6 7	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9	MAX NOVEM 	MIN IBER	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2	MIN JARY 3.2 4.1 4.0 3.5 3.3 3.2 3.2	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2	7.1 6.4 5.6 5.1 4.7 4.8 5.2
DAY 1 2 3 4 5	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0	MIN OBER 15.6 13.4 14.7 16.4 17.5	MAX NOVEM 	MIN IBER	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1	MIN JARY 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.2 3.4	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7
DAY 1 2 3 4 5 6 7 8	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM 	MIN IBER	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1	MIN JARY 3.2 4.1 4.0 3.5 3.3 3.2 3.2	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN OBER 15.6 13.4 14.7 16.4 17.5 17.9 17.9	MAX NOVEM	MIN IBER	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2	MIN JARY 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6
DAY 1 2 3 4 5 6 7 8 9	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM	MIN IBER	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.2 3.4 3.3	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM	MIN IBER 6.1 5.6	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.4 4.5 3.5	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 5.2 4.7	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.6 3.0	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM	MIN IBER 6.1 5.6 5.7	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 5.2 4.7 4.9	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.6 3.0 3.0	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.6 3.2 2.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM	MIN IBER	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.3	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 5.2 4.7 4.9 4.5	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.6 3.0 3.0 4.1	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.8 2.9
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM	MIN IBER 6.1 5.6 5.7 5.0 4.4	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.3 3.5	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 5.2 4.7 4.9 4.5	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.6 3.0 3.0 4.1 5.1	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.6 3.2 8 2.8 2.9
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM	MIN IBER	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.3	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 5.2 4.7 4.9 4.5 4.9 5.9	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.6 3.0 3.0 4.1	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.9 3.3 4.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.3 3.5 3.5 3.3	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8 5.9 7.1 7.3 6.9	MIN JARY 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 5.2 4.7 4.9 4.5 4.9 6.9 6.9 6.3	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.6 3.0 3.0 4.1 5.1 5.4 8.3 9.4	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.9 3.3 4.2 5.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.6	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.5 3.3	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8 5.9 7.1 7.3	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.6 5.2 5.2 4.7 4.9 4.5 4.9 6.9	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.6 3.0 3.0 4.1 5.1 5.4 8.3	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.8 2.9 3.3 4.2 5.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8 5.6 6.7	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4 4.0	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.7 3.0 3.0	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.3 3.5 3.5 3.3 2.9 2.9 2.8	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8 5.9 7.1 7.3 6.9 6.4 6.2	MIN JARY 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 4.7 4.9 4.5 4.9 6.9 6.9 6.3 6.1 5.8	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.6 3.0 3.0 4.1 5.1 5.1 5.4 8.3 9.4 9.0 7.1	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.9 3.3 4.2 5.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8 5.6 6.7 6.8	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4 4.0 5.6 6.6	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.7 3.0 3.0 3.0	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.5 3.5 3.5 3.5 3.8 2.9 2.9 2.8 2.8	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 7.1 7.3 6.9 6.4 6.2 7.2	MIN JARY 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 4.7 4.9 4.5 4.9 5.9 6.3 6.1 5.8 6.0	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.0 3.0 4.1 5.1 5.4 8.3 9.4 9.0 7.1 5.7	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.8 2.9 3.3 4.2 5.3 4.2 5.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8 5.6 6.7 6.8 6.6	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4 4.0 5.6 6.6 5.1	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.6 3.6 3.3 3.0 3.0 3.3 3.0	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.3 3.5 3.5 3.3 2.9 2.9 2.8 2.8 3.3	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8 5.9 7.1 7.3 6.9 6.4 6.2 7.2 6.9	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.4 3.3 3.6 5.2 5.2 4.7 4.9 4.5 4.9 6.9 6.3 6.1 5.8 6.0 6.4	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.0 4.1 5.1 5.1 5.4 8.3 9.4 9.0 7.1 5.7 5.4	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.9 3.3 4.2 5.4 8.3 7.1
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8 5.6 6.7 6.8	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4 4.0 5.6 6.6	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.7 3.0 3.0 3.0	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.5 3.5 3.5 3.5 3.8 2.9 2.9 2.8 2.8	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 7.1 7.3 6.9 6.4 6.2 7.2	MIN JARY 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 4.7 4.9 4.5 4.9 5.9 6.3 6.1 5.8 6.0	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.0 3.0 4.1 5.1 5.4 8.3 9.4 9.0 7.1 5.7	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.8 2.9 3.3 4.2 5.3 4.2 5.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8 5.6 6.7 6.8 6.6 5.1	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4 4.0 5.6 6.6 6.1 4.4	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.3 3.0 3.0 3.0 3.3 3.8 3.5 3.2	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.5 3.5 3.3 3.5 3.3 2.9 2.9 2.8 2.8 3.3 3.2 2.9	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8 5.9 7.1 7.3 6.9 6.4 6.2 7.2 6.9 6.4 7.0	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 5.2 4.7 4.9 6.9 6.3 6.1 5.8 6.0 6.4 5.5 5.3	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.0 4.1 5.1 5.4 8.3 9.4 9.0 7.1 5.7 6.9	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.8 2.9 3.3 4.2 5.4 8.3 7.1 5.3 4.4 4.6 5.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN OBER 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8 5.6 6.7 6.8 6.6 5.1	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4 4.0 5.6 6.6 6.1 4.4	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.3 3.0 3.0 3.0 3.3 3.8 3.5	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.5 3.5 3.3 3.5 3.5 3.3 3.5 3.3 3.5	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8 5.9 7.1 7.3 6.9 6.4 6.2 7.2 6.9 6.4	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.2 3.4 4.7 4.9 6.9 6.3 6.1 5.8 6.0 6.4 5.5	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.6 3.0 4.1 5.1 5.4 8.3 9.4 9.0 7.1 5.7 5.4 6.7	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.8 2.9 3.3 4.2 5.4 8.3 7.1 5.3 4.4 4.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8 5.6 6.7 6.8 6.6 5.1	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4 4.0 5.6 6.6 5.1 4.4	MAX DEC: 5.1 5.9 5.8 4.4 3.9 3.4	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.3 3.0 3.0 3.3 3.8 3.5 3.2 3.6 4.6 4.7	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.5 3.5 3.3 3.5 3.5 3.3 3.5 3.5	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8 5.9 7.1 7.3 6.9 6.4 6.2 7.2 6.9 6.4 7.0 7.4 8.9 8.7	MIN JARY 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.4 3.3 3.6 5.2 4.7 4.9 4.5 4.9 6.9 6.3 6.1 5.8 6.0 6.4 5.5 5.3 6.1 7.0	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.0 3.0 4.1 5.1 5.4 8.3 9.4 9.0 7.1 5.7 6.7 6.9 10.6 12.7 13.0	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.9 3.3 4.2 5.2 5.3 4.2 5.2 6.7 7.0 6.7 7.0 6.7 7.0 6.7 7.0 6.7 6.7 7.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN OBER 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8 5.6 6.7 6.8 6.6 5.1	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4 4.0 5.6 6.6 5.1 4.4	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.5 3.5 3.3 3.5 3.5 3.3 2.9 2.9 2.8 2.8 3.3 3.2 2.9 2.8 3.3 3.2 3.9	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8 5.9 7.1 7.3 6.9 6.4 6.2 7.2 6.9 6.4 7.0 7.4 8.9 8.7	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.4 3.3 3.6 5.2 5.2 4.7 4.9 6.9 6.3 6.1 5.8 6.0 6.4 5.5 5.3 6.1 7.1 7.0	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.0 4.1 5.1 5.4 8.3 9.4 9.0 7.1 5.7 6.9 10.6 12.7 13.0 14.4	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.0 2.8 2.8 2.9 3.3 4.2 5.4 8.3 7.1 5.3 4.4 4.6 5.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8 5.6 6.7 6.8 6.6 5.1	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4 4.0 5.6 6.6 5.1 4.4	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.3 3.0 3.0 3.0 3.0 3.3 3.2 3.6 4.6 4.7 4.4 4.3	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.5 3.5 3.3 3.5 3.5 3.3 3.5 3.5	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8 5.9 7.1 7.3 6.9 6.4 6.2 7.2 6.9 6.4 7.0 7.4 8.9 8.7	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.2 3.2 3.4 3.3 3.6 5.2 5.2 4.7 4.9 6.9 6.3 6.1 5.8 6.0 6.4 5.5 5.3 6.1 7.1 7.0	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.6 3.0 4.1 5.1 5.4 8.3 9.4 9.0 7.1 5.7 6.9 10.6 12.7 13.0 14.4 15.3	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.6 3.0 2.8 2.8 2.9 3.3 4.2 5.4 8.3 7.1 5.3 4.4 4.6 5.2 6.9 10.5 11.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 16.9 15.6 17.0 19.1 19.6 20.0 19.5 19.3	MIN **OBER** 15.6 13.4 14.7 16.4 17.5 17.9 17.4	MAX NOVEM 7.9 6.2 5.8 5.9 5.0 4.4 3.5 4.8 5.6 6.7 6.8 6.6 5.1	MIN IBER 6.1 5.6 5.7 5.0 4.4 3.5 3.3 3.4 4.0 5.6 6.1 4.4	MAX DEC:	MIN EMBER	MAX JAN 2.6 4.4 6.9 7.7 9.2 10.5 11.3 9.2 8.0 6.0 4.6 5.8 5.0 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	MIN UARY 2.5 2.6 4.4 6.9 7.4 9.2 9.2 8.0 6.0 4.4 4.5 3.5 3.3 3.5 3.5 3.3 3.5 3.5 3.3 2.9 2.9 2.8 2.8 3.3 3.2 2.9 2.8 3.3 3.2 3.9	MAX FEBRI 4.3 5.3 4.8 4.4 3.5 3.8 4.2 4.1 4.5 5.2 6.1 6.1 5.4 5.9 5.8 5.9 7.1 7.3 6.9 6.4 7.0 7.4 8.9 8.7	MIN 3.2 4.1 4.0 3.5 3.3 3.2 3.4 3.3 3.6 5.2 5.2 4.7 4.9 6.9 6.3 6.1 5.8 6.0 6.4 5.5 5.3 6.1 7.1 7.0	MA 8.2 7.4 6.4 5.6 5.6 6.4 7.2 8.9 9.7 7.0 4.6 3.0 4.1 5.1 5.4 8.3 9.4 9.0 7.1 5.7 6.9 10.6 12.7 13.0 14.4	7.1 6.4 5.6 5.1 4.7 4.8 5.2 6.7 7.0 4.6 3.0 2.8 2.8 2.9 3.3 4.2 5.4 8.3 7.1 5.3 4.4 4.6 5.2

				40094908	3480100	CH-42 NR	URBANA OF	H-Continue	d			
		TE	EMPERATURE	E, SOIL (D	EG. C),	WATER YEA	R OCTOBER	1997 TO S	EPTEMBER	1998		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	AP!	RIL	MZ	ΑY	JU	NE	JUI	LY	AUGU	ST	SEPTI	EMBER
1	14.8	12.3	14.2	13.7	20.3	18.8	22.4	20.8				
2	12.3	10.8	14.1	13.6	19.2	18.2	21.9	20.4				
3	11.5	9.8	14.2	13.3	19.1	17.4	21.8	20.0				
4 5	10.9 10.9	9.7 8.3	14.4 14.5	13.2 13.4	17.4 16.6	16.5 15.4	22.0 22.3	20.8				
6 7	11.6 11.0	8.8 9.6	15.2 15.2	13.7 14.8	15.4 15.2	14.2 14.1	21.9 21.8	20.5				
8	12.8	10.5	15.7	15.1	15.5	14.4						
9	12.6	10.9	15.8	15.2	15.9	15.4						
10	11.8	10.0	16.2	15.4	17.8	15.9						
11	11.9	9.4	16.0	15.4	18.2	17.3						
12 13	12.2 12.1	9.7 10.7	16.3 17.1	15.3 15.8	20.1 19.8	18.2 19.0						
14	13.0	11.9	17.1	16.3	19.2	18.4						
15	12.7	11.5	18.5	16.7	19.3	18.7					21.9	20.9
16	14.4	12.7	18.9	18.0	19.4	19.0					21.7	21.0
17	14.3	12.6	18.5	17.3	20.2	18.9					21.7	20.5
18	13.0	11.2	17.9	16.7	21.1	19.4					22.1	19.9
19 20	12.2 12.5	11.2 10.3	18.5 19.0	16.9 17.9	21.2 21.3	20.4 19.8					22.1 22.2	20.4
	12.5			17.9								
21 22	13.2	11.1 11.9	19.0 18.0	17.9	21.2 22.2	20.7 20.7					22.4 22.0	21.0 20.2
23	13.5	12.0	17.3	16.4	22.1	20.9					20.2	17.7
24	13.9	11.7	17.9	16.7	23.0	21.3					18.0	16.0
25	13.7	12.5	17.9	17.5	23.8	22.4					20.1	17.9
26	13.7	12.9	17.5	16.5	23.9	22.7					22.0	19.6
27 28	13.0 13.1	11.7 11.1	17.8 18.5	16.5 17.1	24.4 24.7	23.3 23.6					22.3 21.8	20.4 19.7
29	13.1	12.3	19.3	18.1	24.7	23.0					20.3	18.1
30	13.8	13.1	19.9	18.7	23.2	21.9					20.2	18.6
31			20.5	19.7								
MONTH	14.8	8.3	20.5	13.2	24.7	14.1	22.4	20.0			22.4	16.0
YEAR	24.7	2.5										
		PRI	ECIPITATIO	ON, TOTAL,		WATER YE		R 1997 TO	SEPTEMBER	1998		
D311	0.00	37077	200						TIDI		7.110	ann.
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2	.02			.00	.00	.00	.00	.07	.00	.00		
3	.00			.00	.00	.00	.00	.02 .18	.00	.00		
4	.00			.00	.00	.01	.00	.00	.01	.00		
5	.00			.12	.00	.05	.00	.00	.08	.00		
6	.00			.71	.20	.00	.00	.00	.00	.00		
7	.00			1.76	.00	.00	.00	1.13	.00	.00		
8 9	.00 .01			.07	.00	.18 .65	.00	.00	.00 .12			
10				.00	.00	.00	.00	.00	.00			
11				.00	.48	.00	.00	.00	1.48			
12		.00		.00	.03	.00	.00	.00	.79			
13		.17		.02	.00	.00	.00	.07	.05			
14 15		.17 .11		.00	.00	.00	.00 .02	.00	.04 .56			.00
16 17		.01		.00 .11	.32 .56	.00	1.39	.00	.01 .01			.00
18		.00		.01	.26	.18	.00	.00	.00			.00
19		.00		.00	.00	.00	.30	.02	.02			.01
20		.00		.00	.05	.12	.00	.05	.00			.01
21		.24		.00	.00	.08	.02	.01	.03			.00
22 23		.07	.10	.15 .20	.00	.00 .01	.12	.00 .16	.03 .05			.20
24		.00	.57	.01	.05	.01	.00	.30	.03			.00
25			.01	.00	.00	.03	.03	.00	.03			.00
26			.00	.00	.00	.00	.96	.00	.02			.00
27			.00	.00	.01	.00	.00	.00	.00			.29
28			.00	.00	.04	.00	.00	.00	.00			.01
29 30			.00 .02	.02		.00	.09 .35	.28	.10			.00
31			.00	.00		.01		.00				
TOTAL	0.11	0.77	0.70	3.21	2.00	1.72	3.28	2.30	3.55	0.00		0.52

WTR YR 1998 TOTAL 18.16

400949083480100 CH-42 NR URBANA OH-Continued

DEICING SALT LBS/LANE-MILE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3												
4												
5					195							
_												
6												
7												
8												
9												
10												
11												
12												
13				600								
14												
15												
16												
17				200								
18												
19												
20												
21												
22												
23												
24		400		325								
25												
26												
27												
28												
29												
30												
31												
TOTAL		400		1125	195							

WTR YR 1998 TOTAL 1720

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

GROUND-WATER RECORDS

395859083440700. Local number, CL-138.

LOCATION.--Lat 39°58'59" Long 83°44'07", Hydrologic Unit 05080001, along State Route 4 near Springfield, OH. Owner.--USGS/U.S. Corps of Engineers.

AOUIFER. -- Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 28.5 ft. Cased with Sch 40 PVC to 18.5 ft; .020 in. screen from 18.5 to 28.5 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: water level, air temperature, soil temperature, water temperature, and specific conductance.

DATUM.--Elevation of land-surface datum is 1031.61 feet above sea level.
Measuring point: shelter shelf 3.31 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceding tables. Incomplete conductance data this year due to electronic recorder malfunction.

PERIOD OF RECORD. -- February 1991 to current year.

PERIOD OF DAILY RECORD. --

WATER LEVEL: February 1991 to current year. SPECIFIC CONDUCTANCE: July 1992 to current year. AIR TEMPERATURE: February 1991 to current year. WATER TEMPERATURE: July 1992 to current year. SOIL TEMPERATURE: February 1991 to current year.

PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER LEVEL: Maximum daily low, 22.61 ft. below land-surface datum, February 2,3, 1995; maximum daily high, 17.00 ft. below land-surface datum, May 12, 1996.

WATER TEMPERATURE: Maximum, 13.9°C many days in November, December, 1993; minimum, 2.2°C August 29-September 4, 1995.

AIR TEMPERATURE: Maximum, 37.5°C July 22, 1991; minimum, -30.7°C January 21, 1994.

SOIL TEMPERATURE: Maximum, 39.5° C July 22 and August 2, 1991; minimum, -2.7° C Dec. 27, 1992.

SPECIFIC CONDUCTANCE: Maximum, 1010 microsiemens, February 4-7, May 13-15, 1996; minimum 733 microsiemens, May 19-20, July 14-16, 1995.

EXTREMES FOR CURRENT YEAR. --

WATER LEVEL: Maximum daily low, 22.46 ft. below land-surface datum, February 3-5, 9-11, 1998; maximum daily high, 18.08 ft. below land-surface datum, May 9, 1998.

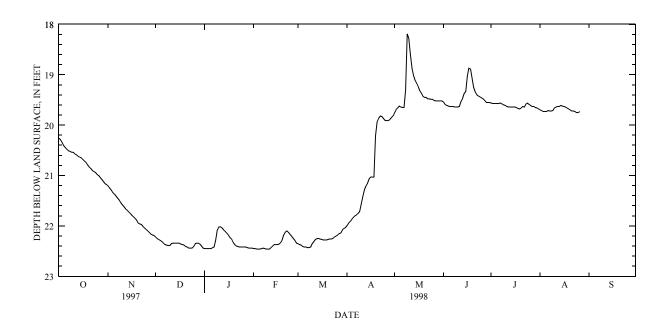
SPECIFIC CONDUCTANCE: Maximum, 914 microsiemens, May 17-18, 1998; minimum 750 microsiemens, July 22-23, 1998.

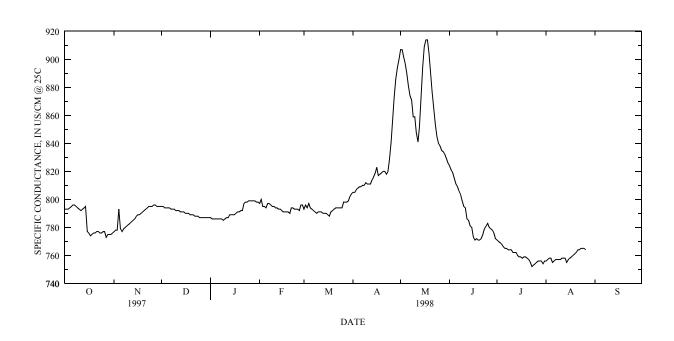
AIR TEMPERATURE: Maximum, 34.2°C August 25, 1998; minimum, -11.8°C January 19, 1998.

WATER TEMPERATURE: Maximum, 13.4° C December 5-6, 1997; minimum, 10.4° C June 4-8, 1998.

SOIL TEMPERATURE: Maximum, 29.8°C June 28, 1998; minimum, 0.9°C January 21, 1998.

395859083440700 CL-138 NR SPRGFLD, OH-Continued





Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

395859083440700 CL-138 NR SPRGFLD,OH—Continued

	г	EPTH BEI	OW LAND	SURFACE (W	ATER LEV). WATER			7 TO SEPTE	MBER 199	8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
DAI	PIAA	OCTOBE			NOVEMBER			DECEMBER		PIPAX	JANUARY	
1	20.26	20.19	20.22	21.21	21.18	21.20	22.22	22.19	22.21	22.45	22.44	22.45
2	20.20	20.19	20.22	21.25	21.10	21.23	22.25	22.13	22.21	22.45	22.44	22.45
3	20.35	20.30	20.20	21.29	21.25	21.27	22.27	22.25	22.26	22.45	22.45	22.45
4	20.41	20.35	20.32	21.34	21.29	21.32	22.29	22.27	22.28	22.45	22.45	22.45
5	20.45	20.41	20.43	21.37	21.34	21.36	22.31	22.29	22.30	22.45	22.43	22.44
6	20.48	20.45	20.47	21.41	21.37	21.40	22.34	22.31	22.33	22.43	22.42	22.43
7	20.51	20.13	20.50	21.45	21.41	21.43	22.37	22.34	22.35	22.42	22.28	22.37
8	20.52	20.51	20.50	21.49	21.45	21.47	22.38	22.36	22.37	22.28	22.20	22.16
9	20.54	20.52	20.53	21.54	21.49	21.51	22.39	22.38	22.38	22.08	22.02	22.04
10	20.54	20.54	20.54	21.58	21.54	21.56	22.39	22.35	22.37	22.02	22.00	22.00
11	20.57	20.54	20.56	21.62	21.58	21.60	22.35	22.34	22.35	22.02	22.00	22.00
12	20.57	20.54	20.58	21.66	21.62	21.64	22.34	22.34	22.33	22.02	22.00	22.00
13	20.62	20.59	20.60	21.69	21.66	21.68	22.34	22.34	22.34	22.01	22.02	22.03
14	20.63	20.62	20.62	21.72	21.69	21.70	22.34	22.34	22.34	22.11	22.01	22.10
15	20.65	20.63	20.64	21.75	21.72	21.73	22.34	22.34	22.34	22.14	22.11	22.12
16 17	20.68 20.71	20.65	20.67 20.69	21.79 21.82	21.75 21.79	21.77 21.81	22.34 22.36	22.34	22.34 22.35	22.18 22.23	22.14 22.18	22.17 22.21
18	20.71	20.68 20.71	20.69	21.85	21.79	21.84	22.36	22.34	22.35	22.23	22.10	22.21
19	20.74	20.71	20.73	21.89	21.85	21.84	22.37	22.30	22.37	22.20	22.23	22.20
20	20.83	20.71	20.77	21.94	21.89	21.92	22.41	22.38	22.40	22.37	22.33	22.35
21	20.86	20.83	20.85	21.96	21.94	21.95	22.42	22.41	22.41	22.40	22.37	22.38
22	20.90	20.86	20.88	21.97	21.96	21.97	22.44	22.41	22.42	22.41	22.40	22.41
23	20.92	20.90	20.91	22.01	21.97	21.99	22.44	22.44	22.44	22.42	22.41	22.41
24 25	20.94 20.98	20.92	20.93	22.04	22.01	22.02	22.44	22.41	22.43	22.42	22.42	22.42
		20.94	20.96	22.07	22.04	22.05	22.41	22.35	22.37	22.42	22.42	22.42
26	21.00	20.98	20.99	22.10	22.07	22.08	22.35	22.34	22.35	22.42	22.42	22.42
27	21.04	21.00	21.02	22.13	22.10	22.11	22.34	22.34	22.34	22.42	22.42	22.42
28	21.08	21.04	21.06	22.16	22.13	22.15	22.34	22.34	22.34	22.43	22.42	22.43
29	21.12	21.08	21.09	22.18	22.16	22.17	22.36	22.34	22.35	22.44	22.42	22.43
30 31	21.16 21.18	21.12 21.16	21.14 21.17	22.19	22.18	22.19	22.40 22.44	22.36 22.40	22.38 22.43	22.44	22.44 22.44	22.44 22.44
										22.44		
MONTH	21.18	20.19	20.70	22.19	21.18	21.73	22.44	22.19	22.35	22.45	22.00	22.31
	Ε	EPTH BEL	OW LAND	SURFACE (W	ATER LEV	EL) (FEET), WATER	YEAR OCT	OBER 1997	7 TO SEPTE	MBER 199	8
DAV												
DAY	D MAX	MIN	MEAN	SURFACE (W	MIN	EL) (FEET MEAN), WATER MAX	MIN	OBER 1997 MEAN	7 TO SEPTE MAX	MIN	8 MEAN
DAY			MEAN									
DAY 1		MIN	MEAN		MIN			MIN			MIN	
	MAX	MIN FEBRUAR	MEAN Y	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1 2 3	MAX 22.45 22.45 22.46	MIN FEBRUAR 22.44	MEAN Y 22.45	MAX 22.35 22.37 22.38	MIN MARCH 22.34 22.35 22.37	MEAN 22.34 22.36 22.38	MAX 21.99 21.94 21.91	MIN APRIL 21.94	MEAN 21.97 21.93 21.89	MAX 19.75 19.69 19.66	MIN MAY 19.69	MEAN 19.72
1 2 3 4	MAX 22.45 22.45 22.46 22.46	MIN FEBRUAR 22.44 22.45 22.45 22.45	MEAN Y 22.45 22.45 22.46 22.46	MAX 22.35 22.37 22.38 22.41	MIN MARCH 22.34 22.35 22.37 22.38	MEAN 22.34 22.36 22.38 22.40	MAX 21.99 21.94 21.91 21.87	MIN APRIL 21.94 21.91 21.87 21.83	MEAN 21.97 21.93 21.89 21.85	19.75 19.69 19.66 19.62	MIN MAY 19.69 19.66 19.62 19.61	MEAN 19.72 19.68 19.64 19.61
1 2 3	MAX 22.45 22.45 22.46	MIN FEBRUAR 22.44 22.45 22.45	MEAN Y 22.45 22.45 22.46	MAX 22.35 22.37 22.38	MIN MARCH 22.34 22.35 22.37	MEAN 22.34 22.36 22.38	MAX 21.99 21.94 21.91	MIN APRIL 21.94 21.91 21.87	MEAN 21.97 21.93 21.89	MAX 19.75 19.69 19.66	MIN MAY 19.69 19.66 19.62	MEAN 19.72 19.68 19.64
1 2 3 4	MAX 22.45 22.45 22.46 22.46	MIN FEBRUAR 22.44 22.45 22.45 22.45	MEAN Y 22.45 22.45 22.46 22.46	MAX 22.35 22.37 22.38 22.41	MIN MARCH 22.34 22.35 22.37 22.38	MEAN 22.34 22.36 22.38 22.40	MAX 21.99 21.94 21.91 21.87	MIN APRIL 21.94 21.91 21.87 21.83	MEAN 21.97 21.93 21.89 21.85	19.75 19.69 19.66 19.62	MIN MAY 19.69 19.66 19.62 19.61	MEAN 19.72 19.68 19.64 19.61
1 2 3 4 5	MAX 22.45 22.45 22.46 22.46 22.46	MIN FEBRUAR 22.44 22.45 22.45 22.45 22.45	MEAN Y 22.45 22.45 22.46 22.46 22.46	MAX 22.35 22.37 22.38 22.41 22.42	MIN MARCH 22.34 22.35 22.37 22.38 22.41	MEAN 22.34 22.36 22.38 22.40 22.42	MAX 21.99 21.94 21.91 21.87 21.83	MIN APRIL 21.94 21.91 21.87 21.83 21.80	MEAN 21.97 21.93 21.89 21.85 21.82	MAX 19.75 19.69 19.66 19.62 19.64	MIN MAY 19.69 19.66 19.62 19.61	MEAN 19.72 19.68 19.64 19.61 19.62
1 2 3 4 5	MAX 22.45 22.45 22.46 22.46 22.46 22.45	MIN FEBRUAR 22.44 22.45 22.45 22.45 22.45 22.45 22.45	MEAN Y 22.45 22.45 22.46 22.46 22.46 22.45	MAX 22.35 22.37 22.38 22.41 22.42 22.42	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42	MEAN 22.34 22.36 22.38 22.40 22.42 22.42	MAX 21.99 21.94 21.91 21.87 21.83 21.80	MIN APRIL 21.94 21.91 21.87 21.83 21.80	MEAN 21.97 21.93 21.89 21.85 21.82 21.79	MAX 19.75 19.69 19.66 19.62 19.64	MIN MAY 19.69 19.66 19.62 19.61 19.61	MEAN 19.72 19.68 19.64 19.61 19.62 19.65
1 2 3 4 5 6 7 8	MAX 22.45 22.46 22.46 22.46 22.46 22.45 22.45 22.44 22.45 22.45	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.45 22.44 22.44 22.44 22.44	MEAN Y 22.45 22.45 22.46 22.46 22.45 22.45 22.45 22.45 22.45	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42 22.42 22.35	MEAN 22.34 22.36 22.38 22.40 22.42 22.42 22.43 22.43 22.39	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65	MAX 19.75 19.69 19.66 19.64 19.65 19.65 19.30 18.19	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08	MEAN 19.72 19.68 19.64 19.61 19.65 19.65 19.61 18.47 18.12
1 2 3 4 5 6 7 8	MAX 22.45 22.46 22.46 22.46 22.46 22.45 22.44 22.45	MIN FEBRUAR 22.44 22.45 22.45 22.45 22.45 22.45 22.44 22.44	MEAN Y 22.45 22.45 22.46 22.46 22.46 22.45 22.45 22.45	MAX 22.35 22.37 22.38 22.41 22.42 22.42 22.43 22.43	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42	MEAN 22.34 22.36 22.38 22.40 22.42 22.42 22.43	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.78 21.75	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73	MAX 19.75 19.69 19.66 19.62 19.64 19.65 19.65	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19	MEAN 19.72 19.68 19.64 19.61 19.62 19.65 19.61 18.47
1 2 3 4 5 6 7 8	MAX 22.45 22.46 22.46 22.46 22.46 22.45 22.45 22.44 22.45 22.45	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.45 22.44 22.44 22.44 22.44	MEAN Y 22.45 22.45 22.46 22.46 22.45 22.45 22.45 22.45 22.45	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42 22.42 22.35	MEAN 22.34 22.36 22.38 22.40 22.42 22.42 22.43 22.43 22.39	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65	MAX 19.75 19.69 19.66 19.64 19.65 19.65 19.30 18.19	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08	MEAN 19.72 19.68 19.64 19.61 19.65 19.65 19.61 18.47 18.12
1 2 3 4 5 6 7 8 9	MAX 22.45 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.46	MIN FEBRUAR 22.44 22.45 22.45 22.45 22.45 22.44 22.44 22.44 22.45 22.46	MEAN Y 22.45 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.46	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.42 22.35	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42 22.42 22.35 22.31	MEAN 22.34 22.36 22.38 22.40 22.42 22.42 22.43 22.43 22.39 22.33	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48	MAX 19.75 19.69 19.66 19.62 19.64 19.65 19.30 18.19 18.28	MIN MAY 19.69 19.66 19.66 19.61 19.61 19.64 19.30 18.19 18.08 18.09	MEAN 19.72 19.68 19.64 19.61 19.62 19.65 19.61 18.47 18.12 18.16
1 2 3 4 5 6 7 8 9 10	MAX 22.45 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.46 22.46	MIN FEBRUAR 22 . 44 22 . 45 22 . 45 22 . 45 22 . 45 22 . 44 22 . 44 22 . 44 22 . 44 22 . 46 22 . 43	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.45 22.45 22.45 22.45 22.44 22.45	MAX 22.35 22.37 22.38 22.41 22.42 22.42 22.43 22.43 22.43 22.43 22.35	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42 22.42 22.42 22.35 22.31	MEAN 22.34 22.36 22.38 22.40 22.42 22.42 22.43 22.39 22.33 22.29	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.75 21.71 21.56 21.41 21.28	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33	MAX 19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09	MEAN 19.72 19.68 19.64 19.61 19.65 19.65 19.61 18.47 18.12 18.16
1 2 3 4 5 6 7 8 9 10	MAX 22.45 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.46 22.46 22.46	MIN FEBRUAR 22 .44 22 .45 22 .45 22 .45 22 .45 22 .45 22 .44 22 .44 22 .44 22 .44 22 .44 22 .46 22 .43 22 .40	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.45 22.46 22.45 22.45 22.46 22.45	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.43 22.43 22.35 22.31	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42 22.42 22.42 22.35 22.31 22.27 22.25	MEAN 22.34 22.36 22.38 22.40 22.42 22.42 22.43 22.43 22.39 22.33 22.29 22.26	MAX 21.99 21.94 21.97 21.87 21.83 21.80 21.75 21.75 21.75 21.71 21.56 21.41 21.28	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25	MAX 19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 18.87	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09	MEAN 19.72 19.68 19.64 19.62 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06
1 2 3 4 5 6 7 8 9 10 11 12 13	MAX 22.45 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.46 22.46 22.46	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.45 22.44 22.44 22.44 22.45 22.46 22.43 22.40 22.37	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.45 22.45 22.45 22.46 22.45 22.46 22.45	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.43 22.35 22.31 22.27 22.25	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42 22.42 22.35 22.31 22.27 22.25 22.24	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.43 22.39 22.39 22.39 22.26 22.24	MAX 21.99 21.94 21.97 21.87 21.83 21.75 21.71 21.56 21.41 21.28 21.20	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17	MAX 19.75 19.69 19.66 19.62 19.64 19.65 19.30 18.19 18.28 18.57 18.87	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.87	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95
1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX 22.45 22.46 22.46 22.46 22.45 22.46 22.45 22.45 22.46 22.45 22.46 22.37 22.37	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.45 22.44 22.44 22.44 22.45 22.46 22.37 22.37 22.36	MEAN Y 22.45 22.46 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.46 22.46 22.46 22.36	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.43 22.235 22.35 22.31 22.27 22.25 22.26	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42 22.35 22.31 22.27 22.25 22.24 22.24	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.39 22.39 22.26 22.24 22.26	MAX 21.99 21.94 21.97 21.87 21.83 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06	MIN APRIL 21.94 21.91 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05	MAX 19.75 19.69 19.66 19.62 19.64 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 18.87 19.01 19.11	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX 22.45 22.46 22.46 22.46 22.46 22.45 22.46 22.46 22.46 22.46 22.46 22.46 22.37 22.37	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.45 22.44 22.44 22.44 22.45 22.46 22.46 22.46 22.46 22.37 22.37 22.36	MEAN Y 22.45 22.45 22.46 22.46 22.46 22.45 22.46 22.46 22.45 22.46 22.45 22.46 22.36	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.42 22.35 22.31 22.27 22.25 22.26 22.27	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42 22.35 22.31 22.27 22.25 22.24 22.25 22.26	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.26	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05	MAX 19.75 19.69 19.66 19.62 19.64 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11 19.17	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 19.01 19.11	MEAN 19.72 19.68 19.64 19.62 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06 19.14
1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX 22.45 22.46 22.46 22.46 22.45 22.46 22.45 22.45 22.46 22.45 22.46 22.37 22.37	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.45 22.44 22.44 22.44 22.45 22.46 22.37 22.37 22.36	MEAN Y 22.45 22.46 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.46 22.46 22.46 22.36	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.43 22.235 22.35 22.31 22.27 22.25 22.26	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42 22.35 22.31 22.27 22.25 22.24 22.24	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.39 22.39 22.26 22.24 22.26	MAX 21.99 21.94 21.97 21.87 21.83 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06	MIN APRIL 21.94 21.91 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05	MAX 19.75 19.69 19.66 19.62 19.64 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 18.87 19.01 19.11	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX 22.45 22.46 22.46 22.46 22.45 22.45 22.46 22.45 22.46 22.43 22.37 22.37 22.37	MIN FEBRUAR 22 .44 22 .45 22 .45 22 .45 22 .45 22 .45 22 .44 22 .44 22 .44 22 .45 22 .46 22 .37 22 .37 22 .36 22 .36 22 .33	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.45 22.44 22.45 22.44 22.45 22.46 22.46 22.36 22.37 22.36 22.35	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.42 22.35 22.35 22.27 22.25 22.26 22.27 22.28	MIN MARCH 22.34 22.37 22.38 22.41 22.42 22.42 22.42 22.24 22.25 22.24 22.25 22.24 22.25	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.26 22.27 22.28	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 21.03	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.65 19.69 18.28 18.57 18.87 19.01 19.11 19.17	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 19.01 19.11 19.17	MEAN 19.72 19.68 19.64 19.61 19.65 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06 19.14 19.21
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX 22.45 22.46 22.46 22.46 22.46 22.44 22.45 22.46 22.46 22.47 22.37 22.37 22.37 22.37	MIN FEBRUAR: 22 .44 22 .45 22 .45 22 .45 22 .45 22 .44 22 .44 22 .44 22 .44 22 .46 22 .37 22 .37 22 .37 22 .36 22 .36 22 .33 22 .28	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.45 22.44 22.45 22.45 22.46 22.36 22.37 22.36	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.43 22.35 22.35 22.27 22.25 22.26 22.27 22.28 22.28	MIN MARCH 22.34 22.37 22.38 22.41 22.42 22.42 22.42 22.42 22.25 22.21 22.25 22.24 22.24 22.25 22.24	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.24 22.24 22.24 22.28	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.75 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 20.20	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11 19.17	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32	MEAN 19.72 19.68 19.64 19.61 19.65 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.21 19.28 19.34
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX 22.45 22.46 22.46 22.46 22.46 22.46 22.46 22.47 22.37 22.37 22.37 22.37 22.37 22.37	MIN FEBRUAR: 22 .44 22 .45 22 .45 22 .45 22 .45 22 .44 22 .44 22 .44 22 .46 22 .37 22 .37 22 .36 22 .36 22 .36 22 .36 22 .36 22 .36 22 .37 22 .37	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.45 22.46 22.45	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.45 22.35 22.27 22.25 22.25 22.26 22.27 22.28 22.28 22.28	MIN MARCH 22.34 22.37 22.38 22.41 22.42 22.42 22.42 22.42 22.25 22.31 22.27 22.26 22.24 22.24	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.26 22.27 22.28 22.27 22.26	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.75 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03 20.21 19.93	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 20.20 19.93 19.86	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.21 19.24 19.40 19.44
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.37 22.37 22.37 22.37 22.37 22.37 22.37	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.44 22.44 22.44 22.45 22.46 22.37 22.37 22.36 22.36 22.37 22.37 22.36 22.37 22.36	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.45 22.46 22.45 22.46 22.36 22.37 22.36	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.235 22.35 22.27 22.25 22.26 22.27 22.28 22.28 22.27 22.28 22.27 22.28	MIN MARCH 22.34 22.37 22.38 22.41 22.42 22.42 22.35 22.31 22.27 22.25 22.24 22.24 22.25 22.26 22.26 22.27 22.26	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.39 22.33 22.29 22.26 22.24 22.26 22.27 22.28 22.27 22.26 22.26	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03 20.21 19.93	MIN APRIL 21.94 21.91 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.02 21.03 20.20 19.93 19.86	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15 19.90 19.84	MAX 19.75 19.69 19.66 19.62 19.64 19.65 19.30 18.19 18.28 18.57 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.12 18.16 18.42 19.21 19.28 19.28 19.34 19.40
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX 22.45 22.46 22.46 22.46 22.46 22.46 22.46 22.47 22.37 22.37 22.37 22.37 22.37 22.37	MIN FEBRUAR: 22 .44 22 .45 22 .45 22 .45 22 .45 22 .44 22 .44 22 .44 22 .46 22 .37 22 .37 22 .36 22 .36 22 .36 22 .36 22 .36 22 .36 22 .36 22 .37 22 .37	MEAN Y 22.45 22.46 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.46 22.46 22.36 22.36 22.36 22.36 22.31 22.22 22.14	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.45 22.35 22.27 22.25 22.25 22.26 22.27 22.28 22.28 22.28	MIN MARCH 22.34 22.37 22.38 22.41 22.42 22.42 22.42 22.42 22.25 22.31 22.27 22.26 22.24 22.24	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.26 22.27 22.28 22.27 22.26	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.75 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03 20.21 19.93	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 20.20 19.93 19.86	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.28 19.34 19.40 19.44
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX 22.45 22.46 22.46 22.46 22.46 22.45 22.43 22.46 22.37 22.37 22.37 22.37 22.37 22.37 22.37	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.45 22.44 22.44 22.44 22.45 22.46 22.37 22.36 22.36 22.33 22.28 22.17 22.10 22.10	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.46 22.46 22.36 22.37 22.36 22.36 22.31 22.22 22.14 22.11 22.10	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.43 22.235 22.35 22.27 22.25 22.26 22.27 22.28 22.28 22.28 22.27 22.28 22.28 22.27 22.28	MIN MARCH 22.34 22.35 22.37 22.38 22.41 22.42 22.42 22.42 22.25 22.27 22.25 22.24 22.25 22.26 22.27 22.26 22.27 22.26 22.27	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.39 22.33 22.29 22.26 22.24 22.26 22.27 22.28 22.28 22.27 22.26 22.27 22.26 22.27	MAX 21.99 21.94 21.91 21.87 21.83 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03 21.03 21.03 20.21 19.93	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.02 21.03 20.20 19.93 19.86 19.82	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15 19.90 19.84 19.81	MAX 19.75 19.69 19.66 19.62 19.64 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.45	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.97 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.28 19.34 19.40 19.44 19.45 19.47
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX 22.45 22.46 22.46 22.45 22.46 22.45 22.46 22.45 22.46 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37	MIN FEBRUAR: 22 .44 22 .45 22 .45 22 .45 22 .45 22 .44 22 .44 22 .44 22 .46 22 .37 22 .37 22 .36 22 .33 22 .28 22 .17 22 .10 22 .10 22 .10	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.44 22.45 22.46 22.39 22.37 22.36 22.37 22.36 22.31 22.22 22.14 22.11 22.10 22.12	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.25 22.25 22.26 22.27 22.28 22.28 22.27 22.28 22.27 22.28 22.27	MIN MARCH 22.34 22.37 22.38 22.41 22.42 22.42 22.42 22.25 22.27 22.25 22.24 22.25 22.24 22.25 22.26 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.26 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03 21.03 21.03 21.03 21.03 21.03 21.03 21.03 21.03 21.03 21.03	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.02 21.03 20.20 19.93 19.86 19.82 19.81	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15 19.90 19.84 19.81	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.45	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.45	MEAN 19.72 19.68 19.64 19.61 19.65 19.65 19.61 18.47 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.28 19.34 19.40 19.44 19.45 19.47 19.48
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX 22.45 22.46 22.46 22.46 22.46 22.46 22.46 22.46 22.46 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37	MIN FEBRUAR: 22 .44 22 .45 22 .45 22 .45 22 .45 22 .44 22 .44 22 .44 22 .46 22 .37 22 .37 22 .36 22 .36 22 .33 22 .28 22 .17 22 .10 22 .10 22 .10 22 .13 22 .17	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.44 22.39 22.37 22.36 22.37 22.36 22.31 22.22 22.14 22.11 22.10 22.12 22.16 22.20	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.25 22.25 22.26 22.27 22.28 22.28 22.28 22.27 22.28 22.28 22.28 22.27 22.28 22.28 22.28 22.28	MIN MARCH 22.34 22.37 22.38 22.41 22.42 22.42 22.42 22.42 22.25 22.27 22.25 22.26 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.26 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.75 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03 21.03 21.03 21.993 19.86 19.82 19.83 19.87	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 20.20 19.93 19.86 19.82 19.81 19.83 19.87	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15 19.90 19.84 19.81 19.82 19.85 19.90	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 19.01 19.11 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.45 19.45	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.45 19.47 19.49	MEAN 19.72 19.68 19.64 19.61 19.65 19.65 19.61 18.47 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.28 19.34 19.40 19.44 19.45 19.45 19.48 19.48
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX 22.45 22.46 22.46 22.46 22.46 22.46 22.46 22.46 22.47 22.37	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.45 22.44 22.44 22.44 22.46 22.37 22.37 22.37 22.37 22.36 22.36 22.37 22.37 22.31 22.10 22.10 22.10 22.10 22.11 22.11	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.45 22.46 22.45 22.46 22.45 22.46 22.41 22.39 22.37 22.36 22.36 22.35 22.31 22.22 22.14 22.11 22.10 22.12 22.16 22.20 22.24	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.25 22.25 22.25 22.26 22.27 22.28 22.28 22.28 22.27 22.28 22.28 22.28 22.27 22.26 22.27 22.28 22.28 22.28 22.28 22.27 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28	MIN MARCH 22.34 22.37 22.38 22.41 22.42 22.42 22.42 22.42 22.25 22.26 22.26 22.27 22.28 22.27 22.26 22.26 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.24 22.26 22.27 22.28 22.27 22.26 22.27 22.28 22.27 22.28 22.27 22.28	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.75 21.75 21.75 21.106 21.03	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 20.20 19.93 19.86 19.82 19.81 19.81 19.83 19.87	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15 19.90 19.84 19.81 19.82 19.85 19.90	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.37 19.43 19.45 19.48 19.49 19.49	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.45 19.47 19.49	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.28 19.34 19.40 19.45 19.47 19.48 19.47 19.48 19.49
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX 22.45 22.46 22.46 22.46 22.46 22.46 22.46 22.47 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.44 22.44 22.44 22.46 22.37 22.37 22.36 22.36 22.37 22.36 22.36 22.31 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.11 22.21	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.45 22.46 22.31 22.37 22.36 22.31 22.22 22.14 22.11 22.10 22.12 22.16 22.27	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.43 22.27 22.25 22.25 22.26 22.27 22.28 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28	MIN MARCH 22 .34 22 .37 22 .38 22 .41 22 .42 22 .42 22 .42 22 .42 22 .25 22 .26 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .28	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.39 22.33 22.29 22.26 22.24 22.26 22.27 22.26 22.27 22.26 22.27 22.26 22.27 22.28 22.27 22.26 22.27 22.26	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.75 21.75 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03 20.21 19.93 19.86 19.82 19.83 19.87 19.91	MIN APRIL 21.94 21.91 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 20.20 19.93 19.86 19.82 19.81 19.81 19.83 19.87	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15 19.90 19.84 19.81 19.82 19.85 19.90 19.90	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.48 19.48 19.49 19.49	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.45 19.47 19.49 19.49	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.28 19.34 19.40 19.44 19.45 19.47 19.48 19.49 19.50 19.51
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX 22.45 22.46 22.46 22.46 22.46 22.46 22.46 22.46 22.47 22.37	MIN FEBRUAR: 22 .44 22 .45 22 .45 22 .45 22 .45 22 .44 22 .44 22 .44 22 .46 22 .37 22 .37 22 .37 22 .36 22 .36 22 .36 22 .37 22 .10 22 .10 22 .10 22 .10 22 .10 22 .11 22 .21	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.45 22.46 22.45 22.46 22.45 22.46 22.41 22.39 22.37 22.36 22.36 22.35 22.31 22.22 22.14 22.11 22.10 22.12 22.16 22.20 22.24	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.25 22.25 22.25 22.26 22.27 22.28 22.28 22.28 22.27 22.28 22.28 22.28 22.27 22.26 22.27 22.28 22.28 22.28 22.28 22.27 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28	MIN MARCH 22.34 22.37 22.38 22.41 22.42 22.42 22.42 22.42 22.25 22.26 22.26 22.27 22.28 22.27 22.26 22.26 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.24 22.26 22.27 22.28 22.27 22.26 22.27 22.28 22.27 22.28 22.27 22.28	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.75 21.75 21.75 21.106 21.03	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 20.20 19.93 19.86 19.82 19.81 19.81 19.83 19.87	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15 19.90 19.84 19.81 19.82 19.85 19.90	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.37 19.43 19.45 19.48 19.49 19.49	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.45 19.47 19.49	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.28 19.34 19.40 19.45 19.47 19.48 19.49
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX 22.45 22.46 22.46 22.46 22.46 22.45 22.46 22.46 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37	MIN FEBRUAR: 22.44 22.45 22.45 22.45 22.45 22.44 22.44 22.44 22.45 22.46 22.37 22.37 22.36 22.37 22.36 22.37 22.36 22.33 22.28 22.17 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10 22.10	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.46 22.45 22.46 22.46 22.46 22.46 22.46 22.46 22.46 22.41 22.39 22.37 22.36 22.37 22.36 22.37 22.31 22.22 22.14 22.10 22.12 22.16 22.20 22.24 22.24	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.27 22.25 22.25 22.26 22.27 22.28 22.28 22.27 22.28 22.27 22.28 22.28 22.27 22.28 22.27 22.26 22.27 22.26 22.27	MIN MARCH 22 .34 22 .37 22 .38 22 .41 22 .42 22 .42 22 .35 22 .31 22 .27 22 .25 22 .24 22 .25 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .26 22 .27 22 .20 22 .18 22 .15 22 .14 22 .08	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.39 22.33 22.29 22.26 22.24 22.26 22.27 22.28 22.27 22.26 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.26	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03 21.03 21.03 21.03 21.883 19.87 19.91 19.91 19.91	MIN APRIL 21.94 21.91 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.02 21.03 20.20 19.93 19.86 19.82 19.81 19.81 19.83 19.87 19.90 19.88	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15 19.90 19.84 19.81 19.82 19.85 19.90 19.87	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.48 19.48 19.49 19.49 19.51 19.52 19.52	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.47 19.47 19.47 19.49 19.49 19.51	MEAN 19.72 19.68 19.64 19.61 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.28 19.34 19.49 19.44 19.45 19.47 19.48 19.48 19.48 19.49 19.50 19.51
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX 22.45 22.46 22.46 22.45 22.46 22.45 22.46 22.46 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.37 22.38	MIN FEBRUAR: 22 .44 22 .45 22 .45 22 .45 22 .45 22 .44 22 .44 22 .44 22 .46 22 .37 22 .36 22 .37 22 .36 22 .37 22 .10	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.46 22.45 22.44 22.45 22.46 22.46 22.45 22.46 22.41 22.39 22.37 22.36 22.37 22.36 22.31 22.22 22.14 22.11 22.10 22.12 22.16 22.20 22.24 22.77 22.32	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.25 22.25 22.26 22.27 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28 22.28	MIN MARCH 22.34 22.37 22.38 22.41 22.42 22.42 22.42 22.25 22.25 22.26 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27 22.28 22.27	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.26 22.27 22.28 22.27 22.26 22.27 22.28 22.27 22.28 22.27 22.26 22.27 22.28	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 2	MIN APRIL 21.94 21.91 21.87 21.83 21.80 21.78 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.02 21.03 20.20 19.93 19.86 19.82 19.81 19.81 19.83 19.87 19.90 19.88	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15 19.90 19.84 19.81 19.82 19.85 19.90 19.90 19.90 19.90 19.90	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.45 19.49 19.49 19.52 19.52	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.47 19.49 19.49 19.49 19.51	MEAN 19.72 19.68 19.64 19.61 19.65 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.28 19.34 19.40 19.44 19.45 19.47 19.48 19.48 19.49 19.50 19.51
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	MAX 22.45 22.46 22.46 22.46 22.46 22.46 22.46 22.46 22.47 22.37	MIN FEBRUAR: 22 .44 22 .45 22 .45 22 .45 22 .45 22 .44 22 .44 22 .44 22 .46 22 .37 22 .37 22 .36 22 .36 22 .37 22 .10	MEAN Y 22.45 22.46 22.46 22.46 22.45 22.44 22.45 22.46 22.45 22.46 22.45 22.46 22.41 22.39 22.37 22.36 22.36 22.37 22.36 22.31 22.22 22.11 22.10 22.12 22.10 22.12 22.16 22.20 22.24	MAX 22.35 22.37 22.38 22.41 22.42 22.43 22.43 22.43 22.25 22.25 22.25 22.26 22.27 22.28	MIN MARCH 22 .34 22 .37 22 .38 22 .41 22 .42 22 .42 22 .42 22 .42 22 .25 22 .21 22 .24 22 .25 22 .24 22 .24 22 .25 22 .24 22 .25 22 .26 22 .27 22 .26 22 .27 22 .28 22 .29 22 .20 22 .18 22 .15 22 .14 22 .08 22 .05 22 .03	MEAN 22.34 22.36 22.38 22.40 22.42 22.43 22.43 22.39 22.33 22.29 22.26 22.24 22.24 22.26 22.27 22.28 22.27 22.26 22.27 22.28 22.27 22.26 22.27 22.10 22.10 22.06 22.04	MAX 21.99 21.94 21.91 21.87 21.83 21.80 21.75 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 21.03 21.03 21.03 21.93 19.86 19.82 19.83 19.87 19.91 19.91 19.91 19.91 19.89 19.85 19.82	MIN APRIL 21.94 21.91 21.87 21.83 21.75 21.71 21.56 21.41 21.28 21.20 21.15 21.06 21.03 20.20 19.93 19.86 19.82 19.81 19.83 19.87 19.90 19.88 19.85 19.85	MEAN 21.97 21.93 21.89 21.85 21.82 21.79 21.76 21.73 21.65 21.48 21.33 21.25 21.17 21.09 21.05 21.03 20.53 20.15 19.90 19.84 19.81 19.82 19.85 19.90 19.90 19.90 19.90 19.97	19.75 19.69 19.66 19.62 19.64 19.65 19.65 19.30 18.19 18.28 18.57 18.87 19.01 19.11 19.17 19.24 19.37 19.43 19.45 19.48 19.49 19.49 19.52 19.52 19.52	MIN MAY 19.69 19.66 19.62 19.61 19.61 19.64 19.30 18.19 18.08 18.09 18.28 18.57 19.01 19.11 19.17 19.24 19.32 19.37 19.43 19.45 19.47 19.49 19.49 19.51 19.51 19.51	MEAN 19.72 19.68 19.64 19.61 19.65 19.65 19.61 18.47 18.12 18.16 18.42 18.73 18.95 19.06 19.14 19.21 19.28 19.34 19.40 19.45 19.47 19.48 19.49 19.50 19.51 19.50

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Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

395859083440700 CL-138 NR SPRGFLD, OH-Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MAX MTN MEAN MAX MIN MEAN MAX MIN MEAN MTN MEAN MAX JUNE JULY AUGUST SEPTEMBER 19.52 1 19.54 19.53 19.56 19.53 19.54 19.70 19.68 19.69 19 59 19 54 19 55 19 57 19 56 19 70 19 70 ---___ ___ 2 19 56 19 71 3 19.61 19.59 19.61 19.57 19.57 19.57 19.73 19.71 19.72 ------------___ _ _ _ 4 19.62 19.61 19.61 19.57 19.54 19.55 19.73 19.72 19.72 5 19.63 19.61 19.62 19.57 19.55 19.56 19.73 19.71 19.71 _ _ _ ---_ _ _ 19.57 19.71 19.70 6 19.63 19.63 19.63 19.57 19.55 19.69 19.63 19.62 19.63 19.56 19.55 19.55 19.72 19.70 19.71 19.71 8 19.64 19.63 19.63 19.58 19.56 19.57 19.72 19.71 9 19.64 19.64 19.64 19.60 19.58 19.59 19.71 19.66 19.68 10 19.64 19.63 19.61 19.60 19.60 19.65 ------19.63 19.66 19.64 ---11 19.63 19.53 19.61 19.63 19.61 19.61 19.64 19.63 19.63 12 19.53 19.47 19.50 19.64 19.62 19.63 19.63 19.62 19.63 ---___ _ _ _ 13 19.47 19.37 19.39 19.64 19.64 19.64 19.63 19.60 19.61 ---___ 14 19.37 19.33 19.34 19.64 19.64 19.64 19.61 19.60 19.60 ---15 19.33 19.02 19.20 19.64 19.63 19.63 19.62 19.59 19.60 ---___ _ _ _ 16 19.02 18.87 18.96 19.64 19.63 19.63 19.63 19.60 19.61 ---------18 87 18 79 18 81 19 65 19 64 19 64 19 60 19 62 ---___ _ _ _ 17 19 64 18 18.89 18.79 18.83 19.67 19.65 19.65 19.66 19.63 19.64 ------------___ _ _ _ 19 19.05 18.89 18.97 19.68 19.66 19.67 19.68 19.65 19.66 20 19.25 19.05 19.16 19.66 19.62 19.63 19.70 19.67 19.68 _ _ _ ---_ _ _ 19.63 19.60 19.34 19.25 19.30 19.61 19.72 19.68 19.70 21 2.2 19.40 19.34 19.37 19.64 19.57 19.60 19.72 19.70 19.71 23 19.42 19.40 19.41 19.58 19.53 19.54 19.73 19.70 19.71 24 19.44 19.42 19.43 19.56 19.54 19.55 19.75 19.71 19.73 25 19.46 19.44 19.59 19.56 19.57 19.75 19.72 19.74 ---19.44 ------26 19.48 19.46 19.47 19.61 19.59 19.59 19.73 19.70 19.71 27 19.51 19.48 19.49 19.63 19.60 19.61 ---___ _ _ _ ------_ _ _ 28 19.55 19.51 19.52 19.63 19.63 19.63 ---------___ _ _ _ 29 19.55 19.55 19.55 19.65 19.63 19.63 ------------------30 19.50 19.66 19.63 19.64 ___ ___ ___ _ _ _ ___ 19.55 19.51 19.66 ------_ _ _ ---___ _ _ _ 19.68 19.67 19 68 19 53 19 60 ___ _ _ _ MONTH 19 64 18 79 19 41 19 75 19 59 19 68 ---22.46 18.08 20.96 YEAR

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAY MIN MAX MIN MAX MIN MAX MIN MAX MIN MIN NOVEMBER DECEMBER OCTOBER TANIIARY FEBRUARY MARCH 1 793 790 777 771 795 794 787 785 797 796 793 791 778 772 796 2 793 790 795 794 786 786 800 794 792 3 793 791 778 773 794 793 786 785 795 794 794 792 773 4 794 792 793 794 793 786 785 795 794 797 792 5 779 789 786 785 795 793 775 794 794 793 794 788 6 796 793 777 776 794 788 786 785 797 792 793 788 779 777 792 786 797 792 792 796 790 793 784 790 780 778 796 8 795 788 793 792 786 783 791 791 779 793 794 788 781 791 785 784 795 791 790 790 10 793 789 782 781 792 791 786 785 795 793 791 790 11 792 790 783 782 792 791 787 785 794 793 791 790 12 793 791 784 782 792 790 787 786 794 793 791 789 13 794 791 785 783 791 790 789 787 793 792 790 789 795 771 786 785 791 790 789 788 793 791 790 788 14 15 777 771 788 786 791 786 789 788 792 791 790 788 16 776 772 789 788 790 789 789 788 791 790 789 787 774 789 790 788 790 791 787 17 774 788 789 790 788 775 774 790 789 790 785 791 789 791 790 791 787 18 776 773 791 789 788 791 792 791 19 790 790 791 790 788 20 776 775 792 791 789 792 790 790 790 793 788 21 777 775 793 792 789 788 792 791 794 789 794 792 794 787 797 789 794 22 777 772 793 788 792 794 793 771 776 795 23 794 788 787 798 792 793 788 794 794 795 24 776 771 794 788 787 798 793 793 788 794 793 25 777 771 795 794 787 793 792 794 777 796 794 787 786 799 793 792 798 794 2.6 772 791 27 773 772 796 795 787 786 799 794 796 791 798 794 2.8 775 773 795 794 787 786 799 794 796 791 798 794 29 775 774 795 794 787 786 799 794 799 798 ---30 775 774 795 794 787 786 798 797 _ _ _ ---802 799 31 776 775 ---- - -787 786 798 797 ------804 800 MONTH 796 796 771 795 785 799 783 800 788 787

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Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

395859083440700 CL-138 NR SPRGFLD,OH-Continued

	CDEC	TETC CONT	אורים אורים				K SPKGFLD,		nuea OBER 1997 '	יי∩ פפחייפי	MDED 1000	
DAM												MIN
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
		RIL		IAY		NE		JLY	AUG			EMBER
1 2	805 805	801 801	907 907	900 900	824 821	818 816	771 770	768 767	756 757	754 751		
3	807	803	902	897	819	810	769	766	758	752		
4	808	804	897	890	815	808	768	763	758	753		
5	809	805	890	881	811	804	766	764	755	753		
6	809	808	881	874	809	802	765	763	756	754		
7	810	809	874	867	806	801	765	762	757	754		
8 9	810 812	809 810	871 859	841 845	803 799	797 794	764 764	761 761	757 757	755 755		
10	811	810	859	848	795	792	764	760	757	755		
11	811	809	848	838	794	786	762	759	758	755		
12	811	810	841	838	786	784	762	759	758	753		
13	814	811	852	841	785	779	762	758	758	753		
14	816	814	873	852	781	779	760	757	755	753		
15	819	815	894	873	780	770	759	757	757	754		
16	823	813	909	894	773	771	759	756	758	755		
17 18	817 818	810 810	914 914	909 904	771 772	766 768	758 759	753 754	759 760	755 757		
19	819	818	904	891	771	766	759	753	761	757		
20	820	818	891	877	771	766	758	751	762	759		
21	820	818	877	864	772	767	757	752	764	759		
22	818	816	864	854	775	768	755	750	764	760		
23	820	815	854	845	779	772	752	750	765	758		
24	828	817	845	839	781	776	753	751	765	758		
25	841	825	840	835	783	778	754	752	765	759		
26	856	841	838	832	780	778	755	752	764 	759 		
27 28	873 886	856 871	835 834	831 829	779 778	777 775	756 756	753 751				
29	894	886	832	827	776	772	756	751				
30	900	894	829	823	772	769	754	752				
31			826	821			756	753				
MONTH	900	801	914	821	824	766	771	750	765	751		
YEAR	014	750										
YEAR	914	750										
YEAR	914		ERATURE,	AIR, DEGR	EES CELSIU	JS, WATER	YEAR OCT	OBER 1997	TO SEPTEM	IBER 1998		
		TEMP							TO SEPTEM			MTN
DAY	MAX	TEMP.	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY	MAX OCT	TEMP MIN OBER	MAX NOVE	MIN	MAX DECE	MIN	MAX JAN	MIN IUARY	MAX FEBR	MIN UARY	MAX MA	ARCH
DAY 1	MAX OCT 16.8	TEMP MIN OBER 3.8	MAX NOVE	MIN EMBER 6.3	MAX DECE 3.1	MIN MBER 2	MAX JAN 3.5	MIN UARY -10.6	MAX FEBR	MIN UARY -4.4	MAX MA 9.3	ARCH
DAY 1 2	MAX OCT 16.8 20.3	TEMP MIN COBER 3.8 1.0	MAX NOVE 13.3 8.7	MIN EMBER 6.3 4.0	MAX DECE 3.1 5.4	MIN MBER 2 -2.5	MAX JAN 3.5 8.1	MIN IUARY -10.6 3.5	MAX FEBR 10.1 11.2	MIN UARY -4.4 -1.4	MAX MA 9.3 5.9	ARCH .7
DAY 1	MAX OCT 16.8	TEMP MIN OBER 3.8	MAX NOVE	MIN EMBER 6.3	MAX DECE 3.1	MIN MBER 2	MAX JAN 3.5	MIN UARY -10.6	MAX FEBR	MIN UARY -4.4	MAX MA 9.3	ARCH
DAY 1 2 3	MAX OCT 16.8 20.3 26.4	TEMP MIN COBER 3.8 1.0 10.9	MAX NOVE 13.3 8.7 5.6	MIN EMBER 6.3 4.0	MAX DECE 3.1 5.4 10.7	MIN MBER 2 -2.5 2.3	MAX JAN 3.5 8.1 13.3	MIN JUARY -10.6 3.5 6.3	MAX FEBR 10.1 11.2 4.4	MIN UARY -4.4 -1.4 -2.4	MAX MA 9.3 5.9 3.1	.7 -2.5 9
DAY 1 2 3 4	MAX OCT 16.8 20.3 26.4 28.6	TEMP MIN COBER 3.8 1.0 10.9 16.9	MAX NOVE 13.3 8.7 5.6 3.6	MIN CMBER 6.3 4.0 .3 .3	MAX DECE 3.1 5.4 10.7 6.8	MIN MBER 2 -2.5 2.39	MAX JAN 3.5 8.1 13.3 14.8	MIN JUARY -10.6 3.5 6.3 7.6	MAX FEBR 10.1 11.2 4.4 6	MIN UARY -4.4 -1.4 -2.4 -2.2	MAX 9.3 5.9 3.1 1.9	.7 -2.5 9 -2.8
DAY 1 2 3 4 5 6 7	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6	TEMP MIN **OBER 3.8 1.0 10.9 16.9 13.3 13.7 12.9	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1	MIN CMBER 6.3 4.0 .3 .3 3.2 3.7 3.7	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .1	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6	MIN JUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5	MIN -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5	.7 -2.5 9 -2.8 -4.9 -1.4 -1.2
DAY 1 2 3 4 5 6 7 8	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6	TEMP MIN **OBER 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5	MIN CMBER 6.3 4.0 .3 .3 .3 .2 .3 .7 .6.0	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1	MAX FEBRI 10.1 11.2 4.4 6 -1.1 3.4 7.5 6.5	MIN -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4	.7 -2.5 9 -2.8 -4.9 -1.4 -1.2 4.7
DAY 1 2 3 4 5 6 7 8 9	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2	TEMP MIN **OBER 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0	MIN CMBER 6.3 4.0 .3 3.2 3.7 3.7 6.0 3.0	MAX DECE 3.1 5.4 10.7 6.85 -2.915 1.4	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7	.7 -2.5 9 -2.8 -4.9 -1.4 -1.2 4.7
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8	TEMP MIN **OBER 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1	MIN CMBER 6.3 4.0 .3 .3 .3 .2 .3 .7 .6.0 .3 .0 .3 .1	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2 .5	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0	.7 -2.5 9 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8 22.5	TEMP MIN **OBER 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1	MIN SMBER 6.3 4.0 .3 .3 3.2 3.7 3.7 6.0 3.0 3.1 .6	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2 .56	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7	MIN JUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0	.7 -2.5 9 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8	TEMP MIN **OBER 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1	MIN CMBER 6.3 4.0 .3 .3 .3 .2 .3 .7 .6.0 .3 .0 .3 .1	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2 .5	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0	.7 -2.5 9 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8 22.5 27.5 26.0 16.5	TEMP MIN **OBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.7	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1	MIN CMBER 6.3 4.0 .3 .3 3.2 3.7 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2 .56 -1.9 -3.0 -6.6	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.0 -2.2 -8.3 -10.8	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .73 -1.0	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8 22.5 26.0	TEMP MIN **OBER 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4	MIN CMBER 6.3 4.0 .3 .3 3.2 3.7 6.0 3.0 3.1 .6 -7.2 -6.7	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2 .566 -1.9 -3.0	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .73	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8 22.5 27.5 26.0 16.5 14.3	TEMP MIN **TOBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74	MIN CMBER 6.3 4.0 .3 .3 3.2 3.7 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9	MIN MBER 2 -2.5 -2.5 -6.5 -6.9 -3.0 -2.1 -1.2 -5 -6.6 -1.9 -3.0 -6.6 -6.9 -3.5	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.5 6	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .73 -1.0 -1.2 2.7	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8 22.5 26.0 16.5 14.3 13.5 12.5	TEMP MIN **TOBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 74 2.0	MIN SMBER 6.3 4.0 .3 .3 3.2 3.7 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2 .56 -1.9 -3.0 -6.6 -6.9 -3.5 -5.1	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 .5	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .73 -1.0 -1.2 2.7 6.5	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.6 27.5 26.0 16.5 14.3 13.5 12.5 17.0	TEMP MIN TOBER 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3	MIN MBER 6.3 4.0 .3 .3 3.2 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2 .56 -1.9 -3.0 -6.6 -6.9 -3.5 -6.8	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 51	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5 8.3	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .7 -3 -1.0 -1.2 2.7 6.5 3.4	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8 7.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8 22.5 26.0 16.5 14.3 13.5 12.5	TEMP MIN **TOBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 74 2.0	MIN SMBER 6.3 4.0 .3 .3 3.2 3.7 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2 .56 -1.9 -3.0 -6.6 -6.9 -3.5 -5.1	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 .5	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .73 -1.0 -1.2 2.7 6.5	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.6 27.5 26.0 16.5 14.3 13.5 12.5 17.0 17.6 15.9	TEMP MIN **OBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4 .8 .4	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3 10.6 11.8	MIN MEER 6.3 4.0 .3 .3 3.2 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2 -2.0 -2.9	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5 13.9 6.5	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2 .56 -1.9 -3.0 -6.6 -1.9 -3.0 -6.6 -6.9 -3.1 -1.2	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 .51 -2.1 -1.2	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8 -7.3	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 7.3 9.3 7.5 9.5 8.3 5.5 5.1	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .73 -1.0 -1.2 2.7 6.5 3.4 2.8 2.3	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0 15.4 7.8	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8 7.7 7.8 7.7
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8 22.5 27.5 26.0 16.5 14.3 13.5 12.5 17.0 17.6 15.9 13.2 7.4	TEMP MIN **TOBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4 .8 .4 -1.6 -3.8	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3 10.6 11.8 7.6 5.5	MIN SMBER 6.3 4.0 .3 .3 3.2 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2 -2.0	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5 13.9 6.5 3.7 9.0	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.256 -1.9 -3.0 -6.6 -6.9 -3.5 -5.1 -6.8 -7 -1.2 -3 .1	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.5 66 .5 1 -2.1 -1.2 1.1 4.4	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8 -7.3 -6.1	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5 8.3 5.5 5.1 7.3 10.7	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .73 -1.0 -1.2 2.7 6.5 3.4 2.8	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0 15.4 7.8 .9 6.4	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8 .7 7.8 7.7 .99
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8 22.5 27.5 26.0 16.5 14.3 13.5 17.0 17.6 15.9 13.2 7.4 10.2	TEMP MIN **TOBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4 .8 .4 -1.6 -3.8 -3.7	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3 10.6 11.8 7.6 5.5 3.9	MIN SMBER 6.3 4.0 .3 .3 3.2 3.7 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2 -2.0 -2.9 1.9 2.9 -2.6	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5 13.9 6.5 3.7 9.0 4.3	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2566 -1.9 -3.0 -6.6 -6.9 -3.5 -5.1 -6.8 -7 -1.2 -3 -1.1 -1.2 -3 -1.1 -1.1	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 .51 -2.1 -1.2 1.1 4.4 5.9	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8 -7.3 -6.1 3 -4	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5 8.3 5.5 5.1 7.3 10.7 5.4	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .73 -1.0 -1.2 2.7 6.5 3.4 2.8 2.3 2.1 2.8 .4	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0 15.4 7.8	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8 7.7 7.8 7.7 -99 -1.0 -3.9
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.6 27.5 26.0 16.5 14.3 13.5 12.5 17.0 17.6 15.9 13.2 7.4 10.2 10.1	TEMP MIN **TOBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4 .8 .4 -1.6 -3.8 -3.7 2.7	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3 10.6 11.8 7.6 5.5 3.9 1.7	MIN SMBER 6.3 4.0 .3 .3 3.2 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2 -2.0 -2.9 1.9 2.9 -2.6 -5.8	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5 13.9 6.5 3.7 9.0 4.3 8.7	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.256 -1.9 -3.0 -6.6 -6.9 -3.5 -5.1 -6.8 -7 -1.2 -3 .1 1.1 1.1	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 51 -2.1 -1.2 1.1 4.4 5.9 1.2	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8 -7.3 -6.1 .3 -4 -1.0	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5 8.3 5.5 1.7 7.3 10.7 5.4 9.6	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .7 -3 -1.0 -1.2 2.7 6.5 3.4 2.8 2.3 2.1 2.8 .4 -2.3	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0 15.4 7.8 .9 6.4 4.6 9.1	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8 7.7 7.8 7.7 99 -1.0 -3.99 -2.3
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.6 27.5 26.0 16.5 14.3 13.5 17.0 17.6 15.9 13.2 7.4 10.2 10.1 12.8	TEMP MIN **TOBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4 .8 .4 -1.6 -3.8 -3.7 2.7 5.1	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3 10.6 11.8 7.6 5.5 3.9 1.7 13.1	MIN SMBER 6.3 4.0 .3 .3 3.2 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2 -2.0 -2.9 1.9 2.9 -2.6 -5.8 -3.0	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5 13.9 6.5 3.7 9.0 4.3 8.7 7.4	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2 -5 -66-1.9 -3.0 -6.6 -1.9 -3.0 -6.6 -1.9 -3.0 -1.2 -1.2 -1.2 -1.2 -1.2 -1.2 -1.2 -1.2	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 .51 -2.1 -1.2 1.1 4.4 5.9 1.2 .2	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8 -7.3 -6.1 3.3 -4.1 -1.0 -1.4	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5 8.3 5.5 5.1 7.3 10.7 5.4 9.6 10.4	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .7 -3 -1.0 -1.2 2.7 6.5 3.4 2.8 2.3 2.1 2.8 .4 -2.3 -1.9	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0 15.4 7.8 .9 6.4 4.6 9.1 11.1	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 -1.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8 7.7 7.8 7.7 99 -1.0 -3.9 -2.3 -1.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.6 27.5 26.0 16.5 14.3 13.5 12.5 17.0 17.6 15.9 13.2 7.4 10.2 10.1 12.8 11.9	TEMP MIN **OBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4 .8 .4 -1.6 -3.8 -3.7 2.7 5.1 6.0	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3 10.6 11.8 7.6 5.5 3.9 1.7 13.1	MIN MERR 6.3 4.0 .3 .3 3.2 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2 -2.0 -2.9 1.9 2.9 -2.6 -5.8 -3.0 2.7	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5 13.9 6.5 3.7 9.0 4.3 8.7 7.4	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.256 -1.9 -3.0 -6.6 -6.9 -3.5 -5.1 -6.8 -7 -1.23 .1 1.1 1.1 1.25	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 .51 -2.1 -1.2 1.1 4.4 5.9 1.2 .2 6.6	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8 -7.3 -6.1 3 -4.1 -1.0 -1.4 -3.0	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 7.3 9.3 7.5 9.5 8.3 5.5 5.1 7.3 10.7 5.4 9.6 10.4 15.6	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .7 -3 -1.0 -1.2 2.7 6.5 3.4 2.8 2.3 2.1 2.8 2.1 2.8 -4.1 2.8 2.3 -1.9 2.7	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0 15.4 7.8 .9 6.4 4.6 9.1 11.1	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -9.0 -4.7 -6.5 -3.8 7.7 7.8 7.8 7.7 99 -1.0 -3.9 -2.3 -1.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.5 26.0 16.5 14.3 13.5 12.5 17.0 17.6 15.9 13.2 7.4 10.2 10.1 12.8 11.9 7.3	TEMP MIN **TOBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4 .8 .4 -1.6 -3.8 -3.7 2.7 5.1 6.0 2.2	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3 10.6 11.8 7.6 5.5 3.9 1.7 13.1 12.1 7.9	MIN MBER 6.3 4.0 .3 .3 3.2 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2 -2.0 -2.9 1.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5 13.9 6.5 3.7 9.0 4.3 8.7 7.4 1.2 .8	MIN MBER 2 -2.5 -2.39 -6.5 -6.9 -3.0 -2.1 -1.256 -1.9 -3.0 -6.6 -6.9 -3.5 -5.1 -6.8 -7 -1.2 -3 .1 1.1 1.1 1.25 -2.8	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 .51 -2.1 -1.2 1.1 4.4 5.9 1.2 .2 6.6 9.4	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8 -7.3 -6.1 3 -4.1 -1.0 -1.4 -3.0 -2.1	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5 8.3 5.5 5.1 7.3 10.7 5.4 9.6 10.4	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .7 -3 -1.0 -1.2 2.7 6.5 3.4 2.8 2.3 2.1 2.8 .4 -2.3 -1.9	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0 15.4 7.8 .9 6.4 4.6 9.1 11.1 24.1	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -9.0 -4.7 -6.5 -3.8 7.7 7.8 7.7 9 -1.0 -3.9 -2.3 -1.4 7.2 15.7
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8 22.5 27.5 26.0 16.5 14.3 13.5 17.6 15.9 13.2 7.4 10.2 10.1 12.8 11.9 7.3 9.6 15.0	TEMP MIN **TOBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4 .8 5.7 6.4 .8 -3.7 2.7 5.1 6.0 2.2 -3.2 .6	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3 10.6 11.8 7.6 5.5 3.9 1.7 13.1 12.1 7.9 17.1 16.0	MIN SMBER 6.3 4.0 .3 .3 3.2 3.7 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2 -2.0 -2.9 1.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5 13.9 6.5 3.7 9.0 4.3 8.7 7.4 1.2 .8 .8 2.1	MIN MBER 2 -2.5 -2.5 -6.9 -3.0 -2.1 -1.2 -5 -6.6 -6.9 -3.0 -6.6 -6.9 -3.5 -1.1 -1.2 -3.5 -1.2 -3.5 -5.1 -6.8 -7 -1.2 -3.5 -1.2 -3.5 -5.1 -6.8 -7 -1.2 -3.5 -5.5	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 .51 -2.1 -1.2 1.1 4.4 5.9 1.2 2 6.6 9.4 11.3 7.3	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8 -7.3 -6.1 3.3 -4.1 -1.0 -1.4 -3.0 -2.1 -4.6 -1.1	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5 8.3 5.5 5.1 7.3 10.7 5.4 9.6 10.4 15.6 16.7 14.3	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .73 -1.0 -1.2 2.7 6.5 3.4 2.8 2.3 2.1 2.8 -4.1 -2.3 -1.9 2.7 2.0 -4.4	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0 15.4 7.8 .9 6.4 4.6 9.1 11.1 24.1 25.4 23.4 27.2	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8 7.7 7.8 7.7 99 -1.0 -3.9 -2.3 -1.4 7.2 15.7 13.9 9.6
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.5 26.0 16.5 14.3 13.5 17.0 17.6 15.9 13.2 7.4 10.2 10.1 12.8 11.9 7.3 9.6 15.0 17.9	TEMP MIN **OBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4 .8 .4 -1.6 -3.8 -3.7 2.7 5.1 6.0 2.2 -3.2 -3.2 -7	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3 10.6 11.8 7.6 5.5 3.9 1.7 13.1 12.1 7.9 17.1 16.0 13.0	MIN SMBER 6.3 4.0 .3 .3 3.2 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2 -2.0 -2.9 1.9 2.9 -2.6 -5.8 -3.0 2.7 -4.0 6.7 10.2 3.1	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5 13.9 6.5 3.7 9.0 4.3 8.7 7.4 1.2 .8 .8 2.1 -1.1	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.256 -1.9 -3.0 -6.6 -6.9 -3.5 -5.1 -6.8 -7 -1.23 .1 1.1 1.2587 -1.231 1.1 1.25555555555	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 .51 -2.1 -1.2 1.1 4.4 5.9 1.2 2 6.6 9.4 11.3 7.3 1.3	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8 -7.3 -6.1 .3 -4.1 -1.0 -1.4 -3.0 -2.1 -4.6 -1.1 -4	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5 8.3 5.5 5.1 7.3 10.7 5.4 9.6 10.4 15.6 16.7 14.3	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .7 -3 -1.0 -1.2 2.7 6.5 3.4 2.8 2.3 2.1 2.8 .4 -2.3 -1.9 2.7 2.0 -4	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0 15.4 7.8 .9 6.4 4.6 9.1 11.1 24.1 25.4 23.4 27.2 26.8	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8 7.7 7.8 7.7 .99 -1.0 -3.9 -2.3 -1.4 7.2 15.7 13.9 9.6 15.6
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 16.8 20.3 26.4 28.6 28.7 27.9 27.6 27.6 27.2 23.8 22.5 27.5 26.0 16.5 14.3 13.5 17.6 15.9 13.2 7.4 10.2 10.1 12.8 11.9 7.3 9.6 15.0	TEMP MIN **TOBER** 3.8 1.0 10.9 16.9 13.3 13.7 12.9 11.6 15.1 7.9 5.1 7.1 11.2 4.76 1.8 5.7 6.4 .8 5.7 6.4 .8 -3.7 2.7 5.1 6.0 2.2 -3.2 .6	MAX NOVE 13.3 8.7 5.6 3.6 11.7 12.4 10.1 11.5 9.0 7.1 4.5 2.2 3.4 1.1 .74 2.0 5.3 10.6 11.8 7.6 5.5 3.9 1.7 13.1 12.1 7.9 17.1 16.0	MIN SMBER 6.3 4.0 .3 .3 3.2 3.7 3.7 6.0 3.0 3.1 .6 -7.2 -6.7 .1 -2.6 -5.2 -7.8 -7.2 -2.0 -2.9 1.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2	MAX DECE 3.1 5.4 10.7 6.85 -2.9 .15 1.4 6.7 1.3 .4 .5 .2 6.6 9.9 8.7 8.5 13.9 6.5 3.7 9.0 4.3 8.7 7.4 1.2 .8 .8 2.1	MIN MBER 2 -2.5 2.39 -6.5 -6.9 -3.0 -2.1 -1.2566 -1.9 -3.0 -6.6 -6.9 -3.5 -5.1 -6.8 -7 -1.23 1.1 1.1 1.2585.55.0	MAX JAN 3.5 8.1 13.3 14.8 14.0 15.6 14.6 10.0 8.0 4.2 1.7 9.2 9.2 1.5 2.56 .51 -2.1 -1.2 1.1 4.4 5.9 1.2 2 6.6 9.4 11.3 7.3	MIN IUARY -10.6 3.5 6.3 7.6 8.4 11.9 5.5 4.1 1.3 -3.3 -8.02 -8.3 -10.8 -1.3 -2.6 -1.4 -10.5 -11.8 -7.3 -6.1 3.3 -4.1 -1.0 -1.4 -3.0 -2.1 -4.6 -1.1	MAX FEBRI 10.1 11.2 4.46 -1.1 3.4 7.5 6.5 8.5 10.5 8.9 5.6 4.9 7.3 9.3 7.5 9.5 8.3 5.5 5.1 7.3 10.7 5.4 9.6 10.4 15.6 16.7 14.3	MIN UARY -4.4 -1.4 -2.4 -2.2 -2.9 -2.8 -4.1 -5.0 -5.3 -3.0 4.8 .73 -1.0 -1.2 2.7 6.5 3.4 2.8 2.3 2.1 2.8 -4.1 -2.3 -1.9 2.7 2.0 -4.4	MAX 9.3 5.9 3.1 1.9 3.1 8.4 12.5 15.4 13.7 -3.0 -5.4 -2.3 3.6 5.4 4.0 7.3 8.3 13.0 15.4 7.8 .9 6.4 4.6 9.1 11.1 24.1 25.4 23.4 27.2	.RCH .7 -2.59 -2.8 -4.9 -1.4 -1.2 4.7 -4.1 -7.1 -10.0 -11.0 -9.0 -4.7 -6.5 -3.8 7.7 7.8 7.7 99 -1.0 -3.9 -2.3 -1.4 7.2 15.7 13.9 9.6

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Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

395859083440700 CL-138 NR SPRGFLD, OH-Continued

		TEM	PERATURE,	AIR, DEG	REES CELSI	US, WATER	YEAR OCTO	OBER 1997	TO SEPTE	MBER 1998	3	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	AI	PRIL		MAY	JU	NΕ	JU	LY	AUG	UST	SEPT	EMBER
1	15.1	8.3	17.0	11.0	24.9	13.0	28.0	14.2	27.0	12.9		
2	13.6	3.2	17.8	10.9	30.0	12.9	27.2	13.6	29.7	12.8		
3	13.5	1.3	19.7	7.9	22.3	8.7	28.7	14.2	29.4	15.1		
4 5	8.4 14.2	-1.0 -3.7	19.3 21.8	6.7 7.7	18.5 13.9	10.0 7.0	28.3 27.6	18.9 15.6	25.5 28.4	17.6 18.7		
6	17.0	5	23.0	9.1	17.7	5.0	27.3	15.2	30.5	20.5		
7 8	17.1 22.2	3.6 9.6	18.2 22.0	15.3 14.2	20.3	3.4 7.1	27.4 29.5	17.1 21.6	31.5 31.8	20.6 19.2		
9	14.6	5.7	22.6	13.5	16.1	14.0	28.9	18.9	28.6	19.3		
10	12.9	2.3	21.9	12.4	28.9	16.1	28.3	15.1	29.8	19.3		
11	15.7	-1.1	21.2	10.7	21.2	16.2	25.6	10.0	28.6	17.0		
12	19.2	1.0	24.0	10.9	29.7	17.9	27.4	10.7	27.4	16.0		
13	20.2	10.4	25.7	14.3	24.6	14.6	30.0	12.1	27.9	15.1		
14	17.8	9.0	29.6	13.1	24.6	12.9	27.0	19.6	27.9	17.0		
15	17.5	4.2	30.2	13.1	22.7	17.1	26.1	20.4	29.5	17.5		
16	21.5	12.1	28.7	15.7	23.7	17.9	29.9	19.8	29.7	17.1		
17	13.0	3.9	28.3	11.3	28.0	17.4	28.5	14.4	31.0	17.6		
18 19	13.9 10.3	.5 6.1	29.0 30.4	9.4 12.2	30.7 28.5	15.9 18.6	31.5 30.7	16.9 18.0	29.7 26.2	17.7 11.0		
20	16.6	1.3	28.8	15.4	30.5	14.9	31.6	19.7	29.6	10.5		
21 22	16.9 17.9	4.6 8.1	25.0 19.9	12.8 10.4	26.2 30.8	20.5 19.2	34.1 30.5	22.6 20.1	33.1 31.7	13.1 17.1		
23	19.9	7.2	21.9	11.4	28.6	18.7	27.4	16.8	32.7	16.3		
24	23.4	3.7	23.3	14.0	31.5	20.0	26.6	14.5	33.6	20.3		
25	22.0	6.7	20.9	13.7	32.8	22.4	25.9	12.9	34.2	19.7		
26	19.1	6.2	23.4	9.0	33.0	21.5	26.6	12.0	28.5	16.6		
27	14.2	2.8	26.0	11.1	31.9	24.9	28.0	13.8				
28	19.2	.1	27.6	14.1	32.3	23.8	29.0	16.2				
29	17.3	11.9	30.5	15.7	27.7	18.0	29.9	19.3				
30	16.0	13.6	29.4	17.7	26.3	16.3	26.8	18.7				
31			27.7	18.2			27.2	14.7				
MONTH	23.4	-3.7	30.5	6.7	33.0	3.4	34.1	10.0	34.2	10.5		
YEAR	34.2	-11.8										
YEAR	34.2		TEMPERATUI	RE, WATER	(DEG. C),	WATER YE	AR OCTOBER	R 1997 TC	SEPTEMBEI	R 1998		
											MAX	MTN
YEAR DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY	MAX OCT	MIN TOBER	MAX NOV	MIN EMBER	MAX DECE	MIN	MAX JAN	MIN	MAX FEBR	MIN UARY	MA	RCH
DAY 1	MAX OCT 12.3	MIN COBER 12.2	MAX NOV 13.2	MIN EMBER 12.9	MAX DECE 13.1	MIN EMBER 13.1	MAX JAN 13.1	MIN UARY 13.1	MAX FEBR 12.9	MIN UARY 12.9	MA 12.5	RCH 12.4
DAY 1 2	MAX OCT 12.3 12.3	MIN TOBER 12.2 12.2	MAX NOV 13.2 13.1	MIN EMBER 12.9 12.9	MAX DECE 13.1 13.2	MIN CMBER 13.1 13.1	MAX JAN 13.1 13.1	MIN UARY 13.1 13.1	MAX FEBR 12.9 12.9	MIN UARY 12.9 12.7	MA 12.5 12.4	RCH 12.4 12.2
DAY 1 2 3	MAX OCT 12.3 12.3 12.3	MIN TOBER 12.2 12.2 12.2	MAX NOV 13.2 13.1 13.1	MIN EMBER 12.9 12.9 12.9	MAX DECE 13.1 13.2 13.1	MIN CMBER 13.1 13.1 13.1	MAX JAN 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1	MAX FEBR 12.9 12.9 12.9	MIN UARY 12.9 12.7 12.9	MA 12.5 12.4 12.4	RCH 12.4 12.2 12.4
DAY 1 2	MAX OCT 12.3 12.3	MIN TOBER 12.2 12.2	MAX NOV 13.2 13.1	MIN EMBER 12.9 12.9	MAX DECE 13.1 13.2	MIN CMBER 13.1 13.1	MAX JAN 13.1 13.1	MIN UARY 13.1 13.1	MAX FEBR 12.9 12.9	MIN UARY 12.9 12.7	MA 12.5 12.4	RCH 12.4 12.2
DAY 1 2 3 4 5	MAX OCT 12.3 12.3 12.3 12.3	MIN TOBER 12.2 12.2 12.2 12.2 12.2	MAX NOV 13.2 13.1 13.1 13.1	MIN EMBER 12.9 12.9 12.9 12.2	MAX DECE 13.1 13.2 13.1 13.1 13.4	MIN CMBER 13.1 13.1 13.1 13.1	MAX JAN 13.1 13.1 13.1 13.2 13.2	MIN UARY 13.1 13.1 13.1 13.1	MAX FEBR 12.9 12.9 12.9 12.9	MIN UARY 12.9 12.7 12.9 12.9	MA 12.5 12.4 12.4 12.4	RCH 12.4 12.2 12.4 12.2 12.2
DAY 1 2 3 4 5	MAX OCT 12.3 12.3 12.3 12.3 12.3	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2	MAX NOV 13.2 13.1 13.1 13.2 13.2	MIN EMBER 12.9 12.9 12.9 12.2 12.9	MAX DECE 13.1 13.2 13.1 13.1 13.4	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1	MAX JAN 13.1 13.1 13.2 13.2 13.2	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1	MAX FEBR 12.9 12.9 12.9 12.9 12.9	MIN UARY 12.9 12.7 12.9 12.9 12.9 12.6	MA 12.5 12.4 12.4 12.4 12.4	RCH 12.4 12.2 12.4 12.2 12.2 12.2
DAY 1 2 3 4 5	MAX OCT 12.3 12.3 12.3 12.3	MIN TOBER 12.2 12.2 12.2 12.2 12.2	MAX NOV 13.2 13.1 13.1 13.1	MIN EMBER 12.9 12.9 12.9 12.2	MAX DECE 13.1 13.2 13.1 13.1 13.4	MIN CMBER 13.1 13.1 13.1 13.1	MAX JAN 13.1 13.1 13.1 13.2 13.2	MIN UARY 13.1 13.1 13.1 13.1	MAX FEBR 12.9 12.9 12.9 12.9	MIN UARY 12.9 12.7 12.9 12.9	MA 12.5 12.4 12.4 12.4	RCH 12.4 12.2 12.4 12.2 12.2
DAY 1 2 3 4 5 6 7	MAX OCT 12.3 12.3 12.3 12.3 12.3 12.3	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2	MAX NOV 13.2 13.1 13.1 13.2 13.2	MIN EMBER 12.9 12.9 12.9 12.9 12.1 13.1	MAX DECE 13.1 13.2 13.1 13.1 13.4 13.4	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.2	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9	MIN UARY 12.9 12.7 12.9 12.9 12.9 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.4 12.4	12.4 12.2 12.4 12.2 12.2 12.2 12.2
DAY 1 2 3 4 5 6 7 8	MAX OCT 12.3 12.3 12.3 12.3 12.3 12.3 12.5	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.2	MAX NOV 13.2 13.1 13.1 13.1 13.2 13.2	MIN EMBER 12.9 12.9 12.9 12.2 12.9 13.1 13.1	MAX DECE 13.1 13.2 13.1 13.1 13.4 13.4 13.4 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.2 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.9	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.4 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.2
DAY 1 2 3 4 5 6 7 8 9	MAX OCT 12.3 12.3 12.3 12.3 12.3 12.5 12.5	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12	MAX NOV 13.2 13.1 13.1 13.1 13.2 13.2 13.2	MIN EMBER 12.9 12.9 12.9 12.2 12.9 13.1 13.1 13.1	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.4 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.2 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.4 12.2 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.2 12.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX OCT 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.2 13.1	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1 13.1 13.1 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.4 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OCT 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.2 13.1 13.1	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1 13.1 13.1 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.4 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.1 12.1
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCT 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.1 13.1	MIN EMBER 12.9 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1 13.1 13.1 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.4 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.2 13.1 13.1	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.4 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.1 12.1 12.1 12.1
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.5 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.1 13.1 13.1	MIN EMBER 12.9 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCT 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.1 13.1 13.1 13.1	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2	RCH 12 .4 12 .2 12 .4 12 .2 12 .2 12 .2 12 .2 12 .2 12 .2 12 .2 12 .2 12 .2 12 .1 12 .1 12 .1 12 .1 12 .2 12 .2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.7 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MAX OCT 12.3 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.1 13.1 13.1 13.1	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2	RCH 12 .4 12 .2 12 .4 12 .2 12 .2 12 .2 12 .2 12 .2 12 .2 12 .2 12 .2 12 .2 12 .1 12 .1 12 .1 12 .1 12 .2 12 .2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7	MIN FOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.1 12.1 12.1 12.1 12.2 12.2 12.2 12.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.4 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.1 12.1 12.1 12.2 12.1 12.1 12.2 12.1 12.0 12.0 12.0 12.0 12.0 12.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7	MIN FOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.1 12.1 12.1 12.1 12.2 12.2 12.2 12.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.3 12.3 12.	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.4 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.0 12.0 12.0	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.1 13.2 13.2 13.2 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX OCCI 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.1 12.1 12.1 12.1 12.2 12.1 12.1 12.1 12.1 12.2 12.1 12.1 12.1 12.2 12.1 12.1 12.2 12.1 12.1 12.2 12.1 12.1 12.2 12.1 12.1 12.2 12.1 12.2 12.1 12.1 12.2 12.3 1
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.3 12.3 12.	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.2 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.0	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 12.3 12.3 12.3 12.3 12.5 12.5 12.5 12.5 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN TOBER 12.2 12.2 12.2 12.2 12.2 12.2 12.3 12.3	MAX NOV 13.2 13.1 13.1 13.2 13.2 13.2 13.2 13.2	MIN EMBER 12.9 12.9 12.2 12.9 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX DECE 13.1 13.2 13.1 13.4 13.4 13.1	MIN MBER 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX JAN 13.1 13.2 13.2 13.2 13.2 13.1	MIN UARY 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	MAX FEBR 12.9 12.9 12.9 12.9 12.9 12.9 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7	MIN UARY 12.9 12.7 12.9 12.9 12.6 12.6 12.6 12.6 12.6 12.6 12.6 12.6	MA 12.5 12.4 12.4 12.4 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.0	RCH 12.4 12.2 12.4 12.2 12.2 12.2 12.2 12.

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

395859083440700 CL-138 NR SPRGFLD,OH-Continued

			TEMPED A TIP				R SPRGFLD,			1000		
D3.11			TEMPERATURI								147.77	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
		PRIL		AY		UNE		LY	AUG			EMBER
1 2	11.8 11.8	11.5 11.5	11.1	10.9 10.9	10.7	10.5 10.5	10.8 10.8	10.7 10.7	11.2	11.1 11.1		
3	11.7	11.5	11.1 10.9	10.9	10.7 10.7	10.5	10.8	10.7	11.3 11.4	11.1		
4	11.8	11.5	10.9	10.9	10.7	10.4	10.7	10.7	11.4	11.1		
5	11.7	11.5	10.9	10.9	10.7	10.4	10.8	10.7	11.4	11.3		
6	11.6	11.5	10.9	10.7	10.7	10.4	10.8	10.7	11.4	11.3		
7	11.6	11.5	10.9	10.9	10.7	10.4	10.7	10.7	11.4	11.3		
8	11.6	11.5	10.9	10.7	10.7	10.4	10.8	10.7	11.4	11.3		
9	11.6	11.5	10.9	10.7	10.7	10.5	10.8	10.7	11.4	11.3		
10	11.6	11.5	10.7	10.7	10.5	10.5	10.8	10.7	11.4	11.3		
11	11.6	11.5	10.7	10.7	10.5	10.5	10.7	10.7	11.4	11.3		
12 13	11.6 11.6	11.5 11.5	10.7 10.7	10.7 10.7	10.5 10.5	10.5 10.5	10.8 10.8	10.7 10.7	11.6 11.6	11.3 11.4		
14	11.6	11.5	10.7	10.7	10.5	10.5	10.7	10.7	11.6	11.4		
15	11.6	11.3	10.8	10.7	10.7	10.5	10.7	10.7	11.6	11.6		
16	11.6	11.3	10.8	10.7	10.5	10.5	10.8	10.7	11.6	11.6		
17	11.5	11.3	10.8	10.7	10.7	10.5	10.9	10.7	11.6	11.6		
18	11.5	11.3	10.8	10.7	10.7	10.5	10.9	10.7	11.6	11.6		
19	11.3	11.3	10.8	10.7	10.7	10.5	11.0	10.7	11.6	11.5		
20	11.4	11.3	10.8	10.7	10.7	10.5	11.0	10.7	11.6	11.5		
21	11.4	11.3	10.7	10.7	10.7	10.5	11.0	10.8	11.6	11.5		
22	11.4	11.3	10.7	10.7	10.7	10.5	11.0	10.8	11.6	11.6		
23	11.4	11.1	10.7	10.5	10.7	10.5	11.0	10.9	11.8	11.6		
24	11.3	11.1	10.7	10.5	10.8	10.5	11.0	10.9	11.8	11.6		
25	11.3	11.1	10.7	10.5	10.8	10.5	11.0	10.9	11.9	11.6		
26	11.1	11.1	10.7	10.5	10.8	10.7	11.0	10.9	11.8	11.6		
27	11.1	11.1	10.7	10.5	10.8	10.7	11.0	10.9				
28	11.3	11.1	10.7	10.5	10.8	10.7	11.1	10.9				
29	11.1	11.1	10.7	10.5	10.7	10.7	11.2	10.9				
30	11.1	11.1	10.7	10.5	10.7	10.7	11.2	11.1				
31			10.7	10.5			11.2	11.1				
MONTH	11.8	11.1	11.1	10.5	10.8	10.4	11.2	10.7	11.9	11.1		
YEAR	13.4											
YEAR	13.4	10.4										
YEAR	13.4	10.4	TEMPERATUR	E, SOIL	(DEG. C),	WATER YE	EAR OCTOBER	. 1997 TO	SEPTEMBER	1998		
							EAR OCTOBER				млу	MTN
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
DAY	MAX OCI	MIN	MAX NOVE	MIN	MAX DEC	MIN EMBER	MAX JAN	MIN UARY	MAX FEBR	MIN UARY	MZ	ARCH
DAY 1	MAX OCT 17.3	MIN COBER 15.8	MAX NOVE	MIN MBER 10.1	MAX DEC	MIN EMBER 6.1	MAX JAN 1.3	MIN UARY 1.0	MAX FEBR 2.8	MIN UARY 1.5	MZ 7.3	ARCH 5.7
DAY 1 2	MAX OCT 17.3 16.4	MIN COBER 15.8 13.6	MAX NOVE 11.2 10.9	MIN MBER 10.1 8.9	MAX DEC 8.5 6.1	MIN EMBER 6.1 5.1	MAX JAN 1.3 2.4	MIN UARY 1.0 1.0	MAX FEBR 2.8 4.7	MIN UARY 1.5 2.4	M.7 7.3 6.6	S.7 4.9
DAY 1 2 3	MAX OCT 17.3 16.4 17.9	MIN COBER 15.8 13.6 15.0	MAX NOVE 11.2 10.9 8.9	MIN MBER 10.1 8.9 7.6	MAX DEC 8.5 6.1 7.1	MIN EMBER 6.1 5.1 5.0	MAX JAN 1.3 2.4 5.5	MIN UARY 1.0 1.0 2.4	MAX FEBR 2.8 4.7 3.6	MIN UARY 1.5 2.4 2.4	MZ 7.3 6.6 5.1	5.7 4.9 4.3
DAY 1 2 3 4	MAX OCT 17.3 16.4 17.9 19.1	MIN COBER 15.8 13.6 15.0 16.4	MAX NOVE 11.2 10.9 8.9 7.6	MIN MBER 10.1 8.9 7.6 6.9	MAX DEC 8.5 6.1 7.1 7.1	MIN EMBER 6.1 5.1 5.0 5.3	MAX JAN 1.3 2.4 5.5 7.1	MIN UARY 1.0 1.0 2.4 5.5	MAX FEBR 2.8 4.7 3.6 2.7	MIN UARY 1.5 2.4 2.4 1.7	7.3 6.6 5.1 4.3	5.7 4.9 4.3 3.8
DAY 1 2 3 4 5	MAX OCT 17.3 16.4 17.9 19.1 19.7	MIN COBER 15.8 13.6 15.0 16.4 16.9	MAX NOVE 11.2 10.9 8.9 7.6 8.7	MIN MBER 10.1 8.9 7.6 6.9 6.9	MAX DEC 8.5 6.1 7.1 7.1 5.3	MIN EMBER 6.1 5.1 5.0 5.3 3.6	MAX JAN 1.3 2.4 5.5 7.1 7.6	MIN UARY 1.0 1.0 2.4 5.5 6.1	MAX FEBR 2.8 4.7 3.6 2.7 2.0	MIN UARY 1.5 2.4 2.4 1.7	7.3 6.6 5.1 4.3 4.6	5.7 4.9 4.3 3.8 3.2
DAY 1 2 3 4 5	MAX OCT 17.3 16.4 17.9 19.1 19.7	MIN COBER 15.8 13.6 15.0 16.4 16.9	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3	MAX DEC 8.5 6.1 7.1 7.1 5.3	MIN EMBER 6.1 5.1 5.0 5.3 3.6	MAX JAN 1.3 2.4 5.5 7.1 7.6	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6	MAX FEBR 2.8 4.7 3.6 2.7 2.0	MIN UARY 1.5 2.4 2.4 1.7 1.8	MZ 7.3 6.6 5.1 4.3 4.6	5.7 4.9 4.3 3.8 3.2
DAY 1 2 3 4 5 6 7	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.8	MIN COBER 15.8 13.6 15.0 16.4 16.9 17.2 17.5	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3	MIN EMBER 6.1 5.1 5.0 5.3 3.6 3.2 3.2	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8	7.3 6.6 5.1 4.3 4.6 5.6 6.2	5.7 4.9 4.3 3.8 3.2 3.2 3.6
DAY 1 2 3 4 5 6 7 8	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.8 20.0	MIN COBER 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.3	MIN EMBER 6.1 5.1 5.0 5.3 3.6 3.2 3.2	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6
DAY 1 2 3 4 5 6 7	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.8	MIN COBER 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.3	MIN EMBER 6.1 5.1 5.0 5.3 3.6 3.2 3.2	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2	MIN EMBER 6.1 5.1 5.0 5.3 3.6 3.2 3.2 3.0 2.8 3.1	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9	5.7 4.9 4.3 3.8 3.2 3.6 5.6 5.9 3.2
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6	MIN **TOBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 9.2 8.9 8.5	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.3 3.1 4.2	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.2 3.2 3.1 3.4	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9	5.7 4.9 4.3 3.8 3.2 3.6 5.6 5.9 3.2
DAY 1 2 3 4 5 6 7 8 9 10	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2	MIN EMBER 6.1 5.1 5.0 5.3 3.6 3.2 3.2 3.0 2.8 3.1	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6 5.9 3.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.8 20.0 19.9 19.6 17.6 17.8	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.3 1.0 2.8 3.1 3.4 2.9	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.3	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9	5.7 4.9 4.3 3.8 3.2 3.6 5.6 5.9 3.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.8 20.0 19.9 19.6 17.6 17.8 19.0	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9	MIN EMBER 6.1 5.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.3 4.6	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6	MIN UARY 1.5 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6 5.9 3.2 2.2 1.5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.6 17.8 19.0 18.1	MIN **TOBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.3 4.6 2.6	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 3.3	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7	5.7 4.9 4.3 3.8 3.2 3.6 5.6 5.9 3.2 2.2 1.5
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2 4.1	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4	MIN UARY 1.5 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 3.3 2.7	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7	5.7 4.9 4.3 3.8 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.0 12.8 13.4	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 1.9	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.3 1.2	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1 2.1 2.1 2.0	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.8	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 2.7 3.6 3.8 4.6 5.8	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 3.8 4.3 7.0	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.9 3.2 2.2 1.5 1.1 1.1 1.4
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	MAX OCTI 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.0 12.8 13.4 13.4	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7 1.9	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 2.0 1.9 3.7	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.3 1.3 1.2 1.7	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1 2.1 2.1 2.0 1.6	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.8 1.6 1.1	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3 5.8	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 2.7 3.3 4.6 5.8 5.2	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 3.8 4.3 7.0 9.2	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1 1.1 1.4 1.7 2.8 4.3 7.0
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.0 12.8 13.4 13.4	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7 1.9 2.6	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 1.9 3.7 3.4	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.2 1.7 2.4	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1 2.1 2.1 2.1 2.0 1.6 1.1	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.8 1.6 1.1	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3 5.8 5.5	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 2.7 3.6 5.8 5.2 5.0	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 3.8 4.3 7.0 9.2 8.4	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.9 3.2 2.2 1.5 1.1 1.1 1.4 1.7 2.8 4.3 7.0 5.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MAX OCTI 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.0 12.8 13.4 13.4 13.4	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7 5.5	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7 1.9 2.6 4.3	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 2.0 2.0 3.7 3.4 3.4 3.4	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.3 1.3 1.2 1.7 2.4	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1 2.1 2.1 2.0 1.6 1.1	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.8 1.6 1.1 1.0	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3 5.8 5.5	MIN UARY 1.5 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 2.7 3.3 4.6 5.8 5.2 5.0 4.6	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 3.8 4.3 7.0 9.2 8.4	5.7 4.9 4.3 3.8 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1 1.1 1.4 1.7 2.8 4.3 7.0 5.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MAX OCT 17.3 16.4 17.9 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.0 12.8 13.4 13.4 13.4 12.3 11.1	MIN TOBER 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9 10.2 8.8	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7 5.5 5.8	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7 1.9 2.6 4.3 5.5	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.3 4.2 4.0 3.4 2.9 2.5 2.0 2.0 1.9 3.7 3.4 3.4 4.3	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.3 1.2 1.7 2.4 2.7 2.7	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1 2.1 2.1 2.0 1.6 1.1 1.0 1.9	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.8 1.8 1.6 1.1 1.0 .9 1.0	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 6.0 6.3 5.8 5.5 5.5	MIN UARY 1.5 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 2.7 3.3 4.6 5.8 5.2 5.0 4.6 4.8	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 2.7 3.8 4.3 7.0 9.2 8.4	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1 1.4 1.7 2.8 4.3 7.0 5.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 13.0 12.8 13.4 13.4 13.4 12.3 11.1 10.0	MIN **TOBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9 10.2 8.8 7.6	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7 5.5 5.8 5.6	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.1 3.3 2.2 1.7 1.9 2.6 4.3 5.5 4.2	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 1.9 3.7 3.4 4.3 4.3	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.3 1.2 1.7 2.4 2.7 3.9	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.3 4.6 2.6 2.1 2.1 2.0 1.6 1.1 1.0 1.9 2.6	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.8 1.6 1.1 1.0 .9 1.0	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3 5.8 5.5 5.5 5.5 6.2 5.7	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 3.7 3.3 4.6 5.8 5.2 5.0 4.6 4.8 4.9	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 3.8 4.3 7.0 9.2 8.4	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.9 3.2 2.2 1.5 1.1 1.4 1.7 2.8 4.3 7.0 5.8 3.6
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.0 12.8 13.4 13.4 13.4 12.3 11.1 10.0 9.8	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9 10.2 8.8 7.6 8.8	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7 5.5 5.8 5.6 4.3	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.1 3.3 2.2 1.7 1.9 2.6 4.3 5.5 4.2 3.3	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 1.9 3.7 3.4 4.3 4.3 4.3	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.2 1.7 2.4 2.7 2.7 3.9 3.6	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.3 4.6 2.6 2.1 2.1 2.1 2.0 1.6 1.1 1.0 1.9 2.6 2.4	MIN UARY 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.8 1.6 1.1 1.0 .9 1.9	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3 5.8 5.5 5.5 5.5 6.2 5.7 4.9	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 3.7 3.6 5.8 5.2 5.0 4.6 4.8 4.9 3.4	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.9 3.2 2.2 1.5 1.1 1.1 1.7 2.8 4.3 7.0 5.8 3.6
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.6 17.6 17.8 19.0 18.1 15.0 13.0 12.8 13.4 13.4 13.4 13.4 11.1 10.0 9.8 10.7	MIN COBER 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9 10.2 8.8 9.6	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7 5.5 5.8 5.6 4.3 5.0	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7 1.9 2.6 4.3 5.5 4.2 3.3 2.7	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 1.9 3.7 3.4 4.3 4.3 4.3 4.3	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.3 1.2 1.7 2.4 2.7 2.4 2.7 3.9 3.6 4.0	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.3 4.6 2.6 2.1 2.1 2.0 1.6 1.1 1.0 1.9 2.6 2.4 2.1	MIN UARY 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.8 1.6 1.1 1.0 .9 1.9 1.9 1.7	MAX FEBR 2.8 4.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3 5.8 5.5 5.5 6.2 5.7 4.9 6.0	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 3.7 3.6 5.8 5.2 5.0 4.6 4.8 4.9 3.4 3.2	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.8 4.3 7.0 9.2 8.4 5.8 4.8 4.4 5.8 6.1	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1 1.1 4.3 7.0 5.8 3.6 6.3 3.2
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.4 13.4 13.4 13.4 11.1 10.0 9.8 10.7 10.6	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9 10.2 8.8 7.6 8.8 9.6	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 3.7 4.7 5.5 5.8 5.6 4.3 5.0 6.3	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7 1.9 2.6 4.3 5.5 4.2 3.3 2.7 5.0	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 1.9 3.7 3.4 4.3 4.3 4.3 4.3 4.9 4.0	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.2 1.7 2.4 2.7 2.7 3.6 4.0 3.0	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1 2.1 2.1 2.0 1.6 1.1 1.0 1.9 2.6 2.4 2.1 2.6	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.8 1.6 1.1 1.0 .9 1.0 1.9 1.9 1.7 1.3	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.3 5.8 5.5 5.5 6.2 5.7 4.9 6.0 6.5	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 2.7 3.6 3.8 5.2 5.0 4.6 4.8 4.9 3.4 3.2 4.4	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 3.8 4.3 7.0 9.2 8.4 5.8 4.4 5.8 6.1	\$\text{SCH}\$ 5.7 4.9 4.3 3.8 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1 1.1 1.7 2.8 4.3 7.0 5.8 3.6 3.3 2.7 3.3 3.8 5.6
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX OCTI 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.0 13.4 13.4 13.4 13.4 13.4 13.4 10.0 9.8 10.7 10.6 10.6	MIN TOBER 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9 10.2 8.8 7.6 8.8 8 9.6 9.7 8.6	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7 5.5 5.8 5.6 4.3 5.0 6.3 5.6	MIN MBER 10.1 8.99 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7 1.9 2.6 4.3 5.5 4.2 3.3 2.7 5.0 3.8	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 2.0 2.0 3.7 3.4 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.3 1.2 1.7 2.4 2.7 2.7 3.9 3.6 4.0 3.0 2.4	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1 2.1 2.1 2.0 1.6 1.1 1.0 1.9 2.6 2.4 2.1 2.6 3.7	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 1.6 1.5 1.8 1.8 1.6 1.1 1.0 .9 1.0 1.9 1.7 1.3 1.9	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3 5.8 5.5 5.5 6.2 5.7 4.9 6.0 6.5 8.5	MIN UARY 1.5 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 2.7 3.3 4.6 5.8 5.2 5.0 4.6 4.8 4.9 3.4 3.2 4.4 6.0	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 3.8 4.3 7.0 9.2 8.4 5.8 4.8 4.8 4.8 4.8	\$5.7\$ 4.9 4.3 3.8 3.2 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1 1.1 1.4 1.7 2.8 4.3 7.0 5.8 3.6 3.3 2.7 3.3 3.8 5.6 9.8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MAX OCT 17.3 16.4 17.9 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.0 12.8 13.4 13.4 13.4 12.3 11.1 10.0 9.8 10.7 10.6 8.7	MIN TOBER 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9 10.2 8.8 7.6 8.8 9.6 9.7 8.6 6.9	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7 5.5 5.8 5.6 4.3 5.0 6.3 5.6 8.0	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7 1.9 2.6 4.3 5.5 4.2 3.3 2.7 5.0 3.8 5.0	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 2.0 2.0 3.7 3.4 4.3 4.3 4.3 4.3 4.9 4.0 3.0 2.4	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.3 1.3 1.2 1.7 2.4 2.7 2.7 3.9 3.6 4.0 3.0 2.4 1.7	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1 2.1 2.0 1.6 1.1 1.0 1.9 2.6 2.4 2.1 2.6 3.7 3.4	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.8 1.6 1.1 1.0 .9 1.0 1.9 1.7 1.3 1.9 1.8	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3 5.8 5.5 5.5 6.2 5.7 4.9 6.0 6.5 8.5 7.9	MIN UARY 1.5 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 2.7 3.3 4.6 5.8 5.2 5.0 4.6 4.8 4.9 3.4 4.9 3.4 6.0 5.7	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 3.8 4.3 7.0 9.2 8.4 5.8 4.8 4.4 4.5 6.1	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1 1.1 1.4 4.3 7.0 5.8 4.3 7.0 5.8 3.6 6.3 3.2 1.7 2.8 4.3 7.0 5.8 4.3 7.0 5.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	MAX OCTI 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.0 13.4 13.4 13.4 13.4 13.4 13.4 10.0 9.8 10.7 10.6 10.6	MIN TOBER 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9 10.2 8.8 7.6 8.8 9.6 9.7 8.6 6.9 6.7	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7 5.5 5.8 5.6 4.3 5.0 6.3 5.6	MIN MBER 10.1 8.99 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7 1.9 2.6 4.3 5.5 4.2 3.3 2.7 5.0 3.8	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 2.0 2.0 3.7 3.4 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.3 1.2 1.7 2.4 2.7 2.4 2.7 3.9 3.6 4.0 3.0 2.4 1.7 1.4	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1 2.1 2.1 2.0 1.6 1.1 1.0 1.9 2.6 2.4 2.1 2.6 3.7	MIN UARY 1.0 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 1.6 1.5 1.8 1.8 1.6 1.1 1.0 .9 1.0 1.9 1.7 1.3 1.9	MAX FEBR 2.8 4.7 3.6 2.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3 5.8 5.5 5.5 6.2 5.7 4.9 6.0 6.5 8.5	MIN UARY 1.5 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 2.7 3.3 4.6 5.8 5.2 5.0 4.6 4.8 4.9 3.4 3.2 4.4 6.0	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 3.8 4.3 7.0 9.2 8.4 5.8 4.8 4.8 4.8 4.8	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1 1.4 1.7 2.8 4.3 7.0 5.8 3.6 6.3 3.2 2.2 1.5 1.1 1.4 1.7 2.8 4.3 7.0 5.8 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8.3 8
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 13.0 12.8 13.4 13.4 13.4 12.3 11.1 10.0 9.8 10.7 10.6 10.6 8.7 9.3	MIN TOBER 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9 10.2 8.8 7.6 8.8 9.6 9.7 8.6 6.9	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7 5.5 5.8 5.6 4.3 5.0 6.3 5.6 8.0 9.4	MIN MBER 10.1 8.9 7.6 6.9 7.3 8.0 7.0 4.6 3.9 4.2 4.1 3.3 2.2 1.7 1.9 2.6 4.3 5.5 4.2 3.3 2.7 5.0 3.8 8.0	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 1.9 3.7 3.4 4.3 4.8 4.9 4.0 3.0 2.4 1.7	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.3 1.3 1.2 1.7 2.4 2.7 2.7 3.9 3.6 4.0 3.0 2.4 1.7	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.3 4.6 2.6 2.1 2.1 2.0 1.6 1.1 1.0 1.9 2.6 2.4 2.1 2.6 3.7 3.4 2.9	MIN UARY 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.6 1.1 1.0 .9 1.9 1.9 1.7 1.3 1.9 1.9 1.8 2.0	MAX FEBR 2.8 4.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.0 6.3 5.8 5.5 5.5 6.2 5.7 4.9 6.0 6.5 8.5 7.9	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.5 3.6 3.8 3.3 3.7 3.3 4.6 5.8 5.2 5.0 4.6 4.8 4.9 3.4 3.2 4.4 6.0 5.7	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1 1.1 1.4 4.3 7.0 5.8 4.3 7.0 5.8 3.6 6.3 3.2 1.7 2.8 4.3 7.0 5.8 4.3 7.0 5.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAX OCT 17.3 16.4 17.9 19.1 19.7 19.9 19.8 20.0 19.9 19.6 17.6 17.8 19.0 18.1 15.0 13.0 12.8 13.4 13.4 13.4 10.0 9.8 10.7 10.6 10.6 8.7 9.3 10.2	MIN **COBER** 15.8 13.6 15.0 16.4 16.9 17.2 17.5 17.3 17.7 17.6 15.1 14.3 16.9 15.0 12.5 11.4 11.8 11.6 10.9 11.9 10.2 8.8 7.6 8.8 9.6 9.7 8.6 6.9 9.7 8.6 6.9 7.3	MAX NOVE 11.2 10.9 8.9 7.6 8.7 8.8 8.8 9.2 8.9 8.5 8.1 7.0 4.9 4.7 4.6 4.1 3.3 2.3 3.7 4.7 5.5 5.8 5.6 4.3 5.0 6.3 5.6 8.0 9.4 9.6	MIN MBER 10.1 8.9 7.6 6.9 6.9 7.3 8.0 8.3 8.2 8.0 7.0 4.6 3.9 4.1 3.3 2.2 4.1 3.3 2.2 4.1 5.0 6.9 6.9 7.0 8.8 8.0 8.5	MAX DEC 8.5 6.1 7.1 7.1 5.3 3.6 3.3 3.1 4.2 4.0 3.4 2.9 2.5 2.0 2.0 1.9 3.7 3.4 4.3 4.3 4.3 4.3 4.3 4.7 1.5	MIN EMBER 6.1 5.0 5.3 3.6 3.2 3.0 2.8 3.1 3.4 2.9 2.0 1.9 1.4 1.3 1.2 1.7 2.4 2.7 2.7 3.6 4.0 3.0 2.4 1.7 1.4 1.4	MAX JAN 1.3 2.4 5.5 7.1 7.6 9.5 10.4 9.0 8.1 5.6 4.3 4.6 2.6 2.1 2.1 2.1 2.0 1.6 1.1 1.0 1.9 2.6 2.4 2.1 2.6 3.7 3.4 2.9 2.9	MIN UARY 1.0 2.4 5.5 6.1 7.6 9.0 7.7 5.5 4.3 2.6 3.0 2.6 1.6 1.5 1.8 1.6 1.1 1.0 .9 1.9 1.7 1.3 1.9 1.9 1.7 1.3 1.9 1.8 2.0 2.4	MAX FEBR 2.8 4.7 2.0 2.3 2.1 2.2 2.4 3.6 4.8 4.7 4.6 4.9 4.4 4.6 6.3 5.8 5.5 6.2 5.7 4.9 6.0 6.5 8.5 7.9	MIN UARY 1.5 2.4 2.4 1.7 1.8 1.8 1.4 1.3 1.2 1.5 3.6 3.8 3.3 3.7 3.6 4.6 4.8 5.2 5.0 4.6 4.8 4.9 3.4 3.2 4.4 6.0 5.7	7.3 6.6 5.1 4.3 4.6 5.6 6.2 8.0 8.8 5.9 3.2 2.2 1.5 2.7 2.7 3.8 4.3 7.0 9.2 8.4 5.8 4.4 5.8 6.1 10.2 12.8 13.1 14.8 15.7	SECH 5.7 4.9 4.3 3.8 3.2 3.2 3.6 5.6 5.9 3.2 2.2 1.5 1.1 1.1 1.4 1.7 2.8 4.3 7.0 5.8 3.6 3.8 5.6 9.8 11.1

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Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

395859083440700 CL-138 NR SPRGFLD,OH—Continued
TEMPERATURE, SOIL (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

		Т	EMPERATURE	, SOIL	(DEG. C),	WATER YEAR	R OCTOBER	1997 TO	SEPTEMBER	1998		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	7. 10.	DII	M7.		-	TATE	7777	. 37	ALIC	TTOM:	GEDEE	MDED
	AP	RIL	MA	ĭ		JNE	JUI	ьĭ	AUG	051	SEPTE	MBEK
1	14.6	11.9	14.9	13.7	24.0	21.6	26.9	24.6	24.8	22.1		
2	12.6	10.5	14.7	13.6	24.0	21.1	26.5	24.3	25.1	21.8		
3	11.2	9.4	15.3	13.1	23.0	20.3	26.7	23.9	25.6	22.8		
4	10.1	8.3	16.6	13.2	20.7	19.3	26.2	24.8	24.7	23.4		
5	10.2	6.6	16.6	13.9	20.0	17.6	26.2	24.3	25.0	23.5		
6	11.0	7.5	17.4	14.3	18.8	16.1	26.4	23.9	26.4	23.9		
7	10.4	8.4	16.9	15.9	19.5	16.0	25.8	24.3	27.1	24.5		
8	13.2	10.0	17.6	15.7	19.5	16.8	27.4	25.2	27.1	24.6		
9	12.7	10.7	17.5	16.1	19.0	18.3	27.5	25.3	26.1	24.7		
10	11.4	9.3	18.1	16.1	22.5	18.5	27.0	24.8	26.0	24.6		
	11 0	0 5	15.4	15.0	01 5	00.0	05.5	00 0	05.4	00 8		
11	11.8	8.5	17.4	15.8	21.7	20.2	25.7	22.9	25.4	23.7		
12	12.8	9.1	19.3	15.8	23.7	20.7	26.0	22.5	24.8	23.0		
13	13.1	10.5	19.6	17.0	23.6	21.9	26.4	22.9	24.8	22.4		
14 15	13.5	12.1	21.3	17.3	22.7	20.8	25.8	24.5	24.8	22.9 23.2		
15	13.1	11.1	22.3	18.2	22.3	21.1	25.9	24.8	25.7	23.2		
16	15.7	12.7	23.2	20.2	22.4	21.5	26.6	24.7	25.8	23.2		
17	15.2	12.7	22.5	19.2	24.0	21.4	26.4	23.7	26.4	23.7		
18	13.3	10.9	22.6	18.8	24.9	21.8	26.9	24.1	26.1	24.5		
19	12.1	10.7	22.8	19.1	25.5	23.5	27.2	24.5	25.2	22.6		
20	13.1	9.4	23.9	20.5	25.8	22.9	27.7	25.0	24.8	21.5		
21	13.2	10.8	23.1	20.8	25.3	24.3	29.2	26.1	25.6	22.1		
22	14.2	11.9	21.6	19.3	26.6	23.7	28.3	26.2	25.8	23.2		
23	14.4	12.0	21.1	18.5	26.3	24.5	27.6	26.1	26.4	23.4		
24	15.4	11.5	21.1	19.5	27.3	24.7	26.5	24.4	27.1	24.1		
25	15.2	12.8	20.9	19.9	28.8	26.0	25.2	23.3	27.1	24.7		
26	14.7	13.1	21.2	18.5	28.8	27.0	25.5	22.4	25.8	24.0		
27	13.3	11.2	22.3	18.8	29.5	27.5	25.6	22.9				
28	14.2	10.3	22.8	19.5	29.8	28.0	25.8	23.4				
29	14.0	12.5	23.7	20.3	29.3	27.9	26.3	23.9				
30	14.3	13.5	24.8	21.5	28.0	26.3	25.7	24.4				
31			24.3	23.2			25.2	23.1				
MONTH	15.7	6.6	24.8	13.1	29.8	16.0	29.2	22.4	27.1	21.5		
		. 9										
YEAR	29.8	. 9										
			ECIPITATIO	N, TOTA	L, INCHES,	WATER YE	AR OCTOBE	R 1997 TO	SEPTEMBE	R 1998		
			ECIPITATIO	N, TOTA		, WATER YE AILY SUM V		R 1997 TO	SEPTEMBE	R 1998		
		PR			D.	AILY SUM V	ALUES				ΔIIG	SED
DAY	OCT	PR NOV	DEC	JAN	D. FEB	AILY SUM V MAR	APR	MAY	JUN	JUL	AUG	SEP
DAY 1	OCT	PR NOV .07	DEC	JAN	FEB	AILY SUM V MAR .00	APR	MAY .03	JUN	JUL	.00	
DAY 1 2	OCT .00 .00	PR NOV .07 .01	DEC .00 .00	JAN .01 .00	D. FEB .00	AILY SUM V MAR .00 .00	APR .00 .00	MAY .03 .02	JUN .00 .00	JUL .06 .04	.00	
DAY 1 2 3	OCT .00 .00	NOV .07 .01	DEC .00 .00	JAN .01 .00	D FEB .00 .00	AILY SUM V MAR .00 .00 .04	APR .00 .00 .04	MAY .03 .02 .17	JUN .00 .00	JUL .06 .04 .01	.00	
DAY 1 2 3 4	OCT .00 .00 .02 .00	NOV .07 .01 .08	DEC .00 .00 .20	JAN .01 .00 .01	D FEB .00 .00 .00	AILY SUM V MAR .00 .00 .04 .04	APR .00 .00 .04 .03	MAY .03 .02 .17	JUN .00 .00 .06	JUL .06 .04 .01	.00 .00 .00	
DAY 1 2 3	OCT .00 .00	NOV .07 .01	DEC .00 .00	JAN .01 .00	D FEB .00 .00 .00	AILY SUM V MAR .00 .00 .04	APR .00 .00 .04	MAY .03 .02 .17	JUN .00 .00	JUL .06 .04 .01	.00	
DAY 1 2 3 4	OCT .00 .00 .02 .00	NOV .07 .01 .08	DEC .00 .00 .20	JAN .01 .00 .01	D FEB .00 .00 .00 .00 .00	AILY SUM V MAR .00 .00 .04 .04	APR .00 .00 .04 .03	MAY .03 .02 .17	JUN .00 .00 .06	JUL .06 .04 .01	.00 .00 .00	
DAY 1 2 3 4 5	OCT .00 .00 .02 .00	NOV .07 .01 .08 .02	DEC .00 .00 .20 .00	JAN .01 .00 .01 .01	D FEB .00 .00 .00 .00	MAR .00 .00 .00 .04 .04 .01 .00	APR .00 .00 .00 .04 .03 .00 .00	MAY .03 .02 .17 .00 .00	JUN .00 .00 .06 .00	JUL .06 .04 .01 .04	.00 .00 .00 .02	
DAY 1 2 3 4 5	OCT .00 .00 .02 .00	NOV .07 .01 .08 .02 .00 .00	DEC .00 .00 .20 .00 .01	JAN .01 .00 .01 .01 .01	D FEB .00 .00 .00 .00 .00	AILY SUM V MAR .00 .00 .04 .04 .01 .00	APR .00 .00 .00 .04 .03 .00 .00 .00 .00	MAY .03 .02 .17 .00	JUN .00 .00 .06 .00 .04	JUL .06 .04 .01 .04 .03	.00 .00 .00 .02 .09	
DAY 1 2 3 4 5 6 7	OCT .00 .00 .02 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .02	DEC .00 .00 .20 .00 .01	JAN .01 .00 .01 .01 .08 .12 .69	D FEB .00 .00 .00 .00	MAR .00 .00 .00 .04 .04 .01 .00	APR .00 .00 .00 .04 .03 .00 .00	MAY .03 .02 .17 .00 .00	JUN .00 .00 .06 .00 .04 .00	JUL .06 .04 .01 .04 .03	.00 .00 .00 .02 .09	
DAY 1 2 3 4 5 6 7 8	OCT .00 .00 .02 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .02 .00	DEC .00 .00 .20 .00 .01 .00 .01	JAN .01 .00 .01 .01 .08 .12 .69	D FEB .000 .000 .000 .000 .177 .000 .000	MAR .00 .00 .04 .04 .01 .00 .00 .12	ALUES APR .00 .00 .04 .03 .00 .00 .05	MAY .03 .02 .17 .00 .00 .00 1.36 .02	JUN .00 .00 .06 .00 .04 .00 .00	JUL . 06 . 04 . 01 . 04 . 03 . 03 . 01 . 02	.00 .00 .00 .02 .09 .00	
DAY 1 2 3 4 5 6 7 8 9 10	OCT .00 .00 .02 .00 .00 .00 .00 .01 .00	NOV .07 .01 .08 .02 .00 .00 .00 .00 .00 .01	DEC .00 .00 .20 .00 .01 .00 .01 .00 .01	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06	D FEB .000 .000 .000 .000 .000 .000 .001 .000	MAR .00 .00 .04 .04 .01 .00 .00 .12 .32 .01	APR .00 .00 .04 .03 .00 .00 .05 .25 .98 .00	MAY .03 .02 .17 .00 .00 .00 .00 1.36 .02 .00 .00	JUN .00 .00 .06 .00 .04 .00 .00 .00 .00	JUL .06 .04 .01 .04 .03 .03 .03 .01 .02 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16	
DAY 1 2 3 4 5 6 7 8 9 10	OCT .00 .00 .02 .00 .00 .00 .00 .01 .00 .14 .01	NOV .07 .01 .08 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00	D FEB .000 .000 .000 .000 .177 .000 .001 .001	AILY SUM V MAR .00 .00 .04 .04 .01 .00 .00 .12 .32 .01 .01	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .000 .000 .	JUN .00 .00 .06 .00 .04 .00 .00 .00 .00 .00	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21	
DAY 1 2 3 4 5 6 7 8 9 10 11 12	OCT .00 .00 .02 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .01 .00 .04 .16 .00 .00	JAN .01 .00 .01 .01 .01 .08 .12 .69 .07 .06 .00 .00	DFEB .000 .000 .000 .000 .000 .000 .001 .000 .001 .000 .001 .000 .005 .005	MAR .00 .00 .04 .04 .01 .00 .00 .00 .00 .01 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .00 .00 .00 .00 .06 .00 .38 .67	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	OCT .00 .00 .02 .00 .00 .00 .00 .01 .01 .01 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .01 .00 .00 .10	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .000	D FEB .00 .00 .00 .00 .00 .17 .00 .00 .01 .00	MAR .00 .00 .04 .04 .01 .00 .00 .00 .01 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .00 .00 .00	MAY .03 .02 .17 .00 .00 .00 .00 1.36 .02 .00 .00 .00 .00 .00 .00 .00	JUN .00 .00 .06 .00 .04 .00 .00 .00 .00 .00 .06 .00 .38 .67	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	OCT .00 .00 .02 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .01 .00 .00 .01 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .05 .01	D FEB .000 .000 .000 .000 .000 .011 .000 .277 .055 .000	AILY SUM V MAR .00 .00 .04 .04 .01 .00 .00 .12 .32 .01 .01 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .00 .01	MAY .03 .02 .17 .00 .00 .00 .00 1.36 .02 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .00 .06 .00 .04 .00 .00 .06 .00 .06 .00 .06 .00 .38 .67 .03 .19	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13	OCT .00 .00 .02 .00 .00 .00 .00 .01 .01 .01 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .01 .00 .00 .10	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .000	D FEB .00 .00 .00 .00 .00 .17 .00 .00 .01 .00	MAR .00 .00 .04 .04 .01 .00 .00 .00 .01 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .00 .00 .00	MAY .03 .02 .17 .00 .00 .00 .00 1.36 .02 .00 .00 .00 .00 .00 .00 .00	JUN .00 .00 .06 .00 .04 .00 .00 .00 .00 .00 .06 .00 .38 .67	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14	OCT .00 .00 .02 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .01 .00 .00 .01 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .05 .01	D FEB .000 .000 .000 .000 .000 .011 .000 .277 .055 .000	AILY SUM V MAR .00 .00 .04 .04 .01 .00 .00 .12 .32 .01 .01 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .00 .01	MAY .03 .02 .17 .00 .00 .00 .00 1.36 .02 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .00 .06 .00 .04 .00 .00 .06 .00 .06 .00 .06 .00 .38 .67 .03 .19	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	OCT .00 .00 .02 .00 .00 .00 .00 .00 .00 .01 .01 .00 .00	NOV .07 .01 .08 .02 .00 .00 .01 .00 .00 .01 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .00 .05 .01	DFEB .000 .000 .000 .000 .17 .000 .001 .000 .27 .05 .000 .000 .000	MAR .00 .00 .04 .04 .01 .00 .00 .02 .32 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .00 .01 .01	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21 .01 .00 .00	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	OCT .00 .00 .02 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .00 .05 .01 .02	DFEB .000 .000 .000 .000 .011 .000 .227 .055 .000 .000 .000 .000 .000 .000 .00	AILY SUM V MAR .00 .00 .04 .04 .01 .00 .12 .32 .01 .01 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .03 .02 .17 .00 .00 .00 1.36 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .00 .06 .00 .04 .00 .00 .06 .00 .38 .67 .03 .19 .38	JUL .06 .04 .01 .04 .03 .03 .03 .01 .02 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21 .01	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	OCT .00 .00 .02 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .00 .00 .05 .01 .02	DFEB .000 .000 .000 .000 .010 .000 .000 .00	MAR .00 .00 .04 .04 .01 .00 .00 .12 .32 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .00 .01 .00 .01	MAY .03 .02 .17 .00 .00 .00 .00 1.36 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21 .01 .00 .00	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	OCT .00 .00 .02 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .05 .01 .02 .00 .06 .01	DFEB .000 .000 .000 .000 .001 .000 .000 .00	MAR .00 .00 .00 .04 .04 .01 .00 .00 .00 .01 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .00 .01 .01 .01 .03 .71 .00 .00	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	OCT .00 .00 .02 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .01 .00 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .05 .01 .02 .00 .06 .01 .00 .00 .00 .00	DFEB .000 .000 .000 .000 .000 .017 .000 .01 .000 .01 .000 .27 .05 .000 .000 .000 .000 .000 .000 .000	MAR .00 .00 .04 .04 .01 .00 .00 .00 .01 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .01 .01 .01 .03 .71 .00 .00 .16	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	OCT .00 .00 .02 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .01 .00 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .05 .01 .02 .00 .06 .01 .00 .00 .00 .00 .00 .00	DFEB .000 .000 .000 .000 .000 .017 .000 .01 .000 .01 .000 .277 .055 .000 .000 .000 .000 .000 .000 .0	MAR .00 .00 .04 .04 .01 .00 .00 .00 .01 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .00 .01 .01 .03 .71 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	OCT .00 .00 .02 .00 .00 .00 .00 .00 .14 .01 .00 .00 .09 .05 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .011 .000 .011 .011 .088 .122 .699 .077 .066 .000 .000 .005 .011 .022 .000 .066 .011 .000 .000 .000 .000 .000	DFEB .000 .000 .000 .000 .000 .017 .000 .011 .000 .227 .055 .000 .000 .220 .144 .011 .055 .000 .000	AILY SUM V MAR .00 .00 .04 .04 .01 .00 .12 .32 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .00 .01 .01 .03 .71 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .03 .02 .17 .00 .00 .00 1.36 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01	JUL .06 .04 .01 .04 .03 .03 .03 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	OCT .00 .00 .02 .00 .00 .00 .00 .00 .14 .01 .00 .09 .05 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .01 .00 .01 .01 .08 .12 .69 .06 .00 .00 .00 .00 .01 .02 .00 .06 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	DFEB .000 .000 .000 .000 .000 .000 .017 .000 .001 .000 .000	MAR	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .03 .71 .00 .00 .01 .03 .71 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .03 .02 .17 .00 .00 .00 .00 1.36 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01 .00	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	OCT .00 .00 .02 .00 .00 .00 .00 .00 .14 .01 .00 .09 .05 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .05 .01 .02 .00 .06 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	DFEB .000 .000 .000 .000 .000 .017 .000 .01 .000 .027 .055 .000 .000 .000 .000 .000 .000 .00	MAR .00 .00 .00 .04 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .01 .01 .03 .71 .00 .00 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01 .00 .01 .00	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	OCT .00 .00 .02 .00 .00 .00 .00 .00 .14 .01 .00 .09 .05 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .01 .00 .01 .01 .08 .12 .69 .00 .00 .00 .00 .00 .00 .05 .01 .02 .00 .06 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	DFEB .000 .000 .000 .000 .000 .017 .000 .01 .000 .027 .055 .000 .000 .000 .000 .000 .000 .00	MAR	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .01 .03 .71 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01 .00 .01 .03 .03 .03 .03	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	OCT .00 .00 .02 .00 .00 .00 .00 .00 .14 .01 .00 .09 .05 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .01 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .05 .01 .02 .00 .06 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	DFEB .000 .000 .000 .000 .000 .017 .000 .001 .000 .027 .055 .000 .000 .000 .000 .000 .000 .00	MAR .00 .00 .00 .04 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .01 .01 .03 .71 .00 .00 .16 .00 .07 .02 .00 .00 .04 .43	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01 .00 .01 .00 .01 .03 .03 .03 .02	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	OCT .00 .00 .02 .00 .00 .00 .00 .00 .14 .01 .00 .09 .05 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .01 .00 .01 .01 .08 .12 .69 .00 .00 .00 .00 .00 .00 .05 .01 .02 .00 .06 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	DFEB .000 .000 .000 .000 .000 .017 .000 .01 .000 .027 .055 .000 .000 .000 .000 .000 .000 .00	MAR	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .01 .03 .71 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01 .00 .01 .03 .03 .03 .03	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	OCT .00 .00 .02 .00 .00 .00 .00 .00 .14 .01 .00 .09 .05 .00 .00 .00 .00 .00 .00 .00 .00 .00	NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .01 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .05 .01 .02 .00 .06 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	DFEB .000 .000 .000 .000 .000 .017 .000 .001 .000 .027 .055 .000 .000 .000 .000 .000 .000 .00	MAR .00 .00 .00 .04 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .01 .01 .03 .71 .00 .00 .16 .00 .07 .02 .00 .00 .04 .43	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01 .00 .01 .00 .01 .03 .03 .03 .02	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	OCT .00 .00 .02 .00 .00 .00 .00 .00 .14 .01 .00 .09 .05 .00 .00 .00 .00 .00 .00 .00 .00 .00	PR NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .01 .00 .00 .01 .00 .00	DEC .00 .00 .20 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .011 .000 .011 .011 .08 .122 .699 .077 .066 .000 .000 .000 .001 .002 .000 .006 .011 .000 .000 .008 .04 .03 .000 .000 .000 .000 .000 .000 .	DFEB .000 .000 .000 .000 .000 .017 .000 .01 .000 .027 .055 .000 .000 .001 .005 .000 .002 .04 .011 .005 .000 .002 .004 .001 .000 .001	AILY SUM V MAR .00 .00 .04 .04 .01 .00 .12 .32 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .01 .03 .71 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01 .00 .01 .03 .03 .03 .02	JUL .06 .04 .01 .03 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	OCT .00 .00 .02 .00 .00 .00 .00 .00 .01 .00 .00 .00 .00	PR NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .01 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .00 .00 .00 .00 .00 .00	DFEB .000 .000 .000 .000 .000 .017 .000 .01 .000 .027 .055 .000 .000 .000 .000 .000 .000 .00	AILY SUM V MAR .00 .00 .04 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .01 .01 .03 .71 .00 .00 .16 .00 .07 .02 .00 .00 .01 .01 .01 .01 .01 .01 .01 .01	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01 .00 .01 .00 .01 .03 .03 .03 .02 .03 .00 .00 .03	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	OCT .00 .00 .02 .00 .00 .00 .00 .00 .14 .01 .00 .09 .05 .00 .00 .00 .00 .00 .00 .00 .00 .00	PR NOV .07 .01 .08 .02 .00 .00 .00 .00 .01 .00 .00 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .011 .000 .011 .011 .08 .122 .699 .077 .06 .000 .000 .001 .022 .000 .06 .011 .000 .000 .000 .000 .000	DFEB .000 .000 .000 .000 .000 .017 .000 .001 .000 .000	AILY SUM V MAR .00 .00 .04 .04 .01 .00 .00 .12 .32 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .01 .03 .71 .00 .00 .16 .00 .00 .01 .03 .71 .00 .00 .11	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01 .03 .03 .03 .02 .03 .03 .00 .00 .03	JUL .06 .04 .01 .04 .03 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	
DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	OCT .00 .00 .02 .00 .00 .00 .00 .00 .01 .00 .00 .00 .00	PR NOV .07 .01 .08 .02 .00 .00 .00 .01 .00 .00 .01 .00 .00 .00	DEC .00 .00 .20 .00 .01 .00 .01 .00 .04 .16 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JAN .01 .00 .01 .01 .08 .12 .69 .07 .06 .00 .00 .00 .00 .00 .00 .00 .00 .00	DFEB .000 .000 .000 .000 .000 .017 .000 .01 .000 .027 .055 .000 .000 .000 .000 .000 .000 .00	AILY SUM V MAR .00 .00 .04 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00	APR .00 .00 .04 .03 .00 .05 .25 .98 .00 .00 .01 .01 .01 .03 .71 .00 .00 .16 .00 .00 .01 .43 .01 .00 .11 .28	MAY .03 .02 .17 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	JUN .00 .00 .06 .00 .04 .00 .06 .00 .06 .00 .38 .67 .03 .19 .38 .07 .06 .01 .00 .01 .00 .01 .00 .01 .03 .03 .03 .02 .03 .00 .00 .03	JUL .06 .04 .01 .04 .03 .03 .01 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .02 .09 .00 .16 .00 .21 .01 .00 .00 .00 .00 .00 .00 .00 .00 .0	

WTR YR 1998 TOTAL 17.97

Effects of Highway Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio

395859083440700 CL-138 NR SPRGFLD, OH-Continued

DEICING SALT LBS/LANE-MILE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3												
4					133	200						
5					133	200						
6												
7												
8												
9												
10												
11						200						
12												
13												
14												
15		480		100								
16												
17				200								
18												
19												
20												
21						200						
22												
23												
24				100								
25												
26												
27												
28												
29												
30												
31												
TOTAL		480		400	266	800						

WTR YR 1998 TOTAL 1946

277

Geochemistry and Ground-Water Flow Beneath an Abandoned Coal Mine Treated with Flue-Gas Desulfurization By-Products as Soil and Spoil Amendments

The following tables list ground-water levels and chemical analyses of interstitial-, ground-, and surface-water samples collected from an abandoned mine site that has been reclaimed in part by application of a coal-combustion by-product, also known as flue-gas desulfurization (FGD) by-product. Water levels in wells were measured periodically. The fifth round of water-quality analyses from ground- and surface-water samples are presented herein. Additionally, interstitial waters were sampled by use of soil-suction lysimeters. The lysimeters produced only small amounts of water; thus, chemical analyses for interstitial water are incomplete.

The site selected for study is in Tuscarawas County, Ohio, and is also known as the Fleming abandoned mine site. FGD by-products are produced as a result of injection of dolostone slurry through the flue gases of coal-burning utilities that use high-sulfur coals as fuel. Beneficial uses of the by-products are being developed, and their environmental effects are being assessed.

The following site description applies to all wells, soil-suction lysimeters, and surface-water sites used for this study.

LOCATION.--Hydrologic Unit 05040001, approximately 1.5 mi northwest of the city of Dover, Ohio; 0.5 mi west of Interstate I-77.

AQUIFER.--Sandstones and coals of Allegheny and Conemaugh Groups, of middle and lower Pennsylvanian Age. INSTRUMENTATION.--Periodic measurement of water level with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is given in feet above National Geodetic Vertical Datum of 1983, surveyed using Total Station with reference points established by global positioning system, accurate to 0.01 ft

PERIOD OF RECORD.--Mar. 1995 to current year for wells TU-100 through TU-114; Dec. 1995 to current year for wells TU-115 through TU-119.

REMARKS.--These sites are used for chemical-quality sampling only as part of a cooperative study with The Ohio State University.

WELL, SOIL-SUCTION LYSIMETER, AND SURFACE-WATER SITE DESCRIPTIONS

				CASING INNER			DEPTH (FT		
LOCAL	SITE	LATITUDE	LONGITUDE D	IAMETER	R LSD	MP	BELOW	SCREEN	INTERVAL
NUMBER	ID	(DMS)	(DMS)	(IN)	(FT)	(FT)	LSD)	TOP	BOTTOM
			Ground-w	ater we	ells				
TU-100-W1S	403321081311901	40 33 21	081 31 19	6	1078.90	1081.48	68.00	1022.90	1012.90
TU-101-W1D	403321081311902	40 33 21	081 31 19	6	1079.05	1081.79	98.00	993.05	983.05
TU-102-W2	403319081312000	40 33 19	081 31 20	6	1079.99	1082.64	68.00	1023.99	1013.99
TU-103-W3S	403315081312301	40 33 15	081 31 23	6	1072.89	1075.38	70.00	1014.89	1004.89
TU-104-W3D	403315081312302	40 33 15	081 31 23	6	1072.93	1075.53	86.00	998.93	988.93
TU-105-W4S	403313081311901	40 33 13	081 31 19	6	1047.80	1050.49	46.00	1013.80	1003.80
TU-106-W4I	403313081311902	40 33 13	081 31 19	6	1047.32	1050.19	63.50	995.82	985.82
TU-107-W4D	403313081311903	40 33 13	081 31 19	6	1046.58	1049.19	100.00	958.58	948.58
TU-108-W5SP	403312081311401	40 33 12	081 31 14	6	1045.84	1048.53	16.00	1036.84	1031.84
TU-109-W5D	403312081311402	40 33 12	081 31 14	6	1045.90	1048.53	38.00	1019.90	1009.90
TU-110-W6S	403315081311001	40 33 15	081 31 10	6	1051.18	1053.81	43.00	1020.18	1010.18
TU-111-W6D	403315081311002	40 33 15	081 31 10	6	1051.62	1054.02	60.00	1003.62	993.62
TU-112-W7	403320081311000	40 33 20	081 31 10	6	1059.13	1061.75	53.00	1018.13	1008.13
TU-113-W8S	403323081311601	40 33 23	081 31 16	6	1076.57	1079.26	68.00	1020.57	1010.57
TU-114-W8D	403323081311602	40 33 23	081 31 16	6	1075.54	1078.26	92.00	995.54	985.54
TU-115-W9	403316081310600	40 33 16	081 31 06	2	1049.88	1051.38	49.00	1012.88	1002.88
TU-116-W10	403314081311500	40 33 14	081 31 15	2	1053.53	1055.33	57.00	1008.53	998.53
TU-117-W11	403316081311300	40 33 16	081 31 13	2	1055.69	1057.18	58.00	1009.69	999.69
TU-118-W12	403318081311200	40 33 18	081 31 12	2	1057.07	1059.14	57.60	1011.47	1001.47
TU-119-W13	403321081311400	40 33 21	081 31 14	2	1070.98	1072.71	70.00	1012.98	1002.98
			Soil-sucti	on lysi	meters				
TU-131-L1A-2.5	403316081311102	40 33 16	081 31 11				2.50		
TU-132-L1A-3.5	403316081311103						3.50		
TU-135-L1B-3.5	403316081311106				= =		3.50		
TU-139-L2B-1.5	403313081311404	40 33 13	091 31 14				1.50		
TU-143-L3A-4.5B	403314081311802	40 33 14	081 31 18				4.50		
TU-148-L3C-2.5	403314081311807	10 33 11	001 31 10				2.50		
TU-157-L4C-2.5UP	403315081312108						2.50		
TU-158-L4C-3.5UP	403315081312109						3.50		
TU-159-L5A-1.5	403316081310501	40 33 16	081 31 05				2.50		
TU-160-L5A-2.5	403316081310502						2.50		
TU-162-L5B-1.5	403316081310504						1.50		
TU-164-L5B-3.5	403316081310506						3.50		
FFT. 100	402050001211222	40.20.50	Surface-						
TU-120	403258081311900	40 32 58	081 31 19						
TU-124	403311081311600	40 33 11	081 31 16						
TU-125	403304081305700	40 33 04	081 30 57						

Geochemistry and Ground-Water Flow Beneath an Abandoned Coal Mine Treated with Flue-Gas Desulfurization By-Products as Soil and Spoil Amendments

WATER LEVELS IN GROUND-WATER WELLS

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER- LEVEL DATE	WATER LEVEL (FT BELOW LAND SURFACE)	ALTITUDE OF LAND SURFACE (FEET)
SIIE ID	LOCAL WELL NOMBER	(1.001)	CODE	DAIL	DAND DORFACE)	(FBBI)
403321081311901	TU-100-W1S	68.0	324ALGN	19971001	42.63	1078.90
				19971110	43.37	
				19971204	43.54	
				19980129	43.82	
				19980313	44.18	
				19980423	43.33	
				19980615	42.03	
403321081311902	TU-101-W1D	98.0	324PSVL	19971001	42.36	1079.05
				19971110	43.12	
				19971204	43.32	
				19980129	43.72	
				19980313	44.08	
				19980423	43.26	
				19980615	41.96	
403319081312000	TU-102-W2	68.0	324ALGN	19971001	44.30	1079.99
				19971110	44.93	
				19971204	45.10	
				19980129	45.20	
				19980313	45.48	
				19980423 19980615	44.70 43.50	
						4000
03315081312301	TU-103-W3S	70.0	324ALGN	19971001	40.52	1072.89
				19971110	41.04	
				19971204	41.11	
				19980129	40.87 40.95	
				19980313 19980423	40.95	
				19980423	39.65	
403315081312302	TU-104-W3D	86.0	324PSVL	19971001	40.31	1072.93
100010001012002	10 101 1102	00.0	3211312	19971110	40.80	1072.33
				19971204	40.93	
				19980129	40.66	
				19980313	40.97	
				19980423	40.25	
				19980615	39.46	
403313081311901	TU-105-W4S	46.0	324ALGN	19971001	15.74	1047.80
				19971110	16.35	
				19971204	16.45	
				19980129	16.15	
				19980313	16.41	
				19980423	15.74	
				19980615	14.76	
403313081311902	TU-106-W4I	63.5	324PSVL	19971001	39.20	1047.32
				19971110	39.10	
				19971204	39.06	
				19980129	38.93	
				19980313	38.96	
				19980423 19980615	38.57 38.61	
				19960013		
403313081311903	TU-107-W4D	100.0	324PSVL	19971001 19971110	64.67 64.64	1046.58
				19971110	64.48	
				19980129	64.03	
				19980313	63.84	
				19980423	63.28	
				19980615	63.39	
403312081311401	TU-108-W5SP	15.0	324ALGN	19971001	13.15	1045.84
				19971110	dry	
				19971204	dry	
				19980129	11.14	
				19980313	11.03	
				19980423	10.80	
				19980615	10.67	

Geochemistry and Ground-Water Flow Beneath an Abandoned Coal Mine Treated with Flue-Gas Desulfurization By-Products as Soil and Spoil Amendments

WATER LEVELS IN GROUND-WATER WELLS-Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER- LEVEL DATE	WATER LEVEL (FT BELOW LAND SURFACE)	ALTITUDE OF LAND SURFACE (FEET)
5112 15	Decide Webs Norman	(1221)	0022	21112	DIALD CONTINUE,	(1221)
403312081311402	TU-109-W5D	38.0	324ALGN	19971001	14.07	1045.90
				19971110	14.79	
				19971204	14.76	
				19980129 19980313	14.03 14.14	
				19980423	13.55	
				19980615	12.83	
403315081311001	TU-110-W6S	43.0	324ALGN	19971001	16.30	1051.18
				19971110 19971204	17.31 17.28	
				19980129	17.02	
				19980313	17.03	
				19980423	16.13	
				19980615	15.17	
403315081311002	TU-111-W6D	60.0	324PSVL	19971001 19971110	16.75 17.63	1051.62
				19971204	17.81	
				19980129	17.55	
				19980313	17.54	
				19980423	16.59	
				19980615	15.66	
403320081311000	TU-112-W7	53.0	324ALGN	19971001	24.64	1059.13
				19971110	25.42	
				19971204	25.52	
				19980129 19980313	25.44 25.55	
				19980423	24.59	
				19980615	23.23	
403323081311601	TU-113-W8S	68.0	324ALGN	19971001	40.22	1076.57
				19971110	40.93	
				19971204	41.10	
				19980129	41.49	
				19980313	41.87	
				19980423 19980615	41.01 39.69	
402202001211600	WW 114 WOD	00.0	20400111			1055 54
403323081311602	TU-114-W8D	92.0	324PSVL	19971001 19971110	39.18 39.88	1075.54
				19971204	40.08	
				19980129	40.45	
				19980313	40.84	
				19980423	39.97	
				19980615	38.67	
403316081310600	TU-115-W9	49.0	324ALGN	19971001	15.87	1049.88
				19971110	16.76	
				19971204 19980129	16.76 16.54	
				19980313	16.54	
				19980423	15.60	
				19980615	14.23	
403314081311500	TU-116-W10	57.0	324ALGN	19971001	20.60	1053.53
				19971110	21.22	
				19971204	21.32 21.15	
				19980129 19980313	21.15	
				19980423	20.64	
				19980615	19.73	
403316081311300	TU-117-W11	58.0	324ALGN	19971001	20.33	1055.69
				19971110	20.97	
				19971204	21.24	
				19980129 19980313	21.29 21.47	
				19980423	20.60	
				19980615	19.35	

Geochemistry and Ground-Water Flow Beneath an Abandoned Coal Mine Treated with Flue-Gas Desulfurization By-Products as Soil and Spoil Amendments

WATER LEVELS IN GROUND-WATER WELLS-Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER- LEVEL DATE	WATER LEVEL (FT BELOW LAND SURFACE)	ALTITUDE OF LAND SURFACE (FEET)
403318081311200	TU-118-W12	57.6	324ALGN	19971001 19971110 19971204 19980129 19980313 19980423 19980615	21.88 22.65 22.77 22.85 23.03 22.14 20.81	1057.07
403321081311400	TU-119-W13	70.0	324ALGN	19971001 19971110 19971204 19980129 19980313 19980423 19980615	35.52 36.25 36.40 36.57 36.79 35.91 34.58	1070.98

LOCAL NUMBER	DATE	TIME	DEPTH TO WATER (FT BELOW LSD)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	REDOX POT- ENT- IAL (MV)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TURBID- ITY (NTU)	OXYGEN DIS- SOLVED (MG/L)	HARD- NESS (MG/L) AS CACO3)	ACID- ITY (MG/L AS CACO3)
					Groun	ıd water						
TU-100-W1S	980615	1900	44.61	3140	5.8	139	25	13.0	2	<0.10	1800	13.6
TU-101-W1D	980616	1730	41.96	1980	7.3	25	23	15.0	54	0.10	720	0.2
TU-102-W2	980616	800	43.50	3570	5.5	149	22	12.0	0	<0.10	1700	16.1
TU-103-W3S	980616	1130	43.50	2690	6.1	118	23	12.0	9	<0.10	1400	3.5
TU-104-W3D	980616	1000	39.46	2710	6.3	113	22	12.0	1	<0.10	1600	2.1
TU-105-W4S	980617	800	14.76	2630	5.6	153	21	12.0	5	<0.10	1700	12.2
TU-106-W4I	980617	1000	38.61	3050	5.7	162	22	13.0	45	0.80	1900	13.4
TU-107-W4D	980618	800	63.65	1670	6.6	78	20	15.0	8	<0.10	900	0.5
TU-108-W5SP	980617	1100	10.67	2290	3.9	383	24	15.0	11		1200	7.5
TU-109-W5D	980616	1330	12.83	2670	5.2	193	23	13.0	6	<0.10	1600	12.0
TU-110-W6S	980616	1530	15.17	4150	5.2	216	23	13.0	108	<0.10	2000	31.2
TU-111-W6D	980617	1300	22.47	3540	5.5	204	24	14.0	9	0.10	2400	24.0
TU-112-W7	980618	1130	23.23	2260	5.8	140	25	13.0	5	<0.10	1500	6.4
TU-113-W8S	980615	1500	42.38	2010	5.9	112	23	13.0		<0.10	1400	5.6
TU-114-W8D	980615	1700	41.39	2220	5.8	121	25	13.0	1	<0.10	1500	8.5
10 111 1105	300013	1,00	11.00	2220	5.0		23	13.0	-	10.10	1500	0.5
TU-115-W9	980618	1000	14.23	3030	5.5	220	23	14.0	2	<0.10	1500	8.4
TU-116-W10	980615	1300	21.53	3750	5.4	209	27	15.0	7	<0.10	1700	12.2
TU-117-W11	980617	1630	19.35	3830	5.6	193	27	16.0	7	<0.10	2000	12.4
TU-118-W12	980617	1430	20.81	2870	5.7	191	26	15.0	3	<0.10	1800	7.3
TU-119-W13	980617	1930	34.58	3350	5.9	163	27	14.0	1	<0.10	1700	10.2
mii 121 113 0 5	000610	1200	2.5	7570	Intersti 4.1	tial wa. 	ter				6000	
TU-131-L1A-2.5	980618	1300			5.8						6800	
TU-132-L1A-3.5	980618	1310	3.5	6780							5600	
TU-135-L1B-3.5	980618	1320	3.5	3540	4.1						3942	
TU-139-L2B-1.5	980618	1330	1.5	5480	7.1						4600	
TU-143-L3A-4.5B	980618	1340	4.5	4620	5.9						3500	
TU-148-L3C-2.5	980618	1350	2.5	4190	6.3						3200	
TU-157-L4C-2.5UP	980618	1400	2.5	4240	6.1						3100	
TU-158-L4C-3.5UP	980618	1410	3.5	4050	6.3						3000	
TU-159-L5A-1.5	980618	1420	1.5	1850	3.9						900	
TU-160-L5A-2.5	980618	1430	2.5	2250	4.6						1200	
TU-162-L5B-1.5	980618	1440	1.5	2610	3.7						1200	
TU-164-L5B-3.5	980618	1500	3.5	2080	6.0						980	
						ce wateı						
TU-120	980624	1230		1510	4.0	430	27	23.0	4	7.50	790	0.9
TU-124	980624	1100		1320	3.7	361	26	25.0	19	8.30	230	0.1
TU-125	980624	1400		570	6.5	307	30	20.0	17	9.10	670	0.1

PROJECT DATA Geochemistry and Ground-Water Flow Beneath an Abandoned Coal Mine Treated with Flue-Gas Desulfurization By-Products as Soil and Spoil Amendments

							ALKA-				
						BI-	LIN-				
		C3 T CTT34	MAGNE-	CODITION	POTAS-	CARB-	ITY	SULF-	CHLOR-		SILICA
		CALCIUM		SODIUM	SIUM	ONATE	WATER	ATE	IDE	IDE	DIS-
		DIS- SOLVED	DIS- SOLVED	DIS- SOLVED	DIS- SOLVED	IT-FLD (MG/L	WHOLE FIELD	DIS- SOLVED	DIS- SOLVED		SOLVED (MG/L
LOCAL		SOLVED (MG/L	SOLVED (MG/L	SOLVED (MG/L	SOLVED (MG/L	(MG/L AS	(MG/L AS	SOLVED (MG/L	SOLVED (MG/L	(MG/L	AS
NUMBER	DATE	AS CA)	AS MG)	AS NA)	AS K)	HCO3)	CAC03)	AS SO4)	AS CL)	AS F)	SIO2)
NONDER	DAIL	AD CA)	Ab Ma)	AD NA)	AD IC	110057	CACU3)	AD DOT	Ab Cl)	AD F)	51027
				Gr	ound wate	er					
TU-100-W1S	980615	358.5	217.90	12.60	14.90	85	74	2603	40.0	<0.1	12.00
TU-101-W1D	980616	177.2	67.40	165.60	7.80	251	206	988	<1.0	< 0.1	9.00
TU-102-W2	980616	338.2	206.80	10.50	14.70	73	58	2638	40.0	<0.1	10.00
TU-103-W3S	980616	306.0	156.40	7.80	6.60	98	80	1524	<1.0	<0.1	10.00
TU-104-W3D	980616	394.6	150.70	9.40	7.50	149	121	1688	<1.0	<0.1	10.00
TU-105-W4S	980617	345.4	206.60	9.00	11.30	63	51	2561	41.0	<0.1	11.00
TU-106-W4I	980617	385.0	221.50	9.30	10.90	76	64	2644	40.0	< 0.1	11.00
TU-107-W4D	980618	242.7	80.20	13.10	13.20	237	197	853	<1.0	<0.1	8.00
TU-108-W5SP	980617	195.0	169.00	6.60	8.20			1813	43.0	1.0	30.00
TU-109-W5D	980616	304.4	204.20	8.60	9.00	39	26	2268	41.0	<0.1	14.00
TU-110-W6S	980616	314.1	293.50	9.10	11.60	38	32	4042	42.0	4.0	8.00
TU-111-W6D	980617	412.7	332.20	12.90	13.40	85	69	4042	40.0	1.0	15.00
TU-112-W7	980618	314.0	164.20	10.70	9.70	88	70	1951	<1.0	<0.1	10.00
TU-113-W8S	980615	315.4	157.30	7.90	6.80	110	89	1711	41.0	<0.1	13.00
TU-114-W8D	980615	338.7	170.30	9.70	7.20	120	96	1894	40.0	<0.1	12.00
10 114 WOD	200013	330.7	170.50	5.70	7.20	120	50	1074	40.0	٧٥.1	12.00
TU-115-W9	980618	319.9	179.90	9.30	11.30	56	44	2140	40.0	<0.1	11.00
TU-116-W10	980615	338.8	217.80	9.40	11.40	46	38	2414	40.0	< 0.1	10.00
TU-117-W11	980617	401.5	245.00	10.90	10.80	85	61	2856	42.0	<0.1	13.00
TU-118-W12	980617	383.4	198.40	12.50	11.10	63	59	2445	40.0	< 0.1	11.00
TU-119-W13	980617	348.0	191.70	11.00	7.90	68	53	2420	<1.0	<0.1	10.00
				Inter	stitial w	ater					
TU-131-L1A-2.5	980618	423.2	1404.70	45.30				6583	27.7	1.6	130.00
TU-132-L1A-3.5	980618	429.2	1106.00	37.90	29.40		167	5207	24.3	0.5	65.00
TU-135-L1B-3.5	980618	406.7	710.60	44.10	16.20		2	4359	18.2	0.7	<0.21
TU-139-L2B-1.5	980618	531.7	788.50	21.20	33.50		470	3698	1.2	0.6	75.00
10-139-126-1.5	300010	531.7	700.50	21.20	33.50		470	3030	1.2	0.6	75.00
TU-143-L3A-4.5B	980618	470.3	566.20	25.40	12.20		107	3245	6.9	0.5	51.00
TU-148-L3C-2.5	980618	507.6	472.50	8.80	29.20		329	2691	1.9	0.7	41.00
TU-157-L4C-2.5UP	980618	471.9	477.40	32.00				2963	7.4	0.4	63.00
TU-158-L4C-3.5UP	980618	488.8	426.30	10.00	26.30		223	2710	4.0	0.8	57.00
10 130 110 3.301	300010	100.0	120.50	10.00	20.50		223	2710	1.0	0.0	37.00
TU-159-L5A-1.5	980618	208.2	91.60	25.20				1109	4.9	0.9	84.00
TU-160-L5A-2.5	980618	249.5	138.00	31.50	15.00			1412	7.5	0.6	75.00
TU-162-L5B-1.5	980618	242.5	150.80	65.40	22.20			1377	10.2	0.3	62.00
TU-164-L5B-3.5	980618	182.3	127.40	69.80	17.40		35	1081	5.4	0.5	41.00
				Sur	face wat	er					
TU-120	980624	154.9	98.00	16.60	4.60			1051	54.0	<0.1	19.00
TU-124	980624	131.5	83.60	3.10	6.10			844	41.0	<0.1	10.00
Tu-125	980624	45.4	29.20	7.60	3.00	3	4	305	45.0	<0.1	14.00

		Desumaniza	tion by i	Toducts	as son a	na Spon	Illiciiu	11101103		
				NITRO-		PHOS-				
				GEN		PHORUS				
		DIS-	NITRO-	NITRO-	NITRITE	ORTHO-				
		SOLVED	GEN	GEN	PLUS	PHOS-		ALUM-	ANTI-	ARS-
		SOLIDS		AMMONIA		PHATE	ALUM-	INUM	MONY	ENIC
		RESI-	DIS-	DIS-	DIS-	DIS-	INUM	DIS-	DIS-	DIS-
		DUE	SOLVED	SOLVED	SOLVED	SOLVED	TOTAL	SOLVED	SOLVED	SOLVED
LOCAL		AT 180C	(MG/L	(MG/L	(MG/L	(MG/L	(UG/L	(UG/L	(UG/L	(UG/L
NUMBER	DATE	(MG/L)	AS N)	AS N)	AS N)	AS P)	AS AL)	AS AL)	AS SB)	AS AS)
NOTEER	DITTE	(110/11)	110 147	110 147	110 117	115 1 /	110 1111	110 1111)	no bb,	110 1107
				Ground	water					
TU-100-W1S	980615	3700	<0.01	1.33	<0.05	0.01	142	68	<106	<2
TU-101-W1D	980616	1580					149	37	<106	<2
TU-102-W2	980616	3660	<0.01	0.84	<0.05	0.02	635	663	<106	<2
TU-103-W3S	980616	2170	<0.01	0.47	<0.05	<0.02	130	44	<106	<2
TU-104-W3D	980616	2450	<0.01	0.70	<0.05	<0.01	71	46	<106	<2
10-104-W3D	300010	2450	<0.01	0.70	<0.05	<0.01	7 1	40	<100	<2
TU-105-W4S	980617	3360	<0.01	0.92	<0.05	0.01	147	84	<106	2
TU-106-W4I	980617	3450	<0.01	0.93	<0.05	0.01	234	47	<106	2
TU-107-W4D	980618	1390	0.01	1.37	<0.05	<0.01	49	<27	<106	<2
TU-108-W5SP	980617	2210	0.03	0.38	0.12	<0.01	22694	22219	<106	<2
TU-109-W5D	980616	2720	<0.01	0.65	<0.05	0.01	5022	5147	<106	<2
10 105 W3D	200010	2720	<0.0i	0.05	<0.03	0.01	3022	3147	<100	\ <u>Z</u>
TU-110-W6S	980616	5360	<0.01	0.41	<0.05	0.03	4559	3710	<106	<2
TU-111-W6D	980617	5490	0.01	0.38	<0.05	0.03	1029	913	<106	<2
TU-112-W7	980618	2580	0.01	0.95	<0.05	<0.01	46	38	<106	<2
TU-113-W8S	980615	2540					97	73	<106	<2
TU-114-W8D	980615	2790	<0.01	0.54	<0.05	>0.01	88	58	<106	<2
10-114-MOD	900013	2790	<0.01	0.54	<0.05	>0.01	00	56	<100	<2
TU-115-W9	980618	2850	0.01	1.25	<0.05	<0.01	203	193	111	<2
TU-116-W10	980615	3560	<0.01	0.84	<0.05	0.02	283	290	<106	<2
TU-117-W11	980617	3780	<0.01	0.80	<0.05	<0.01	248	224	<106	<2
TU-118-W12	980617	3160	<0.01	1.21	<0.05	<0.01	109	67	<106	<2
TU-119-W13	980617	3190	<0.01	0.75	<0.05	<0.01	79	40	<106	<2
10 115 W15	300017	3170	<0.0i	0.75	<0.03	<0.01	75	40	<100	\ <u>Z</u>
			1	nterstit	ial water					
TU-132-L1A-3.5	980618	7060								<2
TU-139-L2B-1.5	980618	5390								<1
TU-143-L3A-4.5B	980618	4500								<2
TU-148-L3C-2.5	980618	3930								<2
TU-157-L4C-2.5UP										<2
TU-158-L4C-3.5UP	980618	3850								<2
TU-159-L5A-1.5	980618									<2
TU-160-L5A-2.5	980618	= =						= =		<2
TU-162-L5B-1.5	980618									<2
TU-164-L5B-3.5	980618	1620								<2
				Surface						_
TU-120	980624	1300	<0.01	0.34	0.11	<0.01	5128	5105	<106	<1
TU-124	980624	370	0.01	0.16	<0.05	0.01	2259	2153	<106	<1
TU-125	980624	1090	0.01	0.06	0.31	0.02	1243	222	<106	<1

Geochemistry and Ground-Water Flow Beneath an Abandoned Coal Mine Treated with Flue-Gas Desulfurization By-Products as Soil and Spoil Amendments

			BERYL-		CAD-	CHROM-					
		BARIUM	LIUM	BORON	MIUM	IUM	COBALT	COPPER		IRON	LEAD
		DIS	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-	IRON	DIS-	DIS-
		SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	TOTAL	SOLVED	SOLVED
LOCAL		(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L
NUMBER	DATE	AS BA)	AS BE)	AS B)	AS CD)	AS CR)	AS CO)	AS CU)	AS FE)	AS FE)	AS PB)
						nd water					
TU-100-W1S	980615	20	1.7	381	5	7	224	<2	277860	300620	<2
TU-101-W1D	980616	12	<0.1	236	<1	2	8	<2	1067	1156	<1
TU-102-W2	980616	15	6.8	198	7	<2	200	<2	310374	337461	<2
TU-103-W3S	980616	13 12	<0.1 <0.1	83	2	<2	90	<2	59464	61402	<2
TU-104-W3D	980616	12	<0.1	152	<1	<2	22	<2	43099	44598	<2
TU-105-W4S	980617	13	1.9	226	6	4	204	<2	237557	262268	<2
TU-106-W4I	980617	10	0.2	246	6	2	208	<2	228304	242241	<2
TU-107-W4D	980618	19	0.8	300	<1	8	<6	<2	12268	12875	<1
TU-108-W5SP	980617	9	11.7	223	5	7	932	114	35827	35173	6
TU-109-W5D	980616	12	4.1	156	5	<2	439	<2	203752	220257	<2
TU-110-W6S	980616	8	27.2	17	13	<2	660	<2	592131	671859	<2
TU-111-W6D	980617	10	12.7	108	9	4	449	<2	477892	520848	<2
TU-112-W7	980618	18	1.5	245	3	<2	155	<2	124399	132410	<1
TU-113-W8S	980615	36	0.7	124	3	<2	117	<2	144532	143548	<1
TU-114-W8D	980615	15	1.0	125	3	2	124	<2	165452	175655	<1
TU-115-W9	980618	14	7.1	301	3	6	252	<2	152498	157831	<2
TU-116-W10	980615	12	2.7	255	4	3	278	<2	257527	269686	<2
TU-117-W11	980617	10	3.4	201	4	6	205	<2	234285	251711	<2
TU-118-W12	980617	13	3.3	307	2	6	182	<2	145245	151296	<2
TU-119-W13	980617	17	1.0	198	5	3	101	<2	213507	235571	<2
					Interst	itial wat	er				
TU-131-L1A-2.5	980618			523						8506	<4
TU-132-L1A-3.5	980618			720						176	<4
TU-135-L1B-3.5	980618			350						62414	<4
TU-139-L2B-1.5	980618			1734						100	. 4
10-139-128-1.5	980618			1/34						100	<4
TU-143-L3A-4.5B	980618			559						3711	<4
TU-148-L3C-2.5	980618			1018						214	<2
TU-157-L4C-2.5UP	980618			779						85	<2
TU-158-L4C-3.5UP	980618			1039						2559	<2
											_
TU-159-L5A-1.5	980618			93						180	6
TU-160-L5A-2.5	980618			81						48080	<1
TU-162-L5B-1.5	980618			72						16413	<1
TU-164-L5B-3.5	980618			70						86422	<1
					Surfa	ce water					
TU-120	980624	21	2.7	500	2	4	143	8	514	929	<1
TU-124	980624	19	2.1	189	2	2	94	<2	2541	2819	<1
TU-125	980624	37	0.5	54	<1	<2	<6	<2	16	1044	<1

		LITH-		MANGA-	MOLYB-		SELEN-		STRONT-	VANAD-
		IUM	MANGA-	NESE	DENUM	NICKEL	IUM	SILVER	IUM	IUM
		DIS-	NESE	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-
		SOLVED	TOTAL	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED
LOCAL		(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L
NUMBER	DATE	AS LI)	AS MN)	AS MN)	AS MO)	AS NI)	AS SE)	AS AG)	AS SR)	AS V)
					Ground					
TU-100-W1S	980615	149	16811	17462	<11.0	522	<1	<3	4895	8
TU-101-W1D	980616	26	260	232	<11.0	<5	<1	<3	2021	<5
TU-102-W2	980616	211	18263	19129	<11.0	409	<1	<3	2613	<5
TU-103-W3S	980616	113	12614	13163	<11.0	80	<1	<3	1075	<5
TU-104-W3D	980616	82	3571	3765	<11.0	16	<1	<3	1725	<5
TU-105-W4S	980617	175	14370	15396	<11.0	441	<1	<3	2658	<5
TU-106-W4I	980617	176	13609	14150	<11.0	427	<1	<3	2681	<5
TU-107-W4D	980618	27	1112	1165	<11.0	7	<1	<3	2158	<5
TU-107-W4D	980617	420	44652	46513	<11.0	791	<1	<3	523	16
TU-109-W5D	980616	254	21976	22609	<11.0	539	<1	6	1564	<5
10 100 1100	300010	231	21570	22003	\11.0	333	~-	Ü	1501	\3
TU-110-W6S	980616	238	55430	58673	<11.0	882		<3	1072	<5
TU-111-W6D	980617	407	40736	42382	<11.0	835	<1	<3	1862	25
TU-112-W7	980618	228	9830	10379	<11.0	354	<1	<3	2691	<5
TU-113-W8S	980615	143	10448	10217	<11.0	239	<1	<3	1167	<5
TU-114-W8D	980615	154	10481	10972	<11.0	314	<1	<3	1121	<5
TU-115-W9	980618	231	17241	17578	<11.0	535	<1	<3	2901	<5
TU-116-W10	980615	218	18737	19053	<11.0	584	<1	<3	2765	7
TU-117-W11	980617	260	25962	27144	<11.0	480	<1	<3	2281	11
TU-118-W12	980617	167	14012	14515	<11.0	420	<1	<3	3848	22
TU-119-W13	980617	113	8716	9341	<11.0	288	<1	<3	2474	7
				7	ntoratit	ial water				
TU-131-L1A-2.5	980618			31402						
TU-132-L1A-3.5	980618			97894						
TU-135-L1B-3.5	980618			85401						
10 133 111 3.3	300010			05101						
TU-139-L2B-1.5	980618			619			<1			
TU-143-L3A-4.5B	980618			58080			<1			
TU-148-L3C-2.5	980618			5036			<1			
TI 167 I 40 2 EIID	980618			29699						
TU-157-L4C-2.5UP TU-158-L4C-3.5UP										
TU-158-L4C-3.5UP	980618			16643						
TU-159-L5A-1.5	980618			45876			<1			
TU-160-L5A-2.5	980618			68620			<1			
TU-162-L5B-1.5	980618			27714			<1		= =	
TU-164-L5B-3.5	980618			12160			<1			
					Surface					
TU-120	980624	155	18987	19274	<11.0	315	<1	<3	381	11
TU-124	980624	110	5630	6015	<11.0	203	<1	<3	461	14
TU-125	980624	49	1676	2116	<11.0	124	<1	<3	140	<5

		ZINC DIS- SOLVED	CARBON ORGANIC DIS- SOLVED
LOCAL		(UG/L	(MG/L
NUMBER	DATE	AS ZN)	AS C)
NONDER	DAIL	AD ZIV)	Ab C)
	Groun	ıd water	
TU-100-W1S	980615	305	0.6
TU-101-W1D	980616	<1	
TU-102-W2	980616	348	1.0
TU-103-W3S	980616	19	0.9
TU-104-W3D	980616	<1	0.8
TU-105-W4S	980617	431	1.0
TU-106-W4I	980617	362	0.8
TU-107-W4D	980618	<1	1.1
TU-108-W5SP	980617	1559	3.0
TU-109-W5D	980616	764	1.6
TU-110-W6S	980616	1534	2.0
TU-111-W6D	980617	480	1.4
TU-112-W7	980618	181	0.7
TU-113-W8S	980615	<1	
TU-114-W8D	980615	118	1.1
TU-115-W9	980618	694	
TU-116-W10	980615	775	1.1
TU-117-W11	980617	410	1.0
TU-118-W12	980617	344	0.7
TU-119-W13	980617	30	0.6
	Surfa	ce water	
TU-120	980624	309	2.3
TU-124	980624	218	1.3
TU-125	980624	130	2.1

CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite

The following tables contain chemical analyses from ground-water samples collected from the Lockport Dolomite using domestic wells in Darke, Miami, Montgomery, and Preble Counties. The data were collected in May 1998 as part of a cooperative study with the U.S. Environmental Protection Agency (USEPA). The objectives of the study were to provide information on natural range of inorganic constituents in ground water from the Lockport Dolomite to aid USEPA in determining remedial measures at the Lewisburg Drum Site, northwest of Lewisburg, Ohio. The locations of the sample sites are shown on the figure below. The five-digit parameter codes (in parentheses) in the water-quality reports are defined in WATSTORE

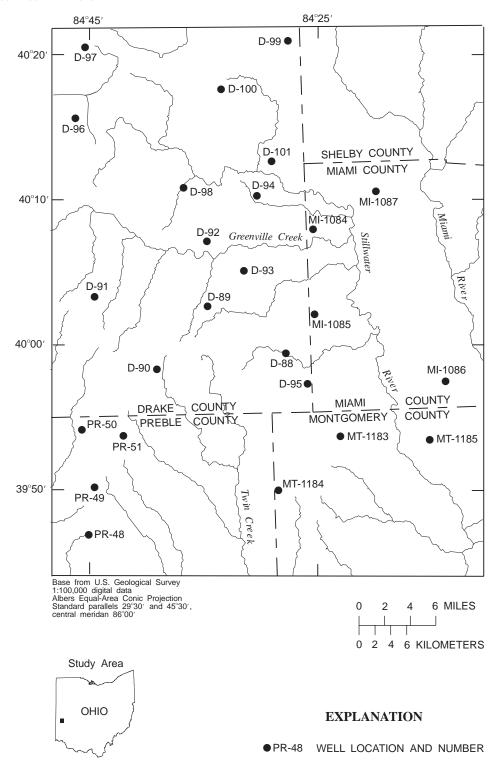


Figure 10. Location of well sites sampled from the Lockport Dolomite.

CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite

395905084274500 Local number D-88

LOCATION -- Lat. 39°59'05" Long. 84°27'45"

HYDROLOGIC UNIT -- 05080001

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5.5 in diameter, 81 ft deep.

	SPE-	WAILK	PH WATER	HARD-	INDAR IBA	MAGN		1998 TO 1	POTA		ILO-		FLUO-
	CIFIC		WHOLE	NESS	CALCIUM			SODIUM,			DE,	SULFATE	
	CON-	OXYGEN,	FIELD	TOTAL	DIS-			DIS-			S-	DIS-	DIS-
	DUCT-	DIS-	(STAND-	(MG/L	SOLVED			SOLVED	SOLV		LVED		
DATE	ANCE (US/CM)	SOLVED (MG/L)	ARD UNITS)	AS CACO3)	(MG/L AS CA)	(MG/ AS M		(MG/L AS NA)	(MG/ AS K		IG/L S CL)	(MG/L AS SO4)	(MG/L AS F)
	(05/CM) (00095)	(MG/L)	(00400)	(00900)	(00915)	(0092	- /	(00930)	(0093	,	940)	(00945)	(00950)
MAY	(00055)	(00500)	(00100)	(00300)	(00313)	(0052	,	(00330)	(0055	5, (00	,,,,,	(00313)	(00330)
20	506	.05	7.6	240	42	31		26	1.7	2	.9	.2	1,
	SILICA,			BERYL-				CHRO-					
	DIS-		BARIUM,	LIUM,	BORON,	CADMI	UM	MIUM,	COBAL	T, COF	PER,	IRON,	LEAD,
	SOLVED	ARSENIC	DIS-	DIS-	DIS-	DIS	-	DIS-	DIS-	DI	S-	DIS-	DIS-
	(MG/L	TOTAL	SOLVED	SOLVED	SOLVED			SOLVED			LVED	SOLVED	
DATE	AS SIO2)	(UG/L AS AS)	(UG/L AS BA)	(UG/L AS BE)	(UG/L AS B)	(UG/ AS C		(UG/L AS CR)	(UG/ AS C		JG/L S CU)	(UG/L AS FE)	(UG/L AS PB)
	(00955)	(01002)	(01005)	(01010)	(01020)	(0102		(01030)	(0103		.040)	(01046)	(01049)
MAY	(,	(/	(,	(,	(/		-,	(,	(-, (,	((,
20	8.7	29	190	<1.0	86.2	<8		<14	<12	<	:10	1100	<100
	147	NGA- MC	T VD		G!	TID ON	7.77	NT 70					LIDS,
			LYB- NUM, NIC	KEL, SII		TRON- TIUM,		NA- UM, Z:	INC,	LITHIUM			M OF NSTI-
			IS- DI		,	DIS-			DIS-	DIS-			ENTS,
	SO	LVED SC	LVED SC	LVED SC	LVED S	OLVED	SO	LVED S	OLVED	SOLVED	FI	ELD	DIS-
DA'		- /	- /	- /	- /	UG/L		- /	UG/L	(UG/L	- /		OLVED
						S SR)			S ZN)	AS LI)			MG/L)
MAY	(01	056) (01	060) (01	065) (01	.075) (0:	1080)	(01	085) (0	1090)	(01130)	(39	086) (7	0301)
MA1 20	. <	4 <	60 <	40 <	4	5200	<	10	<20	<4	2	76	289
20		-		. = =	. =		-				_	=	
1002210843452 COCATION La													

HYDROLOGIC UNIT -- 05080001 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5.5 in diameter, 101 ft deep.

WEDD CHARAC	TENTETICE	DITII	sa aomesei	.c water	wcii, J	. J III (4.1	anicce	.1, 101	re deep					
		WATE	R-QUALITY PH	DATA, CA	LENDAR	YEAR JAN	IUARY	1998 TO	DECEMB	ER 199	8			
	SPE- CIFIC CON-	: OXYGEN	WATER WHOLE FIELD	HARD- NESS TOTAL	CALC	IUM S	AGNE- SIUM, DIS-	SODIUM DIS-	,	UM,	CHLO- RIDE, DIS-	SULFA DIS-		FLUO- RIDE, DIS-
	DUCT-		, FIELD (STAND-)LVED	SOLVED			SOLVED			SOLVED
DAME		SOLVEI		(MG/L AS	MG (MG		MG/L	SOLVED (MG/L			(MG/L	(MG		(MG/L
DATE	ANCE											. ,		. ,
	(US/CM						MG)	AS NA			AS CL)			AS F)
	(00095	(00300)	(00400)	(00900)) (009	15) (00	925)	(00930) (009	35) (00940)	(0094	15)	(00950)
MAY														
20	655	.04	7.0	370	90	34	ŧ	4.0	1.	3	9.2	63		. 4
	SILICA			BERYL				CHRO-						
	DIS-	.,	BARIUM,			ON CAT	MIUM	MIUM,	COBA	тт С	OPPER,	IRO	т	LEAD,
	SOLVE	D ARSENIO	,	DIS-			DIS-	DIS-	DIS		DIS-			DIS-
	(MG/L		SOLVED	SOLVE)LVED	SOLVE			SOLVED			SOLVED
DAME	AS	UG/L	(UG/L	(UG/L			JG/L	(UG/L			(UG/L	(UG)		(UG/L
DATE			. ,	. ,				. ,				. ,		. ,
	SIO2)						CD)	AS CR			AS CU)			AS PB)
	(00955	(01002)	(01005)	(01010)) (010	20) (01	.025)	(01030) (010	35) (01040)	(0104	16)	(01049)
MAY		_							_					
20	15	6	210	<1.0	21	.8 <	:8	<14	<1	2	<10	1700)	<100
											7\	LKA-	SOLII	ng
		MANGA- I	MOLYB-			STRON-	. 177	NA-				NITY	SUM (
				CKEL, S	SILVER,	TIUM,			ZINC,	LITHI		T DIS	CONS	
				IS-	DIS-	DIS-		IS-	DIS-	DIS		T IT	TUEN	
					SOLVED	SOLVEI			SOLVED	SOLV		IELD	DI	
	DATE				(UG/L	(UG/L			(UG/L	(UG/		/L AS		
		. ,				. ,				. ,				
					AS AG)	AS SR)		,	AS ZN)	AS L	,	ACO3	(MG,	
MAY	(01056) (0	01060) (0	1065) ((01075)	(01080)	(01	.085) (01090)	(0113	υ) (3	9086)	(703)) T)
		30	<60	<40	<4	420	_	:10	<20	6		282	398	3
20		- 0		0		120	_		. = 0	5			22,	-

CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite

395806084391600 Local number D-90

LOCATION -- Lat. 39°58'06" Long. 84°39'16"

HYDROLOGIC UNIT -- 05080002

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5 in diameter, 121 ft deep.

		WATE	R-QUALITY PH	DATA, CAL	ENDAR Y	EAR JANU	ARY 19	998 TO D	ECEMBER	1998			
DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)		WATER WHOLE , FIELD (STAND- D ARD) UNITS)	AS CACO3)		DI: /ED SOL' /L (MG, CA) AS I	JM, S S- VED S /L MG)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	RID DIS SOL (MG AS	E, SU - D VED S /L (CL) AS	LFATE IS- OLVED MG/L SO4) 0945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
20	615	.04	7.0	340	80	33		9.2	1.4	2.	4	12	. 9
DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	ARSENI TOTAL (UG/L AS AS	SOLVED (UG/L) AS BA)	DIS- SOLVED (UG/L AS BE)	BORC DIS	S- DI: /ED SOL' /L (UG; 3) AS	S- VED /L CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	DIS SOL (UG AS	- VED S /L (CU) A	RON, DIS- OLVED UG/L S FE) 1046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
MAY 20	18	10	190	<1.0	44.	. 4 < 8		<14	<12	<1	0 1	200	<100
	N S DATE (A	ESE, DIS- OLVED UG/L S MN)	DIS- I SOLVED S (UG/L AS MO) F	OIS- SOLVED S UG/L (S NI) A	LVER, DIS- OLVED UG/L S AG) 1075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA DIUM DIS SOLV (UG, AS V	M, ZI S- D VED SO /L (U V) AS	IS- LVED S G/L (ZN) A	THIUM DIS- SOLVED UG/L S LI)	ALKA- LINITY WAT DI TOT IT FIELD MG/L A CACO3 (39086	SUM S CON TUE D S SO	IDS, OF STI- NTS, IS- LVED G/L) 301)
MAY													
20		29	<60	<40	<4	2700	<10	0 <	20	9	338	3	62

400300084444400 Local number D-91

LOCATION -- Lat. $40^{\circ}03'00"$ Long. $84^{\circ}44'44"$

HYDROLOGIC UNIT -- 05080001 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5.5 in diameter, 121 ft deep.

WELL CHARACI	LEKISIICS	DITTLE	a domesti	c water v	vell,5.3	o III UIAI	lecer	, 121 16	deep.				
		WATER	-OUALITY	DATA, CAI	LENDAR Y	YEAR JANU	JARY	1998 TO I	DECEMBE	ER 1998			
			PH	,									
	SPE-		WATER	HARD-		MAG	SNE-		POTA	AS- CH	LO-		FLUO-
	CIFIC		WHOLE	NESS	CALC	IUM SI	UM,	SODIUM,	SIU	JM, RI	DE,	SULFAT	E RIDE,
	CON-	OXYGEN,	FIELD	TOTAL	DIS-	- DI	IS-	DIS-	DIS	S- DI	S-	DIS-	DIS-
	DUCT-	DIS-	(STAND-	(MG/L	SOLV		JVED	SOLVED	SOLV		LVED	SOLVE	
DATE	ANCE	SOLVED		AS	(MG,		3/L	(MG/L	(MG/		G/L	(MG/I	. ,
	(US/CM)			CACO3)			MG)	AS NA)	AS F		CL)	AS SO4	
	(00095)	(00300)	(00400)	(00900)	(009	15) (009	925)	(00930)	(0093	35) (00	940)	(00945	(00950)
MAY													
21	505	.05	7.2	280	68	26		4.0	1.0) 1	.5	14	.6
	CTT TCD			DEDVI				CHRO-					
	SILICA, DIS-	,	BARIUM,	BERYL- LIUM,		ON, CADI	4 T T T T A	MIUM,	COBAI	т сор	PER.	IRON	THAD
	SOLVEI) ARSENIC	. ,	DIS-		. ,	IS-	DIS-	DIS-	,	PEK, S-	DIS-	,
	(MG/L	TOTAL	SOLVED	SOLVEI			LVED	SOLVED	SOLVE		LVED	SOLVE	
DATE	AS	(UG/L	(UG/L	(UG/L			3/L	(UG/L	(UG/		G/L	(UG/I	
DAIL	SIO2)	AS AS)	/	AS BE			CD)	AS CR)	AS C		CU)	AS FI	. ,
	(00955)			(01010)				(01030)	(0103		040)	(01046	
MAY	(00000)	(,	(/	(/	(/ (,	(,		, (/	(, (====,
21	16	11	420	<1.0	22	.3 <8	3	<14	<12	<	10	890	<100
											AL	KA- S	OLIDS,
	ľ	MANGA- M	OLYB-			STRON-	VA	NA-			LIN	ITY S	SUM OF
	1	NESE, D	ENUM, NI	CKEL, S	LLVER,	TIUM,	DI	UM, Zi	INC,	LITHIUM	WAT	DIS (CONSTI-
		DIS-	DIS- D	IS-	DIS-	DIS-	D	IS- I	DIS-	DIS-	TOT	IT 7	CUENTS,
					SOLVED	SOLVED			DLVED	SOLVED		ELD	DIS-
I				,	(UG/L	(UG/L		,	JG/L	(UG/L	,	L AS	SOLVED
					AS AG)	AS SR)			S ZN)	AS LI)			(MG/L)
	((01056) (0	1060) (0	1065) (0	01075)	(01080)	(01	085) (01	L090)	(01130)	(39	086)	(70301)
MAY										_			0.50
21.		14	<60	<40	<4	1200	<	10 <	<20	6	2	70	269

CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite

400642084343700 Local number D-92

LOCATION -- Lat. $40^{\circ}06'42''$ Long. $84^{\circ}34'37''$ HYDROLOGIC UNIT -- 05080001

AQUIFER -- Lockport Dolomite

	SPE- CIFIC	WAIEK-	QUALITY D PH WATER WHOLE	HARD- NESS	CALCI	MAG		SODIUM,	POTA	AS- C	HLO-	SULF	FLUO- ATE RIDE,
	CON-	OXYGEN,	FIELD	TOTAL	DIS-	DI	S -	DIS-	DIS	S- D	IS-	DIS-	DIS-
	DUCT-	DIS-	(STAND-	(MG/L	SOLV			SOLVED			OLVED	SOLV	
DATE	ANCE	SOLVED	ARD	AS	(MG/			(MG/L			MG/L	(MG/	
	(US/CM)	(MG/L)	UNITS)	CACO3)							S CL)		
MAY	(00095)	(00300)	(00400)	(00900)	(0091	5) (009	25)	(00930)	(0093	(0	0940)	(0094	15) (00950)
21	663	.06	6.9	350	84	33		14	1.3	1	9.3	27	. 7
21	003	.00	0.9	330	04	33		7.4	1.3	,	9.3	21	. /
	SILICA,			BERYL-				CHRO-					
	DIS-		BARIUM,	LIUM,		N, CADM	IUM	MIUM,	COBAI	JT, CO	PPER,	IRON	I, LEAD,
	SOLVED	ARSENIC	DIS-	DIS-	DIS		S-	DIS-	DIS-		IS-	DIS	
	(MG/L	TOTAL	SOLVED	SOLVED	SOLV	ED SOL	VED	SOLVEI	SOLVE	ED S	OLVED	SOLV	MED SOLVED
DATE	AS	(UG/L	(UG/L	(UG/L	(UG/			(UG/L	. ,		UG/L	(UG/	. ,
	SIO2)		AS BA)	AS BE)				AS CR)			S CU)		
	(00955)	(01002)	(01005)	(01010)	(0102	0) (010	25)	(01030)	(0103	35) (0	1040)	(0104	(01049)
MAY 21	16	14	170	<1.0	60.	4 <8		<14	<12)	<10	1200	<100
21	10	14	1/0	<1.0	00.	± <0		< T.4	<±2		<10	1200	7100
	MA	NGA- MC	DLYB-			STRON-	777	NA-				KA- IITY	SOLIDS, SUM OF
				KEL, SI	LVER,	TIUM,			ZINC,	LITHIU			CONSTI-
			,		DIS-	DIS-			DIS-	DIS-			TUENTS,
					OLVED	SOLVED			SOLVED			ELD	DIS-
D	ATE (U	JG/L (U	JG/L (U	G/L (T	JG/L	(UG/L	(U	G/L	(UG/L	(UG/L	MG/	L AS	SOLVED
	AS	MN) AS	MO) AS	NI) As	S AG)	AS SR)	AS	V) I	AS ZN)	AS LI) CA	CO3	(MG/L)
	(01	.056) (01	.060) (01	065) (03	1075)	(01080)	(01	085) (0	1090)	(01130) (39	086)	(70301)
MAY													
21.	8	89 <	:60 <	40	<4	1700	<	10	<20	10	3	32	393
100441084312	700 Local	number D-	93										
LOCATION				7"									
		80001											

WELL CHARAC	TERISTI	ICS -	- Dril	led	domes	tic	wate	r we	11, 5	in (diamet	er,	101 f	t d	eep.							
			WAT	ER-	QUALI' PH	Y DA	ΔTA,	CALE	NDAR	YEAR	JANUZ	ARY	1998 T	O D	ECEMB:	ER 1	998					
	SPE	Ξ –			WATI	lR.	HAR	D-			MAGI	VE-			POT	AS-	CHL	0-			FLUO-	
	CIF	FIC			WHOI	E	NES	S	CALC	IUM	SIU	JM,	SODIU	JM,	SI	UM,	RID	Ε,	SULF	ATE	RIDE,	
	CON	1 –	OXYGE	N,	FIEI	D	TOT.	AL	DIS	-	DIS	S -	DIS-		DI	S-	DIS	-	DIS	_	DIS-	
	DUC	CT-	DIS	-	(STAI	ID-	(MG	/L	SOL	VED	SOLV	JED	SOLVE	ED	SOL	VED	SOL	VED	SOL	VED	SOLVEI)
DATE	ANC	CE	SOLV	ED	ARI)	AS		(MG	/L	(MG)	/L	(MG/	'L	(MG	/L	(MG	/L	(MG	/L	(MG/L	
	(US/	CM)	(MG/	L)	UNIT	'S)	CAC	O3)	AS	CA)	AS N	MG)	AS N	IA)	AS	K)	AS	CL)	AS S	04)	AS F)	
	(000	95)	(0030	0)	(0040	0)	(009	00)	(009	15)	(0092	25)	(0093	0)	(009	35)	(009	40)	(009	45)	(00950)	
MAY																						
21	56	52	.05		7.1		29	0	72		27		12		1.	1	3.	4	<	.1	.8	
	OTT T	. C.3					DED						CUIDO									
	SILI	,			DADII		BER		DOD	037	G3 DM		CHRC		CODA		CODD		T.D.O.			
	DIS		A D C EN	Ta	BARIU	,	LIU	,		,	CADMI		MIUM		COBA	,	COPP		IRO DI		LEAD, DIS-	
		LVED	ARSEN TOTA		DIS-		DIS		DI		DIS		DIS-		DIS			- VED	SOL		SOLVEI	
DATE	AS	,	(UG/		(UG		(UG		(UG		(UG)		(UG/		(UG		(UG		(UG		(UG/L	,
DAIE	SIC		AS A		AS I		AS :		AS :	,	AS (AS C		AS	,	AS	,	AS	,	AS PB)	
		955)	(0100		(0100		(010		(010		(0102		(0103		(010		(010		(010		(01049)	
MAY	(003	,55,	(0100	_,	(010)	,	(010	_ ,	(010	20,	(0101	20,	(0100	, , ,	(010	55,	(010	10,	(010	10,	(01015)	
21	17		19		320)	<1.	0	40	. 5	< 8		<14	Į.	<1	2	<1	0	150	0	<100	
																		AL	KA-	SOL	IDS,	
		MA	NGA-	MO:	LYB-					ST	RON-	VA	NA-					LIN	ITY	SUM	OF	
		NE	SE,	DE	NUM,	NICE	ŒL,	SIL	VER,	T	IUM,	DI	UM,	ZI	NC,	LIT	HIUM	WAT	DIS	CON	STI-	
		D	IS-	D	IS-	DIS	3 –	D	IS-	D.	IS-	D	IS-	D	IS-	D	IS-	TOT	' IT	TUE	NTS,	
		SO	LVED	SO	LVED	SOI	JVED	SO	LVED	SO	LVED	SO	LVED	SO:	LVED	SO	LVED	FI	ELD	D	IS-	
	DATE	(U	G/L	(U	G/L	(UC	}/L	(U	G/L	(U	G/L	(U	G/L	(U	G/L	(U	G/L	MG/	L AS	SO	LVED	
		AS	MN)	AS	MO)	AS	NI)	AS	AG)	AS	SR)	AS	V)	AS	ZN)	AS	LI)	CA	.CO3	(M	G/L)	
		(01	056)	(01	060)	(010	(65)	(01	075)	(01	080)	(01	085)	(01	090)	(01	130)	(39	086)	(70	301)	
MAY																						
21		1	2	<	60	<4	0	<	4	1.	400	<	10	<	20		4	3	32			

CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite

400943084301300 Local number D-94

LOCATION -- Lat. 40°09'43" Long. 84°30'13"

HYDROLOGIC UNIT -- 05080001

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5 in diameter, 101 ft deep.

		WATER-	-	ATA, CALE	NDAR YEAR	Z JANUAR	Y 1998 TO	DECEMBER	1998		
DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM DIS- SOLVEI (MG/L AS MG)	, SODIUM DIS- SOLVED (MG/L) AS NA	DIS- SOLVEI (MG/L AS K)	RIDE DIS- SOLV (MG/ AS C	DIS DIS ED SOL L (MG L) AS SO	DIS- JED SOLVED /L (MG/L D4) AS F)
21	798	.05	6.9	440	100	45	7.9	1.5	15	67	. 7
	SILICA, DIS- SOLVED (MG/L	ARSENIC TOTAL	BARIUM, DIS- SOLVED	BERYL- LIUM, DIS- SOLVED	BORON, DIS- SOLVED	CADMIUI DIS- SOLVEI	CHRO- M MIUM, DIS-	COBALT,		R, IRO	N, LEAD, S- DIS-
DATE	AS	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L			(UG/		. ,
	SIO2) (00955)	AS AS) (01002)	AS BA) (01005)	AS BE) (01010)	AS B) (01020)	AS CD					
MAY	(00933)	(01002)	(01003)	(01010)	(01020)	(01025)	(01030	(01033)	(0104	0) (010	10) (01049)
21	19	12	270	<1.0	33.9	< 8	<14	16	<10	190	<100
D	NE I SC ATE (U AS	ESE, DE DIS- I DLVED SO JG/L (U S MN) AS	DIS- DI DLVED SO JG/L (U S MO) AS	S- D LVED SC G/L (U NI) AS	VER, TIS- INTERPORT INTERP	CIUM, I DIS- DLVED S JG/L S SR) 2	DIS- SOLVED (UG/L AS V)	DIS- SOLVED S (UG/L AS ZN)	THIUM DIS- SOLVED	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
MAY											
21.	6	51 <	<60 <	40 <	4 2	2300	<10	<20	15	368	467

395656084260400 Local number D-95

LOCATION -- Lat. $39^{\circ}56'56"$ Long. $84^{\circ}26'04"$

HYDROLOGIC UNIT -- 05080001 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 6 in diameter, 50 ft deep.

		MATER	-OUALITY I	מתא מאדו	יאים ארמאי	יי דא אוווא סער	1000 50	DECEMBED :	1000		
		WAIER	PH	DATA, CALI	INDAR ILAF	CUANUARI	1996 10	DECEMBER .	1990		
	SPE- CIFIC CON-	OVVCEN	WATER WHOLE FIELD	HARD- NESS TOTAL	CALCIUM DIS-	MAGNE- SIUM, DIS-	SODIUM, DIS-	POTAS- SIUM, DIS-	CHLO- RIDE, DIS-	SULFAT DIS-	FLUO- E RIDE, DIS-
	DUCT-	OXYGEN, DIS-	(STAND-	(MG/L	SOLVED	SOLVED		SOLVED	SOLVE		
DATE	ANCE	SOLVED	ARD	AS	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L
	(US/CM) (00095)	(MG/L) (00300)	UNITS) (00400)	CACO3) (00900)	AS CA) (00915)	AS MG) (00925)	AS NA)		AS CL (00940		
MAY	(00095)	(00300)	(00400)	(00900)	(00915)	(00925)	(00930)	(00935)	(00940) (00945) (00950)
22	952	.06	7.2	430	110	36	46	2.5	3.2	250	1.7
	SILICA,			BERYL-			CHRO-				
	DIS-		BARIUM,	LIUM,	BORON,	CADMIUM		COBALT,	COPPER		
	SOLVED (MG/L	ARSENIC TOTAL	DIS- SOLVED	DIS- SOLVED	DIS- SOLVED	DIS- SOLVED	DIS- SOLVED	DIS- SOLVED	DIS- SOLVE	DIS- D SOLVE	
DATE	AS	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	
	SIO2)	AS AS)	AS BA)	AS BE)	AS B)	AS CD)	AS CR)		AS CU		
MAY	(00955)	(01002)	(01005)	(01010)	(01020)	(01025)	(01030)	(01035)	(01040) (01046) (01049)
22	17	2	21	<1.0	258	< 8	<14	17	<10	1700	<100
										ALKA- S	OLIDS,
	M	ANGA- M	OLYB-		SI	RON- V	ANA-				UM OF
		•		,		,	,	,			ONSTI-
										OT IT T FIELD	UENTS, DIS-
D											SOLVED
											(MG/L)
MAY	(0)	1056) (0	1060) (01	1065) (01	.075) (01	.080) (0	1085) (0	1090) (0	1130) (39086) (70301)
22.	:	30	70 <	40 <	:4 12	2000	<10	<20	13	276	630

CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite

401509084461100 Local number D-96

LOCATION -- Lat. 40°15′09" Long. 84°46′11"

HYDROLOGIC UNIT -- 05120103

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5.5 in diameter, 121 ft deep.

		WATER-	-QUALITY D	ATA, CALE	NDAR YEAR	JANUARY	7 1998 TO	DECEMBE	R 1998		
	SPE- CIFIC		PH WATER WHOLE	HARD- NESS	CALCIUM	MAGNE- SIUM,		POTA			FLUO-
	CON-	OXYGEN,	FIELD	TOTAL	DIS-	DIS-	DIS-	DIS	- DIS	- DIS	- DIS-
	DUCT-	DIS-	(STAND-	(MG/L	SOLVED	SOLVEI					VED SOLVED
DATE	ANCE	SOLVED	ARD	AS	(MG/L	(MG/L	(MG/1	. ,			
	(US/CM)	(MG/L)	UNITS)	CACO3)	AS CA)	AS MG)					
	(00095)	(00300)	(00400)	(00900)	(00915)	(00925)	(0093)	0093	5) (009	40) (009	(00950)
MAY	E2E			200		4.7	1.0	1 0			
26	737	.63	7.2	380	78	41	18	1.8	2.	3 66	1.6
	SILICA,			BERYL-			CHRO-	_			
	DIS-		BARIUM,	LIUM,	BORON,	CADMIUN			T, COPP	ER, IRC	N, LEAD,
	SOLVED	ARSENIC	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-	DIS	- DI	S- DIS-
	(MG/L	TOTAL	SOLVED	SOLVED	SOLVED	SOLVEI	SOLVI	ED SOLVE	D SOL	VED SOL	VED SOLVED
DATE	AS	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/1	L (UG/	L (UG	/L (UG	J/L (UG/L
	SIO2)	AS AS)	AS BA)	AS BE)	AS B)	AS CD)		R) AS C	O) AS	CU) AS	FE) AS PB)
	(00955)	(01002)	(01005)	(01010)	(01020)	(01025)	(01030	0) (0103	5) (010	40) (010	(01049)
MAY											
26	18	24	82	<1.0	122	<8	<14	<12	<1	0 150	<100
										ALKA-	SOLIDS,
	MZ	ANGA- MO	DLYB-		ST	RON- V	ANA-			LINITY	SUM OF
				KEL, SIL			DIUM,	ZINC,	LITHIUM	WAT DIS	CONSTI-
		,			,	,	DIS-	DIS-	DIS-	TOT IT	TUENTS,
	SC	LVED SO	DLVED SC	LVED SC	LVED SO	LVED S	SOLVED	SOLVED	SOLVED	FIELD	DIS-
Ι	ATE (U	JG/L (U	JG/L (T	IG/L (U	G/L (t	JG/L	(UG/L	(UG/L	(UG/L	MG/L AS	SOLVED
				,	- ,		AS V)	AS ZN)	AS LI)	CACO3	(MG/L)
	(01	1056) (01	L060) (01	.065) (01	075) (01	.080) (0	1085)	(01090)	(01130)	(39086)	(70301)
MAY		_									
26.	1	.5 <	<60 <	:40 <	4 18	3000	<10	<20	20	350	459

401952084452400 Local number D-97

LOCATION -- Lat. $40^{\circ}19'52"$ Long. $84^{\circ}45'24"$

HYDROLOGIC UNIT -- 05120103 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 6 in diameter, 215 ft deep.

WELL CHARACI	ERISIICS -	- Dille	a admestic	: water v	veii, o	III GIANNE	ter,	215 16 6	ieep.				
		WATER	-QUALITY I	DATA, CAI	LENDAR Y	EAR JANU	ARY :	1998 TO I	DECEMBE:	R 1998			
			PH										
	SPE-		WATER	HARD-		MAG	NE-		POTA	S- CHI	O-		FLUO-
	CIFIC		WHOLE	NESS	CALCI	UM SI	UM,	SODIUM,	SIU	M, RID	E, 8	SULFATE	RIDE,
	CON-	OXYGEN,	FIELD	TOTAL	DIS-	DI	S-	DIS-	DIS	- DIS	-	DIS-	DIS-
	DUCT-	DIS-	(STAND-	(MG/L	SOLV	ED SOL	VED	SOLVED	SOLV	ED SOI	VED	SOLVED	SOLVED
DATE	ANCE	SOLVED		AS	(MG/		,	(MG/L	(MG/			(MG/L	(MG/L
	(US/CM)	(MG/L)	UNITS)	CACO3)				AS NA)	AS K			AS SO4)	AS F)
	(00095)	(00300)	(00400)	(00900)	(0091	.5) (009	25)	(00930)	(0093	5) (009	40)	(00945)	(00950)
MAY										_			
26	1356	6.32	7.1	650	140	66		67	2.0	5.	4	580	2.3
	SILICA,			BERYL-				CHRO-					
	DIS-		BARIUM,	LIUM,		N, CADM	TIIM	MIUM,	COBAL	T, COPE	DD.	IRON,	LEAD,
	SOLVED	ARSENIC		DIS-		,		DIS-	DIS-	•	-	DIS-	DIS-
	(MG/L	TOTAL	SOLVED	SOLVEI				SOLVED	SOLVE		VED	SOLVED	SOLVED
DATE	AS	(UG/L	(UG/L	(UG/L	(UG/			(UG/L	(UG/			(UG/L	(UG/L
	SIO2)	AS AS)	AS BA)	AS BE			,	AS CR)	AS C		CU)	AS FE)	AS PB)
	(00955)	(01002)	(01005)	(01010)	(0102	0) (010	25)	(01030)	(0103	5) (010	40)	(01046)	(01049)
MAY													
26	14	10	11	<1.0	568	< 8		<14	<12	<1	.0	1400	<100
											ALK		IDS,
			OLYB-			STRON-		NA-			LINI		OF
				,	LVER,	TIUM,		•		LITHIUM			ISTI-
				IS-	DIS-	DIS-			DIS-	DIS-	TOT :		NTS,
-					OLVED (UG/L	SOLVED (UG/L			DLVED	SOLVED	FIE:		IS-
T			,	,	AS AG)	AS SR)			JG/L S ZN)	(UG/L AS LI)	MG/L CAC		LVED IG/L)
					15 AG) 01075)	(01080)				(01130)			301)
MAY	(01	.0.0) (0.	1000) (01	.005) ((110131	(01000)	(01)	003) (01	10301	(01130)	(350)	00) (70	JU1/
26.		6	120 <	:40	<4	22000		10 <	:20	31	179	0 10	10

CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite

401019084364700 Local number D-98

LOCATION -- Lat. 40°10′19″ Long. 84°36′47″

HYDROLOGIC UNIT -- 05080001

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well,5 in diameter, 141 ft deep.

		WATER	R-QUALITY I	DATA, CALE	NDAR YEAR	JANUARY	1998 TO	DECEMBER 1	.998		
DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVEI (MG/L) (00300)	(STAND-) ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
MAY											
26	736	.30	7.1	410	93	40	10	1.6	3.0	41	1.1
DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	ARSENIC TOTAL (UG/L AS AS)	SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	DIS-	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	DIS-	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
MAY											
26	18	17	150	<1.0	59.1	<8	<14	<12	<10	1700	<100
	N DATE (A	ESE, I DIS- OLVED S UG/L S MN) I	DIS- DI SOLVED SO (UG/L (U AS MO) AS	S- D DLVED SO JG/L (U S NI) AS	VER, T IS- D LVED SO G/L (U AG) AS	CIUM, D DIS- DLVED S IG/L (S SR) A	DIS- 1 OLVED SO UG/L (1 S V) A	DIS- I OLVED SC UG/L (U S ZN) AS	LI THIUM WA DIS- TO DLVED F JG/L MG S LI) C	NITY SUNT DIS CONTITUTED TO THE SCOOL OF THE	LIDS, 4 OF NSTI- ENTS, DIS- DLVED 4G/L) 0301)
MAY 26.		24	<60 <	:40 <	4 7	200	<10	<20 1	.5	360 4	145
∠6.		24	<00 <	.40 <	4 /	200	< 10 .	<2U 1	.5	300 4	145

402004084271500 Local number D-99

LOCATION -- Lat. $40^{\circ}20'04"$ Long. $84^{\circ}27'15"$

HYDROLOGIC UNIT -- 05080001 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 6 in diameter, 111 ft deep.

WELL CHARAC	TERISTI	CS	Drilled	domest	lc wate	r weı	1, 6 11	1 dlame	ter,	III IT	aeep.						
			WATER-	QUALITY PH	DATA,	CALEN	DAR YE	AR JANU	ARY	1998 TO	DECEME	BER 1	998				
	SPE CIF	IC	uu anu	WATER WHOLE	HAR	S	CALCIUN		UM,	SODIUM	, SI	AS- UM,	CHL	E,	SULFA		FLUO- RIDE, DIS-
	CON		XYGEN,	FIELD	TOT		DIS-			DIS-			DIS		DIS-		
	DUC'		DIS-	(STAND			SOLVEI			SOLVED		VED	SOL		SOLV		SOLVED
DATE	ANC		SOLVED	ARD	AS		(MG/L		,	(MG/L			(MG	,	(MG/		(MG/L
	(US/		(MG/L)	UNITS		03)	AS CA)			AS NA		K)	AS		AS SC		AS F)
	(000)	95) (00300)	(00400	(009	00)	(00915)	(009	25)	(00930) (009	935)	(009	40)	(0094	5)	(00950)
MAY																	
27	152	0	.13	7.1	80	0	200	70		60	2.	5	6.	1	690		1.5
	SILI	CA.			BER	YL-				CHRO-							
	DIS			BARIUM			BORON	, CADM	TIIM	MIUM,		T.T	COPP	ER	IRON		LEAD,
	SOL		RSENIC	DIS-		-	DIS-			DIS-	DIS		DIS		DIS		DIS-
	(MG		TOTAL	SOLVED		VED	SOLVEI			SOLVE			SOL		SOLV		SOLVED
DATE	AS			(UG/L	(UG		(UG/L			(UG/L			(UG		(UG/		(UG/L
DAIL	SIO		AS AS)	AS BA			AS B)		,	AS CR			AS	,	AS F		AS PB)
	(009	,	01002)	(01005			(01020)			(01030			(010		(0104		(01049)
MAY	(003	55) (01002)	(01003	(010	10)	(01020)	(010	23)	(01030) (010	1331	(010	40)	(0104	0)	(01049)
27	15		6	11	<1.	0	384	<8		<14	<1	2	<1	0	3100		<100
27	15		ь	11	<1.	U	304	<0		< 14	<1	. 4	< 1	U	3100		<100
																SOLI	
		MANG		LYB-				STRON-		NA-				LIN		SUM	
		NESE			CKEL,		ER,	TIUM,			ZINC,		HIUM		DIS	CONS	
		DIS			DIS-	DI		DIS-		IS-	DIS-		IS-			TUEN	
		SOLV			SOLVED	SOL		SOLVED			SOLVED		LVED		ELD		S-
	DATE	(UG/	L (U	G/L	(UG/L	(UG	/L	(UG/L	(U	G/L	(UG/L	(U	G/L	MG/	L AS	SOI	VED
		AS M	N) AS	MO)	AS NI)	AS	AG) A	AS SR)	AS	V)	AS ZN)	AS	LI)	CA	.CO3	(MC	{/L)
		(0105	6) (01	060) (1065)	(010	75) (0	01080)	(01	085) (01090)	(01	130)	(39	086)	(703	01)
MAY																	
27		46	<	60	< 40	<4	1	11000	<	10	<20	2	6	1	94	116	0

CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite

401653084331400 Local number D-100

LOCATION -- Lat. $40^{\circ}16'53''$ Long. $84^{\circ}33'14''$ HYDROLOGIC UNIT -- 05080001 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5 in diameter, 130 ft deep.

		WATER-	QUALITY D	ATA, CALE	NDAR YEAI	R JANUAR	Y 1998 T	ro decem	BER 19	98		
DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE SIUM DIS- SOLVE (MG/L AS MG	S- I, SODIU DIS- ED SOLVI (MG,	PO JM, S - D ED SO /L (M	TAS- IUM, IS- LVED G/L K) 935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	(MG	DIS- VED SOLVED /L (MG/L D4) AS F)
27	968	.13	7.3	430	91	43	52	1	. 9	5.8	320	2.0
DATE MAY 27	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIU DIS- SOLVE (UG/L AS CD (01025	DIS- D SOLV (UG,	M, COB DI JED SOL L (U CR) AS	ALT, S- VED G/L CO) 035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	DI SOL (UG AS	S- DIS- VED SOLVED /L (UG/L FE) AS PB) 46) (01049)
	NE E SC ATE (U AS	ESE, DE DIS- D DLVED SC JG/L (U S MN) AS	DIS- DI DLVED SC JG/L (U B MO) AS	S- D DLVED SO IG/L (U NI) AS	VER, S IS- I LVED SO G/L (U AG) AS	TIUM, DIS- DLVED JG/L S SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V) 01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SOI (UC	LI HIUM WA SS- TO LVED F H/L MG LI) C	LKA- NITY T DIS T IT IELD /L AS ACO3 9086)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
MAY 27.		8	90 <	40 <	4 19	9000	<10	<20	26	:	218	674
27. 401159084290				±0 <	± 1:	,000	<10	<20	26	,	210	0/4

LOCATION -- Lat. $40^{\circ}11'59"$ Long. $84^{\circ}29'01"$ HYDROLOGIC UNIT -- 05080001

AQUIFER -- Lockport Dolomite
WELL CHARACTERISTICS -- Drilled domestic water well, 5 in diameter, 141 ft deep

WELL CHARAC	CTER	ISTICS	Dril	led	domes	stic	wate	r we	11, 5	in	diamet	er,	141 f	t de	eep.							
			WAT	ER-Ç	UALI PH	Y DA	ATA,	CALE	NDAR	YEAR	JANUA	ARY	1998 T	O DI	ECEMB	ER 1	998					
		SPE- CIFIC			WATE		HAR NES		CALC	IUM	MAGN SIU		SODIU	Μ,	POT.		CHL RID		SULF	ATE	FLUO- RIDE,	
		CON-	OXYGE	N,	FIEI	٦D	TOT	AL	DIS	-	DIS	3 –	DIS-		DI	S-	DIS	-	DIS	-	DIS-	
		DUCT-	DIS	; -	(STAI	ID-	(MG	/L	SOL	VED	SOLV	/ED	SOLVE	D	SOL	VED	SOL	VED	SOL	VED	SOLVED)
DATE		ANCE	SOLV	ED	ARI)	AS		(MG	/L	(MG/	'L	(MG/	L	(MG	/L	(MG	/L	(MG	/L	(MG/L	
		(US/CM)	(MG/	L)	UNI	S)	CAC	O3)	AS	CA)	AS N	IG)	AS N	A)	AS	K)	AS	CL)	AS S	04)	AS F)	
		(00095)	(0030	0)	(0040	00)	(009	00)	(009	15)	(0092	25)	(0093	0)	(009	35)	(009	40)	(009	45)	(00950)	
MAY																						
27		893	.25		6.8		50	0	120		50		8.	3	1.	8	8.	2	98		.9	
	5	SILICA,					BER	YL-					CHRO	-								
		DIS-			BARIU	JM,	LIU	М,	BOR	ON,	CADM1	UM	MIUM	,	COBA	LT,	COPP	ER,	IRO	N,	LEAD,	
		SOLVED	ARSEN	IIC	DIS-		DIS	-	DI	S-	DIS	3 –	DIS-		DIS	-	DIS	-	DI	S-	DIS-	
		(MG/L	TOTA	L	SOLVE	ED	SOL	VED	SOL	VED	SOLV	/ED	SOLV	ED	SOLV	ED	SOL	VED	SOL	VED	SOLVEI)
DATE		AS	(UG/	L	(UG)	'L	(UG	/L	(UG	/L	(UG/	'L	(UG/	L	(UG	/L	(UG	/L	(UG	/L	(UG/L	
		SIO2)	AS A	S)	AS I	3A)	AS	BE)	AS	B)	AS (CD)	AS C	R)	AS	CO)	AS	CU)	AS	FE)	AS PB)	
		(00955)	(0100	2)	(0100)5)	(010	10)	(010	20)	(0102	25)	(0103	0)	(010	35)	(010	40)	(010	46)	(01049)	
MAY																						
27		20	12		150)	<1.	0	40	. 2	< 8		<14		2	1	<1	0	260	0	<100	
																		ΔТ.	KA-	SOT.	IDS,	
		M	ANGA-	MOT	LYB-					ST	RON-	VΔ	NA-					LIN			OF	
			ESE,		JUM,	NTCF	CEL.	SIL	VER,				UM,	7.11	NC,	LTT	HIUM		DIS		STI-	
			DIS-	DI	,	DIS	,	D			IS-		IS-		IS-		IS-		IT		NTS,	
			OLVED		LVED		LVED		LVED		LVED		LVED		LVED		LVED		ELD		IS-	
	DATI		UG/L	(UC		(UC			G/L		G/L		G/L		G/L		G/L		L AS		LVED	
	DITT		S MN)		MO)		NI)		AG)		SR)		V)		ZN)		LI)	,	.CO3		G/L)	
			1056)	(010		(01)			075)		080)		085)		090)		130)		086)		301)	
MAY		(0.	1030)	, 0 ± 0	, , ,	(010	,55,	(O I	0131	(O I	000,	(U I	000)	(U I (0001	(O I	1301	(33	0007	(/ 0	J U 1 /	
	7	:	28	<6	50	<4	Ł 0	<	4	1	400	<	10	<2	20	2	3	4	14	5	52	

CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite

400724084251800 Local number MI-1084

LOCATION -- Lat. 40°07′24″ Long. 84°25′18″

HYDROLOGIC UNIT -- 05080001

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5.5 in diameter, 110 ft deep.

		WATER	2-QUALITY D	DATA, CALE	NDAR YEAR	JANUARY	1998 TO	DECEMBER 1	.998		
DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	. , .	(STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
MAY 18	994	.07	6.7	520	120	51	19	2.0	46	98	1.0
10	334	.07	6.7	520	120	21	19	2.0	40	90	1.0
DATE	SILICA, DIS- SOLVEI (MG/L AS SIO2) (00955)	O ARSENIC TOTAL (UG/L AS AS)	SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	DIS-	(UG/L	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	DIS-	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
MAY						_					
18	20	10	150	<1.0	44.7	<8	<14	14	<10	2300	<100
	S DATE	JESE, DIS- SOLVED S (UG/L (AS MN) F	DIS- DI SOLVED SO JUG/L (U AS MO) AS	S- D DLVED SO JG/L (U S NI) AS	VER, T IS- D LVED SO G/L (U AG) AS	IUM, D IS- LVED S G/L (SR) A	DIS- OLVED S UG/L (' S V) A	DIS- D OLVED SC UG/L (U S ZN) AS	LII CHIUM WA DIS- TO DLVED F JG/L MG LI) C	NITY SUM T DIS CON T IT TUE IELD D /L AS SO ACO3 (M	IDS, IOF ISTI- INTS, IS- ILVED IG/L) 301)
MAY											
18		78	<60 <	:40 <	4 5	100	<10	24 1	.6	388 5	72

400143084252400 Local number MI-1085

LOCATION -- Lat. $40^{\circ}01'43"$ Long. $84^{\circ}25'24"$

HYDROLOGIC UNIT -- 05080001 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5.5 in diameter, 81 ft deep.

WELL CHARACI	EKISIICS	DITITE	a domesti	C water	well, 5	.5 III u	Tallete	:1, 01 11	deep.				
		WATER	-OUALITY	DATA. C	ALENDAR	YEAR JA	NUARY	1998 TO	DECEMBE	ER 1998			
			PH										
	SPE-		WATER	HARD	-	M.	AGNE-		POTA	AS- CH	LO-		FLUO-
	CIFIC		WHOLE	NESS	CALC	IUM	SIUM,	SODIUM,	SIU	JM, RII	DE,	SULFATE	RIDE,
	CON-	OXYGEN,	FIELD	TOTA	L DIS	- :	DIS-	DIS-	DIS	G- DI	S-	DIS-	DIS-
	DUCT-	DIS-	(STAND-	(MG/	L SOL	VED S	OLVED	SOLVED	SOLV	ED SO	LVED	SOLVED	SOLVED
DATE	ANCE	SOLVED	ARD	AS	(MG	/L (MG/L	(MG/L	(MG/	'L (M	G/L	(MG/L	(MG/L
	(US/CM)	(MG/L)	UNITS)	CACO	3) AS	CA) A	S MG)	AS NA)	AS K	C) AS	CL)	AS SO4)	AS F)
	(00095)	(00300)	(00400)	(0090	0) (009	15) (0	0925)	(00930)	(0093	35) (00	940)	(00945)	(00950)
MAY													
18	553	.13	7.4	270	56	3	0	19	1.2	2	. 7	. 4	1.3
								~~~~					
	SILICA,			BERY				CHRO-	~~~~				
	DIS- SOLVEI	ADGENT	BARIUM,	LIUM DIS-	,	. ,	DMIUM	MIUM, DIS-	COBAL DIS-	,	PER, S-	IRON, DIS-	LEAD, DIS-
	(MG/L	ARSENIC TOTAL	DIS- SOLVED	SOLV			DIS- OLVED	SOLVED			S- LVED	SOLVED	SOLVED
DATE	AS	(UG/L	SOLVED (UG/L	(UG/			UG/L	(UG/L	SOLVE (UG/		G/L	(UG/L	(UG/L
DAIE	SIO2)	AS AS)	,	,		, .	S CD)	AS CR)	AS C		CU)	AS FE)	AS PB)
	(00955)						1025)	(01030)	(0103		040)	(01046)	(01049)
MAY	(00333)	(01002)	(01003)	(0101	0) (010	20) (0	1025)	(01050)	(0103	,5, (01	010)	(01010)	(01015)
18	13	11	320	<1.0	67	. 6	< 8	<14	<12	. <	10	960	<100
											A:	LKA- SO	LIDS,
	N	IANGA- M	OLYB-			STRON	- VA	NA-			LIN	ITY SUN	1 OF
	N	IESE, D	ENUM, NI	CKEL,	SILVER,	TIUM	, DI	UM, Z	INC,	LITHIUM	WAT	DIS CON	ISTI-
		DIS-	DIS- D	IS-	DIS-	DIS-	E	IS-	DIS-	DIS-	TOT	IT TUE	ENTS,
	5	SOLVED S	OLVED S	OLVED	SOLVED	SOLVE	D SC	LVED S	OLVED	SOLVED	FI	ELD I	DIS-
Γ	DATE	(UG/L (	UG/L (	UG/L	(UG/L	(UG/L	(T	IG/L (1	UG/L	(UG/L	MG/		LVED
				S NI)	AS AG)	AS SR			S ZN)	AS LI)			MG/L)
	(0	1056) (0	1060) (0	1065)	(01075)	(01080	) (01	.085) (0	1090)	(01130)	(39	086) (70	301)
MAY													
18.		8	<60	<40	<4	6600	<	10	<20	7	2	80 3	311

#### **CERCLA Assistance for the Lewisburg Drum Site** Ground-Water Quality Data for the Lockport Dolomite

395658084133500 Local number MI-1086

LOCATION -- Lat. 39°56′58″ Long. 84°13′35″

HYDROLOGIC UNIT -- 05080001

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5 in diameter, 40 ft deep.

			PH	,								
	SPE- CIFIC		WATER WHOLE	HARD- NESS	CALCIUM	MAGNE SIUM		POT JM, SI		LO- DE, S	SULFATE	FLUO- RIDE,
	CON-	OXYGEN,	FIELD	TOTAL	DIS-	DIS-	•	,	,		DIS-	DIS-
	DUCT-	DIS-	(STAND-	(MG/L	SOLVED					LVED	SOLVED	SOLVED
DATE	ANCE	SOLVED	ARD	AS	(MG/L	(MG/I	(MG,	/L (MG	/L (M	G/L	(MG/L	(MG/L
	(US/CM)	(MG/L)	UNITS)	CACO3)	AS CA)	AS MG					AS SO4)	AS F)
MAY	(00095)	(00300)	(00400)	(00900)	(00915)	(00925	(0093	30) (009	35) (00	940)	(00945)	(00950)
18	936	6.21	6.8	0	.08	.04	220	<.	1 73		34	.2
	SILICA,			BERYL-			CHRO	)-				
	DIS-		BARIUM,	LIUM,	BORON,	CADMIU	M MIU	M, COBA	LT, COP	PER,	IRON,	LEAD,
	SOLVED	ARSENIC	DIS-	DIS-	DIS-	DIS-				S-	DIS-	DIS-
	(MG/L	TOTAL	SOLVED	SOLVED	SOLVED					LVED	SOLVED	SOLVED
DATE	AS SIO2)	(UG/L AS AS)	(UG/L AS BA)	(UG/L AS BE)	(UG/L AS B)	(UG/I AS CI	. ,			G/L CU)	(UG/L AS FE)	(UG/L AS PB)
	(00955)	(01002)	(01005)	(01010)	(01020)	(01025					(01046)	(01049)
MAY	(00333)	(01001)	(01003)	(01010)	(01020)	(01010	, (010.	30, (010	33, (01	010,	(01010)	(01015)
18	11	<1	<1	<1.0	40.7	<8	<14	4 <1	2 <	10	<10	<100
										ALKA	A- SOL	IDS,
	MZ	NGA- MC	DLYB-		S'	TRON-	VANA-			LINIT		OF
					,		DIUM,	ZINC,	LITHIUM			STI-
			DIS- DI				DIS-	DIS-	DIS-	TOT 1		NTS,
-						OLVED UG/L	SOLVED (UG/L	SOLVED (UG/L	SOLVED (UG/L	FIEI MG/L		IS- LVED
1		,					AS V)	AS ZN)	AS LI)	,		G/L)
		,					01085)	(01090)	(01130)			301)
MAY												
18.	<	:4 <	<60 <	40 <	4	<1	<10	<20	<4	322	2	

400954084193600 Local number MI-1087

LOCATION -- Lat.  $40^{\circ}09'54"$  Long.  $84^{\circ}19'36"$ 

HYDROLOGIC UNIT -- 05080001 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5 in diameter, 88 ft deep

WELL CHARAC	TERIS.	rics -	- Drii	rea a	omestic	wate	r well	., 5 1	n diam	eter,	88 IT	aeep.						
			WAT	ER-QU	ALITY D	ATA,	CALENI	OAR YE	AR JAN	JARY	1998 TO	DECEM	BER 1	998				
	C	PE- IFIC ON-	OXYGE	1	WATER WHOLE FIELD	HARI NES	s c	CALCIU	M S	GNE- IUM, IS-	SODIUN	4, S	TAS- IUM, IS-	CHL RID DIS	E,	SULFA		FLUO- RIDE, DIS-
		JCT-	DIS	,	STAND-	(MG		SOLVE		LVED	SOLVEI		LVED	SOL		SOLV		SOLVED
DATE		NCE	SOLV	,	ARD	AS		(MG/L		G/L	(MG/I		G/L	(MG		(MG/		(MG/L
21112		S/CM)	(MG/		UNITS)	CAC		AS CA		MG)	. ,		K)	AS	,	AS SC		AS F)
		0095)	(0030		00400)	(009		00915		925)	(00930		935)	(009		(0094		(00950)
MAY	, ,	0055,	(0050	٠, (	00100,	(003	,	(00)15	, (00	, 25,	(00550	, (00.	,,,	(005	10,	(005	,	(00330)
28	8	840	.03		7.0	47	0 1	00	50		11	2	. 0	3.	2	52		1.6
	SII	LICA,				BER	YL-				CHRO-	-						
	D:	IS-		B	ARIUM,	LIU	м,	BORON	, CADI	MUIM	MIUM,	COB	ALT,	COPP	ER,	IRON	I,	LEAD,
	S	OLVED	ARSEN	IC I	DIS-	DIS	-	DIS-	D	IS-	DIS-	DI	S -	DIS	-	DIS	; –	DIS-
	(1	MG/L	TOTA	L S	OLVED	SOL	VED	SOLVE	D SO	LVED	SOLVE	ED SOL	VED	SOL	VED	SOLV	ED.	SOLVED
DATE	1	AS	(UG/	L	(UG/L	(UG	/L	(UG/L	(U	G/L	(UG/I	_ (U	G/L	(UG	/L	(UG/	'L	(UG/L
	S	IO2)	AS A	S) I	AS BA)	AS I	BE)	AS B)	AS	CD)	AS CF	R) AS	CO)	AS	CU)	AS E	E)	AS PB)
	(00	0955)	(0100	2) (	01005)	(010	10) (	(01020	) (01	025)	(01030	) (01	035)	(010	40)	(0104	6)	(01049)
MAY																		
28	2	1	18		130	<1.	0	60.5	<	8	<14	<	12	<1	0	2400	)	<100
															AL	KA-	SOLI	DS,
		MA	NGA-	MOLY	В-				STRON-	VA	NA-				LIN	ITY	SUM	OF
		NE	SE,	DENU	M, NIC	KEL,	SILVE	ER,	TIUM,	DI	UM,	ZINC,	LIT	HIUM	WAT	DIS	CONS	STI-
		D	IS-	DIS	- DI	S-	DIS	3 –	DIS-	D	IS-	DIS-	D	IS-	TOT	IT	TUEN	ITS,
		SO	LVED	SOLV	ED SO	LVED	SOLV	/ED	SOLVED	SO	LVED	SOLVED	SO	LVED	FI	ELD	DI	S-
	DATE	(U	G/L	(UG/	L (U	G/L	(UG/	'L	(UG/L	(U	G/L	(UG/L	(U	G/L	MG/	L AS	SOI	VED
		AS	MN)	AS M	O) AS	NI)	AS A	AG) .	AS SR)	AS	V)	AS ZN)	AS	LI)	CA	CO3	(MC	3/L)
		(01	056)	(0106	0) (01	065)	(0107	75) (	01080)	(01	085)	(01090)	(01	130)	(39	086)	(703	301)
MAY																		
28	3	5	7	<60	<	40	<4		8700	<	10	<20	2	8	4	44	52	22

#### **CERCLA Assistance for the Lewisburg Drum Site** Ground-Water Quality Data for the Lockport Dolomite

395328084231000 Local number MT-1183

LOCATION -- Lat. 39°53′28″ Long. 84°23′10″

HYDROLOGIC UNIT -- 05080001

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5.5 in diameter, 81 ft deep.

		WATER	-QUALITY D	ATA, CALE	NDAR YEAR	JANUARY	1998 TO 1	DECEMBER 1	.998		
			PH								
	SPE-		WATER	HARD-	GD T GTTTM	MAGNE-		POTAS-	CHLO-	C111 E3 EE	FLUO-
	CIFIC CON-	OXYGEN,	WHOLE FIELD	NESS TOTAL	CALCIUM DIS-	SIUM, DIS-	SODIUM, DIS-	SIUM, DIS-	RIDE, DIS-	SULFATE DIS-	RIDE, DIS-
	DUCT-	DIS-	(STAND-	(MG/L	SOLVED	SOLVED		SOLVED	SOLVED	SOLVED	SOLVED
DATE	ANCE	SOLVED	ARD	AS	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L
DITTE	(US/CM)	(MG/L)	UNITS)	CACO3)	AS CA)	AS MG)	AS NA)	AS K)	AS CL)	AS SO4)	AS F)
	(00095)	(00300)	(00400)	(00900)	(00915)	(00925)	(00930)	(00935)	(00940)	(00945)	(00950)
MAY	(/	(,	( /	(,	(	(/	(/	(,	(	( ,	(,
18	658	.91	6.9	360	82	37	4.1	.8	9.2	52	.2
	SILICA,			BERYL-			CHRO-				
	DIS-		BARIUM,	LIUM,	BORON,	CADMIUM		COBALT,	COPPER,	IRON,	LEAD,
	SOLVED	ARSENIC	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-
	(MG/L	TOTAL	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED
DATE	AS	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L
	SIO2)	AS AS)	AS BA)	AS BE)	AS B)	AS CD)	AS CR)	AS CO)	AS CU)	AS FE)	AS PB)
	(00955)	(01002)	(01005)	(01010)	(01020)	(01025)	(01030)	(01035)	(01040)	(01046)	(01049)
MAY	0.0	-	4.2	1 0	16.0		1.4	1.0	1.0	6.1	100
18	8.8	<1	43	<1.0	<16.0	< 8	<14	<12	10	61	<100
									AI	JKA- SOL	IDS,
	MÆ	NGA- MO	OLYB-		ST	RON- V.	ANA-		LIN		OF
	NE	ESE, DI	ENUM, NIC	KEL, SIL	VER, I	'IUM, D	IUM, Z	INC, LIT	HIUM WA	DIS CON	STI-
			DIS- DI								NTS,
											IS-
D.				,			,	,			LVED
											IG/L)
M7\37	(01	.056) (0:	1060) (01	065) (01	.075) (01	.080) (0	1085) (0	1090) (01	.130) (39	9086) (70	301)
MAY 18.	1	.2	<60 <	40 <	4	72	<10	<20 <	:4 2	272 3	50
10.	1	٠ ١	.00	±0 <	· <b>T</b>	12	~10 '	~20 <		. 1 2 3	50

394950084284500 Local number MT-1184

LOCATION -- Lat.  $39^{\circ}49'50"$  Long.  $84^{\circ}28'45"$ 

HYDROLOGIC UNIT -- 05080002 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 6 in diameter, 53 ft deep

WATER-QUALITY DATA, CALENDAR YEAR JANUARY 1998 TO DECEMBER 1998  PH  SPE- WATER HARD- MAGNE- POTAS- CHLO- FLUO  CIFIC WHOLE NESS CALCIUM SIUM, SODIUM, SIUM, RIDE, SULFATE RIDE  CON- OXYGEN, FIELD TOTAL DIS- DIS- DIS- DIS- DIS-	, - ED
SPE- WATER HARD- MAGNE- POTAS- CHLO- FLUO CIFIC WHOLE NESS CALCIUM SIUM, SODIUM, SIUM, RIDE, SULFATE RIDE	, - ED
	ED
DUCT- DIS- (STAND- (MG/L SOLVED SOLVE	т.
DATE ANCE SOLVED ARD AS (MG/L (MG/L (MG/L (MG/L (MG/L (MG/L (MG/L	
(US/CM) (MG/L) UNITS) CACO3) AS CA) AS MG) AS NA) AS K) AS CL) AS SO4) AS F	)
(00095) (00300) (00400) (00900) (00915) (00925) (00930) (00935) (00940) (00945) (0095	0)
MAY	
20 766 .06 6.9 420 87 49 13 2.0 5.1 30 1.4	
SILICA, BERYL- CHRO-	
DIS- BARIUM, LIUM, BORON, CADMIUM MIUM, COBALT, COPPER, IRON, LEAD	
SOLVED ARSENIC DIS- DIS- DIS- DIS- DIS- DIS- DIS- DIS-	
(Mg/L TOTAL SOLVED SOLV	
DATE AS (UG/L (UG/	
SIO2) AS AS BA) AS BB) AS B) AS B) AS CD) AS CR) AS CU) AS FE) AS F	
(00955) (01002) (01005) (01010) (01020) (01025) (01030) (01035) (01040) (01046) (0104	
MAY	
20 17 9 180 <1.0 64.3 <8 <14 <12 <10 1200 <100	
ALKA- SOLIDS,	
MANGA- MOLYB- STRON- VANA- LINITY SUM OF	
NESE, DENUM, NICKEL, SILVER, TIUM, DIUM, ZINC, LITHIUM WAT DIS CONSTI-	
DIS- DIS- DIS- DIS- DIS- DIS- DIS- TOT IT TUENTS,	
SOLVED SOLVED SOLVED SOLVED SOLVED SOLVED SOLVED FIELD DIS- DATE (UG/L (UG/L (UG/L (UG/L (UG/L (UG/L (UG/L MG/L AS SOLVED	
AS MN) AS MO) AS NI) AS AG) AS SR) AS V) AS ZN) AS LI) CACO3 (MG/L) (01056) (01060) (01065) (01075) (01080) (01085) (01090) (01130) (39086) (70301)	
MAY	
20 17 <60 <40 <4 2900 <10 <20 22 412 425	

#### **CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite**

395310084150400 Local number MT-1185

LOCATION -- Lat. 39°53'10" Long. 84°15'04"

HYDROLOGIC UNIT -- 05080001

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled irrigation water well, 6 in diameter, 100 ft deep.

			WAT	ER-Ç	•	Y DATA,	CALE	NDAR	YEAR	JANUZ	ARY	1998 7	ro d	ECEMB	ER 1	998					
	SP	E-			PH WATE	R HA	RD-			MAGI	VE-			POT	AS-	CHL	0-			FLUO-	
		FIC			WHOL			CALC		SI	,	SODI	,		UM,	RID	,	SULF	ATE	RIDE,	
	CO		OXYGI	,	FIEL		TAL	DIS		DIS		DIS-		DI		DIS		DIS		DIS-	
		CT-	DIS		(STAN		G/L	SOL		SOL		SOLVI		SOL		SOL		SOL		SOLVEI	)
DATE			SOLV		ARD	Α		(MG	,	(MG,		(MG)		(MG		(MG	,	(MG	,	(MG/L	
		/CM) 095)	(MG)	,	UNIT		CO3) 900)	AS (009	. ,	AS 1	- /	AS 1	,	AS 1	,	AS (009	. ,	AS S	. ,	AS F) (00950)	
MAY	(00)	095)	(0030	10)	(0040	3) (00	900)	(009	15)	(0092	25)	(0093	50)	(009.	35)	(009	40)	(009	45)	(00950)	
28	8	63	6.25	i	7.0	3	80	89		38		37			8	79		39		.2	
	SIL	ICA,				BE	RYL-					CHRO	) –								
	DI				BARIU		UM,	BOR	. ,	CADM:		MIUN	,	COBA	,	COPP		IRO	,	LEAD,	
		LVED	ARSE		DIS-	DI		DI		DIS		DIS-		DIS		DIS		DI		DIS-	
		G/L	TOTA		SOLVE		LVED	SOL		SOL		SOLV		SOLV		SOL		SOL		SOLVEI	)
DATE		.S O2)	(UG) AS A		(UG/		G/L	(UG AS	,	(UG,		(UG,		(UG)	,	(UG	,	(UG	,	(UG/L AS PB)	
		955)	(010)		(0100		BE) 010)	(010		(0102		(0103		(010)		AS (010		AS (010		(01049)	
MAY	(00	2331	(0100	,2,	(0100	J) (UI	010)	(010	20)	(0102	23)	(010.	50)	(010.	55)	(010	<del>1</del> 0)	(010	10/	(0104)	
28	9	. 4	<1		52	<1	. 0	18	.5	< 8		<14	1	<1	2	<1	0	<1	0	<100	
																		KA-		IDS,	
			NGA-		JYB-					RON-		NA-					LIN		SUM		
			SE,			NICKEL,		VER,		IUM,		UM,		NC,		HIUM		DIS	CONS		
			IS- LVED	DI	.S- LVED	DIS- SOLVED		IS- LVED		IS- LVED		IS- LVED		IS- LVED		IS- LVED		' IT ELD	TUE	NTS, IS-	
	DATE		G/L	(UC		(UG/L		IG/L		G/L		G/L		G/L		G/L		L AS		LVED	
	DITTE	, .	MN)	AS	,	AS NI)		AG)		SR)		V)		ZN)		LI)	- /	.CO3		3/L)	
			056)	(010	. ,	(01065)		075)		080)		085)		090)		130)		086)		301)	
MAY																					
2	8	<	4	<6	0	<40	<	:4		82	<	10		50	<	4	2	82	4	53	

394713084453500 Local number PR-48

LOCATION -- Lat.  $39^{\circ}47'13''$  Long.  $84^{\circ}45'35''$ 

HYDROLOGIC UNIT -- 05080002 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5.5 in diameter, 161 ft deep.

		WATER	-QUALITY D	DATA, CALE	NDAR YEAR	JANUARY	1998 TO I	DECEMBER	1998		
DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	(STAND-	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVE (MG/L AS CL	SULFAT DIS- ED SOLVE (MG/I L) AS SO4	DIS- D SOLVED (MG/L AS F)
MAY 19	572	.05	7.1	290	69	26	19	1.3	1.5	11	1.5
DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER DIS- SOLVE (UG/L AS CU	DIS- D SOLVE (UG/I J) AS FE	DIS- D SOLVED (UG/L AS PB)
19	15	14	190	<1.0	95.9	< 8	<14	<12	<10	1300	<100
<b>נ</b> ם	NI I SC ATE (I A:	ESE, D DIS- OLVED S UG/L ( S MN) A	DIS- DI OLVED SC UG/L (U S MO) AS	S- I DLVED SC JG/L (U S NI) AS	VER, TOUS- IN INC. DLVED SO JG/L (US) AG) AS	CIUM, DE DIS- E DLVED SO JG/L (1 S SR) AS	DIS- I DLVED SO UG/L (T S V) AS	DIS- I DLVED S UG/L (I S ZN) A	ITHIUM W DIS- T OLVED UG/L M S LI)	JINITY S JAT DIS C COT IT T FIELD IG/L AS CACO3	COLIDS, CUM OF CONSTI- CUENTS, DIS- SOLVED (MG/L) 70301)
MAY											
19.	!	56	<60 <	:40 <	:4 12	000	<10 .	<20	7	310	344

#### **CERCLA Assistance for the Lewisburg Drum Site** Ground-Water Quality Data for the Lockport Dolomite

395015084450400 Local number PR-49

LOCATION -- Lat. 39°50'15" Long. 84°45'04"

HYDROLOGIC UNIT -- 05080003

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5.5 in diameter, 221 ft deep.

		WATER	R-QUALITY I	DATA, CALE	ENDAR YEA	R JANUA	RY 19	98 TO D	ECEMBER :	1998			
DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)		WATER WHOLE FIELD (STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	DIS SOLV (MG/ AS M	IM, S S- S YED S 'L IG)	ODIUM, DIS- OLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHL RID: DIS SOL (MG AS	E, SULE - DIS VED SOI /L (MG CL) AS S	FATE RII S- DI LVED SOI S/L (MG SO4) AS	UO- DE, IS- LVED G/L F)
MAY 19	549	.04	7.2	270	68	24		21	1.0	2.	8 12	. 1	. 0
DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	ARSENIC TOTAL (UG/L AS AS)	SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	DIS	UM I S- I YED I 'L CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) 01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPP DIS SOL (UG AS	- DI VED SOI /L (UG CU) AS	S- D: LVED SOI S/L (UC FE) AS	AD, IS- LVED G/L PB) 049)
MAY 19	15	12	190	<1.0	89.6	< 8		<14	<12	<1	0 110	00 <10	00
	N S DATE ( A	ESE, I DIS- OLVED S UG/L ( S MN) F	DIS- DESCRIPTION D	IS- I OLVED SO UG/L (U S NI) AS	LVER, DIS- DLVED S JG/L ( S AG) A	TRON- TIUM, DIS- OLVED UG/L S SR) 1080)	VANA DIUM DIS SOLV: (UG/: AS V	, ZII - D ED SO L (UG	IS- I LVED SO G/L (I ZN) A	THIUM DIS- DLVED UG/L S LI) 1130)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	
MAY													
19		21	<60	<40 <	<4	5100	<10	<:	20 .	<4	284	329	

395408084460800 Local number PR-50

LOCATION -- Lat.  $39^{\circ}54'08"$  Long.  $84^{\circ}46'08"$ 

HYDROLOGIC UNIT -- 05080003 AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5.5 in diameter, 101 ft deep.

WELL CHARAC	IEKISIICS	DITITE	a domesti	.C water	well, 5	.5 III u	Talliete	:1, 101 1	t deep	•			
		WATER	-OUALITY	DATA. C	ALENDAR	YEAR JA	NUARY	1998 TO	DECEMBI	ER 1998			
			PH										
	SPE-		WATER	HARI	) –	M	AGNE-		POTA	AS- CH	LO-		FLUO-
	CIFIC		WHOLE	NESS	CALC	IUM	SIUM,	SODIUM,	SI	JM, RI	DE,	SULFATI	E RIDE,
	CON-	OXYGEN,	FIELD	TOTA	L DIS	- 1	DIS-	DIS-	DIS	S- DI	S-	DIS-	DIS-
	DUCT-	DIS-	(STAND-	(MG/	L SOL	VED S	OLVED	SOLVED	SOL	VED SO	LVED	SOLVE	O SOLVED
DATE	ANCE	SOLVED	ARD	AS	(MG	/L (	MG/L	(MG/L	(MG,	/L (M	G/L	(MG/L	(MG/L
	(US/CM)	(MG/L)	UNITS)	CACC	3) AS	CA) A	S MG)	AS NA)	AS 1	K) AS	CL)	AS SO4	AS F)
	(00095)	(00300)	(00400)	(0090	0) (009	15) (0	0925)	(00930)	(0093	35) (00	940)	(00945)	(00950)
MAY													
19	652	.05	7.0	380	90	3	6	5.6	1.3	2 5	. 7	37	.5
					_								
	SILICA			BERY				CHRO-					
	DIS-		BARIUM,		•		DMIUM	MIUM,	COBA	,	PER,	IRON,	LEAD,
	SOLVEI			DIS-			DIS-	DIS-	DIS		S-	DIS-	DIS-
DAME	(MG/L	TOTAL	SOLVED	SOLV			OLVED	SOLVED			LVED	SOLVE	
DATE	AS SIO2)	(UG/L	(UG/L	(UG/ AS E		, .	UG/L S CD)	(UG/L	(UG,		G/L	(UG/L	,
	(00955)	AS AS) (01002)					1025)	AS CR) (01030)			CU) 040)	AS FE	
MAY	(00955)	(01002)	(01005)	(0101	.0) (010	20) (0	1025)	(01030)	(010.	33) (01	040)	(01046	(01049)
MA1 19	16	8	260	<1.0	26	6	< 8	<14	<12	) -	10	1500	<100
19	10	0	200	<1.0	20	. 0	< 0	< T.4	<1.	۷	10	1300	<100
											ΔТ.	KA- S	OLIDS,
	1	MANGA- M	OLYB-			STRON	- VA	NA-			LIN		JM OF
				CKEL,	SILVER,				INC,	LITHIUM			ONSTI-
				DIS-	DIS-	DIS-			DIS-	DIS-			JENTS,
	5	SOLVED S	OLVED S	OLVED	SOLVED	SOLVE	D SC	LVED S	OLVED	SOLVED	FI		DIS-
I	DATE	(UG/L (	UG/L	UG/L	(UG/L	(UG/L	(T	JG/L (	UG/L	(UG/L	MG/	L AS	SOLVED
	1	AS MN) A	S MO) A	S NI)	AS AG)	AS SR	) AS	. V) A	S ZN)	AS LI)	CA	CO3	(MG/L)
	((	1056) (0	1060) (0	1065)	(01075)	(01080	) (01	.085) (0	1090)	(01130)	(39	086) ('	70301)
MAY													
19.		54	<60	<40	<4	750	<	:10	<20	8	3	34	381

#### **CERCLA Assistance for the Lewisburg Drum Site Ground-Water Quality Data for the Lockport Dolomite**

395339084422900 Local number PR-51

LOCATION -- Lat.  $39^{\circ}53'39''$  Long.  $84^{\circ}42'29''$  HYDROLOGIC UNIT -- 05080002

AQUIFER -- Lockport Dolomite

WELL CHARACTERISTICS -- Drilled domestic water well, 5 in diameter, 181 ft deep.

									·						-							
			WAT	ER-0	JUALI'	ry DA	ATA,	CALE	NDAR '	YEAR	JANUA	ARY	1998 1	O D	ECEMB	ER 1	998					
					PH		•															
	SPE	_			WAT	ER	HAR	D-			MAGN	IE-			POT	AS-	CHL	0-			FLUO-	
	CIF	IC			WHO	ĿΕ	NES	S	CALC	IUM	SIU	JM,	SODIU	JM,	SI	UM,	RID	Ε,	SULF	ATE	RIDE,	
	CON	_	OXYGE	N,	FIE	D	TOT.	AL	DIS	_	DIS	3 –	DIS-	-	DI	S-	DIS	-	DIS	-	DIS-	
	DUC	T-	DIS	-	(STA	ID-	(MG	/L	SOL	VED	SOLV	/ED	SOLVE	ED	SOL	VED	SOL	VED	SOL	VED	SOLVE	)
DATE	ANC	E	SOLV	ED	ARI	)	AS		(MG	/L	(MG/	'L	(MG/	'L	(MG	/L	(MG	/L	(MG	/L	(MG/L	
	(US/	CM)	(MG/	L)	UNI	rs)	CAC	03)	AS	CA)	AS N	(G)	AS N	IA)	AS	K)	AS	CL)	AS S	04)	AS F)	
	(000	95)	(0030	0)	(004	00)	(009	00)	(009	15)	(0092	25)	(0093	30)	(009	35)	(009	40)	(009	45)	(00950)	j
MAY																						
28	58	2	.04		7.1		32	0	77		30		7.	. 5	1.	2	1.	0	12		1.2	
	SILI	,					BER						CHRC									
	DIS				BARI	,	LIU	,	BOR	. ,	CADM1		MIUM	,	COBA		COPP	,	IRO	,	LEAD,	
	SOL		ARSEN		DIS		DIS		DI		DIS		DIS-		DIS		DIS		DI		DIS-	_
	(MG		TOTA		SOLV		SOL		SOL		SOLV		SOLV		SOLV		SOL		SOL		SOLVE	)
DATE	AS		(UG/		(UG		(UG		(UG		(UG/		(UG/		(UG	,	(UG	,	(UG	,	(UG/L	
	SIO		AS A		AS I		AS :		AS I		AS C		AS C		AS		AS		AS		AS PB	
MAY	(009	55)	(0100	2)	(010	)5)	(010	ΙΟ)	(010	20)	(0102	25)	(0103	30)	(010	35)	(010	40)	(010	46)	(01049)	,
28	17		13		23	1	<1.	0	49	0	< 8		<14		<1	2	<1	0	150	0	<100	
20	17		13		23	,	< 1.	U	49	. 0	<0		< 14	ŧ	< 1.	2	< 1	U	150	U	<100	
																		7\ T .	KA-	SOT.	IDS,	
		MΔ1	NGA-	MOI	LYB-					ST	RON-	VΔ	NA-					LIN		SUM		
			SE,		NUM,	NTCF	ŒL,	STL	VER,		IUM,		UM,	7.T1	NC,	T.TT	HIUM		DIS		STI-	
			IS-		IS-	DIS			IS-		IS-		IS-		IS-		IS-		' IT		NTS,	
			LVED		LVED		LVED		LVED		LVED		LVED		LVED		LVED		ELD		IS-	
	DATE		G/L		G/L	(UC			G/L		G/L		G/L		G/L		G/L		L AS		LVED	
			MN)		MO)	AS	,		AG)		SR)		V)		ZN)		LI)		.CO3		G/L)	
			056)		060)	(010			075)		080)		085)		090)		130)		086)		301)	
MAY																						
28	3	15	5	< (	60	<4	ł 0	<	4	4	500	<	10		39	1	0	3	28	3	50	

#### CERCLA Assistance for the Lewisburg Drum Site Synoptic Water-Level Survey near Lewisburg, Ohio

The following table contains ground-water-level data collected from domestic wells in Darke, and Preble Counties in mid July 1998. The wells were completed in either glacial sediments or the Lockport Dolomite; some were completed in both formations. These data were collected, as part of a cooperative study with the U.S. Environmental Protection Agency (USEPA), to determine the directions of ground-water flow in the vicinity of Lewisburg, Ohio. Water-level data also were collected in late May 1998, from domestic wells in Darke, Miami, Montgomery, and Preble Counties, as part of a related water-quality study. These wells were completed in the Lockport Dolomite. [FT, feet; BLS, below land surface; ---, not available]

.....

				DEPTH	ALTITUDE	DEPTH
WELL	MONTH	LATITUDE	LONGITUDE	OF WELL	OF LAND	TO WATER
NUMBER		(DEGREES)	(DEGREES)	(FT BLS)	SURFACE	(FT BLS)
D-88	May	395905	0842745	81	1020	10.6
D-89	May	400221	0843452	101	1065	21.32
D-91	May	400300	0844444	121	1117	15.53
D-92	May	400642	0843437	121	1042	29.97
D-93	May	400441	0843127	101	1024	8.2
	-					
D-94	May	400943	0843013	101	1001	12.1
D-96	May	401509	0844611	121	1043	14.06
D-97	May	401952	0844524	215	1095	95.7
D-98	May	401019	0843647	141	1003	.82
D-99	May	402004	0842715	111	963	14.95
D-100	May	401653	0843314	130	1022	40.24
D-101	May	401159	0842901	141	1005	37.57
D-102	July	395523	0844020	40	1132	19.73
D-103	July	395540	0844014	43	1120	9.24
D-104	July	395644	0843947	44	1098	10.69
D 10E	T., 1.,	205722	0042721	101	1001	22 11
D-105	July	395733	0843731		1091	22.11
D-106	July	395803	0843638	81 118	1095	20.04
D-107	July	395611	0843312		1030	13.47
D-108	July	395722	0843411	101	1050	18.59
D-109	July	395732	0843416	120	1040	5.09
D-110	July	395919	0843414	101	1060	4.14
D-111	July	395717	0843700	124	1090	20.37
D-112	July	395646	0843342	81	1050	11.55
D-113	July	395531	0843744	43	1090	16.02
D-114	July	395551	0843731	121	1081	9.82
2 111	oul,	333331	0013731		1001	3.02
D-115	July	395655	0843446	56	1066	10.41
D-116	July	395658	0843445	81	1062	14.75
D-117	July	395815	0843837	39	1080	4.04
D-118	July	395824	0843949	67	1100	8.17
D-119	July	395628	0843911	49	1100	16.49
D-120	July	395637	0843752	82	1081	14.08
D-121	July	395606	0843732	161	1080	15.06
D-122	July	395609	0843328	81	1022	5.33
D-123	July	395644	0843317	81	1040	6.45
D-124	July	395542	0843032	161	1046	28.25
D 10E	T., 1.,	205010	0042211	61	1050	0 12
D-125	July	395819	0843311		1050	8.13
D-126	July	395751	0842835	140	1030	8.98
D-127	July	395718	0842910	60	1037	8.18
D-128	July	395625 395557	0843021	173	1044	39.91
D-129	July	39555/	0842959		1042	13.08
D-130	July	395528	0843100	141	1040	36.06
D-131	July	395723	0843446	55.5	1063	5.18
D-132	July	395723	0843445	61	1065	13.59
D-133	July	395712	0843434	81	1050	13.82
D-134	July	395710	0843429	81	1046	16.14
2 231	ou1	333710	0013123	01	1010	10.11
D-135	July	395706	0843406	121	1056	26.2
D-136	July	395631	0843323	81	1040	8.32
D-137	July	395549	0843027	161	1049	26.97
D-138	July	395550	0843029	141	1049	32.72
D-139	July	395649	0843004	147	1040	31.94
D-140	July	395551	0843901	70	1104	11.80
D-141	July	395627	0843319	101	1035	10.82
D-142	July	395625	0843320	61	1036	14.67
D-143	July	395553	0843732	121	1081	16.28
D-144	July	395551	0844019	42	1120	7.58

PROJECT DATA
CERCLA Assistance for the Lewisburg Drum Site
Synoptic Water-Level Survey near Lewisburg, Ohio

		Synop	tic Water-Lev	el Survey ne	ear Lewisbur	g, Ohio
				DEPTH	ALTITUDE	DEPTH
WELL	MONTH	LATITUDE	LONGITUDE	OF WELL	OF LAND	TO WATER
NUMBER	11014111	(DEGREES)	(DEGREES)	(FT BLS)	SURFACE	(FT BLS)
NOTIBER		(DEGREED)	(DEGREED)	(II DED)	DOMINICE	(II DED)
D-145	July	395559	0843031	161	1045	23.05
D-146	July	395635	0843307	81	1038	10.42
D-140 D-147	July	395506	0843129	42	1042	9.16
	-					
D-148	July	395550	0843048	122	1043	23.77
D-149	July	395545	0843338	88	1045	14.01
D-150	July	395553	0843330	180	1030	24.27
D-151	July	395545	0843304	85	1021	15.3
D-152	July	395541	0843548	45	1070	5.89
D-153	July	395618	0843346	101	1058	24.36
D-154	July	395536	0843542	46	1070	5.97
D-155	July	395507	0843544	121	1060	.21
D-156	July	395612	0843345	81	1046	18.6
D-157	July	395646	0843324	81	1043	7.68
MI-1084	May	400724	0842518	110	1002	39.3
MI-1085	May	400143	0842524	81	1002	8.8
	-					
MI-1087	May	400954	0841936	88	985	14.73
MT-1183	May	395328	0842310	81	1033	6.0
MT-1184	May	394950	0842845	53	1050	30.62
MT-1185	May	395310	0841504	100	990	10.0
PR-48	May	394713	0844535	161	1080	35.6
FK-40	May	334713	0044555	101	1000	33.0
PR-49	Morr	395015	0844504	221	1210	66 92
	May					66.82
PR-50	May	395408	0844608	101	1100	56.62
PR-51	May	395339	0844229	181	1201	81.75
PR-52	July	395242	0843332	59	1015	20.08
PR-53	July	395212	0843118	68	1017	50.16
PR-54	July	395401	0843048	181	1026	46.04
PR-55	July	395403	0843049	179	1025	42.6
PR-56	July	395208	0843229	135	1000	43.37
PR-57	July	395406	0843738	66	1090	10.01
PR-58	July	395414	0843804	38	1100	10.76
PR-59	July	395246	0843650	84	1080	15.7
PR-60	July	395405	0843912	45	1119	11.42
PR-61	July	395404	0843410	133	1070	32.66
PR-62	July	395328	0843803	41	1100	10.05
PR-63	July	395305	0843904	81	1139	35.64
PR-64	July	395257	0843809	102	1100	17.77
PR-65	July	395246	0843757	46	1110	15.08
PR-66	July	395333	0843739	58	1090	11.48
PR-67	July	395159	0843740	44	1100	10.4
PR-68	July	395133	0843740	104	1094	15.09
PK-00	July	393133	0043739	104	1094	15.09
DD 60	T 1	204056	0042740		1100	26 15
PR-69	July	394956	0843749		1100	36.15
PR-70	July	395435	0844141	102	1150	22.58
PR-71	July	395156	0843737		1100	15.21
PR-72	July	395207	0843842	102	1110	9.02
PR-73	July	395200	0843820	80	1108	13.27
PR-74	July	395137	0843728	100	1100	20.39
PR-75	July	395445	0843733	101	1091	13.6
PR-76	July	395157	0843729		1100	12.66
PR-77	July	394914	0843429	20	1007	15.7
PR-78	July	394855	0843451	80	1053	27.35
PR-79	July	394900	0843259	110	1013	36.1
PR-80	July	394807	0843457	40	1043	15.13
PR-81	July	394917	0843339	52	1040	18.25
PR-82	July	394840	0843410	100	1020	19.1
PR-83	July	395425	0844151	101	1150	24.81
	-					
PR-84	July	395434	0843916	49	1111	7.61
PR-85	July	395429	0843846	142	1110	4.38
PR-86	July	394856	0843217	75	982	13.01
PR-87	July	394810	0843259	42	990	15.68
PR-88	July	394805	0843251	119	983	52.29
00	~ ~ ± y	551005	0010201		555	22.27
PR-89	July	394952	0843903	101	1120	31.54
PR-90	July	394941	0843957	101	1110	10.07
				53		
PR-91	July	394916	0843616		1084	33.77
PR-92	July	394930	0843233	60	1004	21.78
PR-93	July	394906	0843254	103	1011	21.10

PROJECT DATA
CERCLA Assistance for the Lewisburg Drum Site
Synoptic Water-Level Survey near Lewisburg, Ohio

				DEPTH	ALTITUDE	DEPTH
WELL	MONTH	LATITUDE (DECREE)	LONGITUDE	OF WELL	OF LAND	TO WATER
NUMBER		(DEGREES)	(DEGREES)	(FT BLS)	SURFACE	(FT BLS)
PR-94	July	394822	0843350	35.6	987	21.45
PR-95	July	394819	0843355	45	1010	26.40
PR-96	July	394834	0843218 0843338	26	987	8.58
PR-97 PR-98	July July	394947 394947	0843338	52 43	1030 1034	13.6 17.71
110 30	oury	331317	0013310	15	1031	17.71
PR-99	July	395041	0843052	43	1020	17.41
PR-100	July	395050	0843110	60	1000	11.37
PR-101	July	395158	0843031	102	1032	42.15
PR-102	July	395227	0843002	50	1030	17.97
PR-103	July	395040	0843055	55	1018	11.56
PR-104	July	394837	0843107	52	983	24.87
PR-105	July	394845	0843114	80	1000	51.69
PR-106	July	394901	0843053	141	1022	22.79
PR-107	July	394937	0843121	121	1000	22.35
PR-108	July	394940	0843002	58	1050	28.98
PR-109	July	395316	0843021	84	1035	45.67
PR-110	July	395230	0843001	80	1005	45.20
PR-111	July	395349	0843048	158	1010	46.74
PR-112	July	395422	0842941	189	1020	41.72
PR-113	July	395411	0843007	71	1030	12.47
DD 114	71	205010	0042004	0.0	1010	FF
PR-114 PR-115	July July	395219 395229	0843224 0843213	92 82	1010 1002	57.58 49.13
PR-115	July	395231	0843215	108	1020	60.6
PR-117	July	395201	0843223	142	990	58.48
PR-118	July	395150	0843203	80	994	30.3
	- 1					
PR-119	July July	395200	0843221	120	1012	50.9
PR-120 PR-121	July	394955 395000	0843115 0843115	168 125	1011 1008	20.4 15.9
PR-122	July	395000	0843126	101	1000	12.09
PR-123	July	395011	0843052	101	1030	32.83
	-					
PR-124	July	395124	0843059	123	1000	57.44
PR-125	July	395413	0842949	150	1027	41.97
PR-126	July	395502	0843247	62	1030	35.0
PR-127 PR-128	July July	395136 395148	0843413 0843314	25 90	1040 991	10.1 30.18
111 120	0417	333110	0013311	30	331	30.10
PR-129	July	395037	0843425	60	1050	2.59
PR-130	July	395056	0843633	20	1080	11.86
PR-131	July	395128	0844000	102	1030	8.36
PR-132	July	395135	0844027	179 78	1142	23.2
PR-133	July	395223	0844016	70	1128	8.77
PR-134	July	395252	0844039	161	1136	17.3
PR-135	July	395333	0844039	101	1132	15.1
PR-136	July	395317	0843027		1030	45.97
PR-137	July	394900	0843007	65	1042	30.4
PR-138	July	395105	0843527	101	1071	10.77
PR-139	July	395139	0843335	35	1020	13.79
PR-140	July	395313	0843344	45	1045	5.6
PR-141	July	395212	0843403	44	1040	28.19
PR-142	July	395301	0843356	110	1055	31.72
PR-143	July	395137	0843439	101	1038	12.01
PR-144	July	395419	0842940	37	1020	10.01
PR-145	July	395408	0843132	101	1006	31.54
PR-146	July	395203	0843229	130	998	47.34
PR-147	July	395453	0842946	51	1028	10.82
PR-148	July	395141	0843334	40	1010	.65
PR-149	July	395323	0843128	70	990	24.35
PR-149 PR-150	July	395253	0843228	50	1040	3.69
PR-150	July	395328	0843230	80	1042	5.52
PR-152	July	395352	0843346	160	1063	31.87
PR-153	July	395427	0843452	50	1063	22.34
DD 154	T1177	205400	0042515	26	1052	16 10
PR-154 PR-155	July July	395402 395402	0843515 0843426	36 175	1052 1068	16.19 28.5
PR-155 PR-156	July	395402	0843237	81	1030	29.85
PR-157	July	395204	0843442	95	1040	35.39
PR-158	July	395138	0843354	79	1030	16.55
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PROJECT DATA
CERCLA Assistance for the Lewisburg Drum Site
Synoptic Water-Level Survey near Lewisburg, Ohio

WELL	MONTH	LATITUDE	LONGITUDE	DEPTH OF WELL	ALTITUDE OF LAND	DEPTH TO WATER
NUMBER	MONIA	(DEGREES)	(DEGREES)	(FT BLS)	SURFACE	(FT BLS)
NUMBER		(DEGREES)	(DEGREES)	(FI BLS)	SURFACE	(FI BLS)
PR-159	July	395400	0843229	81	1035	23.07
PR-160	July	395150	0843539	85	1070	23.46
PR-161	July	395036	0843520	101	1076	15.89
PR-162	July	395247	0843545	38	1060	18.98
PR-163	July	395230	0843637	70	1080	18.01
PR-164	July	395156	0843551	60	1060	17.35
PR-165	July	394945	0843700	61	1080	18.05
PR-166	July	395136	0843628	70	1080	14.97
PR-167	July	395318	0843202	101	1025	3.45
PR-168	July	395214	0843231	150	1009	52.56
PR-169	July	395317	0843347	70	1053	12.4
PR-170	July	395228	0843320	112	1014	59.35
PR-171	July	395303	0843340	70	1046	18.22
PR-172	July	395308	0843338	60	1050	15.19
PR-173	July	395332	0843513	53	1060	20.66
PR-174	July	395154	0843540	101	1060	19.55
PR-175	July	394937	0843746	101	1115	42.82
PR-176	July	395305	0843220	121	1040	8.6
PR-177	July	395318	0843024	121	1036	50.43
PR-178	July	395115	0843317	60	1016	10.78
PR-179	July	395003	0843113	50	1010	19.01

#### Results from Selected Sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Agricultural Land-Use Study

The following tables contain water-level and water-quality data from a network of 30 monitor wells installed as part of the NAWQA (National Water-Quality Assessment Program) Agricultural Land-Use Study. The goal of the study is to assess how agricultural land use affects shallow ground-water quality. Similar studies have been done in other drainage basins throughout the country.

The monitor wells were installed in areas that meet the following specifications: (1) the land use is agricultural (primarily corn and soybean rowcrops), (2) the surficial sediment is glacial till that is greater than 100 feet thick, (3) the bedrock is shale and sandstone of Upper Devonian to Lower Mississippian age, and (4) the physiographic province is the Central Lowlands. The wells were screened in the shallowest saturated sand-and-gravel lens within the till. Water samples from the wells were tested for physical characteristics, nutrients, major elements, and pesticides. Water-level records are presented first, followed by the water-quality data.

The monitor well network is shown in figure 11. At some locations, a monitor well is co-located with a domestic well sampled for the NAWQA Subunit Survey.

# Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Agricultural Land-Use Study-Continued

REMARKS. -- 112TILL: Pleistocene till; 112SDGV: Pleistocene sand and gravel;  $\mu$ S/cm: microsiemens per centimeter at 25 degrees Celsius; DEG C: degrees Celsius; mg/L: milligrams per liter;  $\mu$ g/L: micrograms per liter; pCi/L: picocuries per liter; --: no data.

SITE-ID	LOCAL WELL NUMBER	LOCATION MAP NAME	ALTITUDE OF LAND SURFACE (FEET)	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER- LEVEL DATE	WATER LEVEL (FEET)
		DEKALB COUNTY,	INDIANA				
413053084565100	AG033-7	HAMILTON, IND.	962	18.1	112TILL	10-22-97 11-18-97 05-07-98 06-08-98 06-18-98	5.23 5.26 4.42 5.57 15.81
		HILLSDALE COUNTY	, MICHIGAN			00 10 90	13.01
414728084390400	AG059-8	READING, MICH.	1023	13.5	112TILL	10-29-97 05-06-98 06-16-98	2.19 .40 2.70
414520084374800	AG059-9	READING, MICH.	1028	18.4	112TILL	10-29-97 11-19-97 06-17-98	10.75 10.94 9.14
414611084262000	AG059-10	PITTSFORD, MICH.	903	13.1	112TILL	10-29-97 05-05-98 06-19-98	6.54 5.55 6.61
414907084243100	AG059-11	PITTSFORD, MICH.	925	16.6	112TILL	10-29-97 05-05-98 07-10-98	8.90 3.67 7.53
415026084220000	AG059-12	HUDSON, MICH.	917	28.7	112SDGV	10-29-97 05-06-98 07-22-98	24.38 22.88 23.91
420047084234900	AG059-13	SOMERSET CENTER, MICH.	1107	19.1	112TILL	10-28-97 11-20-97 07-09-98	16.06
		LAPEER COUNTY,	MICHIGAN				
430336083012700	AG087-24	IMLAY CITY, MICH.	820	24.4	112TILL	11-03-97 07-12-98 07-16-98	7.79 8.15 20.06
425758083040100	AG087-29	ALMONT, MICH.	835	11.2	112TILL	11-04-97 11-19-97 11-20-97 07-13-98	8.29 8.25 8.28 8.33
		LENAWEE COUNTY,	MICHIGAN				
414320084161200	AG091-14	FAYETTE, OHIO-MICH.	804	14.1	112TILL	10-30-97 05-13-98 07-08-98	6.47
414519084161600	AG091-15	HUDSON, MICH.	822	29.0	112TILL	10-30-97 05-13-98 05-14-98 07-24-98	22.29 18.01 18.02 21.96
415456084095500	AG091-16	ROME CENTER, MICH.	870	11.6	112TILL	10-28-97 05-14-98 05-15-98 07-20-98	2.92 3.01

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

SITE-ID	LOCAL WELL NUMBER	LOCATION MAP NAME	ALTITUDE OF LAND SURFACE (FEET)	DEPTH OF WELL (FEET)		WATER- LEVEL DATE	WATER LEVEL (FEET)
		LENAWEE COUNTY, MIC	CHIGAN—Contin	ued			
420054084024000	AG091-17	TIPTON, MICH.	875	23.4	112TILL	10-28-97 11-20-97 07-23-98	15.73
420303084040300	AG091-18	TIPTON, MICH.	950	14.1	112TILL	10-28-97 10-31-97 11-20-97 05-14-98 07-21-98	11.31 11.36 8.65
		MACOMB COUNTY	, MICHIGAN			07 21 30	10.52
425204083011600	AG099-30	ROMEO, MICH.	817	10.6	112TILL	11-04-97	4.14
		ST CLAIR COUNT	Y, MICHIGAN			07-13-98	5.64
430847082462000	AG147-25	YALE, MICH.	783	9.1	112TILL	11-05-97 11-19-97 11-20-97 07-15-98	2.46
		SANILAC COUNTY	, MICHIGAN			07-13-96	4.30
431328082520100	AG151-26	YALE, MICH	795	17.0	112TILL	11-05-97 11-19-97 11-20-97 07-14-98	13.85 13.85
431730082492900	AG151-27	PECK, MICH.	760	22.5	112TILL	11-06-97 11-18-97 07-14-98	3.76
433501082452500	AG151-28	PALMS, MICH.	820	34.1	112TILL	11-06-97 11-18-97 11-20-97	19.93 19.94
		WASHTENAW COUNT	TY, MICHIGAN			08-05-98	23.78
421225083593300	AG161-19	BRIDGEWATER, MICH.	945	13.7	112TILL	10-17-97 11-12-97 11-13-97 06-26-98	8.93 8.91
421125083533800	AG161-20	BRIDGEWATER, MICH.	923	11.4	112TILL	10-16-97 06-25-98	6.66 5.20
421237083523500	AG161-21	BRIDGEWATER, MICH.	923	27.7	112TILL	10-14-97 10-15-97 06-23-98	13.54
421244083492000	AG161-22		886	18.9	112TILL	10-17-97 11-13-97 06-24-98	
		WILLIAMS COU	NTY, OHIO				
413923084472000	AG171-1	CLEAR LAKE, INDOHIO-MI	CH. 973	9.8	112TILL	08-17-97 10-21-97 10-21-97 10-23-97 11-19-97 05-12-98 06-08-98	2.16 3.03 3.07 1.81

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

			ALTITUDE					
		LOCATION	OF LAND	DEPTH		WATER-	WATER	
	LOCAL	MAP	SURFACE	OF WELL	AQUIFER	LEVEL	LEVEL	
SITE-ID	WELL NUMBER	NAME	(FEET)	(FEET)	CODE	DATE	(FEET)	
		WILLIAMS COUNTY, (	OHIO—Continue	ed				
413520084460500	AG171-2	EDON, INDOHIO	925	31.0	112TILL	10-21-97	23.62	
						05-07-98	15.85	
						06-09-98	23.52	
						07-06-98	24.24	
413148084472200	AG171-3	EDON, INDOHIO	894	18.1	112TTLL	10-21-97	8.07	
						10-24-97		
						10-30-97		
						11-19-97		
						05-12-98		
						06-08-98	9.56	
						06-10-98	9.81	
412710004261000	20171 4	MONITORI TED OUTO	0.62	11 5	110000	10 22 07	6 65	
413719084361000	) AG1/1-4	MONTPELIER, OHIO	863	11.5	112TILL	10-22-97		
						10-23-97		
						06-11-98	6.77	
414125084360800	AG171-5	PIONEER, OHIO-MICH.	923	19.4	112TILL	10-23-97	13.74	
						11-18-97	16.93	
						05-12-98	13.20	
						06-09-98	16.16	
						07-07-98	17.16	
413746084341400	) AG171-6	PIONEER, OHIO-MICH.	868	22.2	112TIL	10-22-97	5.79	
		,				11-18-97		
						05-11-98		
						06-09-98	7.03	
413140084442300	AG171-31	BLAKESLEE, OHIO	870	29.1	112TILL	10-21-97		
						11-18-97		
						05-12-98		
						06-10-98		
						06-15-98	23.48	

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL)	OF WELL,		CIFIC CON- DUCT-	PH WATER WHOLE FIELD (STAND- ARD
			(FEET) (72019)		NGVD) (72000)		UNITS) (00400)
	DE KALE	B COUNT	Y, INDIANA	1			
AG033-7	06-18-98	1300	15.81	18.1	962	2050	6.7
	HILLSDAL	E COUNT	Y, MICHIGA	AN			
AG059-8	06-16-98	1500	2.70	13.5	1023	685	7.3
AG059-9	06-17-98	1300	9.14	18.4	1028	1700	6.9
AG059-10	06-19-98	1100	6.61	13.1	903	1480	7.0
AG059-11	07-10-98	1200		16.6	925	1720	6.6
AG059-12	07-22-98				917	591	7.2
AG059-13	07-09-98	1300	12.25	19.1	1107	758	6.9
	LAPEER	COUNTY	, MICHIGAN	I			
AG087-24	07-16-98	1000	20.06	24.4	820	1030	6.8
AG087-29	07-13-98	1600	8.33	11.2	835	800	7.1
	LENAWEE	COUNTY	, MICHIGAN	N			
AG091-14	07-08-98	1300	9.25	14.1	804	1660	6.9
AG091-15	07-24-98	1300	21.96	29.0	822	1250	6.9
AG091-16	07-20-98	1500	4.75	11.6	870	1980	6.6
AG091-17	07-23-98	1200	15.41	23.4	875	1550	6.9
AG091-18	07-21-98	1400	10.92	14.1	950	701	7.1
	MACOMB	COUNTY	, MICHIGAN	I			
AG099-30	07-13-98	1200	5.64	10.6	817	1350	7.0
	ST CLAIF	R COUNT	Y, MICHIGA	ΔN			
AG147-25	07-15-98	1200	4.36	9.1	783	656	7.2
	SANILAC	COUNTY	, MICHIGA	N			
AG151-26	07-14-98	1200	12.47	17.0	795	747	7.0
AG151-27	07-14-98	1500	4.00	22.5	760	594	7.3
AG151-28	08-05-98	1200	23.78	34.1	820	574	7.4
	WASHTENA	W COUNT	Y, MICHIGA	AN			
AG161-19	06-26-98	1200	7.76	13.7	945	723	7.0
AG161-20	06-25-98	1300	5.20	11.4	923	691	7.0
AG161-21	06-23-98	1700	10.95	27.7	923	1660	6.9
AG161-22	06-24-98	1300	3.01	18.9	886	803	6.9
	WILLIA	AMS COUI	NTY, OHIO				
AG171-1	06-08-98	1700	3.36	9.8	973	593	7.1
AG171-2	07-06-98	1500	24.24	31.0	925	3090	7.0
AG171-3	06-10-98	0900	9.81	18.1	894	807	7.3
AG171-4	06-11-98	1000	6.77	11.5	863	495	7.3
AG171-5	07-07-98	1300	17.16	19.4	923	3290	6.9
AG171-6	06-09-98	1200	7.03	22.2	868	1400	7.3
AG171-31	06-15-98	1300	23.48	29.1	870	740	7.1

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	DATE	TEMPER- ATURE WATER (DEG C) (00010)	DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915) INDIANA	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)		ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)
AG033-7	06-18-98	21.3	2.2	1300	340	110	20	2.7	402
			HILLSDALE	COUNTY,	MICHIGAN				
AG059-8 AG059-9	06-16-98 06-17-98		.1 1.2	350 530	95 140	28 43	4.0 130	1.2 8.5	209 327
AG059-9 AG059-10	06-17-98		.2	630	190	39	41	5.3	194
AG059-11	07-10-98		1.4	1100	240	110	45	6.7	542
AG059-12	07-22-98	19.7	9.1	310	92	19	3.9	.8	242
AG059-13	07-09-98	15.8	.2	370	110	24	6.0	16	326
			LAPEER	COUNTY, I	MICHIGAN				
AG087-24	07-16-98	17.1	7.2	510	76	79	30	3.9	473
AG087-29	07-13-98		6.6	380	100	30	7.9	.8	258
			LENAWEE	COUNTY,	MICHIGAN				
AG091-14	07-08-98	16.2	. 9	680	130	88	24	61	418
AG091-15	07-24-98		. 3	660	110	93	24	3.7	476
AG091-16	07-20-98	21.0	.7	1300	410	59	9.5	2.3	451
AG091-17	07-23-98	14.6	.1	670	160	66	46	3.0	376
AG091-18	07-21-98	30.1	6.3	340	97	23	6.3	20	269
			MACOMB	COUNTY, I	MICHIGAN				
AG099-30	07-13-98	15.8	.2	440	120	36	100	1.4	304
			ST CLAIR	COUNTY,	MICHIGAN				
AG147-25	07-15-98	19.5	1.4	340	85	30	8.7	1.4	263
			SANILAC	COUNTY,	MICHIGAN				
AG151-26	07-14-98	14.6	9.5	400	100	34	5.0	1.7	301
AG151-27	07-14-98	12.8	.3	300	74	28	14	1.7	294
AG151-28	08-05-98	19.1	3.7	260	44	36	34	2.0	305
			WASHTENAW	COUNTY,	MICHIGAN				
AG161-19	06-26-98	13.6	.1	390	110	28	5.5	1.5	331
AG161-20	06-25-98	20.8	3.8	350	96	27	9.7	.8	320
AG161-21	06-23-98	12.2	.2	590	150	54	130	2.4	452
AG161-22	06-24-98	15.4	2.0	450	120	39	6.3	.8	361
			WILLIA	MS COUNT	Y, OHIO				
AG171-1	06-08-98	16.9	. 8	250	76	13	32	2.9	277
AG171-2	07-06-98		3.0	770	130	110	460	5.3	480
AG171-3	06-10-98		4.7	430	92	48	14	1.6	364
AG171-4	06-11-98	13.6	1.0	220	62	16	2.6	24	248
AG171-5	07-07-98	26.3	4.6	1300	170	200	410	32	552
AG171-6	06-09-98	13.2	2.0	630	88	100	100	3.8	466
AG171-31	06-15-98	23.0	.9	360	82	38	22	3.5	423

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
				DE KA	LB COUNTY	, INDIANA					
AG033-7	06-18-98	900	23	. 3	.06	20	1840	.01	<.05	.25	. 3
				HILLSDA	ALE COUNTY	, MICHIGA	AN				
30050	06.16.00	60	4.2	0	0.5		415	2.0	F 0	0.5	
AG059-8	06-16-98		43	.2		5.5	417	.30	5.9	.07	<.1
AG059-9	06-17-98		160	. 2		11	892	.03	3.4	1.2	1.3
AG059-10	06-19-98		250	<.1		5.9	1060	<.01		.14	.3
AG059-11 AG059-12	07-10-98 07-22-98		25 16	.3		16	1380 352	<.01	<.05 3.6	.05	.2
	07-22-98		15			9.5 11				.03	
AG059-13	07-09-98	3 /	15	.2	.04	11	503	<.01	10	.03	.3
				LAPEE	R COUNTY,	MICHIGAN					
AG087-24	07-16-98	110	11	1.0	.10	15	645	.02	.17	.12	.2
AG087-29	07-13-98		82	<.1		9.3	444	<.01		.04	<.1
				LENAW	EE COUNTY,	MTCHTGAN	1				
					,						
AG091-14	07-08-98		250	. 4		15	1030	< .01		.02	. 4
AG091-15	07-24-98		42	.6		14	790	< .01		.04	.1
AG091-16	07-20-98		12	.2	.02	18	1780	.01		1.0	1.7
AG091-17	07-23-98	71	230	. 4	.60	19	878	< .01	.08	.18	.2
ag091-18	07-21-98	43	21	<.1	.04	8.5	459	<.01	7.3	.02	<.1
				MACOM	B COUNTY,	MICHIGAN					
AG099-30	07-13-98	83	200	.1	.10	8.4	758	<.01	<.05	.05	. 2
				ST CLA	IR COUNTY	, MICHIGA	N				
20115 05									0.5		
AG147-25	07-15-98	80	14	.3	.04	15	429	.01	<.05	.11	.2
				SANIL	AC COUNTY,	MICHIGAN	Ŋ				
AG151-26	07-14-98	36	13	.2	.04	8.5	470	<.01	15	.04	.1
AG151-27	07-14-98	18	16	.6	.04	15	353	< .01	<.05	.19	.9
AG151-28	08-05-98	17	.8	1.2	.04	15	325	.06	.17	.12	<.1
				WASHTE	NAW COUNTY	, MICHIGA	AN				
AG161-19	06-26-98	59	11	. 2	.04	13	448	<.01	<.05	.05	<.1
AG161-20	06-25-98		8.9	.2		12	405	<.01		.02	<.1
AG161-21	06-23-98		240	. 4		14	1000	<.01		.07	.2
AG161-22	06-24-98		20	.2		13	485	.01		<.02	<.1
110101 22	00 21 90		20				100	.01	,	1.02	
				WILL	IAMS COUN	TY, OHIO					
AG171-1	06-08-98	16	18	.1	<.01	10	354	.01	<.05	.06	.5
AG171-2	07-06-98		350	1.0		14	2210	<.01		.04	.8
AG171-3	06-10-98		8.0	.5	.05	15	498	<.01		.02	.1
AG171-4	06-11-98		3.1	.1		8.7	309	.01		.07	.8
AG171-5	07-07-98		390	.6	.27	16	2870	.01	.06	.04	.4
AG171-6	06-09-98		43	1.2	.11	16	1020	.02	.30	.14	.2
AG171-31	06-03-98			.8	.01	18	444	.02		2.6	3.0
1101,1 01	55 15 50	2.,	2.2	.0	.01	10	117	.01		2.0	5.0

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	DATE	PHORUS DIS- SOLVED (MG/L AS P) (00666)	(MG/L AS P) (00671)	DIS- SOLVED (UG/L AS FE)	DIS- SOLVED (UG/L AS MN)	ORGANIC DIS- SOLVED (MG/L AS C)	TRITIUM TOTAL (PCI/L)
	DE KAL	B COUNTY	, INDIANA				
AG033-7	06-18-98	<.01	<.01	1700	100	2.0	46
	HILLSDAI	LE COUNTY	, MICHIGAI	N			
AG059-8	06-16-98	<.01	.01	<10	120	. 7	24
AG059-9	06-17-98	.04	.01	<10	81	1.8	40
AG059-10	06-19-98	<.01	< .01	810	360	2.7	42
AG059-11	07-10-98	<.01	.02	110	320	2.7	82
AG059-12	07-22-98	<.01	< .01	<10	< 4	. 9	45
AG059-13	07-09-98	<.01	.03	<10	11	2.0	46
	LAPEER	COUNTY,	MICHIGAN				
7007 04	07 16 00	0.7	.01	<10	56	1.9	1.9
AG087-24 AG087-29			<.01		<4	1.9	61
AG007 29	07 13 30	.02	V.01	V10	~1	1.1	01
	LENAWE	E COUNTY,	MICHIGAN				
AG091-14	07-08-98	.01	.02	20	76	3.6	49
AG091-15	07-24-98	<.01	.01	15	390	2.2	84
AG091-16	07-20-98	<.01	.02	9300	3000	12	46
AG091-17	07-23-98			5600	78	1.8	61
AG091-18	07-21-98	<.01	<.01	<10	<4	2.0	27
	MACOMB	COUNTY,	MICHIGAN				
AG099-30	07-13-98	<.01	.02	37	270	2.5	56
	ST CLAI	R COUNTY	, MICHIGAN	ı			
AG147-25	07-15-98	<.01	.02	930	61	1.4	44
	SANILA	C COUNTY,	MICHIGAN				
AG151-26	07-14-98	<.01	.02	<10	<4	1.6	64
AG151-27	07-14-98	.18	.03	700	22	1.3	13
AG151-28	08-05-98	<.01	.01	<10	160	1.0	<1
	WASHTENA	AW COUNTY	, MICHIGA	N			
AG161-19	06-26-98	<.01	<.01	830	150	1.3	44
AG161-20	06-25-98		<.01	<10	7	1.3	45
AG161-21	06-23-98		.01	1200	120	1.6	31
AG161-22	06-24-98		<.01	<10	<4	1.2	45
	WILLI	AMS COUN	TY, OHIO				
AG171-1	06-08-98	.26	.29	16	44	5.7	42
AG171-2	07-06-98		.01	<30	100	2.4	1
AG171-3	06-10-98		<.01	<10	26	2.0	38
AG171-4	06-11-98		<.01	580	370	7.5	37
AG171-5	07-07-98		<.01	<30	210	4.7	33
AG171-6	06-09-98		<.01	14	24	1.4	<1
AG171-31	06-15-98	<.01	<.01	930	18	7.4	<1

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Agricultural Land-Use Study - Pesticides

REMARKS.-- E: compound was detected at a concentration too low to be accurately quantified.

LOCAL WELL NUMBER		CHLOR, WATER FLTRD REC (UG/L)	WATER, DISS, REC, (UG/L)	ZINE, WATER, DISS, REC (UG/L)	ATRA- ZINE, WATER, DISS, REC (UG/L)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	ALIN WAT FLD 0.7 U GF, REC (UG/L)	ATE, WATER, DISS, REC (UG/L)	FLTRD 0.7 U GF, REC (UG/L)	FLTRD 0.7 U GF, REC (UG/L)
				DE KALB	COUNTY,	INDIANA				
AG033-7	06-18-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
				HILLSDALE	COUNTY,	MICHIGAN				
70050 0	06 16 00	. 000	. 000	. 001		. 001	. 000	. 000	. 003	<.003
	06-16-98									
AG059-9 AG059-10										
AG059-11 AG059-12	07-10-98	< .002	< .002	< .001	< .002	< .001	< .002	< .002	< .003	< .003
AG059-12 AG059-13										
AG039-13	07-09-98	<.002	<.002	.11	E.005	V.001	₹.002	<.002	<.003	<.003
				LAPEER	COUNTY, M	ICHIGAN				
AG087-24	08-04-98	< 0.02	< 0.02	< 0.01	< 002	< 0.01	< 0.02	< 0.02	< 0.03	<.003
AG087-29										
				LENAWEE	COUNTY, M	ITCHTGAN				
AG091-14	07-08-98	< .002	<.002	<.001	<.002	< .001	<.002	<.002	<.003	<.003
AG091-15	07-24-98	<.002	<.002	<.001	<.002	< .001	<.002	<.002	<.003	<.003
AG091-16										
AG091-17										
AG091-18	07-21-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
				MACOMB	COUNTY, M	ICHIGAN				
AG099-30	07-13-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
				ST CLAIR	COUNTY, I	MTCHTGAN				
AG147-25	07-15-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
				SANILAC	COUNTY, M	IICHIGAN				
AG151-26	07-14-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
AG151-27	07-14-98	< .002	<.002	< .001	<.002	< .001	< .002	< .002	< .003	< .003
AG151-28						<.001				<.003
				WASHTENAW	COUNTY,	MICHIGAN				
AG161-19	06-26-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
AG161-19 AG161-20	06-25-98									
AG161-21	06-23-98									
AG161-22	06-24-98									
110101 22	00 21 30	1.002	1.002	1.001	1.002	1.001	1.002	1.002	1.003	1.005
				WILLIA	MS COUNTY	, OHIO				
AG171-1	06-08-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
AG171-2	07-06-98							<.002		
AG171-3	06-10-98							<.002		
AG171-4	06-11-98							<.002		
AG171-5	07-07-98			<.001				<.002		
AG171-6	06-09-98							<.002		
AG171-31	06-15-98			<.001				<.002		<.003
			2							

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	(UG/L)	P,P' DDE DISSOLV (UG/L) (34653)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DIS-	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	FLTRD 0.7 U	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
				DE KALB	COUNTY, II	NDIANA				
AG033-7	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG033-7	<.004	<.004					<.003	<.017	<.002	<.004
			H	IILLSDALE	COUNTY, M	IICHIGAN				
AG059-8	<.004	< .004	<.002		<.002	<.001	< .003	<.017	<.002	< .004
AG059-9	< .004	< .004		<.006	<.002	<.001	<.003	<.017	<.002	< .004
AG059-10	<.004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
AG059-11	<.004	< .004		<.006	<.002		<.003		<.002	<.004
AG059-12	<.004	< .004		<.006	<.002		<.003			<.004
AG059-13	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
				LAPEER CO	OUNTY, MIC	CHIGAN				
AG087-24	<.004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG087-29	< .004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
				LENAWEE C	OUNTY, MI	CHIGAN				
AG091-14	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG091-14 AG091-15	<.004	<.004	<.002	<.006	<.002		<.003	<.017	<.002	<.004
AG091-16	<.004	<.004	<.002	<.006	<.002		<.003		<.002	<.004
AG091-17	<.004	<.004		<.006	<.002		<.003		<.002	<.004
AG091-18	<.004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
				MACOMB CO	OUNTY, MIC	CHIGAN				
AG099-30	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
			:	ST CLAIR (	COUNTY, M	ICHIGAN				
AG147-25	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
				SANILAC C	OUNTY, MI	CHIGAN				
AG151-26	< .004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG151-27	< .004	< .004	< .002	< .006	<.002	<.001	< .003	<.017	< .002	< .004
AG151-28	< .004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
			W	ASHTENAW	COUNTY, M	IICHIGAN				
AG161-19	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG161-20	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG161-21	< .004	< .004	< .002	<.006	<.002	<.001	< .003	<.017	< .002	<.004
AG161-22	< .004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
				WILLIAM	S COUNTY,	OHIO				
AG171-1	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG171-1 AG171-2	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG171-2 AG171-3	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG171-4	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG171-5	<.001	<.001	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.001
AG171-6	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
AG171-31	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	(UG/L)		LINDANE DIS- SOLVED (UG/L) (39341)		DIS- SOLVED (UG/L)		WATER DISSOLV (UG/L)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	GF, REC (UG/L)
				DE KALB	COUNTY, I	NDIANA				
AG033-7	<.003	<.003	- 002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
AG033 7	2.003	<.003					V.002	₹.004	₹.004	V.003
			1	HILLSDALE	COUNTY, N	1ICHIGAN				
AG059-8	<.003	<.003	<.002	< .004	<.002	<.005	< .002	< .004	< .004	< .003
AG059-9	< .003	< .003	<.002	< .004	<.002	<.005	<.002	< .004	< .004	< .003
AG059-10	<.003	<.003	<.002	< .004	<.002	<.005	<.002	< .004	< .004	<.003
AG059-11	<.003	<.003	<.002	< .004	<.002	<.005	<.002	< .004	< .004	<.003
AG059-12	<.003	<.003		< .004						
AG059-13	<.003	<.003	<.002	< .004	<.002	<.005	<.002	<.004	< .004	<.003
				LAPEER C	OUNTY, MI	CHIGAN				
AG087-24	<.003	<.003	<.002	<.004	<.002	<.005	<.002	< 0.04	<.004	<.003
AG087-29	<.003	<.003	<.002							
				LENAWEE (	COUNTY, MI	CHIGAN				
70001 14	. 002	. 002	. 000	. 004	. 000	. 005	. 000	. 004	. 004	. 002
AG091-14	<.003	<.003		< .004	<.002		<.002			
AG091-15	<.003	<.003		<.004 <.004						
AG091-16	<.003	<.003								
AG091-17 AG091-18	<.003 <.003	<.003 <.003	<.002 <.002	<.004 <.004		<.005 <.005		<.004 <.004		
110091 10	1.005	1.003	1.002				1.002	7.001	1.001	1.005
				MACOMB C	OUNTY, MI	CHIGAN				
AG099-30	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
				ST CLAIR	COUNTY, M	ICHIGAN				
AG147-25	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	< .004	<.003
				SANILAC (	COUNTY, M	CHIGAN				
AG151-26	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
AG151-27	< .003	<.003	<.002	< .004	<.002	<.005	< .002	< .004	< .004	<.003
AG151-28	<.003	<.003	<.002	< .004	<.002	<.005	<.002	<.004	< .004	<.003
			Ţ	WASHTENAW	COUNTY, N	MICHIGAN				
AG161-19	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
AG161-20	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	< .004	<.003
AG161-21	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	< .004	<.003
AG161-22	< .003	<.003	< .002	< .004	<.002	<.005	<.002	< .004	< .004	<.003
				WILLIAM	S COUNTY,	OHIO				
AG171-1	<.003	< .003	<.002	< .004	<.002	< .005	<.002	< .004	< .004	<.003
AG171-2	<.003	< .003	<.002	< .004	<.002	<.005	<.002	< .004	< .004	<.003
AG171-3	<.003	<.003	<.002	< .004	<.002	<.005	<.002	< .004	< .004	<.003
AG171-4	<.003	<.003	<.002	< .004	<.002	<.005	<.002	<.004	< .004	<.003
AG171-5	<.003	<.003	<.002	< .004	<.002	<.005	< .002	< .004	< .004	<.003
AG171-6	<.003	<.003	<.002	< .004	<.002	<.005	.011	<.004	< .004	<.003
AG171-31	<.003	<.003	<.002	< .004	<.002	<.005	<.002	<.004	< .004	<.003

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

	PARA-	METHYL PARA- THION	PEB- ULATE WATER	PENDI- METH- ALIN	CIS	PHORATE WATER	PRON- AMIDE WATER	PRO- METON,	PROPA CHLOR,
LOCAL		WAT FLT		WAT FLT		FLTRD	FLTRD	WATER,	WATER,
WELL	DIS-	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	DISS,	DISS,
NUMBER	SOLVED (UG/L)	(UG/L)	(UG/L)	(UG/L)	GF, REC (UG/L)	(UG/L)	(UG/L)	REC (UG/L)	REC (UG/L)
	(39542)	(82667)	(82669)		(82687)	(82664)	(82676)	(04037)	(04024)
	(3)342)	(02007)	(02005)	(02003)	(02007)	(02004)	(02070)	(04037)	(04024)
			DE KALE	COUNTY,	INDIANA				
AG033-7	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
			HILLSDAL	E COUNTY,	MICHIGAN				
AG059-8	< .004			<.004		<.002	<.003		<.007
AG059-9	<.004	<.006	< .004	<.004		<.002	<.003		
AG059-10	< .004		< .004	<.004		<.002	<.003		
AG059-11 AG059-12	<.004 <.004	<.006	<.004 <.004	<.004 <.004		<.002 <.002	<.003		
AG059-12 AG059-13	<.004		<.004		<.005 <.005	<.002	<.003 <.003		<.007
AG035 13	V.004	<.000	V.004	V.004	<.005	V.002	<.005	<.010	2.007
			LAPEER	COUNTY, 1	MICHIGAN				
AG087-24	< .004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
AG087-29	< .004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
			LENAWEE	COUNTY,	MICHIGAN				
AG091-14	<.004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
AG091-15	< .004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
AG091-16	< .004	<.006	< .004	<.004	< .005	<.002	<.003	<.018	<.007
AG091-17	< .004	<.006	< .004	< .004		<.002	<.003		<.007
AG091-18	<.004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
			MACOMB	COUNTY, 1	MICHIGAN				
AG099-30	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
			ST CLAIR	COUNTY,	MICHIGAN				
AG147-25	< .004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
			SANILAC	COUNTY,	MICHIGAN				
AG151-26	<.004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
AG151-27	< .004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
AG151-28	< .004	<.006	< .004	< .004	<.005	<.002	<.003	<.018	<.007
			WASHTENA	W COUNTY,	MICHIGAN				
AG161-19	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
AG161-20	< .004	<.006	< .004	<.004	< .005	<.002	<.003	<.018	<.007
AG161-21	< .004	<.200	< .004	<.004	< .005	<.002	< .003	<.018	<.007
AG161-22	<.004	<.020	< .004	< .004	<.005	<.002	<.003	<.018	<.007
			WILLIA	MS COUNT	Y, OHIO				
AG171-1	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
AG171-2	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
AG171-3	< .004	<.006	< .004	< .004	<.005	< .002	< .003	<.018	<.007
AG171-4	< .004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
AG171-5	< .004	<.006	< .004	< .004	<.005	< .002	<.003	<.018	<.007
AG171-6	< .004	<.006	< .004	< .004	<.005	<.002	<.003	<.018	<.007
AG171-31	< .004	<.006	< .004	< .004	<.005	<.002	<.003	<.018	<.007

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	GF, REC (UG/L)	GF, REC (UG/L)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	0.7 U GF, REC (UG/L)	WATER FLTRD 0.7 U GF, REC (UG/L)	GF, REC (UG/L)	GF, REC (UG/L)	GF, REC (UG/L)	GF, REC (UG/L)
			DE KAL	B COUNTY,	INDIANA				
AG033-7	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
			HILLSDAI	LE COUNTY,	MICHIGAN	1			
AG059-8	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
AG059-9	< .004	<.013	<.005	<.002	<.010	< .007	<.013	<.001	<.002
AG059-10	< .004				<.010	<.007	<.013	<.001	<.002
AG059-11	< .004	<.013	< .005	<.002	< .010	< .007	<.013	< .001	<.002
AG059-12	< .004	<.013	< .005	<.002	< .010	< .007	< .013	< .001	< .002
AG059-13	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
			LAPEER	COUNTY,	MICHIGAN				
AG087-24	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
AG087-29	< .004				<.010	<.007			
			LENAWEE	E COUNTY,	MICHIGAN				
AG091-14	<.004	< .013	<.005	<.002	<.010	<.007	< .013	<.001	<.002
AG091-15	<.004		<.005		<.010			<.001	
AG091-16	< .004								
AG091-17			<.005				<.013	<.001	
AG091-18	< .004				<.010	<.007	<.013	<.001	<.002
			MACOMB	COUNTY,	MICHIGAN				
AG099-30	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
			ST CLAI	R COUNTY,	MICHIGAN				
AG147-25	< .004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
			SANILAC	C COUNTY,	MICHIGAN				
AG151-26	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
AG151-27	< .004	<.013	< .005	<.002	<.010	< .007	<.013	<.001	< .002
AG151-28	< .004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
			WASHTENA	AW COUNTY,	MICHIGAN	1			
AG161-19	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
AG161-20	< .004		<.005			<.007	<.013		
AG161-21	< .004		<.005	<.002		<.007	<.013		
AG161-22	< .004		<.005	<.002		<.007	<.013		
			WILLI	AMS COUNT	Y, OHIO				
AG171-1	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
AG171-2	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
AG171-3	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
AG171-4	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
AG171-5	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
AG171-6	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
AG171-31	<.004	<.013	<.005	<.002	<.010	< .007	<.013	<.001	<.002

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	DATE	DIS- SOLVED (UG/L)	DIS- SOLVED (UG/L)	WATER, FLTRD, GF 0.7U REC (UG/L)	UORFEN WATER, FLTRD, GF 0.7U REC (UG/L)	CARB, WATER, FLTRD, GF 0.7U REC (UG/L)	SULFONE WAT,FLT GF 0.7U	RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L)	ZON, WATER, FLTRD, GF 0.7U REC (UG/L)	MACIL, WATER, DISS, REC (UG/L)
				DE KALB C	OUNTY, IN	IDIANA				
AG033-7	06-18-98	- 035	- 15	- 21	- 035	- 55	- 10	- 021	- 014	- 035
110033 7	00 10 30	1.033					1.10	1.021	1.011	1.033
			н	ILLSDALE (	COUNTY, M	ICHIGAN				
AG059-8	06-16-98			< .24					<.014	
AG059-9			< .15	< .24	<.035	<.55			<.014	
AG059-10			<.15		< .035				<.014	
AG059-11			< .15	< .24	<.035	<.55	<.10		<.014	
AG059-12			< .15		<.035				<.014	
AG059-13	07-09-98	<.035	<.15	< . 24	<.035	<.55	<.10	<.021	<.014	<.035
				LAPEER CC	OUNTY, MIC	HIGAN				
3,0007,04	00 04 00	. 025	. 15	. 24	. 025		. 10	. 001	. 014	. 025
AG087-24 AG087-29					<.035				<.014	< .035
110007 25	07 15 50	1.033	1.13	1.21	1.055	٧.55	1.10	1.021	1.011	1.055
			:	LENAWEE CO	OUNTY, MI	CHIGAN				
AG091-14	07-08-98	<.035	<.15	<.24	<.035	<.55	<.10	<.021	<.014	<.035
AG091-15				<.24	< .035	< . 55	<.10	< .021	<.014	< .035
AG091-16			<.15	< . 24	<.035	< . 55	<1.0		<.014	
AG091-17				<.24					<.014	
AG091-18			<.15	<.24	<.035	<.55			<.014	
				MACOMB CC	OUNTY, MIC	HIGAN				
AG099-30	07-13-98	< 035					< 10	< 021	< 014	< 035
110099 30	0, 13 30	1.033		T CLAIR C			7.10	1.021	1.011	1.055
AG147-25	07-15-98	<.035	<.15	<.24	<.035	<.55	<.10	<.021	<.014	<.035
			:	SANILAC CO	OUNTY, MI	CHIGAN				
AG151-26	07-14-98	<.035					<.10	<.021	<.014	<.035
AG151-27	07-14-98	<.035	< .15	<.24	<.035	<.55	< .10	<.021	<.014	<.035
AG151-28	08-05-98	<.035	<.15	< .24	<.035	<.55	<.10	<.021	<.014	<.035
			W	ASHTENAW (	COUNTY, M	ICHIGAN				
AG161-19	06-26-98	- 025	- 15	<.24	- 025	<.55	<.10	- 001	<.014	<.035
AG161-19 AG161-20			<.15 <.15		<.035		<.10 <.10			
AG161-20 AG161-21			<.15		<.035	<.55	<.10		<.014 <.014	
AG161-22				<.24						
AGIUI ZZ	00 24 30	<.033	V.13	V.21	V.033	٧.55	<.10	V.021	V.014	<.055
				WILLIAMS	COUNTY,	OHIO				
AG171-1	06-08-98	<.035	<.15	<.24	<.035	<.55	<.10	<.021	<.014	<.035
AG171-2	07-06-98		<.15	<.24		<.55	<.10			
AG171-3	06-10-98		<.15			<.55	<.10			
AG171-4	06-11-98		<.15	<.24		<.55	<.10			<.035
AG171-5	07-07-98	<.035	<.15			<.55	<.10			
AG171-6	06-09-98	<.035	<.15	<.24	< .035	<.55	<.10		<.014	<.035
AG171-31	06-15-98	<.035	<.15	<.24	<.035	<.55	<.10	<.021	<.014	<.035

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	MOXYNIL WATER, FLTRD, GF 0.7U REC	BARYL, WATER, FLTRD, GF 0.7U REC (UG/L)	FURAN, WATER, FLTRD, GF 0.7U REC (UG/L)	CARBO- FURAN WAT,FLT GF 0.7U REC (UG/L)	AMBEN, WATER, FLTRD, GF 0.7U REC (UG/L)	THALO- NIL, WAT,FLT GF 0.7U REC (UG/L)	REC (UG/L)	MONO- ACID, WAT,FLT GF 0.7U REC (UG/L)	GF 0.7U REC (UG/L)	WATER, FLTRD, GF 0.7U REC (UG/L)
			D	E KALB CO	UNTY, INI	DIANA				
AG033-7	<.035	<.008	<.12	<.014	<.42	<.48	<.23	<.017	<.035	<1.2
			HII	LLSDALE CO	OUNTY, MI	CHIGAN				
AG059-8	<.035	<.008	<.12	<.014	< .42	< .48	<.23	<.017	<.035	<1.2
AG059-9		<.008	<.12	<.014	< .42	< .48	<.23	<.017		
AG059-10	<.035	<.008	<.12	<.014			<.23	<.017	<.035	<1.2
AG059-11	<.035	<.008	<.12	<.014	<.42 <.42	< .48	<.23	<.017	<.035	<1.2
AG059-12	<.035	<.008	<.12	< .014	< .42	< .48	< .23	<.017	<.035	<1.2
AG059-13	< .035	<.008	<.12	<.014	< .42	< .48	<.23	<.017	<.035	<1.2
			L	APEER COU	NTY, MICH	HIGAN				
AG087-24	<.035	<.008	. 10	<.014	< .42	< .48	. 22	<.017	. 025	.1 0
AG087-29		<.008		<.014				<.017		
			LI	ENAWEE COU	JNTY, MIC	HIGAN				
AG091-14		<.008		<.014				<.017		
AG091-15		<.008		< .014				<.017	<.035	
AG091-16 AG091-17		<.008	<.12	<.014	< .42		< .23	<.017		
AG091-17 AG091-18		<.008		<.014				<.017 <.017		
110071 10	1.033	1.000					1.23	1.017	1.033	12.2
				ACOMB COU						
AG099-30	<.035	<.008		<.014			<.23	<.017	<.035	<1.2
				CLAIR CO						
AG147-25	<.035	<.008	<.12	<.014	< .42	< .48	<.23	<.017	<.035	<1.2
			SI	ANILAC COU	JNTY, MIC	HIGAN				
AG151-26	<.035	<.008		<.014				<.017		
AG151-27	<.035			<.014				<.017		
AG151-28	<.035	<.008	<.12	<.014	< .42	<.48	<.23	<.017	<.035	<1.2
			2AW	SHTENAW CO	OUNTY, MI	CHIGAN				
AG161-19	<.035	<.008	<.12	<.014	< .42	< .48	<.23	<.017	<.035	<1.2
AG161-20	<.035	<.008	<.12	<.014	< .42	< .48	<.23	<.017	<.035	<1.2
AG161-22	<.035	<.008	<.12	<.014	< .42	< .48	<.23	<.017	<.035	<1.2
AG161-21	< .035	<.008	<.12	<.014	< .42	< .48	<.23	<.017	<.035	<1.2
				WILLIAMS	COUNTY, C	OHIO				
AG171-1	<.035	<.008	<.12	<.014	< .42	< .48	<.23	<.017	<.035	<1.2
AG171-2		<.008		<.014	< .42	< .48	<.23	<.017		<1.2
AG171-3		<.008	<.12		< .42		<.23	<.017		<1.2
AG171-4		<.008	<.12		< .42	< .48	<.23	<.017	<.035	<1.2
AG171-5		<.008		<.014			<.23	<.017		<1.2
AG171-6	< .035	<.008	<.12	<.014	< .42	< .48	<.23	<.017	<.035	<1.2
AG171-31	<.035	<.008	<.12	<.014	< .42	< .48	<.23	<.017	<.035	<1.2

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	WATER, FLTRD, GF 0.7U REC (UG/L)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L)	WATER, FLTRD, GF 0.7U REC (UG/L)	WAT,FLT GF 0.7U REC (UG/L)	WATER, FLTRD, GF 0.7U REC (UG/L)	WATER, FLTRD, GF 0.7U REC (UG/L)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	WATER, FLTRD, GF 0.7U REC (UG/L)	FLTRD, GF 0.7U REC (UG/L)	WATER, FLTRD, GF 0.7U REC (UG/L)
			Ι	DE KALB CO	OUNTY, INI	DIANA				
AG033-7	<.032	<.035	<.020	<.42	<.013	<.035	<.018	<.17	<.14	<.026
			HI	LLSDALE C	OUNTY, MI	CHIGAN				
AG171-8	<.032	<.035	<.020	<.42	<.013	< .035	<.018	<.17	<.14	<.026
AG171-9	<.032		<.020				<.018			<.026
	<.032		<.020				<.018			
	<.032	<.035								<.026
AG059-12	<.032	< .035	<.020	< .42	<.013	<.035	<.018 <.018	<.17 <.17	<.14	<.026
AG059-13	<.032	<.035	<.020						< .14	<.026
			I	LAPEER COU	JNTY, MICH	HIGAN				
70007 24	. 022	. 025	. 020	. 10	. 012	. 025	- 010	<.17	<.14	. 026
AG087-24 AG087-29	<.032		<.020				<.018	<.17	<.14	
			L	ENAWEE CO	UNTY, MIC	HIGAN				
70001 14	020	025	000	4.0	012	025	010	1.0	1.4	200
AG091-14										
	<.032		<.020				<.018			
	<.032		<.020 <.020				<.018			
AG091-17 AG091-18	<.032		<.020	< 42	< .013	< .035	<.018 <.018	< 17	< 14	< 23
					JNTY, MICH					
AG099-30	- 032	- 025					- 010	- 17	- 14	- 026
AG000 30	V. 032	V.033			OUNTY, MIC		V.010	V.17	V.11	V.020
AG147-25	<.032	<.035	<.020	<.42	<.013	<.035	<.018	<.17	<.14	<.026
			S	ANILAC CO	UNTY, MIC	HIGAN				
AG151-26	<.032									
AG151-27	<.032	<.035	<.020	<.42	<.013	<.035	<.018	<.17	<.14	<.026
AG151-28	<.032	<.035	<.020	< .42	<.013	<.035	<.018	<.17	<.14	<.026
			AW	SHTENAW C	OUNTY, MI	CHIGAN				
AG161-19	<.032	<.035	<.020	<.42	<.013	<.035	<.018	<.17	<.14	<.026
	<.032		<.020		<.013				< .14	
AG161-21	<.032		<.020	< .42		<.035	<.018		<.14	
AG161-22	<.032	<.035	<.020	< .42	.06	<.035	<.018	<.17	<.14	
				WILLIAMS	COUNTY, C	OHIO				
AG171-1	<.032	<.035	<.020	<.42	<.013	<.035	<.018	<.17	<.14	<.026
AG171-1 AG171-2		<.035	<.020	<.42	<.013	<.035	<.018	<.17	<.14	
AG171-3		<.035	<.020		<.013		<.018		<.14	
AG171-4		<.035	<.020	<.42	<.013	<.035	<.018	<.17	<.14	
AG171-5		<.035	<.020		<.013		<.018		< .14	
AG171-6		<.035	<.020	<.42	<.013	<.035	<.018	<.17	<.14	<.026
AG171-31		<.035	<.020	< .42	<.013	<.035	<.018	<.17	<.14	<.026

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	REC (UG/L)	URON, WATER, FLTRD, GF 0.7U REC		WATER, FLTRD, GF 0.7U REC (UG/L)	FLTRD, GF 0.7U REC	WATER, FLTRD, GF 0.7U REC (UG/L)	REC (UG/L)	FLTRD, GF 0.7U REC (UG/L)	DIS- SOLVED (UG/L)	GF 0.7U REC (UG/L)
				DE KALB C	COUNTY, IN	DIANA				
AG033-7	<.017	<.015	<.024	<.31	<.018	<.050	<.035	<.035	<.021	<.25
			н	ILLSDALE (	COUNTY, MI	ICHIGAN				
AG059-8	<.017	<.015	<.024	- 21	- 010	- 050	<.035	<.035	- 021	<.25
AG059-9	<.017		<.024	<.31			<.035			
AG059-10			<.024				<.035			
AG059-11	<.017		<.024		<.018		<.035			
AG059-12			<.024				<.035			
AG059-13	<.017	<.015	<.024	<.31	<.018		<.035			
				LAPEER CC	OUNTY, MIC	HIGAN				
AG087-24	<.017	<.015	<.024	<.31	<.018	<.050	<.035	<.035	<.021	<.25
AG087-29	<.017	<.015	<.024	<.31	<.018	<.050		<.035		
			Ι	LENAWEE C	OUNTY, MIC	CHIGAN				
AG091-14	<.017	<.015	<.024	<.31	<.018	<.050	<.035	<.035	<.021	<.25
AG091-15	<.017		<.024		<.018		<.035			
AG091-16			<.024		<.018		<.035			
AG091-17	<.017	<.015	<.024	<.31	<.018		<.035			
AG091-18	<.017	<.015	<.024	<1.2	<.018			<.035	<.021	<.25
				MACOMB CC	OUNTY, MIC	HIGAN				
AG099-30	<.017	<.015	<.024	<.31	<.018	<.050	<.035	< 035	<.021	<.25
					COUNTY, MI					
AG147-25	<.017	<.015	<.024	<.31	<.018	<.050	<.035	<.035	<.021	<.25
			S	SANILAC CO	OUNTY, MIC	CHIGAN				
AG151-26	<.017	<.015	<.024	<.31	<.018	<.050	<.035	<.035	<.021	<.25
AG151-27	<.017	<.015	<.024	<.31	<.018	<.050	<.035	<.035	<.021	<.25
AG151-28	<.017	<.015	< .024	<.31	<.018	<.050	<.035	<.035	<.021	<.25
			W.Z	ASHTENAW (	COUNTY, MI	CHIGAN				
	<.017		<.024				<.035			
AG161-20	<.017	<.015	<.024	<.95	<.018	<.050	<.035	<.035	<.021	
AG161-21	<.017			< .60		< .050	<.035			
AG161-22	<.017	<.015	<.024	<.80	<.018	<.050	<.035	<.035	<.021	<.25
				WILLIAMS	COUNTY,	OHIO				
AG171-1	<.017	<.015	<.024	<.60	<.018	<.050	<.035	<.035	<.021	<.25
AG171-1 AG171-2	<.017		<.024	<1.5	<.018	<.050	<.035	<.035	<.021	
AG171-3	<.017	<.015	<.024	<.31	<.018	<.050	<.035	<.035	<.021	
AG171-4	<.017		<.024	<.31	<.018	<.050	<.035	<.035		
AG171-4 AG171-5	<.017	<.015	<.024	<.69	<.21	<.050	<.035	<.035	<.021	
AG171-6	<.017		<.024	<.74	<.018	<.050	<.035	<.035	<.021	
AG171-31	<.017	<.015	<.024	<.31	<.018	<.050	<.035	<.035	<.021	<.25
									1.021	1.25

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Subunit Survey

The following tables contain water-level and water-quality data from a network of 30 domestic wells sampled as part of the NAWQA Subunit Survey. The goal of the study is to assess the water quality of an aquifer that is used as a source of drinking water. Similar studies have been done in other drainage basins throughout the country.

The domestic wells are located in areas that meet the following specifications: (1) the surficial sediment is glacial till that is greater than 100 feet thick, (2) the bedrock is shale and sandstone of Upper Devonian to Lower Mississippian age, and (3) the physiographic province is the Central Lowlands. Most of the domestic wells produce water from confined sand-and-gravel aquifers within the glacial till. Water samples from the wells were tested for physical characteristics, nutrients, major elements, pesticides, and volatile organic compounds (VOC's). Water-level records are presented first, followed by the water-quality data.

The domestic-well network is shown in figure 11. At some locations, a domestic well is co-located with a monitor well sampled for the NAWQA Agricultural Land-Use Study.

# Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Subunit Survey-Continued

REMARKS.-- 112TILL: Pleistocene till; 112SDGV: Pleistocene sand and gravel; 112SAND: Pleiestocene sand; 112GRVL: Pleistocene gravel; 112SGVC: Pleistocene sand, gravel, and clay; 330SDSL: Mississippian sandstone and shale;  $\mu$ S/cm: microsiemens per centimeter at 25 degrees Celsius; DEG C: degrees Celsius; mg/L: milligrams per liter;  $\mu$ g/L: micrograms per liter; pCi/L: picocuries per liter; flw: flowing; --: no data.

			ALTITUDE				
		LOCATION	OF LAND	DEPTH		WATER-	WATER
	LOCAL	MAP	SURFACE	OF WELL	AQUIFER	LEVEL	LEVEL
SITE-ID	WELL NUMBER	NAME	(FEET)	(FEET)	CODE	DATE	(FEET)
			(,	(/			(/
		HILLSDALE COUNTY	, MICHIGAN				
414746084394	1800 SUS059-8	READING, MICH.	1048	90	112SDGV	04-13-87	41
414519084374	1700 SUS059-9	READING, MICH.	1030	99	112GRVL	08-30-79	70
414604084264	1600 SUS059-10	PITTSFORD, MICH.	900	31	112SDGV	09-10-69	8
415028084220	0400 SUS059-12	HUDSON, MICH.	922	91	112SDGV	08-15-79	34
420049084235	5000 SUS059-13	SOMERSET CENTER, MICH	. 1108	120	330SDSL	06-19-79	60
		LAPEER COUNTY,	MICHIGAN				
430349083014	1700 SUS087-24	IMLAY CITY, MICH.	834	129	112SAND	02-01-97	12
425843083042	2400 SUS087-29	ALMONT, MICH.	833	90	112SAND	10-20-78	35
430313083085	3300 SUS087-41	ATTICA, MICH.	862	100	112GRVL	09-25-87	2
		LENAWEE COUNTY	, MICHIGAN				
414323084161	1100 SUS091-14	FAYETTE, OHIO-MICH.	808	158	112GRVL	04-28-89	26
	1200 SUS091-17	TIPTON, MICH.	865	87	112SDGV		
	1200 SUS091-17	ADRIAN, MICH.	863	80	112SDGV 112SDGV	09-30-95	12
413310004001	200 505091 32	ADRIAN, PICII.	003	00	IIZDDGV	02 30 23	12
		LIVINGSTON COUNT	Y, MICHIGAN				
423559083420	0700 SUS093-36	KENT LAKE, MICH.	987	79	112GRVL	09-19-91	13
		MACOMB COUNTY,	MICHIGAN				
425152083001	L000 SUS099-30	ROMEO, MICH.	779	60	112SDGV	04-26-89	10
424159082493		NEW HAVEN, MICH.	630	35	112GRVL	12-16-94	5
		OAKLAND COUNTY,	. MICHIGAN				
424658083270	0600 SUS125-35	ORTONVILLE, MICH.	1117	120	112SAND	06-07-89	55
423032083295	5700 SUS125-37	WALLED LAKE, MICH.	943	72	112SDGV	03-19-91	21
425033083080	900 SUS125-40	LAKE ORION, MICH.	1020	170	112SGVC	08-30-85	45
		ST CLAIR COUNTY	, MICHIGAN				
430845082462	2500 SUS147-25	YALE, MICH.	788	140	112GRVL	07-07-92	2
130013002102	.500 50511, 25			110	IIZORVI	07 07 32	-
		SANILAC COUNTY,	, MICHIGAN				
431240082511	1400 SUS151-26	YALE, MICH.	814	54	112GRVL	07-23-69	20
431008082580		BROWN CITY, MICH.	812	205	112SDGV	10-01-92	40
		WASHTENAW COUNTY	Y, MICHIGAN				
421212083593		BRIDGEWATER, MICH.	995	92	112SAND	07-07-98	55
421124083534	1000 SUS161-20	BRIDGEWATER, MICH.	921	100	112SAND	07-15-92	33
421624083515	600 SUS161-33	ANN ARBOR WEST, MICH.	903	49	112SDGV	03-29-84	16
		WILLIAMS COUN	TY, OHIO				
413924084471	1600 SUS171-1	CLEAR LAKE, INDOHIO	- 980	82	112GRVL	05-28-86	15
1133210011/1	2227 2001/1 1	MICH.		02	11201(11	05 20 00	-5
413521084460	300 SUS171-2	EDON, INDOHIO	927	70	112GRVL	07-26-94	34
413229084471		EDON, INDOHIO	902	78	112GRVL	04-15-86	44
413721084361	1000 SUS171-4	MONTPELIER, OHIO	863	121	112SDGV	04-27-94	16
414111084363	3200 SUS171-5	PIONEER, OHIO-MICH.	912	70	112SDGV	03-03-94	11

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)		SPE- CIFIC CON- DUCT- ANCE (US/CM)	
	HILLSDALE C	OUNTY,	MICHIGAI	4		
SUS059-8	08-10-98	1200		1048	529	7.5
SUS059-9	08-10-98			1030	664	7.1
SUS059-10	08-11-98			900	627	7.3
SUS059-12	08-11-98	1200		922	603	7.4
SUS059-13	08-13-98	1600	120	1108	667	7.0
	LAPEER COU	JNTY, M	ICHIGAN			
SUS087-24	08-31-98	1500	129	834	682	7.4
SUS087-29	09-01-98	1000	90	833	908	7.3
SUS087-41	08-04-98	1300	100	862	595	7.4
	LENAWEE CO	UNTY, M	IICHIGAN			
SUS091-14	08-11-98	1700	158	808	752	7.3
SUS091-17	08-13-98	1200	87	865	544	7.3
SUS091-32	08-06-98	1900	0 80	863	745	7.1
	LIVINGSTON (	COUNTY,	MICHIGA	N		
SUS093-36	08-26-98	1800	79	987	2390	7.1
	MACOMB COL	JNTY, M	ICHIGAN			
SUS099-30	08-05-98	1700	60	779	877	6.9
SUS099-39	09-02-98	1200	35	630	484	7.5
	OAKLAND CO	UNTY, M	IICHIGAN			
SUS125-35	08-26-98	1400	120	1117	720	7.2
SUS125-37	09-03-98	1600	72	943	697	7.1
SUS125-40	09-03-98	1100	170	1020	754	7.1
	ST CLAIR CO	OUNTY, I	MICHIGAN	ī		
SUS147-25	08-03-98	1400	140	788	512	7.5
	SANILAC CO	UNTY, M	IICHIGAN			
SUS151-26	08-31-98	1100	54	814	864	7.4
SUS151-42	09-01-98	1600		812	1060	7.8
	WASHTENAW C	OUNTY,	MICHIGAI	1		
SUS161-19	08-06-98	1600	92	995	1180	7.0
SUS161-20	08-12-98	1400		921	596	7.2
SUS161-33	08-06-98	1400		903	597	7.2
	WILLIAMS	COUNTY	, OHIO			
SUS171-1	08-24-98	1700	82	980	623	7.5
SUS171-2	08-25-98	1200	70	927	670	6.9
SUS171-3	06-10-98	1600	78	902	621	7.5
SUS171-4	06-11-98	1500		863	633	7.6
SUS171-5	08-25-98	1100	70	912	544	7.2

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL	TEMPER- (	OXYGEN, T	rotal d	HARD- NESS	CALCIUM IS- DIS-	MAGNE- SIUM, DIS-	SODIUM, TIT 4.5	POTAS- SIUM, WELL	ANC UNFLTRD
	ATURE DI	IS- (MG	G/L SOL	VED SO	LVED SOLV	ED SOL	VED I	AB	
NUMBER	DATE	WATER	SOLVED	AS	(MG/L	(MG/L	(MG/L	(MG/L	(MG/L AS
		(DEG C)	(MG/L)	CACO3)		AS MG)	AS NA)	AS K)	CACO3)
		(00010)	(00300)	(00900)	(00915)	(00925)	(00930)	(00935)	(90410)
			HILLSDALE	COUNTY,	MICHIGAN				
SUS059-8	08-10-98	14.5	.2	240	60	23	14	1.3	257
SUS059-9	08-10-98		.1	340	99	23	4.3	1.0	303
SUS059-10	08-11-98		.1	310	80	27	14	1.6	300
SUS059-12	08-11-98	13.5	.2	290	74	26	16	1.4	288
SUS059-13	08-13-98	15.8	.2	350	89	32	8.7	1.6	349
			LAPEER (	COUNTY, N	MICHIGAN				
SUS087-24	08-31-98		.1	340	52	50	25	3.2	374
SUS087-29	09-01-98		.1	430	110	36	8.3	1.2	210
SUS087-41	08-04-98	14.8	.2	270	58	30	23	1.6	269
			LENAWEE	COUNTY,	MICHIGAN				
SUS091-14	08-11-98	13.9	.1	360	83	36	25	2.0	345
SUS091-17	08-13-98		.2	280	71	24	10	1.4	287
SUS091-32	08-06-98		.1	380	99	31	13	1.6	316
			LIVINGSTO	N COUNTY,	, MICHIGAN				
SUS093-36	08-26-98	11.2	.1	530	140	44	260	5.5	295
505073 30	00 20 90	11.2				77	200	3.3	2,7,3
			MACOMB (	COUNTY, N	MICHIGAN				
SUS099-30	08-05-98	15.3	.3	490	140	35	6.1	1.4	315
SUS099-39	09-02-98	14.4	.2	240	66	18	4.3	.6	163
			OAKLAND	COUNTY.	MTCHTGAN				
				,					
SUS125-35	08-26-98	12.5	.1	350	88	32	15	1.5	265
SUS125-37	09-03-98		.1	360	98	28	4.3	1.0	320
SUS125-40	09-03-98	16.2	.2	400	93	39	10	1.5	348
			ST CLAIR	COUNTY,	MICHIGAN0				
SUS147-25	08-03-98	15.0	.3	210	49	22	37	1.4	245
			SANILAC	COUNTY,	MICHIGAN				
SUS151-26	08-31-98	19.7	.2	240	58	24	91	2.2	289
SUS151-42	09-01-98		.1	120	28	11	180	2.0	197
505151 12	03 01 30	13.0					100	2.0	20,
			WASHTENAW	COUNTY,	MICHIGAN				
SUS161-19	08-06-98		.8	500	140	37	52	3.3	306
SUS161-20	08-12-98		.1	310	82	26	8.2	1.4	309
SUS161-33	08-06-98	13.2	.6	320	84	26	2.8	1.0	232
			WILLIAM	MS COUNTY	Y, OHIO				
SUS171-1	08-24-98	12.6	.1	280	68	28	19	1.7	309
SUS171-2	08-25-98		.1	360	91	33	13	1.5	325
SUS171-3	06-10-98		.1	310	78	29	14	1.5	324
SUS171-4	06-11-98		.1	270	60	30	32	2.0	307
SUS171-5	08-25-98	11.8	.1	260	65	25	15	1.6	274

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
				HILLSDAL	E COUNTY,	MICHIGAN	1				
SUS059-8	08-10-98	28	5.2	.8	.04	15	319	<.01	<.05	.25	.3
SUS059-9	08-10-98	60	5.1	.3	.01	19	436	<.01	<.05	.17	.4
SUS059-10	08-11-98	41	8.2	.7	.08	16	386	<.01	<.05	.16	. 2
SUS059-12	08-11-98	30	12	. 7	.05	17	366	<.01	<.05	.27	. 3
SUS059-13	08-13-98	31	2.4	.8	.06	17	395	<.01	<.05	.19	.2
				LAPEER	COUNTY, M	MICHIGAN					
SUS087-24	08-31-98	19	2.6	1.5	.04	19	414	<.01	<.05	.30	.3
SUS087-29	09-01-98	45	130	<.1	1.5	12	580	<.01	<.05	.03	<.1
SUS087-41	08-04-98	21	20	1.1	.07	17	344	<.01	<.05	.16	.2
				LENAWEE	COUNTY,	MICHIGAN					
SUS091-14	08-11-98	57	15	.8	.10	19	470	<.01	<.05	.33	. 4
SUS091-17	08-13-98	14	4.1	.9	.04	17	319	<.01	<.05	.19	.2
SUS091-32	08-06-98	60	26	.6	.17	14	450	<.01	<.05	.23	. 3
				LIVINGSTO	ON COUNTY,	MICHIGA	N				
SUS093-36	08-26-98	39	550	. 2	.10	14	1410	<.01	<.05	.15	. 2
				MACOMB	COUNTY, M	MICHIGAN					
GIIGOOO 20	00 05 00	150	17	. 1	0.0	0 5	F00	0.0	1 6	0.5	. 1
SUS099-30 SUS099-39	08-05-98 09-02-98	150 64	19	<.1	.08	8.5 12	582 311	.02 <.01	1.6 <.05	.05	<.1 .1
				OAKLAND	COUNTY,	MICHIGAN					
SUS125-35	08-26-98	52	31	.2	.02	12	429	<.01	<.05	.02	< . 1
SUS125-37 SUS125-40	09-03-98 09-03-98	62 59	3.1 9.6	.4	.19 .05	20 15	438 472	.01	<.05 .27	.25 .06	.4 <.1
303123-40	09-03-96	39	9.0	.5	.03	13	472	.02	.27	.00	ν.1
				ST CLAIF	R COUNTY,	MICHIGAN					
SUS147-25	08-03-98	4.4	33	.8	.08	16	320	<.01	<.05	.37	. 4
				SANILAC	COUNTY,	MICHIGAN					
SUS151-26	08-31-98	25	99	.7	.10	10	499	<.01	<.05	.36	. 4
SUS151-42	09-01-98	140	130	1.9	.15	11	632	<.01	<.05	.23	. 2
				WASHTENA	W COUNTY,	MICHIGAN	1				
SUS161-19	00-06-00	110	140	1	10	11	700	- 01	- OE	0.4	1
SUS161-19 SUS161-20	08-06-98 08-12-98	110 23	140 6.2	.1 .6	.13	11 17	722 354	<.01 <.01	<.05 <.05	.04 .17	.1
SUS161-33	08-12-98	74	14	.1	.06	7.4	395	<.01	.52	.03	<.1
					AMS COUNT						
						,					
SUS171-1	08-24-98	10	6.2	1.0	.03	18	344	.01	<.05	.36	. 3
SUS171-2	08-25-98	48	6.3	.6	.04	17	433	.01	<.05	.22	. 2
SUS171-3	06-10-98	25	4.9	.7	.05	18	388	.01	< . 05	.31	. 3
SUS171-4	06-11-98	21	21	1.0	.12	17	376	.11	< .05	.46	.5
SUS171-5	08-25-98	7.7	9.8	1.0	.06	17	336	.01	<.05	.31	.3

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

			PHOS-				
		PHOS-	PHORUS		MANGA-		CARBON,
		PHORUS	ORTHO,	IRON,	NESE,		ORGANIC
LOCAL		DIS-	DIS-	DIS-	DIS-	RADON	DIS-
WELL		SOLVED	SOLVED	SOLVED	SOLVED	222	SOLVED
NUMBER	DATE	(MG/L	(MG/L	(UG/L	(UG/L	TOTAL	(MG/L
			AS P)		AS MN)		
		(00666)	(00671)	(01046)	(01056)	(82303)	(00681)
	HILLS	DALE COUI	NTY, MICHI	GAN			
SUS059-8	08-10-98	- 01	.01	1600	23	180	. 9
SUS059-9	08-10-98				56	160	
SUS059-10			<.01		53	190	1.3
SUS059-12	08-11-98				22	150	
SUS059-13	08-13-98	<.01	.02	1400	230	480	.7
	LAPE	ER COUNT	Y, MICHIGA	N			
SUS087-24			.02				
SUS087-29 SUS087-41	09-01-98 08-04-98				25 12	130 190	. 5 . 9
505087-41	08-04-98	<.01	.01	620	12	190	.9
	LENAW	WEE COUNT	Y, MICHIGA	AN			
SUS091-14	08-11-98	<.01	.02	1600	21	170	1.5
SUS091-17	08-13-98				15	140	.6
SUS091-32	08-06-98	<.01	.01	2700	80	120	1.8
	LIVING	STON COU	NTY, MICHI	GAN			
					4.50		
SUS093-36	08-26-98	<.01	<.01	3800	170	230	1.1
	MACO	MB COUNT	Y, MICHIGA	N			
SUS099-30	08-05-98	<.01	.01	680	170	150	.9
SUS099-39	09-02-98	<.01	.02	600	90	190	1.7
	OAKLA	AND COUNT	Y, MICHIGA	AN			
SUS125-35	08-26-98	<.01	<.01	390	23	180	. 6
SUS125-37	09-03-98			6000	68	140	3.3
SUS125-40	09-03-98				41	100	.8
	ST CL	AIR COUN	ry, Michig	AN			
SUS147-25	08-03-98	.03	.02	630	11	160	1.2
	SANII	AC COUNT	Y, MICHIGA	AN			
SUS151-26	08-31-98	< 01	.01	970	16	300	1.1
SUS151-42	09-01-98		<.01	110	32	260	.7
	WASHTE	ENAW COUN	TY, MICHIC	GAN			
CIIC161-10	00-06-00	0.2	- 01	720	0.0	100	1 0
SUS161-19 SUS161-20	08-06-98 08-12-98		<.01 .02	720 2000	98 36	180 130	1.0
SUS161-20 SUS161-33	08-12-98		<.01	100	58	190	.5
	35 30 30			100	50	100	
	WIL	LIAMS CO	UNTY, OHIO	)			
SUS171-1	08-24-98	<.01	<.01	1200	27	170	.9
SUS171-2	08-25-98	<.01	.02	2100	43	150	1.2
SUS171-3	06-10-98		<.01	2800	37	170	1.9
SUS171-4	06-11-98		.02	1400	14	220	1.2
SUS171-5	08-25-98	<.01	.01	1300	12	240	1.1

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Subunit Survey - Pesticides

REMARKS.-- E: compound was detected at a concentration too low to be accurately quantified.

,	LOCAL WELL NUMBER	DATE	FLTRD REC (UG/L)	CHLOR,	ZINE, WATER, DISS, REC (UG/L)	ZINE, WATER, DISS, REC (UG/L)	AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L)		ATE, WATER, DISS, REC (UG/L)	FLTRD 0.7 U GF, REC	FLTRD
				Н	ILLSDALE	COUNTY, M	IICHIGAN				
	3059-8	08-10-98					< .001				<.003
		08-10-98					<.001		<.002		<.003
	3059-10			<.002			<.001				
		08-11-98									
SUS	3059-13	08-13-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
					LAPEER C	OUNTY, MI	CHIGAN				
SUS	5087-24	08-31-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
SUS	5087-29	09-01-98	<.002	<.002	<.001	<.002	< .001	<.002	<.002	<.003	<.003
SUS	5087-41	08-04-98	<.002	<.002	<.001	<.002	< .001	<.002	<.002	<.003	<.003
					LENAWEE (	COUNTY, MI	CHIGAN				
CIIC	7001 14	08-11-98	. 002	. 002	. 001	. 002	. 001	. 002	. 002	<.003	. 003
		08-11-98									
		08-06-98					<.001				<.003
202	, , , , , , , , , , , , , , , , , , ,	00 00 50	1.002	1.002	1.001	1.002	1.002	1.002	1.002	1.005	1.005
				L]	VINGSTON	COUNTY, I	MICHIGAN				
SUS	3093-36	08-26-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
					MACOMB C	OUNTY, MI	CHIGAN				
SIIS	5099-30	08-05-98	- 002	<.002	- 001	- 002	<.001	<.002	<.002	- 003	<.003
	3099-39	09-02-98					<.001				<.003
					OAKLAND C	COUNTY, MI	CHIGAN				
SUS	3125-35	08-26-98	<.002	<.002	<.001	<.002	< .001	<.002	<.002	<.003	< .003
SUS	3125-37	09-03-98	< .002	< .002	<.001	<.002	< .001	<.002	< .002	<.003	<.003
SUS	5125-40	09-03-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
				S	ST CLAIR	COUNTY, M	ICHIGAN				
SUS	5147-25	08-03-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
					SANILAC (	COUNTY, MI	CHIGAN				
	3151 05	00 01 1-	225	225		2.25		225	225	225	225
	S151-26 S151-42	08-31-98 09-01-98		<.002 <.002	<.001 <.001	<.002 <.002	<.001 <.001	<.002 <.002	<.002 <.002	<.003 <.003	<.003 <.003
505	5151-42	09-01-96	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
				W	ASHTENAW	COUNTY, M	IICHIGAN				
SUS	5161-19	08-06-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
SUS	5161-20	08-12-98	<.002	<.002	<.001	<.002	< .001	<.002	< .002	<.003	<.003
SUS	5161-33	08-06-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
					WILLIAM	S COUNTY,	OHIO				
SII	S171-1	08-24-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
	S171-2	08-25-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
	S171-3	06-10-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003
	S171-4	06-11-98	<.002	<.002	<.001	E.009	<.001	<.002	<.002	<.003	<.003
	S171-5	08-25-98	<.002	<.002	<.001	<.002	<.001	<.002	<.002	<.003	<.003

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOGN	CHLOR-	CYANA- ZINE,	WATER	5.54	DI-	DI-	2,6-DI- ETHYL ANILINE	FOTON WATER	WATER	
LOCAL WELL	DIS-		FLTRD 0.7 U	P,P' DDE	AZINON, DIS-	DIS-	0.7 U		0.7 U	WAT FLT
NUMBER	SOLVED	REC		DISSOLV					GF, REC	
NonDen			(UG/L)			(UG/L)		(UG/L)	(UG/L)	(UG/L)
				(34653)			(82660)		(82668)	(82663)
					OUNTY, MIC					
SUS059-8		< .004			<.002 <.002			<.017	<.002	
SUS059-9 SUS059-10		<.004			<.002				<.002 <.002	
					<.002				<.002	
SUS059-13		<.004			<.002					
				LAPEER COU	JNTY, MICH	IGAN				
SUS087-24	- 004	- 004	- 002	< 006	<.002	- 001	<.003	<.017	<.002	- 004
SUS087-29					<.002		<.003		<.002	
SUS087-41	<.004				<.002					<.004
			I	ENAWEE CO	UNTY, MICH	HIGAN				
SUS091-14	< .004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
SUS091-17	< .004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
SUS091-32	< .004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
			LI	VINGSTON (	COUNTY, MI	CHIGAN				
SUS093-36	< .004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
			1	MACOMB COU	JNTY, MICH	IGAN				
SUS099-30	< .004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
SUS099-39	< .004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
			C	AKLAND CO	UNTY, MICE	HIGAN				
SUS125-35	< .004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
SUS125-37		< .004		<.006			<.003	<.017		
SUS125-40	< .004	< .004	<.002	<.006	.033	<.001	<.003	<.017	<.002	< .004
			S	r CLAIR CO	DUNTY, MIC	HIGAN				
SUS147-25	< .004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
			S	SANILAC CO	UNTY, MICH	HIGAN				
SUS151-26	< .004	< .004	< .002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
SUS151-42	<.004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
			WZ	SHTENAW C	COUNTY, MIC	CHIGAN				
SUS161-19	< .004	<.004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
SUS161-20	< .004	< .004	< .002		<.002		<.003	<.017	<.002	
SUS161-33	< .004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	< .004
				WILLIAMS	COUNTY, O	HIO				
SUS171-1	<.004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004
SUS171-2	< .004	< .004	<.002	< .006	<.002	< .001	<.003	<.017	<.002	< .004
SUS171-3	<.004	< .004	<.002	< .006	<.002	<.001	<.003	<.017	<.002	<.004
SUS171-4		< .004	<.002	<.006	<.002			<.017	<.002	<.004
SUS171-5	<.004	< .004	<.002	<.006	<.002	<.001	<.003	<.017	<.002	<.004

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	FLTRD 0.7 U GF, REC (UG/L)	FONOFOS WATER DISS REC (UG/L) (04095)	BHC DIS- SOLVED		(UG/L)	DIS-	(UG/L)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	WATER FLTRD 0.7 U GF, REC (UG/L)	
			HI	ILLSDALE C	OUNTY, MIC	CHIGAN				
SUS059-8	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
SUS059-9	<.003	< .003	< .002	< .004	<.002	< .005	<.002	< .004	< .004	< .003
SUS059-10	<.003	< .003	<.002			< .005	<.002	< .004	< .004	< .003
SUS059-12		<.003			<.002				< .004	<.003
SUS059-13	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	< .004	<.003
				LAPEER COU	JNTY, MICH	IIGAN				
SUS087-24	<.003	<.003	<.002	< .004	<.002	<.005	<.002	< .004	<.004	<.003
SUS087-29	<.003	< .003	<.002	< .004	<.002	< .005	<.002	< .004	< .004	< .003
SUS087-41	<.003	<.003	<.002	< .004	<.002	<.005	<.002	< .004	<.004	<.003
			I	LENAWEE CO	UNTY, MICH	HIGAN				
SUS091-14	<.003	< .003	<.002	< .004	<.002	< .005	< .002	<.004	<.004	<.003
SUS091-17			<.002		<.002					<.003
SUS091-32	<.003	< .003	<.002	< .004	<.002	<.005	<.002	< .004	< .004	<.003
			LI.	VINGSTON (	COUNTY, MI	CHIGAN				
SUS093-36	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
			1	MACOMB COU	INTY. MICH	ITGAN				
SUS099-30	<.003			<.004				<.004		<.003
SUS099-39	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	< .004	<.003
			C	DAKLAND CO	UNTY, MICH	HIGAN				
SUS125-35	<.003	<.003	<.002	< .004	<.002	<.005	<.002	< .004	<.004	<.003
SUS125-37	<.003	< .003	< .002	< .004	<.002	< .005	<.002	< .004	< .004	< .003
SUS125-40	<.003	<.003	<.002	< .004	<.002	<.005	<.002	< .004	<.004	<.003
			S	T CLAIR CO	DUNTY, MIC	HIGAN				
SUS147-25	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
			S	SANILAC CO	UNTY, MICE	HIGAN				
SUS151-26	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
SUS151-42	<.003	<.003	<.002	< .004	<.002	<.005	<.002	<.004	<.004	<.003
			W.F	ASHTENAW C	OUNTY, MIC	CHIGAN				
SUS161-19	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
SUS161-20	<.003	<.003	<.002		<.002	<.005	<.002	<.004	<.004	<.003
SUS161-33	<.003	<.003	<.002	< .004	<.002	<.005	<.002	< .004	< .004	<.003
				WILLIAMS	COUNTY, O	HIO				
SUS171-1	<.003	<.003	<.002	<.004	<.002	<.005	<.002	<.004	<.004	<.003
SUS171-2	<.003	<.003	<.002	< .004	<.002	<.005	<.002	< .004	< .004	<.003
SUS171-3	< .003	< .003	<.002	< .004	<.002	<.005	<.002	< .004	< .004	<.003
SUS171-4	< .003	<.003	<.002	< .004	<.002	<.005	<.002	< .004	< .004	<.003
SUS171-5	<.003	< .003	<.002	<.004	<.002	<.005	<.002	< .004	< .004	<.003

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

		METHYL	PEB-	PENDI-	PER-		PRON-		
		PARA-	ULATE	METH-	METHRIN	PHORATE	AMIDE	PRO-	PROPA-
	PARA-	THION	WATER	ALIN	CIS	WATER	WATER	METON,	CHLOR,
LOCAL		WAT FLT						WATER,	WATER,
WELL	DIS-	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	DISS,	DISS,
NUMBER		GF, REC	•		GF, REC				REC
	(UG/L)	(UG/L)	(UG/L)	(UG/L)		(UG/L)	(UG/L)	(UG/L)	(UG/L)
	(39542)	(82667)	(82669)	(82683)	(82687)	(82664)	(82676)	(04037)	(04024)
		1	HILLSDALE	COUNTY,	MICHIGAN				
SUS059-8	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
SUS059-9	< .004	< .006	< .004	< .004	<.005	<.002	<.003	<.018	< .007
SUS059-10	< .004	< .006	< .004	< .004	<.005	<.002	< .003	<.018	< .007
SUS059-12	< .004	< .006							
SUS059-13	<.004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
			LAPEER C	COUNTY, M	ICHIGAN				
SUS087-24	<.004	<.006	< 004	< 0.04	<.005	< 0.02	<.003	< 018	<.007
SUS087-29	<.004					<.002			
SUS087-41	<.004		<.004	<.004		<.002		<.018	<.007
			LENAWEE (	COUNTY, M	IICHIGAN				
		<.006							<.007
SUS091-17	<.004								
SUS091-32	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
		I	IVINGSTON	COUNTY,	MICHIGAN				
SUS093-36	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
			MACOMB C	COUNTY, M	ICHIGAN				
SUS099-30	<.004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
SUS099-39	< .004	<.006	< .004	< .004	<.005	<.002	<.003	<.018	< .007
			OAKLAND (	COUNTY, M	IICHIGAN				
SUS125-35	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
SUS125-37		<.006					<.003		
SUS125-40	<.004	<.006	< .004	< .004	<.005	<.002	<.003	<.018	< .007
			ST CLAIR	COUNTY, I	MICHIGAN				
SUS147-25	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
			SANILAC (	COUNTY, M	IICHIGAN				
SUS151-26	<.004	< .006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
SUS151-42	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
		1	WASHTENAW	COUNTY,	MICHIGAN				
SUS161-19	<.004	<.006	< .004	< .004	<.005	<.002	<.003	<.018	<.007
SUS161-20	< .004	< .006	< .004	<.004	< .005	<.002	<.003	<.018	< .007
SUS161-33	<.004	<.006	< .004	< .004	<.005	<.002	<.003	<.018	< .007
			WILLIAM	IS COUNTY	, OHIO				
SUS171-1	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
SUS171-2	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
SUS171-3	<.004	<.006	<.004	<.004	<.005	<.002	<.003	<.018	<.007
SUS171-4	<.004	<.006	< .004	<.004	<.005	<.002	<.003	<.018	<.007
SUS171-5	< .004	<.006	< .004	< .004	<.005	<.002	<.003	<.018	<.007

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	WATER FLTRD 0.7 U GF, REC (UG/L)	FLTRD 0.7 U GF, REC (UG/L)	MAZINE, WATER, DISS, REC (UG/L)	FLTRD 0.7 U GF, REC (UG/L)	WATER	0.7 U GF, REC (UG/L)	WATER FLTRD 0.7 U GF, REC (UG/L)	GF, REC (UG/L)	0.7 U GF, REC (UG/L)
			HILLSDALE	E COUNTY,	MICHIGAN				
SUS059-8	< .004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
SUS059-9	< .004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	< .002
SUS059-10	< .004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
SUS059-12	< .004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	< .002
SUS059-13	< .004	<.013	<.005	< .002	<.010	<.007	<.013	<.001	<.002
			LAPEER	COUNTY, M	ICHIGAN				
SUS087-24	<.004	< 013	< 0.05	<.002	< 010	<.007	<.013	<.001	<.002
SUS087-29	<.004			<.002		<.007			
SUS087-41	<.004					<.007			
			LENAWEE	COUNTY, M	IICHIGAN				
GIIGOO3 34	. 004	. 012			. 010		. 010	. 001	
	<.004			<.002		<.007		<.001	
SUS091-17 SUS091-32	<.004 <.004				<.010 <.010				
505071 32	V.004	V.013	<.003	V.002	V.010	2.007	V.013	V.001	V.002
		I	LIVINGSTO	N COUNTY,	MICHIGAN				
SUS093-36	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
			MACOMB	COUNTY, M	ICHIGAN				
SUS099-30	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
SUS099-39	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
			OAKLAND	COUNTY, M	IICHIGAN				
SUS125-35	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
SUS125-37	< .004				<.010	<.007	<.013		
SUS125-40	<.004	<.013	<.005	< .002	<.010	<.007	<.013	<.001	<.002
			ST CLAIR	COUNTY, I	MICHIGAN				
SUS147-25	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
			SANILAC	COUNTY, M	IICHIGAN				
SUS151-26	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
SUS151-42	<.004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
		,	WASHTENAV	COUNTY,	MICHIGAN				
0170165 50		24.2	225				24.2		
SUS161-19	<.004	<.013	<.005	< .002	<.010	<.007	<.013		<.002
SUS161-20 SUS161-33	<.004 <.004	<.013 <.013	<.005 <.005	<.002 <.002	<.010 <.010	<.007 <.007	<.013 <.013	<.001 <.001	<.002 <.002
202101-33	\.UU4	\.U13	\.UU3	<.00∠	~.UIU	\.UU/	\.U13	\.UU1	<.00∠
			WILLIA	MS COUNTY	, OHIO				
SUS171-1	< .004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002
SUS171-2	< .004	<.013	<.005	<.002	<.010	< .007	<.013	<.001	<.002
SUS171-3	< .004	<.013	<.005	< .002	<.010	< .007	<.013	<.001	<.002
SUS171-4	<.004	<.013	<.005	<.002	<.010	< .007	<.013	<.001	<.002
SUS171-5	< .004	<.013	<.005	<.002	<.010	<.007	<.013	<.001	<.002

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Subunit Survey - Volatile Organic Compounds

REMARKS.-- E: compound was detected at a concentration too low to be accurately quantified; V: compound may have been introduced into the sample as the result of well installation, sampling, handling, sample preservation, or shipping.

hipping.									
LOCAL		ACETONE				1,4-DI-	BENZENE N-BUTYL	BENZENE N-PROPY	BENZENE O-DI- CHLORO-
WELL		WATER	ACRYLO-		WATER	WATER	WATER	WATER	WATER
NUMBER		WHOLE		BENZENE	UNFLTRD				
	DATE	TOTAL	TOTAL	TOTAL	REC	REC	REC	REC	REC
			(UG/L)		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
			(34215)		, ,	, , ,	, ,		
		, ,		, ,	, ,	, ,	, , ,	, ,	, ,
		HILLS	DALE COUNT	ry, Michio	GAN				
SUS059-8	08-10-98	<4.90	<1.23	<.100	<.054	<.050	<.186	< .042	< .048
SUS059-9	08-10-98	<4.90	<1.23	< .100	< .054	<.050	<.186	< .042	< .048
SUS059-10	08-11-98	<4.90	<1.23	< .100	< .054	<.050	<.186	< .042	< .048
SUS059-12	08-11-98	<4.90	<1.23	< .100	<.054	< .050	<.186	< .042	< .048
SUS059-13	08-13-98	<4.90	<1.23	< .100	<.054	<.050	<.186	<.042	< .048
		LAPE	ER COUNTY	, MICHIGA	N				
SUS087-24	08-31-98	<4.90	<1.23	<.100	<.054	<.050	<.186	<.042	<.048
SUS087-29	09-01-98		<1.23			<.050	<.186		
SUS087-41	08-04-98	<4.90	<1.23		<.054	<.050	<.186		
505007 41	00 04 30	(4.JU	VI.25	<.100	V.034	<.050	<.100	V.012	V.040
		LENA	WEE COUNT	Y, MICHIG	AN				
SUS091-14	08-11-98	<4.90	<1.23	<.100	<.054	<.050	<.186	<.042	< .048
SUS091-17	08-13-98	<4.90	<1.23	<.100	<.054	<.050	<.186	<.042	<.048
SUS091-32	08-06-98	<4.90	<1.23	<.100	<.054	<.050	<.186	<.042	< .048
		LIVING	STON COUN	TY, MICHI	GAN				
SUS093-36	08-26-98	<4.90	<1.23	<.100	<.054	<.050	<.186	<.042	<.048
		MACC	MB COUNTY	, MICHIGA	N				
SUS099-30	08-05-98	<4.90	<1.23	<.100	<.054	<.050	<.186	<.042	<.048
SUS099-39	09-02-98		<1.23		<.054	<.050	<.186		<.048
		0717	AND COUNTRY	, MIGUIG	A NT				
			AND COUNTY						
SUS125-35	08-26-98				<.054	<.050	<.186	<.042	<.048
SUS125-37	09-03-98				<.216	<.200	< .744		<.192
SUS125-40	09-03-98	<4.90	<1.23	<.100	<.054	<.050	<.186	< .042	<.048
		ST CI	AIR COUNT	Y, MICHIG	AN				
SUS147-25	08-03-98	<9.81	<2.45	<.200	<.108	<.100	<.372	<.084	<.096
		SANI	LAC COUNTY	, MICHIGA	AN				
01101 E 1 2 6	00 21 00	<4.90	-1 00	. 100	. 054	. 050	. 100	. 040	. 040
SUS151-26 SUS151-42	08-31-98 09-01-98		<1.23 <1.23	<.100 <.100	<.054 <.054	<.050 <.050	<.186 <.186	<.042 <.042	<.048 <.048
505131 42	05 01 50	(4.JU	VI.25	<.100	V.034	V.050	<.100	V.012	V.040
		WASHT	ENAW COUNT	ry, Michio	GAN				
SUS161-19	08-06-98	E11.2	<1.23	<.100	<.054	<.050	<.186	<.042	<.048
SUS161-20	08-12-98		<1.23	<.100	<.054	<.050	<.186	<.042	< .048
SUS161-33	08-06-98		<1.23	<.100	<.054	<.050	<.186	<.042	< .048
			LIAMS COU						
SUS171-1	08-24-98	<4.90	<1.23	<.100	< .054	<.050	<.186	<.042	< .048
SUS171-2	08-25-98	<4.90	<1.23	<.100	<.054	<.050	<.186	<.042	< .048
SUS171-3	06-10-98	<4.90	<1.23	<.032	<.054	<.050	<.186	<.042	< .048
SUS171-4	06-11-98	<4.90	<1.23	<.032	< .054	<.050	<.186	<.042	< .048
SUS171-5	08-25-98	<4.90	<1.23	<.100	< .054	<.050	<.186	<.042	< .048

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	METHYL- WATER UNFLTRD RECOVER (UG/L)	124-TRI METHYL UNFILT RECOVER (UG/L)	BENZENE 135-TRI METHYL WATER UNFLTRD REC (UG/L) (77226)	BENZENE WATER, WHOLE, TOTAL (UG/L)	WATER UNFLTRD RECOVER (UG/L)	BROMO- FORM TOTAL (UG/L) (32104)	2BUTENE TRANS-1 4-DI- CHLORO UNFLTRD RECOVER (UG/L) (73547)	CARBON DI- SULFIDE WATER WHOLE TOTAL (UG/L) (77041)
				HILLSD	ALE COUNT	Y, MICHIG	AN				
SUS059-8	<.048	<.096	<.188	<.124	<.056	< .044	<.036	<.100	<.104	< .692	<.370
SUS059-9	< .048	<.096	<.188	<.124	<.056	< .044	<.036	< .100	<.104	<.692	<.370
SUS059-10	<.048	<.096		<.124 <.124		< .044		< .100	< .104		
SUS059-12 SUS059-13	<.048	<.096 <.096		<.124	<.056 <.056	<.044 <.044	<.036 <.036	<.100 <.100	<.104 <.104	< .692	E.040
202037 13	1.010	1.050	11200			, MICHIGAI		1,100	1,101	1.032	1.570
G11G00F 04	0.4.0	006	100					100	104	600	T 004
SUS087-24 SUS087-29	<.048 <.048	<.096 <.096	<.188 <.188	<.124 <.124	V.006 <.056	<.044 <.044	<.036 <.036	<.100 <.100	<.104 <.104	<.692 <.692	E.024
SUS087-41	<.048	<.096	<.188	<.124	<.056	<.044	<.036	<.100	<.104	<.692	<.370
				LENAW	EE COUNTY	, MICHIGA	N				
SUS091-14	<.048	<.096	<.188	<.124	<.056	< .044		<.100	<.104		<.370
SUS091-17 SUS091-32	<.048	<.096 <.096	<.188 <.188	<.124 <.124	<.056 <.056	<.044 <.044	<.036 <.036	<.100 <.100	<.104 <.104	<.692 <.692	<.370 <.370
505071 32	1.010	1.030	1.100					1.100	1.101	1.032	1.370
		LIVINGSTON COUNTY, MICHIGAN									
SUS093-36	<.048	.048 <.096 <.188 <.124 <.056 <.044 <.036 <.100 <.1								<.692	<.370
				MACO	MB COUNTY	, MICHIGAI	1				
SUS099-30	<.048	<.096	<.188	<.124	<.056	<.044	<.036	<.100	<.104	< .692	<.370
SUS099-39	< .048	<.096	<.188	<.124	<.056	< .044	<.036	< .100	<.104	<.692	E.038
				OAKLA	ND COUNTY	, MICHIGA	N				
SUS125-35	<.048	<.096	<.188	<.124	<.056	<.044	<.036	<.100	<.104	<.692	<.370
SUS125-37	<.192	<.384	<.752	<.496	<.224	<.176	<.144	<.400	<.416		E.071
SUS125-40	< .048	<.096	<.188	<.124	<.056	< .044	<.036	<.100	<.104	<.692	<.370
				ST CL	AIR COUNT	Y, MICHIGA	AN				
SUS147-25	<.096	<.192	<.376	<.248	<.112	<.088	<.072	<.200	<.208	<1.38	<.740
				SANIL	AC COUNTY	, MICHIGA	N				
SUS151-26 SUS151-42	<.048 <.048	<.096 <.096	<.188 <.188	<.124 <.124	<.056 <.056	<.044 <.044	<.036 <.036	<.100 <.100	<.104 <.104	<.692 <.692	<.370 E.052
505131 12	1.010	1.030	1.100					1.100	V.101	1.032	1.032
				WASHIE	MAM COUNT	Y, MICHIG	IWIN				
SUS161-19	<.048	<.096		<.124	<.056	< .044	<.036	<.100	<.104		E.022
SUS161-20 SUS161-33		<.096 <.096	<.188 <.188	<.124 <.124		<.044 <.044		<.100 <.100	<.104 <.104		<.370 <.370
200101 33	1.010	1.000	·.±00					\.100	~.104	~.052	\.J/0
						NTY, OHIO					
SUS171-1	<.048	<.096	<.188	< .124	<.056	< .044	<.036	<.100	< .104	< .692	< .370
SUS171-2 SUS171-3	<.048 <.048	<.096 <.096	<.188 <.188	<.124 <.124	<.056 <.056	<.044 <.044	<.036 <.036	<.100 <.100	<.104 <.104	<.692 <.692	<.370 E.047
	<.048	<.096	<.188	<.124	<.056			<.100	<.104		<.080
SUS171-5	<.048	<.096	<.188	<.124	<.056	<.044	<.036	<.100	<.104	<.692	<.370

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

	TOTAL (UG/L) (32102)  <.088 <.088 <.088 <.088 <.088	TOTAL (UG/L) (34301)  <.028 <.028 <.028 <.028 <.028 <.028	METHANE TOTAL (UG/L) (32105) <.182 <.182 <.182 <.182	ETHANE TOTAL (UG/L) (34311) HILLSI <.120 <.120 <.120 <.120	(32106)  DALE COUNT  <.052 <.052 <.052 <.052 <.052	ETHENE WATER TOTAL (UG/L) (77093)  TY, MICHI  <.038 <.038 <.038 <.038 <.038	CHLORO- PROPENE TOTAL (UG/L) (34704) GAN  <.092 <.092 <.092 <.092	PROPANE WATER WHOLE TOT.REC (UG/L) (82625)  <.214 <.214 <.214 <.214 <.214	WATER WHOLE TOTAL (UG/L) (77651)  <.036 <.036 <.036 <.036 <.036	METHANE WATER WHOLE RECOVER (UG/L) (30217)  <.050 <.050 <.050 <.050	(UG/L) (32101) <.048 <.048 <.048 <.048
202037 13		1.020	1.102			, MICHIGA		7.211	1.030	1.030	
SUS087-24	- 088	- 028	- 182					- 214	< 036	<.050	<.048
SUS087-29											
SUS087-41	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	<.048
				LENA	WEE COUNT	Y, MICHIG	AN				
SUS091-14	< .088	<.028	<.182	<.120	< . 052	< .038	< .092	< .214	< . 036	<.050	<.048
SUS091-17											
SUS091-32	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	<.048
				LIVING	STON COUN	TY, MICHI	GAN				
SUS093-36	<.088	<.028	<.182	<.120	V.070	<.038	<.092	<.214	<.036	<.050	<.048
				MACO	MB COUNTY	, MICHIGA	AN				
SUS099-30										<.050	
SUS099-39	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	<.048
				OAKLA	AND COUNT	Y, MICHIG	AN				
SUS125-35	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	<.048
SUS125-37											
SUS125-40	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	< .048
				ST CL	AIR COUNT	Y, MICHIG	AN				
SUS147-25	<.176	<.056	<.364	<.240	<.104	<.076	<.184	<.428	<.072	<.100	<.096
				SANII	LAC COUNT	Y, MICHIG	AN				
SUS151-26	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	< .048
SUS151-42	<.088	<.028	<.182	< .120	<.052	<.038	<.092	<.214	<.036	<.050	<.048
				WASHTI	ENAW COUN	TY, MICHI	GAN				
SUS161-19	<.088	<.028	<.182	<.120	.612	<.038	<.092	<.214	<.036	<.050	E.024
SUS161-20	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	< .048
SUS161-33	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	< .048
				WIL	LIAMS COU	NTY, OHIO	)				
SUS171-1	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	<.048
SUS171-2	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214			<.048
SUS171-3	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	< .048
SUS171-4	<.088	<.028	<.182	< .120	<.052	<.038	<.092	<.214	<.036	<.050	< .048
SUS171-5	<.088	<.028	<.182	<.120	<.052	<.038	<.092	<.214	<.036	<.050	<.048

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Subserver   Color	LOCAL WELL NUMBER	TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	ETHYL- ENE TOTAL (UG/L) (34501)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	CHLORO- PROPANE WAT. WH TOTAL (UG/L) (77173)	PRO- PANE WAT, WH TOTAL (UG/L) (77170)	PRO- PENE, WAT, WH TOTAL (UG/L)	(UG/L)	HEXA- CHLORO- WATER UNFLTRD RECOVER (UG/L)	CHLORO- WAT UNF REC (UG/L)
SUBSOFF-10   1.18												
SUBSOB-12   1,138   4,066   1,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSOB-13   1,014   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSOB-24   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSOB-29   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSOB-14   5,200   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSOB-17   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSOB-17   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSOB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSOB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSOB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSOB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSIB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSIB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSIB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSIB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSIB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSIB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSIB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSIB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBSIB-30   4,138   4,066   4,134   4,044   4,068   4,116   4,078   4,026   4,098   4,362   4,044     SUBS												
SUSDS-13   B.014												
SUS097-24   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS087-29   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS087-41   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS091-17   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS091-17   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS091-32   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS091-30   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS091-30   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS091-30   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS091-30   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS0125-35   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS125-35   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS125-36   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS125-36   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS125-12   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS125-12   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS126-120   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS126-120   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS127-1   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS127-1   4.138   4.066   4.134   4.044   4.068   4.116   4.078   4.026   4.098   4.362   4.044   SUS127-1   4.138   4.066   4.134   4.044												
SUS087-24												
SUS087-29	CIICOO7 24	. 120	. 066	. 134					. 026	. 000	. 262	- 044
SUS097-41   4.138												
SUS091-14   E.200   C.066   C.134   C.044   C.068   C.116   C.078   C.026   C.098   C.362   C.044												
SUS091-17					LENAW							
SUS091-17												
Suscise   Susc												
SUS093-36   C.138   C.066   C.134   C.044   C.068   C.116   C.078   C.026   C.098   C.362   C.044												
SUS093-36	303091-32	<.130	<.000	<.134	<.044	<.000	<.110	<.076	<.020	<.036	<.302	<.044
SUS099-30   C.138   C.066   C.134   C.044   C.068   C.116   C.078   C.026   C.098   C.362   C.044					LIVING	STON COUN	ry, Michi	GAN				
SUS199-30	SUS093-36	<.138	<.066	<.134	<.044	<.068	<.116	<.078	<.026	<.098	<.362	<.044
SUS125-35 < .138					MACO	MB COUNTY	, MICHIGA	N				
SUS125-35	SUS099-30	<.138	<.066	<.134	< .044	<.068	<.116	<.078	<.026	<.098	<.362	< .044
SUS125-35	SUS099-39	<.138	<.066	<.134	< .044	<.068	<.116	<.078	<.026	<.098	<.362	< .044
SUS125-37					OAKLA	AND COUNTY	, MICHIGA	AN				
SUS125-37	SUS125-35	<.138	<.066	<.134	<.044	<.068	<.116	<.078	<.026	<.098	<.362	<.044
SUS147-25												
SUS147-25	SUS125-40	<.138	<.066	<.134	< .044	<.068	<.116	<.078	<.026	<.098	<.362	< .044
SANILAC COUNTY, MICHIGAN  SUS151-26					ST CL	AIR COUNT	Y, MICHIG	AN				
SUS151-26 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044   SUS151-42 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    WASHTENAW COUNTY, MICHIGAN  SUS161-19 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS161-20 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS161-33 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS161-33 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-1 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-2 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-2 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-3 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.078    SUS171-4 <.096 <.066 <.134 <.044 <.044 <.068 <.116 <.078    SUS171-4 <.096	SUS147-25	<.276	<.132	<.268	<.088	<.136	<.232	<.156	<.052	<.196	<.724	<.088
SUS151-42 <.138					SANII	AC COUNTY	, MICHIGA	AN				
SUS151-42 <.138	SUS151-26	<.138	<.066	<.134	<.044	<.068	<.116	<.078	<.026	<.098	<.362	<.044
SUS161-19 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044												
SUS161-20 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044					WASHTE	NAW COUNT	Y, MICHIG	AN				
SUS161-20 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044	0110161 10	. 120	. 000	. 124	- 044	. 060	. 116	. 070	. 006	. 000	. 262	. 044
SUS161-33 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    WILLIAMS COUNTY, OHIO  SUS171-1 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-2 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-3 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044    SUS171-4 <.096 <.096 <.096 <.098 <.362 <.044    SUS171-4 <.096 <.096 <.098 <.362 <.098   SUS171-4 <.096 <.096 <.098 <.362 <.098   SUS171-4 <.096 <.096 <.098 <.362 <.098   SUS171-4 <.096 <.096   SUS171-4 <.096 <.096   SUS171-4 <.096 <.096   SUS171-4 <.096   SUS171-4 <.096   SUS171-4 <.096   SUS171-4   SUS17												
WILLIAMS COUNTY, OHIO  SUS171-1 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044  SUS171-2 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044  SUS171-3 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044  SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044  SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044												
SUS171-1     <.138		. =		. = -								
SUS171-2     <.138	SIIS171-1	_ 13Ω	- 066	, 13 <i>1</i>					- 026	, naa	, 362	- 044
SUS171-3 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044 SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044												
SUS171-4 <.096 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044												
SUS171-5 <.138 <.066 <.134 <.044 <.068 <.116 <.078 <.026 <.098 <.362 <.044												
	SUS171-5	<.138	<.066	<.134	<.044	<.068	<.116	<.078	<.026	<.098	<.362	< .044

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	ETHANE 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	ETHER ETHYL WATER UNFLTRD	ETHER TERT- BUTYL ETHYL UNFLTRD RECOVER (UG/L) (50004)	RECOVER (UG/L)	TOTAL (UG/L)	FREON- 113 WATER UNFLTRD REC (UG/L) (77652)	FURAN, TETRA- HYDRO- WATER UNFLTRD RECOVER (UG/L) (81607)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	2-HEXA- NONE WATER WHOLE TOTAL (UG/L) (77103)	ISO- DURENE WATER UNFLTRD RECOVER (UG/L) (50000)	ISO- PROPYL- BENZENE WATER WHOLE REC (UG/L) (77223)
				HILLSI	DALE COUN	TY, MICHI	GAN				
SUS059-8	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
SUS059-9	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	< .142	<.746	<.240	< .032
SUS059-10	<.132	<.170	<.054	< .112	<.030	<.032					<.032
SUS059-12	<.132	<.170	<.054	<.112		<.032				< .240	
SUS059-13	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
				LAPE	ER COUNTY	, MICHIGA	AN				
SUS087-24	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142			<.032
SUS087-29	<.132	<.170	<.054	<.112	<.030	<.032	<8.79			< .240	<.032
SUS087-41	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
				LENA	WEE COUNT	Y, MICHIG	AN				
SUS091-14	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
SUS091-17	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
SUS091-32	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
				LIVING	STON COUN	ITY, MICHI	GAN				
SUS093-36	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
				MACC	MB COUNTY	, MICHIGA	AN				
SUS099-30	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
SUS099-39	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
				OAKL	AND COUNT	Y, MICHIG	AN				
SUS125-35	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
SUS125-37		<.680	<.216	< .448	<.120	<.128	<35.2		<2.98	<.960	<.128
SUS125-40	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
				ST CL	AIR COUNT	Y, MICHIG	BAN				
SUS147-25	<.264	<.340	<.108	<.224	<.060	<.064	<17.6	<.284	<1.49	<.480	<.064
				SANII	LAC COUNT	Y, MICHIG	AN				
SUS151-26	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
SUS151-42		<.170	<.054			<.032	<8.79				
				WASHTI	ENAW COUN'	TY, MICHI	GAN				
						,					
SUS161-19		<.170	<.054			<.032	37.2	<.142			
SUS161-20		<.170	<.054							<.240	
SUS161-33	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
				WIL	LIAMS COU	NTY, OHIO	)				
SUS171-1	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032
SUS171-2	<.132	<.170	<.054	<.112	<.030	<.032	<8.79				<.032
SUS171-3	<.132	<.170	<.054	<.112	<.030	<.032	E1.68				
SUS171-4	<.132	<.170	<.054	< .112		<.032				<.240	
SUS171-5	<.132	<.170	<.054	<.112	<.030	<.032	<8.79	<.142	<.746	<.240	<.032

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	RECOVER (UG/L)	WATER UNFLTRD RECOVER (UG/L)	WATER UNFLTRD RECOVER (UG/L)	METHANE BROMO CHLORO- WAT UNFLTRD REC (UG/L) (77297)	RECOVER (UG/L)	TOTAL (UG/L)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	CHLO- RIDE TOTAL (UG/L)	METHYL- ETHYL- KETONE WATER WHOLE TOTAL (UG/L) (81595)	METHYL IODIDE WATER UNFLTRD RECOVER (UG/L) (77424)	METHYL ISO- BUTYL KETONE WAT.WH. TOTAL (UG/L) (78133)
				HILLSD	ALE COUNT	Y, MICHIG	AN				
SUS059-8	<.278	<.350	<.570	< .044	<1.36	<.148	<.254	<.382	<1.65	<.208	<.374
SUS059-9	<.278	<.350	<.570	< .044	<1.36	<.148	<.254	<.382	<1.65	<.208	<.374
SUS059-10	<.278			< .044	<1.36	< .148	<.254	<.382	<1.65	<.208	<.374
SUS059-12				< .044		< .148					<.374
SUS059-13	<.278	<.350	<.570	< .044	<1.36	<.148	<.254	<.382	<1.65	<.208	<.374
				LAPEE	CR COUNTY,	MICHIGAN	1				
SUS087-24	<.278	<.350	<.570	< .044	<1.36	<.148	<.254	<.382	<1.65	<.208	<.374
SUS087-29	<.278	<.350	< .570	< .044		< .148	<.254				<.374
SUS087-41	<.278	<.350	<.570	< .044	<1.36	< .148	<.254	<.382	<1.65	<.208	< .374
				LENAW	EE COUNTY	, MICHIGA	N				
SUS091-14	<.278	<.350	<.570	< .044	<1.36	<.148	< . 254	<.382	<1.65	<.208	<.374
SUS091-17			<.570		<1.36		<.254				<.374
SUS091-32	<.278	<.350	<.570		<1.36	<.148	<.254	<.382	<1.65	<.208	<.374
				LIVINGS	TON COUNT	ry, Michio	GAN				
SUS093-36	<.278	<.350	<.570	<.044	<1.36	<.148	<.254	<.382	<1.65	<.208	<.374
				MACOM	IB COUNTY,	MICHIGAN	N.				
CIICOOO 20	. 270	<.350	. 570	<.044	<1.36	. 140	. 254	. 202	-1 CE	- 200	<.374
SUS099-30 SUS099-39	<.278 <.278	<.350	<.570 <.570	<.044	<1.36	<.148 <.148	<.254 <.254	<.382 <.382	<1.65 <1.65	<.208 <.208	<.374
				OAKLA	ND COUNTY	, MICHIGA	N				
				0111211		,					
	<.278		<.570		<1.36		<.254	<.382	<1.65	<.208	<.374
SUS125-37		<1.40	<2.28		<5.43		<1.02	<1.53	<6.60	<.832	<1.50
SUS125-40	<.278	<.350	<.570	< .044	<1.36	<.148	<.254	<.382	<1.65	<.208	<.374
				ST CLA	IR COUNTY	, MICHIGA	AN				
SUS147-25	<.556	<.700	<1.14	<.088	<2.71	<.296	<.508	<.764	<3.30	<.416	<.748
				SANIL	AC COUNTY	, MICHIGA	N				
SUS151-26	<.278	<.350	<.570	< .044	<1.36	< .148	<.254	<.382	<1.65	<.208	<.374
SUS151-42	<.278	<.350	<.570	< .044	<1.36	< .148	<.254	<.382	<1.65	<.208	<.374
				WASHTE	NAW COUNT	Y, MICHIG	AN				
SUS161-19	<.278	<.350	<.570	<.044	<1.36	<.148	<.254	<.382	4.18	<.208	<.374
SUS161-19		<.350		<.044		<.148					<.374
SUS161-33		<.350		< .044		< .148			<1.65	<.208	<.374
				WILI	IAMS COUN	NTY, OHIO					
SUS171-1	<.278	<.350	<.570	<.044	<1.36	<.148	<.254	<.382	<1.65	<.208	<.374
SUS171-1 SUS171-2	<.278			<.044		<.148	<.254	<.382	<1.65	<.208	<.374
	<.278			<.044		<.148		<.382	<1.65	<.076	<.374
	<.278			< .044							<.374
SUS171-5	<.278	<.350	<.570	< .044	<1.36	< .148	<.254	<.382	<1.65	<.208	<.374

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

	METHYL			PROPENE			O- P-ISO-					
	TERT-		PREH-	3 -		TETRA-		CHLORO-	TOLUENE	TOLUENE	PROPYL-	
	BUTYL		NITENE	CHLORO-		CHLORO-			O-ETHYL			
	ETHER	NAPHTH-	WATER	WATER		ETHYL-		WATER	WATER	WATER	WATER	
LOCAL		ALENE		UNFLTRD		ENE	TOLUENE	WHOLE	UNFLTRD		WHOLE	
WELL	REC	TOTAL		RECOVER	TOTAL	TOTAL	TOTAL		RECOVER		REC	
NUMBER		(UG/L)	(UG/L)	(UG/L) (78109)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	
	(78032)	(34696)	(49999)	(78109)	(7/128)	(34475)	(34010)	(77275)	(77220)	(77277)	(77356)	
				HILLS	DALE COUN	TY, MICH	GAN					
SUS059-8	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	
SUS059-9	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	< .110	
SUS059-10	<.166	<.250	<.230	<.196	<.042	<.102	<.054			<.056	< .110	
SUS059-12		<.250	<.230	<.196	<.042	< .102						
SUS059-13	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	
				LAPE	EER COUNTY	, MICHIG	AN					
SUS087-24	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	
SUS087-29		<.250	<.230	<.196	<.042	<.102						
SUS087-41		<.250	<.230	<.196	<.042	<.102	<.054	<.042			< .110	
					WEE COUNT	•						
SUS091-14		<.250	<.230	<.196	<.042	<.102						
SUS091-17 SUS091-32		<.250 <.250	<.230 <.230	<.196 <.196	<.042 <.042	<.102 <.102		<.042 <.042		<.056 <.056	<.110 <.110	
505091-32	<.100	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	
				LIVING	STON COUN	TY, MICH	IGAN					
SUS093-36	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	
				MACC	OMB COUNTY	, MICHIG	AN					
SUS099-30	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	
SUS099-39	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	
				ONVI	AND COUNT	V MTCIITO	77.37					
				UAKL	AND COUNT	i, Michic	JAIN					
SUS125-35	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	
SUS125-37	<.664	<1.00	<.920	<.784	<.168	< .408	<.216	<.168	< .400	<.224	< .440	
SUS125-40	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	
				ST CI	LAIR COUNT	Y, MICHI	GAN					
SUS147-25	<.332	<.500	<.460	<.392	<.084	<.204	<.108	<.084	<.200	<.112	<.220	
				SANI	LAC COUNT	Y, MICHIO	BAN					
SUS151-26	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	
SUS151-42			<.230	<.196			<.054					
				WASHT	ENAW COUN	TY, MICH	IGAN					
SUS161-19	<.166	<.250	- 220	<.196	- 042	E.009	E.032	<.042	<.100	<.056	<.110	
SUS161-19 SUS161-20										<.056		
SUS161-20				<.196								
202101 33	1.100	~.230	1.250	1.170	1.072	·.102	\.UJ4	\.U <del>1</del> Z	·.±00	~.030	·	
				WII	LIAMS COU	JNTY, OHI	0					
SUS171-1	<.166	<.250	<.230	<.196	<.042	<.102	<.054				<.110	
SUS171-2	<.166											
SUS171-3	<.112			<.196	<.042							
SUS171-4				<.196								
SUS171-5	<.166	<.250	<.230	<.196	<.042	<.102	<.054	<.042	<.100	<.056	<.110	

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

LOCAL WELL NUMBER	CHLORO- ETHENE TOTAL (UG/L)	1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	CHLORO BENZENE WAT, WH REC (UG/L)	TRI- CHLORO- ETHANE TOTAL (UG/L)	ETHANE TOTAL (UG/L)	CHLORO- ETHYL- ENE TOTAL	FLUORO- METHANE TOTAL (UG/L)	TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)	WATER UNFLTRD REC (UG/L)	
				HILLSD	ALE COUNT	Y, MICHIG	AN				
SUS059-8	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	<.064
	<.032					<.038					
SUS059-10	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	< .064
SUS059-12						<.038					
SUS059-13	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	<.064
				LAPEI	ER COUNTY	, MICHIGAN	I				
SUS087-24	<.032			<.032	<.064	<.038	<.092	<.162	<.112	E.012	< .064
SUS087-29				<.032		<.038		<.162			
SUS087-41	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	<.064
				LENAW	EE COUNTY	, MICHIGA	N				
SUS091-14	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	<.064
SUS091-17	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	< .064
SUS091-32	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	< .064
				LIVING	STON COUN	ry, Michig	JAN				
SUS093-36	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	<.064
				MACON	MB COUNTY	, MICHIGAN	I				
SUS099-30	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	<.064
SUS099-39	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	< .064
				OAKLA	ND COUNTY	, MICHIGAI	N				
SUS125-35	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	<.064
SUS125-37			<1.06			<.152			< .448		
SUS125-40	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	< .064	< .064
				ST CL	AIR COUNT	Y, MICHIGA	ΔN				
SUS147-25	<.064	<.268	<.532	<.064	<.128	<.076	<.184	<.324	<.224	<.128	<.128
				SANIL	AC COUNTY	, MICHIGAI	N				
SUS151-26	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	<.064
SUS151-42			<.266								< .064
				WASHTE	NAW COUNT	Y, MICHIGA	AN				
SUS161-19	~ U33	<.134	- 266	< U3.5	- 064	<.038	<.092	<.162	<.112	E.031	<.064
SUS161-19 SUS161-20											<.064
SUS161-33			<.266						<.112	<.064	<.064
				WIL	LIAMS COUI	NTY, OHIO					
SUS171-1	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	<.064	<.064
SUS171-2	<.032	<.134	<.266	<.032			<.092		<.112		<.064
	<.032	<.134	<.266	<.032	<.064	<.038	<.092	< .070	<.112		< .064
	<.032		<.266						<.112		< .064
SUS171-5	<.032	<.134	<.266	<.032	<.064	<.038	<.092	<.162	<.112	E.012	<.064

### Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

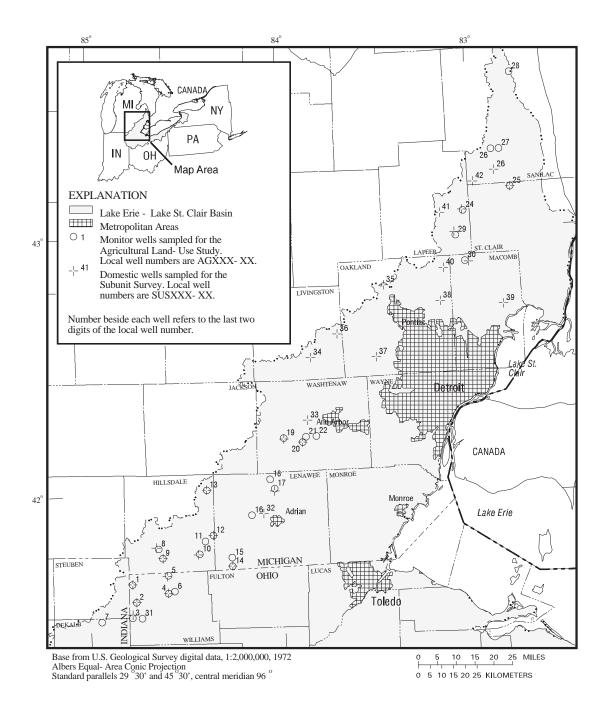


Figure 11. Location of wells sampled for NAWQA studies in the Lake Erie—Lake St. Clair Basin.

#### Columbus Well Field, Southern Franklin County

The following tables contain ground-water-level measurements and chemical analyses from a network of wells and two surface-water sites in southern Franklin County. The data were collected as part of a cooperative study with the City of Columbus. The objective of the study is to present estimates of ground-water traveltimes and flow paths under transient flow to determine the zone of contribution to the City of Columbus' South Well Field. The five-digit parameter codes (in parentheses) in the water-quality reports are defined in WATSTORE.

03229500 - BIG WALNUT C AT REES OH

03229500 - BIG WALNUT C AT REES OH
LOCATION. --Lat 39°51'24", long 82°57'26", in NE 1/4 sec. 26, T.4 N., R.22 W., Franklin County, Hydrologic Unit
05060001, on right bank at downstream side of bridge on Reese Road, 0.5 mi southwest of Rees, 4.2 mi downstream
from Alum Creek, and 10.5 mi upstream from mouth.
PERIOD OF RECORD.--Discharge - Aug. 1921 to Dec. 1935, Oct. 1938 to current year. Monthly discharge only for some
periods, published in WSP 1305. Chemical-quality sampling only as part of a cooperative study with the City of
Columbus - beginning Dec. 15, 1995.

REMARKS.--Flow regulated by Hoover Reservoir 26 mi upstream (see station 03228400) and Alum Creek Lake 30 mi upstream since August 1973. Beginning June 15, 1956, diversion at Morse Road Treatment Plant, 21 mi upstream from station, for municipal water supply for the city of Columbus.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DI CHAR INS' CUB: FEI PE: SECO	GE, I. IC ET R OND	SPE- CIFI CON- DUCT ANCE (US/C	C WHO FIE (STA) E AR CM) UNI	ER LE LD ND- D TS)	TEMPE ATUR WATE (DEG (0001	RE D ER SO C) (M	GEN, IS- LVED G/L) 300)	HARI NESS TOTA (MG/ AS CACC	CAL I L S	ALCI DIS- SOLV (MG/ AS C	DI: ED SOL' L (MG	JM, SODIU S- DIS- VED SOLVE /L (MG/1 MG) AS N	D L (A)
DEC 16	0840	50	2	560	0 7.	3	2.0	0 11	. 7	320	0	82	28	50	
DATE	S D SO (M AS	TAS- IUM, IS- LVED G/L K) 935)	BICA BONA WAT DIS FIE MG/L HCO (004	TE ER IT LD AS 3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	DI SC (M AS	FATE S- DLVED 1G/L SO4)	CHLO- RIDE, DIS- SOLVEI (MG/L AS CL)	R: I S( I) AS	LUO- IDE, DIS- DLVED MG/L S F)	(MG/ AS SIO2	ED L	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	DIS-	
DEC 16	5	.9	19	3	158	1	.50	61	0	. 57	4.3		490	0.022	
DATE	G NO2 D SO (M AS	TRO- EN, +NO3 IS- LVED G/L N) 631)	NIT GEI AMMOI DI: SOL (MG AS I	N, NIA S- VED /L N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHO OR DI SOL (MG AS	RTHO, S- VED S/L	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	L: D: S( I) A:	ERYL- IUM, IS- OLVED UG/L S BE)	CADMI DIS SOLV (UG/ AS C	ED L	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	
DEC 16	1.	55	<0.0	20	0.39	0.0	)49	46	<1	1.0	<8.0		<12	<10	
DATE	D SO (U AS	ON, IS- LVED G/L FE) 046)	LEA DI SOL (UG AS	S- VED /L PB)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	NE SC (U AS	ANGA- ESE, DIS- DLVED JG/L EMN)	MOLYB- DENUM, DIS- SOLVEI (UG/L AS MO)	: I S( I) A(	TRON- TIUM, DIS- DLVED UG/L S SR) 1080)	VANA DIUM DIS SOLV (UG/ AS V	ED L	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	
DEC 16	1	3	<10	0	10	1	.1	<60	26	600	<10		<20	4.4	

394957083002900. SCIOTO RIVER AT ROUTE 665 AT SHADEVILLE.

394957083002900. SCIOTO RIVER AT ROUTE 665 AT SHADEVILLE.
LOCATION.--Lat 39°49'57", long 83°00'29", Hydrologic Unit 05060001, north side of Rt. 665 bridge over the Scioto River, 0.1 mi west of Shadeville.
PERIOD OF RECORD.--Aug. 1987 intermittently to current year.
REMARKS.--This site is used for chemical-quality sampling only as part of a cooperative study with the City of Columbus.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DI CHAR INS CUB FE PE SEC	T. CI IC CO ET DU IR AL OND (US	PE- WEFIC WEDN- FICT- (STUCE FICE)	PH ATER HOLE ELD CAND- ARD JITS) 400)	TEMPI ATUI WATI (DEG (0001	RE DI ER SOL C) (MG	S- VED /L)	HARD- NESS TOTAL (MG/I AS CACO3	CALCI L DIS- L SOLV (MG/ B) AS C	DIS ZED SOLV L (MG/ CA) AS M	JM, SODIUM, S- DIS- JED SOLVED L (MG/L AG) AS NA)
DEC 16	1145	63	37	786 ′	7.6	5.	5 13.	5	250	65	21	26
DATE	S D SC (M AS	OTAS- SIUM, DIS- DLVED IG/L K)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CACO3	DI SC S (M AS	FATE S- DLVED IG/L SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	RII Di SOI (MC AS	DE, IS- LVED G/L	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 16	2	. 4	205	168		70	45	0.1	26	4.7	352	0.019
DATE	NI G NO2 D SC (M	TRO- EN, +NO3 DIS- DLVED IG/L S N)	NITROGEN, AMMONIA DIS- SOLVEI (MG/L AS N) (00608)	- NITRO- GEN, AM- A MONIA - ORGANIO DIS. (MG/L AS N)	- PH - PHC + OR C DI SOI (MG	OS- DRUS RTHO, CS- LVED G/L	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BEI LIU DIS SOI (UC AS	RYL- UM,	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 16	2.	76	0.031	0.69	0.6	594	63	<1	. 0	<8.0	<12	<10
DATE	IR D SO (U AS	ON, DIS- DLVED JG/L S FE)	LEAD, DIS- SOLVEI (UG/L AS PB)	LITHIUI DIS- O SOLVEI (UG/L AS LI	MA M NE E C SC (U	ANGA- ESE, DIS- DLVED JG/L S MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STI TI DI SOI (UC AS	RON- IUM, IS- LVED G/L SR) 080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS-	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 16	6	14	<100	4	2	28	<60	4!	57	<10	<20	5.4

395037082581900. Local number, FR-36
LOCATION.--Lat 39°50'37", long 82°58'19", Hydrologic Unit 05060001.
Owner.--J.P. Sand and Gravel
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 31 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 715 ft above sea level. Measuring point: Top of casing, 1.3 ft above land-surface datum surface datum
PERIOD OF RECORD.--Oct. 1974 to current year.

EXTREMES FOR PERIOD OF RECORD. -- Highest water level measured, 10.03 ft below land-surface datum, Oct. 17, 1979; lowest measured, 21.69 ft below land-surface datum, Mar. 16, 1992.

Date	Water Level
DEC 16 APR 02	15.81 16.97
JUN 17	14.72

#### Columbus Well Field, Southern Franklin County

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394927082595800.
                 Local number, FR-70.
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LOCATION.--Lat 39°49'27", long 82°59'58", Hydrologic Unit 05060001.

Owner.-St. Joseph Cemetery.

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS. -- Drilled observation water well, depth 59 ft; 4-in. casing.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 705 ft above sea level. Measuring point: Top of concrete base, 0.35 ft above land-surface datum.

PERIOD OF RECORD.--Apr. 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.24 ft below land-surface datum, Mar. 18, 1991; lowest measured, 27.60 ft below land-surface datum, June 12, 1992.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	18.05
APR 02	18.37
JUN 17	15.86

395217083002300. Local number FR-72
LOCATION.--Lat 39°52'17", long 83°00'23", Hydrologic Unit 05060001.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 34.6 ft, 3-in. casing.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 715 ft above sea level. Measuring point: Top of casing inside pit, 3.5

ft below land-surface datum.

PERIOD OF RECORD.--May 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.01 ft below land-surface datum, June 27, 1990; lowest measured, dry on dates in 1992, 1995, 1996 and May 15 and Sept. 14 of this water year.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	DRY
APR 02	DRY
JUN 17	36.00

395019083003300. Local number, FR-104 (TH-A)
LOCATION.--Lat 39°50'19", long 83°00'33", Hydrologic Unit 05060001.
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.

MQUITER.--said and graver of quaternary age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 79.3 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 683 ft above sea level. Measuring point: Top of casing, 3.89 ft above land-surface datum

PERIOD OF RECORD.--Dec. 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.51 ft below land-surface datum, Mar. 17, 1995; lowest measured, 53.59 ft below land-surface datum, Dec. 11, 1991.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	28.69
APR 02	29.52
JUN 17	19.81

395157083003500. Local number, FR-109 LOCATION.--Lat 39°51'57", long 83°00'35", Hydrologic Unit 05060001. Owner.--City of Columbus.

AQUIFER.--Sand and gravel of Quaternary age.

AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 92 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 702.2 ft above sea level. Measuring point: Top of outer steel casing,

30.8 ft above land-surface datum.
PERIOD OF RECORD.--June 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.47 ft above land-surface datum, Sept. 5, 1990; lowest measured, 30.56 ft below land-surface datum, Aug. 5, 1988.

Date	Water Level
DEC 16	10.47
APR 02	12.91
JUN 17	9.11

395039082585800. Local number, FR-115 (TH-67)

LOCATION.--Lat 39°50'39", long 82°58'58", Hydrologic Unit 05060001, near Hamilton Meadows.

MAX

36.23

36.31

36.88

36.51

35.49

Owner.--City of Columbus.

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS. -- Drilled observation well, diameter 6 in., depth 116 ft.

INSTRUMENTATION - Data logger -- 60-minute record.

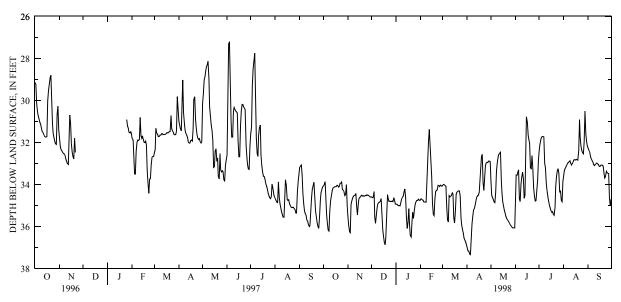
DATUM.--Elevation of land-surface datum is 721 ft above sea level. Measuring point: Floor of instrument shelter,

2.10 ft above land-surface datum.

PERIOD OF RECORD.--Aug. 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 48.15 ft below land-surface datum, Feb. 28 and 29, 1992; minimum daily low, 27.21 ft below land-surface datum, May 3, 1984.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP 34.08 34.61 34.70 34.03 37.02 33.79 34.81 32.38 33.56 32.28 35.49 34.94 34.01 33.87 34.69 34.74 37.17 37.18 33.55 33.56 33.35 33.22 32.40 32.48 2 35.94 34.64 34.95 34.00 34.51 32.12 3 36.26 34.60 34.99 34.02 34.63 31.90 35.02 34.06 37.31 31.74 33.15 32.69 34.69 33.43 5 35.41 34.96 35.55 35.01 34.83 34.09 37.34 34.83 33.31 31.73 33.07 32.79 6 35.85 34.78 35.85 35.03 34.84 35.09 36.65 34.87 34.68 31.72 33.00 32.86 36.18 36.23 34.65 34.56 35.40 35.10 34.83 34.69 34.83 34.85 35.71 35.79 35.88 35.50 34.38 34.82 34.00 31.74 32.95 32.92 32.95 33.06 8 35.28 34.53 34.91 34.61 33.69 34.54 35.20 32.97 33.65 33.21 32.88 33.11 10 34.79 34.51 34.86 34.57 32.68 34.60 35.14 32.70 33.41 33.93 33.01 33.06 11 34.54 34.43 34.85 34.35 31.96 34.57 35.01 32.56 33.72 34.30 33.08 33.02 34.31 34.17 35.05 35.46 31.38 32.03 34.77 34.59 34.66 34.52 32.99 32.92 12 34.80 34.22 34.53 32.50 34.58 32.98 34.67 34.62 32.47 34.81 33.02 13 34.41 14 34.15 34.96 35.43 35.57 32.91 34.46 34.55 33.78 32.01 34.99 32.83 33.05 30.78 15 34.12 34.68 36.14 36.10 33.63 35.59 34.53 34.38 35.13 32.82 33.14 16 34.11 34.61 36.48 35.82 34.92 35.84 34.39 34.82 31.04 35.25 32.84 33.14 34.60 34.52 35.15 35.42 35.49 35.29 33.87 33.24 35.07 32.81 32.83 17 34.11 36.76 31.66 35.34 33.08 18 34.04 36.88 35.97 34.47 35.23 31.85 35.30 33.08 19 34.05 34 52 36 56 36.43 34.71 34 37 32.68 35 37 32.03 35 42 32 85 33.09 20 34.13 34.56 35.46 36.51 34.33 34.33 32.57 35.53 33.21 35.47 32.39 33.14 21 35.76 34.29 34.10 34 54 34.49 34.31 33.90 35.63 33.26 35.09 30.92 33.47 33.95 33.94 34.26 31.76 22 34.56 34.67 34.29 35.69 32.63 35.33 34.31 34.11 33.69 23 34.53 34.81 35.62 34.05 34.54 33.65 35.76 33.23 33.62 32.17 33.62 24 33 88 34 54 34 80 35 21 34 06 35 57 33.10 35 82 34 15 33 36 32.39 33 38 25 34.98 35.91 34.24 34.49 34.82 34.10 32.98 35.90 34.55 33.25 32.49 33.44 26 34.28 34.52 34.82 34.03 36.17 32.95 35.95 34.79 33.49 32.55 34.83 33.48 27 34.79 34.77 34.06 32.96 31.97 34.36 34.52 36.33 36.01 34.77 34.39 33.49 34.30 34.77 28 34.53 34.56 34.82 34.77 34.09 36.56 32.89 36.07 34.25 30.51 34.66 34.71 29 34.48 34.61 34.64 ---36.65 32.89 36.07 33.81 31.55 35.01 34.02 34.76 34.75 36.76 36.08 34.83 31.95 30 34.60 32.92 32.86 34.71 31 35.02 34.94 34.77 ___ 36.88 36.07 33.86 MEAN 34.48 34.83 35.17 35.13 34.08 35.09 34.57 34.76 33.43 33.84 32.58 33.25



36.88

37.34

36.08

34.82

33.56

35.47

35.01

## Columbus Well Field, Southern Franklin County

395016083010300. Local number, FR-117, (M-2)
LOCATION.--Lat 39°50'16", long 83°01'03", Hydrologic Unit 05060001.

Owner.--Jackson Township.

AQUIFER.--Clay, sand, and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 45 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 700 ft above sea level. Measuring point: Top of 2-inch steel pipe, ft above land-surface datum.

PERIOD OF RECORD.--Oct. 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.02 ft below land-surface datum, June 17, 1981; lowest

measured, 24.15 ft below land-surface datum, Dec. 10, 1991.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 16	18.35
APR 02	18.72
JUN 17	16.19

395058083002400. Local number, FR-119, (M-5)
LOCATION.--Lat 39°51'11", long 83°00'26", Hydrologic Unit 05060001.
Owner.--Franklin County.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 85 ft.
INSTRUMENTATION - Data logger -- 60-minute record.
DATUM.--Elevation of land-surface datum is 700 ft above sea level. Measuring point: Top of plywood, 2.48 ft above

land-surface datum.

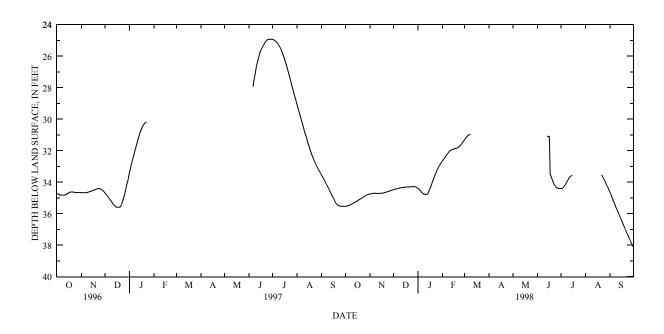
PERIOD OF RECORD.--Oct. 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 52.34 ft below land-surface datum, Mar. 4-7, 1992; minimum daily low, 11.10 ft below land-surface datum, June 17, 1981.

## DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.54	34.75	34.47	34.40	32.62	31.28	30.97			34.41		34.68
2	35.53	34.74	34.46	34.46	32.55	31.21	31.06			34.40		34.79
3	35.51	34.73	34.44	34.51	32.47	31.15				34.36		34.93
4	35.49	34.72	34.43	34.57	32.40	31.09				34.30		35.05
5	35.48	34.71	34.42	34.62	32.33	31.04				34.24		35.18
6	35.46	34.70	34.40	34.67	32.26	31.00				34.17		35.30
7	35.43	34.70	34.39	34.71	32.19	30.98				34.09		35.42
8	35.41	34.71	34.38	34.74	32.13	30.97				34.00		35.55
9	35.38	34.71	34.37	34.76	32.07					33.92		35.67
10	35.35	34.71	34.36	34.77	32.01					33.81		35.78
11	35.33	34.71	34.35	34.78	31.98					33.73		35.91
12	35.30	34.71	34.35	34.77	31.95					33.66		36.03
13	35.27	34.71	34.33	34.73	31.93					33.62		36.15
14	35.25	34.71	34.33	34.65	31.91					33.58		36.27
15	35.22	34.70	34.32	34.53	31.90					33.57		36.38
16	35.19	34.70	34.32	34.41	31.89							36.48
17	35.15	34.70	34.31	34.28	31.87				33.53			36.62
18	35.12	34.68	34.31	34.14	31.85				33.59			36.74
19	35.09	34.66	34.30	34.00	31.83				33.73			36.85
20	35.06	34.66	34.30	33.86	31.81				33.87			36.98
21	35.03	34.64	34.30	33.73	31.78				34.00		33.53	37.10
22	35.00	34.63	34.30	33.60	31.73				34.12		33.61	37.21
23	34.97	34.61	34.29	33.47	31.68				34.21		33.69	37.32
24	34.93	34.59	34.29	33.34	31.62				34.28		33.79	37.43
25	34.90	34.58	34.29	33.22	31.56				34.33		33.90	37.54
26	34.87	34.56	34.29	33.11	31.49				34.36		34.01	37.66
27	34.84	34.54	34.29	33.01	31.42				34.38		34.11	37.77
28	34.81	34.53	34.29	32.93	31.35				34.39		34.22	37.89
29	34.79	34.51	34.31	32.85					34.41		34.33	38.00
30	34.77	34.49	34.34	32.77					34.41		34.44	38.11
31	34.76		34.36	32.70							34.56	
MEAN	35.17	34.66	34.34	34.04	31.95							36.43
MAX	35.54	34.75	34.47	34.78	32.62							38.11

395058083002400. Local number, FR-119, (M-5)-Continued



395117083011600. Local number, FR-120, (M-6) LOCATION.--Lat 39°51'17", long 83°01'16", Hydrologic Unit 05060001, near Columbus.

Owner.--Franklin County.

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 72 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 685 ft above sea level. Measuring point: Floor of instrument shelter,

7.14 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.36 ft below land-surface datum, Mar. 21, 1984; lowest measured, 35.24 ft below land-surface datum, Mar. 16, 1992.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DEC 16 15.87 APR 02 16.13 JUN 17 13.38	Date		Water Leve
	APR	02	16.13
50N 17 15.50	UUIN .	<b>1</b> /	13.38

395123083003301. Local number, FR-121A
LOCATION.--Lat 39°51'23", long 83°00'33", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 60 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 690.99 ft above sea level. Measuring point: Top of outer steel casing,
3.16 ft above land-surface datum.

PERIOD OF RECORD.--Mar. 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.53 ft below land-surface datum, Mar. 26, 1993; lowest
measured, 32.94 ft below land-surface datum, Dec 8, 1995.

Date	9	Water	Leve1
DEC	16	24.	15
APR	02	25.	25
JUN	17	21.	37

MAX

10.90

11.48

12.03

12.06

12.00

## PROJECT DATA Columbus Well Field, Southern Franklin County

395131082592400. Local number, FR-123, (M-9) LOCATION.--Lat 39°51'31", long 82°59'24", Hydrologic Unit 05060001, near Hamilton Meadows.

Owner.--Eat 39 51 31 , Tong 82 59 24 , Hydrologic Unit Ususuuui, hear Hamilton Meadows.

Owner.--Franklin County.

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 36.5 ft.

INSTRUMENTATION - Data logger -- 60-minute record.

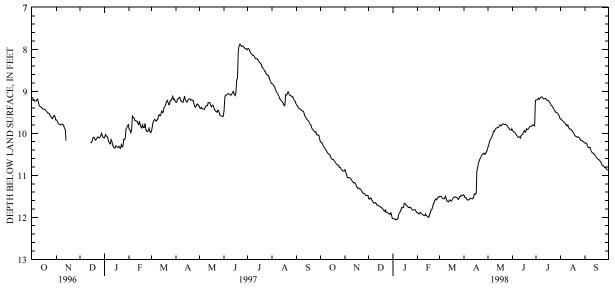
DATUM.--Elevation of land-surface datum is 710 ft above sea level. Measuring point: Floor of shelter, 2.25 ft above

land-surface datum.

PERIOD OF RECORD.--Apr. 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 18.55 ft below land-surface datum, May 12, 1992; minimum daily low, 6.87 ft below land-surface datum, Apr. 1, 1980.

	DEPT	H BELOW	LAND SURFAC	CE (WATER		(FEET), N		OCTOBER	1997 TO S	EPTEMBER 1	1998	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	10.20 10.22 10.23 10.27 10.31	10.86 10.92 10.98 11.04 11.06	11.55 11.57 11.54 11.54 11.59	12.03 12.03 12.04 12.06 12.05	11.89 11.91 11.92 11.88 11.89	11.50 11.50 11.50 11.54 11.56	11.53 11.53 11.57	10.33 10.28 10.20 10.14 10.11	9.93 9.95 9.97 9.97 10.01	9.20 9.20 9.20 9.16 9.18	9.66 9.67 9.69 9.72 9.73	10.23 10.23 10.25 10.31 10.34
6 7 8 9 10	10.34 10.37 10.40 10.43 10.47	11.05 11.06 11.07 11.10 11.13	11.61 11.65 11.66 11.65	12.05 12.02 11.93 11.89 11.87	11.92 11.93 11.94 11.96 11.96	11.56 11.55 11.50 11.55 11.61	11.58 11.56 11.54	10.08 10.03 9.95 9.96 9.91	10.04 10.06 10.09 10.09	9.16 9.14 9.13 9.14 9.18	9.75 9.78 9.80 9.82 9.80	10.34 10.33 10.39 10.43 10.46
11 12 13 14 15	10.49 10.49 10.52 10.57 10.60	11.16 11.18 11.17 11.19 11.22	11.70 11.71 11.71 11.73 11.74	11.82 11.76 11.77 11.76 11.67	11.92 11.96 11.97 11.99 12.00	11.62 11.63 11.59 11.59	11.55 11.49 11.44	9.88 9.87 9.86 9.86 9.84	10.11 10.05 10.03 10.02 9.97	9.18 9.17 9.17 9.20 9.21	9.86 9.89 9.90 9.90 9.93	10.47 10.48 10.51 10.53 10.57
16 17 18 19 20	10.62 10.62 10.64 10.66 10.70	11.28 11.31 11.30 11.31 11.33	11.75 11.77 11.78 11.80 11.84	11.67 11.70 11.72 11.73 11.76	11.94 11.89 11.82 11.81 11.74	11.61 11.57 11.53 11.52 11.51	10.90 10.81 10.70	9.80 9.82 9.82 9.78 9.78	9.93 9.97 9.95 9.89 9.91	9.21 9.24 9.26 9.29 9.33	9.96 9.98 10.02 10.05 10.07	10.59 10.61 10.62 10.64 10.66
21 22 23 24 25	10.72 10.74 10.76 10.76 10.81	11.33 11.37 11.40 11.43 11.43	11.85 11.82 11.88 11.87 11.89	11.76 11.77 11.76 11.79 11.82	11.67 11.65 11.58 11.56 11.58	11.52 11.52 11.54 11.57	10.56 10.52 10.49	9.78 9.79 9.78 9.80 9.81	9.90 9.86 9.84 9.84 9.83	9.35 9.38 9.41 9.45 9.48	10.08 10.09 10.08 10.09	10.69 10.74 10.77 10.77
26 27 28 29 30 31	10.81 10.85 10.87 10.89 10.90 10.89	11.44 11.47 11.48 11.48	11.91 11.91 11.93 11.89 11.95 12.03	11.83 11.82 11.81 11.82 11.86 11.89	11.55 11.51 11.52 	11.51 11.50 11.47 11.49 11.48 11.46	10.50 10.49 10.43 10.40	9.84 9.87 9.89 9.92 9.92 9.89	9.80 9.80 9.82 9.82 9.21	9.50 9.50 9.52 9.55 9.58 9.64	10.16 10.17 10.17 10.19 10.20 10.23	10.82 10.82 10.85 10.87
MEAN	10.59	11.23	11.76	11.85	11.82	11.54		9.92	9.92	9.30	9.95	10.57



11.63

11.59

10.33

10.11

9.64

10.23

10.88

395008082593100. Local number, FR-126 (M-13)

LOCATION.--Lat 39°50'08", long 82°59'31", Hydrologic Unit 05060001, near Shadeville.

Owner.--Franklin County.
AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.-Drilled observation water well, diameter 2 in., depth 122 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 703 ft above sea level. Measuring point: Top of PVC casing, 4.2 ft above land-surface datum.

PERIOD OF RECORD.--Oct. 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.96 ft below land-surface datum, June 17, 1981; lowest

measured, 51.42 ft below land-surface datum, Nov. 9, 1977.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 16 APR 02	12.38 13.02
JUN 17	11.33

395126083014000. Local number, FR-131 (M-18). LOCATION.--Lat 39°51'26", long 83°01'40", Hydrologic Unit 05060001, near Columbus.

Owner.--Franklin County.

AQUIFER.--Clay, sand, and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 53 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 728 ft above sea level. Measuring point: Top of plastic coupling, 2.4 ft above land-surface datum.

PERIOD OF RECORD.--Oct. 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.41 ft below land-surface datum, Sept 5, 1996; lowest measured, dry on Dec. 10, 1991; Mar. 16, June 12, July 28, 1992; and Apr. 11, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	47.38
APR 02	47.72
JUN 17	41.81

395218083023900. Local number, FR-133 LOCATION.--Lat 39°52'18", long 83°02'39", Hydrologic Unit 05060001, on White Road near Grove City, Ohio

Owner.--Franklin County.

AQUIFER.--Gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 82 ft, cased to 78 ft, finished with 4.0

ft of 0.80 in. well screen.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 765 ft above sea level, from topographic map. Measuring point: Top of

casing, 0.0 ft above land-surface datum.

PERIOD OF RECORD. -- Apr. 1977 to current year.
EXTREMES FOR PERIOD OF RECORD. -- Highest water level measured, 49.05 ft below land-surface datum, Apr. 1, 1981; lowest

measured, 79.36 ft below land-surface datum, June 22, 1978.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 16 APR 02	59.32 59.51
JUN 17	57.12

395020083014400. Local number, FR-141
LOCATION.--Lat 39°50'20", long 83°01'44", Hydrologic Unit 05060001.
Owner.--John Lako.
AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS. --Drilled domestic water well, diameter 4.25 in., depth 64 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 720 ft above sea level. Measuring point: Top of casing, 0.6 ft above

land-surface datum.
PERIOD OF RECORD.--Sept. 1987 to current year.

EXTREMES FOR PERIOD OF RECORD. -- Highest water level measured, 25.60 ft below land-surface datum, June 3, 1996; lowest measured, 31.72 ft below land-surface datum, Dec. 10, 1991.

Date	Water Level
DEC 16	31.35
APR 02	30.42
JUN 17	27.91

## Columbus Well Field, Southern Franklin County

395027082592500. Local number, FR-151
LOCATION.--Lat 39°50'27", long 82°59'25", Hydrologic Unit 05060001, near Shadeville.
Owner.---City of Columbus.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 60 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 718 ft above sea level. Measuring point: Top of plastic pipe, 2.50 ft

above land-surface datum. PERIOD OF RECORD.--July 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.00 ft below land-surface datum, Mar. 26, 1986; lowest measured, 37.56 ft below land-surface datum, Mar. 16, 1992.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DEC 11 29.09 DEC 16 28.82 APR 02 28.42	DEC 16 28.82	Date	9	Water	Leve
	00N 17 20.72	DEC APR	16 02	28.	82 42

DATE	BEI LAN SURF (WA TIME LEV	ACE CON TER DUC VEL) ANC ET) (US/	TIC WHO I- FIE T- (STA CE AR CM) UNI	ER LE LD TEMP ND- ATU D WAT TS) (DEG	RE DIS ER SOL'	S- (MG, VED AS /L) CAC	S CALCI AL DIS- /L SOLV (MG,	- DIS /ED SOLV /L (MG/ CA) AS M	JM, SODIUM, S- DIS- JED SOLVED L (MG/L MG) AS NA)
DEC 11	1005 29	.09 106	50 6.	8 13.	0 0.	5 60	0 160	50	4.2
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	WATER DIS IT	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 11	1.5	427	350	190	14	0.17	13	645	<0.010
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 11	<0.050	<0.020	<0.10	0.020	30	<1.0	<8.0	<12	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 11	2600	<100	5	59	<60	288	<10	<20	1.1

395314083021900. Local number, FR-202

LOCATION.--Lat 39°53'14", long 83°02'19", Hydrologic Unit 05060001. Owner.--Mr. Daniel Himes AQUIFER.--Devonian limestone

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4 in., depth 220 ft, cased to 175 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 752 ft above sea level. Measuring point: Top of casing, 1.17 ft above land-surface datum.

PERIOD OF RECORD.--June 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.17 ft below land-surface datum, June 25, 1979; lowest measured, 96.50 ft below land-surface datum, July 19, 1984.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date		Water	Lev
DEC		94.	
APR	02	94.	
JUN	17	91.	56

395206083014501. Local number, FR-209 LOCATION.--Lat 39°52'06", long 83°01'45", Hydrologic Unit 05060001.

Owner.--Mar Sy 52 106 7, Tong 63 01 45 7, Hydrologic onit 05060001.

Owner.--Mr. Martin Davis
AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4 in.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 704 ft above sea level. Measuring point: Top of casing, 0.72 ft above land-surface datum

PERIOD OF RECORD.--June 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.51 ft below land-surface datum, May 23, 1984; lowest measured, 18.11 ft below land-surface datum, Mar. 16, 1992.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	15.56
APR 02	16.02
JUN 17	16.69

395315083020002. Local number, FR-213 LOCATION.--Lat 39°53'15", long 83°02'00", Hydrologic Unit 05060001.

LOCATION.--Lat 39°53'15", long 83°02'00", Hydrologic unit 05060001.

Owner.--Tom Cannon Co.

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5 in., depth 97 ft, cased to 97 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 730 ft above sea level. Measuring point: Top of casing, 0.80 ft above land-surface datum

PERIOD OF RECORD. -- June 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 71.38 ft below land-surface datum, June 8, 1982; lowest measured, 84.83 ft below land-surface datum, Mar. 16,1992.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	82.11
APY 02	82.64
JUN 17	80.41

395323083014000. Local number, FR-269

LOCATION. --Lat 39°53'23", long 83°01'40", Hydrologic Unit 05060001. Owner.--Franklin County Waste to Energy Facility. AQUIFER.--Devonian limestone.

WELL CHARACTERISTICS.--Drilled commercial water well, depth 90 ft; 75 ft of 6-in. casing.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 705 ft above sea level. Measuring point: Top of casing, 0.22 ft above land-surface datum.

PERIOD OF RECORD.--Aug. 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.84 ft below land-surface datum, June 3 and Sept. 5, 1996; lowest measured, 71.79 ft below land-surface datum, Dec. 10, 1990.

Date	Water Level
DEC 16 APR 02	67.60 67.73 67.19

29

30

31

MEAN

MAX

16.03

16.03

16.03

15.85

16.03

16.63

16.63

16.41

16.63

17.06

17.13

17.22

16.93

17.22

## PROJECT DATA Columbus Well Field, Southern Franklin County

395055082592400. Local number, FR-271

LOCATION.--Lat 39°50'55", long 82°59'24", Hydrologic Unit 05060001, at Parsons Avenue Water Plant

Owner.--Franklin County AQUIFER.--Sand and gravel of Quaternary age.

17.07

17.09

17.11

17.08

17.21

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16.92

17.13

WELL CHARACTERISTICS. --Drilled observation water well, depth 91.8 ft; 76 ft of 2-in. casing.

INSTRUMENTATION - Data logger -- 60-minute record.

DATUM. --Elevation of land-surface datum is 710 ft above sea level. Measuring point: Top of PVC casing, 2.53 ft above land-surface datum.

PERIOD OF RECORD.--Sept. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.00 ft below land-surface datum, Apr. 25 - May 2, 1992; minimum daily low, 13.92 ft below land-surface datum, Mar. 18, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP 15.61 16.02 16.69 17.21 17.10 16.95 15.79 15.53 14.82 15.03 14.92 16.66 17.01 17.01 17.03 15.61 15.61 16.07 16.15 16.72 16.69 17.18 17.19 17.12 17.13 15.53 15.51 2 16.65 15.73 14.82 15.01 14.93 3 16.65 15.64 14.82 14.99 14.96 15.61 16.65 17.21 17.05 15.64 14.98 15.04 14.80 5 15.64 16.25 16.72 17.20 17.08 16.70 17.05 15.64 15.51 14.74 14.98 15.07 6 15.68 16.25 16.75 17.19 17.10 16.67 17.06 15.64 15.49 14.72 14.96 15.04 15.70 15.75 16.25 16.81 16.81 17.15 17.10 17.11 16.67 17.06 17.06 15.64 15.55 15.50 15.51 14.67 14.61 14.98 15.00 15.05 16.26 8 16.99 16.63 15.12 15.79 16.28 16.80 17.05 17.10 16.75 17.06 15.51 15.51 14.59 14.98 15.15 17.07 10 15.81 16.32 16.80 17.08 16.81 17.05 15.50 15.49 14.58 14.94 15.18 11 15.83 16.34 16.86 17.05 17.00 16.82 17.07 15.45 15.47 14.58 14.98 15.18 15.83 15.83 16.36 16.36 16.86 16.86 17.00 17.02 16.98 16.96 16.82 16.77 17.07 17.07 15.42 15.40 15.42 15.41 15.00 14.99 12 14.58 15.19 15.22 13 14.60 14 15.88 16.39 16.89 17.01 16.93 16.77 17.02 15.36 15.38 14.66 14.96 15.23 16.91 16.80 15 15.89 16.42 16.91 16.92 16.99 15.32 15.32 14.67 14.98 15.27 16 15.89 16.48 16.92 16.95 16.86 16.82 16.95 15.29 15.27 14.68 15.00 15.29 15.89 15.89 16.97 17.01 16.99 17.00 16.82 16.80 16.79 16.73 16.64 16.64 15.28 15.29 15.27 14.74 14.78 15.00 15.03 17 16.51 15.30 15.28 18 16.51 15.31 19 15.89 16 50 17 04 17.04 16.80 16 72 16.58 15 28 15 24 14 84 15 04 15 33 20 15.96 16.51 17.08 17.08 16.80 16.69 16.46 15.28 15.21 14.86 15.04 15.36 21 17.08 17.08 16 71 15.29 15.01 15.96 16 51 16.82 16.38 15.21 14 89 15 37 15.95 15.95 17.04 16.82 16.73 14.94 22 16.53 17.09 16.72 15.32 15.18 14.92 16.31 15.44 23 16.58 17.10 17.08 16.74 16.22 15.33 15.16 14.92 14.90 15.46 24 15.95 16 60 17 08 17 10 16.74 16 78 16.17 15 35 15 16 14 92 14 92 15 46 25 15.97 16.77 16.79 14.93 16.60 17.09 17.12 16.11 15.37 15.16 14.92 15.46 26 15.97 16.60 17.10 17.13 16.71 16.76 16.05 15.17 14.92 14.98 15.41 15.48 27 15.99 16.68 16.79 15.43 14.98 16.63 17.10 17.09 16.01 15.18 14.92 15.51 28 16.03 16.62 17.13 17.06 16.69 16.82 16.01 15.48 15.22 14.90 14.94 15.56

16.86

16.87

16.91

16.75

16.91

15.95

15.88

16.66

17.07

15.51

15.51

15.51

15.46

15.79

15.22

14.81

15.33

15.53

14.94

14.98

15.02

14.79

15.02

14.89

14.90

14.92

14.97

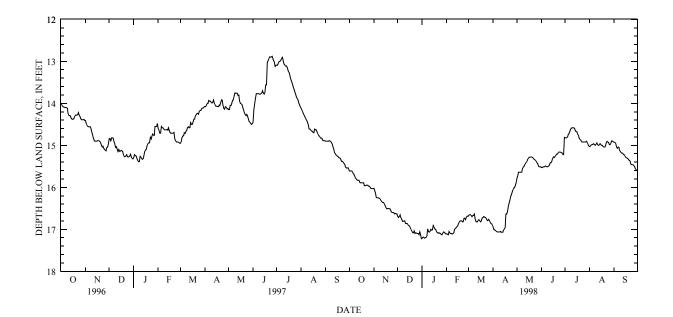
15.04

15.58

15.61

15.27

15.61



395055082592400. Local number, FR-271—Continued

DATE	S	LAND URFACE (WATER I LEVEL) (FEET) (I	SPE- WA CIFIC WH CON- FI DUCT- (ST ANCE A US/CM) UN	PH ITER OLE ELD TEMP AND- ATU RD WAT ITS) (DEG 400) (000	RE DIS ER SOL' C) (MG)	S- (MG, VED AS /L) CAC	G CALCI AL DIS- 'L SOLV (MG, D3) AS (	- DIS /ED SOLV /L (MG/ CA) AS M	JM, SODIUM, S- DIS- JED SOLVED L (MG/L JG) AS NA
03	0931	16.66	971 6	.9 12.	5 1.	8 54	0 140	0 45	6.3
DATE	POTA SIU DIS SOLV (MG/ AS K	- DIS I ED FIEL L MG/L .	E LINITY R WAT DIS T TOT IT D FIELD AS MG/L AS CACO3	AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 03	1.5	395	324	170	38	0.29	16	613	<0.010
DATE	NITR GEN NO2+N DIS SOLV (MG/ AS N	GEN GS AMMON DIS SOLV (MG/ AS N	GEN,AM- IA MONIA + ORGANIC ED DIS. L (MG/L ) AS N)	PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	DIS-	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 03	<0.05	0 0.02	3 <0.10	<0.010	62	<1.0	<1.0	<3.0	<10
DATE	IRON DIS SOLV (UG/ AS F (0104	, LEAD - DIS ED SOLV L (UG/ E) AS P	, LITHIUM - DIS- ED SOLVED L (UG/L B) AS LI)	MANGA- I NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS-	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 03	3300	<10	4	46	<60	174	<6	<3.0	1.2

MAX

16.81

17.39

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17.96

17.88

## PROJECT DATA Columbus Well Field, Southern Franklin County

395055082592401. Local number FR-272

LOCATION.--Lat 39°50'55", long 82°59'24", Hydrologic Unit 05060001. Owner.--City of Columbus. AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS. -- Drilled observation water well, depth 45.95; 2-in. PVC.

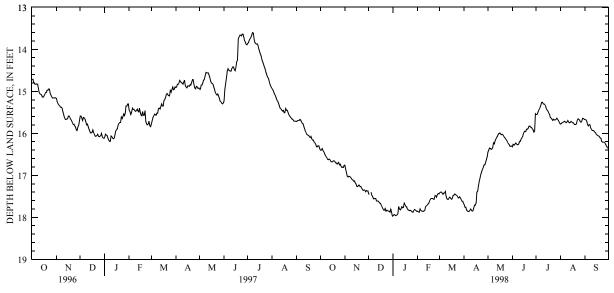
INSTRUMENTATION - Data logger -- 60-minute record.

DATUM.--Elevation of land-surface datum is 710 ft above sea level. Measuring point: Top of outer steel casing, 2.36 ft above land-surface datum.

PERIOD OF RECORD.--Sept. 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.45 ft below land-surface datum, Apr. 24, 1992; minimum daily low, 14.53 ft below land-surface datum, Mar. 18, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MAXIMUM VALUES DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP 16.76 17.44 17.96 17.85 17.41 17.70 16.45 16.32 15.55 15.78 15.67 16.40 16.40 16.36 17.45 17.42 17.93 17.94 17.87 17.88 17.40 17.40 17.76 17.76 16.40 16.35 16.26 16.28 15.55 15.52 15.76 15.74 15.68 15.71 2 16.85 3 16.95 17.02 17.40 17.96 17.80 17.42 17.83 15.79 16.36 15.45 5 16.43 17.04 17.47 17.95 17.83 17.45 17.85 16.38 16.23 15.42 15.73 15.82 6 16.47 17.02 17.50 17.94 17.85 17.42 17.86 16.37 16.25 15.38 15.71 15.79 16.52 16.55 17.03 17.04 17.56 17.56 17.90 17.74 17.85 17.86 17.42 17.38 17.86 17.83 16.33 16.23 16.27 16.27 15.33 15.26 15.73 15.75 15.80 8 15.87 16.58 17.07 17.55 17.80 17.85 17.50 17.80 16.25 16.25 15.26 15.73 15.90 10 16.62 17.10 17.55 17.82 17.83 17.56 17.83 16.18 16.19 15.30 15.69 15.93 11 16.63 17.11 17.61 17.80 17.75 17.57 17.85 16.13 16.19 15.30 15.73 15.93 16.61 16.63 17.14 17.13 17.61 17.61 17.75 17.77 17.73 17.71 17.57 17.52 17.84 17.77 16.09 16.07 16.13 16.10 15.32 15.36 15.75 15.74 15.94 15.97 12 13 14 16.67 17.18 17.64 17.76 17.68 17 52 17.71 16.02 16.07 15.42 15.71 15.98 17.66 17.71 15.73 15 16.68 17.20 17.66 17.67 17.55 16.00 16.00 15.45 16.02 16 16.68 17.26 17.67 17.70 17.61 17.57 17.65 15.99 15.95 15.47 15.75 16.04 17.74 17.75 17.79 16.65 16.66 17.27 17.72 17.76 17.57 17.55 17.40 17.38 16.02 15.96 15.95 15.75 15.78 17 17.54 15.52 16.05 18 17.24 17.48 16.03 15.56 16.06 19 16.66 17 23 17 79 17.55 17 47 17.25 16.02 15.90 15 62 15.79 16.08 20 16.70 17.27 17.83 17.83 17.55 17.44 17.14 16.04 15.90 15.64 15.79 16.11 17.57 15.76 21 16.70 17.26 17.83 17.06 17.83 17 46 16.07 15.88 15.67 16.12 16.73 16.71 17.79 17.85 16.97 16.92 15.83 15.83 22 17.30 17.84 17.57 17.47 16.10 15.69 15.69 16.19 17.49 17.53 16.12 23 17.33 17.83 17.48 15.66 15.65 16.21 17 36 17 85 24 16.69 17 83 17.49 16 85 16 15 15 85 15 68 15 67 16 21 25 16.75 17.52 17.35 17.84 17.87 17.54 16.81 16.18 15.86 15.68 15.68 16.21 16.75 26 16.73 17.35 17.85 17.88 17.46 17.51 16.22 15.89 15.67 15.73 16.23 17.43 17.44 16.75 15.91 15.97 27 16.78 16.25 15.73 17.39 17.85 17.84 15.64 17.54 16.26 28 16.81 17.36 17.88 17.81 17.57 16.70 16.27 15.66 15.69 16.31 17.37 17.82 17.61 29 16.80 17.81 ---16.62 16.31 15.95 15.69 15.64 16.33 16.81 17.37 17.88 17.84 17.62 16.55 16.31 15.53 15.73 15.65 30 16.36 31 16.76 17.97 17.86 17.66 16.30 15.77 15.67 MEAN 16.63 17.18 17.83 17.67 17.50 17.39 16.19 16.04 15.52 15.72 16.02



17.66

17.86

16.45

16.32

15.77

15.79

16.36

395055082592401. Local number FR-272—Continued

DATE	TIME	DEPT BELC LAND SURFA (WAT LEVE (FEE (7201	OW SPI O CIP CCE COM ER DUC EL) ANO T) (US/	FIC WHO I- FIE CT- (STA CE AR 'CM) UNI	ER LE LD TEMP! ND- ATU! D WAT: TS) (DEG	ER SOL' C) (MG)	EN, ' S- VED 'L) (	HARD- NESS FOTAL (MG/L AS CACO3)		DIS ZED SOLV L (MG/ ZA) AS M	M, SODIUM, S- DIS- ZED SOLVED ZL (MG/L IG) AS NA)
DEC 03	0801	17.3	38 12	40 6.	8 12.	5 1.	9	710	190	) 56	23
DATE	S D SO (M AS	TAS- IUM, IS- LVED G/L K)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUC RIDE DIS SOLV (MG/ AS F	E, I S- S YED ( 'L	ILICA, DIS- SOLVED (MG/L AS SIO2)	TUENTS, DIS- SOLVED (MG/L)	(MG/L
DEC 03	3	. 2	483	396	240	75	0.21		14	842	<0.010
DATE	G NO2 D SO (M AS	IS- LVED	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	ORGANIC DIS.	ORTHO, DIS- SOLVED	DIS-		(ED S L (BE)	DIS- SOLVED	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	DIS- SOLVED (UG/L
DEC 03	<0.	050	<0.020	<0.10	0.011	34	<0.5	0 <	<1.0	<3.0	<10
DATE	D SO (U AS	ON, IS- LVED G/L FE) 046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)		MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRO TIU DIS SOLV (UG/ AS S	M, I S- ZED S L ( SR) Z	VANA- DIUM, DIS- SOLVED (UG/L AS V)		CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 03	450	0	<100	8	105	<10	162		<6	<3.0	

## Columbus Well Field, Southern Franklin County

395224083000500. Local number, FR-273
LOCATION.--Lat 39°52'24", long 83°00'05", Hydrologic Unit 05060001, at County Water-Treatment Plant.
Owner.--Franklin County
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.-Drilled observation water well, depth 91.5 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 710 ft above sea level. Measuring point: Top of casing, 1.15 ft above

land-surface datum.

PERIOD OF RECORD.--May 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.5 ft below land-surface datum, June 27, 1990; lowest measured, 20.78 ft below land-surface datum, Mar. 16, 1992.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DEC 02 19.85 DEC 16 19.63 APR 02 20.07 JUN 17 17.89	Date	9	Water	Leve
JUN 17 17.89	DEC APR	16 02	19. 20.	63 07
	UUN	Ι/	1/.	89

DATE	BI L2 SUF (V TIME L1	EPTH ELOW SPI AND CIF KFACE CON IATER DUC EVEL) ANC PEET) (US/ 019) (000	FIC WHC I- FIE TT- (STA CE AR (CM) UNI	TER DLE LD TEMP ND- ATU D WAT TS) (DEG	RE DIS ER SOLV C) (MG,	S- (MG, VED AS /L) CAC	S CALCI AL DIS- /L SOLV (MG, D3) AS (	- DIS /ED SOLV /L (MG, CA) AS N	JM, SODIUM, S- DIS- JED SOLVED /L (MG/L MG) AS NA)
DEC 02	1017 1	9.85 6	12 7.	1 13.	0 3.	5 35	0 89	9 30	16
DATE	POTAS- SIUM, DIS- SOLVEI (MG/L AS K) (00935)	WATER DIS IT FIELD MG/L AS HCO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	(MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 02	1.8	320	262	33	32	0.71	13	375	<0.010
DATE	NITROGEN, NO2+NO3 DIS- SOLVEI (MG/L AS N) (00631)	GEN, B AMMONIA DIS- D SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 02	0.508	<0.020	<0.10	<0.010	188	<0.50	<1.0	<3.0	<10
DATE	IRON, DIS- SOLVEI (UG/L AS FE) (01046)	(UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)		CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 02	<3.0	<10	4	<4.0	<10	442	<6	<3.0	2.4

395224083000501. Local number, FR-274

LOCATION.--Lat 39°52'24", long 83°00'05", Hydrologic Unit 05060001, at County Water-Treatment Plant.

Owner.--Franklin County AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS. -- Drilled observation water well, depth 25 ft; 4-in. casing.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 705 ft above sea level. Measuring point: Top of PVC casing, 2.44 ft above land-surface datum.

PERIOD OF RECORD.--May 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.63 ft below land-surface datum, Mar. 18, 1991; lowest

measured, 16.98 ft below land-surface datum, Mar. 16, 1992.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 02	17.35
DEC 16	17.13
APR 02	16.99
JUN 17	15.19

394941083004400. Local number, FR-275

LOCATION.--Lat 39°49'41", long 83°00'44", Hydrologic Unit 05060001, near Shadeville.

Owner.--Franklin County
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 25 ft; 2-in. casing.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 680 ft above sea level. Measuring point: Top of steel protective casing, 5.00 ft above land-surface datum.

PERIOD OF RECORD.--Apr. 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.44 ft below land-surface datum, Mar. 26, 1993; lowest measured, 13.12 ft below land-surface datum, Apr. 18, 1991.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 16	11.52
APR 02	11.79
JUN 17	6.42

395239083021400. Local number, FR-276
LOCATION.--Lat 39°52'39", long 83°02'14", Hydrologic Unit 05060001
Owner.-Stanley and Betty Wray.
AQUIFER.--Devonian limestone
WELL CHARACTERISTICS.--Drilled domestic water well, depth 155 ft.

INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel. 1.25 ft above land-surface datum.

PERIOD OF RECORD. -- June 1990 to current year.

EXTREMES FOR PERIOD OF RECORD. --Highest water level measured, 71.46 ft below land-surface datum, Mar. 18, 1991; lowest measured, 76.05 ft below land-surface datum, Mar. 16, 1992.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	73.66
APR 02	73.78
JUN 17	72.16

394930083013100. Local number, FR-277

LOCATION. -- Lat 39°49'30", long 83°01'31", Hydrologic unit 05060001

Owner.--Mr. and Mrs. Steve Doersam AQUIFER.--Sand and gravel of Quaternary age

WELL CHARACTERISTICS.--Drilled domestic water well, depth 52 ft.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 713 ft above sea level. Measuring point: Top of casing, 1.5 ft above landsurface datum.

PERIOD OF RECORD.--Dec. 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.-- Highest water level measured, 14.79 ft below land-surface datum, Feb 26, 1993; lowest measured, 21.33 ft below land-surface datum, Dec. 10, 1991.

Date	<b>:</b>	Water	Level
DEC APR JUN	02	17. 18. 16.	38

#### Columbus Well Field, Southern Franklin County

395115083022600. Local number, FR-278

LOCATION.--Lat 39°51'15", long 83°02'26", Hydrologic Unit 05060001

Owner.--Mr. Brian Davis
AQUIFER.--Quaternary sand and gravel-primary; Devonian limestone-secondary

WELL CHARACTERISTICS. -- Drilled domestic water well, diameter 5 in., depth 114 ft, 10-ft screen.

INSTRUMENTATION. -- Periodic measurement with steel or electric tape by USGS personnel.

DATUM. -- Elevation of land-surface datum is 735 ft above sea level. Measuring point: Top of casing, 0.95 ft above land-surface datum.

PERIOD OF RECORD.-- July 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.07 ft below land-surface datum, Dec. 15, 1993; lowest

measured, 35.11 ft below land-surface datum, Dec. 10, 1991.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16 APR 02	33.97 34.47
JUN 17	30.53

394932083022700. Local number, FR-279 LOCATION.--Lat 39°49'32", long 83°02'27", Hydrologic unit 05060001

Owner.--Mr. Gerald Boggs
AQUIFER.--Devonian limestone
WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5 in., depth 145 ft, cased to 102 ft.

INSTRUMENTATION. --Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 735 ft above sea level. Measuring point: Top of casing, 1.35 ft above land-surface datum.

PERIOD OF RECORD.-- Sept. 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.85 ft below land-surface datum, Mar. 18, 1991; lowest measured, 31.54 ft below land-surface datum, Apr. 11, 1994.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	19.48
APR 02	19.89
JUN 17	16.68

395000082581700. Local number, FR-281
LOCATION.--Lat 39°50'00", long 82°58'17", Hydrologic Unit 05060001.

Owner.--Hamilton Township Trustees.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled domestic water-supply well, depth 83 ft, 4-in. steel.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 731 ft above sea level. Measuring point: top of casing, 1.40 ft above land-surface datum.

PERIOD OF RECORD.--Dec. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.21 ft below land-surface datum, May 31, 1996; lowest measured, 42.42 ft below land-surface datum, Mar. 16, 1992.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	38.83
APR 02	39.32
JUN 17	36.89

394921083004700. Local number, FR-282

LOCATION. --Lat 39°49'21", long 83°00'47", Hydrologic Unit 05060001. Owner.--City of Columbus. AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS. --Drilled observation water well, depth 56 ft, 2-in. PVC.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 673 ft above sea level. Measuring point: top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1992 to current year. EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.75 ft below land-surface datum, Mar. 26, 1993; lowest measured, 10.90 ft below land-surface datum, Sept. 13, 1993.

Date	e	Water	Level
DEC APR		10.	
JUN		7.	

395131083003801. Local number FR-301

LOCATION.--Lat 39°51'31", long 83°00'38", Hydrologic Unit 05060001 Owner.--City of Columbus AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, 8 in. diameter, 74 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 684 ft above sea level. Measuring point: Top of casing, 1.95 ft above land-surface datum
PERIOD OF RECORD.--Dec.15, 1993 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.36 ft below land-surface datum, May 31, 1993; lowest

measured, 31.95 ft below land-surface datum, Nov. 14, 1997.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 16	18.17
APR 02	18.47
JUN 17	16.87

395140083003901. Local number FR-302 LOCATION.--Lat 39°51'40", long 83°00'39", Hydrologic Unit 05060001 Owner.--City of Columbus AQUIFER.--Sand and gravel of Quaternary age. WELL CHARACTERISTICS.--Drilled observation water well, 8 in. diameter, 56 ft deep.

INSTRUMENTATION. -- Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 684 ft above sea level. Measuring point: Top of casing, 1.40 ft above land-surface datum

PERIOD OF RECORD.--Dec.15, 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.92 ft below land-surface datum, May 31, 1996; lowest measured, 27.45 ft below land-surface datum, Dec. 5, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	18.02
APR 02	18.93
JUN 17	12.52

395150083004001. Local number FR-303
LOCATION.--Lat 39°51'50", long 83°00'40", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 8 in. diameter, 57 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 691 ft above sea level. Measuring point: Top of casing, 1.75 ft above land-surface datum

PERIOD OF RECORD.--Dec. 15, 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.32 ft below land-surface datum, May 31, 1996; lowest measured, 31.85 ft below land-surface datum, Dec. 15, 1994.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	20.92
APR 02	21.17
JUN 17	19.27

395157083004101. Local number FR-304

LOCATION.--Lat 39°51'57", long 83°00'41", Hydrologic Unit 05060001 Owner.--City of Columbus AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.-Drilled observation water well, 8 in. diameter, 43 ft deep.

INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 689 ft above sea level. Measuring point: Top of casing, 2.00 ft above land-surface datum

PERIOD OF RECORD.--Dec.15, 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.03 ft below land-surface datum, May 31, 1996; lowest measured, 32.12 ft below land-surface datum, Nov. 14, 1996.

Date	e	Water	Level
DEC APR		24. 24.	
JUN	17	20.	40

#### Columbus Well Field, Southern Franklin County

395158083005401. Local number FR-305

LOCATION.--Lat 39°51'58", long 83°00'54", Hydrologic Unit 05060001 Owner.--City of Columbus AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.-Drilled observation water well, 8 in. diameter, 78.50 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 688 ft above sea level. Measuring point: Top of casing, 1.70 ft above land-surface datum

PERIOD OF RECORD.--Dec. 15, 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.00 ft below land-surface datum, May 31, 1996; lowest

measured, 47.75 ft below land-surface datum, Mar. 17, 1997.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve						
DEC 16 APR 02	21.13						
JUN 17	17.51						

395048083004500. Local number FR-310
LOCATION.--Lat 39°50'48", long 83°00'45", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 2-in. diameter PVC, 61 ft deep.

WELL CHARACTERISTICS.--Prilled observation water Well, 2-in. diameter PVC, 61 ft deep.

INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 683.36 ft above sea level. Measuring point: top of outer steel protective casing, 4.25 ft above land-surface datum

PERIOD OF RECORD.--Mar. 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.21 ft below land-surface datum, May 31, 1996; lowest

measured, 23.66 ft below land-surface datum, Sept. 13, 1993.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	22.37
APR 02	22.27
JUN 17	17.93

395044083010500. Local number FR-311 LOCATION.--Lat 39°50'44", long 83°01'05", Hydrologic Unit 05060001

Owner.--City of Columbus

Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 2-in. diameter PVC, 42 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 683.01 ft above sea level. Measuring point: top of outer steel protective

casing, 4.10 ft above land-surface datum PERIOD OF RECORD.--Mar. 1993 to current year

EXTREMES FOR PERIOD OF RECORD. --Highest water level measured, 5.86 ft below land-surface datum, May 31, 1996; lowest measured, 16.13 ft below land-surface datum, Sept. 13, 1993.

Date	e	Water	Level
DEC	16	14.	68
APR	02	14.	01
JUN	17	12.	38

DEPTH

395151082591700. Local number FR-312
LOCATION.--Lat 39°51'51", long 83°59'17", Hydrologic Unit 05060001
Owner.--Walter Kuhnwein
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 54.5 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 725.57 ft above sea level. Measuring point: Top of PVC casing, 0.20 ft

below land-surface datum PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.25 ft below land-surface datum, Nov. 19, 1996; lowest measured, 30.55 ft below land-surface datum, Dec. 7, 1995.

PH

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
NOV 25 DEC 16 APR 02	28.55 27.51 29.12
JUN 17	26.43

DATE	S	LAND CI URFACE CO	CT- (STA CE AF /CM) UNI	TER DLE LD TEMP: ND- ATU D WAT TS) (DEG	RE DIS ER SOLV C) (MG/	S- (MG/ VED AS 'L) CACO	G CALCI AL DIS- 'L SOLV (MG,	DIS DIS DIS DIS DIS DIS DIS DIS	JM, SODIUM, S- DIS- JED SOLVED L (MG/L MG) AS NA)
25	0913	28.55 7	38 6.	9 12.	5 1.	5 410	0 110	35	3.1
DATE	POTA SIU DIS SOLV (MG/ AS K (0093	DIS IT ED FIELD L MG/L AS ) HCO3	TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)		FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	
NOV 25	1.3	351	288	86	25	0.30	14	446	<0.010
DATE	NITR GEN NO2+N DIS SOLV (MG/ AS N	GEN, AMMONIA DIS- ED SOLVED (MG/L ) AS N)	GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
NOV 25	<0.05	0 <0.020	<0.10	0.012	123	<1.0	<1.0	<3.0	<10
DATE	IRON DIS SOLV (UG/ AS F (0104	- DIS- ED SOLVED L (UG/L E) AS PB)	(UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	(UG/L	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
NOV 25	1700	<10	<4	73	<10	161	<6	<3.0	1.1

## Columbus Well Field, Southern Franklin County

DEPTH

394948082583400. Local number FR-313
LOCATION.--Lat 39°49'48", long 83°58'34", Hydrologic Unit 05060001
Owner.--Jeanne Badders
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 79 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 744.53 ft above sea level. Measuring point: Top of PVC casing, 0.18 ft

below land-surface datum PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.58 ft below land-surface datum, May 31, 1996; lowest measured, 57.48 ft below land-surface datum, Dec. 7, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

PН

Dat	te	Water Leve
DE(	V 25 C 16 R 02 N 17	54.91 54.26 55.31 52.88

DATE	S	LAND CI SURFACE CC (WATER DU LEVEL) AN (FEET) (US	FIC WHO N- FIE CT- (STA	TER DLE ELD TEMP AND- ATU RD WAT TTS) (DEG	RE DIS ER SOLV C) (MG/	S- (MG/ VED AS /L) CACO	CALCIAL DIS- 'L SOL' (MG,	- DIS /ED SOLV /L (MG/ CA) AS M	JM, SODIUM, S- DIS- JED SOLVED /L (MG/L MG) AS NA)
NOV 25	1032	54.91	757 7	.0 13.	5 0.	8 360	0 10	0 23	30
DATE	POTA SIU DIS SOLV (MG/ AS K	S- DIS IT VED FIELD 'L MG/L AS () HCO3	TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)		FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	(MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
NOV 25	2.6	339	278	68	53	0.20	10	458	<0.010
DATE	NITR GEN NO2+N DIS SOLV (MG/ AS N	N, GEN, NO3 AMMONIA S- DIS- VED SOLVED 'L (MG/L I) AS N)	GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
NOV 25	<0.05	0.076	0.13	<0.010	67	<1.0	<1.0	<3.0	<10
DATE	IRON DIS SOLV (UG/ AS F (0104	S- DIS- VED SOLVED 'L (UG/L FE) AS PB)	(UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)		CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
NOV 25	2100	<10	5	89	<60	209	<6	3.8	1.9

395241082584500. Local number FR-314 (MW 32)
LOCATION.--Lat 39°52'41", long 83°58'45", Hydrologic Unit 05060001 Owner.--WTVN
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 72 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 733.40 ft above sea level. Measuring point: Top of PVC casing, 0.17 ft below land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.97 ft below land-surface datum, May 31, 1996; lowest measured, 22.49 ft below land-surface datum, Dec. 7, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	•	Water Level						
DEC DEC APR JUN	16 02	21. 20. 21. 18.	79 99					

DATE	TIME	DEPTI BELOW LAND SURFAC (WATE LEVEI (FEET (72019	N SPE CIFI CE CON- ER DUCT L) ANCI (US/C	IC WHO: - FIE: - (STA) E AR: CM) UNI:	ER LE LD TEMP: ND- ATU: D WAT IS) (DEG	RE DIS ER SOL' C) (MG)	S- (MG VED AS /L) CAC	S CALCI AL DIS- /L SOLV (MG/ 03) AS 0	DIS ZED SOLV L (MG, ZA) AS M	JM, SODIUM, S- DIS- JED SOLVED L (MG/L MG) AS NA)
DEC 09	1204	21.4	4 70	5 7.	2 13.	5 1.	2 35	0 90	31	3.3
DATE	SI DI	AS- EUM, S- I VED (K)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 09	1.	9	317	290	59	11	0.26	15	370	0.010
DATE	NIT GE NO2+ DI SOL (MG AS (006	N, NO3 A S- VED /L N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 09	<0.0	50 <	<0.020	<0.10	0.015	201	<1.0	<8.0	<12	<10
DATE	IRO DI SOL (UG AS (010	S- VED /L FE)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 09	1600		<100	6	352	<60	111	<10	<20	1.0

## Columbus Well Field, Southern Franklin County

395100083015700. Local number FR-315 (MW 42)
LOCATION.--Lat 39°51'00", long 83°01'57", Hydrologic Unit 05060001
Owner.--SW Conservation Club.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.-Drilled observation water well, 4 in. diameter, 65 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 729.14 ft above sea level. Measuring point: Top of PVC casing, 0.22 ft

below land-surface datum PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.63 ft below land-surface datum, June 3, 1996; lowest measured, 28.16 ft below land-surface datum, Dec. 7, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	9	Water Leve						
DEC	10	27.	82					
DEC	16	26.	55					
APR	02	28.	04					
JUN	17	25.	04					

DATE	TIME	LAND COUNTY OF THE COUNTY OF T	IFIC WHO DN- FIE JCT- (STA NCE A	TER DLE ELD TEMP AND- ATU RD WAT TTS) (DEG	RE DI: ER SOL C) (MG	S- (MG, VED AS /L) CAC	G CALCI AL DIS- 'L SOLV (MG/ D3) AS (	- DIS /ED SOLV /L (MG/ CA) AS M	JM, SODIUM, S- DIS- VED SOLVED /L (MG/L MG) AS NA)
DEC 10	0851	27.82	704 7	.1 12.	5 0.	4 37	0 92	2 33	3.1
DATE	POTA SIU DIS SOLV (MG/ AS K	JM, WATER S- DIS IT /ED FIELD /L MG/L AS () HCO3	CACO3	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 10	1.2	2 327	268	74	17	0.29	13	397	0.010
DATE	NITE GEN NO2+N DIS SOLV (MG/ AS N	N, GEN, NO3 AMMONIA S- DIS- VED SOLVEI /L (MG/L N) AS N)	GEN,AM- A MONIA + ORGANIC D DIS. (MG/L AS N)	ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 10	<0.05	50 <0.020	<0.10	0.012	226	<1.0	<8.0	<12	<10
DATE	IRON DIS SOLV (UG/ AS F (0104	S- DIS- JED SOLVEI L (UG/L FE) AS PB	(UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 10	2300	<100	<4	66	<60	231	<10	<20	0.80

DEPTH

395035083014700. Local number FR-316 (MW 44A)
LOCATION.--Lat 39°50'35", long 83°01'47", Hydrologic Unit 05060001
Owner.--SW Conservation Club.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.-Drilled observation water well, 4 in. diameter, 62 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 725.72 ft above sea level. Measuring point: Top of PVC casing, 2.61 ft

above land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.68 ft below land-surface datum, Nov. 20, 1996; lowest measured, 39.41 ft below land-surface datum, Dec. 10, 1997.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

PH

Date	9	Water	Leve
DEC DEC APR	16	39.4 38.4	68
JUN		34.	

DATE	B L SU: (1 TIME L	ELOW SPI AND CIP RFACE CON WATER DUC EVEL) AND FEET) (US/ 2019) (000	FIC WHC N- FIE CT- (STA CE AR 'CM) UNI	TER DLE DLD TEMP ND- ATU D WAT TS) (DEG	RE DIS ER SOL' C) (MG)	S- (MG, VED AS /L) CAC	S CALCI AL DIS- /L SOLV (MG, O3) AS (	- DIS /ED SOLV /L (MG, CA) AS N	JM, SODIUM, S- DIS- JED SOLVED /L (MG/L JG) AS NA)
DEC 10	1101 3	9.41 8	50 7.	.1 12.	0 1.	6 39	0 91	0 40	38
DATE	POTAS SIUM DIS- SOLVE (MG/L AS K) (00935	, WATER DIS IT D FIELD MG/L AS HCO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 10	3.5	349	286	80	67	0.54	12	505	0.011
DATE	NITRO GEN, NO2+NO DIS- SOLVE (MG/L AS N)	GEN, 3 AMMONIA DIS- D SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 10	0.069	0.021	0.11	0.035	105	<1.0	<8.0	<12	<10
DATE	IRON, DIS- SOLVE (UG/L AS FE (01046	DIS- D SOLVED (UG/L ) AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 10	1200	<100	10	103	<60	526	<10	<20	1.2

## Columbus Well Field, Southern Franklin County

395153083014000. Local number FR-317 (MW 43)

JOSAT Number FR-317 (MW 43)

LOCATION.--Lat 39°51'53", long 83°01'40", Hydrologic Unit 05060001

Owner.--Heimat Haus

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 40 ft deep.

INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 689.64 ft above sea level. Measuring point: Top of PVC casing, 0.24 ft below land-surface datum

PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.44 ft below land-surface datum, Feb. 28, 1996; lowest

measured, 6.04 ft below land-surface datum, Oct. 25, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 16	5.86
APR 02	5.96
JUN 17	5.06

above land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.77 ft below land-surface datum, May 15, 1997; lowest measured, 55.19 ft below land-surface datum, Dec. 6, 1995.

Date	Water Lev
DEC 16	50.10
APR 02	50.70
JUN 17	43.38

395205083001500. Local number FR-319 (MW 45)
LOCATION.--Lat 39°52'05", long 83°00'15", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 55 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 721.80 ft above sea level. Measuring point: Top of PVC casing, 2.22 ft

above land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.75 ft below land-surface datum, June 3, 1996; lowest measured, 37.47 ft below land-surface datum, Sept. 14, 1997.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DEC 04 35.38 DEC 16 31.70 APR 02 35.98 JUN 17 31.60	Date	Water Level
APR 02 35.98		
JUN 17 31.60	APR 02	35.98
	JUN 17	31.60

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFI CON- DUCT ANCI (US/C	IC WHO: - FIE: - (STAI E ARI CM) UNIT	ER LE LD TEMPI ND- ATUI D WATI	RE DIS ER SOL' C) (MG)	S- (MG VED AS /L) CAC	S CALCI AL DIS- /L SOLV (MG/ 03) AS 0	DIS ZED SOLV L (MG/ ZA) AS M	MM, SODIUM, S- DIS- YED SOLVED 'L (MG/L MG) AS NA)
DEC 04	0945	35.38	159	0 6.	8 12.	0 1.	2 59	0 160	) 48	71
DATE	POTA SIV DIS SOLV (MG, AS IV	AS- BON UM, WA S- DIS VED FI /L MG/ K) HO		ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 04	2.3	2 3	390	320	100	230	0.31	14	817	<0.010
DATE	NITI GEI NO2+1 DIS SOL' (MG, AS I	N, G NO3 AMM S- I VED SC /L (M N) AS	DIS-	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 04	<0.0	50 <0.	020	<0.10	<0.010	60	<1.0	<1.0	<3.0	<10
DATE	IROI DIS SOL' (UG, AS )	S- I VED SC /L (U FE) AS	EAD, DIS- DLVED JG/L S PB) L049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 04	2800	<	:10	6	85	<60	143	<6	<3.0	1.1

## Columbus Well Field, Southern Franklin County

394954083002801. Local number FR-320 (MW 34)
LOCATION.--Lat 39°49'54", long 83°00'28", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 70 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 690.64 ft above sea level. Measuring point: Top of PVC casing, 2.97 ft

above land-surface datum. PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.25 ft below land-surface datum, May 31, 1996; lowest measured, 24.55 ft below land-surface datum, Nov. 20, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 09	25.80
DEC 16	23.49
APR 02	25.46
JUN 17	18.01

DATE	B: Li SUF (V TIME Li (F	RFACE COL NATER DUC EVEL) AN	FIC WHC N- FIE CT- (STA CE AR (CM) UNI	TER TLE TLD TEMP! ND- ATU D WAT TS) (DEG	RE DIS ER SOL' C) (MG,	S- (MG, VED AS /L) CAC	CALCIAL DIS- L SOLV (MG,	DIS DIS DIS DIS DIS DIS DIS DIS	JM, SODIUM, S- DIS- JED SOLVED /L (MG/L MG) AS NA)
DEC 09	0830 2	5.80 9	20 7.	0 12.	5 0.	1 44	0 11	0 38	21
DATE	POTASSIUM DISSOLVEI (MG/L AS K)	WATER DIS IT FIELD MG/L AS HCO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 09	2.6	415	340	97	35	0.21	12	525	0.012
DATE	NITROGEN, NO2+NO: DIS- SOLVEI (MG/L AS N)	GEN, B AMMONIA DIS- D SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 09	<0.050	<0.020	<0.10	0.012	50	<1.0	<8.0	<12	<10
DATE	IRON, DIS- SOLVEI (UG/L AS FE)	(UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 09	430	<100	6	105	<60	512	<10	<20	0.70

395038083002100. Local number FR-321 (MW 21)
LOCATION.--Lat 39°50'38", long 83°00'21", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 68 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 697.05 ft above sea level. Measuring point: Top of PVC casing, 2.50 ft

above land-surface datum. PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.41 ft below land-surface datum, Mar. 17, 1997; lowest measured, 47.13 ft below land-surface datum, Feb. 26, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 05	36.27
DEC 16	37.10
APR 02	36.98
JUN 17	32.53

DATE	TIME	DEF BEI LAN SURF (WA LEV (FE (720)	OW SP. ID CIT ACE COT TER DUC (EL) ANG ET) (US)	FIC WHO N- FII CT- (STA CE AI 'CM) UNI	TER  DLE  ELD TEMI  AND- ATT  RD WA:  ITS) (DEC	JRE FER G C)	OXYGEN DIS- SOLVE (MG/L (00300	(MG/ ED AS L) CACC	CALCI AL DIS- 'L SOLV (MG/	DIS ZED SOLV L (MG, ZA) AS M	MM, SODIUM, S- DIS- YED SOLVED 'L (MG/L MG) AS NA)
DEC 05	1020	36.	. 27 11	50 6	.8 12	. 5	1.3	580	) 160	) 43	9.6
DATE	S: D: SOI (M: AS	TAS- IUM, IS- LVED G/L K) 935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHI RII DIS SOI (MC AS	DE, S- LVED S/L CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 05	2	. 6	412	338	180	28	3	0.22	12	639	<0.010
DATE	GI NO2- DI SOI (MO AS	TRO- EN, +NO3 IS- LVED G/L N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	ORTHO,	BARI DIS SOLV (UC AS (010	S- /ED S/L BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 05	<0.0	050	<0.020	<0.10	0.037	3	37	<1.0	<8.0	<12	<10
DATE	D: SOI (UC AS	ON, IS- LVED G/L FE)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	DEN DI SOI (UC	MO)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 05	<10	0	<100	8	6.6	<6	50	598	<10	<20	1.2

## Columbus Well Field, Southern Franklin County

395131083005200. Local number FR-322 (MW 22)

above land-surface datum.

PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.23 ft below land-surface datum, May 31, 1996; lowest

measured, 28.35 ft below land-surface datum, Dec. 5, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	=	Water	Leve
DEC APR	02	18. 18.	88
JUN	17	15.	97

395146082594300. Local number FR-323 (MW 19)
LOCATION.--Lat 39°51'45", long 82°59'44", Hydrologic Unit 05060001
 Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 59.5 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 714.29 ft above sea level. Measuring point: Top of PVC casing, 2.69 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.69 ft below land-surface datum, May 31, 1996; lowest measured, 20.88 ft below land-surface datum, Feb. 29, 1996.

Date	Water Level
DEC 16	20.73
APR 02	20.79
JUN 17	18.14

395010083000200. Local number FR-325 (MW 23)
LOCATION.--Lat 39°50'10", long 83°50'02", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 93 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 719.55 ft above sea level. Measuring point: Top of PVC casing, 2.51 ft

above land-surface datum.

PERIOD OF RECORD.--Feb. 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.49 ft below land-surface datum, May 31, 1996; lowest measured, 35.99 ft below land-surface datum, Feb. 29, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	Date	Ι
DEC 09 33.94 DEC 16 34.77 APR 02 34.89 JUN 17 31.94	DEC APR	I

DATE	B L SU (' TIME L	RFACE COM WATER DUG EVEL) AN FEET) (US	FIC WHO N- FIE CT- (STA	TER DLE DLD TEMP ND- ATU D WAT TS) (DEG	RE DI: ER SOL C) (MG	S- (MG, VED AS /L) CAC	S CALCI AL DIS- /L SOLV (MG,	- DIS /ED SOLV /L (MG/ CA) AS M	MM, SODIUM, S- DIS- VED SOLVED /L (MG/L MG) AS NA)
DEC 09	1001 3	3.94 8	81 7.	1 13.	0 0.	0 44	0 110	39	4.2
DATE	POTAS SIUM DIS- SOLVE (MG/L AS K) (00935	, WATER DIS IT D FIELD MG/L AS HCO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 09	1.1	471	386	70	9.3	0.33	15	488	<0.010
DATE	NITRO GEN, NO2+NO DIS- SOLVE (MG/L AS N) (00631	GEN, 3 AMMONIA DIS- D SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 09	<0.050	0.643	0.64	0.032	478	<1.0	<8.0	<12	<10
DATE	IRON, DIS- SOLVE (UG/L AS FE (01046	(UG/L ) AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 09	4100	<100	6	38	<60	277	<10	<20	0.80

## Columbus Well Field, Southern Franklin County

395254083000900. Local number FR-326 (MW 31)
LOCATION.--Lat 39°52'54", long 83°00'07", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 68.38 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 718.84 ft above sea level. Measuring point: Top of PVC casing, 2.58 ft

above land-surface datum.

PERIOD OF RECORD.--Feb. 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.68 ft below land-surface datum, June 3, 1996; lowest measured, 47.67 ft below land-surface datum, Nov. 15, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 04 DEC 16	50.38 49.63
APR 02	49.14
JUN 17	44.91

DATE	S	LAND CI URFACE CO (WATER DU LEVEL) AN	CT- (STA CE AR /CM) UNI	TER DLE LD TEMP ND- ATU D WAT TS) (DEG	RE DIS ER SOL' C) (MG,	S- (MG, VED AS /L) CAC(	G CALCI AL DIS- 'L SOLV (MG/ D3) AS (	DISTED SOLVED (MG, CA) AS N	JM, SODIUM, S- DIS- JED SOLVED /L (MG/L MG) AS NA)
DEC 04	1100	50.38 10	70 7.	.0 13.	0 1.	1 48	0 120	) 41	21
DATE	POTA SIU DIS SOLV (MG/ AS K (0093	M, WATER - DIS IT ED FIELD L MG/L AS ) HCO3	TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	(MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
DEC 04	2.1	444	364	100	54	0.29	13	577	<0.010
DATE	NITR GEN NO2+N DIS SOLV (MG/ AS N	GEN, AMMONIA DIS- ED SOLVED (MG/L AS N)		ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 04	<0.05	0 <0.020	<0.10	<0.010	93	<1.0	<1.0	<3.0	<10
DATE	IRON DIS SOLV (UG/ AS F (0104	DIS- ED SOLVED (UG/L E) AS PB)	(UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)		CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 04	2500	<10	4	52	<10	345	<6	<3.0	0.90

395133083001800. Local number FR-327 (MW 25)

LOCATION.--Lat 39°51'33", long 83°00'22", Hydrologic Unit 05060001

Owner.--City of Columbus

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 74.75 ft deep.

INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land surface datum is 740.73 ft above sea level. Measuring point: Top of PVC casing, 2.76 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.71 ft below land-surface datum, Aug. 10, 1996; lowest measured, 52.54 ft below land-surface datum, Oct. 25, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 16	49.16
APR 02	49.48
JUN 17	46.76

395059083000900. Local number, FR-328 US 23 south of Olen quarry (MW 26)

395059083000900. Local number, FR-328 US 23 south of Olen quarry (MW 26)
LOCATION.--Lat 39°50'59", long 83°00'09", Hydrologic Unit 05060002, near Shadeville.
Owner.--Franklin County.
AQUIFER.--Clay, sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 70 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 730.38 ft above sea level. Measuring point: Top of 4-inch PVC casing, 2.61 ft above land-surface datum. PERIOD OF RECORD.--Aug. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD. --Highest water level measured, 40.69 ft below land-surface datum, Sept. 4, 1996; lowest measured, 44.99 ft below land-surface datum, Oct. 25, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16 APR 02	44.92 44.87
JUN 17	43.21

395108082591100. Local number FR-329 (MW 15)
LOCATION.--Lat 39°51'08", long 83°59'12", Hydrologic Unit 05060001
Owner.--City of Columbus
AOUIFER.--Sand and grave 3

Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 69.19 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 733.26 ft above sea level. Measuring point: Top of PVC casing, 2.83 ft

above land-surface datum.

PERIOD OF RECORD.--May 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.38 ft below land-surface datum, Mar. 17, 1997; lowest measured, 38.55 ft below land-surface datum, Feb. 18, 1997.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	37.38
APR 02	37.99
JUN 17	35.38

395054082585300. Local number FR-331 (MW 14) LOCATION.--Lat 39°50'54", long 83°58'55", Hydrologic Unit 05060001

Owner.--City of Columbus

UNSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 738.32 ft above sea level. Measuring point: Top of PVC casing, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--Dec. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.40 ft below land-surface datum, May 31, 1996; lowest measured, 49.93 ft below land-surface datum, Dec. 6, 1995.

Date	Water Level
DEC 16	46.18
APR 02	46.61
JUN 17	44.68

## Columbus Well Field, Southern Franklin County

395031082590000. Local number FR-332 (MW 04)

LOCATION.--Lat 39°50'31", long 83°59'00", Hydrologic Unit 05060001

Owner.--Clat 39 50 31", fong 83 59 00", Hydrologic Unit Ususuuui
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 48.03 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land surface datum is 707.13 ft above sea level. Measuring point: Top of PVC casing, 2.81 ft above land-surface datum.

PERIOD OF RECORD.--Oct. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.46 ft below land-surface datum, May 7, 1997; lowest

measured, 31.20 ft below land-surface datum, Oct. 25, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 16 APR 02	29.01 29.60
JUN 17	25.00

395139082581600. Local number FR-334 (MW 17)
LOCATION.--Lat 39°51'40", long 83°58'15", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 64.32 ft deep.

WELL CHARACTERISTICS.--Priled observation water Well, 4 in. diameter, 64.32 it deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 740.07 ft above sea level. Measuring point: Top of PVC casing, 0.20 ft below land-surface datum.

PERIOD OF RECORD.--Mar. 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.45 ft below land-surface datum, May 31, 1996; lowest measured, 32.62 ft below land-surface datum, Sept. 14, 1997.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	32.02
APR 02	32.40
JUN 17	30.30

below land-surface datum.

PERIOD OF RECORD.--May 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.03 ft below land-surface datum, May 31, 1996; lowest measured, 36.17 ft below land-surface datum, Sept. 4, 1996.

Date	Water Leve
DEC 16	35.07
APR 02	35.67
TIIN 17	33 69

395108083010601. Local number FR-336 (MW 33)
LOCATION.--Lat 39°51'05", long 83°01'06", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 59 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 685.90 ft above sea level. Measuring point: Top of PVC casing, 2.75 ft

above land-surface datum.

PERIOD OF RECORD.--Dec. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.31 ft below land-surface datum, May 31, 1996; lowest measured, 31.75 ft below land-surface datum, Nov. 21, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	<b>:</b>	Water Le	ve
DEC		29.87	
DEC APR		29.46 28.73	
JUN	17	23.97	

DATE	TIME			BELOW SPE LAND CIF: GURFACE CON- (WATER DUCT LEVEL) ANC! (FEET) (US/C		IC WHO: - FIE: I- (STA) E AR: CM) UNI:	ER LE LD TEMPI ND- ATUI D WATI	RE DIS ER SOL' C) (MG,	S- (MG/ VED AS /L) CACO	CALCI AL DIS- 'L SOLV (MG/ )3) AS (	DIS ZED SOLV L (MG/ ZA) AS M	MM, SODIUM, S- DIS- YED SOLVED 'L (MG/L MG) AS NA)	
DEC 05	0945 29.		97	0 6.	9 12.	5 0.	9 40	) 110	28	36			
DATE	POTA SII DIS SOLI (MG AS 1	AS- BOUM, S- DOVED MAKEN	ICAR- ONATE WATER IS IT FIELD IG/L AS HCO3 00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)			
DEC 05			298	244	130	62	0.37	8.4	532	<0.010			
DATE	NIT: GEI NO2+I DI: SOL' (MG AS I	N, NO3 A S- VED ( /L N)	NITRO- GEN, MMONIA DIS- SOLVED (MG/L AS N) 00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)			
DEC 05	<0.0	50 <	0.020	0.15	0.013	54	<1.0	<8.0	<12	<10			
DATE	IRO DI SOL (UG AS	S- VED /L FE)	LEAD, DIS- SOLVED (UG/L AS PB) 01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)			
DEC 05	260		<100	9	235	<60	1180	<10	<20	1.7			

#### Columbus Well Field, Southern Franklin County

395115083010601. Local number FR-337 (MW 01)

LOCATION.--Lat 39°51'13", long 83°01'05", Hydrologic Unit 05060001

Owner.--City of Columbus

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 60 ft deep.

INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 687 ft above sea level. Measuring point: Top of PVC casing, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.36 ft below land-surface datum, May 31, 1996; lowest

measured, 27.40 ft below land-surface datum, Feb. 26, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
DEC 16	26.30
JUN 17	27.08 17.79

395115083010602. Local number FR-338 (MW 01D)
LOCATION.--Lat 39°51'13", long 83°01'05", Hydrologic Unit 05060001
Owner.--City of Columbus

AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 105 ft deep.

DATUM.--Elevation of land-surface datum is 686.83 ft above sea level. Measuring point: Top of PVC casing, 2.48 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.35 ft below land-surface datum, May 31, 1996; lowest measured, 23.30 ft below land-surface datum, Feb. 26, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	21.34
APR 02	21.73
JUN 17	17.80

395046083003107. Local number FR-339 (MW 02) LOCATION.--Lat 39°50'47", long 83°00'30", Hydrologic Unit 05060001 Owner.--City of Columbus

AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 70 ft deep.

DATUM.--Elevation of land-surface datum is 696.60 ft above sea level. Measuring point: Top of PVC casing, 2.35 ft

above land-surface datum.

PERIOD OF RECORD.--Sept. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.11 ft below land-surface datum, Mar. 17, 1997; lowest measured, 51.00 ft below land-surface datum, Feb. 26, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	45.86
APR 02	46.36
JUN 17	38.92

395046083003107. Local number FR-340 (MW 02D)

LOCATION. -- Lat 39°50'47", long 83°00'30", Hydrologic Unit 05060001

Owner.--City of Columbus AQUIFER.--Devonian limestone.

WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 138 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 697 ft above sea level. Measuring point: Top of PVC casing, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.95 ft below land-surface datum, Mar. 17, 1997; lowest measured, 50.16 ft below land-surface datum, Feb. 26, 1996.

Date	Water Level
DEC 16 APR 02	45.42 45.80
JUN 17	37.41

395020083003406. Local number FR-341 (MW 03)

LOCATION.--Lat 39°50'24", long 83°00'28", Hydrologic Unit 05060001

Owner.--City of Columbus

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 75 ft deep.

INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 683.43 ft above sea level. Measuring point: Top of PVC casing, 2.52 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.79 ft below land-surface datum, May 31, 1996; lowest measured, 32.39 ft below land-surface datum, Feb. 26, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	9	Water Le				
DEC APR		30. 31.				
JUN	17	21.	95			

395020083003407. Local number FR-342 (MW 03D) LOCATION.--Lat 39°50'24", long 83°00'28", Hydrologic Unit 05060001 Owner.--City of Columbus

AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 123 ft deep.

DATUM.--Elevation of land-surface datum is 683 ft above sea level. Measuring point: Top of PVC casing, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.86 ft below land-surface datum, Mar. 17, 1997; lowest measured, 20.46 ft below land-surface datum, Feb. 26, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	19.05
APR 02	19.90
JUN 17	15.77

395031082585400. Local number FR-343 (MW 35) LOCATION.--Lat 39°50'20", long 83°58'54", Hydrologic Unit 05060001 Owner.--City of Columbus

AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 52 ft deep.

DATUM.--Elevation of land-surface datum is 708.30 ft above sea level. Measuring point: Top of PVC casing, 2.61 ft

above land-surface datum.

PERIOD OF RECORD. -- Oct. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.61 ft below land-surface datum, May 31, 1996; lowest measured, 26.09 ft below land-surface datum, Oct. 25, 1995.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
DEC 16	24.49
APR 02	24.11
JUN 17	20.90

395236083004201. Local number FR-345 (MW 41)

LOCATION. -- Lat 39°52'36", long 83°00'42", Hydrologic Unit 05060001

Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS. --Drilled observation water well, 4 in. diameter, 45 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 688.90 ft above sea level. Measuring point: Top of PVC casing, 2.53 ft above land-surface datum.

PERIOD OF RECORD.--Aug. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.25 ft below land-surface datum, Sept. 14, 1997; lowest measured, 24.09 ft below land-surface datum, Sept. 4, 1996.

Date	Water Level				
DEC 16 APR 02	20.58 21.19				
JUN 17	20.45				

## **Ground-Water Records for Former Air Force Plant 36**

The following tables contain ground-water-level measurements and water-quality data from a network of monitoring wells on former Air Force Plant 36 in Evendale, Ohio, These data were collected as part of a cooperative study with U.S. Air Force Aeronautical Systems Center headquartered at Wright-Patterson Air Force Base. The purpose of the study is to provide technical support for ongoing remedial actions at the plant.

391411084264000. Local number, AF-3S.

LOCATION.--LATITUDE 39°14'11", LONGITUDE 084°26'40", hydrologic unit 05090203.

AQUIFER.--Shallow part of glacial outwash. Geologic Unit 1120TSH.

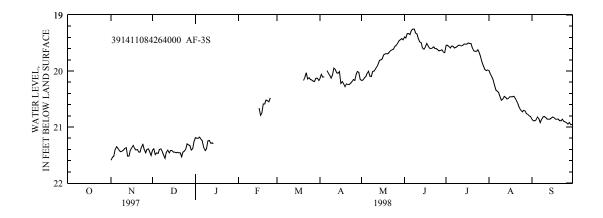
WELL CHARACTERISTICS. --Drilled observation water well, depth 52.0 ft.
DATUM.--Altitude of land surface is 560.40 feet above National Geodetic Vertical Datum of 1929. Measuring point is top of inner casing, 1.39 ft above land-surface datum.

PERIOD OF RECORD.--Nov. 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 21.59 ft below land-surface datum, Nov. 1, 1997; minimum daily low, 19.25 ft below land-surface datum, June 7 and 8, 1998.

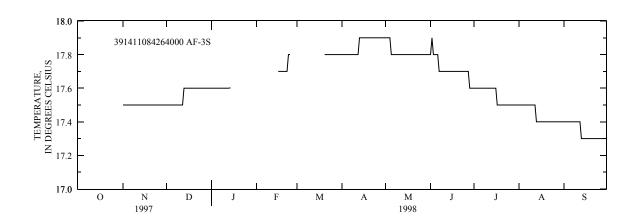
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		21.59	21.41	21.19			20.13	20.17	19.39	19.54	19.99	20.86
2		21.54	21.39	21.20			20.06	20.16	19.41	19.54	20.05	20.89
3		21.52	21.49	21.20			20.11	20.12	19.33	19.56	20.10	20.89
4		21.40	21.46	21.18			20.10	20.10	19.33	19.59	20.16	20.87
5		21.35	21.47	21.22				20.04	19.35	19.55	20.25	20.82
6		21.38	21.40	21.25			19.99	20.00	19.27	19.56	20.34	20.85
7		21.42	21.39	21.37			20.04	20.09	19.25	19.59	20.36	20.92
8		21.44	21.44	21.42			20.08	20.10	19.25	19.58	20.39	20.86
9		21.43	21.50	21.39			20.13	20.01	19.32	19.56	20.46	20.82
10		21.41	21.56	21.25			20.07	20.00	19.34	19.54	20.52	20.81
11		21.38	21.45	21.24			19.95	19.96	19.42	19.54	20.50	20.83
12		21.37	21.41	21.29			19.97	19.92	19.48	19.55	20.45	20.86
13		21.52	21.46	21.28			20.03	19.87	19.49	19.54	20.47	20.86
14		21.52	21.42	21.30			20.04	19.81	19.59	19.52	20.50	20.86
15		21.41	21.42				20.01	19.80	19.61	19.52	20.49	20.84
16		21.37	21.45		20.66		20.22	19.78	19.57	19.52	20.46	20.82
17		21.33	21.45		20.79		20.19	19.71	19.51	19.50	20.46	20.83
18		21.38	21.46		20.75		20.23	19.69	19.55	19.51	20.46	20.86
19		21.41	21.45		20.59		20.28	19.69	19.59	19.51	20.45	20.86
20		21.40	21.46		20.59	20.17	20.23	19.69	19.60	19.59	20.49	20.86
21		21.45	21.46		20.52	20.11	20.24	19.66	19.59	19.64	20.54	20.89
22		21.45	21.53		20.53	20.03	20.24	19.63	19.57	19.65	20.59	20.89
23		21.36	21.45		20.55	20.14	20.22	19.62	19.60	19.65	20.66	20.86
24		21.31	21.43		20.48	20.12	20.19	19.61	19.60	19.62	20.70	20.90
25		21.40	21.39			20.15	20.15	19.56	19.62	19.67	20.73	20.91
26		21.46	21.30			20.16	20.17	19.54	19.64	19.75	20.70	20.92
27		21.40	21.32			20.18	20.07	19.50	19.63	19.84	20.71	20.95
28		21.39	21.33			20.19	20.01	19.46	19.62	19.91	20.76	20.92
29		21.45	21.41			20.13	20.02	19.44	19.66	19.97	20.77	20.96
30		21.51	21.39			20.13	20.15	19.42	19.67	19.99	20.80	20.95
31			21.26			20.17		19.44		19.98	20.81	
MAX		21.59	21.56					20.17	19.67	19.99	20.81	20.96



STATION NUMBER 391411084264000 AF-3S
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		17.5	17.5	17.6			17.8	17.9	17.8	17.6	17.5	17.4
2		17.5	17.5	17.6			17.8	17.9	17.9	17.6	17.5	17.4
3		17.5	17.5	17.6			17.8	17.9	17.8	17.6	17.5	20.9
4		17.5	17.5	17.6			17.8	17.9	17.8	17.6	17.5	17.4
5		17.5	17.5	17.6				17.8	17.8	17.6	17.5	17.4
6		17.5	17.5	17.6			17.8	17.8	17.8	17.6	17.5	17.4
7		17.5	17.5	17.6			17.8	17.8	17.7	17.6	17.5	17.4
8		17.5	17.5	17.6			17.8	17.8	17.7	17.6	17.5	17.4
9		17.5	17.5	17.6			17.8	17.8	17.7	17.6	17.5	17.4
10		17.5	17.5	17.6			17.8	17.8	17.7	17.6	17.5	17.4
11		17.5	17.5	17.6			17.8	17.8	17.7	17.6	17.5	17.4
12		17.5	17.5	17.6			17.8	17.8	17.7	17.6	17.5	17.4
13		17.5	17.6	17.6			17.9	17.8	17.7	17.6	17.4	17.3
14		17.5	17.6	17.6			17.9	17.8	17.7	17.6	17.4	17.3
15		17.5	17.6				17.9	17.8	17.7	17.6	17.4	17.3
16		17.5	17.6		17.7		17.9	17.8	17.7	17.6	17.4	17.3
17		17.5	17.6		17.7		17.9	17.8	17.7	17.5	17.4	17.3
18		17.5	17.6		17.7		17.9	17.8	17.7	17.5	17.4	17.3
19		17.5	17.6		17.7		17.9	17.8	17.7	17.5	17.4	17.3
20		17.5	17.6		17.7	17.8	17.9	17.8	17.7	17.5	17.4	17.3
21		17.5	17.6		17.7	17.8	17.9	17.8	17.7	17.5	17.4	17.3
22		17.5	17.6		17.7	17.8	17.9	17.8	17.7	17.5	17.4	17.3
23		17.5	17.6		17.8	17.8	17.9	17.8	17.7	17.5	17.4	17.3
24		17.5	17.6		17.8	17.8	17.9	17.8	17.7	17.5	17.4	17.3
25		17.5	17.6			17.8	17.9	17.8	17.7	17.5	17.4	17.3
26		17.5	17.6			17.8	17.9	17.8	17.7	17.5	17.4	17.3
27		17.5	17.6			17.8	17.9	17.8	17.7	17.5	17.4	17.3
28		17.5	17.6			17.8	17.9	17.8	17.6	17.5	17.4	17.3
29		17.5	17.6			17.8	17.9	17.8	17.6	17.5	17.4	17.3
30		17.5	17.6			17.8	17.9	17.8	17.6	17.5	17.4	17.3
31			17.6			17.8		17.8		17.5	17.4	
MAX		17.5	17.6					17.9	17.9	17.6	17.5	20.9



## **Ground-Water Records for Former Air Force Plant 36**

391408084264101. Local number, AF-5P.

LOCATION.--LATITUDE 39°14'08", LONGITUDE 084°26'41", hydrologic unit 05090203.

AQUIFER. --Perched part of glacial outwash. Geologic Unit 1120TSH.
WELL CHARACTERISTICS.--Drilled observation water well, depth 33.0 ft.

DATUM.--Altitude of land surface is 559.90 feet above National Geodetic Vertical Datum of 1929. Measuring point is top of inner casing, 1.33 ft above land-surface datum.

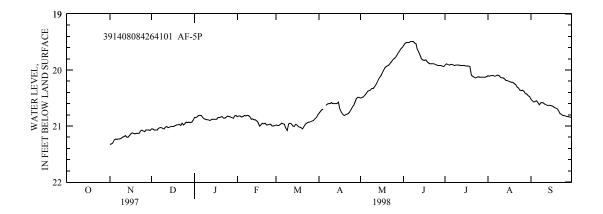
PERIOD OF RECORD.--Nov. 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 21.33 ft below land-surface datum, Nov. 1, 1997; minimum daily

low, 19.49 ft below land-surface datum, June 6-8, 1998.

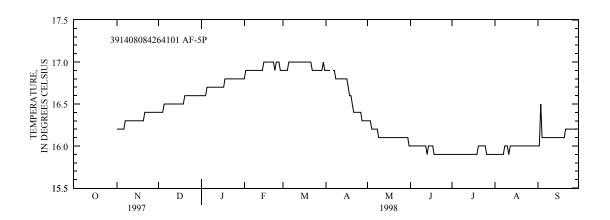
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		21.33	21.05	20.85	20.83	20.98	20.77	20.50	19.56	19.91	20.10	20.52
2		21.32	21.05	20.85	20.82	20.99	20.74	20.49	19.53	19.89	20.11	20.55
3		21.30	21.07	20.83	20.82	20.99	20.71	20.48	19.51	19.90	20.10	20.57
4		21.25	21.07	20.81	20.84	20.97	20.70	20.45	19.51	19.91	20.10	20.56
5		21.23	21.07	20.81	20.83	20.95		20.42	19.51	19.90	20.10	20.55
6		21.24	21.04	20.81	20.81	20.96	20.63	20.38	19.49	19.90	20.11	20.58
7		21.23	21.03	20.85	20.82	20.97	20.61	20.37	19.49	19.91	20.10	20.62
8		21.23	21.03	20.87	20.81	21.04	20.60	20.36	19.49	19.92	20.09	20.59
9		21.22	21.04	20.88	20.81	21.08	20.60	20.33	19.52	19.91	20.10	20.58
10		21.20	21.05	20.89	20.83	20.96	20.58	20.33	19.53	19.91	20.13	20.59
11		21.19	21.02	20.89	20.88	20.95	20.60	20.30	19.63	19.91	20.14	20.61
12		21.17	21.01	20.90	20.87	20.96	20.60	20.26	19.68	19.92	20.14	20.62
13		21.20	21.03	20.89	20.89	21.00	20.60	20.21	19.74	19.92	20.16	20.63
14		21.20	21.02	20.88	20.89	21.01	20.60	20.16	19.80	19.92	20.19	20.63
15		21.17	21.01	20.88	20.91	20.97	20.57	20.12	19.82	19.92	20.19	20.63
16		21.14	21.01	20.88	20.94	20.98	20.70	20.09	19.83	19.93	20.20	20.64
17		21.12	21.01	20.88	21.00	21.01	20.75	20.03	19.82	19.93	20.21	20.65
18		21.13	20.99	20.85	20.98	21.02	20.79	19.98	19.85	19.93	20.22	20.67
19		21.14	20.98	20.85	20.95	21.03	20.81	19.95	19.87	19.94	20.22	20.68
20		21.13	20.98	20.84	20.96	21.05	20.80	19.93	19.89	20.09	20.24	20.69
21		21.13	20.97	20.83	20.95	21.01	20.79	19.92	19.89	20.11	20.26	20.73
22		21.13	20.99	20.86	20.98	20.97	20.78	19.89	19.89	20.13	20.30	20.78
23		21.09	20.95	20.86	20.98	20.95	20.75	19.86	19.89	20.14	20.32	20.79
24		21.07	20.98	20.84	20.97	20.93	20.71	19.83	19.90	20.13	20.36	20.81
25		21.09	20.96	20.82	20.97	20.93	20.66	19.80	19.91	20.12	20.37	20.81
26		21.10	20.93	20.83	21.00	20.92	20.63	19.78	19.92	20.13	20.36	20.82
27		21.07	20.94	20.84	21.00	20.91	20.57	19.74	19.92	20.13	20.38	20.83
28		21.07	20.93	20.85	20.99	20.90	20.51	19.70	19.92	20.13	20.42	20.83
29		21.07	20.94	20.86		20.87	20.49	19.66	19.93	20.13	20.43	20.84
30		21.08	20.93	20.82		20.85	20.49	19.62	19.94	20.13	20.46	20.85
31			20.90	20.81		20.80		19.60		20.12	20.47	
MAX		21.33	21.07	20.90	21.00	21.08		20.50	19.94	20.14	20.47	20.85



STATION NUMBER 391408084264101 AF-5P
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		16.2	16.4	16.6	16.8	16.9	16.9	16.3	16.0	15.9	15.9	16.0
2		16.2	16.4	16.6	16.9	16.9	16.9	16.3	16.0	15.9	15.9	16.0
3		16.2	16.4	16.6	16.9	16.9	16.9	16.3	16.0	15.9	15.9	16.5
4		16.2	16.4	16.6	16.9	16.9	16.9	16.2	16.0	15.9	15.9	16.1
5		16.2	16.5	16.7	16.9	17.0		16.2	16.0	15.9	15.9	16.1
6		16.2	16.5	16.7	16.9	17.0	16.9	16.2	16.0	15.9	15.9	16.1
7		16.3	16.5	16.7	16.9	17.0	16.9	16.2	16.0	15.9	15.9	16.1
8		16.3	16.5	16.7	16.9	17.0	16.8	16.2	16.0	15.9	16.0	16.1
9		16.3	16.5	16.7	16.9	17.0	16.8	16.1	16.0	15.9	16.0	16.1
10		16.3	16.5	16.7	16.9	17.0	16.8	16.1	16.0	15.9	16.0	16.1
11		16.3	16.5	16.7	16.9	17.0	16.8	16.1	16.0	15.9	15.9	16.1
12		16.3	16.5	16.7	16.9	17.0	16.8	16.1	16.0	15.9	16.0	16.1
13		16.3	16.5	16.7	16.9	17.0	16.8	16.1	15.9	15.9	16.0	16.1
14		16.3	16.5	16.7	16.9	17.0	16.8	16.1	16.0	15.9	16.0	16.1
15		16.3	16.5	16.7	17.0	17.0	16.8	16.1	16.0	15.9	16.0	16.1
16		16.3	16.5	16.7	17.0	17.0	16.8	16.1	16.0	15.9	16.0	16.1
17		16.3	16.5	16.7	17.0	17.0	16.7	16.1	16.0	15.9	16.0	16.1
18		16.3	16.5	16.8	17.0	17.0	16.6	16.1	15.9	15.9	16.0	16.1
19		16.3	16.5	16.8	17.0	17.0	16.6	16.1	15.9	15.9	16.0	16.1
20		16.3	16.6	16.8	17.0	17.0	16.5	16.1	15.9	16.0	16.0	16.1
21		16.4	16.6	16.8	17.0	17.0	16.4	16.1	15.9	16.0	16.0	16.2
22		16.4	16.6	16.8	17.0	16.9	16.4	16.1	15.9	16.0	16.0	16.2
23		16.4	16.6	16.8	16.9	16.9	16.4	16.1	15.9	16.0	16.0	16.2
24		16.4	16.6	16.8	17.0	16.9	16.4	16.1	15.9	16.0	16.0	16.2
25		16.4	16.6	16.8	17.0	16.9	16.4	16.1	15.9	16.0	16.0	16.2
26		16.4	16.6	16.8	17.0	16.9	16.4	16.1	15.9	15.9	16.0	16.2
27		16.4	16.6	16.8	16.9	16.9	16.3	16.1	15.9	15.9	16.0	16.2
28		16.4	16.6	16.8	16.9	16.9	16.3	16.1	15.9	15.9	16.0	16.2
29		16.4	16.6	16.8		16.9	16.3	16.1	15.9	15.9	16.0	16.2
30		16.4	16.6	16.8		17.0	16.3	16.1	15.9	15.9	16.0	16.2
31			16.6	16.8		16.9		16.0		15.9	16.0	
MAX		16.4	16.6	16.8	17.0	17.0		16.3	16.0	16.0	16.0	16.5



## **Ground-Water Records for Former Air Force Plant 36**

391408084264100. Local number, AF-5S.

LOCATION.--LATITUDE 39°14'08", LONGITUDE 084°26'41", hydrologic unit 05090203.

AQUIFER. --Shallow part of glacial outwash. Geologic Unit 1120TSH.
WELL CHARACTERISTICS.--Drilled observation water well, depth 51.0 ft.

DATUM. --Altitude of land surface is 559.90 feet above National Geodetic Vertical Datum of 1929. Measuring point is top of inner casing, 1.66 ft above land-surface datum.

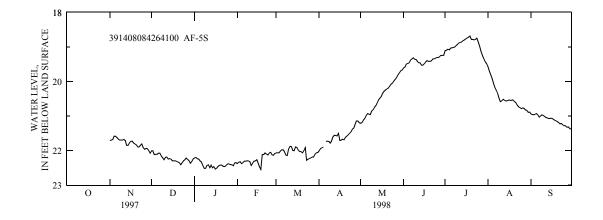
PERIOD OF RECORD.--Nov. 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 22.55 ft below land-surface datum, Feb. 18, 1998; minimum daily

low, 18.69 ft below land-surface datum, July 19, 1998.

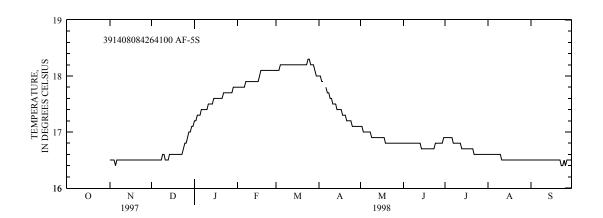
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		21.71	22.01	22.22	22.38	22.07	22.01	21.21	19.61	19.11	19.58	20.94
2		21.70	22.01	22.20	22.34	22.07	21.95	21.19	19.59	19.10	19.70	20.96
3		21.68	22.12	22.24	22.33	22.07	21.92	21.12	19.50	19.07	19.81	20.97
4		21.59	22.11	22.25	22.38	22.02	21.90	21.07	19.48	19.09	19.92	20.95
5		21.59	22.11	22.30	22.35	21.98		20.99	19.47	19.04	20.05	20.93
6		21.62	22.08	22.33	22.31	21.98	21.74	20.93	19.39	19.03	20.18	20.97
7		21.67	22.08	22.43	22.31	22.03	21.73	20.95	19.35	19.02	20.27	21.04
8		21.70	22.16	22.52	22.30	22.13	21.74	20.96	19.32	19.01	20.36	21.00
9		21.70	22.21	22.52	22.30	22.15	21.79	20.86	19.36	18.96	20.49	20.97
10		21.70	22.27	22.43	22.32	21.95	21.73	20.82	19.37	18.93	20.59	20.99
11		21.68	22.20	22.41	22.43	21.88	21.61	20.75	19.42	18.89	20.56	21.02
12		21.71	22.19	22.50	22.36	21.89	21.56	20.70	19.46	18.87	20.52	21.05
1.3		21.85	22.25	22.42	22.31	22.00	21.57	20.61	19.47	18.86	20.55	21.06
14		21.85	22.23	22.50	22.30	22.01	21.58	20.53	19.53	18.82	20.57	21.08
15		21.78	22.25	22.47	22.27	21.90	21.50	20.48	19.53	18.80	20.56	21.07
16		21.74	22.30	22.54	22.36	21.91	21.71	20.44	19.49	18.77	20.54	21.07
17		21.73	22.30	22.51	22.48	21.99	21.70	20.34	19.43	18.74	20.55	21.09
18		21.78	22.30	22.46	22.55	22.03	21.67	20.28	19.40	18.72	20.55	21.12
19		21.81	22.31	22.43	22.12	22.03	21.69	20.25	19.42	18.69	20.54	21.14
20		21.84	22.33	22.42	22.12	22.07	21.62	20.22	19.42	18.79	20.58	21.16
21		21.90	22.35	22.43	22.07	22.00	21.59	20.19	19.41	18.79	20.61	21.19
22		21.90	22.41	22.46	22.10	21.91	21.55	20.13	19.35	18.80	20.68	21.23
23		21.85	22.36	22.47	22.13	22.28	21.51	20.08	19.35	18.78	20.73	21.22
24		21.81	22.30	22.43	22.07	22.25	21.46	20.05	19.33	18.75	20.76	21.26
25		21.92	22.27	22.39	22.05	22.23	21.38	19.99	19.31	18.86	20.79	21.28
26		21.97	22.22	22.39	22.13	22.21	21.35	19.94	19.31	18.99	20.77	21.29
27		21.94	22.26	22.41	22.14	22.19	21.25	19.88	19.29	19.13	20.78	21.33
28		21.95	22.29	22.41	22.09	22.19	21.15	19.81	19.25	19.25	20.83	21.32
29		22.01	22.37	22.44		22.11	21.15	19.75	19.25	19.35	20.84	21.37
30		22.08	22.32	22.36		22.07	21.20	19.69	19.25	19.44	20.90	21.38
31			22.25	22.35		22.06		19.67		19.49	20.89	
MAX		22.08	22.41	22.54	22.55	22.28		21.21	19.61	19.49	20.90	21.38



STATION NUMBER 391408084264100 AF-5S
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		16.5	16.5	17.2	17.8	18.1	18.0	17.1	16.8	16.9	16.6	16.5
2		16.5	16.5	17.2	17.8	18.1	18.0	17.1	16.8	16.9	16.6	16.5
3		16.5	16.5	17.3	17.8	18.1	17.9	17.0	16.8	16.9	16.6	16.5
4		16.5	16.5	17.3	17.8	18.2	17.9	17.0	16.8	16.9	16.6	16.5
5		16.4	16.5	17.3	17.8	18.2		17.0	16.8	16.9	16.6	16.5
6		16.5	16.5	17.4	17.8	18.2	17.8	17.0	16.8	16.9	16.6	16.5
7		16.5	16.5	17.4	17.9	18.2	17.7	17.0	16.8	16.8	16.6	16.5
8		16.5	16.5	17.4	17.9	18.2	17.7	17.0	16.8	16.8	16.6	16.5
9		16.5	16.6	17.4	17.9	18.2	17.6	16.9	16.8	16.8	16.6	16.5
10		16.5	16.6	17.4	17.9	18.2	17.6	16.9	16.8	16.8	16.6	16.5
11		16.5	16.5	17.5	17.9	18.2	17.5	16.9	16.8	16.8	16.5	16.5
12		16.5	16.5	17.5	17.9	18.2	17.5	16.9	16.8	16.8	16.5	16.5
13		16.5	16.5	17.5	17.9	18.2	17.5	16.9	16.8	16.7	16.5	16.5
14		16.5	16.6	17.5	17.9	18.2	17.4	16.9	16.7	16.7	16.5	16.5
15		16.5	16.6	17.6	17.9	18.2	17.4	16.9	16.7	16.7	16.5	16.5
16		16.5	16.6	17.6	17.9	18.2	17.4	16.9	16.7	16.7	16.5	16.5
17		16.5	16.6	17.6	18.0	18.2	17.4	16.9	16.7	16.7	16.5	16.5
18		16.5	16.6	17.6	18.1	18.2	17.3	16.9	16.7	16.7	16.5	16.5
19		16.5	16.6	17.6	18.1	18.2	17.3	16.8	16.7	16.7	16.5	16.5
20		16.5	16.6	17.6	18.1	18.2	17.3	16.8	16.7	16.7	16.5	16.5
21		16.5	16.6	17.6	18.1	18.2	17.2	16.8	16.7	16.7	16.5	16.5
22		16.5	16.6	17.7	18.1	18.2	17.2	16.8	16.7	16.6	16.5	16.5
23		16.5	16.6	17.7	18.1	18.2	17.2	16.8	16.7	16.6	16.5	16.4
24		16.5	16.7	17.7	18.1	18.3	17.2	16.8	16.8	16.6	16.5	16.4
25		16.5	16.8	17.7	18.1	18.3	17.1	16.8	16.8	16.6	16.5	16.5
26		16.5	16.8	17.7	18.1	18.2	17.1	16.8	16.8	16.6	16.5	16.4
27		16.5	16.9	17.7	18.1	18.2	17.1	16.8	16.8	16.6	16.5	16.5
28		16.5	17.0	17.7	18.1	18.2	17.1	16.8	16.8	16.6	16.5	16.5
29		16.5	17.0	17.8		18.1	17.1	16.8	16.8	16.6	16.5	16.5
30		16.5	17.1	17.8		18.0	17.1	16.8	16.9	16.6	16.5	16.5
31			17.1	17.8		18.0		16.8		16.6	16.5	
MAX		16.5	17.1	17.8	18.1	18.3		17.1	16.9	16.9	16.6	16.5



Water levels in wells on former Air Force Plant 36, Evendale, Ohio, in January 1998 [ft, feet; MP, measuring point; asl, above sea level]

Well	Latitude	Longitude	Well depth (ft)	Altitude at MP (ft asl)	Date and time	Depth to water (ft below MP)
AF-1D	39°14′17.60″	84°26′38.08″	118.00	559.658	1998/01/05 16:34	22.63
AF-1P	39°14′17.60″	84°26′38.22″	29.00	559.381	1998/01/05 16:39	19.24
					1998/01/07 17:30	19.19
AF-1S	39°14′17.55″	84°26′38.08″	49.50	559.447	1998/01/05 16:37	20.51
					1998/01/07 16:50	20.20
AF-2P	39°14′12.19″	84°26′37.53″	33.00	563.212	1998/01/05 15:03	23.69
					1998/01/08 12:50	23.57
AF-2S	39°14′12.15″	84°26′37.57″	51.50	562.470	1998/01/05 15:01	24.10
					1998/01/08 12:50	23.59
AF-3P	39°14′11.36″	84°26′39.09″	32.00	561.621	1998/01/05 14:56	22.23
					1998/01/08 14:48	22.12
AF-3S	39°14′11.35″	84°26′39.15″	55.00	561.792	1998/01/05 14:58	23.54
					1998/01/08 14:48	23.06
AF-4P	39°14′10.21″	84°26′39.15″	34.50	561.718	1998/01/05 14:53	22.56
					1998/01/08 14:53	22.43
AF-4S	39°14′10.23″	84°26′39.12″	54.00	562.070	1998/01/05 14:51	24.02
					1998/01/08 14:54	23.57
AF-5D	39°14′07.32″	84°26′39.62″	111.00	561.648	1998/01/05 14:31	25.94
					1998/01/08 15:01	25.34
AF-5P	39°14′07.25″	84°26′39.65″	34.00	561.230	1998/01/05 14:30	22.58
					1998/01/08 15:00	22.38
AF-5S	39°14′07.29″	84°26′39.64″	55.00	561.561	1998/01/05 14:30	23.90
					1998/01/08 15:00	24.37
AF-6P	39°14′08.91″	84°26′45.15″	33.00	561.598	1998/01/05 14:20	24.72
					1998/01/08 15:22	22.58
AF-6S	39°14′08.88″	84°26′45.16″	51.00	562.589	1998/01/05 14:22	22.74
					1998/01/08 15:22	24.26
AF-7D	39°14′03.30″	84°26′42.76″	120.00	561.100	1998/01/05 11:50	26.10
					1998/01/08 15:03	25.44
AF-7P	39°14′03.20″	84°26′42.77″	38.00	561.077	1998/01/05 12:00	23.41
					1998/01/08 15:02	23.04
AF-7S	39°14′03.24″	84°26′42.78″	55.00	561.901	1998/01/05 11:55	24.43
					1998/01/08 15:03	23.98
AF-8D	39°14′03.49″	84°26′48.94″	101.00	560.757	1998/01/05 12:17	26.40
					1998/01/08 15:06	25.75
AF-8S	39°14′03.56″	84°26′49.00″	60.00	561.067	1998/01/05 12:19	25.95
					1998/01/06 14:40	25.85
					1998/01/08 15:07	25.38
AF-9D	39°14′06.16″	84°26′52.90″	91.00	563.811	1998/01/05 13:20	29.64
					1998/01/08 15:32	29.04
AF-9S	39°14′06.13″	84°26′52.82″	60.00	564.080	1998/01/05 13:18	29.90
					1998/01/07 07:30	29.64
					1998/01/08 15:32	29.30
AF-10P	39°14′09.49″	84°26′50.56″	23.80	561.414	1998/01/05 12:53	21.85
					1998/01/06 12:50	21.88
					1998/01/08 15:19	21.83
AF-10S	39°14′09.55″	84°26′50.54″	71.00	561.898	1998/01/05 12:56	27.21
					1998/01/06 12:50	27.16
					1998/01/08 15:20	26.99

Well	Latitude	Longitude	Well depth (ft)	Altitude at MP (ft asl)	Date and time	Depth to water (ft below MP)
AF-11D	39°14′09.01″	84°26′55.57″	106.00	566.075	1998/01/05 14:15	32.03
					1998/01/08 08:35	31.40
					1998/01/08 15:26	31.42
AF-11S	39°14′09.08″	84°26′55.63″	64.00	564.991	1998/01/05 14:13	30.94
					1998/01/08 15:27	30.33
AF-12D	39°14′11.02″	84°27′00.59″	115.00	575.144	1998/01/05 13:29	41.57
					1998/01/08 15:39	40.94
AF-12P	39°14′10.99″	84°27′00.71″	20.00	574.766	1998/01/05 13:25	12.62
					1998/01/08 15:38	12.26
AF-12S	39°14′10.99″	84°27′00.68″	74.00	575.116	1998/01/05 13:27	41.46
					1998/01/08 15:38	40.87
AF-13P	39°14′13.02″	84°26′56.39″	15.40	567.27	1998/01/09 12:45	7.05
AF-15D	39°14′18.00″	84°26′52.39″	116.00	561.50	1998/01/05 15:25	25.42
					1998/01/08 14:47	24.86
					1998/01/14 13:30	25.55
AF-15S	39°14′17.98″	84°26′52.40″	56.00	561.96	1998/01/05 15:23	25.49
					1998/01/08 14:45	24.98
					1998/01/14 15:00	25.56
AF-16D	39°14′18.21″	84°26′46.95″	101.00	562.42	1998/01/05 15:20	25.65
					1998/01/08 14:54	25.12
AF-16P	39°14′18.27″	84°26′46.95″	32.50	562.51	1998/01/05 15:17	21.53
					1998/01/06 16:35	21.52
					1998/01/08 14:52	21.48
AF-17D	39°14′13.12″	84°26′44.43″	100.00	561.162	1998/01/05 15:37	25.32
					1998/01/08 16:15	24.78
AF-17P	39°14′13.11″	84°26′44.36″	32.80	560.955	1998/01/05 15:34	21.40
					1998/01/06 15:50	21.40
					1998/01/08 16:15	21.33
AF-18D	39°14′18.26″	84°27′03.61″	80.00	578.489	1998/01/05 13:34	45.49
					1998/01/08 15:47	43.88
AF-18P	39°14′18.32″	84°27′03.60″	30.00	577.974	1998/01/05 13:32	13.80
					1998/01/08 15:47	13.33
AF-19D	39°14′06.45″	84°26′49.70″	91.50	564.019	1998/01/05 12:39	29.46
					1998/01/08 15:11	28.85
AF-19S	39°14′06.50″	84°26′49.72″	62.50	563.788	1998/01/05 12:36	29.07
					1998/01/06 11:40	29.04
					1998/01/08 15:10	28.47
AF-20D	39°14′07.57″	84°26′50.98″	91.50	562.416	1998/01/05 12:25	27.96
					1998/01/08 15:13	27.32
AF-20S	39°14′07.51″	84°26′50.98″	69.00	562.380	1998/01/05 12:20	27.93
					1998/01/06 07:40	27.87
					1998/01/08 15:14	27.30
AF-21D	39°14′07.60″	84°26′53.06″	90.50	559.99	1998/01/05 13:06	25.28
					1998/01/07 10:00	25.04

## **Ground-Water Records for Former Air Force Plant 36**

Results of water-quality analyses at former Air Force Plant 36, Evendale, OH. Volatile organic compounds were determined by U.S. Environmental Protection Agency method SW8260. Samples were placed in labeled, pre-preserved, laboratory-cleaned sample containers and shipped on ice to Quanterra Environmental Services, Arvada, Col., for analysis. Total petroleum hydrocarbons (sampled only at AF-13P) were determined by U.S. Environmental Protection Agency method E418.1. Samples were collected by use of a bottom-filling teflon bailer. Values presented are the detected quantities of the constituent if not accompanied by a "U" qualifier or the detection limit for the constituent if accompanied by a "U" qualifier. Well locations are presented in a previous table.

[ $\mu$ g/L, micrograms per liter; mg/L, milligrams per liter;  $\mu$ s/cm, microsiemens per centimeter; C, degrees Celsius; WG, ground water; U, undetected at the detection limit given; J, estimated; R, analysis rejected because of quality-control violations; --, not applicable.]

Well	AF-10P	AF-10S	AF-11D	AF-13P	AF-13P
Sample Matrix	WG	WG	WG	WG	WG
Date	01/06/98	01/06/98	01/08/98	01/09/98	01/09/98
Sample Type	Normal	Normal	Normal	Duplicate	Normal
VOLATILE ORGANIC COMPOUNDS (µg/L)					
Acetone	10 UR	25 UR	10 U	100 U	10 U
Benzene	1.0 U	2.5 U	1.0 U	10 U	1.0 U
Bromodichloromethane	1.0 U	2.5 U	1.0 U	10 U	1.0 U
Bromoform	1.0 U	2.5 U	1.0 U	10 U	1.0 U
Bromomethane	2.0 U	5.0 U	2.0 U	20 U	2.0 U
2-Butanone	5.0 UJ	12 UJ	5.0 U	50 U	5.0 U
Carbon disulfide	1.0 U	2.5 U	1.0 U	10 U	1.0 U
Carbon tetrachloride	1.0 U	2.5 U	1.0 U	10 U	1.0 U
Chlorobenzene	1.0 U	2.5 U	1.0 U	10 U	1.0 U
Chloroethane	2.0 U	5.0 U	2.0 U	20 U	2.0 U
Chloroform	1.0 U	2.5 U	1.0 U	10 U	1.0 U
Chloromethane	2.0 U	5.0 U	2.0 UJ	20 U	2.0 UJ
Dibromochloromethane	1.0 U	2.5 U	1.0 U	10 U	1.0 U
1,1-Dichloroethane	1.0 U	31	1.9	10 U	1.0 U
1,2-Dichloroethane	1.0 U	2.5 U	1.0 U	10 U	1.0 U
1,1-Dichloroethene	1.0 U	2.8	0.37 J	10 U	1.0 U
trans-1,2-Dichloroethene	0.50 U	17	1.6	5.0 U	0.50 U
cis-1,2-Dichloroethene	0.50 U	110	8.4	5.0 U	0.50 U
1,2-Dichloropropane	1.0 U	2.5 U	1.0 U	10 U	1.0 U
cis-1,3-Dichloropropene	1.0 U	2.5 U	1.0 U	10 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	2.5 U	1.0 U	10 U	1.0 U
Ethylbenzene	1.0 U	2.5 U	1.0 U	10 U	0.83 J
2-Hexanone	5.0 UJ	12 UJ	5.0 U	50 U	5.0 U
4-Methyl-2-pentanone	5.0 U	12 U	5.0 U	50 U	5.0 U
Methylene chloride	1.0 U 1.0 U	0.52 U	1.0 U 1.0 U	10 U	1.0 U 1.0 U
Styrene	1.0 U 1.0 U	2.5 U 2.5 U	1.0 U 1.0 U	10 U 10 U	1.0 U 1.0 U
1,1,2,2-Tetrachloroethane Tetrachloroethene (Tetrachloroethyle		2.5 U	1.0 U	10 U	1.0 U
Toluene (Tetrachioroethy)	1.0 U	2.5 U	1.0 U	10 U	1.0 U
1,1,1-Trichloroethane	1.0 U	2.5 U	1.0 U	10 U	1.0 U
1,1,2-Trichloroethane	1.0 U	2.5 U	1.0 U	10 U	1.0 U
Trichloroethene (Trichloroethylene)	1.0 U	2.5 U	1.6	10 U	1.0 U
Vinyl chloride	2.0 U	12	6.2	20 U	2.0 U
o-Xylene (1,2-dimethylbenzene)	0.50 U	1.2 U	0.50 U	5.0 U	0.50 U
m,p-Xylene (sum of isomers)	0.50 U	1.2 U	0.50 U	5.0 U	1.0
TOTAL PETROLEUM HYDROCARBONS					
Petroleum hydrocarbons (mg/L)				23.4	16.4
recroted Hydrocarbons (mg/L)				23.4	10.4
FIELD MEASUREMENTS					
Specific conductance (µs/cm)	1,680	1,017	940	510	510
Water temperature (C)	18.9	17.7	17.5	11.7	11.7
pH (standard units)	7.7	7.4	6.9	7.0	7.0

Well Sample Matrix Date	AF-15 WG 01/14	/98	AF-15 WG 01/14	/98	AF-161 WG 01/06	/98	AF-17P WG 01/06/98 Normal		AF-199 WG 01/06	/98
Sample Type	Norma	1	Norma	ıΤ	Normal	L	Norma	1	Normal	Τ
VOLATILE ORGANIC COMPOUNDS (µq/L)										
Acetone	10	U	250	U	10	UR	50	UR	27	U
Benzene	1.0	U	25	U	1.0	UJ	5.0	U	1.5	
Bromodichloromethane	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
Bromoform	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
Bromomethane	2.0	U	50	U	2.0	UJ	10	U	2.0	U
2-Butanone	5.0	U	120	U	5.0	UJ	25	UJ	5.0	UJ
Carbon disulfide	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
Carbon tetrachloride	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
Chlorobenzene	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
Chloroethane	0.71	J	720		2.0	UJ	10	U	2.0	U
Chloroform	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
Chloromethane	2.0	U	50	U	2.0	UJ	10	U	2.0	U
Dibromochloromethane	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
1,1-Dichloroethane	0.73	J	25	U	3.2	J	18		3.8	
1,2-Dichloroethane	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
1,1-Dichloroethene	1.0	U	25	U	3.9	J	8.3		0.29	J
trans-1,2-Dichloroethene	0.36	J	31		0.50	UJ	6.4		7.7	
cis-1,2-Dichloroethene	10		610		0.85	J	44		18	
1,2-Dichloropropane	1.0	U	25	U	1.0	UJ	5.0	U	0.27	J
cis-1,3-Dichloropropene	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
trans-1,3-Dichloropropene	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
Ethylbenzene	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
2-Hexanone	5.0	U	120	U	5.0	UJ	25	UJ	5.0	UJ
4-Methyl-2-pentanone	5.0	U	120	UJ	5.0	UJ	25	U	5.0	U
Methylene chloride	1.0	U	25	U	1.0	UJ	5.0	U	0.44	
Styrene	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
1,1,2,2-Tetrachloroethane	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
Tetrachloroethene (Tetrachloroethylen		U	25	U	0.60	J	4.4	J	1.0	U
Toluene	1.0	U	25	U	1.0	UJ	5.0	U	0.27	
1,1,1-Trichloroethane	1.0	U	25	U	30	J	130		1.0	U
1,1,2-Trichloroethane	1.0	U	25	U	1.0	UJ	5.0	U	1.0	U
Trichloroethene (Trichloroethylene)	1.0	U	25	U	37	J	210		1.0	U
Vinyl chloride	2.2		50	U	2.0	UJ	10	U	24	
o-Xylene (1,2-dimethylbenzene)	0.50		12	U	0.50		2.5	U	0.50	
m,p-Xylene (sum of isomers)	0.50	U	12	U	0.50	UJ	2.5	U	0.50	U
FIELD MEASUREMENTS										
	.014		948		4,580		710		1,113	
Water temperature (C)	17.2		16.9		19.1		20.9		19.0	
pH (standard units)	7.1		7.0		6.7		7.1		7.1	

Well Sample Matrix Date Sample Type	AF-1P WG 01/07 Norma	/98	AF-1S WG 01/07 Norma	/98	AF-208 WG 01/06, Normal	/98	AF-21 WG 01/07 Norma	/98	AF-2P WG 01/08, Norma	
VOLATILE ORGANIC COMPOUNDS (µg/L)										
Acetone	20	U	20	U	33	U	83	UR	10	U
Benzene	2.0	UJ	2.0	U	0.83	J	8.3	U	1.0	U
Bromodichloromethane	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
Bromoform	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
Bromomethane	4.0	U	4.0	U	2.0	U	17	U	2.0	U
2-Butanone	10	U	10	U	5.0	UJ	42	UJ	5.0	U
Carbon disulfide	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
Carbon tetrachloride	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
Chlorobenzene	2.0	UJ	2.0	U	1.0	U	8.3	U	1.0	U
Chloroethane	4.0	U	4.0	U	2.4		17	U	2.0	U
Chloroform	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
Chloromethane	4.0	U	4.0	U	2.0	U	17	U	2.0	UJ
Dibromochloromethane	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
1,1-Dichloroethane	2.0	U	23		14		22		0.93	J
1,2-Dichloroethane	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
1,1-Dichloroethene	2.0	U	1.8	J	0.24	J	5.1	J	1.0	U
trans-1,2-Dichloroethene	1.0	U	0.57	J	9.4		19		0.50	U
cis-1,2-Dichloroethene	1.0	U	67		6.1		300		0.20	J
1,2-Dichloropropane	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
cis-1,3-Dichloropropene	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
trans-1,3-Dichloropropene	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
Ethylbenzene	2.0	UJ	2.0	U	0.20	J	8.3	U	1.0	U
2-Hexanone	10	U	10	U	5.0	UJ	42	UJ	5.0	U
4-Methyl-2-pentanone	10	U	10	U	5.0	U	42	U	5.0	U
Methylene chloride	2.0	U	2.0	Ū	1.0	Ū	8.3	U	1.0	U
Styrene	2.0	UJ	2.0	U	1.0	U	8.3	U	1.0	U
1,1,2,2-Tetrachloroethane	2.0	U	2.0	U	1.0	U	8.3	U	1.0	U
Tetrachloroethene (Tetrachloroethylen	e) 1.0	J	2.0	U	1.0	U	8.3	U	1.0	U
Toluene	2.0	UJ	2.0	U	1.3		8.3	U	1.0	Ū
1,1,1-Trichloroethane	45		6.7	-	1.0	U	8.3	IJ	8.5	-
1,1,2-Trichloroethane	2.0	U	2.0	IJ	1.0	U	8.3	IJ	1.0	IJ
Trichloroethene (Trichloroethylene)	67		2.1		1.0	IJ	13		31	
Vinyl chloride	4.0	IJ	13		25	Ü	6.0	J	2.0	IJ
o-Xylene (1,2-dimethylbenzene)	1.0	UJ	1.0	IJ	0.33	.T	4.2	IJ	0.50	-
m,p-Xylene (sum of isomers)	1.0	UJ	1.0	Ū	0.20		4.2	Ū	0.50	
FIELD MEASUREMENTS										
Specific conductance (µs/cm)	438		859		1,075		936		1,750	
Water temperature (C)	19.2		18.1		18.3		17.9		16.8	
pH (standard units)	8.2		7.4		7.2		7.0		6.9	

Well Sample Matrix Date Sample Type	AF-2S WG 01/08 Norma	/98	AF-8S WG 01/06 Dupli	/98	AF-8S WG 01/06, Normal		AF-9S WG 01/07, Norma	
			-					
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	50	U	17	U	13	U	11	U
Benzene	5.0	U	2.3	J	2.2	J	0.63	
Bromodichloromethane	5.0	U	2.5	U	2.5	U	2.5	U
Bromoform	5.0	U	2.5	U	2.5	U	2.5	U
Bromomethane	10	U	5.0	U	5.0	U	5.0	U
2-Butanone	25	U	12	UJ	12	UJ	12	UJ
Carbon disulfide	5.0	U	2.5	U	2.5	U	2.5	U
Carbon tetrachloride	5.0	U	2.5	U	2.5	U	2.5	U
Chlorobenzene	5.0	U	2.5	U	2.5	U	2.5	U
Chloroethane	10	_	6.4		6.2		5.0	U
Chloroform	5.0	U	2.5	U	2.5	U	2.5	IJ
Chloromethane Dibromochloromethane	10 5.0	UJ U	5.0 2.5	IJ	5.0 2.5	IJ	5.0 2.5	IJ
		U	7.9	U		U		U
1,1-Dichloroethane	63 5.0	IJ	2.5	IJ	8.2 2.5	IJ	17	IJ
1,2-Dichloroethane 1,1-Dichloroethene	4.9	J	2.5	ΙΙ	0.76	-	2.5 1.1	J
	5.5	J	13	U		J	1.1	J
trans-1,2-Dichloroethene cis-1,2-Dichloroethene			13 77		14 79		93	
1,2-Dichloropropane	210 5.0	IJ	2.5	IJ	2.5	IJ	2.5	
	5.0	IJ	2.5	IJ	2.5	IJ	2.5	U
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	5.0	IJ	2.5	IJ	2.5	IJ	2.5	IJ
Ethylbenzene	5.0	IJ	2.5	IJ	2.5	IJ	2.5	U
2		IJ		IJIJ		IJIJ		UJJ
2-Hexanone	25 25	IJ	12 12	IJ	12 12	IJ	12 12	n n
4-Methyl-2-pentanone	∠5 5.0	IJ	2.5	IJ	2.5	U	2.5	
Methylene chloride		_		-				U
Styrene	5.0	U	2.5	U	2.5	U	2.5	U
1,1,2,2-Tetrachloroethane	5.0	U	2.5	U	2.5	U	2.5	U
Tetrachloroethene (Tetrachloroethyle		U	2.5	U	2.5	U	2.5	U
Toluene	5.0	U	2.5	U	2.5	U	2.5	U
1,1,1-Trichloroethane	5.0	J	2.5	U	2.5	U	2.5	U
1,1,2-Trichloroethane	5.0	U	2.5	U	2.5	U	2.5	U
Trichloroethene (Trichloroethylene)	11	_	2.5	U	2.5	U	2.5	U
Vinyl chloride	2.8	J	44		47		39	
o-Xylene (1,2-dimethylbenzene)	2.5	U	1.2	U	1.2	U	1.2	U
m,p-Xylene (sum of isomers)	2.5	U	1.2	U	1.2	U	1.2	U
FIELD MEASUREMENTS								
Specific conductance (µs/cm)	1,375		1,051		1,051		1,053	
Water temperature (C)	16.8		18.9		18.9		18.8	
pH (standard units)	7.1		7.2		7.2		7.0	

## Long-Term Ground-Water Monitoring Network, Geauga County

The following tables contain ground-water-level measurements from the 32 wells that comprise the long-term ground-water monitoring network in Geauga County. The data were collected as part of a cooperative study with the Geauga County Planning Commission and Board of County Commissioners. The purpose of the study is to determine whether fluctuations in water levels represent consistent, long-term trends caused by human activity or are predominantly the result of seasonal and annual variations in recharge. Precipitation data presented in this section were obtained from National Weather Service station 331458 in Chardon, Ohio. Land-surface datums are accurate within to fit. Water levels known to have been measured after a well had been recently pumped are designated with an enterior (*) asterisk (*).

412331081123000. Local number GE-22 LOCATION.--Lat  $41^{\circ}$  23'31", long  $81^{\circ}12'30"$ ; west of Valley View Road by La Due Reservoir at old Sugar House; Auburn Township.
Owner.--City of Akron.

AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WTR YR 1998

MEAN 13.06 HIGH 12.21 LOW 13.89

WELL CHARACTERISTICS. --Water-supply well located in pit, not currently in use; diameter 6.25 in.; depth 80 ft. INSTRUMENTATION - Pressure transducer and CR10 data logger (records hourly) with SM192 storage module. DATUM.--Elevation of land-surface datum is 1,160 ft above sea level. Measuring point: Mark on wooden base of

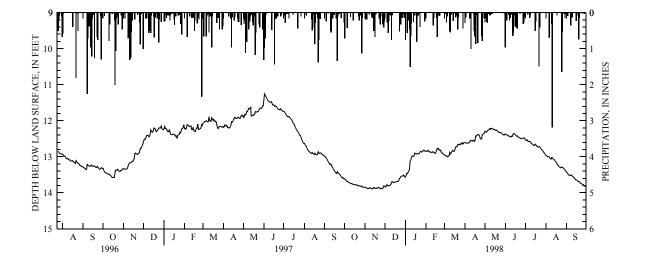
instrument shelter; changed from 3.96 ft below land-surface datum to 3.20 ft above land-surface datum on May 13,

PERIOD OF RECORD.--Periodic water-level measurements from June 8, 1978 through September 8, 1994. Continuous waterlevel data from July 24, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD. -- Highest water level measured, 11.26 ft below land-surface datum, June 2, 1997; lowest

measured, 14.34 ft below land-surface datum, November 12, 1980.

	DEPT	H BELOW LA	AND SURFAC	E (WATER		FEET), WA		OCTOBER	1997 TO SE	PTEMBER 1	998	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	13.62 13.63 13.65 13.68 13.68	13.85 13.85 13.86 13.88 13.89	13.84 13.84 13.83 13.78 13.80	13.56 13.52 13.47 13.47 13.42	12.84 12.85 12.85 12.82 12.82	12.95 12.96 12.98 12.98 13.00	12.61 12.62 12.62 12.63 12.62	12.30 12.30 12.32 12.30 12.27	12.37 12.38 12.39 12.40 12.42	12.53 12.55 12.55 12.53 12.57	12.96 12.97 12.99 13.00	13.41 13.44 13.46 13.50 13.51
6 7 8 9 10	13.70 13.71 13.72 13.73 13.74	13.88 13.88 13.86 13.87 13.88	13.80 13.81 13.81 13.78 13.77	13.39 13.37 13.12 13.09 13.04	12.87 12.86 12.87 12.88 12.88	12.99 12.99 12.97 12.88 12.92	12.62 12.62 12.60 12.55 12.55	12.27 12.25 12.22 12.24 12.22	12.43 12.43 12.45 12.45 12.43	12.58 12.57 12.58 12.60 12.63	13.00 13.04 13.06 13.07 13.02	13.52 13.52 13.51 13.51 13.54
11 12 13 14 15	13.75 13.75 13.76 13.77 13.78	13.89 13.89 13.89 13.86 13.86	13.70 13.69 13.71 13.72 13.71	12.99 12.98 12.99 12.98 12.90	12.86 12.87 12.88 12.90 12.91	12.89 12.85 12.83 12.85 12.85	12.56 12.57 12.55 12.54 12.58	12.21 12.23 12.23 12.24 12.24	12.44 12.41 12.36 12.37 12.37	12.64 12.65 12.67 12.69 12.69	13.03 13.06 13.07 13.09 13.12	13.55 13.58 13.60 13.61 13.64
16 17 18 19 20	13.78 13.78 13.78 13.78 13.80	13.88 13.88 13.88 13.87 13.87	13.70 13.70 13.70 13.69 13.69	12.91 12.92 12.92 12.91 12.92	12.88 12.83 12.77 12.79 12.77	12.84 12.79 12.73 12.72 12.72	12.56 12.42 12.43 12.40 12.39	12.25 12.27 12.26 12.27 12.28	12.39 12.42 12.43 12.42 12.45	12.65 12.67 12.71 12.71 12.73	13.14 13.17 13.20 13.23 13.25	13.64 13.65 13.67 13.68 13.70
21 22 23 24 25	13.80 13.81 13.81 13.81 13.83	13.85 13.86 13.88 13.89 13.88	13.69 13.65 13.60 13.59 13.55	12.92 12.91 12.87 12.85 12.87	12.82 12.83 12.82 12.87 12.90	12.66 12.65 12.66 12.67 12.66	12.38 12.40 12.42 12.49 12.51	12.31 12.32 12.33 12.32 12.33	12.46 12.47 12.48 12.50 12.50	12.73 12.72 12.72 12.77 12.79	13.27 13.29 13.31 13.31 13.28	13.70 13.73 13.75 13.75 13.77
26 27 28 29 30 31	13.82 13.81 13.84 13.85 13.85	13.88 13.89 13.87 13.81 13.81	13.54 13.53 13.54 13.51 13.53 13.57	12.87 12.85 12.82 12.82 12.84 12.85	12.90 12.93 12.94 	12.62 12.65 12.62 12.64 12.61	12.51 12.39 12.38 12.36 12.35	12.35 12.37 12.38 12.39 12.40 12.38	12.50 12.49 12.48 12.48 12.48	12.81 12.83 12.85 12.89 12.90	13.29 13.31 13.33 13.34 13.37	13.78 13.78 13.81 13.82 13.83
MEAN MAX MIN CAL YR	13.76 13.85 13.62	13.87 13.89 13.81 IEAN 12.63	13.69 13.84 13.51 HIGH 11.	13.04 13.56 12.82 26 LOW	12.86 12.94 12.77	12.80 13.00 12.61	12.51 12.63 12.35	12.29 12.40 12.21	12.43 12.50 12.36	12.69 12.94 12.53	13.16 13.40 12.96	13.63 13.83 13.41



412309081202400. Local number GE-23
LOCATION.--Lat 41°23'09", long 81°20'24"; Alltel building on Bainbridge Rd., west of S.R. 306; Bainbridge Township.
Owner.--Alltel Telephone Company.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.--Commercial water-supply well; diameter 5.63 in.; depth 42.5 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,162 ft above sea level. Measuring point: Top of casing, 1.32 ft above land-surface datum.

PERIOD OF RECORD.--April 26,1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.46 ft below land-surface datum, April 26, 1978;

lowest measured, 19.37 ft below land-surface datum, January 16, 1996.

#### WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM

Date	Water Level
10-08-97	18.43
12-10-97	18.73
02-24-98	17.35
04-20-98	16.28
06-16-98	16.31
08-25-98	17.24

413138081152000. Local number, GE-76
LOCATION.--Lat 41°31'38", long 81°15'20"; 10755 Mayfield Road; Munson Township.
Owner.--Fowler's Mill Christian Church.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Private water-supply well; diameter 6.0 in.; depth 150 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,170 ft above sea level. Measuring point: Top of casing, 1.68 ft above land-surface datum.

PERIOD OF RECORD.--June 15, 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.19 ft below land-surface datum, June 15, 1978; lowest measured, 24.50 ft below land-surface datum, May 9, 1986 and August 21, 1986.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
10-09-97	22.37
12-09-97	22.52
02-25-98	22.27
04-20-98	21.98
06-17-98	22.12*
08-27-98	22.66*

412627081075400. Local number, GE-83 LOCATION.--Lat 41°26'27", long 81°07'54"; 15776 Jug Street; Burton Township. Owner.--Privately owned. AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.--Domestic water-supply well, diameter 6.0 in.; depth 70 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,220 ft above sea level. Measuring point: Top of casing, 1.00 ft above

land-surface datum.
PERIOD OF RECORD.--June 14,1978 to current year.

EXTREMES FOR PERIOD OF RECORD. -- Highest water level measured, 27.59 ft below land-surface datum, August 14, 1985; lowest measured, 33.95 ft below land-surface datum, November 12, 1980.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
10-09-97 12-10-97 02-25-98 04-21-98 06-18-98	31.64 32.03 32.74 31.27 30.54
08-26-98	31.73

412748081143900. Local number, GE-91

LOCATION.--Lat 41°27'48", long 81°14'39"; northeast corner of Auburn Rd. and S.R. 87 intersection; Newbury Township.
Owner.--Dairy Mart.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.--Commercial water-supply well; diameter 5.63 in.; depth 85 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,250 ft above sea level. Measuring point: Top of casing, 1.16 ft above land-surface datum.

PERIOD OF RECORD.--October 19, 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.10 ft below land-surface datum, October 19, 1978; lowest measured, 45.66 ft below land-surface datum, March 27, 1996.

Date	Water Level
10-07-97	43.33
12-09-97	43.71
02-24-98	44.05
04-20-98	43.67
06-18-98	43.35
08-28-98	44.58

413757081122300. Local number, GE-101 LOCATION.--Lat 41°37'57", long 81°12'23"; 12080 Clark Road; Chardon Township.

Owner.--Privately owned.
AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6.25 in.; depth 48 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 990 ft above sea level. Measuring point: Top of casing, 0.90 ft above land-surface datum.

PERIOD OF RECORD.--May 7, 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.81 ft below land-surface datum, March 17, 1997;

lowest measured, 25.08 ft below land-surface datum, August 21, 1986.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
10-09-97	24.17
12-09-97	23.41
02-25-98	22.52
04-21-98	21.63
06-17-98	23.55
08-26-98	24.72
04-21-98	21.63
06-17-98	23.55

413755081101200. Local number, GE-103 LOCATION.--Lat 41°37'55", long 81°10'12"; 8755 Old State Road (S.R. 608); Hambden Township.

Owner.--Part 41 37/35." folig 61 10/12"; 6/35 Old State Road (S.R. 600); hambden fownship.

Owner.--Privately owned.

AQUIFER.--Berea Sandstone of Mississippian age.

WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 136 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,159 ft above sea level. Measuring point: Top of casing, 0.40 ft above land-surface datum.

PERIOD OF RECORD.--May 7, 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 79.44 ft below land-surface datum, May 7, 1980; lowest measured, 91.85 ft below land-surface datum, March 27, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
10-09-97	91.01
12-09-97	90.73
02-25-98	91.01
04-21-98	91.08
06-17-98	90.78
08-26-98	90.97

413456081035600. Local number, GE-106 LOCATION.--Lat 41°34'56", long 81°03'56"; 10691 Clay Street; Montville Township. Owner.--Privately owned. AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.--Domestic water-supply well, diameter 5.63 in.; depth 72 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,255 ft above sea level. Measuring point: Top of casing, 1.20 ft above

land-surface datum.
PERIOD OF RECORD.--May 7, 1980 to current year.

EXTREMES FOR PERIOD OF RECORD .-- Highest water level measured, 30.84 ft below land-surface datum, May 7, 1980; lowest measured, 37.44 ft below land-surface datum, May 29, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
10-09-97 12-09-97 02-25-98 04-21-98 06-17-98 08-26-98	35.03 35.25 35.48 35.59 35.29
00 20 50	33.41

413207081044400. Local number GE-112

LOCATION.--Lat 41°32'07", long 81°04'44"; by golf course maintenance building at 15900 Mayfield Road; Huntsburg

Township.
Owner.--Rolling Green Golf Course.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.--Commercial water-supply well for shop and house (not used for irrigation); diameter 5.63 in.;

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,265 ft above sea level. Measuring point: Top of casing, 1.30 ft above land-surface datum.

PERIOD OF RECORD.--May 8, 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.86 ft below land-surface datum, May 5, 1980; lowest measured, 48.77 ft below land-surface datum, March 27, 1996.

Date	Water Level
10-09-97	46.33
12-09-97	46.42
02-24-98	46.59
04-20-98	46.76
06-17-98	46.60
08-26-98	46.48

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412657081040500. Local number GE-119
LOCATION.--Lat 41°26'57", long 81°03'57"; 15400 S.R. 608; Middlefield Township.
Owner.--Geauga County Airport.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Commercial water-supply well; diameter 5.63 in.; depth 79 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,170 ft above sea level. Measuring point: Top of casing, 1.50 ft above
        land-surface datum.
PERIOD OF RECORD.--August 20, 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.96 ft below land-surface datum, August 20, 1980;
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#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
10-08-97 12-09-97 02-25-98 04-20-98 06-16-98	14.21 13.80 13.37 12.78
08-25-98	13.39

412841081023200. Local number, GE-136 LOCATION.--Lat 41°28'41", long 81°02'32"; 16826 Nauvoo Road; Middlefield Township. Owner.--Privately owned. AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

lowest measured, 15.31 ft below land-surface datum, March 28, 1996.

WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 58 ft; water level not static in spring

and summer months (pump removes approximately 1 gal/min of water from well during the growing season).

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,130 ft above sea level. Measuring point: Top of casing 1.20 ft above

land-surface datum.

PERIOD OF RECORD.--August 8, 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.31 ft below land-surface datum, May 8, 1986; lowest measured, 24.27 ft below land-surface datum, May 28, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
10-08-97	21.11*
12-10-97	17.15
02-25-98	15.97
04-20-98	16.18*
06-16-98	16.72*
08-25-98	18.15*

412138081072000.

412138081072000. Local number GE-139 LOCATION.--Lat 41°21'38", long 81°07'20"; 14515 Hoover Road; Troy Township.

Owner. -- Privately owned.

Owner.--Privately Owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 90 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,171 ft above sea level. Measuring point: Top of casing, 0.37 ft above land-surface datum.

PERIOD OF RECORD.--August 15, 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.85 ft below land-surface datum, May 14, 1997; lowest measured, 37.14 ft below land-surface datum, August 25, 1998.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
10-08-97	37.01*
12-10-97	37.06*
02-25-98	35.84
04-20-98	33.56
06-16-98	34.44
08-25-98	37.14

413155081214900. Local number GE-150
LOCATION.--Lat 41°31'55", long 81°21'49"; 12390 Caves Road; Chester Township.
Owner.--Privately owned.

AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS. -- Domestic water-supply well, diameter 6.63 in.; depth 90 ft. INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,220 ft above sea level. Measuring point: Top of casing, 1.55 ft above land-surface datum.
PERIOD OF RECORD.--February 13, 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.07 ft below land-surface datum, May 14, 1997; lowest measured, 26.20 ft below land-surface datum, September 11, 1996.

Date	Water Level
10-08-97	24.42
12-10-97 02-25-98	25.01 24.93
04-21-98	23.46
06-18-98 08-27-98	24.72 26.01
00 27 50	20.01

### Long-Term Ground-Water Monitoring Network, Geauga County

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412415081033500. Local number GE-163
LOCATION.--Lat 41°24'15", long 81°03'35"; 17115 Madison Road; Parkman Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 60 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,182 ft above sea level. Measuring point: Top of casing, 1.10 ft above
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land-surface datum.

PERIOD OF RECORD.--February 5, 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.17 ft below land-surface datum, February 5, 1986;

lowest measured, 15.81 ft below land-surface datum, September 9, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
10-08-97	15.41
12-10-97	14.64
02-25-98	14.31
04-20-98	13.78
06-16-98	14.18*
08-25-98	15.64

412454081162400. Local number GE-166
LOCATION.--Lat 41°24'54", long 81°16'24"; 16725 Munn Road; Auburn Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 155 ft.

WALL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 155 it.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,260 ft above sea level. Measuring point: Top of casing, 1.88 ft above land-surface datum.

PERIOD OF RECORD.--February 4, 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.37 ft below land-surface datum, July 16, 1997; lowest measured, 69.18* ft below land-surface datum, March 27, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
10-07-97	50.56
12-10-97	65.64*
02-24-98	54.20
04-20-98	51.28
06-18-98	49.49
08-25-98	52.10 (+0.5 ft)

412311081213000. Local number, GE-170 LOCATION.--Lat 41°23'11", long 81°21'30"; 7956 Bainbridge Road; Bainbridge Township. Owner.--Privately owned. AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.--Domestic water-supply well, diameter 5.63 in.; depth 92 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,110 ft above sea level. Measuring point: Top of casing, 1.47 ft above land-surface datum
PERIOD OF RECORD.--February 4, 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.82 ft below land-surface datum, November 19, 1996;

lowest measured, 50.00 ft below land-surface datum, August 18, 1986.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
10-08-97 12-10-97 02-24-98 04-20-98 06-16-98 08-25-98	46.63 46.24 48.31 44.30 45.77 47.62

413630081145000. Local number, GE-185A LOCATION.--Lat 41°36'30", long 81°14'50"; 9673 Mentor Road; Chardon Township. Owner.--Privately owned. AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.5 in.; depth 90 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,260 ft above sea level. Measuring point: Top of casing 0.84 ft above land-surface datum

PERIOD OF RECORD.--January 1, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.39 ft below land-surface datum, November 21, 1996; lowest measured, 36.05 ft* below land-surface datum, August 26, 1998.

Date	Water Level
10-09-97	35.68
12-09-97	35.43
02-25-98	34.42
04-21-98	33.36
06-17-98	34.31
00 00 00	26 054

413607081032500. Local number, GE-202 LOCATION.--Lat 41°36'07", long 81°03'25"; 9999 Plank Road; Montville Township.

Owner.--Privately owned.

AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 74 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,247 ft above sea level. Measuring point: Top of casing, 1.60 ft above land-surface datum.

PERIOD OF RECORD.--February 10, 1986 to current year. EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.60 ft below land-surface datum, February 10, 1986; lowest measured, 30.30 ft below land-surface datum, September 6, 1994.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
10-09-97 12-09-97 02-25-98 04-21-98 06-17-98 08-27-98	29.67 29.59 29.53 29.37 29.55 29.95
00 2. 00	20.00

413357081214800. Local number, GE-255 LOCATION.--Lat 41°33'57", long 81°21'48"; 11240 Caves Road; Chester Township.

Owner.--Part 41 33 37 7 Tong 61 21 46 7 11240 Caves Road; Chester Township.

Owner.--Privately owned.

AQUIFER.--Berea Sandstone of Mississippian age.

WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 123 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,075 ft above sea level. Measuring point: Top of casing, 2.08 ft above land-surface datum.

PERIOD OF RECORD.--September 8, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.32 ft below land surface datum, May 14, 1997; lowest maeasured, 54.04 ft below land-surface datum, January 17, 1996 and July 16, 1997.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
10-08-97	53.77*
12-09-97	52.43
02-25-98	52.25
04-21-98	52.32
06-17-98	52.60
08-27-98	52.96

413634081103500. Local number, GE-262 LOCATION.--Lat 41°36'34", long 81°10'35"; 9593 Wildwood Road; Hambden Township. Owner.--Privately owned. AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6 in.; depth 100 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,200 ft above sea level. Measuring point: Top of casing 1.60 ft above

land-surface datum
PERIOD OF RECORD.--September 7, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.19 ft below land-surface datum, September 10, 1996; lowest measured, 40.26 ft below land-surface datum, March 27, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
10-09-97	34.30
12-09-97	36.37
02-25-98	37.26
04-21-98	36.78
06-17-98	35.82*
08-26-98	36.85

413127081025900. Local number, GE-280 LOCATION.--Lat 41°31'27", long 81°02'59"; 12972 Madison Road; Huntsburg Township. Owner.--Privately owned. AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6 in.; depth 162 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,145 ft above sea level. Measuring point: Top of casing 1.45 ft above land-surface datum

PERIOD OF RECORD.--September 8, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.26 ft below land-surface datum, April 20, 1998; lowest measured, 35.05 ft below land-surface datum, September 8, 1994.

Date	Water Level
10-09-97	34.01
12-09-97	33.33
02-24-98	32.61
04-20-98	32.26
06-17-98	33.65
08-26-98	34.13

## Long-Term Ground-Water Monitoring Network, Geauga County

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413350081163500. Local number, GE-303
LOCATION.--Lat 41°33'50", long 81°16'35"; 10250 Mulberry Road; Munson Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6 in.; depth 95 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,230 ft above sea level. Measuring point: Top of casing 1.60 ft above
       land-surface datum
PERIOD OF RECORD.--September 7, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.23 ft below land-surface datum, May 14, 1997;
       lowest measured, 62.63 ft below land-surface datum, September 10, 1996.
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#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
10-09-97 12-09-97 02-25-98 04-21-98 06-17-98 08-27-98	62.32 62.47 62.14 59.85 61.92 62.50
00 27 30	02.30

413315081134200. Local number, GE-308 LOCATION.--Lat 41°33'15", long 81°13'42"; 11675 Chestnutdale Drive; Munson Township. Owner.--Privately owned. AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS. -- Domestic water-supply well; diameter 6 in.; depth

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,165 ft above sea level. Measuring point: Top of casing 1.68 ft above land-surface datum

PERIOD OF RECORD.--September 7, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.06 ft below land-surface datum, April 20, 1998; lowest measured, 24.80 ft below land-surface datum, July 15, 1996.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
12-10-97	20.94
02-25-98	20.21
04-20-98	20.06
06-17-98	20.45
08-27-98	22.41

412558081184200. Local number GE-332
LOCATION.--Lat 41°25'58", long 81°18'42"; 103 Silver Springs; Russell Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS. -- Domestic water-supply well; diameter 5.63 in.; depth 104 ft. INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM. -- Elevation of land-surface datum is 1,180 ft above sea level. Measuring point: Top of casing, 1.14 ft above land-surface datum.

PERIOD OF RECORD.--September 8, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.83 ft below land-surface datum, May 14,1997; lowest measured, 34.89 ft below land-surface datum, September 9, 1996.

### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Level
10-07-97	34.06
12-09-97	34.25*
02-25-98	34.06
04-20-98	33.91
06-16-98	33.86
08-28-98	34 27

412743081195700. Local number, GE-338 LOCATION.--Lat 41°27'43", long 81°19'57"; 14940 Surrey Downs; Russell Township.

Owner. -- Privately owned.

Owner.--Privately owned.
AQUIFER.--Berea Sandstone of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.56 in.; depth 160 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,078 ft above sea level. Measuring point: Top of casing, 1.38 ft above land-surface datum.

PERIOD OF RECORD.--September 8, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 58.84 ft below land-surface datum, September 8, 1994; lowest measured, 73.29 ft below land-surface datum, January 22, 1997.

Date	Water Level
10-08-97	59.99
12-10-97	61.36*
02-25-98	59.53
04-20-98	59.87
06-18-98	59.80*
08-26-98	60.82

414121081030800. Local number, GE-341 LOCATION.--Lat 41°41'21", long 81°03'08"; 6758 Madison Road; Thompson Township. Owner.--Thompson United Methodist Church. AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS. --Private water-supply well; diameter 6.63 in.; depth 120 ft.

INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.

DATUM. --Elevation of land-surface datum is 1,267 ft above sea level. Measuring point: Top of casing 2.00 ft above land-surface datum

PERIOD OF RECORD.--September 7, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.12 ft below land-surface datum, November 20, 1996;

lowest measured, 10.11 ft below land-surface datum, September 7, 1994.

#### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

Date	Water Leve
10-09-97	7.26
12-10-97	6.01
02-25-98	5.02
04-21-98	4.37
06-17-98	6.44
08-26-98	8.12

413957081052100. Local number, GE-343
LOCATION.--Lat 41°39'57", long 81°05'21"; 15554 Valentine Road; Thompson Township.
Owner.--Privately owned.
AQUIFER.--Berea Sandstone of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 120 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,145 ft above sea level. Measuring point: Top of casing, 1.60 ft above land-surface datum.

PERIOD OF RECORD.--September 7, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 69.40 ft below land-surface datum, May 14, 1997; lowest measured, 72.93 ft below land-surface datum, September 7, 1994.

Water Level
72.42
70.83 70.44
70.13
72.92 72.19 (+1 ft)

# Long-Term Ground-Water Monitoring Network, Geauga County

414125081031500. Local number GE-348
LOCATION.--Lat 41°41'25", long 81°03'15"; 66506 W. Thompson Road; Thompson Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 6.0 in.; depth 53 ft.
INSTRUMENTATION - Pressure transducer and CR10 data logger (records hourly) with SM192 storage module.
DATUM.--Elevation of land-surface datum is 1,265 ft above sea level. Measuring point: Mark on wooden base of

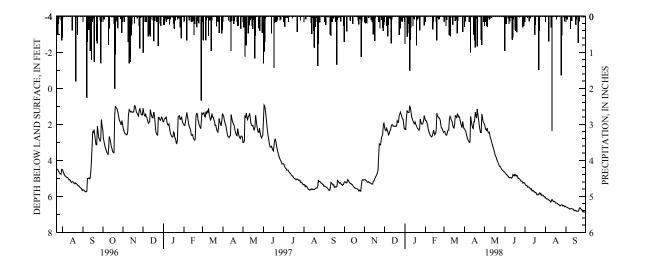
instrument shelter, 2.55 ft above land-surface datum.

PERIOD OF RECORD.--July 23, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.93 ft below land-surface datum, June 2, 1997; lowest measured, 6.88 ft below land-surface datum, September 30, 1998.

	DEPTH	BELOW	LAND SURFACE	(WATER		(FEET), W		OCTOBER	1997 TO	SEPTEMBER	1998	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	5.21 5.18 5.21 5.26 5.25	5.07 5.08 5.12 5.17 5.21	2.16 2.31 2.36 2.21 2.30	2.24 2.31 1.69 1.23 1.32	1.79 1.80 1.92 2.05 2.27	2.40 2.39 2.55 2.60 2.58	2.28 2.35 2.41 2.62 2.75	1.98 2.12 2.30 2.33 2.20	4.69 4.74 4.77 4.82 4.87	5.38 5.37 5.39	6.07 6.13 6.13 6.15 6.16	6.57 6.60 6.61 6.64 6.65
6 7 8 9 10	5.07 5.11 5.17 5.24 5.28	5.22 5.19 5.22 5.27 5.27	2.43 2.57 2.51 2.37 2.32	1.34 1.34 1.00 1.06 1.28	2.41 2.50 2.60 2.65 2.69	2.41 2.32 2.32 1.70 1.55	2.86 2.92 3.00 2.98 1.56	2.40 2.48 2.43 2.60 2.73	4.89 4.96 4.97 4.96	5.48 5.52 5.60	6.21 6.22 6.25 6.32 6.26	6.70 6.70 6.70 6.67 6.68
11 12 13 14 15	5.28 5.33 5.34 5.41 5.47	5.30 5.32 5.31 5.16 5.14	2.08 2.02 2.02 2.10 2.09	1.57 1.71 1.83 1.91 1.96	2.64 2.51 2.32 2.46 2.58	1.65 1.78 1.84 2.07 2.17	1.81 2.01 2.18 2.24 1.86	2.86 3.00 3.14 3.27 3.38	4.98 4.94 4.80 4.84	5.69 5.67 5.71	6.17 6.22 6.29 6.27 6.29	6.70 6.72 6.78 6.77 6.80
16 17 18 19 20	5.49 5.54 5.54 5.56 5.58	5.04 4.94 4.88 4.81 4.70	2.11 2.09 2.11 2.09 1.81	1.86 2.00 2.08 2.16 2.24	2.50 2.39 1.37 1.53	2.21 1.98 1.52 1.54 1.65	1.85 1.32 1.52 1.65 1.14	3.54 3.71 3.78 3.87 3.99	4.86 4.80 4.87 4.84 4.88	5.77 5.80 5.89	6.36 6.38 6.37 6.40 6.44	6.79 6.82 6.82 6.83 6.82
21 22 23 24 25	5.59 5.64 5.70 5.65 5.68	4.53 3.81 3.06 3.14 3.13	1.87 1.89 1.51 1.44 1.32	2.27 2.33 2.25 1.70 1.90	1.65 1.65 1.78 1.99 2.18	1.43 1.49 1.59 1.58 1.72	1.42 1.67 1.94 2.25 2.46	4.09 4.17 4.26 4.34 4.36	5.01 5.01 5.03 5.08 5.15	5.88 5.82 5.87	6.45 6.48 6.53 6.50 6.48	6.70 6.63 6.67 6.71
26 27 28 29 30 31	5.71 5.37 5.12 5.08 5.10 5.07	2.86 2.66 2.57 2.06 1.90	1.43 1.59 1.69 1.74 2.04 2.25	1.99 1.99 1.92 1.79 1.52 1.68	2.22 2.36 2.44 	1.89 2.08 2.18 1.84 2.05 2.23	2.46 1.42 1.65 1.86 1.94	4.44 4.50 4.54 4.58 4.61 4.63	5.15 5.17 5.26 5.23 5.24	5.91 5.94 5.96 6.03	6.46 6.53 6.51 6.51 6.57	6.81 6.87 6.85 6.87 6.88
MEAN MAX MIN	5.36 5.71 5.07	4.40 5.32 1.90	2.03 2.57 1.32	1.79 2.33 1.00	2.17 2.69 1.37	1.98 2.60 1.43	2.08 3.00 1.14	3.44 4.63 1.98	4.95 5.26 4.69	6.03	6.34 6.57 6.07	6.74 6.88 6.57

MEAN 3.41 HIGH .93 LOW 5.71 MEAN 3.92 HIGH 1.00 LOW 6.88 CAL YR 1997 WTR YR 1998



## Long-Term Ground-Water Monitoring Network, Geauga County

413247081103300. Local number GE-349

LOCATION.--Lat 41° 32'47", long 81° 10'33"; 121 Bershire Drive, Aquilla Village; Claridon Township.

Owner.--Privately owned.

AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 5.63 in.; depth 58.19 ft. INSTRUMENTATION - Pressure transducer and CR10 data logger (records hourly) with SM192 storage module. DATUM.--Elevation of land-surface datum is 1,190 ft above sea level. Measuring point: Mark on wooder Mark on wooden base of

instrument shelter, 1.05 ft above land-surface datum.

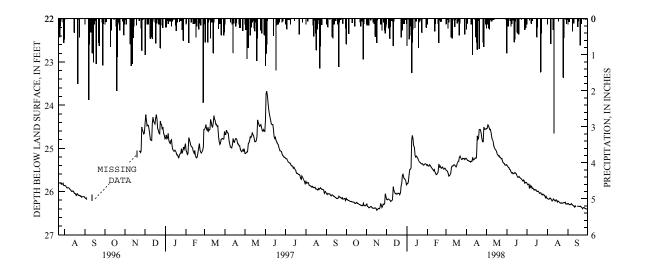
PERIOD OF RECORD.--July 24, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.68 ft below land-surface datum, June 3, 1997; lowest measured, 26.43 ft below land-surface datum, November 16, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY OCT NOV DEC JAN APR MAY JUN JUL AUG SEP 25.38 25.40 25.42 26.16 26.29 26.18 25.82 25.51 25.25 24.54 25.81 26.16 26.29 2 26.19 26.34 26.19 25.82 25.41 25.51 25.28 24.54 25.84 26.17 26.28 26.19 26.21 25.41 25.38 3 26.35 26.18 25.78 25.54 25.28 24.46 25.44 25.83 26.18 26.30 25.29 25.45 26.17 25.60 25.58 25.83 4 26.38 24.48 26.17 26.31 5 26.21 26.19 25.49 25.40 25.64 25.30 24.52 25.49 26.15 26.30 26.37 25.93 25.43 25.45 6 26.22 26.37 26.20 25.48 25.63 25.30 24.57 25.50 25.86 26.17 26.28 26.23 26.35 26.23 25.45 25.61 25.32 24.56 25.54 25.90 26.19 26.30 8 26.23 26.35 26.22 24.81 25.47 25.49 25.58 25.30 24.65 24.76 25.57 25.88 26.22 26.31 26.23 26.21 24.70 25.30 26.20 26.38 25.46 25.56 25.93 26.33 10 26.24 26.38 26.18 24.77 25.52 25.41 25.21 24.80 25.59 25.92 26.17 26.33 26.36 11 26.24 26.39 25.89 24.94 25.49 25.41 25.27 24.84 25.58 25.94 26.19 12 26.25 26.39 25.97 24.98 25.55 25.39 25.26 24.94 25.58 25.97 26.21 26.33 26.25 25.57 25.61 25.38 25.24 25.22 25.56 25.58 25.95 26.22 13 26.38 26.01 25.16 24.99 26.36 26.28 26.38 26.05 25.20 25.39 25.02 25.97 26.19 14 15 26.28 26.39 26.04 25.18 25.60 25.41 25.23 25.04 25.59 25.96 26.20 26.34 16 26.26 26.43 26.06 25.07 25.63 26.00 24.71 24.79 26.22 26.23 17 26.25 26.42 26.06 25.23 25.55 25.40 25.13 25.67 26.00 26.34 26.28 26.40 25.27 25.36 25.43 25.34 25.15 25.67 25.99 26.34 18 26.04 26.04 25.65 19 26.28 26.39 25.30 25.30 24.76 25.18 26.01 26.35 20 26.29 26.40 26.04 25.32 25.41 25.30 24.57 25.17 25.67 26.04 26.26 26.34 26.37 26.07 26.03 26.26 26.27 22 26.31 26.29 26.03 25.35 25.46 25.18 24.58 25.21 25.70 26.03 26.37 25.43 25.44 25.24 25.72 23 26.31 25.87 25.36 25.22 24.64 26.06 26.40 26.32 26.32 26.37 25.23 25.74 26.27 25 26 33 26.34 25.62 25.38 25 48 25.26 24.85 25 29 25.76 26.06 26 26 26.37 25.60 25.33 25.73 26 26.29 25.39 25.48 25.23 24.85 26.08 27 26.27 26.30 25.69 25.37 25.46 25.24 24.51 25.34 25.75 26.08 26.26 26.39 26.27 25.71 25.23 25.35 25.81 26.09 26.25 28 26.32 25.36 25.48 24.56 26.40 24.55 26.33 26.05 25.72 25.36 ---25.26 25.39 25.79 26.29 29 25.75 26.29 30 26.33 26.11 25.37 25.24 24.56 25.39 25.79 26.11 26.40 25.84 25.23 26.28 31 26.31 25.40 25.38 26.15 MEAN 26.27 26.34 26.00 25.31 25.47 25.38 24.98 24.99 25.62 25.98 26.22 26.34 25.32 MAX 26.33 26.43 26.23 25.82 25.61 25.64 25.39 25.81 26.15 26.29 26.40 MTN 26.16 26.05 25.60 24.70 25.36 25.18 24.51 24.46 25.40 25.81 26.15 26.28

CAL YR 1997 MEAN 25.41 HIGH 23.68 LOW 26.43 WTR YR 1998 MEAN 25.74 HIGH 24.46



# Long-Term Ground-Water Monitoring Network, Geauga County

412322081190000. Local number GE-350
LOCATION.--Lat 41°23'32", long 81°19'00"; 9100 Bainbridge Road; Bainbridge Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 6.0 in.; depth 59.87 ft.
INSTRUMENTATION - Pressure transducer and CR10X data logger (records hourly).
DATUM.--Elevation of land-surface datum is 1,120 ft above sea level. Measuring point: Mark on wooden base of

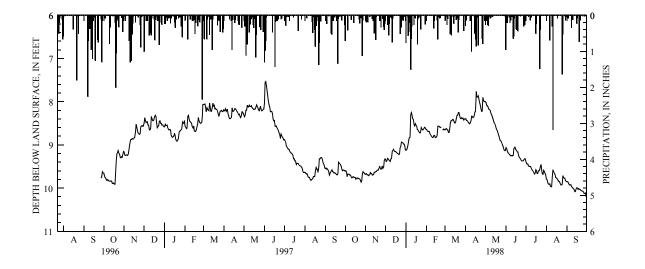
instrument shelter, 0.77 ft above land-surface datum.

PERIOD OF RECORD.--September 26, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.53 ft below land-surface datum, June 3, 1997; lowest measured, 10.20 ft below land-surface datum, September 30, 1998.

	DEPTH	H BELOW	LAND SURFACE	(WATER		(FEET), V MAXIMUM		OCTOBER	1997 TO	SEPTEMBER	1998	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.61	9.67	9.34	9.12	8.64	8.65	8.39	8.00	9.06	9.38	9.79	9.85
2	9.60	9.66	9.38	9.11	8.68	8.63	8.43	8.02	9.09		9.80	9.85
	9.63	9.69	9.37	9.07	8.69	8.62	8.43	8.09	9.14		9.86	9.86
3 4	9.73	9.69	9.31	8.98	8.68	8.65	8.45	8.09	9.18		9.90	9.91
5	9.67	9.71	9.32	8.88	8.69	8.65	8.48	8.13	9.19		9.91	9.93
6	9.68	9.70	9.35	8.83	8.74	8.71	8.50	8.17	9.22		9.90	9.92
7	9.68	9.69	9.37	8.82	8.76	8.71	8.51	8.18	9.23		9.95	9.92
8	9.70	9.64	9.38	8.31	8.79	8.62	8.49	8.20	9.25		9.97	9.96
9	9.70	9.66	9.32	8.25	8.81	8.49	8.44	8.26	9.25		9.96	9.98
10	9.74	9.66	9.31	8.30	8.83	8.44	8.33	8.29	9.24	9.57	9.74	10.00
11	9.76	9.70	9.14	8.39	8.82	8.44	8.34	8.33	9.25	9.59	9.57	10.01
12	9.75	9.69	9.13	8.41	8.78	8.41	8.37	8.38	9.24	9.61	9.62	10.04
13	9.73	9.68	9.10	8.53	8.78	8.41	8.35	8.43	9.08	9.65	9.65	10.08
14	9.75	9.63	9.14	8.56	8.82	8.44	8.32	8.48	9.05	9.67	9.68	10.07
15	9.75	9.63	9.15	8.51	8.83	8.48	8.24	8.51	9.07	9.66	9.75	10.01
16	9.75	9.62	9.15	8.54	8.81	8.49	8.22	8.55	9.11		9.76	9.99
17	9.79	9.61	9.17	8.57	8.78	8.47	7.76	8.61	9.13		9.78	10.00
18	9.77	9.59	9.18	8.64	8.56	8.39	7.89	8.65	9.16		9.79	10.03
19	9.76	9.59	9.19	8.65	8.57	8.31	7.89	8.68	9.16		9.84	10.01
20	9.78	9.58	9.21	8.69	8.57	8.31	7.86	8.73	9.24	9.60	9.84	10.03
21	9.77	9.53	9.22	8.71	8.59	8.25	7.93	8.78	9.28	9.60	9.85	10.03
22	9.78	9.50	9.21	8.72	8.60	8.25	8.01	8.82	9.31	9.56	9.90	10.05
23	9.79	9.54	9.06	8.70	8.58	8.32	8.06	8.89	9.33	9.51	9.93	10.06
24	9.82	9.56	9.03	8.60		8.38	8.14	8.90	9.36	9.45	9.92	10.06
25	9.86	9.55	8.93	8.64	8.65	8.39	8.22	8.94	9.37	9.59	9.91	10.07
26	9.83	9.49	8.94	8.65	8.65	8.37	8.22	8.97	9.37		9.71	10.09
27	9.67	9.54		8.64	8.63	8.39	7.90	9.01	9.37		9.76	10.12
28	9.62	9.51	8.98	8.61	8.65	8.38	7.96	9.05	9.34		9.77	10.12
29	9.64	9.35	8.98	8.59		8.42	8.00	9.11	9.32		9.77	10.11
30	9.66	9.32	9.02	8.61		8.40	8.00	9.13	9.32		9.83	10.20
31	9.68		9.12	8.64		8.40		9.13		9.70	9.84	
MEAN	9.72	9.60	9.18	8.65	8.70	8.46	8.20	8.56	9.22	9.57	9.81	10.01
MAX	9.86	9.71	9.38	9.12	8.83	8.71	8.51	9.13	9.37		9.97	10.20
MIN	9.60	9.32	8.93	8.25	8.56	8.25	7.76	8.00	9.05		9.57	9.85

MEAN 8.93 HIGH 7.53 LOW 9.86 MEAN 9.15 HIGH 7.76 LOW 10.20 CAL YR 1997 WTR YR 1998



# Long-Term Ground-Water Monitoring Network, Geauga County

Local number, GE-351 413119081213200.

LOCATION.--Lat 41° 31'19", long 81°21'32"; south side of S.R. 322, east of intersection with Caves Road and west of Bloom Brothers Hardware; Chester Township.

Owner.--Privately owned.

AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 6 in.; depth 126.5 ft. INSTRUMENTATION - Pressure transducer and CR10X data logger (records hourly).

DATUM.--Elevation of land-surface datum is 1,135 ft above sea level. Measuring point: Mark on wooden base of instrument shelter, 1.25 ft above land-surface datum. PERIOD OF RECORD.--May 15, 1997 through September 30, 1997.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.75 ft below land-surface datum, January 7, 1998; lowest measured, 58.35 ft below land-surface datum, July 20, 1997.
REMARKS.--Poor record between February 25, 1998 and June 16, 1998 due to slowly failing transducer.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES DAY OCT NOV DEC FEB MAR APR MAY JUN JUL AUG SEP JAN 54.98 51.68 50.59 50.13 50 88 51.81 51.42 53.64 ---------- - -2 52.34 52.57 52.21 53.83 52.31 53.20 54.12 50.91 50.71 52.49 55.21 49.80 51.77 52.45 51.84 54.22 ---51.37 53.26 48.03 49.55 51.33 54.01 51.47 54.82 ---------5 47.40 50.88 52.66 51.99 52.94 51.18 53.08 54.84 6 7 ---50.74 53.33 46.08 51.12 51.36 51.81 52.76 55.08 ---------50.94 52.51 45.75 50.52 51.50 54.05 52.60 53.19 8 51.59 53.10 46.20 49.92 51.90 51.71 52.06 53.77 ___ _ _ _ 9 52.06 53.42 53.56 46.77 49.38 51.94 51.53 54.77 53.67 ---------52.65 10 53.20 53.58 48.84 51.80 51.69 51.81 52.35 54.15 52.50 49.56 49.55 51.19 54.23 11 52.84 52.43 51.81 54.50 ---------12 52.17 52.49 51.65 48.31 49.61 53.14 52.13 51.55 53.49 13 51.62 53.07 51.85 48.04 49.61 53.30 54.43 53.27 53.66 _ _ _ ---_ _ _ 14 51.85 53.53 51.33 48.51 49.96 52.79 51.44 53.28 53.25 ---------51.87 53.45 48.55 50.89 51.94 53.22 15 51.60 16 51.86 52.58 51.14 48.60 51.03 53.28 51.82 53.12 ---------52.65 53.94 50.46 48.60 50.18 53.89 51.95 52.27 18 54.44 54.49 51.76 48.58 50.10 53.60 53.70 53.69 _ _ _ _ _ _ ---_ _ _ 19 54.81 53.92 51.72 49.09 49.96 53.00 52.46 53.93 ------50.79 21 52.74 50.71 49.03 53.39 52.08 54.04 51.92 ------------22 53.33 50.07 50.01 52.77 55.87 51.19 54.63 23 51.08 53.57 53.02 49 75 50.81 52.24 53.77 54.59 52.71 51.97 50.65 24 51.49 54.26 50.41 52.45 53.21 26 52.90 51.65 50.02 50.90 53.96 53.97 51.53 51.37 ------------52.45 52.37 50.67 50.65 51.91 54.78 27 51.33 28 53.12 51.87 52.92 49.68 51.26 50.92 54.43 55.16 53.05 51.30 51.57 50.68 55.53 29 50.60 54.51 52.31 50.89 ---55.38 ---___ _ _ _ 30 51.34 50.61 ___ ---31 54.33 51.07 50.23 52.89 54.60

52.16

53.96

50.60

52.70

55.87

51.37

53.36

55.53

51.19

54.01

55.08

53.22

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CAL YR 1997 MEAN 53.96 HIGH 50.46 LOW 58.35 WTR YR 1998 MEAN 52.03 HIGH 45.75 LOW

52.10

53.63

50.46

49.23

55.21

45.75

50.49

53.83

49.38

52.76 54.98

50.71

MEAN

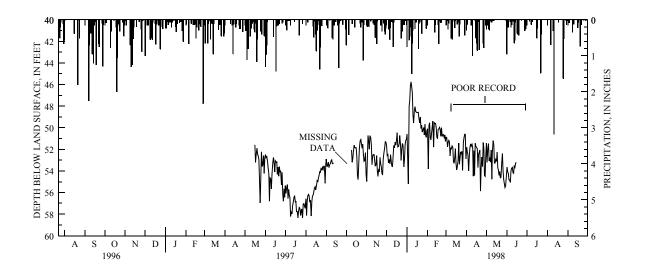
MAX

MIN

52.48

54.81

51.08



## Long-Term Ground-Water Monitoring Network, Geauga County

412851081045200. Local number, GE-352 LOCATION.--Lat 41°28'51", long 81°04'52"; west side of S.R. 608, north of Middlefield Village, by hunters' parking lot; Middlefield Township.
Owner.--City of Akron.
AQUIFER.--Glacial deposits of Quaternary age.

WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 6 in.; depth 122.3 ft. INSTRUMENTATION - Pressure transducer and CR10X data logger (records hourly).

DATUM.--Elevation of land-surface datum is 1,140 ft above sea level. Measuring point: Mark on wooden base of instrument shelter, 1.15 ft above land-surface datum.

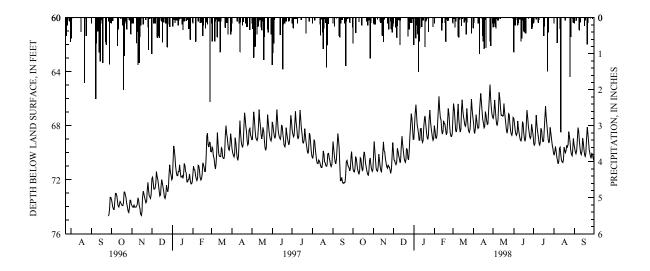
PERIOD OF RECORD.--September 25, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.96 ft below land-surface datum, April 26,1998; lowest measured, 74.80 ft below land-surface datum, September 25, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71.20	70.39	69.89	69.00	68.01	67.43	67.79	67.46	67.45	69.28	70.19	69.65
2	71.38	69.17	70.53	67.99	68.42	66.36	68.44	67.17	67.84	69.48	69.93	69.95
3	71.42	69.89	70.56	67.11	68.90	66.83	68.57	66.10	68.29	69.31	69.53	70.08
4	71.18	70.65	70.79	66.45	68.93	67.62	68.14	66.73	68.60	68.20	69.86	69.82
5	70.29	71.13	70.90	67.22	68.65	68.31	67.18	67.41	68.72	67.22	70.27	69.03
6	70.49	71.33	70.68	67.96	67.58	68.46	67.62	67.86	68.54	67.95	70.61	68.14
7	70.92	71.38	69.67	68.21	66.63	68.23	68.00	67.99	67.65	68.40	70.82	68.40
8	71.22	71.04	69.88	68.59	65.83	67.13	68.19	67.55	68.17	68.81	70.65	69.06
9	71.44	70.11	70.20	69.08	66.76	66.39	68.11	66.45	68.54	69.24	69.67	69.58
10	71.61	70.55	70.41	69.07	67.45	67.52	66.98	65.53	68.86	69.48	69.58	70.01
11	71.35	70.96	70.74	68.23	67.57	68.16	66.24	66.06	69.08	69.25	70.10	70.14
12	70.39	71.34	70.64	68.21	68.32	68.46	65.61	66.77	69.13	68.20	70.51	69.86
13	70.46	71.42	69.63	69.03	68.62	68.25	66.31	67.24	68.85	68.38	70.67	68.93
14	71.02	70.95	68.78	69.24	68.44	66.79	66.94	67.21	67.71	68.85	70.72	69.25
15	71.31	69.95	69.39	69.11	67.64	66.08	67.49	67.29	67.84	69.18	70.52	69.75
16	71.23	69.20	69.80	68.09	67.84	66.87	67.75	67.25	68.42	69.16	69.58	70.14
17	70.24	69.87	70.27	67.41	67.88	67.29	68.16	66.36	68.99	68.26	69.83	70.27
18	69.94	69.95	70.56	67.28	68.31	67.57	68.05	66.97	69.15	67.32	69.99	70.04
19	70.26	70.44	70.71	67.79	68.67	67.98	66.96	67.42	68.85	66.55	69.80	69.02
20	70.77	70.79	70.46	68.46	68.54	68.06	67.18	67.91	67.70	67.33	69.46	68.11
21	71.04	71.06	69.67	68.85	67.52	67.68	67.63	68.36	66.85	67.95	69.58	68.60
22	71.38	71.16	69.79	69.02	66.72	66.72	67.89	68.55	67.46	68.51	69.41	69.23
23	71.61	70.90	70.42	68.71	67.24	67.34	67.86	68.21	68.07	68.98	68.44	69.78
24	71.67	71.05	70.54	67.61	67.88	68.12	66.86	67.11	68.46	69.28	68.75	70.05
25	71.38	71.06	69.90	66.85	68.51	68.43	65.84	67.18	68.81	69.07	69.18	70.31
26	70.60	71.25	68.85	67.66	68.79	68.50	64.96	67.82	68.94	68.12	69.78	70.41
27	70.38	71.53	67.95	68.14	68.80	68.18	65.99	68.30	68.79	68.54	70.13	70.06
28	70.85	71.21	67.12	68.50	68.56	67.06	66.68	68.61	67.89	68.96	70.25	70.14
29	71.19	70.24	67.47	68.85		66.02	67.12	68.71	68.24	69.44	69.94	70.44
30	71.38	69.25	68.21	69.09		66.76	67.38	68.49	68.66	69.69	68.94	70.59
31	71.28		69.02	68.95		67.27		67.39		70.04	69.38	
MEAN	71.00	70.64	69.79	68.25	67.96	67.48	67.26	67.40	68.35	68.66	69.87	69.63
MAX	71.67	71.53	70.90	69.24	68.93	68.50	68.57	68.71	69.15	70.04	70.82	70.59
MIN	69.94	69.17	67.12	66.45	65.83	66.02	64.96	65.53	66.85	66.55	68.44	68.11

CAL YR 1997 WTR YR 1998 MEAN 69.96 MEAN 68.86 HIGH 66.81 LOW 72.31 LOW 71.67 HIGH 64.96



## Long-Term Ground-Water Monitoring Network, Geauga County

412748081172000. Local number GE-354

LOCATION. --Lat 41°27'48", long 81°17'20"; northwest corner of intersection of Sperry Rd. and S.R. 87; Newbury Township.

Owner.--Privately owned.

AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 6.0 in.; depth 113.9 ft.

INSTRUMENTATION - Pressure transducer and CR10X data logger (records hourly).

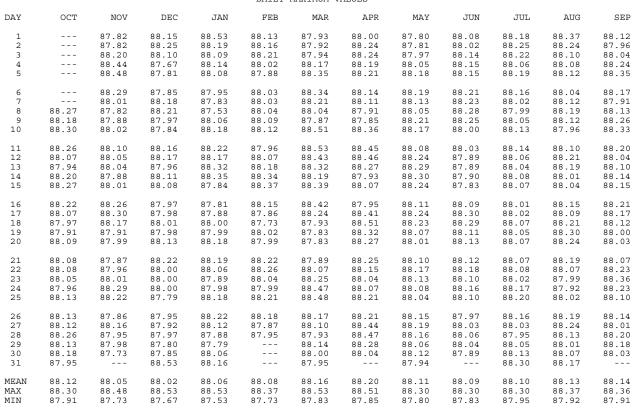
DATUM.--Elevation of land-surface datum is 1,275 ft above sea level. Measuring point: Mark on wooden base of

instrument shelter, 4.15 ft above land-surface datum.

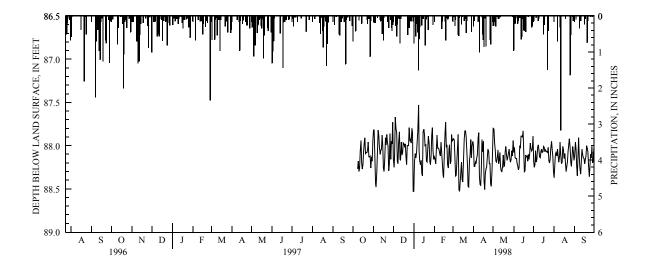
PERIOD OF RECORD.--October 7, 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 87.53 ft below land-surface datum, January 8, 1998; lowest measured, 88.53 ft below land-surface datum, December 31-January 1, 1998 and March 11, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES



WTR YR 1998 MEAN 88.10 HIGH 87.53 LOW 88.53



## Low-Flow Magnitude and Frequency of Ohio Streams

The low-flow network is part of a cooperative study with The Ohio Department of Natural Resources to define the low-flow characteristics of 180 sites that have essentially unregulated streamflow and drainage areas less than 150 square miles. The following table lists the sites of the low-flow partial record network including discharge measurements made in the 1998 water year. The second table lists the discontinued streamflow gaging stations which a discharge measurement was performed in 1998 that were used for index stations for this project. Figure 10 illustrate the location of the low-flow partial record stations. The discontinued stations are not plotted.

Station No.	Station Name	Location	Drainage Area1	Period of	Measu	rements
110.	runc		(mi2)	Record (water year)	Date	Discharge (ft3/s)
		Beaver River Basin				
03098390	Mill Creek near Youngstown, Ohio	Lat 41°02'00", Long 80°41'37", Mahoning County, Hydrologic Unit 05030103 at pedestrian bridge over Mill Creek at end of extra parking lot next to Mill Creek Park Golf Course, 0.75 northeast of park entrance at SR 224, 0.75 mi. downstream of Indian Run, 3.1 mi. upstream of Newport Lake Dam, 3 mi. southwest of South Side Youngstown, Ohio. (Youngstown 1:24000 quad)	51.5	1995-98	9/16/98	6.90
03108996	Middle Fork Little Beaver Creek at Teegarden, Ohio	Lat 40°49'18", Long 80°49'37", Columbiana County, Hydrologic Unit 05030101 at Teegarden covered bridge of Eagleton Road over Middle Fork Little Beaver Creek (covered bridge is abandoned, next to new bridge), 3.3 mi. below Stone Mill Run, 1 mi. northeast of Salem Reservoir, 4.5 mi. northwest of Lisbon, Ohio. (Lisbon 1:24000 quad)	90.2	1995-98	9/15/98	14.6
		Yellow Creek Basin				
03109861	Yellow Creek at Bergholz, Ohio	Lat 40°30'54", Long 80°53'17", Jefferson County, Hydrologic Unit 05030101 at State Route 164 bridge over Yellow Creek, 0.8 mi. below confluence of Elkhorn Creek, 0.4 mi. southwest of Bergholz, Ohio.(Bergholz 1:24000 quad)	65.8	1994-98	9/15/98	5.47
		Short Creek Basin				
03111465	Short Creek at Adena, Ohio	Lat 40°13'09", Long 80°52'22", Jefferson County, Hydrologic Unit 05030106 at Adena-Smithfield Road bridge over Short Creek, 400 ft below confluence with North Fork, in Adena, Ohio. (Dillonvale 1:24,000 quad)	63.9	1981-82 1994-98	9/16/98	23.8
		McMahon Creek Basin				
03112820	McMahon Creek at Glencoe, Ohio	Lat 40°00'10", Long 80°52'38", Belmont County, Hydrologic Unit 05030106 at County Road 149, 0.7 mi. southeast of Glencoe, Ohio. (St. Clairsville 1:24000 quad)	50.7	1981-82 1995 1997-98	9/15/98	3.20
03113550	McMahon Creek at Bellaire, Ohio	Lat 40°00'39", Long 80°45'45", Belmont County, Hydrologic Unit 05030106 at county road bridge connecting Bellaire with State Route 147, 300 ft upstream from Bellaire City Limits, Ohio. (Lan- sing 1:24000 quad)	90.2	1981-82 1995-98	9/15/98	7.00
		Sunfish Creek Basin				
03114241	Sunfish Creek at Coats, Ohio	Lat 39°46'14", Long 81°02'34", Monroe County, Hydrologic Unit 05030201 at riffle beside Sunfish Creek Road, 800 ft downstream from confluence of unnamed tributary, 0.7 mi. downstream from confluence of Standingstone Run, 1.0 mi. southeast of Coats, 4.0 mi east of Woodsfield, Ohio. (Woodsfield 1:24000 quad)	51.3	1995 1997-98	10/8/98 9/16/98	2.20 0.37

# **Low-Flow Magnitude and Frequency of Ohio Streams**

Station No.	Station Name	Location	Drainage Area1	Period of	Measu	rements
	Name		(mi2)	Record (water year)	Date	Discharge (ft3/s)
		Little Muskingum River Basin				
03115385	Clear Fork near Rinard Mills, Ohio	Lat 39°36'08", Long 81°09'17", Monroe County, Hydrologic Unit 05030201 at State Route 26 bridge over Clear Fork, 0.3 mi. above confluence with L Muskingum River, 1.2 mi. north of Rinard Mills, Ohio. (Rinard Mills 1:24000 quad)	48.8	1997-98	10/8/97 9/16/98	2.32
		Muskingum River Basin				
03123166	South Fork Sugar Creek near Sugar- creek, Ohio	Lat 40°31'25", Long 81°36'52", Tuscarawas County, Hydrologic Unit 05040001 at Tuscarawas County Road 75, 0.2 mi. downstream from confluence with East Branch, 0.2 mi. northeast of Sugarcreek, Ohio. (Strasburg 1:24000 quad)	63.3	1997-98	9/15/98	6.16
03123299	Walnut Creek at Dundee, Ohio	Lat 40°35'12", Long 81°37'16", Tuscarawas County, Hydrologic Unit 05040001 at private road bridge, 0.5 mi. upstream from mouth, 0.7 mi. west of Dundee, Ohio. (Strasburg 1:24000 quad)	48.0	1997-98	9/15/98	5.68
03126170	Skull Fork near Freeport, Ohio	Lat 40°11'52", Long 81°16'13", Harrison County, Hydrologic Unit 05040001 at county road bridge, 0.8 mi. south of Freeport, Ohio. (Freeport 1:24000 quad)	45.9	1981-82 1997-98	9/16/98	0.51
03136142	Kokosing River at Chesterville, Ohio	Lat 40°28'28", Long 82°41'02", Morrow County, Hydrologic Unit 05040003 at State Route 314 bridge, 0.5 mi. downstream from confluence with South Branch, 0.4 mi. south of Chesterville, Ohio. (Chesterville 1:24000 quad)	38.7	1996 1998	10/9/97 8/21/98	1.52 2.51
03140700	Bufffalo Fork at Pleasant City, Ohio	Lat 39°54'10", Long 81°33'15", Guernsey County, Hydrologic Unit 05040005 at State Route 82 bridge, 500 ft north of junction with State Route 146, at Pleasant City, Ohio. (Byesville 1:24000 quad)	71.1	1959 1962-67 1969 1971-74 1996 1998	10/7/97 9/16/98	7.65 11.4
03140800	Bufffalo Creek at Pleasant City, Ohio	Lat 39°54'10", Long 81°33'00", Guernsey County, Hydrologic Unit 05040005 at State Route 146 bridge, just above confluence with Buffalo Fork, at Pleasant City, Ohio. (Byesville 1:24000 quad)	49.7	1959 1962-67 1967 1969 1971-74 1996	10/8/97 9/16/98	0.31
03143760	Wakatomika Creek near Perryton, Ohio	Lat 40°13'10", Long 82°10'53", Coshocton County, Hydrologic Unit 05040004, at point in stream 0.15 mile north of eastwest section of county road, 0.7 mi. upstream from Winding Fork, 5.2 mi. north of Perryton, Ohio. (Perryton 1:24000 quad)	58.3	1981-82 1995-98	10/9/97 8/19/98	4.27 5.10
03145329	Raccoon Creek at Alexandria, Ohio	Lat 40°05'05", Long 82°36'18", Licking County, Hydrologic Unit 05040006, at State Route 37 bridge over Raccoon Creek, 0.8 mi. above confluence with Lobdell Creek, 0.9 mi. below confluence with Simpson Run, 0.7 mi. north of intersection of SR 37 and SR 161, 0.2 mi. southeast of Alexandria, Ohio. (Granville 1:24000 quad)	40.6	1997-98	10/8/97 9/7/98	3.39 1.49

# **Low-Flow Magnitude and Frequency of Ohio Streams**

Station No.	Station Name	Location	Drainage Area1	Period of	Measu	rements
NO.	Name		(mi2)	Record (water year)	Date	Discharge (ft3/s)
03145533	Raccoon Creek at Newark, Ohio	Lat 40°02'34", Long 82°24'44", Licking County, Hydrologic Unit 05040006, at West Main Street bridge over Raccoon Creek, 0.7 mi. above confluence with South Fork Licking River, in Newark, Ohio. (Newark 1:24000 quad)	101	1997-98	10/8/97 9/8/98	25.1 20.8
		Muskingum River Basin—Continued				
03150200	Meigs Creek near Reinersville, Ohio	Lat 39°37'43", Long 81°43'12", Morgan County, Hydrologic Unit 05040004, at county road bridge at Unionville, 0.1 mi. upstream from Dyes Fork, 5.1 mi. southwest of Reinersville, Ohio. (Reinersville 1:24000 quad)	73.0	1981-82 1996 1998	10/9/97	3.08
		Hocking River Basin				
03158165	Monday Creek near Greendale, Ohio	Lat 39°31'24", Long 82°16'17", Hocking County, Hydrologic Unit 05030204 at Dawley Road over Monday Creek, 0.7 mi above confluence with Sand Run, 0.9 mi. above proposed reservoir site, 1.3 m. southeast of Greendale, 4 mi. northeast of Haydenville, Ohio. (Gore 1:24000 quad)	67.2	1995-96 1998	10/8/97 8/20/98 9/15/98	4.02 2.20 0.93
		Shade River Basin				
03159555	East Branch Shade River near Tup- pers Plains, Ohio	Lat 39°08'29", Long 81°52'39", Meigs County, Hydrologic Unit 05030202 at pri- vate road bridge, adjacent to Township Road 279, 2.1 mi. downstream from Meigs Creek, 2.8 mi. upstream from Big Run, 2.7 mi. southwest of Tuppers Plains, Ohio (Alfred 1:24000 quad)	37.5	1980-81 ^a 1983-85 ^a 1995-96 1998	10/7/97	0.20
		Leading Creek Basin				
03160050	Leading Creek near Middleport, Ohio	Lat 39°00'25", Long 82°05'10", Meigs County, Hydrologic Unit 05030202 at first private road bridge, 1.2 mi. above State Highway 7, 1.75 mi. northwest of Middleport, Ohio. (Pomeroy 1:24000 quad)	118	1956 1962-67 1969 1971-75 1995-96	10/7/97 9/9/98	3.29 8.41
		Symmes Creek Basin				
03205260	Symmes Creek near Centerpoint, Ohio	Lat 38°52'12", Long 82°28'44", Jackson County, Hydrologic Unit 05090101 at Jenkins Alban Road bridge over Symmes Creek, 2.5 mi. above confluence with Black Fork, 1.9 mi. northwest of Centerpoint, Ohio.(Patriot 1:24000 quad)	45.9	1997-98	9/9/98	0.18
		Pine Creek Basin				
03216620	Pine Creek near South Webster, Ohio	Lat 38°46'12", Long 82°42'25", Scioto County, Hydrologic Unit 05090103 at Lick Run Lyra Road bridge over Pine Creek, 3.0 mi. southeast of South Webster, Ohio. (South Webster 1:24000 quad)	33.2	1998	10/7/97 9/8/98	0.06
		Scioto River Basin				
03230745	Deer Creek at US 142 Near London, Ohio	Lat 39°54'17", Long 83°23'35", Madison County, Hydrologic Unit 05060002 at State Route 142 bridge, 3.0 mi. northeast of London, Ohio. (London 1:24000 quad)		1981-82 1995-96 1998	10/8/97 5/27/98 8/18/98	0.61 18.9 1.61
03231550	Paint Creek at Washington Court House, Ohio	Lat 39°32'12", Long 83°26'46", Fayette County, Hydrologic Unit 05060003 at U.S. 35 (Dayton Avenue) bridge in Washington Court House, 1.7 mi. (2.7 km) upstream from East Fork Paint Creek. (Washington Court House 1:24000 quad)	62.3	1980-82 1995-96 1998	10/8/97 5/27/98 8/18/98	0.49 38.2 1.54

# **Low-Flow Magnitude and Frequency of Ohio Streams**

Station No.	Station Name	Location	Drainage Area1	Period of	Measur	rements
110.	ivanic		(mi2)	Record (water year)	Date	Discharge (ft3/s)
		Scioto River Basin-Continued				
03231620	East Fork Paint Creek near Bloom- ingburg, Ohio	Lat 39°35'15", Long 83°23'47", Fayette County, Hydrologic Unit 05060003 at Matthews Road bridge, 0.3 mi. upstream from Green Ditch, 1.2 mi. south of Bloomingburg, Ohio, 2.0 mi. upstream from Big Run. (Washington Court House 1:24000 quad)	36.8	1979-82 1995-96 1998	10/8/97 5/27/98 8/18/98	0.87 21.6 1.42
^a Operate	d as a continuous-reco	ord gaging station				
03237040	Big Beaver Creek near Piketon, Ohio	Lat 39°02'41", Long 83°01'18", Pike County, Hydrologic Unit 05060002 at State Route 124 bridge, 0.9 mi. upstream from Little Beaver Creek, 1.2 mi. south of Piketon, Ohio. (Piketon 1:24000 quad)	62.0	1980-82 1995-98	9/8/98	0.20
03237130	Scioto Brush Creek at Otway, Ohio	Lat 38°51'43", Long 83°11'24", Scioto County, Hydrologic Unit 05060002, at State Highway 348 bridge, 600 ft upstream from South Fork, in Otway, Ohio. (Otway 1:24000 quad)	94.4	1956 1972-77 1996-97		
		Whiteoak Creek Basin				
03238370	East Fork White Oak Creek near Sar- dinia, Ohio	Lat 39°00'24", Long 83°49'19", Brown County, Hydrologic Unit 05090201, at State Route 32 bridge, 0.2 mi. (0.3 km) upstream from Slab Camp Run, 0.7 mi. (1.1 km) west of Sardinia, Ohio. (Sardinia 1:24000 quad)	60.1	1980-82 1995-98	9/8/98	1.22
		Little Miami River Basin				
03243150	Todd Fork near Clarksville, Ohio	Lat 39°26'10", Long 83°56'41", Clinton County, Hydrologic Unit 05090202, at U.S. Highway 22 bridge, 1.0 mi. (1.6 km) upstream from Lytle Creek, 2.7 mi. (4.3 km) northeast of Clarksville, Ohio. (Clarksville 1:24000 quad)	56.6	1981-82 1995-96 1998	9/9/98	0.50
03244570	Turtle Creek at South Lebanon, Ohio	Lat 39°22'21", Long 84°13'47", Warren County, Hydrologic Unit 05090202, at bridge on Mason Road at South Lebanon, Ohio. (South Lebanon 1:24000 quad)	58.2	1980-83 1998	9/9/98	0.43
03244950	O'Bannon Creek at Loveland, Ohio	Lat 39°16'08", Long 84°15'21", Clermont County, Hydrologic Unit 05090202, at State Route 48 bridge, in Loveland, Ohio. (Mason 1:24000 quad)	59.0	1956 1980-83 1996 1998	9/9/98	0.92
03247300	Stonelick Creek near Perintown, Ohio	Lat 39°07'20", Long 84°11'56", Clermont County, Hydrologic Unit 05090202, at U.S. Highway 50 bridge, 1.9 mi. east of Perintown, Ohio. (Batavia 1:24000 quad)	76.0	1981-82 1996 1998	9/9/98	0.01
		Great Miami River Basin				
03260450	South Fork Great Miami River near Huntsville, Ohio	Lat 40°28'43", Long 83°48'43", Logan County, Hydrologic Unit 05080001, at State Route 117 bridge, 3.3 mi. (5.3 km) upstream from Indian Lake, 2.5 mi. (4.0 km) north of Huntsville, Ohio. (Hunts- ville 1:24000 quad)	47.5	1981-82 1988-89 ^a 1994-98	5/28/98 8/19/98	12.2 10.7

# **Low-Flow Magnitude and Frequency of Ohio Streams**

Station No.	Station Name	Location	Drainage Area1	Period of	Measu	rements
140.	Name		(mi2)	Record (water year)	Date	Discharge (ft3/s)
03263168	Stillwater River near Ansonia, Ohio	Lat 40°13'01", Long 84°36'44", Darke County, Hydrologic Unit 05080001, at Beisner Road over Stillwater River, 0.1 mi. north of State Route 47, 1.2 mi. east of Ansonia, 1.8 mi. west of Dawn, Ohio. (Dawn 1:24000 quad	74.3	1995-98	8/20/98	4.45
		Great Miami River Basin—Continued				
03263390	Greenville Creek near Coletown, Ohio	Lat 40°08'54", Long 84°43'56", Darke County, Hydrologic Unit 05080001, at Fisher Road bridge, 1.9 mi. (2.9 km) northwest of Coletown, Ohio. (Ansonia 1:24000 quad)	69.2	1981-82 1995-98	8/20/98	12.6
03266647	Mad River at Lip- pincott, Ohio	Lat 40°11'41", Long 83°47'48", Champaign County, Hydrologic Unit 05080001, at Lippincott Road bridge over Mad River, 0.55 mi. upstream from confluence of Macochee Ditch, 1.5 mi. upstream from confluence of Gladdy Creek, 4.0 mi. southwest of West Liberty, Ohio, 5.0 mi. northwest of Urbana, Ohio. (Northville 1:24000 quad)	68.4	1994-98	5/28/98 8/19/98	66.4 40.4
^a Operate	d as a continuous-rec	ord gaging station				
03266897	Kings Creek near Urbana, Ohio	Lat 40°09'25", Long 83°47'08", Champaign County, Hydrologic Unit 05080001, at State Route 290 bridge over Kings Creek, just above confluence with Mad River, 3.0 mi. northwest of Urbana, Ohio. (Northville 1:24000 quad)	43.6	1994-98	5/28/98 8/19/98	32.5 23.4
03271736	Twin Creek at Lewisburg, Ohio	Lat 39°51'17", Long 84°31'54", Preble County, Hydrologic Unit 05080002, at U.S. Route 40 over Twin Creek, 0.1 mi. below confluence with Millers Fork, 0.1 mi. above confluence with Swamp Creek, 0.3 mi. east of Lewisburg, Ohio. (Lewisburg 1:24000 quad)	68.4	1995-96 1998	10/7/97 9/8/98	2.20 2.59
03272429	Four Mile Creek near College Cor- ner, Ohio	Lat 39°35'31", Long 84°46'14", Preble County, Hydrologic Unit 05080002, at bridge over Four Mile Creek, 0.1 mi. below confluence with East Fork Four Mile Creek, 0.8 mi. above confluence with Little Four Mile Creek, 0.8 mi. northwest from Acton Lake, in Hueston Woods State Park, 3 mi. northeast of College Corner, Ohio & Indiana. (College Corner 1:24000 quad)	50.1	1996 1998	9/8/98	0.01
03276588	Dry Fork Whitewater River at New Haven, Ohio	Lat 39°15'57", Long 84°44'54", Hamilton County, Hydrologic Unit 05080003, at Mt. Hope Road bridge, 0.9 mi. below confluence with Howard Creek, 1.2 mi. above confluence with Lee Creek, next to Miami Whitewater Forest, 0.8 mi. southwest of New Haven, Ohio.(Shandon 1:24000 quad)	59.8	1996 1998	10/7/97 9/8/98	0.84 1.17
		Maumee River Basin				
04180911	St Marys River above Kopp Creek at St Marys, Ohio	Lat 40°32'07", Long 84°22'38", Auglaize County, Hydrologic Unit 04100004, at Aqueduct Road over St. Mary's River, 150 ft. upstream of Miami and Erie Canal aqueduct, 0.3 mi. above confluence of Kopp Creek, 2.1 mi. east of Grand Lake, 0.5 mi. southeast of St.Mary's, Ohio. (St. Marys 1:24000 quad)	67.0	1994-98	8/20/98	3.08

# **Low-Flow Magnitude and Frequency of Ohio Streams**

Station No.	Station Name	Location	Drainage Area1	Period of	Measu	rements
NO.	Name		(mi2)	Record (water year)	Date	Discharge (ft3/s)
04185200	Beaver Creek near Stryker, Ohio	Lat 41°27'23", Long 84°26'09", Williams County, Hydrologic Unit 04100006, at bridge of township road, 0.3 mi. (0.5 km) upstream from mouth, 3.1 mi. (5.0 km) southwest of Stryker, Ohio (Evansport 1:24000 quad)	44.8	1980-82 1994-96 1998	5/28/98	5.06
		Maumee River Basin-Continued				
04185299	Brush Creek at Evansport, Ohio	Lat 41°26'00", Long 84°23'24", Williams County, Hydrologic Unit 04100006, at county road over Brush Creek, 1.0 mi. above mouth, 0.4 mi. north of Williams/ Defiance county line, 0.6 mi northeast of Evansport, Ohio. (Evansport 1:24000 quad)	64.8	1994-96 1998	5/28/98	6.78
04189172	Riley Creek near Bluffton, Ohio	Lat 40°54'12", Long 83°56'19", Allen County, Hydrologic Unit 04100007, at Phillips Road bridge over Riley Creek, 3.7 mi. downstream from confluence of Little Riley Creek, 2.5 mi. northwest of Bluffton, Ohio. (Bluffton 1:24000 quad)	64.4	1994-96		
04191007	Town Creek near Hoaglin, Ohio	Lat 40°58'36", Long 84°28'36", Van Wert County, Hydrologic Unit 04100007, at State Route 637 bridge over Town Creek, 2.1 mi. above confluence with Maddox Creek, 0.9 mi. south of Paulding/Van Wert County line, 2.3 mi. northeast of Hoaglin, 3.1 mi. north of State Route 224, 10 mi. northeast of Van Wert, Ohio. (Wetsel 1:24000 quad)	51.7	1995-96 1998	5/27/98	8.61
04191100	Flatrock Creek near Payne, Ohio	Lat 41°05'57", Long 84°40'06", Paulding County, Hydrologic Unit 04100007, at Township road 71 bridge, 2.0 mi. downstream from Wildcat Creek, 3.5 mi. northeast of Payne, Ohio. Proceed 3.4 mi. northeast from Payne on State Highway 500 to township road 71, turn right and go 0.1 mi. to bridge and station. (Payne 1:24000 quad)	147	1972-77 1995-96 1998	5/27/98	15.4
		Portage River Basin				
04194362	South Branch Por- tage River near Jerry City, Ohio	Lat 41°16'22", Long 83°30'56", Wood County, Hydrologic Unit 04100010, at Portage View Road over South Branch Por- tage River, 0.6 mi. above confluence with East Branch, 2.1 mi. southeast of Six Points, 4.5 mi. northeast of Jerry City, Ohio. (Jerry City 1:24000 quad)	54.0	1995-96		
		Sandusky River Basin				
04196580	Little Tymochtee Creek near Marseilles, Ohio	Lat 40°41'13", Long 83°24'44", Marion County, Hydrologic Unit 04100011, at County Road 22 bridge, 1.3 mi. above mouth, 1.4 mi. southwest of Marseilles, Ohio. (Marseilles 1:24000 quad)	43.7	1978 1980-82 1997-98	10/7/97 8/20/98	0.03 0.91
04197052	Honey Creek near Caroline, Ohio	Lat 41°02'41", Long 82°51'04", Seneca County, Hydrologic Unit 04100011, at truss bridge over Honey Creek, 1.7 mi. below confluence with Brokenknife Creek, 2.3 mi. east of Caroline, 2.5 mi. southeast of Attica, Ohio. (Centerton 1:24000 quad)	69.0	1994-96 1998	10/7/97 8/4/98 8/20/98	1.68 2.39 3.21

# **Low-Flow Magnitude and Frequency of Ohio Streams**

Low-flow Partial Record Stations

Station No.	Station Name	Location	Drainage Area1	Period of	Measu	rements
			(mi2)	Record (water year)	Date	Discharge (ft3/s)
04198007	Muskellunge Creek near Fremont, Ohio	Lat 41°22'21", Long 83°08'46", Sandusky County, Hydrologic Unit 04100011, at Christy Road bridge, 1.8 mi. (2.9 km) upstream from mouth, 1.8 mi. (2.9 km) northwest of Fremont, Ohio. (Fremont West 1:24000 quad)	41.8	1980-83 1994-96 1998	8/20/98	6.51
		Huron River Basin				
04198017	West Branch Huron River near New Haven, Ohio	Lat 41°03'08", Long 82°39'37", Huron County, Hydrologic Unit 04100012, at Boughtonville Road bridge, 0.5 mi. below confluence with Marsh Run, 3.3 mi. east of Willard, Ohio. (Willard 1:24000 quad)	69.4	1981-82 1997-98	8/19/98	10.1
		Vermilion River Basin				
04199251	Vermilion River near New London, Ohio	Lat 41°03'51", Long 82°27'10", Huron County, Hydrologic Unit 04100012, at U.S. Route 250 bridge, 0.8 mi. west of New London Reservior, 0.2 mi. north of Akron Canton Youngstown Penn Central Railroad, 3.0 mi. southwest of New London, Ohio. (New London 1:24000 quad)	68.9	1997-98	8/19/98	7.59
		Black River Basin				
04199706	East Branch Black River near Pen- field, Ohio	Lat 41°08'12", Long 82°07'00", Medina/ Lorain County, Hydrologic Unit 04110001, at Smith Road bridge over East Branch Black River, on Medina/Lorain County Line, 0.3 mi. east of State Route 301, 2.2 mi. south of Penfield, 3.2 mi. north of Spencer, Ohio. (Lagrange 1:24000 quad)	105	1995-96 1998	8/19/98	3.91
		Rocky River Basin				
04201079	West Branch Rocky River near Medina, Ohio	Lat 41°09'09", Long 81°50'02", Medina County, Hydrologic Unit 04110001, at Weymouth Road bridge over West Branch Rocky River, 0.3 mi. below confluence with North Branch, 1.9 mi northeast of Medina, Ohio. (Medina 1:24000 quad)	61.2	1995-96 1998	9/16/98	0.06
		Cuyahoga River Basin				
04205600	Little Cuyahoga River at Akron, Ohio	Lat 41°05'27", Long 81°30'58", Summit County, Hydrologic Unit 04110002, in Akron. Station is reached by driving east on State Route 18 (West Market Street). Turn right (north) onto North Main Street. Travel for 0.4 mile. Turn right (east) onto East North Street. Travel for 0.2 mile to station at Stuber Street bridge on left (north). (Akron West 1:24000 quad	44.2	1998	10/3/97 9/16/98	16.6 11.2
		Chagrin River Basin				
04208815	Chagrin River at Chagrin Falls, Ohio	Lat 41°25'33", Long 81°23'52", Geauga County, Hydrologic Unit 04110003, at Miles Road bridge, at west city limits of Chagrin Falls, Ohio. (Chagrin Falls 1:24000 quad)	57.3	1981-82 1995-98	9/16/98	9.47
		Grand River Basin				
04212085	Big Creek at Painesville, Ohio	Lat 41°41′50″, Long 81°13′47″, Lake County, Hydrologic Unit 04110004, at Fry Road bridge, 1.1 mi. (1.8 km) upstream from mouth, 0.5 mi. (0.8 km) south of south city limits of Painesville, Ohio. (Painesville 1:24000 quad)	36.4	1981-82 1995-98	9/16/98	2.28

Ashtabula River Basin

# **Low-Flow Magnitude and Frequency of Ohio Streams**

## Low-flow Partial Record Stations

Station No.	Station Name	Location	Drainage Area1	Period of	Measurements	
			(mi2)	Record (water year)	Date Discharge (ft3/s)  9/15/98 0.03	
04212453	Ashtabula River near Kelloggs- ville, Ohio	Lat 41°50′00″, Long 80°37′13″, Ashtabula County, Hydrologic Unit 04110003, at Root Road Covered Bridge over Ashtabula River, 1.7 mi. downstream of confluence of East and West Branches of Ashtabula River, 1.6 mi. south of Kelloggsville, 2.4 mi. east of Sheffield Center, 7.5 mi. southeast of Ashtabula, Ohio. (Pierpont 1:24000 quad)	66.5	1995-98	9/15/98	0.03

# Discontinuous Streamflow Gaging Stations

Station No.	Station Name	Location	Drainage Area1	Period of	Measurements	
			(mi2)	Record (water year)	Date	Discharge( ft3/s)
		Muskingum River Basin				
03123000	Sugar Creek above Beach City Dam at Beach City, Ohio	Lat 40°39'24", Long 81°34'37", in NE 1/4 sec. 35, T. 11 N., R. 10 W., Stark County, on right bank at downstream side of 3rd Avenue bridge at Beach City, 2.3 mi. upstream from Beach City Dam.	160	1945-75	9/15/98	21.1
03149500	Salt Creek near Chandlersville, Ohio	Lat 40°35'12", Long 81°37'16", In SW 1/4 sec. 10, T. 13 N, R. 12 W., 300 feet above highway bridge on Route 146, 8 miles (on map), 11 miles by road southeast of Zanesville, and 2 miles northwest of Chandlersville, Ohio	75.6	1936-47	10/7/97 9/16/98	2.15 1.92
		Little Miami River Basin				
03242050	Little Miami River near Spring Val- ley, Ohio	Lat 39°35'00", Long 84°01'49", (SE 14 sec Waynesville Quadrangle) in Greene County on right bank at downstream side of bridge on New Burlington Road, 3/4 mile west of Roxanna, and 2.2 miles southwest of Spring Valley, Ohio.	366	1968-85	9/9/98	94.6
		Maumee River Basin				
04184500	Bean Creek at Powers, Ohio	Lat 41°39'34", Long 84°14'55", NE 1/4, SE 1/4 sec. 26, T.9S., R.1E., at left downstream abutment of highway bridge on County Road 20, 1 mile south of Powers, Fulton County, 1.7 miles upstream from Iron Creek, 3.5 miles downstream from Silver Creek.	206	1941-81	5/28/98	76.9
		Vermilion River Basin				
04199500	Vermilion River near Vermilion, Ohio	Lat 41°22'55", Long 82°19'01", T.6N., R.19W., on right bank 40 foot downstream from bridge on North Ridge Road, 3.5 miles southeast of Vermilion, Lorain County, and 4.5 miles upstream from mouth.	262	1950-81	8/19/98	10.1

## Low-Flow Magnitude and Frequency of Ohio Streams



Figure 12. Low-flow station network.

# PROJECT DATA **Aquatic Biota in Ohio Springs**

The following tables list the results of water-quality measurements at 10 springs in Ohio from July through September 1996. The locations were selected from environmental settings with varying surficial geology to create a preliminary list of biota associated with springs in Ohio and provide a basis for future water-quality investigations.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

WAIEK-	QUADIII DAIA,	WAIER IEA	AK OCIOBER	( 1993 10	SEFIEMBER	1990		
41241	7082543000 -	S-30-T9 M	LLERS BLU	E HOLE SI	PR NR VICK	ERY OH		
DATE	TEMPER- LEC ATURE SAM WATER (C	L- ANA TING LYZI PLE SAME ODE (CO BER) NUME	A- CIF ING CON PLE DUC DDE ANC BER) (US/	TIC I- OXYO TT- DI E SOI	IS- (STA LVED AR G/L) UNI	ER OF LAND LE SURFACE LD DATUM ND- (FT. D ABOVE TS) NGVD)		
JUL 1996 10	14.5 10	28 102	28 231	.0 3	.3 7.	1 600		
41155	1083030900 -	S-34 ST FF	RANCIS SPR	ING AT G	REEN SPRIN	IGS OH		
DATE JUL 1996	AGE CO TEMPER- LEC ATURE SAM	NCY AGEN L- ANA TING LYZI PLE SAME ODE (CC BER) NUMB	NCY SPE A- CIF ING CON PLE DUC DDE ANC BER) (US/	CIC I- OXYO CT- DI CE SOI CM) (MO	PH WAT WHC	ELEV. ER OF LAND LE SURFACE LD DATUM ND- (FT. D ABOVE TS) NGVD)		
10	14.3 10	28 102	28 252	0	.6 6.	8 670		
	3959230832	230600 - M	-86 (Spri	ng Fork,	Ohio)			
DA ^r	(DEG C) (00010)		SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)		
AUG 19:		1028	1028	635	1.5	7.1		
03								
	3945290831	72200 - M-	-87 (FLOW)	ing Well,	Ohio)			
DA ^c	(DEG C) (00010)	SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)		
AUG 19:		1028	1028	789	5.8	7.4		
	400300083	470000 - 0	CH-84 (Ced	lar Bog, (	Ohio)			
			,		,	PH		
DA'	(DEG C) (00010)		AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	WATER WHOLE FIELD (STAND- ARD UNITS) (00400)		
SEP 19:		1028	1028	709	6.1	7.5		
393558082380500 - F-26 (Clear Creek, Ohio)								
		AGENCY COL-	AGENCY ANA-	SPE- CIFIC		PH WATER WHOLE		
D <b>A</b> ʻ	(DEG C) (00010)	SAMPLE (CODE	SAMPLE (CODE NUMBER)	CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	FIELD (STAND- ARD UNITS) (00400)		
SEP 19:		1028	1028	148	6.8	7.7		

# PROJECT DATA Aquatic Biota in Ohio Springs

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996—Continued 410352081483600 - MD-13 (Styx River, Ohio)

DATE SEP 1996 24	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)
						0.1
410	3510814837	00 - MD-1	4 (Styx R	iver Trib	., Ohio)	
DATE SEP 1996	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)
24	12.9	1028	1028	1040	2.5	6.9
	4107260812	295400 - S AGENCY COL-	U-20 (Gor AGENCY ANA-	rge Run, C SPE- CIFIC	Ohio)	PH WATER WHOLE
DATE	TEMPER- ATURE WATER (DEG C) (00010)			CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	FIELD (STAND- ARD UNITS) (00400)
SEP 1996 24	14.1	1028	1028	1010	7.4	7.0
21	410739081					7.0
DATE SEP 1996 24	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)
21	10.0	1020	1020	050	, . ±	, . ,



#### **EXPLANATION**

▼ 410352081483600 WATER-QUALITY LOCATIONS AND IDENTIFIER

**Figure 13.** Location and site identification number for springs in Ohio where field measurements, algae, and macroinvertebrates were collected in 1996.

Isopoda			Amphipoda	Crustacea**	Arthopoda*		Bivalvia**											Gastropoda**	Mollusca*	Hirundinea	Oligochaeta**	Annelida*	ORDER	Sample Type	Collection Date	Longitude	Latitude	Station
Caecidotea cf. raco- vitzai	Synurella dentata Hubricht	Hyallela azteca (Saussure)	Crangonyx sp.			Pisidium sp.		Pseudosuccinea col- umella (Say)	Pomatiopsis lapidaria (Say)	Planorbella armigera (Say)	Physella integra (Halde-man)	Physella gyrina (Say)	Marstonia decepta(Baker)	Gyraulus parvus (Say)	Fossaria parva (I. Lea)	Elimia livescens (Menke)	Amnicola limosus (Say)			Erpobdellidae			TAXON			(West)	(North)	
+	1	+	+	!	1	1	;	1	;	;	;	+	1	+	+	1	1	!	;	+	+	1		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
!	1	1	;	!	-	;	;	!	1	;	1	;	!	+	;	1	1	;	;	!	+	1		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
+	1	+	1	;	;	}	;	;	+	+	+	+	;	;	;	1	}	!	;	+	+	1		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
+	+	1	1	!	-	+	1	+	1	+	1	+	+	1	+	1	1	-	;	1	+	1		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
;	1	+	1	;	1	+	1	1	1	1	+	;	1	1	+	+	+	-	1	1	;	1		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
;	1	1	1	;	;	1	;	;	1	1	;	;	;	1	;	1	1	!	1	1	;	1		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
;	1	1	1	;	;	}	;	;	;	;	;	;	;	;	;	1	}	!	;	;	;	1		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
!	1	1	-	;	1	1	;	1	1	;	1	;	;	1	;	1	1	-	;	1	;	1		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
;	1	1	1	1	-	1	;	1	1	;	1	;	1	-	;	1	1	;	;	-	+	1		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
;	1	1	-	!	-	-	!	1	1	;	1	!	!	!	!	1	1	!	1	!	+	-		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

The following table lists the results from collections of macroinvertebrates at 10 springs in Ohio from July through September 1996. The locations were selected from environmental settings with varying surficial geology to create a preliminary list of biota associated with springs in Ohio and provide a basis for future water-quality investigations. [+ = present in the indicated spring; -- = not present in the indicated spring; Qual. = Qualitative.Degree, minute, and second symbols are ommitted from latitudes and longitudes; * = Phylum; ** = Class; Family names end in -idae; taxa are italic, followed by authority.]

					Diptera																		Coleoptera	Insecta**		Isopoda (continued)	ORDER	Sample Type	Collection Date	Longitude	Latitude	Station
Brillia sp.	Acricotopus sp.	Chironomidae Ablabesmyia sp.	Probezzia sp.	Forcipomyia sp.	Ceratopogonidae Bezzia sp.	Tropisternus lateralis Fabricius	Paracymus subcupreus Say	Hydrobius fuscipes Lin- naeus	Helophorus maginicollis Smetana	Helophorus linearis LeConte	Helophorus lineatus Say	Enochrus sayi Gundensen	Enochrus ochraceus Melsheimer	Enochrus cinctus Say	Berosus striatus Say	Hydrophilidae Anacaena limbata Fabricius	Elmidae <i>Dubiraphia sp.</i>	Hydroporus niger Say	Hygrotus nubilis LeConte	Dytiscus sp.	Dytiscidae <i>Copelatus glyphicus</i> Say	Peltodytes sp.	Haliplidae <i>Haliplus immaculicol-</i> <i>lis</i> Harris		Lirceus cf. fontinalis	Caecidotea cf. interme- dius	TAXON			(West)	(North)	
+	+	;	;	;	+	+	+	+	+	+	+	+	+	+	+	+	1	+	+	;	+	+	+	1	1	!		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
;	+	1	;	;	;	1	;	!	!	1	;	-	!	;	1	1	-	;	;	;	;	1	!	1	1	1		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
;	!	;	;	;	;	1	;	;	!	1	;	;	!	;	1	!	1	1	;	;	;	1	!	1	1	1		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
;	1	1	;	;	;	1	;	!	1	;	;	!	1	;	1	1	-	:	:	+	;	1	1	!	+	1		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
;	1	+	;	;	;	1	;	!	1	;	;	!	1	;	1	1	+	:	:	;	;	1	1	!	1	1		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
+	1	;	1	;	;	;	;	;	;	;	-	;	;	;	1	1	1	1	;	;	1	1	1	1	1	;		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
;	!	;	-	;	;	}	;	!	1	1	!	;	1	;	1	}	;	1	-	;	!	1	!	1	1	1		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
1	!	1	1	1	1	1	;	;	1	1	1	-	1	;	1	1	-	1	;	;	;	1	;	1	1	1		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
+	!	1	1	+	-	1	;	;	1	1	;	-	1	!	-	1	1	-	;	1	;	-	1	1	1	+		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
1	!	1	+	1	1	1	1	;	1	1	1	-	1	!	1	;	-	-	;	1	1	1	1	1	1	1		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

																															(continued)	Diptera	ORDER	Sample Type	Collection Date	Longitude	Latitude	Station
Stratiomyidae Stratiomys sp.	Simulidae Simulium sp.	Ptychopteridae Ptychoptera sp.	Muscidae <i>Limnophora sp</i> .	Dixidae <i>Dixa sp</i> .	Culicidae <i>Culex sp</i> .	Zavrelimyia sp.	Thienemannimyia sp.	Symposiocladius ligni- cola	Stempellinella sp.	Rheotanytarsus sp.	Rheocricotopus sp.	Pseudochironomus sp.	Psectrotanypus sp.	Prodiamesa sp.	Procladius sp.	Polypedilum sp.	Paratendipes sp.	Paraphaenocladius sp-2.	Paraphaenocladius sp-1.	Paralauterborniella sp.	Parakiefferiella sp.	Paracladopelma sp.	Pagastia sp.	Micropsectra sp-2.	Micropsectra sp-1.	Larsia sp.	Krenopelopia sp.	Heterotrissocladius sp.	Cryptochironomus sp.	Conchapelopia sp.	Chironomus sp.	Chaetocladius sp.	TAXON			(West)	(North)	
1	+	1	1	1	+	1	1	;	1	;	;	+	!	!	!	!	-	1	+	-	1	!	-	!	+	+	!	!	;	1	1	1		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
1	1	!	1	1	1	1	1	1	1	1	1	1	;	1	1	;	-	1	1	-	+	;	-	1	-	!	1	;	1	1	+	1		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
1	!	!	+	1	+	1	1	;	;	;	1	-	+	1	1	;	-	-	;	-	!	;	-	1	;	+	1	;	;	1	1	-		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
+	1	+	1	+	;	1	+	;	1	;	+	1	;	+	1	;	+	+	+	-	-	;	-	1	+	1	+	+	;	+	1	+		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
+	1	!	1	-	-	+	-	}	+	+	-	1	1	-	+	;	1	-	-	+	1	+	1	1	1	1	1	+	+	+	-	1		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
-	-	1	1	-	-	+	1	;	;	;	-	-	;	1	1	+	1	+	+	1	1	+	1	+	;	+	+	+	1	-	-	1		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
-	1	!	1	-	-	1	-	+	1	1	+	1	1	-	1	;	1	-	-	1	1	;	+	+	1	1	+	-	1	-	-	1		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
1	1	!	1	+	;	1	1	;	1	;	;	1	;	-	1	;	-	-	;	-	-	;	-	1	1	!	1	;	;	+	1	1		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
;	1	!	;	1	!	-	1	;	-	;	;	1	-	1	-	-	-	-	+	-	1	-	-	-	1	1	-	;	;	1	!	;		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
1	1	!	;	-	1	-	1	;	-	;	;	1	-	-	-	!	-	-	1	-	1	!	-	-	1	!	-	;	;	-	!	1		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

						Odonata		Megaloptera				Hemiptera		Ephemeroptera		(continued)	Diptera	ORDER	Sample Type	Collection Date	Longitude	Latitude	Station
Lestes rectangularis Say	Ischnura verticallis Say	Zygoptera Coenagrion/Enallagma sp.	Pachydiplax longipennis Burm.	Libellula sp.	Cordulegaster sp.	Anisoptera <i>Anax junius</i> Drury	Nigronia sp.	Chauliodes sp.	Gerris Remigus Say	Gerridae <i>Gerris insperatus</i> Drake & Hottes	Sigara alternata (Say)	Corixidae <i>Hesperocorixa obliqua</i> (Hungerford)	Paraleptophlebia sp.	Hexagenia sp.	Prionocera sp.	Pedicia sp.	Tipulidae <i>Hexatoma sp.</i>	TAXON			(West)	(North)	
+	+	1	+	+	1	+	;	1	;	1	+	+	!	;	1	;			Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
+	1	+	1	1	}	;	;	1	+	1	-	1	-	;	-	;			Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
-	1	1	1	;	+	+	}	+	;	+	;	1	;	+	1	+			Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
1	1	1	1	-	1	;	;	1	;	1	!	1	!	1	1	1			Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
-	1	1	1	-	1	;	;	1	;	1	!	1	+	1	1	1			Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
-	-	1	1	1	+	!	+	1	;	1	1	1	1	1	1	-			Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
-	1	1	1	-	1	;	;	1	;	1	!	1	!	1	1	1			Qual.	9/24/96	814836	410352	MD-13 (Styx River)
+	-	1	1	-	1	;	+	;	;	1	!	1	!	;	+	1	+		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
-	-	1	1	-	1	;	;	;	;	1	!	1	!	;	1	1	+		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
+	1	1	1	-	-	!	;	1	1	}	!	1	!	!	1	1	:		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

### Aquatic Biota in Ohio Springs PROJECT DATA

												Bacillariophyta	Chrysophyta		Euglenophyta	Cryptophyta		Rhodophyta										Cyanophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
A. lapponica v. ninckei	A. lapponica	A. lanceolata v. omissa	A. lanceolata v. dubia	A. lanceolata	A. hungarica	A. hauckiana	A. exigua v. heterovalva	A. exigua v. constricta	A. exigua	A. deflexa	A. conspicua v. brevistriata	Achnanthidium cleveii	Tribonema affine	Euglena ehrenbergii	Trachelomonas hispida	Cryptomonas erosa	Batrachospermum gelatinosum	Audouinella hermannii	Lyngbya martensiana	Spirulina major	Schizothrix calcicola	P. tenue	P. retzii	Phormidium autumnale	Merismopedia punctata	Hapalosiphon intricatus	C. varius	Chroococcus turgidus	Taxon			(West)	(North)	
;	!	!	1	+	1	1	1	1	1	1	+	!	+	!	1	1	1	-	+	!	+	;	;	!	!	!	!	!		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
-	;	;	1	+	1	+	1	1	1	1	1	1	!	;	!	1	1	-	;	+	+	+	+	+	;	1	1	;		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
;	;	;	!	+	1	}	;	;	}	;	;	;	!	+	+	1	1	-	;	;	+	;	;	!	;	+	1	;		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
-	;	;	+	+	1	1	1	1	1	1	;	;	!	;	1	!	1	-	;	;	+	;	;	-	;	1	;	;		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
+	+	+	+	+	+	1	+	+	+	+	1	+	;	;	1	+	+	-	;	;	+	;	;	;	+	1	+	+		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
1	;	;	1	+	1	1	-	1	1	-	1	1	;	;	1	1	1	1	;	;	+	;	;	1	;	1	-	;		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
1	;	;	1	+	1	1	;	;	+	;	;	1	;	;	1	!	1	1	;	;	+	;	;	1	;	1	1	;		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
:	;	;	-	:	1	1	:	1	:	:	;	;	!	;	!	1	1	-	;	;	!	!	;	!	;	1	!	;		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
;	;	;	+	+	1	}	;	;	+	;	;	;	!	;	!	1	1	+	;	;	-	;	;	-	;	1	1	;		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
1	1	1	1	+	1	-	!	1	1	1	-	;	1	-	-	!	1	-	;	-	-	;	;	-	;	1	;	;		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

The following table lists the results from collections of algae at 10 springs in Ohio from July through September 1996. The locations were selected from environmental settings with varying surficial geology to create a preliminary list of biota associated with springs in Ohio and provide a basis for future water-quality investigations. The algae reported in this study are arranged in alphabetical order within Divisions which are in Phylogenic Order as described by the USGS Biological Unit at URL: http://wwwmql.cr.usgs.gov/USGS/algae/algae.phylo.info.html. [+ = present in the indicated spring; -- = not present in the indicated spring; Qual. = Qualitative; Degree, minute, and second symbols are ommitted from latitudes and longitudes.]

																															(continued)	Bacillariophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
C. fluviatilis	C. disculus	Cocconeis diminuta	Cavinula pseudoscutiformis	Campylodiscus noricus	C. ventricosa v. truncatula	C. ventricosa v. minuta	C. ventricosa v. alpina	C. ventricosa	C. limosa	C. hyalina	C. bacillum	C. bacillaris v. thermalis	Caloneis alpestris	Brachysira vitrea	Aulicoseira granulata	A. veneta	A. submontana	A. perpusilla	A. ovalis v. pediculus	A. ovalis v. affinis	A. ovalis	A. normanii	A. michiganensis	Amphora sp.	Amphipleure pellucida	A. wellsiae	A. subrostrata	A. peragalli v. fossilis	A. oestrupii	A. minutissimum	A. linearis f. curta	A. linearis	Taxon			(West)	(North)	
1	1	1	-	1	-	1	-	;	!	1	+	+	+	-	+	+	-	+	1	+	1	1	1	1	+	1	-	1	-	+	1	1		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
;	;	;	;	;	1	;	;	;	;	;	1	;	;	1	1	;	1	+	;	;	1	;	1	1	;	;	1	;	1	+	;	;		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
;	;	;	;	;	;	;	;	;	;	+	+	;	-	;	1	;	+	1	;	+	1	;	1	1	;	;	;	;	1	+	;	;		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
1	;	1	-	;	-	1	;	1	1	1	+	1	;	-	1	;	-	1	;	1	1	+	1	1	;	1	-	;	-	+	;	;		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
+	+	+	+	+	+	+	+	+	+	1	+	+	+	+	1	+	+	1	+	+	+	1	+	1	+	+	1	+	+	+	+	+		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
1	;	;	-	;	1	1	;	1	1	;	1	1	;	1	1	;	1	+	;	;	1	;	1	1	;	1	+	;	1	+	;	;		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
1	;	;	1	;	;	1	;	;	1	;	+	1	;	;	1	;	1	+	;	;	+	;	1	1	;	;	1	;	1	+	;	;		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
1	;	;	1	;	1	-	;	1	1	;	1	1	;	1	}	;	1	}	;	;	}	;	1	-	;	1	-	;	-	-	;	;		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
1	;	;	1	;	-	-	;	1	1	;	1	1	;	-	1	;	-	+	;	;	+	;	1	-	;	1	1	;	1	-	;	;		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
1	;	1	-	1	-	1	;	1	1	1	1	1	;	-	1	;	+	1	;	1	1	+	1	+	;	1	-	;	-	1	;	;		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

																															(continued)	Bacillariophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
C. parva	C. obtusisula	C. obtussa	C. norvegica	C. microcephala	C. laevis	C. incerta	C. heteropleura	C. delicatula	C. cymbiformus v. nonpunctata	C. cistula	C. cesatii	C. aspera	C. angustata	C. amphicephala	C. affinis	C. aequalis v. subaequalis	Cymbella aequalis	Cymatopleura solea	Cymatopleura elliptica	C. operculata	C. menenghiniana	C. kutzingiana v. planetophora	C. kutzingiana	Cyclotella comta	Ctenophora pulchella	Craticula cuspidata	C. thumensis	C. placentula v. lineata	C. placentula v. intermedia	C. placentula v. euglypta	C. placentula	C. pediculus	Taxon			(West)	(North)	
+	1	1	+	+	+	1	-	1	!	+	1	1	1	1	1	1	-	1	;	1	+	;	1	+	+	+	1	+	1	1	!	;		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
-	!	!	:	+	-	:	;	1	+	!	;	:	;	!	-	;	-	!	;	-	!	;	1	1	;	;	-	-	-	!	+	+		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
!	;	;	:	-	-	:	;	;	1	!	;	:	-	;	;	-	;	;	;	-	+	;	1	1	;	+	;	-	-	;	+	;		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
-	!	!	;	;	-	;	;	1	1	!	;	;	;	!	!	;	1	1	;	1	1	;	1	1	;	;	!	;	!	1	!	;		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
+	+	+	-	+	+	+	+	+	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1	;	;	+	+	+	+	+	+		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
;	-	1	-	!	1	-	;	;	1	!	1	-	:	1	1	:	;	1	;	1	1	;	1	1	;	;	1	-	1	1	+	:		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
;	;	;	}	;	-	}	;	;	1	-	;	}	;	;	1	;	;	1	;	1	1	;	1	1	;	;	1	;	!	1	-	;		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
;	;	;	:	-		:	;	;	1	!	;	:	;	;	;	;	;	;	;	-	;	;	1	1	;	;	;	-	-	;	!	;		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
;	!	!	-	;	-	-	!	1	!	!	!	-	!	!		!		!	;	1	!	;	1	1	;	;		;	-	+	+	+		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
1	-	1	-	;	-	-	-	1	1	;	1	-	!	1	-	!	-	1	-	-	1	-	-	-	-	-	-	!	1	1	;	;		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

																															(continued)	Bacillariophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
E. pectinalis v. minor	E. pectinalis	E. elegans	E. curvata	Eunotia arcus	E. flexella v. alpestris	Eucocconeis flexella	E. zebra v. saxonica	E. turgida	E. sorex	E. argus v. longicornis	Epithemia argus v. alpestris	E. turgidum	E. minuta	Encyonema brehmii	D. smithii v. dilata	D. smithii	D. oblongella	Diploneis elliptica	D. vulgare v. linearis	D. vulgare	D. tenue v. elongatum	D. tenue	Diatoma hiemale	D. perpusilla	Diadesmus contenta	D. thermalis	D. tenuis	Denticula elegans	C. tumida	C. schmidtii	C. rupicola	C. parvula	Taxon			(West)	(North)	
1	!	-	1	1	!	1	+	+	+	+	+	1	+	1	1	1	+	1	1	!	!	!	!	1	+	;	1	!	1	1	!	:		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
-	;	-	1	;	;	1	!	1	;	;	;	1	;	1	1	;	-	-	;	1	1	!	;	1	;	;	1	;	-	1	!	;		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
-	+	-	+	-	;	-	!	-	;	;	;	;	+	1	1	-	+	!	;	+	1	!	;	-	;	!	-	;	!	!	!	;		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
1	;	-	1	;	;	-	-	1	1	;	;	1	;	1	1	;	-	-	;	!	1	!	;	-	;	1	-	;	1	1	!	;		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
+	+	+	+	+	+	+	;	+	1	;	;	+	+	+	+	+	+	+	+	;	+	+	+	1	;	+	+	+	+	+	+	+		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
1	;	;	1	;	;	;	;	;	;	;	;	;	;	1	1	;	;	;	1	;	1	;	;	;	+	;	;	;	1	1	;	;		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
1	;	1	1	1	1	1	1	1	1	1	;	1	1	1	1	1	+	+	;	;	1	;	1	+	+	1	1	;	!	!	;	;		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
1	;	-	1	;	;	1	-	1	1	;	;	1	;	1	1	;	-	-	;	!	1	!	+	1	;	1	1	;	1	-	!	1		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
+	1	-	1	!	-	1	-	1	-	;	;	1	;	-	1	!	-	-	;	!	-	!	-	1	;	1	1	1	1	!	!	1		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
:	;	-	-	!	-	-	!	1	!	;	1	1	!	1	-	!	-	!	!	!	!	-	-	-	!	;	-	;	-	!	-	;		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

																															(continued)	Bacillariophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
G. sphaerophorum	G. parvulum	G. olivaceum	G. montanum v. subclavatum	G. montanum	G. lanceolata	G. intricatum f. pusilla	G. intricatum v. pumila	G. intricatum v. dichotomum	G. intricatum	G. insigne	G. gracile v. lanceolata	G. gracile v. aurita	G. gracile	G. angustatum v. sarcophagus	G. angustatum v. naviculaformis	G. angustatum	G. acuminatum v. trigonocephala	G. acuminatum v. pusilla	G. acuminatum v. coronata	G. acuminatum v. capitatum	G. acuminatum v. brebissonii	Gomphonema acuminatum	Frustulia vulgaris	Fragilariforma virescens	F. vaucheriae v. continua	F. vaucheriae v. capitellata	F. vaucheriae	F. lapponica	F. crotonensis	F. capucina v. mesolepta	Fragilaria capucina v. lan- ceolata	E. valida	Taxon			(West)	(North)	
:	+	+	-	1	+	1	+	!	1	+	1	+	1	1	;	+	1	!	-	!	+	-	!	+	+	-	1	+	+	+	!	+		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
1	+	+	;	}	;	1	}	;	1	+	;	;	+	;	-	}	;	;	-	-	1	1	-	1	}	;	1	-	-	1	;			Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
+	+	+	;	}	;	;	}	;	1	+	;	;	1	;	-	+	;	;	-	;	;	+	;	;	}	;	+	1	;	;	;			Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
1	-	!	;	}	;	1	}	;	1	1	;	;	1	;	!	+	;	;		;	;	;	;	1	}	;	;	1	;	;	;			Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	}	+	+	1	;	+	+			Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
:	-	!	;	1	;	1	1	;	1	;	;	;	1	!	!	+	;	;	-	;	;	+	;	1	-	;	;	;	:	;	;			Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
;	-	!	;	1	;	1	1	;	1	1	;	;	1	;	!	+	;	;		;	;	;	;	1	}	;	;	1	;	;	;			Qual.	9/24/96	814836	410352	MD-13 (Styx River)
1	1	+	;	1	;	-	1	;	1	-	;	1	1	;	;	+	;	;	-	!	1	-	!	-	1	;	1	1	1	1	;	-		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
1	-	-	!	1	!	1	1	!	1	!	;	;	!	;	-	-	!	;		-	!	!	-	1	-	!	+	-	!	!	;			Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
1	-	!	1	1	!	-	1	;	1	-	;	1	1	;	;	-	1	1	-	!	1	-	!	-	-	;	1	1	1	1	;	-		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

																															(continued)	Bacillariophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
N. halophila	N. gregaria	N. graciloides	N. falaisiensis v. lanceolata	N. elginensis v. rostrata	N. elginensis	N. cryptocephala v. veneta	N. cryptocephala v. exilis	N. cryptocephala	N. atomus	Navicula abiskoensis	M. lineare	M. circulare v. constricta	Meridion circulare	Melosira varians	M. smithii v. lacustris	Mastogloia grevillei	M. martyi	Martyana ansata	L. mutica v. tropica	L. mutica	Luticola heufleriana	Hantzschii amphioxys	G. spencerii v. curvula	G. spencerii	G. scalproides	G. attenuatum	Gyrosigma acuminatum	G. truncatum	G. tergestinum	G. subtile v. sagitta	G. subtile	G. subclavatum	Taxon			(West)	(North)	
;	1	1	-	1	1	1	!	;	!	+	1	1	+	1	+	+	;	1	+	1	1	+	-	1	!	1	1	+	1	+	+	!		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
+	;	;	1	;	!	+	;	1	1	;	;	+	+	+	1	;	1	1	;	1	+	;	-	1	;	1	1	+	+	1	;	1		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
1	;	+	1	;	1	+	+	+	1	+	;	+	+	+	1	;	;	1	;	1	+	+	;	+	+	1	1	;	+	1	;	1		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
1	;	;	1	;	1	1	;	+	;	;	;	1	+	1	1	;	;	1	;	-	1	;	-	1	;	-	1	;	+	1	;	1		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
1	;	1	+	+	+	+	;	+	+	;	+	+	+	;	+	;	+	+	;	1	1	;	+	+	;	+	+	+	;	1	+	1		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
1	;	1	1	;	;	+	;	;	1	;	1	1	;	;	1	;	;	1	;	+	1	+	1	1	;	1	1	;	;	1	;	1		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
1	;	1	1	-	1	1	;	1	1	-	1	1	-	1	1	1	;	1	-	!	1	;	1	1	;	!	1	1	1	1	;	1		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
1	;	;	1	;	1	1	;	1	1	;	;	1	-	1	1	1	1	1	-	!	1	;	-	1	;	!	1	1	1	1	;	1		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
1	+	1	1	-	1	1	;	1	1	-	1	1	-	1	1	1	;	1	-	!	1	;	1	1	;	!	1	1	1	1	;	+		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
;	!	;	1	;	!	-	!	;	;	+	;	-	;	!	!	!	;	!	;	!	-	!	-	!	!	!	!	!	!	!	!	!		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

																															(continued)	Bacillariophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
N. tridentula	N. tenuloides	N. tenelloides	N. symmetrica	N. subhamulata	N. subbacillum	N. soehrensis	N. simula	N. simplex	N. seminulum v. intermedia	N. seminulum v. hustedtii	N. seminulum	N. seminuloides	N. salinarum v. intermedia	N. rhychocephala	N. radiosa v. tenella	N. radiosa	N. potzgeri	N. pelliculosa	N. paucivisitata	N. paludosa v. rhomboidea	N. oblonga	N. notha	N. nivalis	N. nigrii	N. muralis	N. minima	N. minuscula	N. lanceolata	N. heustedtii	N. heufleri	N. hasta	N. halophila v. tenuirostris	Taxon			(West)	(North)	
1	1	1	1	1	;	1	1	+	1	1	+	1	1	1	+	+	1	1	1	1	+	!	+	+	!	-	+	!	1	!	!	-		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
;	!	;	+	;	1	1	;	1	1	;	}	1	!	!	+	!	!	1	;	;	+	!	1	1	;	-	1	+	1	1	;	1		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
1	;	1	1	-	;	1	;	1	1	;	+	1	;	1	+	;	1	1	;	1	1	;	1	1	;	-	1	+	+	1	1	1		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
1	!	;	1	;	;	1	1	1	1	;	+	1	!	1	1	!	1	1	1	;	-	!	1	1	;	-	;	;	+	-	;	1		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
+	+	+	+	+	+	1	+	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1	1	+	+	1	;	1	+	+	+		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
1	;	;	+	:	;	1	-	1	1	;	;	1	;	;	+	;	;	1	-	;	1	;	1	1	-	-	1	;	1	1	;	1		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
;	;	;	}	;	;	+	;	1	1	;	;	1	;	;	+	;	;	1	;	;	1	;	1	1	;	-	1	;	1	+	;	1		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
1	;	;	1	;	;	;	;	1	;	;	;	;	;	;	;	;	;	1	;	;	1	;	1	;	;	-	;	;	1	1	;	1		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
-	1	1	-	;	;	1	!	1	;	+	+	1	1	1	1	1	1	1	!	1	-	!	1	1	!	-	;	;	1	-	!	1		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
;	!	-	1	!	1	-	1	-	1	!	!	-	!	!	-	!	!	1	1	-	1	!	-	-	-	1	1	;	1	1	+	-		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

																															(continued)	Bacillariophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
N. perminuta	N. parvula	N. palea	N. linearis	N. kutzingiana	N. hantzschiana	N. gracilis	N. frustulum	N. fonticola	N. filiformis	N. dubia	N. dissipata	N. denticula	N. debilis	N. clausii	N. capitellata	N. apiculata	N. angustata v. acuta	N. angustata	N. amphibia	N. adapta	Nitzschia acicularis	N. iridis v. ampliatum	N. iridis	N. bisulcatum	Neidium binode	N. viridula v. rostellata	N. viridula v. avenacea	N. viridula v. argunensis	N. viridula	N. vanheurckii	N. tripunctata v. schizonemoides	N. tripunctata	Taxon			(West)	(North)	
1	!	;	+	;	;	1	+	1	1	-	1	+	+	;	1	;	;	1	+	!	1	+	!	1	;	1	-	+	1	1	-	;		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
+	!	+	1	;	;	1	!	1	-	-	+	1	1	;	1	;	;	1	+	!	1	;	!	1	;	1	1	1	1	1	-	1		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
+	;	+	+	;	1	1	1	1	1	+	+	1	;	1	1	;	;	!	+	;	+	;	;	1	;	1	1	;	;	!	-	+		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
+	+	+	1	;	;	1	!	1	1	;	-	1	;	;	1	;	;		+	;	1	;	;	1	;	1	1	;	1		;	;		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
1	-	+	+	+	+	+	+	+	+	-	+	+	1	+	+	+	+	+	+	+	+	;	+	+	+	+	+	;	+	+	+	+		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
1	-	;	+	-	1	1	;	1	1	!	!	-	;	1	1	-	1	1	!	1	1	-	1	1	+	1	1	;	;	1	!	;		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
1	;	;	+	;	;	1	;	1	1	;	1	1	+	;	1	;	}	1	;	1	1	;	1	1	;	1	1	;	;	1	;	;		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
;	!	;	ł	;	;	!	1	;	-	;	-	;	;	;	1	;	;	!	;	!	!	;	!	1	;	-	-	;	;	!	;	;		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
+	!	1	;	-	-	-	-	;	-	;	-	;	-	-	-	-	;	-	;	!	-	-	!	-	-	1	-	1	1	-	;	;		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
;	!	:	+	!	;	-	!	1	-	;	1	;	;	;	1	;	;	1	;	!	-	-	!	1	;	1	!	!	;	1	;	;		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

																															(continued)	Bacillariophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
Rhoicosphenia curvata	Reimeria sinuata	P. brevistriata v. inflat	P. brevistriata v. capita	Pseudostaurosira brevistriata	P. viridis v. sedetica	P. viridis v. minor	P. viridis	P. rupestris	P. mesolepta	P. mesogongyla	P. kneuckeri	P. gibba	P. flexuosa	P. brevicostata	P. brebissonii v. diminuta	P. brebissonii	P. braunii v. amphicephala	P. appendiculata	P. aestruarii	P. acuminata v. bielawski	P. acoricola	Pinnularia abaujensis v. rostrata	N. vivax	N. tropica	N. subtilis	N. sublinearis	N. stagnorum	N. spectibilis	N. sinuata v. delognei	N. sigmoidea	N. romana	N. recta	Taxon			(West)	(North)	
+	1	+	-	-	-	1	+	;	1	1	+	1	1	1	-	+	1	1	1	1	!	;	-	+	1	1	1	1	!	+	1	-		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
+	-	!	1	+	;	1	}	;	;	1	;	1	-	!	-	1	;	1	1	;	!	}	!	-	;	;	1	!	!	;	;	;		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
+	}	!	1	1	;	1	1	;	;	1	;	+	1	;	;	1	;	1	1	;	+	;	-	1	-	;	1	!	1	1	-	;		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
+	}	!	-	1	;	1	1	;	;	1	;	1	1	!	-	-	-	1	-	-	!	1	-	1	!	1	1	!	!	1	!	;		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
+	}	!	+	+	+	+	+	+	+	+	;	1	+	+	;	1	+	+	+	+	1	+	+	+	+	+	+	+	1	+	+	+		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
+	1	!	1	1	;	1	+	-	;	1	;	1	1	;	+	1	1	1	1	1	;	;	-	1	!	;	1	!	;	1	!	;		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
-	+	1	1	;	;	1	1	;	;	;	;	1	1	-	;	+	;	1	;	;	;	}	-	1	!	;	;	1	;	;	!	;		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
-	1	!	-	-	;	1	1	;	;	1	;	1	1	!	-	1	1	1	1	1	!	1	-	1	;	1	;	!	!	;	;	;		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
+	1	1	-	-	!	1	-	;	;	;	!	1	1	!	-	-	1	1	-	1	1	1	;	1	;	;	;	1	+	;	;	;		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
-	1	-	-	1	-	1	1	;	1	1	-	1	1	!	-	1	1	1	1	1	;	1	-	1	1	1	1	-	;	1	1	;		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

																															(continued)	Bacillariophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
S. capitata	S. amphicephala	Synedra affinis	S. robusta v. spendida	S. robusta	S. ovata v. pinnata	S. ovata	Surirella angustata	S. invisitatus	Stephanodiscus hantzschii	Stenopterobia delicatissima	S. pinnata v. lancetula	S. pinnata v. intercedens	S. pinnata	S. leptostauron v. dubia	Staurosirella leptostauron	S. construens v. venter	S. construens v. subsalina	S. construens v. pumila	Staurosira construens	S. smithii	S. phoenocentron v. braunii	S. phoenocentron	S. kriegeri	S. anceps v. americana	Stauroneis anceps	S. pupula v. rectangularis	S. pupula v. mutata	S. pupula v. capitata	S. pupula	Sellophora laevissima	R. gibberula	Rhopalodia gibba	Taxon			(West)	(North)	
+	1	+	1	1	1	1	+	+	+	1	1	1	1	1	1	+	1	1	1	1	1	1	1	1	1	+	1	1	1	1	+	+		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
1	;	-	1	!	1		1	1	1	1	1	1	;	;	1	;	!	1	;	-	1	1	1	1	1	!		;	+	1	;	;		Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
1	;	-	1	!	+	+	+	-	;	-	;	-	;	;	1	;	!	-	;	-	1	-	+	+	+	!		;	-	-	;	;		Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
1	;	-	1	-	1	-	;	1	1	;	;	-	;	;	1	;	!	1	;	-	1	;	1	+	;	!	-	;	-	1	;	;		Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
1	+	+	+	+	1	+	+	1	1	+	+	+	+	+	+	+	+	+	+	+	+	+	1	}	+	+	+	+	+	+	;	+		Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
1	;	;	1	;	1	1	;	;	;	;	;	;	;	;	1	;	;	;	1	1	1	;	1	1	;	;	1	;	;	;	;	;		Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
1	;	1	1	1	1		+	1	1	1	1	1	;	;	1	;	;	1	;	+	1	1	1	1	1	;		;	1	1	;	;		Qual.	9/24/96	814836	410352	MD-13 (Styx River)
1	;	-	1	-	1	1	;	1	1	;	;	1	;	;	1	;	!	1	;	1	1	;	1	1	;	!	1	;	-	1	;	1		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
1	!	-	1	-	-	1	!	1	1	!	-	1	!	1	-	!	!	1	;	-	1	!	-	-	!	!	1	!	-	1	!	1		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
1	1	-	1	!	1	-	1	1	;	1	1	1	1	-	1	1	1	1	1	1	1	1	1	-	1	1	-	1	-	1	1	;		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

															Chlorophyta														(continued)	Bacillariophyta	Division	Sample Type	Collection Date	Longitude	Latitude	Station
Zygnema sp.	Ulothrix subtilissima	Tribonema minus	Spirogyra sp.	Rhizoclonium crassipellitum	Pleurotaenium ehrenbergii	Oocystis submarina	Oedogonium sp.	Mougeotia sp.	Microthamnion strictissimum	Cosmarium reniforme	Closterium subulatum	C. moniliferum	Cladophora glomerata	Chara vulgaris	Chaetophora elegans	T. hungarica	Tryblionella calida	Thalassiosira pseudonanna	S. ulna v. subaequalis	S. ulna v. longissima	S. ulna v. danica	S. ulna	S. radians	S. parasitica v. subconstricta	S. parasitica	S. minuscula	S. filiformis v. exilis	S. fasciculata v. truncata	S. fasciculata	S. delicatissima	Taxon			(West)	(North)	
+	1	+	+	1	1	+	+	+	;	1	;	1	!	+	1	+	1	+	1	1	+	1	+	1	1	+	1	!	1	+		Qual.	7/10/96	825430	412417	S-30-T9 (Miller Blue Hole)
1	1	:	-	:	1	!	1	+	1	-	-	+	!	1	+	1	;	1	:	;	;	-	;	!	1	1	;	!	+			Qual.	7/10/96	830309	411551	S-34 (Green River Spring)
1	1	;	+	+	1	-	1	;	1	1	;	;	1	!	1	+	+	;	+	;	;	+	;	!	1	!	;	1	!			Qual.	8/9/96	832306	395923	M-86 (Spring Fork)
1	1	1	+	+	!	-	;	+	1	1	;	;	-	!	1	1	;	1	1	;	;	1	;	1	1	!	;	-	1			Qual.	8/9/96	831722	394529	M-87 (Flowing Well)
+	1	1	+	1	+	1	;	+	1	+	+	;	;	+	1	+	;	1	+	+	1	+	+	+	+	+	+	+	+			Qual.	9/6/96	834700	400300	CH-84 (Cedar Bog)
1	1	-	1	-	1	1	1	;	1	1	!	1	-	1	1	1	;	-	-	-	-	1	-	1	1	1	1	-	1			Qual.	9/17/96	823805	393559	F-26 (Clear Creek)
1	+	-	-	1	1	-	1	1	+	1	-	;	1	!	1	1	;	1	1	;	;	1	;	!	-	!	;	1	!			Qual.	9/24/96	814836	410352	MD-13 (Styx River)
1	1	;	1	}	!	1	1	;	;	-	;	;	-	-	1	}	;	;	}	;	;	-	;	!	1	!	;	-	!	:		Qual.	9/24/96	814837	410351	MD-14 (Styx River Trib.)
1	1	!	1	-	!	-	1	;	;	-	;	-	+	-	-	-	-	;	-	-	1	-	-	!	1	!	-	-	!	-		Qual.	9/24/96	812954	410726	SU-20 (Gorge Run)
1	1	1	-	1	!	-	1	;	;	-	;	-	1	-	-	-	-	;	-	!	-	-	!	!	1	!	!	-	!	-		Qual.	9/24/96	813313	410739	SU-21 (Sand Run)

# PROJECT DATA (National Water-Quality Assessment Program)

12 15774.2	33259.1	17	16423.3	7	20332.3	16	common carp	Cyprinus carpio	Cyprinidae
:	!	-	-	!	;	-	brown trout	Salmo trutta	Salmonidae
44 417.9	29.5	N	;	;	;	1	gizzard shad	Dorosoma cepedianum	Clupeidae
1	!	-	1	!	1	-	longnose gar	Lepisosteus osseus	Lepisosteidae
							american brook lamprey	Lampetra appendix	Petromyzontidae
BATCH ABUNDANCE WEIGHT (g)	BATCH WEIGHT A	ABUNDANCE	BATCH WEIGHT (g)	ABUNDANCE	BATCH WEIGHT (g)	ABUNDANCE	COMMON NAME	SCIENTIFIC NAME	FAMILY
840914	53	841753	)12	851012	07	841207		(West)	Longitude
395534	33	395433	259	393259	144	393944		(North)	Latitude
Great Miami River near Tipp City, OH		Stillwater River on Old Springfield Rd near Union OH	er River town, IN	Whitewater River near Nulltown, IN	Creek ing, OH	Holes Creek at Kettering, OH			Station Name

Station Number	Station Name	Date Sampled	Drainage Area (miles²)	Reach Length (meters)	Specific Conductance (us/cm) (90095)	рН (00040)	Water Temperature (DEG C) (00010)	Dissolved Oxygen (mg/L) (00300)
393944084120700	Holes Creek at Kettering, OH	9/10/98	20.0	205	667	7.8	14.9	8.3
393259085101200	Whitewater River near Nulltown, IN	9/15/98	533.2	400	654	6.9	20.4	7.4
395433084175300	Stillwater River on Old Springfield Rd near Union, OH	9/17/98	642.7	250	760	8 2	21.7	7.8
395534084091400	Great Miami River near Tipp City, OH	9/9/98	1128.3	400	756	8.1	18.2	7.5
395650083504400	Mad River near Hwy 41 near Springfield, OH	9/14/98	318.6	300	740	7.8	16.5	7.6
392246084340100	Great Miami River below Hamilton, OH	9/1/98	3635.8	500	731	æ 5	27.4	10.5
03245500	Little Miami River at Milford, OH	9/16/98	1202.5	265	906	8.0	23.8	7.1

# CALENDER YEAR 1998

(NAWQA). Fish were collected by electrofishing with pulsed-DC current in a mapped reach at each site. Two electrofishing passes were done at each single day. Electrofishing was done by use of a barge electroshocker at all sites excluding the Great Miami River below Hamilton, Ohio where non-wadeable stream depths required the use of a boat. Fish were identified, measured, weighed, and checked for external anomalies such as parasites, lesions, and skeletal anomalies. Fish were identified by Dr. Terry Keiser, Ohio Northern University, and representative specimens were preserved, identified, and vouchered at the University. More details regarding collection methods can be found in Meador and others (1993). Taxonomy is based on Robins and others (1991). [-- not present at indicated site; ** = Species were identified by voucher and weights were not recorded; Degree, minute, and second symbols are omitted from latitude and longitude]

Percichthyidae					Ictaluridae											Catostomidae																			FAMILY	Longitude	Latitude	Station Name
ae Morone chrysops	Noturus miurus	Noturus flavus	Pylodictis olivaris	Ameiurus natalis	Ictalurus punctatus	Catostomus commersoni	Hypentelium nigricans	Moxostoma carinatum	Moxostoma macrolepidotum	Moxostoma erythrurum	Moxostoma duquesnei	Moxostoma anisurum	Carpiodes velifer	Carpiodes carpio	Carpiodes cyprinus	Ictiobus niger	Campostoma anomalum	Pimephales notatus	Pimephales promelas	Notropis buccatus	Notropis stramineus	Cyprinella spiloptera	Cyprinella whipplei	Luxilus chrysocephalus	Notropis photogenis	Notropis atherinoides	Clinostomus elongatus	Phenacobius mirabilis	Semotilus atromaculatus	Rhinichthys atratulus	Erimystax x-punctatus	Nocomis micropogon	Nocomis biguttatus	Carassius auratus	SCIENTIFIC NAME	(West)	(North)	me
white bass	brindled madtom	stonecat	flathead catfish	yellow bullhead	channel catfish	white sucker	northern hogsucker	river redhorse	shorthead redhorse	golden redhorse	black redhorse	silver redhorse	highfin carpsucker	river carpsucker	quillback carpsucker	black buffalofish	stoneroller	bluntnose minnow	fathead minnow	silverjaw minnow	sand shiner	spotfin shiner	steelcolor shiner	striped shiner	silver shiner	emerald shiner	redside dace	suckermouth minnow	creek chub	blacknose dace	gravel chub	river chub	horneyhead chub	goldfish	COMMON NAME			
;	!	!	-	Ŋ	!	21	20	!	1	1	!	!	!	!	!	!	1200	138	!	26	39	!	;	43	!	;		;	115	166	!	1	!	1	ABUNDANCE	841	393	Holes at Kette
1	-	!	1	32.3	1	1174.0	742.8	1	1	336.0	1	-	-	-	1	1	6003.2	393.9	!	66.6	70.9	!	1	297.0	-	-	1	-	1240.0	472.2	1	1	-	178.0	BATCH WEIGHT (g)	841207	393944	Holes Creek Kettering, OH
;	!	ω	;	1	;	80	94	;	1	7	42	!	;	!	9	;	4	13	!	1	162	12	;	34	11	;		;	σ	1	1	76	!		ABUNDANCE	851012	393259	Whitewater River near Nulltown, IN
!	1	158.7	;	1	-	22594.0	18649.0	1	1	1661.0	24060.5	1	;	1	5870.0	1	86.9	24.9	;	1.4	216.4	34.9	1	270.4	26.2	-	1	-	344.6	0.5	!	1854.4	1	-	BATCH WEIGHT (g)	)12	259	er River town, IN
;	1	66	;	1	4	!	97	1	9	16	9	1	;	1	1	;	406	46	N	;	150	33	;	3.8	ω	47	1	!	1	1	1	186	1		ABUNDANCE	841753	395	Stillwater River on Old Springfield Rd near Union OH
-	-	1452.8	-		733.3	!	18668.7	765.0	2323.0	5599.0	2392.0	-	-	-	-	-	3757.7	122.4	4.6	1	47.2	107.7	1	454.8	14.3	93.2		-	-	-	1	5883.0	-		BATCH WEIGHT (g)	753	395433	Stillwater River on Old Springfield Rd near Union OH
;	1	1	;	1	1	б	112	;	15	59	4	1	;	1	ר	;	38	60	;	1	96	97	1	12	Л	20	1	σ	1	1	!	22	4		ABUNDANCE	840	395	Great Mi. near Tipp
1	1	-	1	-	1642.0	1328.1	10373.6	-	5301.0	12513.0	619.0	1	-	1	18.0	-	197.9	92.1	;	0.8	153.7	334.3	;	133.6	7.5	26.8	-	26.2	-	-	-	739.8	13.3		BATCH WEIGHT (g)	840914	395534	Great Miami River near Tipp City, OH

سا	-	, , , ,		) i		1 0 0 1			HYBRID SPECIES
G G	;	٥	;	7.	;	Łα			SPECIES
			000	01 0		1	יייטרידטא מרמדבידי	יטיימט צמדדמד	COCCHAGO
1 3.4	!	!	66.7	ת	!	!	mottled sculpin	Cottus bairdi	Cottidae
:	1	1	1	!	1 1	1	freshwater drum	Aplodinotus grunniens	Sciaenidae
1	2.5	ц	4.0	ц	90.1	44	fantail darter	Etheostoma flabellare	
7 7.4	23.2	14	15.5	13	;	;	rainbow darter	Etheostoma caeruleum	
4 4.8	18.3	9	4.5	2	;	;	banded darter	Etheostoma zonale	
20 54.0	202.4	32	13.9	Q	!	1	greenside darter	Etheostoma blennioides	
1 16.5	213.6	23	;	1	!	1	logperch	Percina caprodes	
1	1	!	;	;	;	;	slenderhead darter	Percina phoxocephala	
1	1	1	1	-	-	-	sauger	Stizostedion canadense	Percidae
9 48.0	-	1	;	!	!	;	pumpkinseed	Lepomis gibbosus	
41 556.4	53.2	2	;	;	;	;	longear sunfish	Lepomis megalotis	
1	19.2	ω	1	1	!	1	orangespotted sunfish	Lepomis humilis	
14 194.7	-	1	;	-	121.2	14	bluegill	Lepomis macrochirus	
18 504.0	142.4	Q	;	1	369.6	19	green sunfish	Lepomis cyanellus	
1	8.6	ч	61.0	Л	61.3	27	largemouth bass	Micropterus salmoides	
1 2.0	55.1	22	;	1	!	1	spotted bass	Micropterus punctulatus	
37 2789.0	3640.4	16	1359.5	22	28.0	ם	smallmouth bass	Micropterus dolomieu	Centrarchidae
33 2182.0	233.3	7	707.9	10	!	1	rock bass	Ambloplites rupestris	
1 14.0	-	-	-			-	white crappie	Pomoxis annularis	
BATCH ABUNDANCE WEIGHT (g)	BATCH WEIGHT ABI	ABUNDANCE	BATCH WEIGHT (g)	ABUNDANCE	BATCH WEIGHT (g)	ABUNDANCE	COMMON NAME	SCIENTIFIC NAME	FAMILY
840914	ω	841753	112	851012	07	841207		(West)	Longitude
395534	ω	395433	59	393259	444	393944		(North)	Latitude
Great Miami River near Tipp City, OH		Stillwater River on Old Springfield Rd near Union OH	er River town, IN	Whitewater River near Nulltown, IN	Creek ing, OH	Holes Creek at Kettering, OH			Station Name

								Catostomidae																			Cyprinidae	Salmonidae	Clupeidae	Lepisosteidae	Petromyzontidae	FAMILY	Longitude	Latitude	Station Name
Moxostoma carinatum	Moxostoma macrolepidotum	Moxostoma erythrurum	Moxostoma duquesnei	Moxostoma anisurum	Carpiodes velifer	Carpiodes carpio	Carpiodes cyprinus	Ictiobus niger	Campostoma anomalum	Pimephales notatus	Pimephales promelas	Notropis buccatus	Notropis stramineus	Cyprinella spiloptera	Cyprinella whipplei	Luxilus chrysocephalus	Notropis photogenis	Notropis atherinoides	Clinostomus elongatus	Phenacobius mirabilis	Semotilus atromaculatus	Rhinichthys atratulus	Erimystax x-punctatus	Nocomis micropogon	Nocomis biguttatus	Carassius auratus	Cyprinus carpio	Salmo trutta	Dorosoma cepedianum	Lepisosteus osseus	e Lampetra appendix	SCIENTIFIC NAME	(West)	(North)	
river redhorse	shorthead redhorse	golden redhorse	black redhorse	silver redhorse	highfin carpsucker	river carpsucker	quillback carpsucker	black buffalofish	stoneroller	bluntnose minnow	fathead minnow	silverjaw minnow	sand shiner	spotfin shiner	steelcolor shiner	striped shiner	silver shiner	emerald shiner	redside dace	suckermouth minnow	creek chub	blacknose dace	gravel chub	river chub	horneyhead chub	goldfish	common carp	brown trout	gizzard shad	longnose gar	american brook lamprey	COMMON NAME			
1	!	-	-	1	!	-	-	1	310	9	ω	1	1	-	-	Q	-	-	22	-	407	125	-	1	1	;	10	ω	;	-	Ŋ	ABUNDANCE	835044	395650	Mad River near Hwy 41 near Springfield, Ohio
!	-	!	-	-	-	-	-	!	4184.6	29.4	9.5	:	-	!	;	120.9	!	;	115.4	!	6859.2	523.6	!	;	-	;	4799.9	1272.9	;	;	34.7	BATCH WEIGHT (9)	)44	550	iver 41 near ld, Ohio
;	13	46	1	σ	4	Q	ω	17	!	!	;	!	!	!	!	-	!	!	!	!	!	!	!	;	!	!	25	!	ω	9		ABUNDANCE	843401	392246	Great Miami below Hamilto Ohio
:	8236.0	15450.0	+	10617.0	1630.0	3918.0	1982.0	28431.0	:	-	:	:	1	-	1	1	-	1	-	-	1	-	-	;	1	-	54645.5	1	366.0	7568.0	-	BATCH WEIGHT (g)	401	246	Miami milton, io
;	16	ω	1	1	!	1	-	ហ	56	30	1	1	10	σ	22	1	!	148	1	17	4	Ŋ	σ	;	;	;	4	1	18	1	-	ABUNDANCE	841752	391011	Little Miami at Milford, Ohio
!	8248.0	2189.0	-	-	-	-	-	8650.6	334.6	43.2	!	-	6.3	29.2	15.4	-	-	270.4	1	140.3	23.6	6.1	*	;	;	;	15204.9	-	2078.0	-	-	BATCH WEIGHT (g)	752	011	Miami íd, Ohio

eador, M.R., Cuffney, T.R., and Gurtz, M.E., 1993, Methods for collecting samples of fish communities as part of the National Water-Quality Assessment Program: U.S. Geological Survey Open-File Report 93-104, 40 p. References cited: Robin, C.R., Bailey, R.M., Bond, C.E., Brooker, J.R., Lachner, E.A., Lea, Edition: American Fisheries Society Special Publication 20, Bethesda, MD, and OF. the United States and Canada,

Station Name			Mad River near Hwy 41 near Springfield, Ohio	iver 41 near 1d, Ohio	Great Miami below Hamilton, Ohio	liami nilton, o	Little Miami at Milford, Ohio	Miami 1, Ohio
Latitude	(North)		395650	50	392246	46	391011	11
Longitude	(West)		835044	144	843401	01	841752	52
FAMILY	SCIENTIFIC NAME	COMMON NAME	ABUNDANCE	BATCH WEIGHT (g)	ABUNDANCE	BATCH WEIGHT (g)	ABUNDANCE	BATCH WEIGHT (g)
	Hypentelium nigricans	northern hogsucker	38	11279.8	1	66.0	34	10039.7
	Catostomus commersoni	white sucker	576	40553.0	1	-	1	-
Ictaluridae	Ictalurus punctatus	channel catfish	-	:	18	7458.0	23	3569.2
	Ameiurus natalis	yellow bullhead	!	;	!	;	!	;
	Pylodictis olivaris	flathead catfish	-	1	Ν	2442.0	σı	86.2
	Noturus flavus	stonecat	-	:	-	:	44	*
	Noturus miurus	brindled madtom	!	:	!	:	UΊ	20.2
Percichthyidae	Morone chrysops	white bass	1	1	1	234.0	1	482.0
	Pomoxis annularis	white crappie	1	:	1	:	1	;
	Ambloplites rupestris	rock bass	!	:	!	:	!	1
Centrarchidae	Micropterus dolomieu	smallmouth bass	1	1	N	244.0	30	1320.3
	Micropterus punctulatus	spotted bass	!	1	-	1	12	185.4
	Micropterus salmoides	largemouth bass	7	70.0	-	:	!	-
	Lepomis cyanellus	green sunfish	ω	40.3	-	-	ω	29.2
	Lepomis macrochirus	bluegill	18	320.8	1	30.0	10	111.6
	Lepomis humilis	orangespotted sunfish	!	:	!	:	Ŋ	6.5
	Lepomis megalotis	longear sunfish	1	1	1	1	4	90.4
	Lepomis gibbosus	pumpkinseed	1	1	1	;	1	10.8
Percidae	Stizostedion canadense	sauger	!	:	15	7342.0	!	-
	Percina phoxocephala	slenderhead darter	1	1	1	5.3	36	156.4
	Percina caprodes	logperch	!	;	ω	52.0	4	117.3
	Etheostoma blennioides	greenside darter	Ν	10.9	!	:	7	44.0
	Etheostoma zonale	banded darter	-	1	-	1	50	96.2
	Etheostoma caeruleum	rainbow darter	4	8.3	1	;	7	24.6
	Etheostoma flabellare	fantail darter	!	:	!	:	Ŋ	4.0
Sciaenidae	Aplodinotus grunniens	freshwater drum	1	1	52	10813.0	12	2753.0
Cottidae	Cottus bairdí	mottled sculpin	135	536.4	1	1	!	1
NUMBER OF SPECIES			18		20		35	1
HYBRID SPECIES			!	1	-	1	!	;
TOTAL NUMBER OF			1680	-	227	!	619	!
FISH								

The following tables list the results of chemical and physical measurements, and algae collected from 12 sites in the St. Joseph River basin (3 in northwest Ohio, 2 in southeast Michigan, and 7 in northeast Indiana) during low flow in August 1998. They were collected as part of a regional study to characterize the habitats where diverse freshwater mussel (Unionid) populations have been found. Low flow discharge measurements for these sites are reported in the annual report of the Indiana District USGS for the water year 1998.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

411210085014000 - Cedar Creek nr Cedarville IN

				1000 00	uui 010011	III COUGI				
DATE	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
AUG 1998 17	24.4	1028	80020	774	9.1	8.0	8.2	.029	<.010	.40
DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)		CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
AUG 1998 17	.67	1.07	.119	.047	.052	7.6	5.5	87	28	32
27	,	1.07	.117	.017	.032	,	3.3	0,	20	32
DATE AUG 1998	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)
AUG 1998 17	4.0	43	61	.60	8.6	12	44	474	771	288
		1111	120050617	00 - Coda	r Crook n	r Robinso	n Chanol	TN		
			120030017	oo - ceda	I CIEEV II		-			
DATE WATE (DI	PRE	RIC AGEN S- COL RE LECT M SAMP F (CO ) NUMB	- ANA ING LYZI LE SAMP DE (CO ER) NUMB	- CIF NG CON LE DUC DE ANC ER) (US/	IC - OXYG T- DI E SOL CM) (MG	S- (STA VED AR /L) UNI	ER WAT LE WHC LD LA ND- (STA D AR TS) UNI	ER GE LE AMMO B DI ND- SOL D (MG TS) AS	N, GE NIA NITR S- DI VED SOL /L (MG N) AS	N, GEN,AM- ITE MONIA + S- ORGANIC VED DIS. //L (MG/L N) AS N)
AUG 1998 18 20	0.9 76	0 102	8 800	20 76	7 7.	6 7.	8 8.	1 .05	4 <.0	10 .44
DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	DIS-		CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
AUG 1998 18	.58	.900	.105	.047	.053	6.7	5.2	86	27	30
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)
AUG 1998 18	3.9	40	63	.55	8.4	24	71	468	764	282

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998—Continued

412305085021800 - Cedar Creek nr Auburn IN

DATE AUG 1998	TEMPER- ATURE WATER (DEG C) (00010)	COL- LECTING SAMPLE (CODE	SAMPLE (CODE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
18	23.0	1028	80020	672	9.0	8.0	8.1	.047	.016	.45
DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L	PHOS- PHORUS TOTAL (MG/L	PHOS- PHORUS DIS- SOLVED (MG/L	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L	CARBON, ORGANIC TOTAL (MG/L	CARBON, ORGANIC DIS- SOLVED (MG/L	CALCIUM DIS- SOLVED (MG/L	MAGNE- SIUM, DIS- SOLVED (MG/L	SODIUM, DIS- SOLVED (MG/L
21112	AS N) (00625)	AS N) (00631)	AS P) (00665)	AS P) (00666)	AS P) (00671)	AS C) (00680)	AS C) (00681)	AS CA) (00915)	AS MG) (00925)	AS NA) (00930)
AUG 1998										
18	.67	.616	.211	.147	.143	7.7	5.7	79	25	20
DATE AUG 1998	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)		SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	AT 180 DEG. C DIS- SOLVED (MG/L)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)
18	4.0	33	53	.43	5.7	32	77	411	672	254
					_	_				
		4	126130850	13700 - C	edar Cree	k nr Wate	rloo IN			
DATE	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	SAMPLE (CODE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
DATE AUG 1998 18	ATURE WATER (DEG C)	COL- LECTING SAMPLE (CODE NUMBER)	ANA- LYZING SAMPLE (CODE NUMBER)	CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	PH WATER WHOLE LAB (STAND- ARD UNITS)	GEN, AMMONIA DIS- SOLVED (MG/L AS N)	GEN, NITRITE DIS- SOLVED (MG/L AS N)	GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
AUG 1998 18	ATURE WATER (DEG C) (00010) 23.6 NITRO- GEN,AM-	COL- LECTING SAMPLE (CODE NUMBER) (00027)	ANA- LYZING SAMPLE (CODE NUMBER) (00028)	CIFIC CON- DUCT- ANCE (US/CM) (00095) 644	OXYGEN, DIS- SOLVED (MG/L) (00300) 9.7 PHOS- PHORUS ORTHO, DIS-	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400) 8.1  CARBON, ORGANIC TOTAL (MG/L AS C)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403) 8.2  CARBON, ORGANIC DIS-	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
AUG 1998 18	ATURE WATER (DEG C) (00010) 23.6  NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	COL- LECTING SAMPLE (CODE NUMBER) (00027) 1028 NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ANA- LYZING SAMPLE (CODE NUMBER) (00028) 80020 PHOS- PHORUS TOTAL (MG/L AS P)	CIFIC CON- DUCT- ANCE (US/CM) (00095)  644  PHOS- PHORUS DIS- SOLVED (MG/L AS P)	OXYGEN, DIS- SOLVED (MG/L) (00300) 9.7  PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400) 8.1  CARBON, ORGANIC TOTAL (MG/L AS C)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403) 8.2  CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) .062  CALCIUM DIS- SOLVED (MG/L AS CA)	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010  MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) .49  SODIUM, DIS- SOLVED (MG/L AS NA)
AUG 1998 18  DATE  AUG 1998 18	ATURE WATER (DEG C) (00010) 23.6 NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	COL- LECTING SAMPLE (CODE NUMBER) (00027)  1028  NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ANA- LYZING SAMPLE (CODE NUMBER) (00028) 80020 PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CIFIC CON- DUCT- ANCE (US/CM) (00095)  644  PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666) .027  FLUO- RIDE, DIS- SOLVED (MG/L AS F)	OXYGEN, DIS- SOLVED (MG/L) (00300) 9.7 PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)  8.1  CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)  8.2  CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) .062  CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010  MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) .49  SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
AUG 1998  18  DATE  AUG 1998  18	ATURE WATER (DEG C) (00010) 23.6 NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625) .63  POTAS-SIUM, DIS-SOLVED (MG/L AS K)	COL- LECTING SAMPLE (CODE NUMBER) (00027)  1028  NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)  .218  CHLO- RIDE, DIS- SOLVED (MG/L AS CH)	ANA- LYZING SAMPLE (CODE NUMBER) (00028)  80020  PHOS- PHORUS TOTAL (MG/L AS P) (00665) .062  SULFATE DIS- SOLVED (MG/L AS SO4)	CIFIC CON- DUCT- ANCE (US/CM) (00095)  644  PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666) .027  FLUO- RIDE, DIS- SOLVED (MG/L AS F)	OXYGEN, DIS- SOLVED (MG/L) (00300) 9.7  PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) .024  SILICA, DIS- SOLVED (MG/L AS SOLVED	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)  8.1  CARBON, ORGANIC TOTAL (MG/L AS C) (00680)  8.3  IRON, DIS- SOLVED (UG/L AS FE)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)  8.2  CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)  5.6  MANGA- NESE, DIS- SOLVED (UG/L AS MN)	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) .062  CALCIUM DIS- SOLVED (MG/L AS CA) (00915) 76  SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010  MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)  26  SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) .49  SODIUM, DIS- SOLVED (MG/L AS NA) (00930) 15  ANC UNFITRD TIT 4.5 LAB (MG/L AS CACO3)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998—Continued

412743084444200 - Fish Creek at Edgerton OH

DATE	TEMPER ATURE WATER (DEG C (00010	SAMPLE (CODE ) NUMBER)			EE, SPE C. CIF C CON ET DUC	CE SO:	GEN, IS- LVED G/L)	ARD UNIT	E WHO D LA D- (STA AR S) UNI	ER GE LE AMMO B DI ND- SOL D (MG TS) AS	NÍA NITR S- DI VED SOL /L (MG N) AS	EN, GEN,AM- RITE MONIA + ES- ORGANIC RVED DIS. E/L (MG/L
20	17.6	1028	80020	20	67	'5 11	. 7	8.2	8.	2 .06	8 .0	.38
	G. M. O. DATE		D2+NO3 I DIS- PH GOLVED T MG/L AS N) I	PHOS- HORUS POTAL (MG/L AS P)	DIS- SOLVED (MG/L AS P)	ORTHO, DIS- SOLVED (MG/L AS P)	ORGA TOT (MG AS	BON, MIC PAL B/L C)	DIS- SOLVED (MG/L AS C)	(MG/L AS CA)	DIS- SOLVED (MG/L AS MG)	(MG/L AS NA)
20		.53	.760	062	.036	.048	6.	4	5.4	72	24	17
	DATE	SIUM, R DIS- D SOLVED S (MG/L (	OLVED S MG/L S CL) AS	(MG/L S SO4)	(MG/L AS F)	AS SIO2)	(UG AS	FE)	(UG/L AS MN)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	LAB (US/CM)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)
20		3.1	23	39	.38	7.0	1	.5	38	362	603	250
			412	8220844	160700 -	Fish Cre	ek nr	Edger	ton OH			
DATE	ATURE WATER (DEG C (00010	(CODE ) NUMBER)	SAMPLE (CODE NUMBER)	INST CUBI FEE PEF SECO	GE, SPE C. CIF C. CON CT DUC R ANC DND (US/	CE SO:	GEN, IS- LVED G/L)	FIELD (STAND ARD UNIT	R WAT E WHO D LA D- (STA AR S) UNI	ER GE LE AMMO B DI ND- SOL D (MG TS) AS	N, GE NIA NITE S- DI VED SOI /L (MG N) AS	VED DIS. G/L (MG/L
AUG 1998 21		1028	80020	19	63	4 8	6	8 2	8	1 .06	1 .0	14 .40
	G M O DATE	NITRO- N EN,AM- ONIA + NC RGANIC TOTAL S (MG/L (	GEN, 02+NO3 I DIS- PH COLVED T MG/L SN) A	PHOS- IORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS-PHORUSORTHO, DIS-SOLVED (MG/L AS P)	CARB ORGA TOT (MG AS	BON, MNIC TAL E/L C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
	1998	.56	.779	072	.029	.051	7.	7	5.3	72	24	17
	DATE (	POTAS- C SIUM, R DIS- E SOLVED S (MG/L ( AS K) A	CHLO- CIDE, SU DIS- I	JLFATE DIS- SOLVED (MG/L S SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRO DI SOL (UG AS	DN, SS- LVED S/L FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SPE- CIFIC CON- DUCT- ANCE LAB	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)
	1998	3.0	24	40	.39	6.6	<1	. 0	38	362	609	250

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998—Continued

04177810 - Fish Creek nr Artic IN

AUG	DATE	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE (CODE NUMBER	ANA- G LYZING SAMPLE (CODE ) NUMBER	CON- DUCT- ANCE (US/CM	OXY D SO (M	GEN, DIS- DLVED G(L) 300)	PH WAT: WHO: FIE: (STA) AR: UNI: (004	ER LE LD ND- D TS)	PH WATER WHOLE LAB (STAND ARD UNITS (00403)	G AMM D - SO (M	IS- LVED G/L N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	GEN MON ORG DI (M AS	ANIC S. IG/L N)
	1	15.5	1028	80020	663	11	.7	8.	1	8.1	.0	87	.016		36
	DATE 1998	MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	GEN, NO2+NO DIS- SOLVE (MG/L AS N) (00631	PHOS-PHORUS TOTAL (MG/L AS P) (00665	AS P) (00666	PHO OR DI SOL (MG AS ) (00	THO, S- VED (/L P) 671)	DIS SOL (MG AS	IUM - VED /L CA) 15)	DIS- SOLVEI (MG/L AS MG (00925	, SOD DI SOL (M ) AS ) (00	IUM, S- VED G/L NA) 930)	DIS- SOLVED (MG/L AS K) (00935)	RI DI SC (M AS	S- DLVED IG/L CL) 1940)
2.	1	.48	.713	.050	.031	. 0	31	71		24	16		2.8	2	2
	DATI	DI SC E (M AS (OC	ELVED SIG/L (1 SO4) A 1945) (0	OLVED (1 MG/L 2 S F) S: O950) (0	IS- II DLVED I MG/L SO AS (1 IO2) A: D955) (0:	DLVED JG/L S FE) 1046)	SOL' (UG) AS I	GA- : E, S- VED /L MN) 56)	DIS SOLV (MG/ (7030	UE 0 DI C I EED L) I 0) (83	AREA (SQ. MI.) 1024)	ANC! LA! (US/0) (900)	IC UNF N- TIT I- L E (M B A CM) CA 95) (90	G/L S CO3) 410)	
	21	4	1	.38	5.7	11	38		358	9	9.0	60	1 2	48	
				413008	084504800	- Fis	h Cre	ek nr	Edon	IN					
DATE	(DEG (000)	ME PF ER- S RE ( ER C) F	URE LE MM SA OF ( G) NU	OL- AI CTING LY: MPLE SAI CODE (MBER) NUI	ENCY CHA NA- II ZING CI NPLE I CODE I			IC - ( I- E CM)		W W W W W W W W W W W W W W W W W W W		LAI (STAI ARI UNI:	ER G LE AMM B D ND- SC D (M IS) AS	EN, ONIA IS- LVED G/L N)	AS N)
20	18.	5 7	62 1	028 8	0020 1	1	594	4	8.5		3.1	8.3	1 .0	89	.016
DATE	MONIZ ORGAI DIS (MG, AS I	AM- GEN A + MON NIC ORG . TO /L (M N) AS 23) (00	I, AM- IIA + NO IANIC : ITAL SI IG/L (I	2+NO3 PI DIS- PHO DLVED TO MG/L (I S N) AS	HOS- PHO DRUS I DTAL SO MG/L (I	ORUS DIS- DLVED MG/L S P)	(MG/I	US HO, ED L	(MG/ AS C	N, ORO IC DI L SOI L (I	MG/L S C)	CALC DIS SOL (MG	IUM S - D VED SC /L (M CA) AS	IS- LVED G/L MG)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
20	.3	9.	56	.758 .	064 .	028	.04	3	6.9		4.9	68	2	3	16
AUG	DATE 1998	POTAS- SIUM, DIS- SOLVEI (MG/L AS K) (00935)	RIDE, DIS- SOLVE (MG/L AS CL	SULFATI DIS- SOLVEI (MG/L AS SO4	SOLVEI (MG/L AS F) (00950)	O (M A SI	IG/L .S .O2)	SOL' (UG AS	VED /L FE)	SOLVEI (UG/L AS MN)	RES AT DE D SO (M	IS- LVED G/L)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	UNF TIT L (M A CA	NC LTRD 4.5 AB G/L S CO3)
20	0	2.8	24	40	.37	6	.8	1	7	52	3	54	595	2	41

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998—Continued

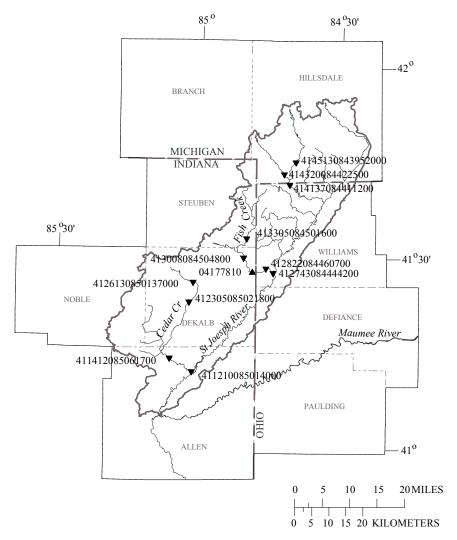
413305084501600 - Fish Creek nr Alvarado IN

DATE	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
20	17.1	762	1028	80020	4.1	678	8.3	8.0	8.1	.049	.011
DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
20	.30	.42	.333	.051	.036	.055	6.2	5.9	81	26	16
AUG :	S D SO DATE (M AS (00	IUM, RI DIS- DI DLVED SC IG/L (M K) AS	S- DI DLVED SO IG/L (M CL) AS	FATE RI S- D LVED SC G/L (M SO4) AS 945) (00	DE, DI DIS- SC DLVED (M MG/L A S F) SI D950) (00	OLVED I IG/L SO AS (U OO2) AS	RON, NE DIS- D DLVED SO JG/L (U S FE) AS	NGA- RES SE, AT IS- DE LVED I G/L SC MN) (M	SIDUE CI 180 C GG. C DU DIS- AN DLVED I MG/L) (US	FIC UNF CON- TIT CCT- L ICE (M AB A F/CM) CA	NC PLTRD 4.5 AB G/L S CO3) 410)
						_					
			41413708	4411200 -	- West Bra	anch nr Ne	ettle Lake	OH			
DATE	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 1998 19	18.8	764	1028	80020	45	523	9.7	8.1	8.2	.058	.013
DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
19	.48	.57	.716	.068	.044	.052	7.5	6.3	68	20	9.2
AUG :	S D SO DATE (M AS (00	SIUM, RI DIS- DI DLVED SC IG/L (M S K) AS	S- DI DLVED SO IG/L (M S CL) AS 1940) (00	FATE RI S- I LVED SC IG/L (M SO4) AS 945) (00	DE, DI DIS- SC DLVED (M MG/L A S F) SI D950) (00	DLVED I IG/L SO AS (U IO2) AS	RON, NE DIS- D DLVED SO JG/L (U S FE) AS	NGA- RES SE, AT IS- DE LVED I G/L SC MN) (M	SIDUE CI 180 C GG. C DU DIS- AN DLVED I MG/L) (US	FIC UNF CON- TIT ICT- L ICE (M AB A I/CM) CA	NC PLTRD 4.5 AB IG/L S CCO3) 410)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998—Continued

414320084422500 - West Branch nr Austin MI

DATE	(000	ER- LEC RE SAM ER (C C) NUM	L- AN. TING LYZ PLE SAM ODE (C. BER) NUM	NCY CHAI A- INS ING CUI PLE FI ODE PI BER) SEG	BIC CO EET DU ER AN COND (US	N- CT- CE /CM)	OXYGEN, DIS- SOLVED (MG/L) (00300)	(STA AR UNI	ER WA LE WH LD L ND- (ST D A TS) UN	AB AND- RD ITS)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRIS DIS SOLVI (MG/I AS N	GEN,AM- TE MONIA + ORGANIC DDIS. (MG/L AS N)
AUG 1998 19	19.	2 10	28 80	020 24	5	28	8.9	8.	0 8	.1	.067	.01	.56
AUG	DATE 1998	ORGANIC TOTAL (MG/L AS N) (00625)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L	SOLVED (MG/L AS P)	ORT: DIS SOLV: (MG/: AS P	US HO, CA - OF ED I L (	ARBON, RGANIC POTAL (MG/L AS C)	DIS- SOLVED (MG/L AS C)	CALC DIS SOL (MG AS	IUM S - I VED SO :/L (N CA) AS	DIS- DLVED : MG/L B MG)	(MG/L AS NA)
19	9	.70	.661	.083	.043	.04	8	8.8	6.9	68	2	20	9.5
AUG	DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	RIDE, DIS- SOLVED (MG/L AS CL)	DIS- SOLVED	(MG/L AS F)	AS SIO	,	(UG/L AS FE)	AS MN)	SOL (MG	VED I		AS CACO3)
	9	2.7	18	27	.23	8.	2	44	37	30	6 5	532	226
			2	1145130843	195200 - I	West Bi	ranch a	t Austi	in MT				
DATE	ATU WAT (DEG (000	ER- LEC RE SAM ER (C C) NUM	L- AN. TING LYZ PLE SAM ODE (C BER) NUM	NCY CHAI A- INS ING CUI PLE FI ODE PI BER) SEG	BIC CO EET DU ER AN COND (US	N- CT- CE /CM)	DIS- SOLVED (MG/L)	FIE (STA ) AR UNI	ER WA LE WH LD L ND- (ST D A TS) UN	OLE AB AND- RD ITS)	DIS- SOLVED (MG/L AS N)	NITRI DIS SOLVI (MG/I AS N	GEN,AM- FE MONIA + ORGANIC DD DIS. MG/L
19	19.	8 10	28 80	020 17	4	85	9.6	8.	1 8	.2	.063	.01	.44
ALIC	DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORT DIS SOLV (MG/ AS P	US HO, CA - OF ED T L (	ARBON, RGANIC POTAL (MG/L AS C)	DIS- SOLVED (MG/L AS C)	CALC DIS SOL (MG AS	IUM S L- I VED SC L/L (N CA) AS	DIS- DLVED :	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
	9	.49	.625	.030	.017	.02	6	6.8	3000	62	2	20	7.0
N/G	DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	RIDE, DIS-	DIS- SOLVED (MG/L	DIS- SOLVED		- I VED /L S (2) #	ERON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	AT 1 DEG DI SOL (MG	DUÉ CI 80 ( 8. C DU S- AN VED I	CON- ' JCT- ICE LAB S/CM)	ANC UNFLTRD FIT 4.5 LAB (MG/L AS CACO3) (90410)
	1998 9	2.4	15	33	.13	5.	9	46	17	30	4 4	188	200



#### **EXPLANATION**

- BASIN BOUNDARY
- ▲ GAGE STATION
- ▼ WATER-QUALITY LOCATION AND IDENTIFIER

**Figure 14.** Location and site identification number for mussel habitat sites in the St. Joseph River Basin (3 in northeast Ohio, 2 in southeast Michigan, and 7 in northeast Indiana.)

### Habitat Design for Mussel Restoration PROJECT DATA

																			Bacillariophyta		Euglenophyta	Rhodophyta				Cyanophyta	Division	Sample Type	Longitude	Latitude	Station
Fragilaria vaucheriae	Diatoma vulgare	Diadesmis clementis	C. tumida	Cymbella minuta	C. solea	Cymatopleura elliptica	C. stelligera	C. pseudostelligera	Cyclotella meneghini- ana	C. placentula	Cocconeis pediculus	Caloneis bacillum	A. submontana	A. perpusilla	Amphora ovalis	Achnanthidium minutis- simum	A. suchlandtii	Achnanthes hungarica	Achnanthes exigua	Trachelomonas sp.	Euglena sp.	Audouinella sp.	Schizothrix calcicola	Oscillatoria sp.	Merismopedia sp.	Anabaena sp.	Taxon				
380	650	360	1050	380	2400	3200	110	90	250	160	480	180	120	110	4000	<b>б</b>	120	300	120	450	400	180	20	170	σ	25	bio- volume µm³				
1	250	1	1	1	1	1	1	63	63	313	1	501	1	1126	125	;	1	1	1	1	1	-	63	313	1			Quan.	850140	411210	Ceadar Creek nr Cedarvill e IN
310	1	;	1	155	155	1	155	;	1395	;	1	!	!	1705	620	155	!	!	-	!	;	-	;	1	1240		${\tt cells/mm^2~cells/mm^2~cells/mm^2~cells/mm^2}$	Quan.	850617	411412	Cedar Creek nr Robinson Chapel IN
1	;	;	1	;	;	1	;	290	1885	2755	1	290	;	2465	290	1	;	;	1	;	;	870	;	;	!	1160	cells/mm ²	Quan.	850218	412305	Cedar Creek nr Auburn IN
1	;	;	160	640	;	1	;	800	;	320	160	;	;	2240	1920	1	640	;	1	;	;	1	1760	640	1		cells/mm ²	Quan.	850137	412613	Cedar Creek nr Waterloo IN
1	;	;	;	;	;	;	;	;	!	;	;	;	234	936	2340	1	;	;	1	;	;	;	1638	;	;		cells/mm ² cells	Quan.	844442	412743	Fish Creek at Edgerton OH
1	;	;	1	-	;	1	-	699	!	;	1	;	;	699	2330	;	;	;	;	;	;	;	;	1165	14912		cells/mm ²	Quan.	844607	412822	Fish Creek nr Edgeton OH
1	;	;	105	210	210	1	;	;	;	525	1	210	;	1575	840	1	;	;	1	105	105	1	;	105	1		cells/mm ²	Quan.	845048	413008	Fish Creek nr Edon IN
1	;	;	1	;	1	1	;	1	1	1679	560	;	560	1679	2238	1	280	1	1	;	;	1	839	;	1	-	cells/mm ²	Quan.	845016	413305	Fish Creek nr Alvarado IN
1	;	;	1	;	;	43	;	;	8 5	8 5	8 5	;	;	4463	8 5	1	8 5	8 5	1	43	;	1	:	425	!		cells/mm ²	Quan.	844112	414137	West Branchnr Nettle Lake OH
1	1	;	1	92	!	1	;	1	46	369	1	!	323	645	184	1	92	!	46	!	;	691	-	461	1	-	$/\mathrm{mm}^2$ cells/ $\mathrm{mm}^2$ cells/ $\mathrm{mm}^2$ cells/ $\mathrm{mm}^2$ cells/ $\mathrm{mm}^2$	Quan.	844225	414320	West West Branch nr Branch at Austin MI Austin MI
;	;	137	1	274	!	1	;	;	274	411	1	!	274	2192	1370	274	!	!	-	!	;	-	137	1644	1	:	cells/mm ²	Quan.	843952	414513	West West Branch nr Branch at Austin MI Austin MI

The following tables lists attached algae (periphyton) collected from 11 sites in the St. Joseph River basin (3 in northwest Ohio, 2 in southeast Michigan, and 6 in northeast Indiana) during low flow in August 1998. The algae reported in the study are arranged in alphabetical order within Divisions which are in Phylogenic Order as described by the USGS Biological Unit at URL: http://wwwnwql.cr.usgs.gov/USGS/algae/algae.phylo.info.html. [-- = not present at indicated site; Quan. = Quantitative; Degree, minute, and second symbols are ommitted from latitide and longitude.]

																													(continued)	Bacillariophyta	Division	Sample Type	Longitude	Latitude	Station
N. viridula	N. tripunctata	N. symmetrica	N. seminulum	N. sanctaecrusis	N. salinarum v. inter- media	N. radiosa v. tenella	N. radiosa	N. minima	N. menisculus	$N.\ lanceolata$	N. heufleri	N. gregaria	N. $decussis$	N. cryptocephala v. veneta	N. cryptocephala	N. capitata v. hungar- ica	N. capitata	Navicula accomoda	Meridion circulare	Melosira varians	Luticola mutica	G. spencerii	G. scalproides	G. eximum	Gyrosigma accuminatum	G. pumilum	G. parvulum	G. olivaceum	G. intricatum	Gomphonema angustatum	Taxon				
1900	600	500	65	420	650	350	1200	60	300	700	290	300	300	250	350	200	200	400	450	720	190	2200	1200	1500	3600	280	300	320	460	320	bio- volume µm³				
125	250	1	1126	;	125	2753	;	1	;	63	188	125	1	;	63	1	63	1	;	1502	1	1	1	313	!	1		!	1	-	cells/mm ²	Quan.	850140	411210	Ceadar Creek nr Cedarvill e IN
1550	465	1	1	;	2170	;	;	1	;	1085	1395	465	1	!	310	1	-	1	;	18600	1	1	1	1	;	;		-	1	310	cells/mm ²	Quan.	850617	411412	Cedar Creek nr Robinson Chapel IN
290	580	145	290	;	2465	725	1	1	;	1015	145	435	-	580	145	145	!	1	;	4205	1	-	-	1	-	580	870	-	1	-	cells/mm ²	Quan.	850218	412305	Cedar Creek nr Auburn IN
160	160	160	1	;	800	;	;	160	;	160	480	160	1	640	160	1	;	1	;	4160	1	1	1	1	320	320		-	1	-	cells/mm ²	Quan.	850137	412613	Cedar Creek nr Waterloo IN
234	-	234	1	-	1638	;	1	1	-	468	1	468	-	234	1	468	1	1	;	1404	1	-	-	1	-	1		-	1	-	cells/mm ²	Quan.	844442	412743	Fish Creek at Edgerton OH
1	;	466	1	;	466	699	;	1	;	;	932	233	1	;	466	466	1	;	;	4660	;	;	1	1	;	;	-	;	1	1	cells/mm ²	Quan.	844607	412822	Fish Creek nr Edgeton OH
1	105	525	1	-	420	945	105	1	105	;	210	105	1	105	210	1	;	105	;	1260	210	1	1	1	-	105	315	210	-	-	cells/mm ²	Quan.	845048	413008	Fish Creek nr Edon IN
280	;	560	1	280	1679	1119	1	1	;	;	2798	-	1	;	1119	1	;	1	280	1	1	1	1	1	560	1	1679	-	-	-	cells/mm ²	Quan.	845016	413305	Fish Creek nr Alvarado IN
255	383	1	1	:	1063	5313	;	-	;	2338	8 5	213	1	468	;	;	43	1	43	3995	1	43	8 5	1	8 5	128	8 5	1	1	-	${\tt cells/mm}^2$	Quan.	844112	414137	West Branchnr Nettle Lake OH
323	92	46	1	;	277	184	1	1	92	369	277	138	184	138	46	184	369	1	1	1	1	46	1	-	-	1	-	-	1	-	cells/mm ²	Quan.	844225	414320	West West Branch nr Branch at Austin MI Austin MI
137	685	-	137	;	;	4247	-	1	-	274	}	274	;	274	1	;	548	1	1	1918	-	-	137	274	137	1	274	;	274	:	${\tt cells/mm}^2$	Quan.	843952	414513	West Branch at Austin MI

																												Bacillariophyta (continued)	Division	Sample Type	Longitude	Latitude	Station
Thalassiosira weis- flogii	Synedra ulna	S. ovata	Surirella sp.	Stephanodiscus invisi- tatus	S. construens v. bino- dis	Staurosira construens	Stauroneis smithii	Skeletonema potamos	Sellaphora pupula	Rhoicosphenia curvata	Reimeria sinuata	P. lanceolatum v. dubium	Planothidium lanceola- tum	Pinnularia brebissonii	N. vermicularis	N. recta	N. palea	N. linearis	N. hungarica	N. gracilis	N. frustulum	N. fonticola	N. dissipata	N. debilis	N. amphibia	Nitzschia acicularis	Neidium binode	N. viridula v. rostel- lata	Taxon				
310	1250	480	1700	200	80	80	240	60	400	500	130	220	260	520	1100	500	250	800	650	400	320	250	300	370	200	200	150	1600	bio- volume µm³				
<u>ა</u>	;	250	!	;	;	;	1	:	63	1126	:	1	!	1	;	1	375	63	63	1	;	125	1815	-	;	125	!	63	cells/mm²	Quan.	850140	411210	Ceadar Creek nr Cedarvill e IN
1	155	465	1	465	1	;	1	;	155	310	-	-	1	310	1	1	2015	-	155	1	-	1	775	310	;	1	-	775	${\tt cells/mm^2~cells/mm^2~cells/mm^2~cells/mm^2}$	Quan.	850617	411412	Cedar Creek nr Robinson Chapel IN
1	;	1	1	725	!	;	1	;	;	290	;	;	435	1	;	1	4350	290	;	1	;	;	290	;	1	1	-	435	cells/mm ²	Quan.	850218	412305	Cedar Creek nr Auburn IN
1	-	;	320	160	;	;	:	-	;	320	-	1	320	;	;	1	3200	960	;	;	;	;	160	!	320	;	-		cells/mm ²	Quan.	850137	412613	Cedar Creek nr Waterloo
1	;	468	1	;	1	;	+	;	;	468	;	-	;	1	;	1	1872	1170	468	1	;	;	1404	234	;	1	:	234	${\tt cells/mm}^2$	Quan.	844442	412743	Fish Creek at Edgerton OH
1	;	699	;	1	1	;	1	;	466	1398	;	1	699	;	;	1	1398	466	;	;	;	1	699	;	1	1	;	699	cells/mm ²	Quan.	844607	412822	Fish Creek nr Edgeton OH
1	;	630	;	210	1	1	315	;	;	840	-	1	420	1	;	1	630	1	;	1	1	1	945	105	1	1	105		cells/mm ²	Quan.	845048	413008	Fish Creek nr Edon IN
1	;	560	;	1	280	1	1	;	280	280	280	1	280	1	560	1	1679	560	;	1	1	1	560	280	1	560	-		cells/mm ²	Quan.	845016	413305	Fish Creek nr Alvarado IN
1	425	1	-	;	;	;	1	;	8 5	8 5	85	!	8 5	1	;	170	2338	;	1	1	;	1	2125	-	;	1	-	213	cells/mm ²	Quan.	844112	414137	West Branch nr Nettle Lake OH
1	1	1	1	1	461	1014	46	;	184	277	-	-	461	-	1	1	737	-	92	46	-	;	138	92	-	1	-	184	${\tt cells/mm^2\ c$	Quan.	844225	414320	West Branch nr Austin MI
1	1	1	1	1	;	1	1	274	-	411	274	137	274	1	-	274	1644	-	1	1	-	-	2740	-	1	-	-	274	${\tt cells/mm}^2$	Quan.	843952	414513	West West Branch nr Branch at Austin MI Austin MI

			Chlorophyta	Division	Sample Type	Longitude	Latitude	Station
Scenedesmus spp.	Crucigenia sp.	Cosmarium sp.	Ankistrodesmus sp.	Taxon				
170	90	700	60	bio- volume µm³				
125	;	;	63	$\mathtt{cells}/\mathtt{mm}^2$	Quan.	850140	411210	Ceadar Creek nr Cedarvill e IN
620	;	;		${\tt cells/mm^2~cells/mm^2~cells/mm^2~cells/mm^2~cells}$	Quan.	850617	411412	Cedar Creek nr Creek nr Robinson Chapel IN Chapel IN
-	;	145	145	cells/mm ²	Quan.	850218	412305	Cedar Creek nr Auburn IN
320	;	;	480	cells/mm ²	Quan.	850137	412613	Cedar Creek nr Waterloo IN
-	468	1		${\tt cells/mm}^2$	Quan.	844442	412743	Fish Creek at Edgerton OH
-	-	1		cells/mm ²	Quan.	844607	412822	Fish Creek nr Edgeton OH
-	-	1		${\tt cells/mm}^2$	Quan.	845048	413008	Fish Creek nr Edon IN
-	;	;		cells/mm ²	Quan.	845016	413305	Fish Creek nr Alvarado IN
-	;	;		cells/mm ²	Quan.	844112	414137	West Branchnr Nettle Lake OH
-	-	;		$/\mathrm{mm}^2$ cells/ $\mathrm{mm}^2$ cells/ $\mathrm{mm}^2$ cells/ $\mathrm{mm}^2$ cells/ $\mathrm{mm}^2$	Quan.	844225	414320	West West Branch nr Branch at Austin MI Austin MI
1	-	;		cells/mm ²	Quan.	843952	414513	West Branch at Austin MI

### Habitat Design for Mussel Restoration PROJECT DATA

Trachelomonas spp.	Phacus spp.	Euglena sp. 2	Euglena sp. 1	Euglenophyta	Peridinium sp.	Pyrrophyta	Cryptomonas spp.	Cryptophyta	Spirulina sp.	Spirulina laxa	Schizothrix calcicola	Rhabdoderma irregulare	sp.	Oscillatoria	Microcystis sp.	Merismopedia tenuissima	Chroococcus sp.	Anabaena sp.	Cyanophyta	Taxon	Sample Type	Date	Longitude	Latitude	Station
450	400	400	1400		5100		130		50	50	20	150		170	7	ហ	25	25		bio- volume µm³					
27	;	1	54		;		268		;	27	1258	;		1	;	7278	1	1		$\mathtt{cells}/\mathtt{mm}^2$	Quan.	18-Aug	850140	411210	Ceadar Creek nr Cedarvill e IN
27	;	1	106		1		80		;	27	σω	!		:	;	5843	266	1		$\mathtt{cells/mm}^2$	Quan.	18-Aug	850617	411412	Cedar Creek nr Robinson Chapel IN
78	11	45	67		33		1		;	;	512	1		!	1113	1	1	+		$\mathtt{cells/mm}^2$	Quan.	18-Aug	850218	412305	Cedar Creek nr Auburn IN
107	54	107	1		29		1		;	;	429	1		1	536	1	1	1		$\mathtt{cells}/\mathtt{mm}^2$	Quan.	18-Aug	850137	412613	Cedar Creek nr Waterloo IN
7	;	1	42		;		35		;	;	28	1		49	1	;	1	-		$\mathtt{cells/mm}^2$	Quan.	20-Aug	844442	412743	Fish Creek at Edgerton OH
1	;	7	14		;		42		;	;	14	1		!	155	;	1	;		$\mathtt{cells/mm}^2$	Quan.	21-Aug	844607	412822	Fish Creek nr Edgeton OH
7	7	1	7		;		21		;	;	1	1		!	;	;	1	;		$\mathtt{cells/mm}^2$	Quan.	20-Aug	845048	413008	Fish Creek nr Edon IN
14	;	21	1		;		7		;	;	1	1		!	;	1	1	+		cells/mm ²	Quan.	20-Aug	845016	413305	Fish Creek nr Alvarado IN
22	11	1	33		;		11		200	;	1726	1		1	1	1	;	-		cells/mm ²	Quan.	19-Aug	844112	414137	West Branch nr Nettle Lake OH
1	;	14	-		;		105		;	;	14	1		:	1	1	1	-		$\mathtt{cells/mm}^2$	Quan.	19-Aug	844225	414320	West Branch nr Austin MI
7	;	;	35		;		56		;	;	1	98		;	1	;	1	-		cells/mm ²	Quan.	19-Aug	843952	414513	West West Branch nr Branch at Austin MI Austin MI
7	1	14	-		1		14		;	;	7	;		-	!	;	I I	14		cells/mm ²	Quan.	21-Aug	844851	412754	Fish Crk. nr Arctic IN
1	;	21	7		-		21		1	1	;	1		:	;	;	1	70		cells/mm² cells/mm² cells/mm² cells/mm² cells/mm²	Quan.	21-Aug	844851	412754	Fish Crk. nr Arctic IN

The following table lists phytoplankton taxa and abundance collected from 12 sites in the St. Joseph River basin (3 in northwest Ohio, 2 in southeast Michigan, and 6 in northeast Indiana) during low flow in August 1998. The algae reported in the study are arranged in alphabetical order within Divisions which are in Phylogenic Order as described by the USGS Biological Unit at URL: http://wwwnwql.cr.usgs.gov/USGS/algae/algae.phylo.info.html. [-- = not present at indicated site; Quan. = Quantitative; Degree, minute, and second symbols are ommitted from latitide and longitude.]

Synedra ulna	Surirella sp.	Surirella ovata	Nitzschia spp	Navicula spp.	Melosira vari- ans	<i>Gyrosigma</i> scalproides	Gomphonema spp.	Diatoma vul- gare	Cymatopleura solea	<i>Cylindrotheca</i> gracilis	Cyclotella spp.	Cocconeis pla- centula	A. granulata	Aulacoseira distans	Amphora perpu- silla	Amphora ovalis	Achnanthidium minutissimum	Bacillariophyta	Mallomonas sp.	Chrysophyta  Dinobryon sp.	Taxon	Sample Type	Date	Longitude	Latitude	Station
1250	1700	480	300	400	720	1200	300	650	2400	300	100	130	110	70	110	4000	70		240	280	bio- volume µm³					
1	!	1	241	;	107	1	;	;	;	1	562	27	80	1	1	-	;		1	1	cells/mm ²	Quan.	18-Aug	850140	411210	Ceadar Creek nr Cedarvill e IN
1	;	1	558	106	186	27	;	;	27	1	319	1	106	1	1	;	;		!	27	cells/mm ²	Quan.	18-Aug	850617	411412	Cedar Creek nr Robinson Chapel IN
11	11	1	590	212	22	1	22	1	1	1	679	122	;	11	1	1	;		!	;	cells/mm ²	Quan.	18-Aug	850218	412305	Cedar Creek nr Auburn IN
1	-	1	;	1	;	1	1	1	1	1	268	107	;	1	1	13	1		!	:	cells/mm ²	Quan.	18-Aug	850137	412613	Cedar Creek nr Waterloo IN
1	;	1	63	63	14	7	7	1	1	1	63	1	;	14	1	7	1		-	:	cells/mm ²	Quan.	20-Aug	844442	412743	Fish Creek at Edgerton OH
1	;	7	148	49	7	;	;	1	;	;	70	;	;	1	;	21	;		!	:	cells/mm ²	Quan.	21-Aug	844607	412822	Fish Creek nr Edgeton OH
1	;	;	148	98	;	7	14	1	;	;	35	7	21	1	;	7	;		!	:	$\mathtt{cells}/\mathtt{mm}^2$	Quan.	20-Aug	845048	413008	Fish Creek nr Edon IN
1	-	14	21	105	;	;	7	1	1	;	;	1	;	1	;	21	1		:	:	cells/mm ²	Quan.	20-Aug	845016	413305	Fish Creek nr Alvarado IN
1	;	!	156	134	;	;	;	11	;	;	ω ω	11	-	1	11	;	;		:	22	cells/mm ²	Quan.	19-Aug	844112	414137	West Branch nr Nettle Lake OH
1	;	1	28	105	1	1	1	;	1	1	49	1	;	1	1	7	1		-	1	$\mathtt{cells/mm}^2$	Quan.	19-Aug	844225	414320	West Branch nr Austin MI
1	-	1	140	70	7	1	1	1	1	1	63	1	;	1	1	1	7		7	21	cells/mm ²	Quan.	19-Aug	843952	414513	West West Branch nr Branch at Austin MI Austin MI
1	-	1	42	105	7	1	1	;	1	7	2 8	1	1	1	1	21	1		!	1	${\tt cells/mm^2~cells/mm^2~cells/mm^2~cells/mm^2}$	Quan.	21-Aug	844851	412754	Fish Crk. nr Arctic IN
1	-	1	77	148	7	1	1	;	1	14	42	1	!	1	7	28	;		-	;	cells/mm ²	Quan.	21-Aug	844851	412754	Fish Crk. nr Arctic IN

Green balls	Tetrastrum sp.	Tetraedron sp.	Stigioclonium sp.	$Staurastrum \ sp.$	Scenedesmus spp.	Pyrobotrus sp.	Pteromonas sp.	Phacotus sp.	Oocystis sp.	$ extit{Micractinium} \  extit{sp.}$	Lagerheimia sp.	$Kirchneriella\ sp.$	Golenkinia radiata	Dicty- osphaerium sp.	Crucigenia tetrapedia	Coelastrum sp.	${\it Chlamydomonas} \ {\it sp}.$	<i>Chlamydomonas</i> <i>globosa</i>	Ankistrodes- mus falcatus	Chlorophyta	Tryblionella $spp.$	Taxon	Sample Type	Date	Longitude	Latitude	Station
150	120	100	120	250	170	170	680	230	120	80	60	60	200	150	90	700	70	680	60		630	bio- volume µm³					
482		;	-	;	455	1	1	-	;	!	1	27	;	1	27	-	348	8 0	803			cells/mm ²	Quan.	18-Aug	850140	411210	Ceadar Creek nr Cedarvill e IN
186	-	27	1	!	186	1	27	;	27	!	27	27	!	1	212	;	239	27	717			cells/mm ²	Quan.	18-Aug	850617	411412	Cedar Creek nr Robinson Chapel IN
546	-	11	1	1	1	1	1	111	33	;	11	45	1	1	312	11	212	1	512			cells/mm ²	Quan.	18-Aug	850218	412305	Cedar Creek nr Auburn IN
322	107	;	1	}	751	1	1	-	1	;	1	215	;	54	54	1	107	1	965			cells/mm ²	Quan.	18-Aug	850137	412613	Cedar Creek nr Waterloo IN
63	1	;	!	!	77	1	1	7	;	!	1	1		1	22 88	;	14	;	7			cells/mm ²	Quan.	20-Aug	844442	412743	Fish Creek at Edgerton OH
35	7	;	!	;	28	1	;	;	;	7	7	91	7	;	<u>ი</u>	!	14	14	ω 5			cells/mm ²	Quan.	21-Aug	844607	412822	Fish Creek nr Edgeton OH
14	1	;	!	!	21	1	;	;	;	1	1	1	7	1	7	;	14	;	42		7	cells/mm ²	Quan.	20-Aug	845048	413008	Fish Creek nr Edon IN
7	7	;	;	7	!	;	;	7	21	!	1	;	!	;	;	14	14	!	!			cells/mm ²	Quan.	20-Aug	845016	413305	Fish Creek nr Alvarado IN
67	;	;	!	1	45	;	;	11	ယ္ထ	;	1	;	!	;	;	!	67	45	11			cells/mm ²	Quan.	19-Aug	844112	414137	West Branchnr Nettle Lake OH
63	1	;	ω σ	;	21	1	;	;	;	7	1	;	!	14	;	7	14	7	!			cells/mm ²	Quan.	19-Aug	844225	414320	West Branch nr Austin MI
;		;	;	;	42	56	1	-	;	!	;	;	!	28	;	7	!	281	;			cells/mm ²	Quan.	19-Aug	843952	414513	West West Branch nr Branch at Austin MI Austin MI
7	-	;	!	1	21	;	;	;	;	!	;	7	I I	1	;	;	14	;	14			cells/mm ²	Quan.	21-Aug	844851	412754	Fish Crk. nr Arctic IN
7		;	;	7	49	1	-	-	;	!	;	;	!	;	7	;	28	7	14			cells/mm ²	Quan.	21-Aug	844851	412754	Fish Crk. nr Arctic IN

#### PROJECT DATA

### Macroinvertebrate Survey in Streams in Training Areas at Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio

The following table lists macroinvertebrate taxa collected at the Ravenna Army Ammunition Plant. The survey results supplement previous work there and create baseline data for future studies. The data will be used to interpret water quality in three streams flowing through the arsenal: South Fork Eagle Creek, Hinkley Creek, and Sand Creek. The table is arranged in phylogenetic order as assigned by the USGS Biological Unit. [* = Phylum; ** = Class; **** = Tanytarsini; **** = Suborder; -- = not sampled at site; Quant. = Quantitative number representing organisms in 5 sq. ft.; Qual. = Qualitative; units have been omitted from latitude and longitude.]

Station Latitude Longitude Collection Date			1 411349 810146 27-Jul-98	2 411146 810507 13-Jul-98	3 411044 810824 15-Jul-98
Sample Type			Quant.	Quant.	Quant.
ORDER	FAMILY	TAXON			
Hydroida	Hydridae	Hydra sp.	14		29
Gastropoda**	Ancylidae	Ancylidae	= =		10
	Ancylidae	Ferrissia sp.	17	1	
	Physidae	Physidae			20
)ligochaeta**	Naididae	Naididae		 	78
Acari Amphipoda		Hydrachnidia Amphipoda	14	1	1
mpnipoda	Hyalellidae	Hyalella azteca (Saussure)	16		
phemeroptera	1	Ephemeroptera	374	114	10
	Leptophlebiidae	Leptophlebiidae	1042	199	543
	Caenidae	Caenidae			10
	Baetidae	Baetidae		12	
	Hontagoniidaa	Centroptilum/Procloeon sp.	 17	5 148	19 38
	Heptageniidae	Heptageniidae Stenacron sp.	1 /	148 27	38
		Stenacron interpunctatum (Say)		3	2
		Stenonema sp.	2	2	
		Stenonema femoratum (Say)		23	
)donata	Calopterygidae	Hetaerina sp.	14		
)]	Aeshnidae	Boyeria vinosa (Say)	1		
Plecoptera	Perlidae	Perlesta sp.	1 	2	
Hemiptera Megaloptera	Sialidae	Heteroptera**** Sialis sp.		2	
richoptera	JIGIIGG	Trichoptera	29		
	Hydroptilidae	Hydroptilidae	14		
		Hydroptila sp.	58		11
	Hydropsychidae	Cheumatopsyche sp.			1
	Polycentropodidae	Polycentropodidae	14	3	49
	Darrahomrriidae	Paranyctiophylax sp.	 14	25 	 
	Psychomyiidae Limnephilidae	Psychomyiidae Pycnopsyche sp.	1		1
	Leptoceridae	Triaenodes/Ylodes sp.			1
	Helicopsychidae	Helicopsyche borealis (Hagen)			10
Coleoptera	Gyrinidae	Dineutus sp.	14		
	Elmidae	Macronychus glabratus Say	1		31
Diptera	Ceratopogonidae	Bezzia/Palpomyia sp.			10
	Chironomidae	Chironomidae Chironominae	119 158	15 10	52 154
		Chironomini	29	7	154
		Chironomus sp.	29		
		Dicrotendipes sp.	259	38	221
		Microtendipes sp.	691	43	58
		Nilothauma sp.	43	7	10
		Paratendipes sp.		5	
		Polypedilum sp	43 29	2 17	10 192
		Polypedilum sp. Pseudochironomus sp.	29 14	17	192
		Tanytarsini***	158	24	106
		Cladotanytarsus sp.***	29		
		Paratanytarsus sp.***	58	7	384
		Rheotanytarsus sp.***	302	2	221
		Stempellinella sp.***	43	2	48
		Tanytarsus sp.*** Orthocladiinae	922 86	256 19	768 134
		Cricotopus/Orthocladius sp.	187	2	403
		Corynoneura sp.	58	55	29
		Cricotopus bicinctus group			19
		Nanocladius sp.	43	2	19
		Parakiefferiella sp.			
		Parametriocnemus sp.		5	77
		Rheocricotopus sp.	86		
		Thienemanniella sp. Tanypodinae	86 86	 29	 125
		Labrundinia/Nilotanypus sp.	14	29	125

Station Latitude Longitude Collection D Sample Type			1 41134 81014 27-Ju Quant	6 81 1-98 13	2 1146 0507 -Jul-98 ant.	3 411044 810824 15-Jul-98 Quant.
ORDER	FAMILY	TAXON				
		Ablabesmyia sp.	202		50	10
		Labrundinia sp.			2	
		Nilotanypus sp.			2	10
	m: 3:3	Paramerina sp.	29		17	48
	Tipulidae	Antocha sp.	14			
	Athericidae	Atherix variegata Walker				12
	Empididae	Empididae	29		1	
		Hemerodromia sp. Total	6209	12	222	4320
Station			1	2	3	4
Latitude			411349	411146	411044	411130
Longitude			810146	810507	810824	810841
Collection D	ate		15-Jul-98			
Sample Type			Qual.	Qual.	Qual.	Qual.
RDER	FAMILY	TAXON				
himbollomio*	. +	Turbollaria				
urbellaria*	* Hydrobiidae	Turbellaria Hydrobiidae			+	+
astropoda	Ancylidae	Ferrissia sp.	+		+	
	Lymnaeidae	Fossaria sp.	+		+	+
	Ly minacidae	Physella sp.			+	+
	Planorbidae	Helisoma anceps (Menke)			+	+
		Planorbella sp.			+	
elecypoda**	Sphaeriidae	Sphaeriidae				+
21	_	Sphaerium sp.			+	
ligochaeta*	*Tubificidae	Tubificidae				+
cari		Hydrachnidia	+		+	
ecapoda	Cambaridae	Cambaridae	+	+	+	+
		Orconectes sp.	+			
mphipoda	Hyalellidae	Hyalella azteca (Saussure)	+		+	+
ollembola		Collembola		+		
phemeropter	aLeptophlebiidae	Leptophlebiidae				+
		Habrophlebiodes sp.	==	+		
	Ephemeridae	Ephemera sp.	+			
	Caenidae	Caenis sp.			+	+
		Caenis latipennis Banks	+		+	+
	Destrict des	Caenis punctata McDunnough			+	
	Baetidae	Baetidae		+		
		Centroptilum/Procloeon sp.	+	+	+	+
		Acentrella turbida (McDunnough) Baetis sp.		+		<del></del>
		Baetis sp. Baetis flavistriga McDunnough		+	+	
		Baetis intercalaris McDunnough		+	+	
		Callibaetis sp.			+	
		Labiobaetis frondalis (McDunnough)				+
		Labiobaetis propinquus (Walsh)		+		
	Heptageniidae	Stenacron sp.	+	+	+	
	F 2	Stenacron interpunctatum (Say)		+		+
		Stenacron pallidum (Traver)	+			
		Stenonema sp.	+	+		
		Stenonema femoratum (Say)				+
		Stenonema ithaca (Clemens and Leonard)		+		
	Isonychiidae	Isonychia sp.		+		
donata		Zygoptera		+		
	Calopterygidae	Calopteryx maculata (Beauvois)				+
	Coenagrionidae	Coenagrionidae			+	
	Aeshnidae	Aeshnidae		+	+	
		Boyeria sp.				+
	Gammle ( 3	Boyeria vinosa (Say)				+
	Gomphidae	Gomphidae				+
logorto	Lougtwides	Stylogomphus albistylus (Hagen)		+		+
lecoptera	Leuctridae	Leuctra sp. Perlesta sp.		+		
emiptera	Perlidae Corixidae	Perlesta sp. Corixidae	+	+		+
-wrbcera	COLINIUAE	Palmacorixa sp.	+		+	+
		Sigara sp.	+			+
	Gerridae	Gerrinae		+		+
		Aquarius remigis (Say)		+		
		Trepobates sp.	+		+	
		Trepobates pictus (Herrich-Schaeffer)		+	+	
	Veliidae	Veliidae		+	+	+
		Microvelia sp.				+
		Rhagovelia obesa Uhler	+	+		
egaloptera	Corydalidae	Nigronia serricornis (Say)	+	+		
,aropecta	Jorganiae	g. conta berricorning (bay)	'			

ration		Ammunition Flant, Portage and 1	1	2	3	4
tation atitude ongitude	224.0		411349 810146	411146 810507	3 411044 810824	411130 810841
ollection D	Jace			15-Jul-98		
ample Type RDER	FAMILY	TAXON	Qual.	Qual.	Qual.	Qual.
WER.	Sialidae	Sialis sp.			+	+
richoptera	Glossosomatidae	Glossosoma sp.		+		+
	Hydroptilidae	Hydroptilidae				+
		Hydroptila sp.	+	+	+	
		Hydroptila consimilis Morton			+	
	Philopotamidae	Chimarra sp.		+		
	Hydropsychidae	Ceratopsyche sp.		+		+
		Ceratopsyche alhedra (Ross)/sparna	(Ross)		+	
		Ceratopsyche slossonae (Banks)		+	+	
		Ceratopsyche sparna (Ross)		+		
		Cheumatopsyche sp.	+			
		Hydropsyche betteni Ross/depravata	_	+	+	
		e Polycentropus sp.	+	+		
	Lepidostomatidae					+
	Limnephilidae Uenoidae	Pycnopsyche sp.	+	+	+	+
		Neophylax sp.		 		+
	Leptoceridae	Mystacides sepulchralis (Walker) Triaenodes injustus (Hagen)			+	+
	Odontoceridae	Psilotreta indecisa (Walker)		+	+	+
	Helicopsychidae	Helicopsyche borealis (Hagen)		+	+	+
epidoptera	c.r.cobs.Acutage	Lepidoptera Lepidoptera			+	
oleoptera	Dytiscidae	Hydroporinae				+
Jicopicia	Dycabolado	Hydroporini				+
	Gyrinidae	Dineutus sp.	+			
	Haliplidae	Peltodytes sp.			+	
Helon	Helophoridae	Helophorus sp.		+		
	Hydrophilidae	Paracymus sp.				+
	Scirtidae	Scirtidae	+		+	
	Dryopidae	Helichus basalis LeConte		+	+	+
	Elmidae	Dubiraphia sp.	+		+	+
		Dubiraphia bivittata (LeConte)			+	
		Dubiraphia minima Hilsenhoff	+		+	+
		Dubiraphia quadrinotata (Say)			+	+
		Dubiraphia vittata (Melsheimer)			+	
		Optioservus sp.		+	+	+
		Optioservus ovalis (LeConte)		+	+	
		Optioservus trivittatus (Brown)		+	+	
		Stenelmis sp.	+	+		+
	Danhonidae	Stenelmis crenata (Say)	+	+	+	+
	Psephenidae	Psephenus herricki (DeKay)		+	= =	
iptera	Lampyridae Ceratopogonidae	Lampyridae Ceratopogonidae			+	+
ipcera	Chironomidae	Chironomidae	+	+	+	+
	01111 0110 1111 0110	Chironominae	· 			· 
		Chironomini	+	+	+	
		Chironomus sp.	+			+
		Cryptochironomus sp.	+	+	+	+
		Cryptotendipes sp.	+			
		Dicrotendipes sp.	+		+	+
		Microtendipes sp.	+	+	+	+
		Nilothauma sp.		+		
		Paratendipes sp.				+
		Polypedilum sp.		+	+	+
		Pseudochironomus sp.	+			
		Tanytarsini***	= =	= =	+	= =
		Micropsectra/Tanytarsus sp.***	+	+	= =	= =
		Cladotanytarsus sp.***	+		+	
		Micropsectra sp.***		+		
		Paratanytarsus sp.***				+
		Tanytarsus sp.***	+	+	+	+
		Pagastia sp.				+
		Orthocladiinae	+	+	+	
		Cricotopus/Orthocladius sp. Brillia sp.		+	+	
		Cardiocladius sp.		+	+	
		cararocraaras sp.		= = = =	+	
		Corynoneura sp			T	
		Corynoneura sp.	_			
		Parakiefferiella sp.	+	 ±		
		Parakiefferiella sp. Parametriocnemus sp.		+		
		Parakiefferiella sp. Parametriocnemus sp. Psectrocladius sp.		+		+
		Parakiefferiella sp. Parametriocnemus sp. Psectrocladius sp. Rheocricotopus sp.	+	+	  +	 + 
		Parakiefferiella sp. Parametriocnemus sp. Psectrocladius sp. Rheocricotopus sp. Tvetenia sp.	+	+  +	 	+
		Parakiefferiella sp. Parametriocnemus sp. Psectrocladius sp. Rheocricotopus sp. Tvetenia sp. Pentaneurini	+	+  + +	  + +	+
		Parakiefferiella sp. Parametriocnemus sp. Psectrocladius sp. Rheocricotopus sp. Tvetenia sp.	+	+  + +	  + +	+

Station Latitude Longitude Collection Da			1		2	- 1
Longitude			1	2	3	4
			411349	411146	411044	411130
"ollection Da			810146	810507	810824	810841
JOITCCCION Du	ite		15-Jul-9	8 15-Jul-9	8 15-Jul-98	16-Jul-98
Sample Type			Qual.	Qual.	Qual.	Qual.
ORDER	FAMILY	TAXON				
	Culicidae	Anopheles sp.		+	+	+
	Dixidae	Dixidae				+
		Dixella sp.		+	+	
	Simuliidae	Simuliidae			+	
	J.Maillade	Simulium sp.			+	
		-		+		
	Tipulidae	Tipula sp.			+	+
		Antocha sp.		+		
		Hexatoma sp.	+	+	+	
	Athericidae	Atherix lantha Webb	+	+	+	+
	Empididae	Hemerodromia sp.		+		
	Ephydridae	Ephydridae				
	Tabanidae	Chrysops/Silvius sp.	+			
	Tabanituae					
		Chrysops sp.		+	+	+
		Total	46	69	72	65
			_	_	_	_
Station			5	6	7	8
Latitude			411243	411127	411246	411109
Longitude			805849	810638	805854	810301
Collection Da	ite			13-Jul-98	30-Jul-98 2	
Sample Type			Qual.	Qual.	Qual.	Qual.
	FAMILY	TAXON	z	z	2-01.	z ·
Nematoda*	1111111		_			
	2	Nematoda	+			
Gastropoda**		Ferrissia sp.	+			
	Physidae	Physidae	+			
		Physella sp.			+	+
	Planorbidae	Gyraulus sp.			+	+
Pelecypoda**		Sphaeriidae	+			
/ podd		Sphaerium sp.		+		
11 danah	Maididae	= = = = = = = = = = = = = = = = = = = =		+		
Oligochaeta**	Natutuae	Naididae				+
Acari		Hydrachnidia			+	
-	Cambaridae	Orconectes sp.		+		
Amphipoda	Hyalellidae	Hyalella azteca (Saussure)	+			
Collembola		Collembola			+	
	Leptophlebiidae	Habrophlebiodes sp.		+		
	Caenidae	Caenis latipennis Banks		+		
		-				
	Baetidae	Centroptilum/Procloeon sp.		+		==
		Baetis flavistriga McDunnough	+	+		
		Callibaetis sp.	+		+	
		Fallceon quilleri (Dodds)		+		
	Heptageniidae	Heptageniidae		+		
	. 5	Stenacron sp.		+		
		Stenacron interpunctatum (Say)		+		
	~	Stenonema sp.		+		
	Coenagrionidae	Ischnura sp.			+	
	Aeshnidae					==
		Boyeria vinosa (Say)		+		
	Gomphidae	Boyeria vinosa (Say) Stylogomphus albistylus (Hagen)				
	Gomphidae	Stylogomphus albistylus (Hagen)		+		
Plecoptera	Gomphidae Leuctridae	Stylogomphus albistylus (Hagen) Leuctra sp.		+ + +	 	
Plecoptera	Gomphidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp.	  	+ + +	  	  
Plecoptera	Gomphidae Leuctridae Perlidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp.	  	+ + +	  	
Plecoptera	Gomphidae Leuctridae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae	   	+ + + +		    
elecoptera Memiptera	Gomphidae Leuctridae Perlidae Belostomatidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say	  	+ + +	  	  
elecoptera Memiptera	Gomphidae Leuctridae Perlidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae	   	+ + + +		    
elecoptera Memiptera	Gomphidae Leuctridae Perlidae Belostomatidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae	     	+ + + + 	    +	    
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp.	     +	+ + + +  +	+	     
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae	     + +	+ + + +   + +	+	     
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp.	    + +	+ + + +   + + +	+	       
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth		+ + + +   + + + +	+ + +	       
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp.	    + +	+ + + +   + + + + +	+ + + + + + + + + + + + + + + + + + + +	        
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates pictus (Herrich-Schaeffer	    + +   	+ + + + +   + + + + +	+ + +	       
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp.	    + +	+ + + +   + + + + +	+ + + + + + + + + + + + + + + + + + + +	        
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates pictus (Herrich-Schaeffer Trepobates subnitidus Esaki	    + +   	+ + + + +   + + + + +	+	
elecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates pictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp.	    + +   	+ + + +   + + + + +	+ + + + + + + + + + + + + + + + + + + +	
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates pictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White	    + +       	+ + + +   + + + + + 	+ + + + + + + + + + + + + + + + + + + +	
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp.		+ + + +   + + + + + 		
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates spictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois		+ + +   + + + + +  	+ + + + + + + +	
elecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates sp. Trepobates sp. trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois Notonectidae		+ + + +   + + + + + 		
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates spictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois		+ + +   + + + + +  	+ + + + + + + +	
emiptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates sp. Trepobates sp. trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois Notonectidae		+ + + +   + + + +   		
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae Notonectidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates pictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois Notonectidae Buenoa sp. Veliidae		+ + + + + + + + + + +     +		
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae Notonectidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates spictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois Notonectidae Buenoa sp. Veliidae Microvelia sp.		+ + + +   + + + + +      -		
Plecoptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae Notonectidae Veliidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates sp. Trepobates spictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois Notonectidae Buenoa sp. Veliidae Microvelia sp. Rhagovelia obesa Uhler		+ + + +   + + + +      	+ + + + + + + + + + + + + + + + + + + +	
elecoptera Gemiptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae Notonectidae Veliidae Hydroptilidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates pictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois Notonectidae Buenoa sp. Veliidae Microvelia sp. Rhagovelia obesa Uhler Hydroptila sp.		+ + + +   + + + + +      -	+ + + + + + + + + + + + + + + + + + + +	
emiptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae Notonectidae Veliidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates sp. Trepobates spictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois Notonectidae Buenoa sp. Veliidae Microvelia sp. Rhagovelia obesa Uhler		+ + + +   + + + +      	+ + + + + + + + + + + + + + + + + + + +	
Plecoptera Memiptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae Notonectidae Veliidae Hydroptilidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates pictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois Notonectidae Buenoa sp. Veliidae Microvelia sp. Rhagovelia obesa Uhler Hydroptila sp.		+ + + +   + + + + +      -	+ + + + + + + + + + + + + + + + + + + +	
Plecoptera Memiptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae Notonectidae Veliidae Hydroptilidae Philopotamidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates pictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois Notonectidae Buenoa sp. Veliidae Microvelia sp. Rhagovelia obesa Uhler Hydroptila sp. Chimarra sp. Hydropsychidae		+ + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	
Plecoptera  Memiptera	Gomphidae Leuctridae Perlidae Belostomatidae Corixidae Gerridae Mesoveliidae Nepidae Notonectidae Veliidae Hydroptilidae Philopotamidae	Stylogomphus albistylus (Hagen) Leuctra sp. Acroneuria sp. Perlesta sp. Belostomatidae Belostoma flumineum Say Corixidae Sigara sp. Gerrinae Rheumatobates sp. Rheumatobates rileyi Bergroth Trepobates sp. Trepobates pictus (Herrich-Schaeffer Trepobates subnitidus Esaki Mesovelia sp. Mesovelia mulsanti White Ranatra sp. Ranatra fusca Palisot de Beauvois Notonectidae Buenoa sp. Veliidae Microvelia sp. Rhagovelia obesa Uhler Hydroptila sp. Chimarra sp.		+ + + +   + + + + +      -	+ + + + + + + + + + + + + + + + + + + +	

Station			5	6	7	8	
Latitude			411243	411127	, 411246	8 411109	
			411243 805849	411127 810638	411246 805854	411109 810301	
Longitude	)a+o			810638 13-Jul-98			
Collection D	Date						
Sample Type		ma way	Qual.	Qual.	Qual.	Qual.	
ORDER	FAMILY	TAXON	II				
		Hydropsyche betteni Ross/depravata	Hagen +	+	+		
		Hydropsyche betteni Ross	+				
	Polycentropodida	ae Paranyctiophylax sp.		+			
		Polycentropus sp.		+			
		Polycentropus confusus Hagen		+			
	Limnephilidae	Pycnopsyche sp.		+			
	Uenoidae	Neophylax sp.		+			
	Leptoceridae	Mystacides sepulchralis (Walker)		+			
	Odontoceridae	Psilotreta indecisa (Walker)		+			
Coleoptera	Dytiscidae	Hydroporini				+	
		Laccophilus sp.			+		
	Haliplidae	Haliplus sp.			+		
	-	Peltodytes sp.			+	+	
	Hydrochidae	Hydrochus sp.			+		
	Hydrophilidae	Berosus sp.			+		
	n, arophiriaac	Enochrus sp.				+	
		Tropisternus sp.			+		
					+		
	Dryopidae	Tropisternus lateralis (Fabricius)			+		
	Dryopidae Elmidae	Helichus basalis LeConte Dubiraphia sp.		+			
	ттштае	1 1		+			
		Dubiraphia minima Hilsenhoff		+			
		Dubiraphia quadrinotata (Say)		+			
		Optioservus sp.		+			
		Optioservus ovalis (LeConte)		+			
		Optioservus trivittatus (Brown)		+			
		Stenelmis sp.		+			
		Stenelmis crenata (Say)		+			
	Psephenidae	Psephenus herricki (DeKay)		+			
	Lampyridae	Lampyridae	+				
Diptera	Chironomidae	Chironomidae		+			
		Chironominae	+	+			
		Chironomini			+		
		Dicrotendipes sp.		+			
		Endochironomus sp.			+		
		Polypedilum sp.	+	+	+		
		Stictochironomus sp.		+			
		Cladotanytarsus sp.***	=.=.	+			
		Paratanytarsus sp.***		+			
		Tanytarsus sp.***	+	+			
		Orthocladiinae	+	+			
		Cricotopus/Orthocladius sp.	+				
		Parametriocnemus sp.	+	+			
		Rheocricotopus sp.	+	+			
		Tvetenia sp.	+	+			
		Clinotanypus sp.			+		
		Pentaneurini		+			
		Thienemannimyia group sp.		+			
	Culicidae	Anopheles sp.			+		
		Dixella sp.		+			
	Simuliidae	Simuliidae	+				
		Simulium sp.	+		+		
	Tipulidae	Tipula sp.		+			
		Hexatoma sp.		+			
	Athericidae	Atherix lantha Webb		+			
		Total	25	66	32	6	
Station			9	10	11	12	
Latitude			411325	411314	411338	411330	
Longitude			810123	810225	810435	810543	
Collection I	Date		29-Jul-98		27-Jul-98	16-Jul-98	
Sample Type	-		Qual.	Qual.	Qual.	Qual.	
ORDER	FAMILY	TAXON	<u> </u>	~	~	~ '	
Turbellaria*		Turbellaria	+			+	
	* Viviparidae	Viviparus sp.			+		
castropoua.	-				+		
	Lymnaeidae	Lymnaeinae		+			
	Physidae	Physella sp.		+	+	+	
	Planorbidae	Planorbidae			+		
		Gyraulus sp.	+				
		Helisoma anceps (Menke)		+	+		
		Planorbella sp.	+	+		+	
Pelecypoda**	Corbiculidae	Corbicula sp.		+			
	Sphaeriidae	Sphaeriidae	+			+	
	•	Sphaerium sp.		+	+	+	
Oligochaeta*	**Naididae	Naididae			+	+	
3		Stylaria lacustris (Linnaeus)	+				
		-					

Station Latitude		, 8	Tumbun Co			
[atitudo			9	10	11	12
			411325	411314	411338	411330
Longitude			810123	810225	810435	810543
Collection D	ate		29-Jul-98	28-Jul-98	27-Jul-98	16-Jul-98
Sample Type			Qual.	Qual.	Qual.	Qual.
RDER	FAMILY	TAXON				
	Tubificidae	Tubificidae		+	+	+
irundinea**	Glossiphoniidae	Glossiphoniidae			+	+
cari	-	Hydrachnidia				+
ecapoda	Cambaridae	Cambaridae		+		
		Orconectes sp.			+	
sopoda	Asellidae	Caecidotea sp.			+	+
mphipoda	Hyalellidae				+	
	-	Hyalella azteca (Saussure)	+	+	-	+
phemeropter	aCaenidae	Caenis sp.	+	+		
		Caenis diminuta Walker		+	+	
		Caenis punctata McDunnough	+			
	Baetidae	Baetidae		+		
		Centroptilum/Procloeon sp.	= =	+		
		Acerpenna sp.		+		
		Baetis flavistriga McDunnough		+		
		Baetis intercalaris McDunnough		+		
		Barbaetis cestus (Provonsha and M		+		
			_			
		Callibaetis sp.	+			+
		Cloeon cognatum Stephens	+			
	Heptageniidae	Stenacron sp.			+	
		Stenacron interpunctatum (Say)			+	
		Stenonema sp.		+	+	
		Stenonema luteum (Clemens)			+	
	Isonychiidae	Isonychia sp.		+		
donata	Calopterygidae	Calopteryx sp.		+		
uomaca						
	Coenagrionidae	Coenagrionidae	+	+	+	+
		Ischnura sp.	+	+		+
	Aeshnidae	Anax junius (Drury)	+			
		Boyeria vinosa (Say)		+		
	Cordulegastridae	Cordulegaster sp.				
	Corduliidae	Corduliidae		+		
		Epitheca sp.				+
	Comphidae	= -		+		
	Gomphidae	Gomphidae		•		
		Stylogomphus albistylus (Hagen)			+	
	Libellulidae	Libellulidae	+			+
		Libellula sp.	+			
		Sympetrum sp.				+
		Tramea sp.	+			
emiptera	Belostomatidae	Belostomatidae	+	+		+
CIPCCIA	Corixidae	Corixidae	+			+
	COLIXIDAE					
		Palmacorixa sp.				+
		Sigara sp.				+
		Trichocorixa sp.	+			
	Gerridae	Gerridae				+
		Aquarius remigis (Say)		+	+	
		Limnoporus canaliculatus (Say)				+
		Trepobates sp.			+	+
	Hebridae	Hebridae	+			
	Mesoveliidae					
	mesoverridae	Mesovelia sp.	= =	+		+
		Mesovelia mulsanti White		+		+
	Naucoridae	Pelocoris sp.	+			+
	Notonectidae	Notonectidae	+			+
		Notonecta sp.	+			+
	Pleidae	Pleidae		+		
	Veliidae	Veliidae			+	+
		Microvelia sp.			+	
		Rhagovelia obesa Uhler				
		-			+	
1		Nigronia serricornis (Say)		+	+	
egaloptera						
	Sialidae	Sialis sp.	= =			+
					+	
	Sialidae	Sialis sp.				
	Sialidae Philopotamidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks)			+	
	Sialidae Philopotamidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp.	 	++	+  +	 
	Sialidae Philopotamidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp.	  	+ + +	+  + +	  
	Sialidae Philopotamidae Hydropsychidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravat	    a Hagen	+ + +	+  + +	   +
	Sialidae Philopotamidae Hydropsychidae Polycentropodidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp.	    a Hagen 	+ + +	+  + + +	   +
	Sialidae Philopotamidae Hydropsychidae  Polycentropodidae Limnephilidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp. Pycnopsyche sp.	   a Hagen  	+ + +	+  + + + +	   +
	Sialidae Philopotamidae Hydropsychidae Polycentropodidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp.	    a Hagen 	+ + +	+  + + +	   +
	Sialidae Philopotamidae Hydropsychidae  Polycentropodidae Limnephilidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp. Pycnopsyche sp.	   a Hagen  	+ + +	+  + + + +	   + 
	Sialidae Philopotamidae Hydropsychidae  Polycentropodidae Limnephilidae Uenoidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravat ePolycentropus sp. Pycnopsyche sp. Neophylax sp. Mystacides sepulchralis (Walker)	   a Hagen  	+ + +	+ + + + + + +	   + 
	Sialidae Philopotamidae Hydropsychidae  Polycentropodidae Limnephilidae Uenoidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp. Pycnopsyche sp. Neophylax sp. Mystacides sepulchralis (Walker) Triaenodes ignitus (Walker)	   a Hagen   	+ + +	+  + + + + + + +	   +  
richoptera	Sialidae Philopotamidae Hydropsychidae  Polycentropodidae Limnephilidae Uenoidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp. Pycnopsyche sp. Neophylax sp. Mystacides sepulchralis (Walker) Triaenodes ignitus (Walker) Triaenodes marginatus Sibley	  a Hagen    	+ + + +	+ + + + + + + + + + + + + + + + + + + +	  +    +
richoptera	Sialidae Philopotamidae Hydropsychidae  Polycentropodidae Limnephilidae Uenoidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp. Pycnopsyche sp. Neophylax sp. Mystacides sepulchralis (Walker) Triaenodes ignitus (Walker) Triaenodes marginatus Sibley Lepidoptera	  a Hagen     +	+ + + + +	+ + + + + + + + + +	   +    + +
richoptera	Sialidae Philopotamidae Hydropsychidae  Polycentropodidac Limnephilidae Uenoidae Leptoceridae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp. Pycnopsyche sp. Neophylax sp. Mystacides sepulchralis (Walker) Triaenodes ignitus (Walker) Triaenodes marginatus Sibley Lepidoptera Coleoptera	  a Hagen     +	+ + +	+ + + + + + + + + +	   +    + + + +
richoptera	Sialidae Philopotamidae Hydropsychidae  Polycentropodidae Limnephilidae Uenoidae Leptoceridae  Dytiscidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp. Pycnopsyche sp. Neophylax sp. Mystacides sepulchralis (Walker) Triaenodes ignitus (Walker) Triaenodes marginatus Sibley Lepidoptera Coleoptera Hydroporini	  a Hagen     +	+ + + + +	+ + + + + + + + + +	   +    + +
richoptera	Sialidae Philopotamidae Hydropsychidae  Polycentropodidac Limnephilidae Uenoidae Leptoceridae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp. Pycnopsyche sp. Neophylax sp. Mystacides sepulchralis (Walker) Triaenodes ignitus (Walker) Triaenodes marginatus Sibley Lepidoptera Coleoptera	  a Hagen     +	+ + +	+ + + + + + + + + +	   +    + + + +
richoptera richoptera epidoptera oleoptera	Sialidae Philopotamidae Hydropsychidae  Polycentropodidae Limnephilidae Uenoidae Leptoceridae  Dytiscidae	Sialis sp. Chimarra sp. Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche sp. Hydropsyche betteni Ross/depravate Polycentropus sp. Pycnopsyche sp. Neophylax sp. Mystacides sepulchralis (Walker) Triaenodes ignitus (Walker) Triaenodes marginatus Sibley Lepidoptera Coleoptera Hydroporini	  a Hagen    + 	+ +	+ + + + + + + + + + +	  +    + + + + +

Station		,	9	10	11	12	
Latitude Longitude			411325 810123	411314 810225	411338 810435	411330 810543	
Collection D	ate		29-Jul-98	28-Jul-98	27-Jul-98	16-Jul-98	
Sample Type ORDER	FAMILY	TAXON	Qual.	Qual.	Qual.	Qual.	
		Enochrus sp.		+			
		Paracymus sp.	+			+	
		Tropisternus sp.	+	+			
	Scirtidae	Scirtidae				+	
	Dryopidae	Helichus basalis LeConte		+	+		
	Elmidae	Dubiraphia sp.	+	+	+	+	
		Dubiraphia bivittata (LeConte) Dubiraphia quadrinotata (Say)		+	+	+	
		Optioservus sp.				+	
		Optioservus ovalis (LeConte)		+			
		Optioservus trivittatus (Brown)		+			
		Stenelmis sp.		+	+		
	D	Stenelmis crenata (Say)		+	+		
Dintoro	Psephenidae Ceratopogonidae	Ectopria sp. Ceratopogonidae	+		+		
Diptera	Chironomidae	Chironomidae	+		+	+	
	CIIIIOIIOIIII	Chironominae			+		
		Chironomini			+		
		Dicrotendipes sp.		+			
		Lauterborniella sp.	+				
		Microtendipes sp.			+	+	
		Phaenopsectra sp.			+		
		Polypedilum sp.	+	+	+	+	
		Saetheria sp. Pseudochironomus sp.	+	+			
		Micropsectra/Tanytarsus sp.***				+	
		Cladotanytarsus sp.***	+			· ==	
		Micropsectra sp.***		+			
		Rheotanytarsus sp.***			+		
		Stempellinella sp.***		+	+		
		Tanytarsus sp.***		+			
		Pagastia sp. Orthocladiinae	+	+	+		
		Lopescladius sp.		+			
		Nanocladius sp.	+	+	+		
		Paraphaenocladius sp.			+		
		Rheocricotopus sp.			+		
		Tanypodinae	+	+	+	+	
		Clinotanypus sp.				+	
		Thienemannimyia group sp. Ablabesmyia sp.	+	+	+	+	
		Guttipelopia sp.	+	+		+	
		Labrundinia sp.				+	
		Larsia sp.	+	+			
		Paramerina sp.		+			
		Procladius sp.	+	+		+	
		Tanypus sp.	+			+	
	Culicidae	Anopheles sp.	+			+	
	Dixidae	Dixidae	 	<del></del>		+	
	Simuliidae	<i>Dixella</i> sp. Simuliidae	= = - = =		+	+	
	JIMATITAGE	Simulium sp.			+		
	Tipulidae	Tipulidae				+	
	=	Tipula sp.		+			
		Hexatoma sp.	= -	+			
	Athericidae	Atherix lantha Webb		+			
	Sciomyzidae	Sepedon sp.				+	
	Tabanidae	Chrysops sp. Total	 41	+ 64	 57	 60	
		10041	41	04	J /	00	
Station			13	14	15	16	
Latitude			411337	411331	411134	411136	
Longitude			810458	810516	810835	810858	
Collection D	ate				14-Jul-98		
Sample Type ORDER	FAMILY	TAXON	Qual.	Qual.	Qual.	Qual.	
Turbellaria*		Turbellaria			+		
Nematoda*		Nematoda	= =		+		
Gastropoda**	Valvatidae	Valvata sp.				+	
-	Viviparidae	Viviparus sp.			+		
	Hydrobiidae	Hydrobiidae				+	
	Lymnaeidae	Lymnaeinae	+				
	Dharaidas	Fossaria/Stagnicola sp.	+				
	Physidae Planorbidae	<i>Physella</i> sp. Planorbidae	+	 	+	+	
	Tamornide	rianoibidae				+	

Station			13	14	15	16	
Latitude Longitude			411337 810458	411331 810516	411134 810835	411136 810858	
Collection D	ate		27-Jul-98		14-Jul-98	28-Jul-98	
Sample Type ORDER	FAMILY	TAXON	Qual.	Qual.	Qual.	Qual.	
JADEK .	PARITHI	Helisoma anceps (Menke)	+		+	+	
		Planorbella sp.				+	
Pelecypoda**	Sphaeriidae	Sphaeriidae	= =	+	+	= =	
		Pisidium sp.				+	
01:000hooto#	*Tumbriaulidae	Musculium sp. Lumbriculidae			+		
Jiigochaeta*	*Lumbriculidae	Stylaria lacustris (Linnaeus)			+	+	
	Tubificidae	Tubificidae		+			
Hirundinea**	Glossiphoniidae	Glossiphoniidae			+		
Acari		Hydrachnidia	+	+	+		
Decapoda	Cambaridae	Cambaridae	+	+			
Amphipoda Collembola	Hyalellidae	Hyalella azteca (Saussure)	+	+	+	+	
corrembora Ephemeropter	aCaenidae	Collembola Caenis sp.	+	+	+	+	
Брисшегорсег	acaciiiuac	Caenis diminuta Walker	+	+	+	+	
		Caenis latipennis Banks	+				
	Baetidae	Baetidae		+			
		Centroptilum/Procloeon sp.	+				
		Baetis tricaudatus Dodds	+				
	Heptageniidae	Stenacron sp.	+				
		Stenacron interpunctatum (Say) Stenonema sp.	+				
		Stenonema femoratum (Say)	+				
		Stenonema vicarium (Walker)	+				
Odonata	Calopterygidae	Calopteryx sp.	+				
	Coenagrionidae	Coenagrionidae	+	+	+	+	
		Argia sp.	+				
		Chromagrion conditum (Selys)	+				
	A control of the control	Ischnura sp.		+	+		
	Aeshnidae	Aeshnidae Anax junius (Drury)				+	
	Gomphidae	Gomphidae	+				
	Libellulidae	Libellulidae			+	+	
		Sympetrum sp.			+		
Plecoptera	Leuctridae	Leuctra sp.	+				
Orthoptera	Gryllidae	Gryllidae				+	
Hemiptera	Belostomatidae	Belostomatidae				+	
	Corixidae	Belostoma flumineum Say Corixidae		+		+	
	COLIXIUAE	Palmacorixa sp.				+	
		Palmacorixa nana Walley			+		
		Trichocorixa sp.		+	+	+	
	Gerridae	Gerrinae	+				
		Aquarius remigis (Say)	+				
		Trepobates sp.	+		+	+	
	TT	Trepobates subnitidus Esaki		+	+		
	Hydrometridae Mesoveliidae	Hydrometra sp. Mesovelia sp.		+	+	+	
	Mesoverridae	Mesovelia mulsanti White		+		+	
	Naucoridae	Pelocoris sp.			+	+	
	Nepidae	Ranatra kirkaldyi Torre-Bueno			+	+	
	Notonectidae	Notonectidae				+	
		Notonecta sp.				+	
	Pleidae	Pleidae				+	
	77-7::	Neoplea sp.				+	
	Veliidae	Veliidae Microvelia sp.	+				
		Rhagovelia obesa Uhler	+				
Megaloptera	Corydalidae	Nigronia serricornis (Say)	+				
3 1	Sialidae	Sialis sp.	+				
Trichoptera	Glossosomatidae	Glossosoma sp.	+				
	Hydroptilidae	Ochrotrichia sp.	+				
	D1-17	Oxyethira sp.			+		
	Philopotamidae	Chimarra sp.	+				
	Hydropsychidae	Ceratopsyche sp. Ceratopsyche slossonae (Banks)	+				
		Ceratopsyche sparna (Ross)	+				
		Cheumatopsyche sp.	+				
		Hydropsyche sp.	+				
		Hydropsyche betteni Ross/depravata Ha	agen +				
	Uenoidae	Neophylax sp.	+				
	Leptoceridae	Leptoceridae		+			
		Oecetis cinerascens (Hagen)			+		
Lepidoptera Coleoptera	Pyralidae	Nymphulini Coleoptera				++	

		Ammunition Flant, Fortage and				
Station Latitude Longitude			13 411337 810458	14 411331 810516	15 411134 810835	16 411136 810858
ollection 1	Date				14-Jul-98	
ample Type			Qual.	Qual.	Qual.	Qual.
RDER	FAMILY Dytiscidae	TAXON Dytiscidae				+
	Dytiscidae	Acilius semisulcatus Aubé				+
		Laccornis sp.				+
		Celina sp.			+	
	Gyrinidae	Gyrinus lecontei Fall	+			= =
	Haliplidae	Haliplus sp.			+	
		Peltodytes sp.		+	+	+
	Noteridae	Hydrocanthus sp.				+
	Helophoridae Hydrophilidae	Helophorus sp. Hydrophilidae	+			+
	пуаториттаас	Enochrus sp.				+
		Paracymus sp.				+
		Tropisternus sp.				+
	Dryopidae	Helichus basalis LeConte	+			
	Elmidae	Dubiraphia sp.	+			
		Dubiraphia quadrinotata (Say)	+			
		Optioservus sp.	+			
	Danhonidae	Stenelmis sp.	+			 
	Psephenidae Curculionidae	Ectopria sp. Curculionidae				+
iptera	Chironomidae	Chironomidae	+	+		
		Chironominae	+	+	+	
		Chironomini	+	+		
		Cladopelma/Cryptotendipes sp.				+
		Chironomus sp.	+			
		Cladopelma sp.		+		+
		Dicrotendipes sp.	+	+		
		Einfeldia sp.		+	+	
		Microtendipes sp.	+		+	+
		Paratendipes sp.	+			 
		Phaenopsectra sp. Polypedilum sp.		+		+
		Stictochironomus sp.	+			
		Tribelos sp.	+			
		Pseudochironomus sp.		+	+	+
		Micropsectra/Tanytarsus sp.***	+			
		Cladotanytarsus sp.***	+	+		+
		Rheotanytarsus sp.***	+			
		Stempellinella sp.***	+			
		Tanytarsus sp.***	+	+	+	
		Diamesa sp.	+			
		Pagastia sp.	+			 
		Parametriocnemus sp. Tanypodinae	+	+		+
		Clinotanypus sp.		+	+	+
		Thienemannimyia group sp.	+		+	
		Ablabesmyia sp.	+	+	+	+
		Labrundinia sp.			+	+
		Larsia sp.		+		
		Procladius sp.	+	+		
		Tanypus sp.		+		
	Culicidae	Anopheles sp.	+			
	Dixidae	Dixella sp.	+			
	Tipulidae	Tipula sp.	+			 
	Athericidae	Antocha sp. Atherix lantha Webb	+			
	veneticings	Total	+ 76	33	39	52
		- <del></del>	. 0	55	22	22
tation			17	18	19	20
			411057	411032	411026	410951
			811034	810722	810724	810557
ongitude						
ongitude ollection 1			14-Jul-98	14-Jul-98	14-Jul-98	
ongitude ollection I ample Type		TAYON				29-Jul-98 Qual.
ongitude ollection I ample Type RDER	FAMILY	TAXON	14-Jul-98 Qual.	14-Jul-98 Qual.	14-Jul-98 Qual.	Qual.
ongitude ollection ample Type RDER	FAMILY * Hydrobiidae	Hydrobiidae	14-Jul-98 Qual.	14-Jul-98 Qual.	14-Jul-98 Qual.	Qual.
ongitude ollection ample Type RDER	FAMILY * Hydrobiidae Physidae	Hydrobiidae Physella sp.	14-Jul-98 Qual. 	14-Jul-98 Qual.	14-Jul-98 Qual.  +	Qual. + +
ongitude ollection l ample Type RDER	FAMILY * Hydrobiidae	Hydrobiidae <i>Physella</i> sp. Planorbidae	14-Jul-98 Qual.	14-Jul-98 Qual.	14-Jul-98 Qual.	Qual.
ongitude ollection l ample Type RDER	FAMILY * Hydrobiidae Physidae	Hydrobiidae Physella sp. Planorbidae Gyraulus sp.	14-Jul-98 Qual.  	14-Jul-98 Qual.	14-Jul-98 Qual.	Qual. + +
ongitude ollection ample Type RDER	FAMILY * Hydrobiidae Physidae	Hydrobiidae Physella sp. Planorbidae Gyraulus sp. Helisoma anceps (Menke)	14-Jul-98 Qual.   	14-Jul-98 Qual.  + +	14-Jul-98 Qual.	Qual. + +
ongitude ollection ample Type RDER astropoda*	FAMILY * Hydrobiidae Physidae	Hydrobiidae Physella sp. Planorbidae Gyraulus sp.	14-Jul-98 Qual.	14-Jul-98 Qual.  + + 	14-Jul-98 Qual.  + + 	Qual. + +
ongitude ollection ample Type RDER astropoda*	FAMILY * Hydrobiidae Physidae Planorbidae	Hydrobiidae Physella sp. Planorbidae Gyraulus sp. Helisoma anceps (Menke) Planorbella sp.	14-Jul-98 Qual.    + 	14-Jul-98 Qual.  + + 	14-Jul-98 Qual.  + +   +	Qual. + +
ongitude ollection ! ample Type RDER astropoda*	FAMILY * Hydrobiidae Physidae Planorbidae	Hydrobiidae Physella sp. Planorbidae Gyraulus sp. Helisoma anceps (Menke) Planorbella sp. Sphaeriidae	14-Jul-98 Qual.    +  +	14-Jul-98 Qual.  + +  +	14-Jul-98 Qual.  + +   + +	Qual.  + + +
_	FAMILY  * Hydrobiidae Physidae Planorbidae  * Sphaeriidae	Hydrobiidae Physella sp. Planorbidae Gyraulus sp. Helisoma anceps (Menke) Planorbella sp. Sphaeriidae Pisidium sp.	14-Jul-98 Qual.    +  + +	14-Jul-98 Qual.  + +  + 	14-Jul-98 Qual.  + +   + +	Qual.  + + +

Station Latitude Longitude		Ammunicion Flant, Fortage and Fi		- 1 ^	4.^	
			17	18	19	20
Longituae			411057	411032	411026	410951
	_ <del> </del>		811034	810722	810724	810557
Collection D	ate				14-Jul-98	
Sample Type			Qual.	Qual.	Qual.	Qual.
RDER	FAMILY	TAXON				
	Tubificidae	Tubificidae				+
irundinea**	Glossiphoniidae	Glossiphoniidae	+	+		
	Erpobdellidae	Erpobdellidae			+	
cari		Hydrachnidia	+		+	
ecapoda	Cambaridae	Cambaridae				+
sopoda	Asellidae	Caecidotea sp.			+	
mphipoda	Hyalellidae	Hyalella azteca (Saussure)	+	+	+	+
phemeropter	ra .	Ephemeroptera				+
	Leptophlebiidae	Leptophlebiidae				+
		Paraleptophlebia sp.				+
		Caenis diminuta Walker	+	+		
	Baetidae	Baetidae	+			
	Daecidae	Baetis flavistriga McDunnough				+
		Callibaetis sp.	+	+		
		Cloeon cognatum Stephens	+			
		Fallceon quilleri (Dodds)				+
donata	Coenagrionidae	Coenagrionidae	+		+	
		Ischnura sp.		+		
	Aeshnidae	Anax sp.	+			
		Anax junius (Drury)	+			
	Libellulidae	Libellula sp.	==	+		
lecoptera	Leuctridae	Leuctra sp.				+
	Perlidae	Perlesta sp.				+
eminters	Belostomatidae	Belostomatidae				+
emiptera				+	+	
	Corixidae	Corixidae	+	+		+
		Hesperocorixa sp.	+	+	+	
		Sigara sp.	+	+		+
		Trichocorixa sp.		+		
	Gerridae	Gerrinae				+
		Aquarius remigis (Say)				+
		Trepobates sp.				+
	Naucoridae	Pelocoris sp.		+		
	Nepidae	Ranatra sp.	+			
	Notonectidae	Notonectidae	+			
	Noconcectade		•			
	Dloidas	Notonecta sp.	+			
	Pleidae	Pleidae		+		
		Neoplea sp.		+	+	
_	Veliidae	Veliidae				+
Megaloptera		Sialis sp.				+
richontera	Philopotamidae	Dolophilodes sp.				+
richopeera		Dolophilodes distinctus (Walker)				+
TICHOPCEIA						
TICHOPCETA	Hydropsychidae	Hydropsychidae				+
rrenoptera	Hydropsychidae					+ +
rremoptera	Hydropsychidae	Hydropsychidae Diplectrona modesta Banks				+
rrenopeera	Hydropsychidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks)				+ +
richoptera	Hydropsychidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp.	 	 	  	+ + +
richoptera		Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata	   Hagen	  	  	+ + +
richoptera	Lepidostomatidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp.	   Hagen 	   	   	+ + + +
	Lepidostomatidae Limnephilidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp.	   Hagen 	   	   	+ + + + +
	Lepidostomatidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae	   Hagen 	   	   	+ + + +
	Lepidostomatidae Limnephilidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp.	   Hagen 	   	   	+ + + + +
	Lepidostomatidae Limnephilidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp.	   Hagen 	   	   	+ + + + +
	Lepidostomatidae Limnephilidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp.	  Hagen   + +	     	     	+ + + + + +
	Lepidostomatidae Limnephilidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say)	  Hagen   + +			+ + + + + +
	Lepidostomatidae Limnephilidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp.	  Hagen  + + +			+ + + + +  +
	Lepidostomatidae Limnephilidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini	  Hagen  + + + +			+ + + + + + + + +
	Lepidostomatidae Limnephilidae Dytiscidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp.	  Hagen  + + + + +		    +  +	+ + + + +    
	Lepidostomatidae Limnephilidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp.	  Hagen  + + +  +			+ + + + +   +
	Lepidostomatidae Limnephilidae Dytiscidae Gyrinidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus nigrior Roberts	  Hagen  + + + +  + + +			+ + + + + + + + + + + + + + + + + + + +
	Lepidostomatidae Limnephilidae Dytiscidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp.	  Hagen  + + + + + + + +		+	+ + + + + + + + + + + + + + + + + + + +
	Lepidostomatidae Limnephilidae Dytiscidae Gyrinidae Haliplidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp.	  Hagen  + + + + + + + + + + +		+	+ + + + +     
	Lepidostomatidae Limmephilidae Dytiscidae Gyrinidae Haliplidae Noteridae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrocanthus sp.	  Hagen  + + + + + + + + + +			+ + + + +     
	Lepidostomatidae Limnephilidae Dytiscidae Gyrinidae Haliplidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp.	  Hagen  + + + + + + + + + + +		+	+ + + + +     
	Lepidostomatidae Limmephilidae Dytiscidae Gyrinidae Haliplidae Noteridae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrocanthus sp.	  Hagen  + + + + + + + + + +			+ + + + +     
	Lepidostomatidae Limnephilidae Dytiscidae Gyrinidae Haliplidae Noteridae Hydrochidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrochus sp. Hydrochus sp.	  Hagen  + + +  + + + + + + +			+ + + + + + + + + + + + + + + + + + + +
	Lepidostomatidae Limnephilidae Dytiscidae Gyrinidae Haliplidae Noteridae Hydrochidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrocanthus sp. Enochrus sp. Tropisternus sp. Tropisternus sp.	  Hagen  + + + + + + + + + +			+ + + + +         
	Lepidostomatidae Limnephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrophilidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus sp. Dineutus sp. Peltodytes sp. Hydrocanthus sp. Hydrochus sp. Enochrus sp. Tropisternus sp. Dubiraphia quadrinotata (Say)	  Hagen  + + + + + + + + + +	      + + + + +		+ + + + +          
	Lepidostomatidae Limnephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrophilidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrochus sp. Enochrus sp. Tropisternus sp. Dubiraphia quadrinotata (Say) Optioservus sp.	  Hagen  + + + + + + + + + + 			+ + + + +          
	Lepidostomatidae Limnephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrophilidae Elmidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrochus sp. Enochrus sp. Tropisternus sp. Dubiraphia quadrinotata (Say) Optioservus ovalis (LeConte)				+ + + + +          
oleoptera	Lepidostomatidae Limnephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrochidae Elmidae Psephenidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrocanthus sp. Enochrus sp. Tropisternus sp. Dubiraphia quadrinotata (Say) Optioservus ovalis (LeConte) Ectopria sp.	Hagen + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+ + + + +          
oleoptera	Lepidostomatidae Limnephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrophilidae Elmidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus sp. Dineutus sp. Peltodytes sp. Hydrocanthus sp. Hydrochus sp. Tropisternus sp. Dubiraphia quadrinotata (Say) Optioservus ovalis (LeConte) Ectopria sp. Chaoboridae	Hagen + + + + + + +		+ + + + + + + + + + + + + + + + + + + +	+ + + + +          
oleoptera	Lepidostomatidae Limmephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrophilidae Elmidae Psephenidae Chaoboridae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrocanthus sp. Enochrus sp. Tropisternus sp. Dubiraphia quadrinotata (Say) Optioservus ovalis (LeConte) Ectopria sp.	Hagen + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+ + + + +          
oleoptera	Lepidostomatidae Limnephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrochidae Elmidae Psephenidae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus sp. Dineutus sp. Peltodytes sp. Hydrocanthus sp. Hydrochus sp. Tropisternus sp. Dubiraphia quadrinotata (Say) Optioservus ovalis (LeConte) Ectopria sp. Chaoboridae	Hagen + + + + + + +		+ + + + + + + + + + + + + + + + + + + +	+ + + + +          
oleoptera	Lepidostomatidae Limmephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrophilidae Elmidae Psephenidae Chaoboridae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrochus sp. Enochrus sp. Enochrus sp. Dubiraphia quadrinotata (Say) Optioservus ovalis (LeConte) Ectopria sp. Chaoboridae Chaoborus sp.				+ + + + +          
oleoptera	Lepidostomatidae Limmephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrophilidae Elmidae Psephenidae Chaoboridae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrochus sp. Enochrus sp. Tropisternus sp. Dubiraphia quadrinotata (Say) Optioservus ovalis (LeConte) Ectopria sp. Chaoboridae Chironominae			+ + + + + + + + + + + + + + + + + + + +	+ + + + + +          -
oleoptera	Lepidostomatidae Limmephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrophilidae Elmidae Psephenidae Chaoboridae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrocanthus sp. Tropisternus sp. Tropisternus sp. Dubiraphia quadrinotata (Say) Optioservus ovalis (LeConte) Ectopria sp. Chaoborus sp. Chironomidae Chironomidae Chironominae Omisus/Stictochironomus sp.	Hagen + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+ + + + + +         + + + + + +  
Coleoptera	Lepidostomatidae Limmephilidae Dytiscidae  Gyrinidae Haliplidae Noteridae Hydrochidae Hydrophilidae Elmidae Psephenidae Chaoboridae	Hydropsychidae Diplectrona modesta Banks Ceratopsyche slossonae (Banks) Cheumatopsyche sp. Hydropsyche betteni Ross/depravata Lepidostoma sp. Pycnopsyche sp. Dytiscidae Ilybius sp. Coptotomus sp. Acilius mediatus (Say) Graphoderus sp. Hydroporini Laccophilus sp. Dineutus sp. Dineutus nigrior Roberts Haliplus sp. Peltodytes sp. Hydrocanthus sp. Hydrochus sp. Enochrus sp. Tropisternus sp. Dubiraphia quadrinotata (Say) Optioservus ovalis (LeConte) Ectopria sp. Chaoboridae Chironominae			+ + + + + + + + + + + + + + + + + + + +	+ + + + + +          -

Station Latitude Longitude Collection Da						
Longitude			17	18	19	20
			411057	411032	411026	410951
			811034	810722	810724	810557
	ate		14 - Jul - 98	14-Jul-98	14 - Jul - 98	29-Jul-98
Sample Type			Qual.	Qual.	Qual.	Qual.
	FAMILY	TAXON	Quai.	Quai.	Quai.	Quai.
RDER	FAMILI					
		Kiefferulus sp.	+			
		Microtendipes sp.	+			
		Paracladopelma sp.				+
		Polypedilum sp.		+		+
		Stictochironomus sp.	+			+
		Pseudochironomus sp.	+			
		Micropsectra/Tanytarsus sp.***				+
		Micropsectra sp.***				+
		Diamesa sp.				+
		Pagastia sp.				+
						· 
		Cricotopus/Orthocladius sp.	+			
		Chaetocladius sp.				+
		Heterotrissocladius sp.				+
		Parametriocnemus sp.				+
		Thienemanniella sp.				+
		Tvetenia sp.				+
		Prodiamesa sp.				+
		Tanypodinae	+	+		
		Macropelopia sp.				+
		Thienemannimyia group sp.				+
		Larsia sp.		+		+
		Trissopelopia sp.				+
		Zavrelimyia sp.				+
		Procladius sp.	+		+	
	Culiaidas				+	
	Culicidae	Anopheles sp.	+			
	Tipulidae	Dicranota sp.				+
	Tabanidae	Chrysops sp.				+
		Total	45	30	23	59
			-		-	
Station			21	22	23	24
Latitude			411326	411131	411040	410950
Longitude			810305	810719	810649	810745
Collection Da	ate		28-Jul-98	16-Jul-98	14-Jul-98	29-Jul-98
Sample Type			Qual.	Qual.	Qual.	Qual.
ORDER	FAMILY	TAXON	guar.	gaar.	guar.	gaar.
Gastropoda**		Viviparus sp.			+	
	Hydrobiidae	Hydrobiidae				+
	Ancylidae	Ferrissia sp.		+		
	Lymnaeidae	Lymnaeinae	+			
		Ly mildelinde				
		Dh				
	Physidae	Physella sp.				+
		<i>Physella</i> sp. Planorbidae	+			+
	Physidae	Planorbidae				
	Physidae	Planorbidae Gyraulus sp.	+			
	Physidae Planorbidae	Planorbidae Gyraulus sp. Planorbella sp.	+ + +	 	  	+
	Physidae Planorbidae	Planorbidae  Gyraulus sp. Planorbella sp. Sphaeriidae	+ + + +	  +	   +	+
	Physidae Planorbidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp.	+ + + +	  + 	  + 	+
	Physidae Planorbidae	Planorbidae  Gyraulus sp. Planorbella sp. Sphaeriidae	+ + + +	  +	   +	+
Pelecypoda**	Physidae Planorbidae Sphaeriidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp.	+ + + +	  + 	  + 	+
Pelecypoda**	Physidae Planorbidae Sphaeriidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae	+ + + + + +	  + 	+	+   
Pelecypoda**	Physidae Planorbidae Sphaeriidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp.	+ + + + + + +	+	+	+     + 
Pelecypoda** Dligochaeta**	Physidae Planorbidae Sphaeriidae *Naididae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus)	+ + + + + +	  + 	+	+   
Pelecypoda** Dligochaeta**	Physidae Planorbidae Sphaeriidae *Naididae Tubificidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae	+ + + + + + +	+	+	+     + 
Pelecypoda** Dligochaeta**	Physidae Planorbidae Sphaeriidae *Naididae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae	+ + + + + + +	+	+	+     + 
Pelecypoda** Dligochaeta** Hirundinea**	Physidae Planorbidae Sphaeriidae *Naididae Tubificidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae	+ + + + + + + +	+	+	+ + + + + + +
Pelecypoda** Dligochaeta** Mirundinea** Acari	Physidae Planorbidae Sphaeriidae *Naididae Tubificidae Glossiphoniidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia	+ + + + + + + +  +	+ + + +	+	+ + + + + + + +
Pelecypoda** Oligochaeta** Hirundinea** Acari Decapoda	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp.	+ + + + + + + + + + + + + + + + + + + +	+	+	+
Pelecypoda** Digochaeta** Mirundinea** Acari Decapoda Amphipoda	Physidae Planorbidae Sphaeriidae *Naididae Tubificidae Glossiphoniidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure)	+ + + + + + + +  +	+ + + +	+	+ + + + + + + +
Pelecypoda** Digochaeta** Mirundinea** Acari Decapoda Amphipoda	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp.	+ + + + + + + + + + + + + + + + + + + +	+	+	+
Celecypoda**  Dligochaeta**  Mirundinea**  Acari  Decapoda  Amphipoda  Collembola	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola	+ + + + + + + +  +	+ + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Celecypoda** Dligochaeta** Hirundinea** Acari Decapoda Amphipoda Collembola	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera	+ + + + + + + + + + + + + + + + + + + +	  +    + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda**  Digochaeta**  Mirundinea**  Acari  Decapoda  Amphipoda  Collembola  Ephemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  a Leptophlebiidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda**  Digochaeta**  Girundinea**  Locari  Decapoda  Locapoda  Locapoda  Collembola  Collembola  Collembola	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp.	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda**  Digochaeta**  Mirundinea**  Acari  Decapoda  Amphipoda  Collembola  Ephemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  a Leptophlebiidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Girundinea** Cari Decapoda Amphipoda Collembola Cphemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  a Leptophlebiidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp.	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Girundinea** Cari Decapoda Amphipoda Collembola Cphemeroptera	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae a Leptophlebiidae Caenidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae	+ + + + + + + +  +  +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
digochaeta** dirundinea** dcari lecapoda lecapoda lecapoda lollembola lohemeroptera	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae a Leptophlebiidae Caenidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp.	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
digochaeta** dirundinea** dcari lecapoda lecapoda lecapoda lollembola lohemeroptera	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae a Leptophlebiidae Caenidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough)	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Girundinea** Cari Decapoda Amphipoda Collembola Cphemeroptera	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae a Leptophlebiidae Caenidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp.	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Mirundinea** Acari Decapoda Amphipoda Collembola Cophemeroptera	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae a Leptophlebiidae Caenidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough)	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Mirundinea** Acari Decapoda Amphipoda Collembola Cohemeroptera	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae a Leptophlebiidae Caenidae Baetidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough)	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Mirundinea** Acari Decapoda Amphipoda Collembola Cohemeroptera	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae a Leptophlebiidae Caenidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say)	+ + + + + + + + + + + + + + + + + + + +	+ +   + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Hirundinea** Acari Decapoda Amphipoda Collembola Ephemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  a Leptophlebiidae Caenidae Baetidae  Heptageniidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say) Stenonema femoratum (Say)	+ + + + + + + + + + + + + + + + + + + +	+ +   + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Mirundinea** Acari Decapoda Amphipoda Collembola Ephemeroptera	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae a Leptophlebiidae Caenidae Baetidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say)	+ + + + + + + + + + + + + + + + + + + +	+ +   + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Mirundinea** Acari Decapoda Amphipoda Collembola Ephemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  a Leptophlebiidae Caenidae Baetidae  Heptageniidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say) Stenonema femoratum (Say)	+ + + + + + + + + + + + + + + + + + + +	+ +   + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Mirundinea** Acari Decapoda Amphipoda Collembola Ephemeroptera	Physidae Planorbidae Sphaeriidae *Naididae  Tubificidae Glossiphoniidae Cambaridae Hyalellidae a Leptophlebiidae Caenidae Baetidae Heptageniidae Calopterygidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say) Stenonema femoratum (Say) Calopteryyidae Calopteryx sp.	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Mirundinea** Acari Decapoda Amphipoda Collembola Ephemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  a Leptophlebiidae Caenidae Baetidae  Heptageniidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say) Stenonema femoratum (Say) Calopterygidae Calopteryx sp. Coenagrionidae	+ + + + + + + +  +  +  +  + 	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Mirundinea** Acari Decapoda Amphipoda Collembola Ephemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  a Leptophlebiidae Caenidae Baetidae  Heptageniidae  Calopterygidae  Coenagrionidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say) Stenonema femoratum (Say) Calopteryx sp. Coenagrionidae Ischnura sp.	+ + + + + + + + + + + + + + + + + + + +		+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda**  Digochaeta**  Girundinea**  Gecapoda  Imphipoda  Collembola  Cohemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  A Leptophlebiidae Caenidae Baetidae  Heptageniidae Calopterygidae Coenagrionidae Lestidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say) Stenonema femoratum (Say) Calopterygidae Calopteryx sp. Coenagrionidae	+ + + + + + +  +  +  +  +  +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Digochaeta** Hirundinea** Acari Decapoda Amphipoda Collembola Ephemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  a Leptophlebiidae Caenidae Baetidae  Heptageniidae  Calopterygidae  Coenagrionidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say) Stenonema femoratum (Say) Calopteryx sp. Coenagrionidae Ischnura sp.	+ + + + + + + + + + + + + + + + + + + +		+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Dligochaeta** Hirundinea** Acari Decapoda Amphipoda Collembola Ephemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  A Leptophlebiidae Caenidae Baetidae  Heptageniidae Calopterygidae Coenagrionidae Lestidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say) Stenonema femoratum (Say) Calopteryx sp. Coenagrionidae Ischnura sp. Lestes sp. Anax sp.	+ + + + + + +  +  +  +  +  +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +
Pelecypoda** Dligochaeta** Hirundinea** Acari Decapoda Amphipoda Collembola Ephemeroptera	Physidae Planorbidae  Sphaeriidae  *Naididae  Tubificidae Glossiphoniidae  Cambaridae Hyalellidae  A Leptophlebiidae Caenidae Baetidae  Heptageniidae Calopterygidae Coenagrionidae Lestidae	Planorbidae Gyraulus sp. Planorbella sp. Sphaeriidae Pisidium sp. Sphaerium sp. Naididae Dero sp. Stylaria lacustris (Linnaeus) Tubificidae Glossiphoniidae Hydrachnidia Orconectes sp. Hyalella azteca (Saussure) Collembola Ephemeroptera Leptophlebiidae Caenis sp. Caenis diminuta Walker Baetidae Centroptilum/Procloeon sp. Acentrella turbida (McDunnough) Callibaetis sp. Labiobaetis frondalis (McDunnough) Stenacron interpunctatum (Say) Stenonema femoratum (Say) Calopterygidae Calopteryx sp. Coenagrionidae Ischnura sp. Lestes sp.	+ + + + + + + +  +   +  +  +	+ + + + + + + + + + + + + + + + + + + +	+	+ + + + + + + + + + + + + + + + + + + +

1+0+10=		rumumtion I lant, I of tage and				24
Station Satitude Songitude			21 411326 810305	22 411131 810719	23 411040 810649	24 410950 810745
Collection I	Date				14-Jul-98	
Sample Type	FAMILY	TAXON	Qual.	Qual.	Qual.	Qual.
RDER		Cordulegaster sp.		+		
	Corduregastridae	Epitheca sp.			+	
	Gomphidae	Gomphus sp.			+	
	Libellulidae	Sympetrum sp.	+		+	
	Macromiidae	Macromiidae			+	
lecoptera	Perlidae	Perlidae		+		
emiptera	Belostomatidae	Belostomatidae	+			+
_		Belostoma flumineum Say	+			
	Corixidae	Corixidae	+	+		
		Hesperocorixa sp.	+			
		Palmacorixa sp.				+
		Palmacorixa nana Walley			+	
		Sigara sp.	==	+		= =
		Trichocorixa sp.	+			+
	Gerridae	Aquarius remigis (Say)		+		
		Rheumatobates sp.		+		
		Trepobates sp.			+	
	M	Trepobates subnitidus Esaki			+	
	Mesoveliidae	Mesovelia sp.	+			
	Naucoridae	Mesovelia mulsanti White	+		+	
	Naucoridae Notonectidae	Pelocoris sp. Notonecta sp.	+		+	
	Pleidae	Pleidae	+			
	r TETUAE	Neoplea sp.	+	+	+	
	Veliidae	Veliidae		+		
	VCIIIUac	Microvelia sp.		+	+	
egaloptera	Sialidae	Sialis sp.		+		+
richoptera		Hydroptila sp.				+
Tonopoora	Philopotamidae	Chimarra sp.		+		
	Hydropsychidae	Ceratopsyche slossonae (Banks)		+		
		Cheumatopsyche sp.		+		
		Hydropsyche betteni Ross/depravat	a Hagen	+		= =
	Polycentropodida	e Polycentropus sp.			+	+
	Limnephilidae	Pycnopsyche sp.		+		
	Uenoidae	Neophylax sp.		+		
	Leptoceridae	Leptoceridae				+
		"Oecetis sp. A (Floyd, 1995)"			+	
		Triaenodes sp.	= =			+
		Triaenodes injustus (Hagen)			+	
		Triaenodes marginatus Sibley				+
	Odontoceridae	Psilotreta sp.		+		
		Psilotreta indecisa (Walker)		+		
	Helicopsychidae	Helicopsyche borealis (Hagen)		+		
epidoptera		Lepidoptera	+			
oleoptera	Dytiscidae	Dytiscidae	+			
		Hydrovatus sp.	+			
	Gyrinidae	Gyrinus sp.		+		
	Haliplidae	Haliplus sp.		+	+	
		Peltodytes sp.	+	+	+	+
	Noteridae	Hydrocanthus sp.	+			
	Hydraenidae	Hydraena sp.		+		
	Staphylinidae	Staphylinidae		+		
	Hydrophilidae	Paracymus sp.		+		
	Scirtidae	Scirtidae			+	
	Dryopidae	Helichus basalis LeConte		+		
	Elmidae	Dubiraphia sp.		+		+
		Dubiraphia bivittata (LeConte)				+
		Dubiraphia minima Hilsenhoff		+		+
		Dubiraphia quadrinotata (Say)		+		+
		Dubiraphia vittata (Melsheimer)		+		+
		Optioservus ovalis (LeConte)		+		
		Optioservus trivittatus (Brown)		+		
	Daniel and 3	Stenelmis crenata (Say)		+		
	Psephenidae	Psephenus herricki (DeKay)		+		
iptera	Chironomidae	Chironomidae				+
		Chironomini		+		
		Chironomus sp.	+			
		Dicrotendipes sp.		+		+
		Endochironomus sp.				+
		Microtendipes sp.		+		+
		Microtendipes sp. Polypedilum sp.	+	+	+	+
		Microtendipes sp. Polypedilum sp. Stictochironomus sp.	+	++	+	+
		Microtendipes sp. Polypedilum sp. Stictochironomus sp. Pseudochironomus sp.	+	++	+  +	+ 
		Microtendipes sp. Polypedilum sp. Stictochironomus sp.	+	++	+	+

		/ 8		,		
Station			21	22	23	24
Latitude			411326	411131	411040	410950
Longitude			810305	810719	810649	810745
Collection Dat	te		28-Jul-98	16-Jul-98	14-Jul-98	29-Jul-98
Sample Type			Qual.	Qual.	Qual.	Qual.
ORDER F	FAMILY	TAXON				
		Tanytarsus sp.***		+	+	+
		Cricotopus/Orthocladius sp.				+
		Cricotopus bicinctus group				+
		Lopescladius sp.		+		
		Parametriocnemus sp.		+		
		Tanypodinae	+		+	
		Pentaneurini		+		
		Thienemannimyia group sp.		+		
		Ablabesmyia sp.	+	+	+	+
		Guttipelopia sp.	+			
		Labrundinia sp.				+
		Larsia sp.	+			
		Paramerina sp.		+		+
		Procladius sp.	+			+
		Tanypus sp.	+			
	Culicidae	Anopheles sp.	+	+		
I	Dixidae	Dixella sp.		+		
I	Athericidae	Atherix lantha Webb		+		
E	Ephydridae	Ephydridae				+
	Tabanidae	Tabanidae		+		
		Chrysops sp.				+
		Total	42	69	32	52

#### **Bridge-Scour Data Collection at Selected Sites in Ohio**

The following data list bridge-scour measurement sites and instantaneous discharge measurements collected at some of these sites. The data were collected as part of a cooperative study with the Ohio Department of Transportation to help verify whether conclusions determined in a previous bridge-scour study (1989-1994) would hold true for larger floods

#### BRIDGE-SCOUR MEASUREMENT SITES

SITE NUMBER	STATION NUMBER	SITE LOCATION AND NAME	DRAINAGE AREA (mi ² )
1	404037084155200	State Route 198 over Auglaize River near Wapakoneta, Ohio	200
2	393549082324700	U.S. Route 33 ocwe Clear Creek near Rockbridge, Ohio	91.8
3	414308081134101	State Route 84 over Grand River near Painesville, Ohio	685
4	392340084341700	State Route 128 over Great Miami at Hamilton, Ohio	3,630
5	400150084111300	State Route 41 over Great Miami River at Troy, Ohio	927
6	392731082142400	State Route 278 over Hocking River at Nelsonville, Ohio	576
7	410120083063501	State Route 64 over Honey Creek at Melmore, Ohio	149
8	402941081591200	County Road 621 over Killbuck Creek at Killbuck, Ohio	462
9	392424084060400	State Route 350 over Little Miami River at Ft. Ancient, Ohio	675
10	400627083475701	U.S. Route 36 over Mad River near Urbana, Ohio	162
11	394410083561000	U.S. Route 68 over Massies Creek at Oldtown, Ohio	84.4
12	411536084331400	U.S. Route 127 over Maumee River near Sherwood, Ohio	2,276
13	404257084081500	Township Road 122 over Ottawa River at Lima, Ohio	130
14	391520082461200	U.S. Route 50 over Salt Creek near Londonderry, Ohio	286
15	392031082582700	State Route 159 over Scioto River at Chillicothe, Ohio	3,849
16	402902083112800	State Route 4 over Scioto River near Prospect, Ohio	528
17	403515081312401	State Route 250 over Sugar Creek at Strasburg, Ohio	311
18	392115084074600	State Route 22 over Todd Fork at Morrow, Ohio	262
19	404715081312200	Walnut Road over Tuscarawas River at Massillon, Ohio	513
20	401933081304100	County Road 14 over Tuscarawas River at Port Washington, Ohio	2,400
21	400710082081001	State Route 16 over Wakatomika Creek near Frazeysburg, Ohio	140
22	394609082544200	County Road 17 over Walnut Creek near Ashville, Ohio	216

#### INSTANTANEOUS DISCHARGE MEASUREMENTS AT BRIDGE-SCOUR SITES

SITE NUMBER	STATION NUMBER	SITE LOCATION AND NAME	DATE	DISCHARGE (ft ³ /s)
18	392115084074600	State Route 22 over Todd Fork at Morrow, Ohio	4/16/98	20,000
21	400710082081001	State Route 16 over Wakatomika Creek near Frazeysburg, Ohio	6/28/98	10,200

### PROJECT DATA Bridge-Scour Data Collection at Selected Sites in Ohio



Figure 15. Location of measured bridge-scour sites in Ohio.

The following tables contain ground-water-level measurements and water-quality data from a network of monitoring wells near Delphos, Ohio. These data were collected as part of a cooperative study with the City of Delphos. The purpose of the study is to determine hydraulic characteristics of the carbonate aquifer.

404604084195100. Local number, AL-55.

LOCATION.--LATITUDE 40°46′04", LONGITUDE 084°19′51", hydrologic unit 04100007.

AQUIFER.--Carbonate. Geologic Unit 351TMCT.

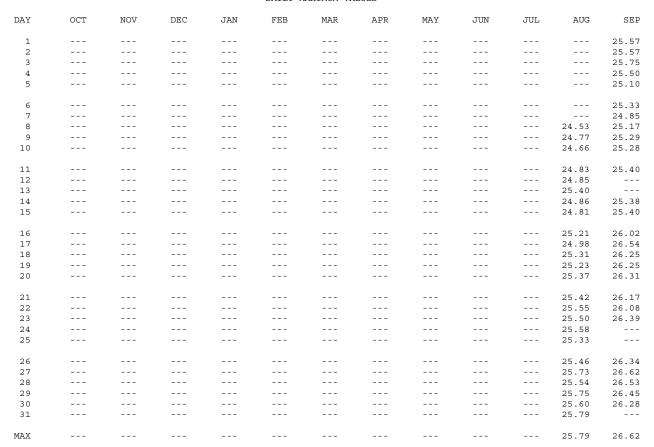
WELL CHARACTERISTICS.--Domestic well, depth 150 ft.

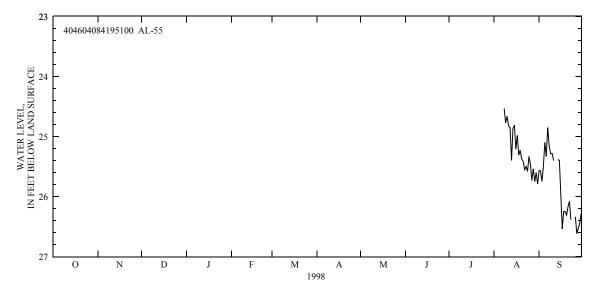
DATUM.--Altitude of land surface is 805 feet above National Geodetic Vertical Datum of 1929. Measuring point is top of casing, 1.10 ft above land-surface datum.

PERIOD OF RECORD.--Aug. 8, 1998 to current year

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 26.62 ft below land-surface datum, Sept. 27, 1998; minimum daily low, 24.53 ft below land-surface datum, Aug. 8, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MAXIMUM VALUES





404604084195100. Local number, AL-55.

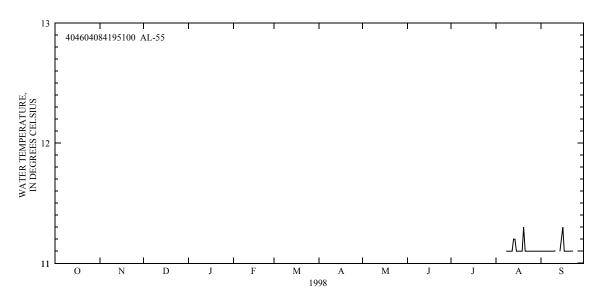
LOCATION.--LATITUDE 40°46′04″, LONGITUDE 084°19′51″, hydrologic unit 04100007.

PERIOD OF RECORD.--Aug. 8, 1998 to current year

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 11.3 degrees Celsius, Aug. 20, 1998 and Sept. 16, 1998; minimum daily low, 11.1 degrees Celsius, on several days during period of record.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MAXIMUM VALUES

					D.11221 1.		2020					
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												11.1
2												11.1
3												11.1
4												11.1
5												11.1
6							= = =					11.1
7												11.1
8											11.1	11.1
9											11.1	11.1
10											11.1	11.1
11											11.1	11.1
12											11.1	
13											11.2	11 1
14											11.2	11.1 11.2
15											11.1	11.2
16											11.1	11.3
17											11.1	11.1
18											11.1	11.1
19											11.1	11.1
20											11.3	11.1
21											11.1	11.1
22											11.1	11.1
23											11.1	11.1
24											11.1	
25											11.1	
26											11.1	11.1
27											11.1	11.1
28											11.1	11.1
29											11.1	11.1
30											11.1	11.1
31											11.1	
MAX											11.3	11.3



404548084205600. Local number, AL-57.

 $\mbox{LOCATION.--LATITUDE } 40^{0}45'48'', \mbox{ LONGITUDE } 084^{0}20'56'', \mbox{ hydrologic unit } 04100007.$ 

AQUIFER. -- Carbonate. Geologic Unit 351TMCT.

WELL CHARACTERISTICS.--Domestic well, depth 113 ft.

DATUM. -- Altitude of land surface is 811 feet above National Geodetic Vertical Datum of 1929. Measuring point is top

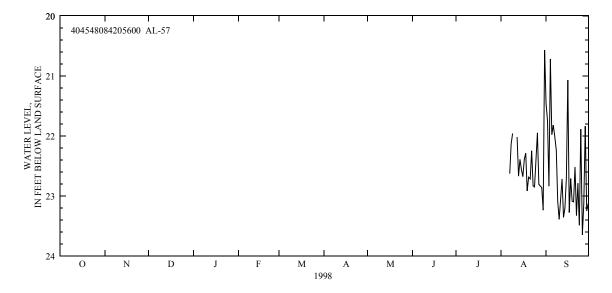
of casing, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--Aug. 7, 1998 to current year

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 23.65 ft below land-surface datum, Sept. 26, 1998; minimum daily low, 20.57 ft below land-surface datum, Aug. 31, 1998.

> DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

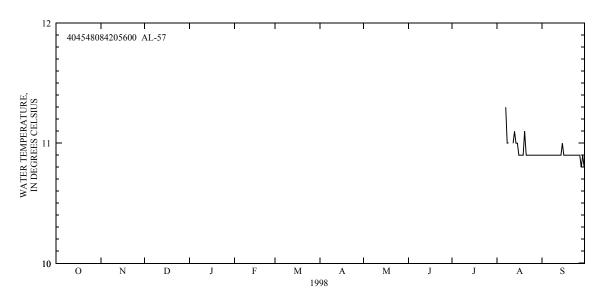
					D							
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												21.46
2												21.74
3												22.84
4												20.72
5												21.98
6												21.82
7											22.63	22.00
8											22.13	22.24
9											21.96	23.10
10												23.39
11												23.06
12											22.02	22.72
13											22.67	23.36
14											22.39	23.20
15											22.56	22.70
16											22.68	21.07
17											22.88	23.28
18											22.39	23.20
19											22.23	23.09
20											22.69	23.10
20											22.05	23.10
21											22.72	22.52
22											22.25	23.33
23											22.83	22.79
24											22.85	23.49
25											22.38	21.89
26											21.95	23.65
27											22.81	23.12
28											22.84	21.84
29											22.86	23.25
30											23.24	23.13
31											20.57	
MAX											23.24	23.65



404548084205600. Local number, AL-57.
LOCATION.--LATITUDE 40°45'48", LONGITUDE 084°20'56", hydrologic unit 04100007.
PERIOD OF RECORD.--Aug. 7, 1998 to current year
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 11.3 degrees Celsius, Aug. 7, 1998; minimum daily low, 10.8 degrees Celsius, Sept. 28,30, 1998.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

					DAILY M	IAXIMUM VA	LUES					
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												10.9
2												10.9
3												10.9
4												10.9
5												10.9
6												10.9
7											11.3	10.9
8											11.0	10.9
9											11.0	10.9
10												10.9
11												10.9
12											11.0	10.9
13											11.1	10.9
14											11.0	10.9
15											11.0	11.0
16											10.9	10.9
17											10.9	10.9
18											10.9	10.9
19											10.9	10.9
20											11.1	10.9
21											10.9	10.9
22											10.9	10.9
23											10.9	10.9
24											10.9	10.9
25											10.9	10.9
26											10.9	10.9
27											10.9	10.9
28											10.9	10.8
29											10.9	10.9
30											10.9	10.8
31											10.9	
MAX											11.3	11.0



404522084195800. Local number, AL-85.

LOCATION.--LATITUDE 40°45'22", LONGITUDE 084°19'58", hydrologic unit 04100007.

AQUIFER. -- Carbonate. Geologic Unit 351TMCT.

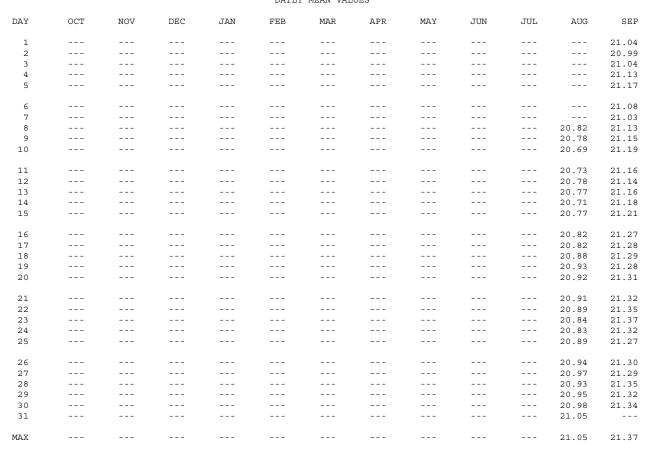
WELL CHARACTERISTICS. -- Drilled observation well, depth 315 ft.

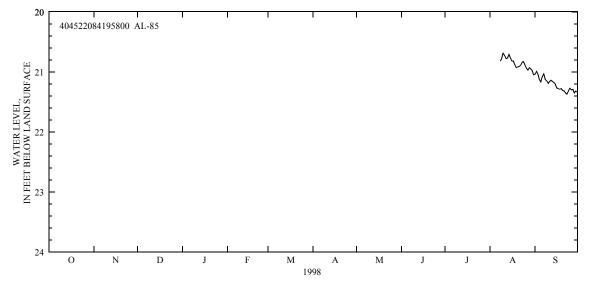
DATUM.--Altitude of land surface is 815 feet above National Geodetic Vertical Datum of 1929. Measuring point is top of casing, 1.2 ft above land-surface datum.

PERIOD OF RECORD.--Aug. 8, 1998 to current year

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 21.37 ft below land-surface datum, Sept. 23, 1998; minimum daily low, 20.69 ft below land-surface datum, Aug. 10, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES





404522084195800. Local number, AL-85.

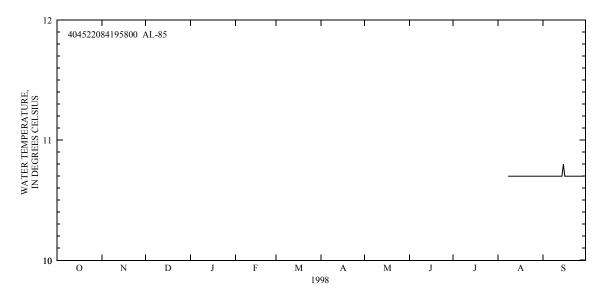
LOCATION.--LATITUDE 40°45′22″, LONGITUDE 084°19′58″, hydrologic unit 04100007.

PERIOD OF RECORD.--Aug. 8, 1998 to current year

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 10.8 degrees Celsius, Sept. 15, 1998; minimum daily low, 10.7 degrees Celsius, on several days during period of record.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

					2		***************************************					
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												10.7
2												10.7
3												10.7
4												10.7
5												10.7
6												10.7
7												10.7
8											10.7	10.7
9											10.7	10.7
10											10.7	10.7
11											10.7	10.7
12											10.7	10.7
13											10.7	10.7
14											10.7	10.7
15											10.7	10.8
16											10.7	10.7
17											10.7	10.7
18											10.7	10.7
19											10.7	10.7
20											10.7	10.7
0.1											10 5	10 8
21 22											10.7 10.7	10.7 10.7
											10.7	10.7
23 24											10.7	10.7
25											10.7	10.7
23											10.7	10.7
26											10.7	10.7
27											10.7	10.7
28											10.7	10.7
29											10.7	10.7
30											10.7	10.7
31											10.7	
											10.7	
MAX											10.7	10.8



404507084200300. Local number, AL-101.

 $\mbox{LOCATION.--LATITUDE } 40^{0}45'07'', \mbox{ LONGITUDE } 084^{0}20'03'', \mbox{ hydrologic unit } 04100007.$ 

AQUIFER. -- Carbonate. Geologic Unit 351TMCT.

WELL CHARACTERISTICS.--Domestic well, depth 36 ft.

DATUM.--Altitude of land surface is 808 feet above National Geodetic Vertical Datum of 1929. Measuring point is top of casing, 0.95 ft above land-surface datum.

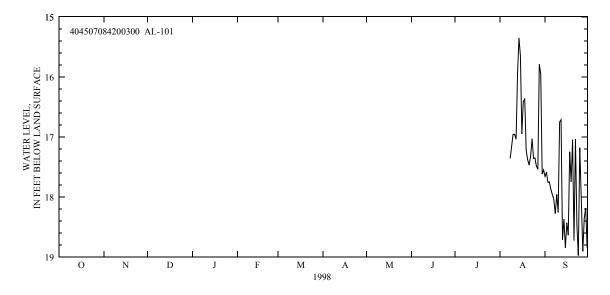
PERIOD OF RECORD.--Aug. 8, 1998 to current year

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 18.98 ft below land-surface datum, Sept. 24, 1998; minimum daily

low, 15.35 ft below land-surface datum, Aug. 14, 1998.

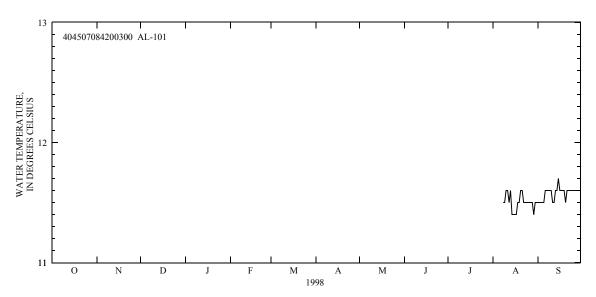
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												17.66
2												17.59
3												17.76
4												17.75
5												17.87
6												17.96
7												18.03
8											17.36	18.28
9											17.17	17.96
10											16.96	18.26
11											16.96	16.75
12											17.04	16.71
13											15.95	18.72
14											15.35	18.37
15											15.65	18.85
16											16.95	18.43
17											16.41	18.64
18											16.36	17.25
19											17.22	17.75
20											17.38	17.05
21											17.47	18.73
22											17.31	17.04
23											17.03	18.47
24											17.36	18.98
25											17.35	17.18
26											17.49	18.29
27											17.54	18.91
28											15.79	18.35
29											15.95	18.19
30											17.62	18.85
31											17.55	
MAX											17.62	18.98



404507084200300. Local number, AL-101.
LOCATION.--LATITUDE 40°45'07", LONGITUDE 084°20'03", hydrologic unit 04100007.
PERIOD OF RECORD.--Aug. 8, 1998 to current year
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 11.7 degrees Celsius, Sept. 15, 1998; minimum daily low, 11.4 degrees Celsius, on several days during period of record.

		TEMPE	RATURE, 1	WATER (DEG.		ER YEAR O		97 TO SEF	TEMBER 19	98		
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												11.5
2												11.5
3												11.5
4												11.5
5												11.5
6												11.6
7												11.6
8											11.5	11.6
9											11.5	11.6
10											11.6	11.6
11											11.6	11.5
12											11.5	11.5
13											11.6	11.6
14											11.4	11.6
15											11.4	11.7
												,
16											11.4	11.6
17											11.4	11.6
18											11.5	11.6
19											11.5	11.6
20											11.6	11.5
21											11.6	11.6
22											11.5	11.6
23											11.5	11.6
24											11.5	11.6
25											11.5	11.6
26											11.5	11.6
27											11.5	11.6
28											11.5	11.6
29											11.4	11.6
30											11.5	11.6
31											11.5	
MAX											11.6	11.7



				ALTITUDE			
LOCAL WELL NUMBER	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DEPTH OF WELL (FEET)	OF LAND SURFACE (FEET)	WATER LEVEL (FEET)	MEASUREMENT TIME	WATER- LEVEL DATE
AL-50	404611	0842001	120	805	21.59		02-13-1998
AL 30	404011	0042001	120	003	20.91	1350	03-03-1998
					20.6	1616	03-24-1998
					21.23	1105	07-08-1998
AL-52	404640	0842004	171	802	16.11 16.07	1710 1710	02-12-1998 02-25-1998
AL-53	404551	0842018	100	810	27.37		02-23-1998
					28.74	1530	07-08-1998
AL-54	404645	0841918	27	798	7.97		02-12-1998
					7.25 7.38	1145 0750	02-25-1998 03-04-1998
AL-55	404604	0841951	150	805	24.10		02-19-1998
					24.47	1500	03-03-1998
					24.44	1025	07-08-1998
					24.60 24.68	1000 1125	08-07-1998 08-13-1998
					24.65	1213	08-14-1998
					25.29	1145	08-20-1998
					25.89	1336	09-15-1998
					25.97 25.97	0920 0945	09-16-1998 09-16-1998
AL-56	404645	0841949	124	800	18.07	0945	02-12-1998
					17.49	1200	03-04-1998
AL-57	404548	0842056	113	811	19.85		02-12-1998
					19.73	1205	03-05-1998 03-26-1998
					19.49 19.74	1150	07-08-1998
					19.83	1415	08-06-1998
					19.72	1515	08-13-1998
					19.94	1750	08-20-1998
AL-58	404453	0841836	65	810	20.42 18.53	1400	09-15-1998 02-17-1998
1111 30	101155	0012000	03	010	18.47	1613	07-07-1998
AL-59	404613	0842005	32	805	20.51		02-13-1998
AL-60	404502	0841831	34	806	17.93		02-13-1998
AL-61	404438	0841817	34	810	17.07 20.01	 1700	02-18-1998 08-19-1998
AL-62	404438	0841827	35	810	19.03		02-17-1998
AL-63	404424	0842005	40.9	815	16.13		02-13-1998
					15.68	1640	07-08-1998
AL-64	404517	0841952	300	812	16.14 15.67	1736 1640	08-19-1998 02-25-1998
7111 01	101517	0011932	300	012	15.72	1350	07-09-1998
AL-65	404458	0841925	122	812	17.02	1450	02-25-1998
NT 66	404440	0041012	0.0	0.00	16.91		03-24-1998
AL-66	404448	0841913	82	803	11.30 11.30	1500 1400	02-25-1998 03-03-1998
AL-67	404439	0842002	31	813	13.24	1605	02-25-1998
					13.19	1055	07-09-1998
AL-68	404526	0841918	100	807.0	54.30		02-17-1998
AL-69 AL-70	404435 404639	0841959 0842130	50 130	815 814	14.82 23.70	 	02-18-1998 02-18-1998
AD 70	404033	0042130	150	014	22.66	0840	02-19-1998
					21.66	1120	03-26-1998
NT 61	404400	0040005	2.0	015	22.40	1155	07-09-1998
AL-71	404420	0842005	38	815	18.83 19.21	 1615	02-18-1998 02-25-1998
AL-72	404617	0842134	45	810	16.46	1115	02-25-1998
					16.34	1048	03-25-1998
AL-73	404556	0842001	62	805	20.05	= =	02-19-1998
					20.25 20.05	1038	03-25-1998 07-08-1998
AL-74	404603	0842133	77	810	15.83		02-18-1998
					16.10	0930	03-05-1998
AL-75	404553	0841810		805	19.04	1540	02-25-1998
AL-76	404552	0842057	119	810	19.62	1715	02-25-1998
AL-77	404551	0842100	95	810	19.70 15.51	1040 1725	03-05-1998 02-25-1998
	101551	5512100	,,	0.20	15.62	1120	03-05-1998
AL-78	404546	0841814	83	805	16.77	1530	02-25-1998
NI 70	404435	0042212	67	015	16.37		03-25-1998
AL-79	404437	0842213	67	815	18.32 18.46	1120 1300	02-18-1998 03-04-1998
AL-80	404526	0842157	64	810	16.56	1330	02-25-1998
					16.41		03-26-1998
AL-81	404647	0842054	142	802	38.54		02-12-1998
					37.79		03-25-1998

				ALTITUDE			
			DEPTH	OF LAND	WATER		WATER-
	LATITUDE	LONGITUDE	OF WELL	SURFACE	LEVEL	MEASUREMENT	LEVEL
LOCAL WELL NUMBER	(DEGREES)	(DEGREES)	(FEET)	(FEET)	(FEET)	TIME	DATE
AL-82	404507	0842039	78	815	21.51	1420	02-25-1998
					21.46	1530	03-05-1998
					21.55	1505	07-08-1998
					21.81	1030	08-19-1998
AL-83	404508	0842036	45	815	20.22	1410	02-25-1998
					20.12	1445	03-04-1998
					20.29	1515	07-08-1998
AL-84	404645	0841839	148	805	20.71	1155	02-25-1998
					20.41	1155	03-25-1998
77.05	404500	0041050	215	0.1.5	21.45	1510	08-20-1998
AL-85	404522	0841958	315	815	20.61	1650	02-25-1998
					20.41	1330	03-31-1998 07-09-1998
					20.82	1106	08-09-1998
					20.75	1115	08-14-1998
					21.03	1200	08-20-1998
					21.13	1200	09-03-1998
					21.26	1250	09-15-1998
AL-86	404502	0842152	74	805	19.44		02-19-1998
					19.63	1610	02-25-1998
					22.54	1400	02-25-1998
					19.21	1645	03-05-1998
					19.40	1600	07-08-1998
					19.58	0950	08-20-1998
AL-87	404513	0841958		807	13.80	1630	02-25-1998
AL-88	404512	0842001		810	15.27	1620	02-25-1998
					15.98 16.43	1045 1100	08-14-1998 09-03-1998
AL-89	404548	0842130	30	808	17.00		02-28-1998
111 09	101510	0012130	50	000	16.61	1125	08-19-1998
AL-90	404528	0842141	45	815	20.33	1340	03-04-1998
AL-91	404425	0841649	55	810	13.11	1020	03-04-1998
					12.57	1120	07-09-1998
AL-92	404555	0841952	90	805	17.27	1245	03-03-1998
AL-93	404514	0842001	34	812	12.83	1155	03-03-1998
					13.11	1230	03-05-1998
					13.25	1010	07-08-1998
AL-94	404447	0841836	32	807	18.41	1230	03-03-1998
					17.49	0900	03-26-1998
					16.74 19.16	1300 1425	07-09-1998 08-19-1998
AL-95	404556	0841843		804	18.91	1210	03-03-1998
ALI-93	404556	0041043		004	18.57		03-03-1998
					19.08	1540	07-08-1998
					19.09	1040	07-09-1998
AL-96	404554	0841948	95	805	15.48	1425	03-04-1998
					15.62	1130	07-08-1998
					15.65	1645	08-19-1998
AL-97	404427	0841649	30	810	11.28	0930	03-04-1998
AL-98	404547	0841814		802	14.78		03-25-1998
AL-99	404517	0842049	215	813	23.30	1311	03-24-1998
AL-100	404611	0842001	69	805	20.98	1430	07-08-1998
AL-100	404611	0642001	69	605	20.51 19.42		02-13-1998 03-24-1998
					19.42	1100	07-08-1998
AL-101	404507	0842003	36	808	15.27	1700	08-06-1998
1111 101	101507	0012005	30	000	15.23	1033	08-13-1998
					15.60	0808	08-21-1998
					16.83	1700	09-15-1998
AL-102	404700	0842008	30	795	14.40	1600	08-19-1998
AL-103	404659	0842008	112	795	17.83	1600	08-19-1998
AL-104	404627	0842003	133	805	20.92		08-14-1998
AL-105	404627	0842004	170	805	25.04	= =	08-14-1998
	,				25.44		08-19-1998
AL-106	404626	0842004	160	805	20.82		08-14-1998
AL-107	404615	0841836	29	800	10.50		08-07-1998
AL-108 AL-109	404549	0841913	142	812 807	30.2 23.18	 	08-07-1998 08-07-1998
AL-109 AL-110	404555 404556	0841925 0841838	28	807	23.18 16.32		08-07-1998
AL-111	404556	0841836	29	800	11.27		08-07-1998
AL-112	404428	0842135	95	815	17.95		08-07-1998
AL-113	404430	0842135	66	815	20.7		08-07-1998
AL-114	404607	0841837		798	8.41		08-07-1998
AL-115	404553	0842045		812	21.65	0850	08-07-1998
AL-116	404536	0841917	100	805	27.7		08-07-1998

						PH				
				SPE-		WATER	CHLO-		FLUO	-
LOCAL				CIFIC		WHOLE	RIDE,	SULFATI		
IDENT-		TEMPER-		CON-	OXYGEN,		DIS-	DIS-	DIS	
I-		ATURE	FLOW	DUCT-	DIS-	(STAND-				
FIER	DATE	WATER	RATE	ANCE	SOLVED		(MG/L	(MG/L		
1111	DITTE	(DEG C)	(G/M)	(US/CM)		UNITS)		AS SO4)	. ,	
		(00010)	(00059	. , .		(00400)		(00945)		
		(00010)	(00033)	(00055)	(00300)	(00400)	(00540)	(00545)	(0055)	0) (0/000)
AL-55	08-13-98	13.1	10.0	1150	.1	7.1	26	310	1.7	<5.7
AL-57	08-13-98	12.8	5.0	1320	.6	7.1	10	490	1.9	
AL-63	08-19-98	12.6	4.0	1440	.1	7.1	11	540	1.9	
AL-68	08-14-98	13.2		1120	.1	7.0	13	230	2.2	<5.7
AL-70	08-20-98	14.7	6.5	1040		6.9	57	150	1.3	
AL-88	08-14-98	12.9		1310	.1	7.1	10	470	1.7	<5.7
AL-89	08-19-98	12.6	6.0	1410	.1	7.2	10	550	1.9	
AL-94	08-19-98	13.3	6.0	1090	.1	7.0	22	220	1.2	
AL-101	09-15-98	14.3	4.0	1410	.1	7.1	10	550	1.7	
LOCAL		PH WATER WHOLE	NITRO- GEN, NITRITE	NITRO- GEN, NO2+NO3	CALCIUM	MAGNE- SIUM,		TRITIUM 2 SIGMA	CON-	ANC UNFLTRD CARBON-
IDENT-		WATER WHOLE LAB	GEN, NITRITE DIS-	GEN, NO2+NO3 DIS-	DIS-		BELOW LAND SURFACE	2 SIGMA WATER,	CIFIC CON- DUCT-	UNFLTRD CARBON- ATE
		WATER WHOLE	GEN, NITRITE DIS- SOLVED	GEN, NO2+NO3		SIUM,	BELOW LAND	2 SIGMA WATER, WHOLE,	CIFIC CON-	UNFLTRD CARBON- ATE IT-FLD
IDENT-	DATE	WATER WHOLE LAB (STAND- ARD	GEN, NITRITE DIS- SOLVED (MG/L	GEN, NO2+NO3 DIS- SOLVED (MG/L	DIS- SOLVED (MG/L	SIUM, DIS- SOLVED (MG/L	BELOW LAND SURFACE (WATER LEVEL)	2 SIGMA WATER, WHOLE, TOTAL	CIFIC CON- DUCT- ANCE LAB	UNFLTRD CARBON- ATE IT-FLD (MG/L -
IDENT- I-	DATE	WATER WHOLE LAB (STAND- ARD UNITS)	GEN, NITRITE DIS- SOLVED (MG/L AS N)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	DIS- SOLVED (MG/L AS CA)	SIUM, DIS- SOLVED	BELOW LAND SURFACE (WATER	2 SIGMA WATER, WHOLE, TOTAL (PCI/L)	CIFIC CON- DUCT- ANCE	UNFLTRD CARBON- ATE IT-FLD
IDENT- I-	DATE	WATER WHOLE LAB (STAND- ARD	GEN, NITRITE DIS- SOLVED (MG/L	GEN, NO2+NO3 DIS- SOLVED (MG/L	DIS- SOLVED (MG/L	SIUM, DIS- SOLVED (MG/L	BELOW LAND SURFACE (WATER LEVEL)	2 SIGMA WATER, WHOLE, TOTAL	CIFIC CON- DUCT- ANCE LAB	UNFLTRD CARBON- ATE IT-FLD (MG/L -
IDENT- I-	DATE 08-13-98	WATER WHOLE LAB (STAND- ARD UNITS)	GEN, NITRITE DIS- SOLVED (MG/L AS N)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	DIS- SOLVED (MG/L AS CA)	SIUM, DIS- SOLVED (MG/L AS MG)	BELOW LAND SURFACE (WATER LEVEL) (FEET)	2 SIGMA WATER, WHOLE, TOTAL (PCI/L)	CIFIC CON- DUCT- ANCE LAB (US/CM)	UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03)
IDENT- I- FIER		WATER WHOLE LAB (STAND- ARD UNITS) (00403)	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	DIS- SOLVED (MG/L AS CA) (00915)	SIUM, DIS- SOLVED (MG/L AS MG) (00925)	BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03) (99430)
IDENT- I- FIER AL-55	08-13-98	WATER WHOLE LAB (STAND- ARD UNITS) (00403)	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	DIS- SOLVED (MG/L AS CA) (00915)	SIUM, DIS- SOLVED (MG/L AS MG) (00925)	BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03) (99430)
IDENT- I- FIER AL-55 AL-57	08-13-98 08-13-98	WATER WHOLE LAB (STAND- ARD UNITS) (00403) 7.2 7.1	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) <.050 <.050	DIS- SOLVED (MG/L AS CA) (00915)	SIUM, DIS- SOLVED (MG/L AS MG) (00925)	BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019) 24.68 19.72	2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	CIFIC CON- DUCT- ANCE LAB (US/CM) (90095) 1190 1390	UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03) (99430) 272 236
IDENT- I- FIER AL-55 AL-57 AL-63	08-13-98 08-13-98 08-19-98	WATER WHOLE LAB (STAND- ARD UNITS) (00403)  7.2 7.1 7.3	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010 <.010	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) <.050 <.050	DIS- SOLVED (MG/L AS CA) (00915) 130 150 140	SIUM, DIS- SOLVED (MG/L AS MG) (00925) 62 74 87	BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019) 24.68 19.72 16.14	2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985) 3.8	CIFIC CON- DUCT- ANCE LAB (US/CM) (90095) 1190 1390 1440	UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03) (99430) 272 236 232
IDENT- I- FIER AL-55 AL-57 AL-63 AL-68	08-13-98 08-13-98 08-19-98 08-14-98	WATER WHOLE LAB (STAND- ARD UNITS) (00403)  7.2 7.1 7.3 7.1 7.2 7.2	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)  <.010 <.010 <.010 .026 .015 .010	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) <.050 <.050 <.050 <.050	DIS- SOLVED (MG/L AS CA) (00915) 130 150 140 120 110	SIUM, DIS- SOLVED (MG/L AS MG) (00925) 62 74 87 65 62 90	BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019) 24.68 19.72 16.14  15.98	2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985) 3.8 3.8	CIFIC CON- DUCT- ANCE LAB (US/CM) (90095) 1190 1390 1440 1160	UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03) (99430) 272 236 232 340 302 252
IDENT- I- FIER AL-55 AL-57 AL-63 AL-68 AL-70	08-13-98 08-13-98 08-19-98 08-14-98 08-20-98	WATER WHOLE LAB (STAND- ARD UNITS) (00403)  7.2 7.1 7.3 7.1 7.2	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010 <.010 <.010 0.026	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) <.050 <.050 <.050 <.050	DIS- SOLVED (MG/L AS CA) (00915) 130 150 140 120 110	SIUM, DIS- SOLVED (MG/L AS MG) (00925) 62 74 87 65 62 90 76	BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019) 24.68 19.72 16.14	2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)  3.83.8	CIFIC CON- DUCT- ANCE LAB (US/CM) (90095) 1190 1390 1440 1160 1080	UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03) (99430)  272 236 232 340 302
IDENT- I- FIER AL-55 AL-57 AL-63 AL-68 AL-70 AL-88	08-13-98 08-13-98 08-19-98 08-14-98 08-20-98 08-14-98	WATER WHOLE LAB (STAND- ARD UNITS) (00403)  7.2 7.1 7.3 7.1 7.2 7.2	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)  <.010 <.010 <.010 .026 .015 .010	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) <.050 <.050 <.050 <.050	DIS- SOLVED (MG/L AS CA) (00915) 130 150 140 120 110	SIUM, DIS- SOLVED (MG/L AS MG) (00925) 62 74 87 65 62 90	BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019) 24.68 19.72 16.14  15.98	2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)  3.83.8 3.8	CIFIC CON- DUCT- ANCE LAB (US/CM) (90095) 1190 1390 1440 1160 1080 1390	UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03) (99430) 272 236 232 340 302 252

#### Hydrologic Assessment of the Upper Dorr Run Watershed, Hocking County, Ohio

The following table lists discharge and field chemical analyses of one surface-water site and six springs collected from an abandoned mine site within the Wayne National Forest. The site was partially reclaimed in the 1980's; however acid-mine drainage still emanates from the site. These measurements were made only one time.

The following site description applies to all surface-water and spring sites monitored for this study.

LOCATION.--Hydrologic Unit 05030204, approximately 2 mi east of the city of Haydenville, Ohio; 2 mi north of State Route 33.

AQUIFER.--The Middle Kittanning (No. 6) and Lower Kittanning (No. 5) sandstones and coals of the Allegheny Group, of middle Pennsylvanian Age.

INSTRUMENTATION. -- None.

DATUM.--Elevation of land-surface datum is given in feet above National Geodetic Vertical Datum of 1983, surveyed using Total Station with reference points established by global positioning system, accurate to 0.01 ft. PERIOD OF RECORD.--One-time measurement in June, 1998.

REMARKS.--These sites are used for discharge and chemical-quality sampling only as part of a cooperative study with The U.S. Department of Agriculture, Forest Service.

#### SPRING AND SURFACE-WATER SITE DATA

LOCAL NUMBER	SITE ID	LATITUDE (DMS)	LONGITUDE (DMS)	LSD (FT)
DORR RN NR NELSONVILLE	392911082165700	SURFACE-WATER	R SITE 082 16 57	795.25
DORK KN NK NEDSONVIDDE	392911002103700			193.23
		SPRING SIT	res	
HK-66-S1	392916082170800	39 29 16	082 17 08	836.27
HK-67-S2	392918082170500	39 29 18	082 17 05	832.23
HK-68-S3	392916082170500	39 29 16	082 17 05	819.86
HK-69-S4	392920082170900	39 29 20	082 17 09	881.02
HK-70-S5	392918082172200	39 29 18	082 17 22	887.60
HK-71-S6	392914082171100	39 29 14	082 17 11	884.07

#### WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

			DIS-	SPECIFIC		OXIDATION REDUCTION	TEMPER- ATURE,	DIS- SOLVED
			CHARGE	CONDUCTANO	E	POTENTIAL	WATER	OXYGEN
LOCAL			(FT3/S)	(µS/cm)	pН	(MV)	(DEG. C)	(MG/L)
NUMBER	DATE	TIME	(00060)	(00095)	(00400)	(00090)	(00010)	(00300)
			Q.T.D		O.T.M.D.			
				FACE-WATER				
DORR RN NR NELSONVILLE	06/25/98	1100	0.42	1520	2.9	685	22.3	7.8
				SPRING SITE	IS.			
HK-66-S1	06/25/98	1200	0.24	1850	3.6	475	12.9	0.7
HK-67-S2	06/25/98	1530	0.05	1320	3.3	613	11.7	0.6
HK-68-S3	06/25/98	1330	0.05	1680	2.9	704	19.6	5.7
HK-69-S4	06/26/98	0900	< 0.01	2040	2.6	737	20.7	8.9
HK-70-S5	06/26/98	1000	0.02	1150	2.8	737	10.4	3.1
HK-71-S6	06/26/98	1100	0.01	1040	2.9	689	15.7	12.0

LOCAL NUMBER	ACIDITY (MG/L AS CACO3) (00435)	SULFATE, DIS- SOLVED (MG/L) (00945)	IRON, DIS- SOLVED AS FE (MG/L) (01046)	IRON, FERROUS AS FE (MG/L) (01047)
DORR RN NR NELSONVILLE	189	710	SURFACE-W	ATER SITE
			SPRING	SITES
HK-66-S1	388	1300	120	120
HK-67-S2	184	730	2.9	2.1
HK-68-S3	185	700	5.8	0.7
HK-69-S4 HK-70-S5	508 199	900 480	22 5.4	1.8 0.4
HK-71-S6	158	350	3.4	1.6

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