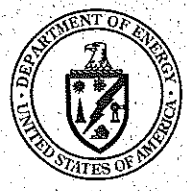




DATA VALIDATION SHIPROCK, NM

November 2000
Water Sampling

Prepared by the
U.S. Department of Energy
Grand Junction Office



RECORD COPY

SHIPROCK, NEW MEXICO
Sampled November 2000

DATA PACKAGE CONTENTS

This data package includes the following information:

- | <u>Item No.</u> | <u>Description of Contents</u> |
|-----------------|--|
| 1. | Site Hydrologist Summary |
| 2. | Data Package Assessment, which includes the following: <ul style="list-style-type: none">a. Field procedures verification checklistb. Confirmation that chain-of-custody was maintained.c. Confirmation that holding time requirements were met.d. Evaluation of the adequacy of the QC sample results. |
| 3. | Data Assessment Summary, which describes problems identified in the data validation process and summarizes the validator's findings. |
| 4. | Anomalous Data Review Checksheets which list the subset of data that merits explanation or follow-up action. The "Disposition" column of this report describes the evaluator's judgments on the listed anomalies. |
| 5. | UMTRA Database Printouts of analytical data organized as follows: <ul style="list-style-type: none">a. Ground Water Quality Data (included on disk)b. Surface Water Quality Data (included on disk)c. Equipment Blank Data (included on disk)d. Time Versus Concentration Graphse. Static Ground Water Level Measurement Data |
| 6. | Sampling and Analysis Work Order and Trip Reports. |

Site: Shiprock

Sampling Period: November 13 - 18, 2000

SUMMARY CRITERIA

1. **Did concentrations in water from any domestic wells sampled exceed a ground water standard, a primary drinking water standard, or health advisory?**

Domestic wells were not sampled during this event.

2. **Were standards exceeded at any point-of-compliance wells?**

There are no point-of-compliance wells established at the Shiprock site.

3. **As a result of this sampling round, is there any indication of unexpected contaminated ground water movement?**

Ground water was not sampled during this event.

4. **Is there statistical evidence that UMTRA Project related contaminants were detected in a surface body of water in greater concentrations than upstream ambient water quality?**

Surface water concentrations were compared to benchmark values derived from sample data from locations 888 and 898, which are on the San Juan River upstream from the site.

The benchmark value shown in Table 1 used for comparison of each analyte is the maximum concentration from these locations since they were first sampled in December 1998. At locations 887 and 939, which are both on a distributary channel of the San Juan River, values of several constituents exceeded benchmark values. Nitrate, selenium, and uranium at 887 and gross alpha, nitrate, selenium, and uranium at 939 exceeded the benchmark values (Table 1). The three other locations (655, 657, and 658) that had exceedances are all on the floodplain and not along the river. San Juan River water flows through the distributary channel when the river stage is high; however, at the time of this sampling, the river stage was low and no river water was entering the channel. Therefore, the exceedances at 887 and 939 reflect contaminated ground water emerging in seeps from the terrace system to the south. Benchmark values were not exceeded from the samples at locations 894 and 940 on the San Juan River. The draft SOWP indicated no unacceptable human health risks are associated with exposure to surface water in washes and seeps. The interim action further reduced potential risks in these areas. No river samples had benchmark exceedances. Therefore, withdrawal of water from the intake structure on the north side of the river and its use as a backup drinking water supply will not adversely affect human health.

Mark Kautsky 3-20-01
Mark Kautsky Date
Site Hydrologist

Craig Goodknight 3/20/01
Craig Goodknight Date
Site Lead

Table 1. Locations that Exceeded Surface Water Benchmarks in November 2000.

Location Code	Site Code	Location Comments	Analyte	BENCH-MARK ¹	NOV 2000
655	SHP01	Ditch in NW end of floodplain	Gross Alpha ²	8.4	Below
			Molybdenum	0.0135	Below
			Nitrate	3.63	27.20
			Radium-226	0.19	Below
			Selenium	0.0018	0.0338
			Uranium	0.0046	0.0608
657	SHP01	Outflow from floodplain wetland	Gross Alpha	8.4	Below
			Molybdenum	0.0135	Below
			Nitrate	3.63	7.350
			Radium-226	0.19	0.33
			Selenium	0.0018	0.0126
			Uranium	0.0046	0.0327
658	SHP01	Floodplain wetland	Gross Alpha	8.4	Below
			Molybdenum	0.0135	Below
			Nitrate	3.63	8.020
			Radium-226	0.19	0.27
			Selenium	0.0018	0.0133
			Uranium	0.0046	0.0322
887	SHP01	Distributary channel of San Juan River, adjusted 100 feet North of GPS location	Gross Alpha	8.4	Below
			Molybdenum	0.0135	Below
			Nitrate	3.63	322.00
			Radium-226	0.19	Below
			Selenium	0.0018	0.215
			Uranium	0.0046	0.0564
939	SHP01	Distributary channel of San Juan River	Gross Alpha	8.4	32.74
			Molybdenum	0.0135	Below
			Nitrate	3.63	129.00
			Radium-226	0.19	Below
			Selenium	0.0018	0.180
			Uranium	0.0046	0.0351
425	SHP02	Escarpment seep North of millsite	Gross Alpha	8.4	318.93
			Molybdenum	0.0135	Below
			Nitrate	3.63	229.0
			Radium-226	0.19	0.67
			Selenium	0.0018	0.0342
			Uranium	0.0046	0.464
426	SHP02	Escarpment seep just East of Bob Lee Wash mouth	Gross Alpha	8.4	146.6
			Molybdenum	0.0135	Below
			Nitrate	3.63	135.00
			Radium-226	0.19	0.23
			Selenium	0.0018	0.138
			Uranium	0.0046	0.287
662	SHP02	Bob Lee Wash, just below outflow ditch confluence	Gross Alpha	8.4	Below
			Molybdenum	0.0135	Below
			Nitrate	3.63	5.81
			Radium-226	0.19	0.26
			Selenium	0.0018	0.010
			Uranium	0.0046	0.0164

Table 1. Locations that Exceeded Surface Water Benchmarks in November 2000.

Location Code	Site Code	Location Comments	Analyte	BENCH-MARK ¹	NOV 2000
786	SHP02	Escarpment seep at US Hwy 666 bridge	Gross Alpha	8.4	Below
			Molybdenum	0.0135	Below
			Nitrate	3.63	324
			Radium-226	0.19	0.53
			Selenium	0.0018	0.156
			Uranium	0.0046	0.0442
884	SHP02	Lower irrigation return flow ditch	Gross Alpha	8.4	30.24
			Molybdenum	0.0135	Below
			Nitrate	3.63	135.00
			Radium-226	0.19	Below
			Selenium	0.0018	0.279
			Uranium	0.0046	0.0365
885	SHP02	Bob Lee Wash, just above confluence of well 648 outflow ditch	Gross Alpha	8.4	662.33
			Molybdenum	0.0135	Below
			Nitrate	3.63	13.1
			Radium-226	0.19	0.54
			Selenium	0.0018	0.0022
			Uranium	0.0046	1.00
886	SHP02	Many Devils Wash, above knickpoint	Gross Alpha	8.4	Below
			Molybdenum	0.0135	0.030
			Nitrate	3.63	4410
			Radium-226	0.19	0.31
			Selenium	0.0018	2.150
			Uranium	0.0046	0.219
889	SHP02	Many Devils Wash, just below knickpoint	Gross Alpha	8.4	Below
			Molybdenum	0.0135	0.0328
			Nitrate	3.63	4800
			Radium-226	0.19	0.22
			Selenium	0.0018	3.160
			Uranium	0.0046	0.217
933	SHP02	1st wash, W of US Hwy 666	Gross Alpha	8.4	111.54
			Molybdenum	0.0135	Below
			Nitrate	3.63	475
			Radium-226	0.19	Below
			Selenium	0.0018	0.307
			Uranium	0.0046	0.0978
934	SHP02	Upper part of 2nd wash, W of US Hwy 666	Gross Alpha	8.4	26.4
			Molybdenum	0.0135	Below
			Nitrate	3.63	Below
			Radium-226	0.19	Below
			Selenium	0.0018	0.133
			Uranium	0.0046	0.033
935	SHP02	Seep just upstream from 1st wash confluence with distributary channel	Gross Alpha	8.4	Below
			Molybdenum	0.0135	Below
			Nitrate	3.63	453
			Radium-226	0.19	0.66
			Selenium	0.0018	0.274
			Uranium	0.0046	0.0644
936	SHP02	Seep between 1st wash and 2nd wash, W of US Hwy 666	Gross Alpha	8.4	Below
			Nitrate	3.63	487
			Radium-226	0.19	0.58
			Selenium	0.0018	0.331
			Uranium	0.0046	0.049
			942	SHP02	Pond N of Shiprock High School and US Hwy 64
Molybdenum	0.0135	Below			
Nitrate	3.63	215			
Radium-226	0.19	Below			
Selenium	0.0018	0.364			
Uranium	0.0046	0.0332			

¹ Values are in mg/l, except for gross alpha and radium-226, which are in pCi/l. ² Units of gross alpha are used instead of net alpha because they are being compared to benchmark values instead of the standard. Uranium and radon activities have not been subtracted.

DATA ASSESSMENT

DATA PACKAGE ASSESSMENT

REQUISITION NUMBERS: 17216 SITE: Shiprock LABORATORY: GJO ANALYSIS DATES: 11-21-00 to 1-4-01

REVIEWER: Sam Campbell Sam Campbell 1-15-01
NAME (print) SIGNATURE DATE

	ICP-MS	ICP-AES	GFAA	FAA	NaBH ₄	AS	LSc	PC	IC	Gravimetric	Colorimetric	Other	
CHAIN OF CUSTODY	①	①	NA	NA	①	①	①	①	①	①	①	NA	NA
HOLDING TIME	OK	OK			OK	OK	OK	OK	OK	OK	OK		
CALIB. VERIFICATION (For AS, internal tracer)	OK	OK			OK	OK	OK	OK	OK	NA	OK		
PREP. BLANKS (Only if digestion)	NA	NA			NA	OK	OK	OK	NA	NA	NA		
INT/CONT CAL. BLANKS	② OK <small>20-1-15-01</small>	③	↓	↓	OK	NA	NA	NA	④	NA	OK		
ICP SERIAL DILUTION	OK	OK	NA	NA	NA	NA	NA	NA	NA	NA	NA		
ICS (ICP only)	OK	OK	NA	NA	NA	NA	NA	NA	NA	NA	NA		
LAB. CONTROL SAMPLE	OK	OK			OK	OK	OK	OK	OK	OK	NA		
DUPLICATES	OK	OK			OK	OK	⑤	OK	OK	OK	OK		
POSTDIGEST. SPKS. (Only if MS fails)	NA	NA			NA	NA	NA	NA	NA	NA	NA		
MATRIX SPKS.	OK	OK			OK	NA	NA	⑥	OK	NA	OK		
OVERALL ASSESS.	OK	OK	↓	↓	OK	OK	OK	OK	OK	OK	OK	↓	↓

REVIEWER COMMENTS: ① Time gap between "Relinquished" and "Received" ~~was~~ one COC. ② Ca, Cu, and Na detected in CCBs - no samples affected. ④ Cl and F detected in CCBs - no samples affected. ⑤ Duplicate for RA-226 and RA-228 was not analyzed for the second batch.

ITEMS REQUIRING ATTENTION: ② U flag the following results because of CCB contamination: All Sb results; Cd results 271540-543, 548-552, ~~549-552~~ 554, 556, 557, 559-563; and U result 271545. ③ U flag the following results because of CCB contamination: Fe results 271562, 563; K result 271545; Sr result 271545, and V results 271546, 553, 554, and 558. ⑥ U flag gross alpha results 271518, 452, 527-551 because of matrix spike recovery.

J. PRICE

UGW Water Sampling Field Activities Verification Checklist

Project Shiprock
 Date(s) of Verification 1-16-01

Date(s) of Water Sampling 11-13 to 11-18-2000
 Name of Verifier Sam Campbell

Response Comments
 (Yes, No, N/A)

1. Is the SAP the primary document directing field procedures?

Yes
Sampling work order 9/20/2000

List other documents, SOP's, instructions.

2. Were the sampling locations specified in the planning documents sampled?

Yes
Except locations 947 and 948 were not sampled.

3. Was field equipment calibrated as specified in the above named documents?

No
No pre-trip calibrations were documented.

Were the number and types (alkalinity, temperature, Ec, pH, turbidity, DO, ORP) of field measurements taken as specified?

Yes
Except filtered alkalinity at locations 886 and 897

Were the standard solutions used for the calibration and operational checks of the field instruments brought to within 10 degrees C of the temperature of the water to be sampled?

Yes
Except at locations 657 and 426

Was the calibration information recorded on the field data sheets?

Yes

4. Was depth to water measured before purging?

NA
surface water only

Was this information used to calculate purge volume?

NA

5. If conventional purging was used, were the wells purged until parameters stabilized and 3 casing volumes were removed, until the well was purged dry, or until 10 casing volumes were removed?

NA

6. If low-flow purging was used, was the purge rate less than 0.125 gal/min, and was the drawdown less than 0.3 ft?

NA

7. Were duplicates taken at a frequency of one per 20 samples?

Yes

8. Were equipment blanks taken at a frequency of one per 20 samples that were collected with nondedicated equipment?

No

One equipment blank for 34 locations

9. Were trip blanks prepared and included with each shipment of VOC samples?

NA

10. Were QC samples assigned a fictitious site identification number?

Yes

Was the true identity of the samples recorded in the field notes?

Yes

11. Were samples collected in the containers specified?

Yes

Were certified pre-cleaned containers used for the sampling?

Yes

12. Were samples filtered and preserved as specified?

Yes

13. Were the number and types of samples collected as specified?

Yes

14. Were chain of custody records completed and was sample custody maintained?

No

Time gap between "Relinquished by" and "Received by" on one COC.

15. Were sample ticket book numbers recorded on field data forms and on the chain of custody?

Yes

16. Are field data sheets signed and dated by the team leader?

Yes

Several pages had no date; many pages were not signed as "checked by"

17. Was all other pertinent information documented on the field data sheets?

Yes

18. Was the presence or absence of ice in the cooler documented at every sample location?

Yes

Except at location 655

19. Were water levels measured at the locations specified in the planning documents?

NA

**SHIPROCK, NEW MEXICO
NOVEMBER 2000 SAMPLING
DATA ASSESSMENT SUMMARY**

The DOE-GJO Analytical Laboratory analyzed samples and reported results for this sampling event under requisition number 17216 for the UMTRA ground water project.

RADIOCHEMICAL ANALYSIS

The determination of gross alpha was performed using gas proportional counting. Although not requested, gross beta results are included in this report because gross beta activity is determined concurrently with gross alpha activity. The detection limits for gross alpha are higher than those specified in the planning documents due to high TDS in the samples. Polonium-210 and the uranium isotopes were analyzed by alpha spectrometry. Radium-226/228 were analyzed using liquid scintillation.

Radiological results that were less than the minimum detectable activity (MDA) and/or the 3-sigma counting statistic range were qualified with a "U" flag (non-detect) in the database, as reflected on the database printouts.

METALS AND MAJOR CATIONS ANALYSIS

The determination of calcium, copper, iron, magnesium, manganese, potassium, sodium, strontium, vanadium, and zinc were performed by inductively coupled plasma-atomic emission spectrometry (ICP-AES). Antimony, cadmium, molybdenum and uranium were analyzed by inductively coupled plasma-mass spectrometry (ICP-MS). Arsenic and selenium were determined by hydride generation atomic absorption spectroscopy (NaBH₄).

Because of blank contamination problems, the following samples were qualified with a "U" flags: all antimony samples; cadmium results 956 (271540), 425 (271541), 657 (271542), 658 (271543), 895 (271548), 957 (271549), 935 (271550), 1210 (271551), 936 (271552), 888 (271554), 939 (271556), 887 (271557), 500 (271559 duplicate of location 884), 934 (271560), 889 (271561), 886 (271562) and 897 (271563); iron results 886 (271562) and 897 (271563); uranium, potassium, and strontium results for equipment blank 1001 (271545); vanadium results for samples 662 (271546), 933 (271553), 888 (271554) and 884 (271558).

INORGANIC ANALYSIS

Chloride, fluoride, nitrate, and sulfate were determined by ion chromatography (IC). TDS was determined gravimetrically, and ammonium was determined by spectrophotometry (colorimetry).

FIELD ANALYSIS/ACTIVITIES

There were no wells with a measured pH greater than 9: therefore, "G" flags indicating potential grout contamination were not required. The pH value for location 555 (271536) was entered incorrectly into the database and therefore was "R" flagged.

One equipment blank was collected and analyzed for the same constituents as the Shiprock environmental samples. There were no UMTRA related contaminants detected in the equipment blanks in concentrations above the CRDL or the MDA/3-sigma; therefore, equipment blank results are considered acceptable. Two field duplicates were collected during the sampling event. Although there is no established regulatory criteria for the evaluation of field duplicates, the EPA guidance for *laboratory* duplicates was used. Duplicate sample results met these criteria and should be considered acceptable.

SAR

A suspected anomalies report (SAR) was generated for the floodplain sampling locations (SHP01), however, because of technical constraints, a SAR could not be generated for the terrace sampling locations (SHP02) and is not included in this data package. **Instead, historical data were reviewed as part of the evaluation of suspected anomalous data.** Data from this sampling event were compared to historical minimum and maximum values. Results that were greater than 150 percent of the historical maximum value or less than 50 percent of the historical minimum value (excluding results with less than 5 historical data points) and the anomalous data generated by the SAR are listed on the Anomalous Data Review Checksheets.

SUMMARY

All analytical quality control criteria were met except as qualified on the Ground Water Quality Data by Parameter, Surface Water Quality by Parameter, or equipment blank/trip blank database printouts. The meaning of data qualifiers is as defined on the UMTRA database printout or as defined in the USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, Multi-Media Multi-Concentration, Document Number ILMO2.0, 1991. All data in this package are considered validated and may be treated as final results.

A disk copy of the ground water, surface water, and equipment blank database printouts with the qualifiers incorporated are included in this package.

J.E. Price
Jeff Price
Data Validation Lead

3/9/01
Date

Craig Goodknight
Craig Goodknight
Project Lead

3/12/01
Date

WATER QUALITY DATA

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS: DETECTION UN-		
			DATE	ID		LAB DATA QA	LIMIT	CERTAINTY
Alkalinity as CaCO3	mg/L	0554	11/17/2000	0001	1020	#	-	-
	mg/L	0554	11/17/2000	N001	1019	#	-	-
	mg/L	0555	11/17/2000	0001	128	#	-	-
	mg/L	0555	11/17/2000	N001	121	#	-	-
	mg/L	0655	11/15/2000	0001	264	#	-	-
	mg/L	0655	11/15/2000	N001	264	#	-	-
	mg/L	0657	11/17/2000	0001	132	#	-	-
	mg/L	0657	11/17/2000	N001	131	#	-	-
	mg/L	0658	11/18/2000	0001	128	#	-	-
	mg/L	0658	11/18/2000	N001	136	#	-	-
	mg/L	0887	11/16/2000	0001	327	#	-	-
	mg/L	0887	11/16/2000	N001	332	#	-	-
	mg/L	0888	11/16/2000	0001	139	#	-	-
	mg/L	0888	11/16/2000	N001	174	#	-	-
	mg/L	0894	11/15/2000	0001	118	#	-	-
	mg/L	0894	11/15/2000	N001	115	#	-	-
	mg/L	0895	11/15/2000	0001	128	#	-	-
	mg/L	0895	11/15/2000	N001	142	#	-	-
	mg/L	0897	11/17/2000	N001	125	#	-	-
	mg/L	0898	11/16/2000	0001	137	#	-	-
	mg/L	0898	11/16/2000	N001	147	#	-	-
	mg/L	0939	11/16/2000	0001	314	#	-	-
	mg/L	0939	11/16/2000	N001	356	#	-	-
	mg/L	0940	11/16/2000	0001	113	#	-	-
	mg/L	0940	11/16/2000	N001	117	#	-	-
	mg/L	0956	11/17/2000	0001	150	#	-	-
	mg/L	0956	11/17/2000	N001	117	#	-	-
	mg/L	0957	11/16/2000	0001	106	#	-	-
	mg/L	0957	11/16/2000	N001	160	#	-	-
	mg/L	1201	11/17/2000	0001	115	#	-	-
	mg/L	1201	11/17/2000	N001	116	#	-	-
	mg/L	1203	11/16/2000	0001	120	#	-	-
	mg/L	1203	11/16/2000	N001	119	#	-	-
	mg/L	1204	11/16/2000	0001	114	#	-	-
	mg/L	1204	11/16/2000	N001	121	#	-	-
	mg/L	1205	11/16/2000	0001	112	#	-	-
	mg/L	1205	11/16/2000	N001	121	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:		DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA QA		
Alkalinity as CaCO3	mg/L	1206	11/16/2000	0001	116		#	-	-
	mg/L	1206	11/16/2000	N001	117		#	-	-
	mg/L	1210	11/16/2000	0001	153		#	-	-
	mg/L	1210	11/16/2000	N001	169		#	-	-
Ammonium	mg/L	0554	11/17/2000	0001	0.0047	U	#	0.0047	-
	mg/L	0555	11/17/2000	0001	0.0054	B	#	-	-
	mg/L	0655	11/15/2000	0001	0.0725	B	#	-	-
	mg/L	0657	11/17/2000	0001	0.124		#	-	-
	mg/L	0658	11/18/2000	0001	0.166		#	-	-
	mg/L	0887	11/16/2000	0001	0.0469	B	#	-	-
	mg/L	0888	11/16/2000	0001	0.0173	B	#	-	-
	mg/L	0894	11/15/2000	0001	0.0047	U	#	0.0047	-
	mg/L	0895	11/15/2000	0001	0.0047	U	#	0.0047	-
	mg/L	0897	11/17/2000	0001	0.0047	U	#	0.0047	-
	mg/L	0898	11/16/2000	0001	0.0047	U	#	0.0047	-
	mg/L	0939	11/16/2000	0001	0.0523	B	#	-	-
	mg/L	0940	11/16/2000	0001	0.0054	B	#	-	-
	mg/L	0956	11/17/2000	0001	0.0047	U	#	0.0047	-
	mg/L	0957	11/16/2000	0001	0.0047	U	#	0.0047	-
	mg/L	1201	11/17/2000	0001	0.0047	U	#	0.0047	-
	mg/L	1203	11/16/2000	0001	0.0047	U	#	0.0047	-
	mg/L	1204	11/16/2000	0001	0.0047	U	#	0.0047	-
	mg/L	1205	11/16/2000	0001	0.0047	U	#	0.0047	-
	mg/L	1205	11/16/2000	0002	0.0047	U	#	0.0047	-
mg/L	1206	11/16/2000	0001	0.0054	B	#	-	-	
mg/L	1210	11/16/2000	0001	0.0047	U	#	0.0047	-	
Antimony	mg/L	0554	11/17/2000	0001	0.0005	B	U	#	0.0002
	mg/L	0555	11/17/2000	0001	0.0006	B	U	#	0.0002
	mg/L	0655	11/15/2000	0001	0.0007	B	U	#	0.0002
	mg/L	0657	11/17/2000	0001	0.0007	B	U	#	0.0002
	mg/L	0658	11/18/2000	0001	0.0007	B	U	#	0.0002
	mg/L	0887	11/16/2000	0001	0.0006	B	U	#	0.0002
	mg/L	0888	11/16/2000	0001	0.0015	B	U	#	0.0002
	mg/L	0894	11/15/2000	0001	0.0006	B	U	#	0.0002
	mg/L	0895	11/15/2000	0001	0.0006	B	U	#	0.0002
	mg/L	0897	11/17/2000	0001	0.0008	B	U	#	0.0002
mg/L	0898	11/16/2000	0001	0.0006	B	U	#	0.0002	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
			DATE	ID		LAB	DATA	QA		
Antimony	mg/L	0939	11/16/2000	0001	0.0006 B	U	#	0.0002	-	
	mg/L	0940	11/16/2000	0001	0.0005 B	U	#	0.0002	-	
	mg/L	0956	11/17/2000	0001	0.0005 B	U	#	0.0002	-	
	mg/L	0957	11/16/2000	0001	0.0005 B	U	#	0.0002	-	
	mg/L	1201	11/17/2000	0001	0.0005 B	U	#	0.0002	-	
	mg/L	1203	11/16/2000	0001	0.0006 B	U	#	0.0002	-	
	mg/L	1204	11/16/2000	0001	0.0008 B	U	#	0.0002	-	
	mg/L	1205	11/16/2000	0001	0.0005 B	U	#	0.0002	-	
	mg/L	1205	11/16/2000	0002	0.0005 B	U	#	0.0002	-	
	mg/L	1206	11/16/2000	0001	0.0006 B	U	#	0.0002	-	
mg/L	1210	11/16/2000	0001	0.0005 B	U	#	0.0002	-		
Arsenic	mg/L	0554	11/17/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	0555	11/17/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	0655	11/15/2000	0001	0.0002 B		#	0.0002	-	
	mg/L	0657	11/17/2000	0001	0.0002 U		#	0.0002	-	
	mg/L	0658	11/18/2000	0001	0.0002 U		#	0.0002	-	
	mg/L	0887	11/16/2000	0001	0.0002 B		#	0.0002	-	
	mg/L	0888	11/16/2000	0001	0.0006 B		#	0.0002	-	
	mg/L	0894	11/15/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	0895	11/15/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	0897	11/17/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	0898	11/16/2000	0001	0.0004 B		#	0.0002	-	
	mg/L	0939	11/16/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	0940	11/16/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	0956	11/17/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	0957	11/16/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	1201	11/17/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	1203	11/16/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	1204	11/16/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	1205	11/16/2000	0001	0.0003 B		#	0.0002	-	
	mg/L	1205	11/16/2000	0002	0.0003 B		#	0.0002	-	
mg/L	1206	11/16/2000	0001	0.0003 B		#	0.0002	-		
mg/L	1210	11/16/2000	0001	0.0003 B		#	0.0002	-		
Cadmium	mg/L	0554	11/17/2000	0001	0.0002 U		#	0.0002	-	
	mg/L	0555	11/17/2000	0001	0.0002 B		#	0.0002	-	
	mg/L	0655	11/15/2000	0001	0.0002 B		#	0.0002	-	
	mg/L	0657	11/17/2000	0001	0.0002 B	U	#	0.0002	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
			DATE	ID		LAB	DATA	QA		
Cadmium	mg/L	0658	11/18/2000	0001	0.0002	B	U	#	0.0002	-
	mg/L	0887	11/16/2000	0001	0.0003	B	U	#	0.0002	-
	mg/L	0888	11/16/2000	0001	0.0003	B	U	#	0.0002	-
	mg/L	0894	11/15/2000	0001	0.0002	U		#	0.0002	-
	mg/L	0895	11/15/2000	0001	0.0003	B	U	#	0.0002	-
	mg/L	0897	11/17/2000	0001	0.0002	B	U	#	0.0002	-
	mg/L	0898	11/16/2000	0001	0.0002	U		#	0.0002	-
	mg/L	0939	11/16/2000	0001	0.0002	B	U	#	0.0002	-
	mg/L	0940	11/16/2000	0001	0.0002	U		#	0.0002	-
	mg/L	0956	11/17/2000	0001	0.0002	B	U	#	0.0002	-
	mg/L	0957	11/16/2000	0001	0.0002	B	U	#	0.0002	-
	mg/L	1201	11/17/2000	0001	0.0002	B		#	0.0002	-
	mg/L	1203	11/16/2000	0001	0.0002	U		#	0.0002	-
	mg/L	1204	11/16/2000	0001	0.0002	B		#	0.0002	-
	mg/L	1205	11/16/2000	0001	0.0002	B		#	0.0002	-
	mg/L	1205	11/16/2000	0002	0.0002	B		#	0.0002	-
	mg/L	1206	11/16/2000	0001	0.0002	B		#	0.0002	-
	mg/L	1210	11/16/2000	0001	0.0002	B	U	#	0.0002	-
	Calcium	mg/L	0554	11/17/2000	0001	65.500			#	0.0481
mg/L		0555	11/17/2000	0001	65.600			#	0.0481	-
mg/L		0655	11/15/2000	0001	399.000			#	0.0481	-
mg/L		0657	11/17/2000	0001	204.000			#	0.0481	-
mg/L		0658	11/18/2000	0001	207.000			#	0.0481	-
mg/L		0887	11/16/2000	0001	554.000			#	1.2025	-
mg/L		0888	11/16/2000	0001	115.000			#	0.0481	-
mg/L		0894	11/15/2000	0001	68.500			#	0.0481	-
mg/L		0895	11/15/2000	0001	67.800			#	0.0481	-
mg/L		0897	11/17/2000	0001	66.500			#	0.0481	-
mg/L		0898	11/16/2000	0001	68.400			#	0.0481	-
mg/L		0939	11/16/2000	0001	435.000			#	0.0481	-
mg/L		0940	11/16/2000	0001	69.000			#	0.0481	-
mg/L		0956	11/17/2000	0001	67.200			#	0.0481	-
mg/L		0957	11/16/2000	0001	69.400			#	0.0481	-
mg/L		1201	11/17/2000	0001	67.400			#	0.0481	-
mg/L		1203	11/16/2000	0001	68.000			#	0.0481	-
mg/L	1204	11/16/2000	0001	68.000			#	0.0481	-	
mg/L	1205	11/16/2000	0001	68.500			#	0.0481	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:		DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA QA		
Calcium	mg/L	1205	11/16/2000	0002	66.900		#	0.0481	-
	mg/L	1206	11/16/2000	0001	70.000		#	0.0481	-
	mg/L	1210	11/16/2000	0001	68.400		#	0.0481	-
Chloride	mg/L	0554	11/17/2000	0001	15.800		#	0.024	-
	mg/L	0555	11/17/2000	0001	15.600		#	0.024	-
	mg/L	0655	11/15/2000	0001	90.000		#	0.12	-
	mg/L	0657	11/17/2000	0001	70.600		#	0.12	-
	mg/L	0658	11/18/2000	0001	71.000		#	0.12	-
	mg/L	0887	11/16/2000	0001	153.000		#	0.048	-
	mg/L	0888	11/16/2000	0001	41.100		#	0.024	-
	mg/L	0894	11/15/2000	0001	16.700		#	0.024	-
	mg/L	0895	11/15/2000	0001	16.000		#	0.024	-
	mg/L	0897	11/17/2000	0001	15.700		#	0.024	-
	mg/L	0898	11/16/2000	0001	17.200		#	0.024	-
	mg/L	0939	11/16/2000	0001	64.400		#	0.048	-
	mg/L	0940	11/16/2000	0001	16.600		#	0.024	-
	mg/L	0956	11/17/2000	0001	15.900		#	0.024	-
	mg/L	0957	11/16/2000	0001	16.600		#	0.024	-
	mg/L	1201	11/17/2000	0001	15.400		#	0.024	-
	mg/L	1203	11/16/2000	0001	16.200		#	0.024	-
	mg/L	1204	11/16/2000	0001	16.400		#	0.024	-
	mg/L	1205	11/16/2000	0001	16.600		#	0.024	-
	mg/L	1205	11/16/2000	0002	16.500		#	0.024	-
mg/L	1206	11/16/2000	0001	16.600		#	0.024	-	
mg/L	1210	11/16/2000	0001	16.900		#	0.024	-	
Copper	mg/L	0554	11/17/2000	0001	0.001	U	#	0.001	-
	mg/L	0555	11/17/2000	0001	0.001	U	#	0.001	-
	mg/L	0655	11/15/2000	0001	0.001	U	#	0.001	-
	mg/L	0657	11/17/2000	0001	0.001	U	#	0.001	-
	mg/L	0658	11/18/2000	0001	0.001	U	#	0.001	-
	mg/L	0887	11/16/2000	0001	0.001	U	#	0.001	-
	mg/L	0888	11/16/2000	0001	0.001	U	#	0.001	-
	mg/L	0894	11/15/2000	0001	0.001	U	#	0.001	-
	mg/L	0895	11/15/2000	0001	0.001	U	#	0.001	-
	mg/L	0897	11/17/2000	0001	0.001	U	#	0.001	-
	mg/L	0898	11/16/2000	0001	0.001	U	#	0.001	-
	mg/L	0939	11/16/2000	0001	0.001	U	#	0.001	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Copper	mg/L	0940	11/16/2000	0001	0.001	U		#	0.001	-
	mg/L	0956	11/17/2000	0001	0.001	U		#	0.001	-
	mg/L	0957	11/16/2000	0001	0.001	U		#	0.001	-
	mg/L	1201	11/17/2000	0001	0.001	U		#	0.001	-
	mg/L	1203	11/16/2000	0001	0.001	U		#	0.001	-
	mg/L	1204	11/16/2000	0001	0.001	U		#	0.001	-
	mg/L	1205	11/16/2000	0001	0.001	U		#	0.001	-
	mg/L	1205	11/16/2000	0002	0.001	U		#	0.001	-
	mg/L	1206	11/16/2000	0001	0.001	U		#	0.001	-
	mg/L	1210	11/16/2000	0001	0.001	U		#	0.001	-
Fluoride	mg/L	0554	11/17/2000	0001	0.323			#	0.0125	-
	mg/L	0555	11/17/2000	0001	0.359			#	0.0125	-
	mg/L	0655	11/15/2000	0001	1.890			#	0.0625	-
	mg/L	0657	11/17/2000	0001	2.140			#	0.0625	-
	mg/L	0658	11/18/2000	0001	2.220			#	0.0625	-
	mg/L	0887	11/16/2000	0001	0.365			#	0.025	-
	mg/L	0888	11/16/2000	0001	1.080			#	0.0125	-
	mg/L	0894	11/15/2000	0001	0.363			#	0.0125	-
	mg/L	0895	11/15/2000	0001	0.318			#	0.0125	-
	mg/L	0897	11/17/2000	0001	0.321			#	0.0125	-
	mg/L	0898	11/16/2000	0001	0.349			#	0.0125	-
	mg/L	0939	11/16/2000	0001	0.581			#	0.025	-
	mg/L	0940	11/16/2000	0001	0.319			#	0.0125	-
	mg/L	0956	11/17/2000	0001	0.334			#	0.0125	-
	mg/L	0957	11/16/2000	0001	0.319			#	0.0125	-
	mg/L	1201	11/17/2000	0001	0.338			#	0.0125	-
	mg/L	1203	11/16/2000	0001	0.343			#	0.0125	-
	mg/L	1204	11/16/2000	0001	0.329			#	0.0125	-
	mg/L	1205	11/16/2000	0001	0.332			#	0.0125	-
	mg/L	1205	11/16/2000	0002	0.341			#	0.0125	-
mg/L	1206	11/16/2000	0001	0.330			#	0.0125	-	
mg/L	1210	11/16/2000	0001	0.323			#	0.0125	-	
Gross Alpha	pCi/L	0554	11/17/2000	0001	3.73	U		#	3.73	± 2.20
	pCi/L	0555	11/17/2000	0001	3.6	U		#	3.69	± 2.47
	pCi/L	0655	11/15/2000	0001	47.13	U		#	47.13	± 28.6
	pCi/L	0657	11/17/2000	0001	29.61	U		#	29.61	± 19.2
	pCi/L	0658	11/18/2000	0001	29.91	U		#	29.91	± 19.0

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY	
Gross Alpha	pCi/L	0887	11/16/2000	0001	39.50	U #	39.5	± 26.1	
	pCi/L	0888	11/16/2000	0001	7.97	U #	7.97	± 5.32	
	pCi/L	0894	11/15/2000	0001	4.75	U #	4.75	± 2.67	
	pCi/L	0895	11/15/2000	0001	3.75	U #	3.75	± 2.26	
	pCi/L	0897	11/17/2000	0001	4.72	U #	4.72	± 2.91	
	pCi/L	0898	11/16/2000	0001	4.84	U #	4.84	± 2.85	
	pCi/L	0939	11/16/2000	0001	32.74		#	24.47	± 17.4
	pCi/L	0940	11/16/2000	0001	4.77	U #	4.77	± 2.88	
	pCi/L	0956	11/17/2000	0001	3.68	U #	3.68	± 2.03	
	pCi/L	0957	11/16/2000	0001	3.72	U #	3.72	± 2.17	
	pCi/L	1201	11/17/2000	0001	4.1		#	3.7	± 2.54
	pCi/L	1203	11/16/2000	0001	3.74	U #	3.74	± 2.17	
	pCi/L	1204	11/16/2000	0001	4.46		#	3.71	± 2.58
	pCi/L	1205	11/16/2000	0001	3.76	U #	3.76	± 2.43	
	pCi/L	1205	11/16/2000	0002	3.73	U #	3.73	± 2.09	
	pCi/L	1206	11/16/2000	0001	4.7	U #	4.7	± 2.57	
	pCi/L	1210	11/16/2000	0001	3.85	U #	3.85	± 2.24	
Gross Beta	pCi/L	0554	11/17/2000	0001	3.91	U #	3.91	± 2.39	
	pCi/L	0555	11/17/2000	0001	3.92	U #	3.92	± 2.37	
	pCi/L	0655	11/15/2000	0001	59.9		#	48.94	± 31.0
	pCi/L	0657	11/17/2000	0001	29.51	U #	29.51	± 17.2	
	pCi/L	0658	11/18/2000	0001	29.51	U #	29.51	± 17.9	
	pCi/L	0887	11/16/2000	0001	39.36	U #	39.36	± 23.7	
	pCi/L	0888	11/16/2000	0001	8.40	U #	8.4	± 4.98	
	pCi/L	0894	11/15/2000	0001	5.80	U #	5.8	± 3.37	
	pCi/L	0895	11/15/2000	0001	3.91	U #	3.91	± 2.31	
	pCi/L	0897	11/17/2000	0001	5.81	U #	5.81	± 3.48	
	pCi/L	0898	11/16/2000	0001	5.81	U #	5.81	± 3.55	
	pCi/L	0939	11/16/2000	0001	23.73	U #	23.73	± 14.5	
	pCi/L	0940	11/16/2000	0001	5.81	U #	5.81	± 3.36	
	pCi/L	0956	11/17/2000	0001	4.7		#	3.9	± 2.47
	pCi/L	0957	11/16/2000	0001	3.91	U #	3.91	± 2.31	
	pCi/L	1201	11/17/2000	0001	3.92	U #	3.92	± 2.43	
	pCi/L	1203	11/16/2000	0001	5.52		#	3.91	± 2.52
	pCi/L	1204	11/16/2000	0001	3.93	U #	3.93	± 2.36	
	pCi/L	1205	11/16/2000	0001	6.12		#	3.92	± 2.56
	pCi/L	1205	11/16/2000	0002	4.18		#	3.9	± 2.45

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	ID	DATE		LAB	DATA	QA		
Gross Beta	pCi/L	1206	11/16/2000	0001		5.79 U			#	5.79	± 3.48
	pCi/L	1210	11/16/2000	0001		3.92 U			#	3.92	± 2.41
Iron	mg/L	0554	11/17/2000	0001		0.0117 U			#	0.0117	-
	mg/L	0555	11/17/2000	0001		0.0117 U			#	0.0117	-
	mg/L	0655	11/15/2000	0001		0.0117 U			#	0.0117	-
	mg/L	0657	11/17/2000	0001		0.0117 U			#	0.0117	-
	mg/L	0658	11/18/2000	0001		0.0686			#	0.0117	-
	mg/L	0887	11/16/2000	0001		0.0117 U			#	0.0117	-
	mg/L	0888	11/16/2000	0001		0.469			#	0.0117	-
	mg/L	0894	11/15/2000	0001		0.0117 U			#	0.0117	-
	mg/L	0895	11/15/2000	0001		0.0117 U			#	0.0117	-
	mg/L	0897	11/17/2000	0001		0.0125 B	U		#	0.0117	-
	mg/L	0898	11/16/2000	0001		0.0117 U			#	0.0117	-
	mg/L	0939	11/16/2000	0001		0.0131 B			#	0.0117	-
	mg/L	0940	11/16/2000	0001		0.0117 U			#	0.0117	-
	mg/L	0956	11/17/2000	0001		0.0117 U			#	0.0117	-
	mg/L	0957	11/16/2000	0001		0.0117 U			#	0.0117	-
	mg/L	1201	11/17/2000	0001		0.013 B			#	0.0117	-
	mg/L	1203	11/16/2000	0001		0.0167 B			#	0.0117	-
	mg/L	1204	11/16/2000	0001		0.0117 U			#	0.0117	-
	mg/L	1205	11/16/2000	0001		0.0117 U			#	0.0117	-
	mg/L	1205	11/16/2000	0002		0.0117 U			#	0.0117	-
mg/L	1206	11/16/2000	0001		0.0678			#	0.0117	-	
mg/L	1210	11/16/2000	0001		0.0117 U			#	0.0117	-	
Magnesium	mg/L	0554	11/17/2000	0001		11.700			#	0.0352	-
	mg/L	0555	11/17/2000	0001		11.700			#	0.0352	-
	mg/L	0655	11/15/2000	0001		188.000			#	0.0352	-
	mg/L	0657	11/17/2000	0001		44.400			#	0.0352	-
	mg/L	0658	11/18/2000	0001		44.400			#	0.0352	-
	mg/L	0887	11/16/2000	0001		322.000			#	0.0352	-
	mg/L	0888	11/16/2000	0001		41.700			#	0.0352	-
	mg/L	0894	11/15/2000	0001		13.000			#	0.0352	-
	mg/L	0895	11/15/2000	0001		12.500			#	0.0352	-
	mg/L	0897	11/17/2000	0001		12.300			#	0.0352	-
	mg/L	0898	11/16/2000	0001		13.400			#	0.0352	-
	mg/L	0939	11/16/2000	0001		190.000			#	0.0352	-
	mg/L	0940	11/16/2000	0001		12.700			#	0.0352	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	0956	11/17/2000	0001	12.100	#	0.0352	-
	mg/L	0957	11/16/2000	0001	12.600	#	0.0352	-
	mg/L	1201	11/17/2000	0001	12.100	#	0.0352	-
	mg/L	1203	11/16/2000	0001	12.200	#	0.0352	-
	mg/L	1204	11/16/2000	0001	12.300	#	0.0352	-
	mg/L	1205	11/16/2000	0001	12.300	#	0.0352	-
	mg/L	1205	11/16/2000	0002	12.100	#	0.0352	-
	mg/L	1206	11/16/2000	0001	12.700	#	0.0352	-
	mg/L	1210	11/16/2000	0001	12.900	#	0.0352	-
Manganese	mg/L	0554	11/17/2000	0001	0.0062	B #	0.002	-
	mg/L	0555	11/17/2000	0001	0.0029	B #	0.002	-
	mg/L	0655	11/15/2000	0001	0.246	#	0.002	-
	mg/L	0657	11/17/2000	0001	0.0312	#	0.002	-
	mg/L	0658	11/18/2000	0001	0.0232	#	0.002	-
	mg/L	0887	11/16/2000	0001	0.375	#	0.002	-
	mg/L	0888	11/16/2000	0001	0.0099	B #	0.002	-
	mg/L	0894	11/15/2000	0001	0.0093	B #	0.002	-
	mg/L	0895	11/15/2000	0001	0.004	B #	0.002	-
	mg/L	0897	11/17/2000	0001	0.002	U #	0.002	-
	mg/L	0898	11/16/2000	0001	0.003	B #	0.002	-
	mg/L	0939	11/16/2000	0001	1.260	#	0.002	-
	mg/L	0940	11/16/2000	0001	0.0025	B #	0.002	-
	mg/L	0956	11/17/2000	0001	0.0066	B #	0.002	-
	mg/L	0957	11/16/2000	0001	0.0023	B #	0.002	-
	mg/L	1201	11/17/2000	0001	0.0035	B #	0.002	-
	mg/L	1203	11/16/2000	0001	0.0083	B #	0.002	-
	mg/L	1204	11/16/2000	0001	0.0032	B #	0.002	-
	mg/L	1205	11/16/2000	0001	0.0026	B #	0.002	-
	mg/L	1205	11/16/2000	0002	0.0023	B #	0.002	-
mg/L	1206	11/16/2000	0001	0.0061	B #	0.002	-	
mg/L	1210	11/16/2000	0001	0.0053	B #	0.002	-	
Molybdenum	mg/L	0554	11/17/2000	0001	0.0015	B #	0.0003	-
	mg/L	0555	11/17/2000	0001	0.0017	B #	0.0003	-
	mg/L	0655	11/15/2000	0001	0.0086	B #	0.0003	-
	mg/L	0657	11/17/2000	0001	0.0074	B #	0.0003	-
	mg/L	0658	11/18/2000	0001	0.0071	B #	0.0003	-
	mg/L	0887	11/16/2000	0001	0.0045	B #	0.0003	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:		DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	ID	DATE		LAB	DATA QA		
Molybdenum	mg/L	0888	11/16/2000	0001		0.0135		#	0.0003	-
	mg/L	0894	11/15/2000	0001		0.0017 B		#	0.0003	-
	mg/L	0895	11/15/2000	0001		0.0016 B		#	0.0003	-
	mg/L	0897	11/17/2000	0001		0.0017 B		#	0.0003	-
	mg/L	0898	11/16/2000	0001		0.0021 B		#	0.0003	-
	mg/L	0939	11/16/2000	0001		0.006 B		#	0.0003	-
	mg/L	0940	11/16/2000	0001		0.0017 B		#	0.0003	-
	mg/L	0956	11/17/2000	0001		0.0015 B		#	0.0003	-
	mg/L	0957	11/16/2000	0001		0.0016 B		#	0.0003	-
	mg/L	1201	11/17/2000	0001		0.0015 B		#	0.0003	-
	mg/L	1203	11/16/2000	0001		0.0017 B		#	0.0003	-
	mg/L	1204	11/16/2000	0001		0.0016 B		#	0.0003	-
	mg/L	1205	11/16/2000	0001		0.0017 B		#	0.0003	-
	mg/L	1205	11/16/2000	0002		0.0017 B		#	0.0003	-
	mg/L	1206	11/16/2000	0001		0.0017 B		#	0.0003	-
	mg/L	1210	11/16/2000	0001		0.0016 B		#	0.0003	-
Nitrate	mg/L	0554	11/17/2000	0001		1.540		#	0.0314	-
	mg/L	0555	11/17/2000	0001		1.270		#	0.0314	-
	mg/L	0655	11/15/2000	0001		27.200		#	0.0314	-
	mg/L	0657	11/17/2000	0001		7.350		#	0.0314	-
	mg/L	0658	11/18/2000	0001		8.020		#	0.0314	-
	mg/L	0887	11/16/2000	0001		322.000		#	0.157	-
	mg/L	0888	11/16/2000	0001		2.480		#	0.0314	-
	mg/L	0894	11/15/2000	0001		1.790		#	0.0314	-
	mg/L	0895	11/15/2000	0001		1.700		#	0.0314	-
	mg/L	0897	11/17/2000	0001		2.070		#	0.0314	-
	mg/L	0898	11/16/2000	0001		1.380		#	0.0314	-
	mg/L	0939	11/16/2000	0001		129.000		#	0.0628	-
	mg/L	0940	11/16/2000	0001		1.420		#	0.0314	-
	mg/L	0956	11/17/2000	0001		1.530		#	0.0314	-
	mg/L	0957	11/16/2000	0001		1.430		#	0.0314	-
	mg/L	1201	11/17/2000	0001		1.310		#	0.0314	-
	mg/L	1203	11/16/2000	0001		1.310		#	0.0314	-
	mg/L	1204	11/16/2000	0001		1.390		#	0.0314	-
	mg/L	1205	11/16/2000	0001		1.440		#	0.0314	-
	mg/L	1205	11/16/2000	0002		1.440		#	0.0314	-
mg/L	1206	11/16/2000	0001		1.470		#	0.0314	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION	SAMPLE:		RESULT	QUALIFIERS:				
		ID	DATE	ID		LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Nitrate	mg/L	1210	11/16/2000	0001	1.680			#	0.0314	-
ORP of Zobell Solution	mV	0554	11/17/2000	N001	249			#	-	-
	mV	0555	11/17/2000	N001	259			#	-	-
	mV	0655	11/15/2000	N001	254			#	-	-
	mV	0657	11/17/2000	N001	249			#	-	-
	mV	0658	11/18/2000	N001	259			#	-	-
	mV	0887	11/16/2000	N001	243			#	-	-
	mV	0888	11/16/2000	N001	239			#	-	-
	mV	0894	11/15/2000	N001	254			#	-	-
	mV	0895	11/15/2000	N001	249			#	-	-
	mV	0897	11/17/2000	N001	242			#	-	-
	mV	0898	11/16/2000	N001	239			#	-	-
	mV	0939	11/16/2000	N001	243			#	-	-
	mV	0940	11/16/2000	N001	256			#	-	-
	mV	0956	11/17/2000	N001	249			#	-	-
	mV	0957	11/16/2000	N001	251			#	-	-
	mV	1201	11/17/2000	N001	257			#	-	-
	mV	1203	11/16/2000	N001	249			#	-	-
	mV	1204	11/16/2000	N001	252			#	-	-
	mV	1205	11/16/2000	N001	252			#	-	-
	mV	1206	11/16/2000	N001	256			#	-	-
mV	1210	11/16/2000	N001	251			#	-	-	
Oxidation Reduction Potenti	mV	0554	11/17/2000	N001	206			#	-	-
	mV	0555	11/17/2000	N001	200			#	-	-
	mV	0655	11/15/2000	N001	240			#	-	-
	mV	0657	11/17/2000	N001	216			#	-	-
	mV	0658	11/18/2000	N001	-186			#	-	-
	mV	0887	11/16/2000	N001	184			#	-	-
	mV	0888	11/16/2000	N001	261			#	-	-
	mV	0894	11/15/2000	N001	189			#	-	-
	mV	0895	11/15/2000	N001	230			#	-	-
	mV	0897	11/17/2000	N001	226			#	-	-
	mV	0898	11/16/2000	N001	143			#	-	-
	mV	0939	11/16/2000	N001	214			#	-	-
	mV	0940	11/16/2000	N001	209			#	-	-
	mV	0956	11/17/2000	N001	182			#	-	-
	mV	0957	11/16/2000	N001	149			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potenti	mV	1201	11/17/2000	N001	192	#	-	-
	mV	1203	11/16/2000	N001	190	#	-	-
	mV	1204	11/16/2000	N001	189	#	-	-
	mV	1205	11/16/2000	N001	187	#	-	-
	mV	1206	11/16/2000	N001	161	#	-	-
	mV	1210	11/16/2000	N001	111	#	-	-
pH	s.u.	0554	11/17/2000	N001	8.46	#	-	-
	s.u.	0655	11/15/2000	N001	7.31	#	-	-
	s.u.	0657	11/17/2000	N001	7.23	#	-	-
	s.u.	0658	11/18/2000	N001	7.79	#	-	-
	s.u.	0887	11/16/2000	N001	7.63	#	-	-
	s.u.	0888	11/16/2000	N001	8.17	#	-	-
	s.u.	0894	11/15/2000	N001	8.28	#	-	-
	s.u.	0895	11/15/2000	N001	8.15	#	-	-
	s.u.	0897	11/17/2000	N001	7.98	#	-	-
	s.u.	0898	11/16/2000	N001	5.25	#	-	-
	s.u.	0939	11/16/2000	N001	7.65	#	-	-
	s.u.	0940	11/16/2000	N001	9.6	#	-	-
	s.u.	0956	11/17/2000	N001	7.68	#	-	-
	s.u.	0957	11/16/2000	N001	7.52	#	-	-
	s.u.	1201	11/17/2000	N001	9.15	#	-	-
	s.u.	1203	11/16/2000	N001	8.26	#	-	-
	s.u.	1204	11/16/2000	N001	8.46	#	-	-
	s.u.	1205	11/16/2000	N001	8.34	#	-	-
s.u.	1206	11/16/2000	N001	9.23	#	-	-	
s.u.	1210	11/16/2000	N001	5.02	#	-	-	
Polonium-210	pCi/L	0554	11/17/2000	0001	0	U	#	0.21 ± 0.19
	pCi/L	0555	11/17/2000	0001	0.35	U	#	0.35 ± 0.33
	pCi/L	0655	11/15/2000	0001	0.17	U	#	0.17 ± 0.06
	pCi/L	0657	11/17/2000	0001	0.34	U	#	0.34 ± 0.30
	pCi/L	0658	11/18/2000	0001	0.34	U	#	0.34 ± 0.36
	pCi/L	0887	11/16/2000	0001	0.31	U	#	0.31 ± 0.32
	pCi/L	0888	11/16/2000	0001	0.22	U	#	0.22 ± 0.24
	pCi/L	0894	11/15/2000	0001	0.19	U	#	0.19 ± 0.18
	pCi/L	0895	11/15/2000	0001	0.23	U	#	0.23 ± 0.23
	pCi/L	0897	11/17/2000	0001	0.18	U	#	0.18 ± 0.21
pCi/L	0898	11/16/2000	0001	0.30	U	#	0.3 ± 0.26	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Polonium-210	pCi/L	0939	11/16/2000	0001	0.22	U #	0.22	± 0.21
	pCi/L	0940	11/16/2000	0001	0.18	U #	0.18	± 0.18
	pCi/L	0956	11/17/2000	0001	0.28	U #	0.28	± 0.28
	pCi/L	0957	11/16/2000	0001	0.17	U #	0.17	± 0.18
	pCi/L	1201	11/17/2000	0001	0.34	U #	0.34	± 0.30
	pCi/L	1203	11/16/2000	0001	0.32	U #	0.32	± 0.32
	pCi/L	1204	11/16/2000	0001	0.26	U #	0.26	± 0.28
	pCi/L	1205	11/16/2000	0001	0.33	U #	0.33	± 0.29
	pCi/L	1205	11/16/2000	0002	0.17	U #	0.17	± 0.15
	pCi/L	1206	11/16/2000	0001	0.21	U #	0.21	± 0.21
pCi/L	1210	11/16/2000	0001	0.28	U #	0.28	± 0.27	
Potassium	mg/L	0554	11/17/2000	0001	2.310	#	0.0327	-
	mg/L	0555	11/17/2000	0001	2.300	#	0.0327	-
	mg/L	0655	11/15/2000	0001	15.400	#	0.0327	-
	mg/L	0657	11/17/2000	0001	9.920	#	0.0327	-
	mg/L	0658	11/18/2000	0001	9.740	#	0.0327	-
	mg/L	0887	11/16/2000	0001	10.200	#	0.0327	-
	mg/L	0888	11/16/2000	0001	6.440	#	0.0327	-
	mg/L	0894	11/15/2000	0001	2.480	#	0.0327	-
	mg/L	0895	11/15/2000	0001	2.470	#	0.0327	-
	mg/L	0897	11/17/2000	0001	2.370	#	0.0327	-
	mg/L	0898	11/16/2000	0001	2.580	#	0.0327	-
	mg/L	0939	11/16/2000	0001	7.220	#	0.0327	-
	mg/L	0940	11/16/2000	0001	2.430	#	0.0327	-
	mg/L	0956	11/17/2000	0001	2.360	#	0.0327	-
	mg/L	0957	11/16/2000	0001	2.420	#	0.0327	-
	mg/L	1201	11/17/2000	0001	2.330	#	0.0327	-
	mg/L	1203	11/16/2000	0001	2.360	#	0.0327	-
	mg/L	1204	11/16/2000	0001	2.410	#	0.0327	-
	mg/L	1205	11/16/2000	0001	2.410	#	0.0327	-
mg/L	1205	11/16/2000	0002	2.350	#	0.0327	-	
mg/L	1206	11/16/2000	0001	2.420	#	0.0327	-	
mg/L	1210	11/16/2000	0001	2.410	#	0.0327	-	
Radium-226	pCi/L	0554	11/17/2000	0001	0.18	U #	0.18	± 0.09
	pCi/L	0555	11/17/2000	0001	0.17	U #	0.17	± 0.10
	pCi/L	0655	11/15/2000	0001	0.18	U #	0.18	± 0.09
	pCi/L	0657	11/17/2000	0001	0.33	#	0.18	± 0.13

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Radium-226	pCi/L	0658	11/18/2000	0001	0.27		# 0.18	± 0.12
	pCi/L	0887	11/16/2000	0001	0.1	U	# 0.17	± 0.11
	pCi/L	0888	11/16/2000	0001	0.19	U	# 0.19	± 0.11
	pCi/L	0894	11/15/2000	0001	0.18	U	# 0.18	± 0.09
	pCi/L	0895	11/15/2000	0001	0.18	U	# 0.18	± 0.09
	pCi/L	0897	11/17/2000	0001	0.18	U	# 0.18	± 0.10
	pCi/L	0898	11/16/2000	0001	0.17	U	# 0.17	± 0.10
	pCi/L	0939	11/16/2000	0001	0.17	U	# 0.17	± 0.10
	pCi/L	0940	11/16/2000	0001	0	U	# 0.17	± 0.09
	pCi/L	0956	11/17/2000	0001	0	U	# 0.17	± 0.09
	pCi/L	0957	11/16/2000	0001	0.19	U	# 0.19	± 0.10
	pCi/L	1201	11/17/2000	0001	0.17	U	# 0.17	± 0.10
	pCi/L	1203	11/16/2000	0001	0.17	U	# 0.17	± 0.09
	pCi/L	1204	11/16/2000	0001	0.17	U	# 0.17	± 0.09
	pCi/L	1205	11/16/2000	0001	0.16	U	# 0.16	± 0.09
	pCi/L	1205	11/16/2000	0002	0.18	U	# 0.18	± 0.09
	pCi/L	1206	11/16/2000	0001	0.19	U	# 0.19	± 0.10
	pCi/L	1210	11/16/2000	0001	0.18	U	# 0.18	± 0.10
Radium-228	pCi/L	0554	11/17/2000	0001	0.88	U	# 0.88	± 0.52
	pCi/L	0555	11/17/2000	0001	0.86	U	# 0.86	± 0.51
	pCi/L	0655	11/15/2000	0001	0.8	U	# 0.89	± 0.53
	pCi/L	0657	11/17/2000	0001	0.87	U	# 0.87	± 0.52
	pCi/L	0658	11/18/2000	0001	0.85	U	# 0.85	± 0.51
	pCi/L	0887	11/16/2000	0001	0.89	U	# 0.89	± 0.52
	pCi/L	0888	11/16/2000	0001	0.95	U	# 0.95	± 0.56
	pCi/L	0894	11/15/2000	0001	0.87	U	# 0.87	± 0.51
	pCi/L	0895	11/15/2000	0001	0.86	U	# 0.86	± 0.51
	pCi/L	0897	11/17/2000	0001	0.90	U	# 0.9	± 0.53
	pCi/L	0898	11/16/2000	0001	0.88	U	# 0.88	± 0.51
	pCi/L	0939	11/16/2000	0001	0.86	U	# 0.86	± 0.51
	pCi/L	0940	11/16/2000	0001	0.85	U	# 0.85	± 0.49
	pCi/L	0956	11/17/2000	0001	0.81	U	# 0.81	± 0.49
	pCi/L	0957	11/16/2000	0001	0.88	U	# 0.88	± 0.53
	pCi/L	1201	11/17/2000	0001	0	U	# 0.87	± 0.51
	pCi/L	1203	11/16/2000	0001	0.84	U	# 0.84	± 0.50
	pCi/L	1204	11/16/2000	0001	0.8	U	# 0.84	± 0.49
pCi/L	1205	11/16/2000	0001	0.83	U	# 0.83	± 0.48	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Radium-228	pCi/L	1205	11/16/2000	0002	0.82	U #	0.82	± 0.49
	pCi/L	1206	11/16/2000	0001	0.88	U #	0.88	± 0.53
	pCi/L	1210	11/16/2000	0001	0.85	U #	0.85	± 0.51
Selenium	mg/L	0554	11/17/2000	0001	0.0007	B #	0.0001	-
	mg/L	0555	11/17/2000	0001	0.0007	B #	0.0001	-
	mg/L	0655	11/15/2000	0001	0.0338	#	0.0025	-
	mg/L	0657	11/17/2000	0001	0.0126	#	0.0001	-
	mg/L	0658	11/18/2000	0001	0.0133	#	0.0001	-
	mg/L	0887	11/16/2000	0001	0.215	#	0.04	-
	mg/L	0888	11/16/2000	0001	0.0014	B #	0.0001	-
	mg/L	0894	11/15/2000	0001	0.0008	B #	0.0001	-
	mg/L	0895	11/15/2000	0001	0.0007	B #	0.0001	-
	mg/L	0897	11/17/2000	0001	0.0009	B #	0.0001	-
	mg/L	0898	11/16/2000	0001	0.0008	B #	0.0001	-
	mg/L	0939	11/16/2000	0001	0.180	#	0.04	-
	mg/L	0940	11/16/2000	0001	0.0007	B #	0.0001	-
	mg/L	0956	11/17/2000	0001	0.0007	B #	0.0001	-
	mg/L	0957	11/16/2000	0001	0.0007	B #	0.0001	-
	mg/L	1201	11/17/2000	0001	0.0006	B #	0.0001	-
	mg/L	1203	11/16/2000	0001	0.0007	B #	0.0001	-
	mg/L	1204	11/16/2000	0001	0.0007	B #	0.0001	-
	mg/L	1205	11/16/2000	0001	0.0007	B #	0.0001	-
	mg/L	1205	11/16/2000	0002	0.0007	B #	0.0001	-
mg/L	1206	11/16/2000	0001	0.0007	B #	0.0001	-	
mg/L	1210	11/16/2000	0001	0.0009	B #	0.0001	-	
Sodium	mg/L	0554	11/17/2000	0001	40.300	#	0.302	-
	mg/L	0555	11/17/2000	0001	37.900	#	0.302	-
	mg/L	0655	11/15/2000	0001	1220.000	#	30.2	-
	mg/L	0657	11/17/2000	0001	999.000	#	7.55	-
	mg/L	0658	11/18/2000	0001	1000.000	#	7.55	-
	mg/L	0887	11/16/2000	0001	478.000	#	0.302	-
	mg/L	0888	11/16/2000	0001	134.000	#	0.302	-
	mg/L	0894	11/15/2000	0001	46.400	#	0.302	-
	mg/L	0895	11/15/2000	0001	44.800	#	0.302	-
	mg/L	0897	11/17/2000	0001	41.800	#	0.302	-
	mg/L	0898	11/16/2000	0001	45.300	#	0.302	-
	mg/L	0939	11/16/2000	0001	277.000	#	0.302	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
REPORT DATE: 2/20/2001 3.07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS: DETECTION UN-		
			DATE	ID		LAB DATA QA	LIMIT	CERTAINTY
Sodium	mg/L	0940	11/16/2000	0001	43.300	#	0.302	-
	mg/L	0956	11/17/2000	0001	41.700	#	0.302	-
	mg/L	0957	11/16/2000	0001	42.500	#	0.302	-
	mg/L	1201	11/17/2000	0001	39.600	#	0.302	-
	mg/L	1203	11/16/2000	0001	41.400	#	0.302	-
	mg/L	1204	11/16/2000	0001	41.800	#	0.302	-
	mg/L	1205	11/16/2000	0001	42.600	#	0.302	-
	mg/L	1205	11/16/2000	0002	41.800	#	0.302	-
	mg/L	1206	11/16/2000	0001	42.700	#	0.302	-
	mg/L	1210	11/16/2000	0001	43.900	#	0.302	-
Specific Conductance	umhos/cm	0554	11/17/2000	N001	627	#	-	-
	umhos/cm	0555	11/17/2000	N001	616	#	-	-
	umhos/cm	0655	11/15/2000	N001	7190	#	-	-
	umhos/cm	0657	11/17/2000	N001	5390	#	-	-
	umhos/cm	0658	11/18/2000	N001	5350	#	-	-
	umhos/cm	0887	11/16/2000	N001	4560	#	-	-
	umhos/cm	0888	11/16/2000	N001	1470	#	-	-
	umhos/cm	0894	11/15/2000	N001	671	#	-	-
	umhos/cm	0895	11/15/2000	N001	656	#	-	-
	umhos/cm	0897	11/17/2000	N001	643	#	-	-
	umhos/cm	0898	11/16/2000	N001	677	#	-	-
	umhos/cm	0939	11/16/2000	N001	3530	#	-	-
	umhos/cm	0940	11/16/2000	N001	650	#	-	-
	umhos/cm	0956	11/17/2000	N001	582	#	-	-
	umhos/cm	0957	11/16/2000	N001	665	#	-	-
	umhos/cm	1201	11/17/2000	N001	628	#	-	-
	umhos/cm	1203	11/16/2000	N001	642	#	-	-
	umhos/cm	1204	11/16/2000	N001	636	#	-	-
	umhos/cm	1205	11/16/2000	N001	646	#	-	-
	umhos/cm	1206	11/16/2000	N001	657	#	-	-
umhos/cm	1210	11/16/2000	N001	683	#	-	-	
Strontium	mg/L	0554	11/17/2000	0001	0.808	#	0.0001	
	mg/L	0555	11/17/2000	0001	0.803	#	0.0001	
	mg/L	0655	11/15/2000	0001	10.600	#	0.0004	
	mg/L	0657	11/17/2000	0001	11.800	#	0.0004	
	mg/L	0658	11/18/2000	0001	12.200	#	0.0004	
	mg/L	0887	11/16/2000	0001	6.630	#	0.0001	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:		DETECTION LIMIT	UN-CERTAINTY
		ID	DATE	ID	DATE		LAB DATA	QA		
Strontium	mg/L	0888	11/16/2000	0001		1.560	#		0.0001	-
	mg/L	0894	11/15/2000	0001		0.854	#		0.0001	-
	mg/L	0895	11/15/2000	0001		0.881	#		0.0001	-
	mg/L	0897	11/17/2000	0001		0.832	#		0.0001	-
	mg/L	0898	11/16/2000	0001		0.884	#		0.0001	-
	mg/L	0939	11/16/2000	0001		4.920	#		0.0001	-
	mg/L	0940	11/16/2000	0001		0.856	#		0.0001	-
	mg/L	0956	11/17/2000	0001		0.808	#		0.0001	-
	mg/L	0957	11/16/2000	0001		0.897	#		0.0001	-
	mg/L	1201	11/17/2000	0001		0.803	#		0.0001	-
	mg/L	1203	11/16/2000	0001		0.835	#		0.0001	-
	mg/L	1204	11/16/2000	0001		0.836	#		0.0001	-
	mg/L	1205	11/16/2000	0001		0.844	#		0.0001	-
	mg/L	1205	11/16/2000	0002		0.833	#		0.0001	-
	mg/L	1206	11/16/2000	0001		0.860	#		0.0001	-
	mg/L	1210	11/16/2000	0001		0.919	#		0.0001	-
	Sulfate	mg/L	0554	11/17/2000	0001		159.000	#		0.0589
mg/L		0555	11/17/2000	0001		152.000	#		0.0589	-
mg/L		0655	11/15/2000	0001		3780.000	#		0.2945	-
mg/L		0657	11/17/2000	0001		2500.000	#		0.2945	-
mg/L		0658	11/18/2000	0001		2510.000	#		0.2945	-
mg/L		0887	11/16/2000	0001		2760.000	#		0.2945	-
mg/L		0888	11/16/2000	0001		561.000	#		0.0589	-
mg/L		0894	11/15/2000	0001		181.000	#		0.0589	-
mg/L		0895	11/15/2000	0001		171.000	#		0.0589	-
mg/L		0897	11/17/2000	0001		163.000	#		0.0589	-
mg/L		0898	11/16/2000	0001		180.000	#		0.0589	-
mg/L		0939	11/16/2000	0001		1900.000	#		0.1178	-
mg/L		0940	11/16/2000	0001		169.000	#		0.0589	-
mg/L		0956	11/17/2000	0001		160.000	#		0.0589	-
mg/L		0957	11/16/2000	0001		167.000	#		0.0589	-
mg/L		1201	11/17/2000	0001		156.000	#		0.0589	-
mg/L		1203	11/16/2000	0001		162.000	#		0.0589	-
mg/L		1204	11/16/2000	0001		164.000	#		0.0589	-
mg/L		1205	11/16/2000	0001		165.000	#		0.0589	-
mg/L		1205	11/16/2000	0002		165.000	#		0.0589	-
mg/L	1206	11/16/2000	0001		167.000	#		0.0589	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Sulfate	mg/L	1210	11/16/2000	0001	176.000			#	0.0589	-
Temperature	C	0554	11/17/2000	N001	4			#	-	-
	C	0555	11/17/2000	N001	1.4			#	-	-
	C	0655	11/15/2000	N001	2.1			#	-	-
	C	0657	11/17/2000	N001	1.2			#	-	-
	C	0658	11/18/2000	N001	0.1			#	-	-
	C	0887	11/16/2000	N001	3.8			#	-	-
	C	0888	11/16/2000	N001	4.9			#	-	-
	C	0894	11/15/2000	N001	5.1			#	-	-
	C	0895	11/15/2000	N001	4.6			#	-	-
	C	0897	11/17/2000	N001	1.8			#	-	-
	C	0898	11/16/2000	N001	4.3			#	-	-
	C	0939	11/16/2000	N001	4.3			#	-	-
	C	0940	11/16/2000	N001	3.7			#	-	-
	C	0956	11/17/2000	N001	9.1			#	-	-
	C	0957	11/16/2000	N001	2.1			#	-	-
	C	1201	11/17/2000	N001	1.7			#	-	-
	C	1203	11/16/2000	N001	4			#	-	-
	C	1204	11/16/2000	N001	4.6			#	-	-
	C	1205	11/16/2000	N001	3.9			#	-	-
C	1206	11/16/2000	N001	2.6			#	-	-	
C	1210	11/16/2000	N001	2.3			#	-	-	
Temperature of Zobell Soluti	C	0554	11/17/2000	N001	12.9			#	-	-
	C	0555	11/17/2000	N001	2.1			#	-	-
	C	0655	11/15/2000	N001	7.6			#	-	-
	C	0657	11/17/2000	N001	12.2			#	-	-
	C	0658	11/18/2000	N001	1.7			#	-	-
	C	0887	11/16/2000	N001	6.2			#	-	-
	C	0888	11/16/2000	N001	4.6			#	-	-
	C	0894	11/15/2000	N001	7.6			#	-	-
	C	0895	11/15/2000	N001	3			#	-	-
	C	0897	11/17/2000	N001	3.2			#	-	-
	C	0898	11/16/2000	N001	4.6			#	-	-
	C	0939	11/16/2000	N001	6.2			#	-	-
	C	0940	11/16/2000	N001	5.6			#	-	-
	C	0956	11/17/2000	N001	12.9			#	-	-
C	0957	11/16/2000	N001	1.4			#	-	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Temperature of Zobell Soluti	C	1201	11/17/2000	N001	4.9	#	-	-
	C	1203	11/16/2000	N001	9.6	#	-	-
	C	1204	11/16/2000	N001	10.6	#	-	-
	C	1205	11/16/2000	N001	8.3	#	-	-
	C	1206	11/16/2000	N001	5.6	#	-	-
	C	1210	11/16/2000	N001	1.4	#	-	-
Total Dissolved Solids	mg/L	0554	11/17/2000	0001	403	#	10	-
	mg/L	0555	11/17/2000	0001	395	#	10	-
	mg/L	0655	11/15/2000	0001	6330	#	10	-
	mg/L	0657	11/17/2000	0001	4000	#	10	-
	mg/L	0658	11/18/2000	0001	4070	#	10	-
	mg/L	0887	11/16/2000	0001	5270	#	10	-
	mg/L	0888	11/16/2000	0001	1080	#	10	-
	mg/L	0894	11/15/2000	0001	450	#	10	-
	mg/L	0895	11/15/2000	0001	415	#	10	-
	mg/L	0897	11/17/2000	0001	400	#	10	-
	mg/L	0898	11/16/2000	0001	460	#	10	-
	mg/L	0939	11/16/2000	0001	3520	#	10	-
	mg/L	0940	11/16/2000	0001	435	#	10	-
	mg/L	0956	11/17/2000	0001	408	#	10	-
	mg/L	0957	11/16/2000	0001	415	#	10	-
	mg/L	1201	11/17/2000	0001	400	#	10	-
	mg/L	1203	11/16/2000	0001	425	#	10	-
	mg/L	1204	11/16/2000	0001	432	#	10	-
	mg/L	1205	11/16/2000	0001	435	#	10	-
	mg/L	1205	11/16/2000	0002	438	#	10	-
mg/L	1206	11/16/2000	0001	372	#	10	-	
mg/L	1210	11/16/2000	0001	462	#	10	-	
Turbidity	NTU	0887	11/16/2000	N001	31.4	#	-	-
	NTU	0888	11/16/2000	N001	1000	>	#	-
	NTU	0895	11/15/2000	N001	223	#	-	-
	NTU	0897	11/17/2000	N001	81.5	#	-	-
	NTU	0898	11/16/2000	N001	14.6	#	-	-
	NTU	0939	11/16/2000	N001	179	#	-	-
	NTU	0957	11/16/2000	N001	154	#	-	-
	NTU	1210	11/16/2000	N001	146	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:		DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA QA		
Uranium	mg/L	0554	11/17/2000	0001	0.002		#	0.0001	-
	mg/L	0555	11/17/2000	0001	0.0018		#	0.0001	-
	mg/L	0655	11/15/2000	0001	0.0608		#	0.0001	-
	mg/L	0657	11/17/2000	0001	0.0327		#	0.0001	-
	mg/L	0658	11/18/2000	0001	0.0322		#	0.0001	-
	mg/L	0887	11/16/2000	0001	0.0564		#	0.0001	-
	mg/L	0888	11/16/2000	0001	0.0046		#	0.0001	-
	mg/L	0894	11/15/2000	0001	0.0022		#	0.0001	-
	mg/L	0895	11/15/2000	0001	0.0023		#	0.0001	-
	mg/L	0897	11/17/2000	0001	0.002		#	0.0001	-
	mg/L	0898	11/16/2000	0001	0.0021		#	0.0001	-
	mg/L	0939	11/16/2000	0001	0.0351		#	0.0001	-
	mg/L	0940	11/16/2000	0001	0.0021		#	0.0001	-
	mg/L	0956	11/17/2000	0001	0.002		#	0.0001	-
	mg/L	0957	11/16/2000	0001	0.0021		#	0.0001	-
	mg/L	1201	11/17/2000	0001	0.0019		#	0.0001	-
	mg/L	1203	11/16/2000	0001	0.002		#	0.0001	-
	mg/L	1204	11/16/2000	0001	0.0021		#	0.0001	-
	mg/L	1205	11/16/2000	0001	0.002		#	0.0001	-
	mg/L	1205	11/16/2000	0002	0.0021		#	0.0001	-
mg/L	1206	11/16/2000	0001	0.002		#	0.0001	-	
mg/L	1210	11/16/2000	0001	0.0022		#	0.0001	-	
Vanadium	mg/L	0554	11/17/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0555	11/17/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0655	11/15/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0657	11/17/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0658	11/18/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0887	11/16/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0888	11/16/2000	0001	0.002	B U	#	0.0013	-
	mg/L	0894	11/15/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0895	11/15/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0897	11/17/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0898	11/16/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0939	11/16/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0940	11/16/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0956	11/17/2000	0001	0.0013	U	#	0.0013	-
	mg/L	0957	11/16/2000	0001	0.0013	U	#	0.0013	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Vanadium	mg/L	1201	11/17/2000	0001	0.0013	U #	0.0013	-
	mg/L	1203	11/16/2000	0001	0.0013	U #	0.0013	-
	mg/L	1204	11/16/2000	0001	0.0013	U #	0.0013	-
	mg/L	1205	11/16/2000	0001	0.0013	U #	0.0013	-
	mg/L	1205	11/16/2000	0002	0.0013	U #	0.0013	-
	mg/L	1206	11/16/2000	0001	0.0013	U #	0.0013	-
	mg/L	1210	11/16/2000	0001	0.0013	U #	0.0013	-
Zinc	mg/L	0554	11/17/2000	0001	0.0095	U #	0.0095	-
	mg/L	0555	11/17/2000	0001	0.0095	U #	0.0095	-
	mg/L	0655	11/15/2000	0001	0.0095	U #	0.0095	-
	mg/L	0657	11/17/2000	0001	0.0127	B #	0.0095	-
	mg/L	0658	11/18/2000	0001	0.0095	U #	0.0095	-
	mg/L	0887	11/16/2000	0001	0.0356	#	0.0095	-
	mg/L	0888	11/16/2000	0001	0.0095	U #	0.0095	-
	mg/L	0894	11/15/2000	0001	0.0095	U #	0.0095	-
	mg/L	0895	11/15/2000	0001	0.0095	U #	0.0095	-
	mg/L	0897	11/17/2000	0001	0.0095	U #	0.0095	-
	mg/L	0898	11/16/2000	0001	0.0095	U #	0.0095	-
	mg/L	0939	11/16/2000	0001	0.017	B #	0.0095	-
	mg/L	0940	11/16/2000	0001	0.0095	U #	0.0095	-
	mg/L	0956	11/17/2000	0001	0.0095	U #	0.0095	-
	mg/L	0957	11/16/2000	0001	0.0095	U #	0.0095	-
	mg/L	1201	11/17/2000	0001	0.0095	U #	0.0095	-
	mg/L	1203	11/16/2000	0001	0.0095	U #	0.0095	-
	mg/L	1204	11/16/2000	0001	0.0095	U #	0.0095	-
	mg/L	1205	11/16/2000	0001	0.0095	U #	0.0095	-
	mg/L	1205	11/16/2000	0002	0.0095	U #	0.0095	-
mg/L	1206	11/16/2000	0001	0.0095	U #	0.0095	-	
mg/L	1210	11/16/2000	0001	0.0095	U #	0.0095	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
 REPORT DATE: 2/20/2001 3:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
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RECORDS: SELECTED FROM USEE800 WHERE site_code='SHP01' AND quality_assurance = TRUE AND (NOT (data_validation_qualifiers LIKE "R" OR data_validation_qualifiers LIKE "X") OR IsNull(data_validation_qualifiers)) AND DATE_SAMPLED between #11/1/2000# and #11/30/2000#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- C Pesticide result confirmed by GC-MS.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- D Analyte determined in diluted sample.
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- > Result above upper detection limit.
- J Estimated

DATA QUALIFIERS:

- J Estimated value.
- G Possible grout contamination, pH > 9.
- R Unusable result.
- U Parameter analyzed for but was not detected.
- F Low flow sampling method used.
- L Less than 3 bore volumes purged prior to sampling.
- X Location is undefined.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity as CaCO3	mg/L	0425	11/17/2000	0001	694	#	-	-
	mg/L	0425	11/17/2000	N001	673	#	-	-
	mg/L	0426	11/18/2000	0001	321	#	-	-
	mg/L	0426	11/18/2000	N001	338	#	-	-
	mg/L	0662	11/18/2000	0001	97	#	-	-
	mg/L	0662	11/18/2000	N001	97	#	-	-
	mg/L	0786	11/15/2000	0001	355	#	-	-
	mg/L	0786	11/15/2000	N001	349	#	-	-
	mg/L	0884	11/16/2000	0001	276	#	-	-
	mg/L	0884	11/16/2000	N001	252	#	-	-
	mg/L	0885	11/18/2000	0001	1255	#	-	-
	mg/L	0885	11/18/2000	N001	1470	#	-	-
	mg/L	0886	11/17/2000	N001	890	#	-	-
	mg/L	0889	11/17/2000	0001	662	#	-	-
	mg/L	0889	11/17/2000	N001	669	#	-	-
	mg/L	0933	11/16/2000	0001	476	#	-	-
	mg/L	0933	11/16/2000	N001	484	#	-	-
	mg/L	0934	11/17/2000	0001	278	#	-	-
	mg/L	0934	11/17/2000	N001	269	#	-	-
	mg/L	0935	11/16/2000	0001	369	#	-	-
	mg/L	0935	11/16/2000	N001	360	#	-	-
	mg/L	0936	11/16/2000	0001	298	#	-	-
	mg/L	0936	11/16/2000	N001	309	#	-	-
	mg/L	0942	11/17/2000	0001	262	#	-	-
	mg/L	0942	11/17/2000	N001	276	#	-	-
Ammonium	mg/L	0425	11/17/2000	0001	0.770	#	-	-
	mg/L	0426	11/18/2000	0001	0.0054 B	#	-	-
	mg/L	0662	11/18/2000	0001	0.0227 B	#	-	-
	mg/L	0786	11/15/2000	0001	0.0047 U	#	0.0047	-
	mg/L	0884	11/16/2000	0001	0.0047 U	#	0.0047	-
	mg/L	0884	11/16/2000	0002	0.0047 U	#	0.0047	-
	mg/L	0885	11/18/2000	0001	10.100	#	-	-
	mg/L	0886	11/17/2000	0001	1.730	#	-	-
	mg/L	0889	11/17/2000	0001	0.462	#	-	-
	mg/L	0933	11/16/2000	0001	0.0415 B	#	-	-
	mg/L	0934	11/17/2000	0001	0.0173 B	#	-	-
	mg/L	0935	11/16/2000	0001	0.0146 B	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
			DATE	ID		LAB	DATA	QA		
Ammonium	mg/L	0936	11/16/2000	0001	0.0119 B			#	-	-
	mg/L	0942	11/17/2000	0001	0.0188 B			#	-	-
Antimony	mg/L	0425	11/17/2000	0001	0.0006 B	U		#	0.0002	-
	mg/L	0426	11/18/2000	0001	0.0006 B	U		#	0.0002	-
	mg/L	0662	11/18/2000	0001	0.0006 B	U		#	0.0002	-
	mg/L	0786	11/15/2000	0001	0.0006 B	U		#	0.0002	-
	mg/L	0884	11/16/2000	0001	0.0006 B	U		#	0.0002	-
	mg/L	0884	11/16/2000	0002	0.0009 B	U		#	0.0002	-
	mg/L	0885	11/18/2000	0001	0.0017 B	U		#	0.0002	-
	mg/L	0886	11/17/2000	0001	0.0012 B	U		#	0.0002	-
	mg/L	0889	11/17/2000	0001	0.0014 B	U		#	0.0002	-
	mg/L	0933	11/16/2000	0001	0.0007 B	U		#	0.0002	-
	mg/L	0934	11/17/2000	0001	0.0006 B	U		#	0.0002	-
	mg/L	0935	11/16/2000	0001	0.0006 B	U		#	0.0002	-
	mg/L	0936	11/16/2000	0001	0.0006 B	U		#	0.0002	-
	mg/L	0942	11/17/2000	0001	0.0006 B	U		#	0.0002	-
	Arsenic	mg/L	0425	11/17/2000	0001	0.0002 U			#	0.0002
mg/L		0426	11/18/2000	0001	0.0002 U			#	0.0002	-
mg/L		0662	11/18/2000	0001	0.0004 B			#	0.0002	-
mg/L		0786	11/15/2000	0001	0.0002 U			#	0.0002	-
mg/L		0884	11/16/2000	0001	0.0006 B			#	0.0002	-
mg/L		0884	11/16/2000	0002	0.0005 B			#	0.0002	-
mg/L		0885	11/18/2000	0001	0.0144			#	0.0002	-
mg/L		0886	11/17/2000	0001	0.0009 B			#	0.0002	-
mg/L		0889	11/17/2000	0001	0.0005 B			#	0.0002	-
mg/L		0933	11/16/2000	0001	0.0003 B			#	0.0002	-
mg/L		0934	11/17/2000	0001	0.0002 B			#	0.0002	-
mg/L		0935	11/16/2000	0001	0.0002 U			#	0.0002	-
mg/L		0936	11/16/2000	0001	0.0002 U			#	0.0002	-
mg/L		0942	11/17/2000	0001	0.0002 U			#	0.0002	-
Cadmium		mg/L	0425	11/17/2000	0001	0.0005 B	U		#	0.0002
	mg/L	0426	11/18/2000	0001	0.0002 U			#	0.0002	-
	mg/L	0662	11/18/2000	0001	0.0002 U			#	0.0002	-
	mg/L	0786	11/15/2000	0001	0.0003 B			#	0.0002	-
	mg/L	0884	11/16/2000	0001	0.0002 U			#	0.0002	-
	mg/L	0884	11/16/2000	0002	0.0002 B	U		#	0.0002	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Cadmium	mg/L	0885	11/18/2000	0001	0.0002	U		#	0.0002	-
	mg/L	0886	11/17/2000	0001	0.0002	B	U	#	0.0002	-
	mg/L	0889	11/17/2000	0001	0.0003	B	U	#	0.0002	-
	mg/L	0933	11/16/2000	0001	0.0002	U		#	0.0002	-
	mg/L	0934	11/17/2000	0001	0.0002	B	U	#	0.0002	-
	mg/L	0935	11/16/2000	0001	0.0002	B	U	#	0.0002	-
	mg/L	0936	11/16/2000	0001	0.0003	B	U	#	0.0002	-
	mg/L	0942	11/17/2000	0001	0.0002	B		#	0.0002	-
Calcium	mg/L	0425	11/17/2000	0001	485.000			#	0.0481	-
	mg/L	0426	11/18/2000	0001	409.000			#	0.0481	-
	mg/L	0662	11/18/2000	0001	167.000			#	0.0481	-
	mg/L	0786	11/15/2000	0001	478.000			#	0.0481	-
	mg/L	0884	11/16/2000	0001	544.000			#	1.2025	-
	mg/L	0884	11/16/2000	0002	541.000			#	1.2025	-
	mg/L	0885	11/18/2000	0001	444.000			#	0.0481	-
	mg/L	0886	11/17/2000	0001	424.000			#	0.0481	-
	mg/L	0889	11/17/2000	0001	426.000			#	0.0481	-
	mg/L	0933	11/16/2000	0001	442.000			#	0.0481	-
	mg/L	0934	11/17/2000	0001	482.000			#	0.0481	-
	mg/L	0935	11/16/2000	0001	465.000			#	0.0481	-
	mg/L	0936	11/16/2000	0001	556.000			#	1.2025	-
	mg/L	0942	11/17/2000	0001	556.000			#	1.2025	-
Chloride	mg/L	0425	11/17/2000	0001	201.000			#	0.24	-
	mg/L	0426	11/18/2000	0001	125.000			#	0.12	-
	mg/L	0662	11/18/2000	0001	55.900			#	0.12	-
	mg/L	0786	11/15/2000	0001	179.000			#	0.12	-
	mg/L	0884	11/16/2000	0001	49.300			#	0.048	-
	mg/L	0884	11/16/2000	0002	48.900			#	0.048	-
	mg/L	0885	11/18/2000	0001	307.000			#	0.24	-
	mg/L	0886	11/17/2000	0001	1870.000			#	0.48	-
	mg/L	0889	11/17/2000	0001	1900.000			#	0.48	-
	mg/L	0933	11/16/2000	0001	255.000			#	0.12	-
	mg/L	0934	11/17/2000	0001	54.200			#	0.048	-
	mg/L	0935	11/16/2000	0001	199.000			#	0.12	-
	mg/L	0936	11/16/2000	0001	147.000			#	0.048	-
	mg/L	0942	11/17/2000	0001	66.600			#	0.12	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Copper	mg/L	0425	11/17/2000	0001	0.001	U #	0.001	-
	mg/L	0426	11/18/2000	0001	0.001	U #	0.001	-
	mg/L	0662	11/18/2000	0001	0.001	U #	0.001	-
	mg/L	0786	11/15/2000	0001	0.001	U #	0.001	-
	mg/L	0884	11/16/2000	0001	0.0018	B #	0.001	-
	mg/L	0884	11/16/2000	0002	0.001	U #	0.001	-
	mg/L	0885	11/18/2000	0001	0.001	U #	0.001	-
	mg/L	0886	11/17/2000	0001	0.0168	B #	0.001	-
	mg/L	0889	11/17/2000	0001	0.0114	B #	0.001	-
	mg/L	0933	11/16/2000	0001	0.001	U #	0.001	-
	mg/L	0934	11/17/2000	0001	0.001	U #	0.001	-
	mg/L	0935	11/16/2000	0001	0.001	U #	0.001	-
	mg/L	0936	11/16/2000	0001	0.001	U #	0.001	-
	mg/L	0942	11/17/2000	0001	0.001	U #	0.001	-
Fluoride	mg/L	0425	11/17/2000	0001	0.741	B #	0.125	-
	mg/L	0426	11/18/2000	0001	1.290	#	0.0625	-
	mg/L	0662	11/18/2000	0001	1.860	#	0.0625	-
	mg/L	0786	11/15/2000	0001	0.557	#	0.0625	-
	mg/L	0884	11/16/2000	0001	0.526	#	0.025	-
	mg/L	0884	11/16/2000	0002	0.526	#	0.025	-
	mg/L	0885	11/18/2000	0001	1.040	#	0.125	-
	mg/L	0886	11/17/2000	0001	0.499	B #	0.25	-
	mg/L	0889	11/17/2000	0001	0.526	B #	0.25	-
	mg/L	0933	11/16/2000	0001	1.280	#	0.0625	-
	mg/L	0934	11/17/2000	0001	0.512	#	0.025	-
	mg/L	0935	11/16/2000	0001	0.632	#	0.0625	-
	mg/L	0936	11/16/2000	0001	0.386	#	0.025	-
	mg/L	0942	11/17/2000	0001	0.602	#	0.0625	-
Gross Alpha	pCi/L	0425	11/17/2000	0001	318.93	✓	#	59.91 ± 66.4
	pCi/L	0426	11/18/2000	0001	146.6	✓	#	55.29 ± 47.7
	pCi/L	0662	11/18/2000	0001	27.57	U	#	27.57 ± 15.8
	pCi/L	0786	11/15/2000	0001	53.23	U	#	53.23 ± 32.4
	pCi/L	0884	11/16/2000	0001	25.03	U	#	25.03 ± 16.2
	pCi/L	0884	11/16/2000	0002	30.24	✓	#	25.13 ± 17.5
	pCi/L	0885	11/18/2000	0001	662.33	✓	#	73.92 ± 102.
	pCi/L	0886	11/17/2000	0001	320.11	U	#	320.11 ± 199.
	pCi/L	0889	11/17/2000	0001	322.40	U	#	322.4 ± 178.

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Gross Alpha	pCi/L	0933	11/16/2000	0001	111.54	- 67.189 = 44.35 #	58.67	± 45.9
	pCi/L	0934	11/17/2000	0001	26.4	✓	23.74	± 16.2
	pCi/L	0935	11/16/2000	0001	54.22	U	54.22	± 34.1
	pCi/L	0936	11/16/2000	0001	38.07	U	38.07	± 23.9
	pCi/L	0942	11/17/2000	0001	28.71	U	28.71	± 18.4
Gross Beta	pCi/L	0425	11/17/2000	0001	182.32		60.52	± 43.6
	pCi/L	0426	11/18/2000	0001	85.46		59.33	± 38.3
	pCi/L	0662	11/18/2000	0001	29.28	U	29.28	± 17.4
	pCi/L	0786	11/15/2000	0001	58.51	U	58.51	± 34.6
	pCi/L	0884	11/16/2000	0001	23.70	U	23.7	± 13.5
	pCi/L	0884	11/16/2000	0002	23.7	U	23.75	± 14.3
	pCi/L	0885	11/18/2000	0001	364.99		77.06	± 61.2
	pCi/L	0886	11/17/2000	0001	296.47	U	296.47	± 174.
	pCi/L	0889	11/17/2000	0001	295.82	U	295.82	± 178.
	pCi/L	0933	11/16/2000	0001	59.34	U	59.34	± 34.4
	pCi/L	0934	11/17/2000	0001	23.6	U	23.65	± 14.2
	pCi/L	0935	11/16/2000	0001	58.63	U	58.63	± 33.6
	pCi/L	0936	11/16/2000	0001	39.21	U	39.21	± 23.7
pCi/L	0942	11/17/2000	0001	29.4	U	29.43	± 18.0	
Iron	mg/L	0425	11/17/2000	0001	0.0117	U	0.0117	-
	mg/L	0426	11/18/2000	0001	0.0117	U	0.0117	-
	mg/L	0662	11/18/2000	0001	0.0131	B	0.0117	-
	mg/L	0786	11/15/2000	0001	0.0117	U	0.0117	-
	mg/L	0884	11/16/2000	0001	0.0389		0.0117	-
	mg/L	0884	11/16/2000	0002	0.0258	B	0.0117	-
	mg/L	0885	11/18/2000	0001	0.341		0.0117	-
	mg/L	0886	11/17/2000	0001	0.0496	U	0.0117	-
	mg/L	0889	11/17/2000	0001	0.160		0.0117	-
	mg/L	0933	11/16/2000	0001	0.0117	U	0.0117	-
	mg/L	0934	11/17/2000	0001	0.0117	U	0.0117	-
	mg/L	0935	11/16/2000	0001	0.0117	U	0.0117	-
	mg/L	0936	11/16/2000	0001	0.0117	U	0.0117	-
mg/L	0942	11/17/2000	0001	0.0221	B	0.0117	-	
Magnesium	mg/L	0425	11/17/2000	0001	591.000		3.52	-
	mg/L	0426	11/18/2000	0001	272.000		0.0352	-
	mg/L	0662	11/18/2000	0001	28.500		0.0352	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN- CERTAINTY
			DATE	ID				
Magnesium	mg/L	0786	11/15/2000	0001	465.000	#	0.0352	-
	mg/L	0884	11/16/2000	0001	194.000	#	0.0352	-
	mg/L	0884	11/16/2000	0002	186.000	#	0.0352	-
	mg/L	0885	11/18/2000	0001	700.000	#	3.52	-
	mg/L	0886	11/17/2000	0001	1540.000	#	352	-
	mg/L	0889	11/17/2000	0001	2170.000	#	352	-
	mg/L	0933	11/16/2000	0001	639.000	#	0.88	-
	mg/L	0934	11/17/2000	0001	146.000	#	0.0352	-
	mg/L	0935	11/16/2000	0001	533.000	#	0.88	-
	mg/L	0936	11/16/2000	0001	298.000	#	0.0352	-
	mg/L	0942	11/17/2000	0001	185.000	#	0.0352	-
Manganese	mg/L	0425	11/17/2000	0001	0.192	#	0.002	-
	mg/L	0426	11/18/2000	0001	0.0123	#	0.002	-
	mg/L	0662	11/18/2000	0001	0.0361	#	0.002	-
	mg/L	0786	11/15/2000	0001	0.002 U	#	0.002	-
	mg/L	0884	11/16/2000	0001	0.002 U	#	0.002	-
	mg/L	0884	11/16/2000	0002	0.002 U	#	0.002	-
	mg/L	0885	11/18/2000	0001	2.820	#	0.002	-
	mg/L	0886	11/17/2000	0001	0.608	#	0.002	-
	mg/L	0889	11/17/2000	0001	0.116	#	0.002	-
	mg/L	0933	11/16/2000	0001	0.010	#	0.002	-
	mg/L	0934	11/17/2000	0001	0.0028 B	#	0.002	-
	mg/L	0935	11/16/2000	0001	0.002 U	#	0.002	-
	mg/L	0936	11/16/2000	0001	0.002 U	#	0.002	-
	mg/L	0942	11/17/2000	0001	0.0058 B	#	0.002	-
Molybdenum	mg/L	0425	11/17/2000	0001	0.0059 B	#	0.0003	-
	mg/L	0426	11/18/2000	0001	0.0088 B	#	0.0003	-
	mg/L	0662	11/18/2000	0001	0.0052 B	#	0.0003	-
	mg/L	0786	11/15/2000	0001	0.0054 B	#	0.0003	-
	mg/L	0884	11/16/2000	0001	0.0071 B	#	0.0003	-
	mg/L	0884	11/16/2000	0002	0.0071 B	#	0.0003	-
	mg/L	0885	11/18/2000	0001	0.008 B	#	0.0003	-
	mg/L	0886	11/17/2000	0001	0.030	#	0.0003	-
	mg/L	0889	11/17/2000	0001	0.0328	#	0.0003	-
	mg/L	0933	11/16/2000	0001	0.007 B	#	0.0003	-
	mg/L	0934	11/17/2000	0001	0.0028 B	#	0.0003	-
	mg/L	0935	11/16/2000	0001	0.0084 B	#	0.0003	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Molybdenum	mg/L	0936	11/16/2000	0001	0.0048	B	# 0.0003	-
	mg/L	0942	11/17/2000	0001	0.006	B	# 0.0003	-
Nitrate	mg/L	0425	11/17/2000	0001	229.000		# 0.157	-
	mg/L	0426	11/18/2000	0001	135.000		# 0.0628	-
	mg/L	0662	11/18/2000	0001	5.810		# 0.0314	-
	mg/L	0786	11/15/2000	0001	324.000		# 0.157	-
	mg/L	0884	11/16/2000	0001	135.000		# 0.0628	-
	mg/L	0884	11/16/2000	0002	135.000		# 0.0628	-
	mg/L	0885	11/18/2000	0001	13.100		# 0.0314	-
	mg/L	0886	11/17/2000	0001	4410.000		# 1.57	-
	mg/L	0889	11/17/2000	0001	4800.000		# 3.14	-
	mg/L	0933	11/16/2000	0001	475.000		# 0.157	-
	mg/L	0934	11/17/2000	0001	161.000		# 0.0628	-
	mg/L	0935	11/16/2000	0001	453.000		# 0.157	-
	mg/L	0936	11/16/2000	0001	487.000		# 0.314	-
	mg/L	0942	11/17/2000	0001	215.000		# 0.157	-
ORP of Zobell Solution	mV	0425	11/17/2000	N001	249		# -	-
	mV	0426	11/18/2000	N001	259		# -	-
	mV	0662	11/18/2000	N001	257		# -	-
	mV	0786	11/15/2000	N001	259		# -	-
	mV	0884	11/16/2000	N001	243		# -	-
	mV	0885	11/18/2000	N001	257		# -	-
	mV	0886	11/17/2000	N001	242		# -	-
	mV	0889	11/17/2000	N001	242		# -	-
	mV	0933	11/16/2000	N001	241		# -	-
	mV	0934	11/17/2000	N001	241		# -	-
	mV	0935	11/16/2000	N001	251		# -	-
	mV	0936	11/16/2000	N001	241		# -	-
	mV	0942	11/17/2000	N001	253		# -	-
Oxidation Reduction Potenti	mV	0425	11/17/2000	N001	220		# -	-
	mV	0426	11/18/2000	N001	-90		# -	-
	mV	0662	11/18/2000	N001	168		# -	-
	mV	0786	11/15/2000	N001	192		# -	-
	mV	0884	11/16/2000	N001	204		# -	-
	mV	0885	11/18/2000	N001	-204		# -	-
	mV	0886	11/17/2000	N001	207		# -	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
		ID	DATE	ID		LAB	DATA	QA		
Oxidation Reduction Potenti	mV	0889	11/17/2000	N001	6			#	-	-
	mV	0933	11/16/2000	N001	202			#	-	-
	mV	0934	11/17/2000	N001	177			#	-	-
	mV	0935	11/16/2000	N001	161			#	-	-
	mV	0936	11/16/2000	N001	286			#	-	-
	mV	0942	11/17/2000	N001	218			#	-	-
pH	s.u.	0425	11/17/2000	N001	7.16			#	-	-
	s.u.	0426	11/18/2000	N001	7.31			#	-	-
	s.u.	0662	11/18/2000	N001	7.95			#	-	-
	s.u.	0786	11/15/2000	N001	7.64			#	-	-
	s.u.	0884	11/16/2000	N001	7.94			#	-	-
	s.u.	0885	11/18/2000	N001	7.34			#	-	-
	s.u.	0886	11/17/2000	N001	7.69			#	-	-
	s.u.	0889	11/17/2000	N001	7.93			#	-	-
	s.u.	0933	11/16/2000	N001	7.81			#	-	-
	s.u.	0934	11/17/2000	N001	6.95			#	-	-
	s.u.	0935	11/16/2000	N001	7.22			#	-	-
	s.u.	0936	11/16/2000	N001	7.53			#	-	-
s.u.	0942	11/17/2000	N001	7.16			#	-	-	
Polonium-210	pCi/L	0425	11/17/2000	0001	0.20	U		#	0.2	± 0.21
	pCi/L	0426	11/18/2000	0001	0.23	U		#	0.23	± 0.22
	pCi/L	0662	11/18/2000	0001	0.30	U		#	0.3	± 0.28
	pCi/L	0786	11/15/2000	0001	0	U		#	0.28	± 0.25
	pCi/L	0884	11/16/2000	0001	0.27	U		#	0.27	± 0.21
	pCi/L	0884	11/16/2000	0002	0.31	U		#	0.31	± 0.26
	pCi/L	0885	11/18/2000	0001	0.39		U	#	0.23	± 0.35
	pCi/L	0886	11/17/2000	0001	0.19	U		#	0.19	± 0.24
	pCi/L	0889	11/17/2000	0001	0.26	U		#	0.26	± 0.24
	pCi/L	0933	11/16/2000	0001	0.27	U		#	0.27	± 0.26
	pCi/L	0934	11/17/2000	0001	0.26	U		#	0.26	± 0.22
	pCi/L	0935	11/16/2000	0001	0.32	U		#	0.32	± 0.33
	pCi/L	0936	11/16/2000	0001	0.29	U		#	0.29	± 0.29
	pCi/L	0942	11/17/2000	0001	0.29	U		#	0.29	± 0.25
Potassium	mg/L	0425	11/17/2000	0001	28.200			#	0.0327	-
	mg/L	0426	11/18/2000	0001	18.000			#	0.0327	-
	mg/L	0662	11/18/2000	0001	7.890			#	0.0327	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/L	0786	11/15/2000	0001	20.400	#	0.0327	-
	mg/L	0884	11/16/2000	0001	6.080	#	0.0327	-
	mg/L	0884	11/16/2000	0002	5.850	#	0.0327	-
	mg/L	0885	11/18/2000	0001	30.400	#	0.0327	-
	mg/L	0886	11/17/2000	0001	75.300	#	0.0327	-
	mg/L	0889	11/17/2000	0001	62.100	#	0.0327	-
	mg/L	0933	11/16/2000	0001	13.800	#	0.0327	-
	mg/L	0934	11/17/2000	0001	6.020	#	0.0327	-
	mg/L	0935	11/16/2000	0001	15.200	#	0.0327	-
	mg/L	0936	11/16/2000	0001	9.630	#	0.0327	-
	mg/L	0942	11/17/2000	0001	5.690	#	0.0327	-
Radium-226	pCi/L	0425	11/17/2000	0001	0.67	#	0.2	± 0.17
	pCi/L	0426	11/18/2000	0001	0.23	#	0.17	± 0.12
	pCi/L	0662	11/18/2000	0001	0.26	#	0.16	± 0.11
	pCi/L	0786	11/15/2000	0001	0.53	#	0.18	± 0.15
	pCi/L	0884	11/16/2000	0001	0.18	U	#	0.18 ± 0.11
	pCi/L	0884	11/16/2000	0002	0.19	U	#	0.19 ± 0.11
	pCi/L	0885	11/18/2000	0001	0.54	#	0.2	± 0.16
	pCi/L	0886	11/17/2000	0001	0.31	#	0.18	± 0.13
	pCi/L	0889	11/17/2000	0001	0.22	#	0.21	± 0.14
	pCi/L	0933	11/16/2000	0001	0.18	#	0.17	± 0.11
	pCi/L	0934	11/17/2000	0001	0.16	U	#	0.16 ± 0.10
	pCi/L	0935	11/16/2000	0001	0.66	#	0.19	± 0.16
	pCi/L	0936	11/16/2000	0001	0.58	#	0.19	± 0.16
	pCi/L	0942	11/17/2000	0001	0.18	U	#	0.18 ± 0.10
Radium-228	pCi/L	0425	11/17/2000	0001	1.39	#	0.84	± 0.52
	pCi/L	0426	11/18/2000	0001	0.84	U	#	0.84 ± 0.50
	pCi/L	0662	11/18/2000	0001	0.83	U	#	0.83 ± 0.49
	pCi/L	0786	11/15/2000	0001	0.83	U	#	0.83 ± 0.50
	pCi/L	0884	11/16/2000	0001	0.86	U	#	0.86 ± 0.52
	pCi/L	0884	11/16/2000	0002	0.87	U	#	0.87 ± 0.52
	pCi/L	0885	11/18/2000	0001	0.93	U	#	0.93 ± 0.56
	pCi/L	0886	11/17/2000	0001	0.81	U	#	0.81 ± 0.49
	pCi/L	0889	11/17/2000	0001	1.73	#	0.83	± 0.53
	pCi/L	0933	11/16/2000	0001	0.85	U	#	0.85 ± 0.49
	pCi/L	0934	11/17/2000	0001	0.8	U	#	0.84 ± 0.49
	pCi/L	0935	11/16/2000	0001	0.83	U	#	0.83 ± 0.50

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Radium-228	pCi/L	0936	11/16/2000	0001	0.87	U #	0.87	± 0.52
	pCi/L	0942	11/17/2000	0001	0.82	U #	0.82	± 0.49
Selenium	mg/L	0425	11/17/2000	0001	0.0342	#	0.0025	-
	mg/L	0426	11/18/2000	0001	0.138	#	0.01	-
	mg/L	0662	11/18/2000	0001	0.010	#	0.0001	-
	mg/L	0786	11/15/2000	0001	0.156	#	0.01	-
	mg/L	0884	11/16/2000	0001	0.275	#	0.04	-
	mg/L	0884	11/16/2000	0002	0.279	#	0.04	-
	mg/L	0885	11/18/2000	0001	0.0022 B	#	0.0001	-
	mg/L	0886	11/17/2000	0001	2.150	#	4	-
	mg/L	0889	11/17/2000	0001	3.160	#	4	-
	mg/L	0933	11/16/2000	0001	0.307	#	0.04	-
	mg/L	0934	11/17/2000	0001	0.133	#	0.01	-
	mg/L	0935	11/16/2000	0001	0.274	#	0.04	-
	mg/L	0936	11/16/2000	0001	0.331	#	0.04	-
	mg/L	0942	11/17/2000	0001	0.364	#	0.04	-
Sodium	mg/L	0425	11/17/2000	0001	1020.000	#	30.2	-
	mg/L	0426	11/18/2000	0001	1320.000	#	30.2	-
	mg/L	0662	11/18/2000	0001	894.000	#	7.55	-
	mg/L	0786	11/15/2000	0001	845.000	#	7.55	-
	mg/L	0884	11/16/2000	0001	249.000	#	0.302	-
	mg/L	0884	11/16/2000	0002	239.000	#	0.302	-
	mg/L	0885	11/18/2000	0001	1550.000	#	30.2	-
	mg/L	0886	11/17/2000	0001	11200.000	#	3020	-
	mg/L	0889	11/17/2000	0001	13900.000	#	3020	-
	mg/L	0933	11/16/2000	0001	959.000	#	7.55	-
	mg/L	0934	11/17/2000	0001	215.000	#	0.302	-
	mg/L	0935	11/16/2000	0001	777.000	#	7.55	-
	mg/L	0936	11/16/2000	0001	390.000	#	0.302	-
	mg/L	0942	11/17/2000	0001	257.000	#	0.302	-
Specific Conductance	umhos/cm	0425	11/17/2000	N001	7770	#	-	-
	umhos/cm	0426	11/18/2000	N001	6890	#	-	-
	umhos/cm	0662	11/18/2000	N001	4350	#	-	-
	umhos/cm	0786	11/15/2000	N001	6910	#	-	-
	umhos/cm	0884	11/16/2000	N001	4040	#	-	-
	umhos/cm	0885	11/18/2000	N001	10000	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0886	11/17/2000	N001	38860	#	-	-
	umhos/cm	0889	11/17/2000	N001	39300	#	-	-
	umhos/cm	0933	11/16/2000	N001	5340	#	-	-
	umhos/cm	0934	11/17/2000	N001	353	#	-	-
	umhos/cm	0935	11/16/2000	N001	7140	#	-	-
	umhos/cm	0936	11/16/2000	N001	5420	#	-	-
	umhos/cm	0942	11/17/2000	N001	3920	#	-	-
Strontium	mg/L	0425	11/17/2000	0001	7.760	#	0.0001	-
	mg/L	0426	11/18/2000	0001	9.460	#	0.0001	-
	mg/L	0662	11/18/2000	0001	11.000	#	0.0004	-
	mg/L	0786	11/15/2000	0001	6.970	#	0.0001	-
	mg/L	0884	11/16/2000	0001	5.480	#	0.0001	-
	mg/L	0884	11/16/2000	0002	5.460	#	0.0001	-
	mg/L	0885	11/18/2000	0001	9.210	#	0.0001	-
	mg/L	0886	11/17/2000	0001	11.500	#	0.0004	-
	mg/L	0889	11/17/2000	0001	12.600	#	0.0004	-
	mg/L	0933	11/16/2000	0001	7.260	#	0.0001	-
	mg/L	0934	11/17/2000	0001	4.380	#	0.0001	-
	mg/L	0935	11/16/2000	0001	7.270	#	0.0001	-
	mg/L	0936	11/16/2000	0001	6.870	#	0.0001	-
	mg/L	0942	11/17/2000	0001	5.410	#	0.0001	-
Sulfate	mg/L	0425	11/17/2000	0001	4510.000	#	0.589	-
	mg/L	0426	11/18/2000	0001	4070.000	#	0.2945	-
	mg/L	0662	11/18/2000	0001	1960.000	#	0.2945	-
	mg/L	0786	11/15/2000	0001	3810.000	#	0.2945	-
	mg/L	0884	11/16/2000	0001	2050.000	#	0.2945	-
	mg/L	0884	11/16/2000	0002	2070.000	#	0.2945	-
	mg/L	0885	11/18/2000	0001	5530.000	#	0.589	-
	mg/L	0886	11/17/2000	0001	26300.000	#	2.945	-
	mg/L	0889	11/17/2000	0001	25700.000	#	2.945	-
	mg/L	0933	11/16/2000	0001	4240.000	#	0.2945	-
	mg/L	0934	11/17/2000	0001	1710.000	#	0.1178	-
	mg/L	0935	11/16/2000	0001	3710.000	#	0.2945	-
	mg/L	0936	11/16/2000	0001	2490.000	#	0.2945	-
	mg/L	0942	11/17/2000	0001	2080.000	#	0.2945	-
Temperature	C	0425	11/17/2000	N001	12.2	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION	SAMPLE:		RESULT	QUALIFIERS: DETECTION UN-		
		ID	DATE	ID		LAB DATA QA	LIMIT	CERTAINTY
Temperature	C	0426	11/18/2000	N001	12.5	#	-	-
	C	0662	11/18/2000	N001	8.3	#	-	-
	C	0786	11/15/2000	N001	3.6	#	-	-
	C	0884	11/16/2000	N001	1	#	-	-
	C	0885	11/18/2000	N001	4.6	#	-	-
	C	0886	11/17/2000	N001	5.5	#	-	-
	C	0889	11/17/2000	N001	2.4	#	-	-
	C	0933	11/16/2000	N001	1.1	#	-	-
	C	0934	11/17/2000	N001	10	#	-	-
	C	0935	11/16/2000	N001	4.1	#	-	-
	C	0936	11/16/2000	N001	2.9	#	-	-
	C	0942	11/17/2000	N001	15.5	#	-	-
Temperature of Zobell Soluti	C	0425	11/17/2000	N001	12.2	#	-	-
	C	0426	11/18/2000	N001	1.7	#	-	-
	C	0662	11/18/2000	N001	5.1	#	-	-
	C	0786	11/15/2000	N001	2.4	#	-	-
	C	0884	11/16/2000	N001	6.2	#	-	-
	C	0885	11/18/2000	N001	5.1	#	-	-
	C	0886	11/17/2000	N001	3.2	#	-	-
	C	0889	11/17/2000	N001	3.2	#	-	-
	C	0933	11/16/2000	N001	3.8	#	-	-
	C	0934	11/17/2000	N001	4.3	#	-	-
	C	0935	11/16/2000	N001	1.4	#	-	-
	C	0936	11/16/2000	N001	3.8	#	-	-
C	0942	11/17/2000	N001	10.1	#	-	-	
Total Dissolved Solids	mg/L	0425	11/17/2000	0001	8490	#	10	-
	mg/L	0426	11/18/2000	0001	7080	#	10	-
	mg/L	0662	11/18/2000	0001	3480	#	10	-
	mg/L	0786	11/15/2000	0001	7160	#	10	-
	mg/L	0884	11/16/2000	0001	3740	#	10	-
	mg/L	0884	11/16/2000	0002	3820	#	10	-
	mg/L	0885	11/18/2000	0001	9700	#	10	-
	mg/L	0886	11/17/2000	0001	49600	#	10	-
	mg/L	0889	11/17/2000	0001	47400	#	10	-
	mg/L	0933	11/16/2000	0001	8020	#	10	-
	mg/L	0934	11/17/2000	0001	3300	#	10	-
	mg/L	0935	11/16/2000	0001	6930	#	10	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Total Dissolved Solids	mg/L	0936	11/16/2000	0001	5040			#	10	-
	mg/L	0942	11/17/2000	0001	3890			#	10	-
Turbidity	NTU	0884	11/16/2000	N001	6.85			#	-	-
	NTU	0886	11/17/2000	N001	81			#	-	-
	NTU	0889	11/17/2000	N001	367			#	-	-
	NTU	0933	11/16/2000	N001	163			#	-	-
	NTU	0934	11/17/2000	N001	10.1			#	-	-
	NTU	0935	11/16/2000	N001	6.45			#	-	-
	NTU	0936	11/16/2000	N001	14.1			#	-	-
Uranium	mg/L	0425	11/17/2000	0001	0.464			#	0.0001	-
	mg/L	0426	11/18/2000	0001	0.287			#	0.0001	-
	mg/L	0662	11/18/2000	0001	0.0164			#	0.0001	-
	mg/L	0786	11/15/2000	0001	0.0442			#	0.0001	-
	mg/L	0884	11/16/2000	0001	0.0365			#	0.0001	-
	mg/L	0884	11/16/2000	0002	0.0365			#	0.0001	-
	mg/L	0885	11/18/2000	0001	1.000			#	0.0025	-
	mg/L	0886	11/17/2000	0001	0.219			#	0.0001	-
	mg/L	0889	11/17/2000	0001	0.217			#	0.0001	-
	mg/L	0933	11/16/2000	0001	0.0978			#	0.0001	-
	mg/L	0934	11/17/2000	0001	0.033			#	0.0001	-
	mg/L	0935	11/16/2000	0001	0.0644			#	0.0001	-
	mg/L	0936	11/16/2000	0001	0.049			#	0.0001	-
	mg/L	0942	11/17/2000	0001	0.0332			#	0.0001	-
Vanadium	mg/L	0425	11/17/2000	0001	0.0013 U			#	0.0013	-
	mg/L	0426	11/18/2000	0001	0.0013 U			#	0.0013	-
	mg/L	0662	11/18/2000	0001	0.0019 B	U		#	0.0013	-
	mg/L	0786	11/15/2000	0001	0.0013 U			#	0.0013	-
	mg/L	0884	11/16/2000	0001	0.0015 B	U		#	0.0013	-
	mg/L	0884	11/16/2000	0002	0.0019 B			#	0.0013	-
	mg/L	0885	11/18/2000	0001	0.143			#	0.0013	-
	mg/L	0886	11/17/2000	0001	0.0029 B			#	0.0013	-
	mg/L	0889	11/17/2000	0001	0.0013 U			#	0.0013	-
	mg/L	0933	11/16/2000	0001	0.0023 B	U		#	0.0013	-
	mg/L	0934	11/17/2000	0001	0.0013 U			#	0.0013	-
	mg/L	0935	11/16/2000	0001	0.0013 U			#	0.0013	-
	mg/L	0936	11/16/2000	0001	0.0013 U			#	0.0013	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:		DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA QA		
Vanadium	mg/L	0942	11/17/2000	0001	0.0013 U		#	0.0013	-
Zinc	mg/L	0425	11/17/2000	0001	0.0095 U		#	0.0095	-
	mg/L	0426	11/18/2000	0001	0.0125 B		#	0.0095	-
	mg/L	0662	11/18/2000	0001	0.0095 U		#	0.0095	-
	mg/L	0786	11/15/2000	0001	0.0095 U		#	0.0095	-
	mg/L	0884	11/16/2000	0001	0.0112 B		#	0.0095	-
	mg/L	0884	11/16/2000	0002	0.0095 U		#	0.0095	-
	mg/L	0885	11/18/2000	0001	0.0095 U		#	0.0095	-
	mg/L	0886	11/17/2000	0001	0.0095 U		#	0.0095	-
	mg/L	0889	11/17/2000	0001	0.0095 U		#	0.0095	-
	mg/L	0933	11/16/2000	0001	0.0095 U		#	0.0095	-
	mg/L	0934	11/17/2000	0001	0.0137 B		#	0.0095	-
	mg/L	0935	11/16/2000	0001	0.0095 U		#	0.0095	-
	mg/L	0936	11/16/2000	0001	0.0095 U		#	0.0095	-
	mg/L	0942	11/17/2000	0001	0.0161 B		#	0.0095	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
 REPORT DATE: 2/20/2001 3:11 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
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RECORDS: SELECTED FROM USEE800 WHERE site_code='SHP02' AND quality_assurance = TRUE AND (NOT (data_validation_qualifiers LIKE "R" OR data_validation_qualifiers LIKE "X") OR ISNULL(data_validation_qualifiers)) AND DATE_SAMPLED between #11/1/2000# and #11/30/2000#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- C Pesticide result confirmed by GC-MS.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- D Analyte determined in diluted sample.
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- > Result above upper detection limit.
- J Estimated

DATA QUALIFIERS:

- J Estimated value.
- G Possible grout contamination, pH > 9.
- R Unusable result.
- U Parameter analyzed for but was not detected.
- F Low flow sampling method used.
- L Less than 3 bore volumes purged prior to sampling.
- X Location is undefined.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

ANALYTE	SITE CODE	LOCATION CODE	DATE	SAMPLE ID	UNIT	RESULT	LAB QUAL	DATA VAL QUAL	DETECT LIMIT	UNCERTAINTY	SAMPLE TYPE
Ammonium	SHP02	0999	11/18/2000	0001	mg/L	0.0047	U		0.0047		E
Antimony	SHP02	0999	11/18/2000	0001	mg/L	0.00047	B	U	0.0002		E
Arsenic	SHP02	0999	11/18/2000	0001	mg/L	0.0002	U		0.0002		E
Cadmium	SHP02	0999	11/18/2000	0001	mg/L	0.0002	U		0.0002		E
Calcium	SHP02	0999	11/18/2000	0001	mg/L	0.419	B		0.0481		E
Chloride	SHP02	0999	11/18/2000	0001	mg/L	0.024	U		0.024		E
Copper	SHP02	0999	11/18/2000	0001	mg/L	0.001	U		0.001		E
Fluoride	SHP02	0999	11/18/2000	0001	mg/L	0.0125	U		0.0125		E
Gross Alpha	SHP02	0999	11/18/2000	0001	pCi/L	2.13	U		2.13	1.16	E
Gross Beta	SHP02	0999	11/18/2000	0001	pCi/L	3.79	U		3.79	2.16	E
Iron	SHP02	0999	11/18/2000	0001	mg/L	0.0117	U		0.0117		E
Magnesium	SHP02	0999	11/18/2000	0001	mg/L	0.0384	B		0.0352		E
Manganese	SHP02	0999	11/18/2000	0001	mg/L	0.002	B		0.002		E
Molybdenum	SHP02	0999	11/18/2000	0001	mg/L	0.0003	U		0.0003		E
Nitrate	SHP02	0999	11/18/2000	0001	mg/L	0.0314	U		0.0314		E
Polonium-210	SHP02	0999	11/18/2000	0001	pCi/L	0.32	U		0.32	0.32	E
Potassium	SHP02	0999	11/18/2000	0001	mg/L	0.106		U	0.0327		E
Radium-226	SHP02	0999	11/18/2000	0001	pCi/L	0.16	U		0.16	0.08	E
Radium-228	SHP02	0999	11/18/2000	0001	pCi/L	0.83	U		0.83	0.49	E
Selenium	SHP02	0999	11/18/2000	0001	mg/L	0.0001	U		0.0001		E
Sodium	SHP02	0999	11/18/2000	0001	mg/L	0.302	U		0.302		E
Strontium	SHP02	0999	11/18/2000	0001	mg/L	0.00096	B	U	0.0001		E
Sulfate	SHP02	0999	11/18/2000	0001	mg/L	0.146	B		0.0589		E
Total Dissolved Solids	SHP02	0999	11/18/2000	0001	mg/L	10	U		10		E
Uranium	SHP02	0999	11/18/2000	0001	mg/L	0.00022	B	U	0.0001		E
Vanadium	SHP02	0999	11/18/2000	0001	mg/L	0.0013	U		0.0013		E
Zinc	SHP02	0999	11/18/2000	0001	mg/L	0.0095	U		0.0095		E

SAR

Site : SHP01 SHIPROCK

Test Data Date Range : 11/1/2000 to 11/30/2000

Older Data Only Used for Baseline Data

620 Chemical Records

2484 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE UNITS	ANOMALOUS TEST DATA POINT			# OF SAMP. %NON DETE C	ALL TIME MINIMUMS		LOWER BOUND UPPER BOUND	3 MOST RECENT SAMPLING EVENTS									
			LOG DATE	SAMPLE VALUE	DELIM		ALL TIME MAXIMUMS	LOG DATE		SAMPLE VALUE	DELIM	LOG DATE	SAMPLE VALUE	DELIM	LOG DATE	SAMPLE VALUE	DELIM		
			FLAGS	UNCERTAINTY				FLAGS		UNCERTAINTY		FLAGS	UNCERTAINTY		FLAGS	UNCERTAINTY		FLAGS	UNCERTAINTY
0554	OK	6 Ca mg/L	11/17/2000	0001	65.5000 0.0481	7 0	40.000 69.100	46.200 73.300	51.0405 65.2378	7/12/2000	0001	57.0000 0.0504	2/25/1993	N001	73.3000 0	4/22/1989	0001	50.0000 0	0.01
	OK	3 Cu mg/L	11/17/2000	0001	0.0010 0.001	5 100	0.010 0.010	0.020 0.020	0.0067 0.0300	4/22/1989	0001	0.0200 0.02	10/7/1988	0001	0.0200 0	9/4/1987	0001	0.0100 0	0.02
	OK	5 K mg/L	11/17/2000	0001	2.3100 0.0327	6 0	1.500 2.460	1.700 2.590	2.4370 2.7689	7/12/2000	0001	2.5900 0.0456	4/22/1989	0001	1.5000 0	10/7/1988	0001	2.3000 0	0.01
	OK	3 Mn mg/L	11/17/2000	0001	0.0062 0.002	6 0	0.010 0.020	0.011 1.120	0.0067 1.6800	7/12/2000	0001	0.0105 0.0015	2/25/1993	N001	1.1200 0	4/22/1989	0001	0.0200 0	0.01
	OK	3 NH4 mg/L	11/17/2000	0001	0.0047 0.0047	7 85.714	0.013 0.100	0.100 0.100	0.0089 0.1500	7/12/2000	0001	0.0133 B	2/25/1993	N001	0.1000 0	4/22/1989	0001	0.1000 0	0.1
	OK	4 ORP mV	11/17/2000	N001	206.0000	1 0	37.000 37.000	37.000 37.000	18.5000 74.0000	7/12/2000	N001	37.0000	7/12/2000	N001	37.0000	7/12/2000	N001	37.0000	
	OK	6 Po-210 pCi/L	11/17/2000	0001	0.2100 0.19 0.21	6 16.667	0.000 0.000	0.310 0.310	0.0793 0.1070	7/12/2000	0001	0.3100 0.29 0.31	2/25/1993	N001	0.0000 N 0.4 0.7	4/22/1989	0001	0.0000 0.3	1
	OK	2 Ra-228 pCi/L	11/17/2000	0001	0.8800 0.52 0.88	6 16.667	0.000 0.500	0.500 0.570	0.0000 0.5700	7/12/2000	0001	0.5700 0.34 0.57	4/22/1989	0001	0.0000 0.7 1	10/7/1988	0001	0.5000 0.7 1	
	OK	6 SO4 mg/L	11/17/2000	0001	159.0000 0.0589	7 0	71.000 160.000	94.000 170.000	119.1511 152.4015	7/12/2000	0001	136.0000	2/25/1993	N001	118.0000 0	4/22/1989	0001	94.0000 0	0.1
	OK	6 TDS mg/L	11/17/2000	0001	403.0000 10	7 0	229.000 393.000	282.000 409.000	333.9138 392.0481	7/12/2000	0001	362.0000	2/25/1993	N001	335.0000 0	4/22/1989	0001	282.0000 0	10
OK	5 V mg/L	11/17/2000	0001	0.0013 0.0013	6 33.333	0.010 0.200	0.090 0.200	0.1745 0.2299	2/25/1993	N001	0.0900 0 0.01	4/22/1989	0001	0.0100 0 0.01	10/7/1988	0001	0.0100 0 0.01		
0555	OK	3 Cu mg/L	11/17/2000	0001	0.0010 0.001	6 83.333	0.003 0.040	0.010 0.040	0.0021 0.0600	7/15/2000	0001	0.0031 0.0031	4/2/1989	0001	0.0200 0	10/9/1988	0001	0.0200 0	0.02
	OK	6 Fluoride mg/L	11/17/2000	0001	0.3590 0.0125	7 0	0.190 0.302	0.220 0.316	0.2947 0.3287	7/15/2000	0001	0.3020	2/2/2000	0001	0.3160	4/2/1989	0001	0.3000 0	0.1

Error Type Flags : 2 - All time high detection limit
 3 - Too low (non-trend approach)
 4 - Too high (non-trend approach)
 5 - Too low (trend approach)
 6 - Too high (trend approach)

Flags : I - Increased detection limit due to required dilution.
 L - Less than three bore volumes removed before sampling.
 J - Estimated value.
 H - Hold time expired, value suspect.

Approved by A. Pini
 Hydrologist "OK" indicates insignificant variation

Date 2/20/01

Site : SHP01 SHIPROCK

Test Data Date Range : 11/1/2000 to 11/30/2000

Older Data Only Used for Baseline Data

620 Chemical Records

2484 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE UNITS	ANOMALOUS TEST DATA POINT			# OF SAMP. %NON DETE C	ALL TIME MINIMUMS		LOWER BOUND UPPER BOUND	3 MOST RECENT SAMPLING EVENTS								
			LOG DATE	SAMPLE	VALUE		ALL TIME MAXIMUMS	LOG DATE		SAMPLE	VALUE	LOG DATE	SAMPLE	VALUE	LOG DATE	SAMPLE	VALUE	
			FLAGS	UNCERTAINTY	DETLIM													FLAGS
0555	3 Low	Mn mg/L	11/17/2000 B	0001	0.0029 0.002	12 0	0.007 1.140	0.009 3.080	0.0048 4.6200	7/15/2000	0001	0.0135 0.0015	2/2/2000	0001	0.0115	6/4/1999	0001	0.0115
	5 OK	NH4 mg/L	11/17/2000 B	0001	0.0054	12 50	0.017 0.100	0.019 0.100	0.0098 0.0363	7/15/2000 B	0001	0.0271	2/2/2000 B	0001	0.0284	6/4/1999 B	0001	0.0335
	6 OK	Po-210 pCi/L	11/17/2000 U	0001	0.3500 0.33 0.35	11 54.545	0.000 0.390	0.050 0.570	0.0000 0.1426	7/15/2000 U	0001	0.1200 0.12	2/2/2000 U	0001	0.1000 0.1	6/4/1999 U	0001	0.2000 0.18 0.2
	6 OK	Ra-228 pCi/L	11/17/2000 U	0001	0.8600 0.51 0.86	11 63.636	0.000 1.000	0.100 1.200	0.2722 0.6162	7/15/2000 U	0001	0.9800 0.57 0.98	2/2/2000 U	0001	0.7300 0.42 0.73	6/4/1999 U	0001	0.8100 0.48 0.81
	3 OK	Zobell T C	11/17/2000	N001	2.1000	1 0	24.400 24.400	24.400 24.400	12.2000 48.8000	7/15/2000	N001	24.4000	7/15/2000	N001	24.4000	7/15/2000	N001	24.4000
	6 OK	ORP mV	11/15/2000	N001	240.0000	7 0	136.000 190.000	141.000 216.000	126.2267 216.6160	6/13/2000	N001	178.0000	2/3/2000	N001	190.0000	6/6/1999	N001	136.0000
0655	3 OK	Zn mg/L	11/15/2000 U	0001	0.0095 0.0095	1 100	0.050 0.050	0.050 0.050	0.0125 0.2000	1/11/1994 U	N001 0	0.0500 0.05	1/11/1994 U	N001 0	0.0500 0.05	1/11/1994 U	N001 0	0.0500 0.05
	3 OK	Zobell T C	11/15/2000	N001	7.6000	1 0	28.600 28.600	28.600 28.600	14.3000 57.2000	6/13/2000	N001	28.6000	6/13/2000	N001	28.6000	6/13/2000	N001	28.6000
	3 OK	As mg/L	11/17/2000 U	0001	0.0002 0.0002	5 60	0.000 0.001	0.000 0.002	0.0002 0.0035	2/2/2000 U	0001	0.0004 0.0004	6/6/1999 U	0001	0.0010 0.001	12/14/1998 B	0001	0.0023
0657	5 OK	Ca mg/L	11/17/2000	0001	204.0000 0.0481	5 0	31.300 385.000	125.000 420.000	239.5573 622.3027	2/2/2000	0001	259.0000	6/6/1999	0001	385.0000	12/14/1998	0001	420.0000
	5 OK	NH4 mg/L	11/17/2000	0001	0.1240	4 0	0.034 0.093	0.037 0.230	0.2060 0.3385	2/2/2000	0001	0.2300	6/6/1999 B	0001	0.0930	12/14/1998 B	0001	0.0367
	6 OK	ORP mV	11/17/2000	N001	216.0000	5 0	87.000 255.000	94.000 255.000	9.3899 202.9633	2/2/2000	N001	206.0000	6/6/1999	N001	87.0000	12/14/1998	N001	94.0000
	2 OK	V mg/L	11/17/2000 U	0001	0.0013 0.0013	1 100	0.001 0.001	0.001 0.001	0.0000 0.0006	6/6/1999 U	0001	0.0006 0.0006	6/6/1999 U	0001	0.0006 0.0006	6/6/1999 U	0001	0.0006 0.0006
	3 OK	As mg/L	11/17/2000 U	0001	0.0002 0.0002	5 60	0.000 0.001	0.000 0.002	0.0002 0.0035	2/2/2000 U	0001	0.0004 0.0004	6/6/1999 U	0001	0.0010 0.001	12/14/1998 B	0001	0.0023

Error Type Flags :
 2 - All time high detection limit
 3 - Too low (non-trend approach)
 4 - Too high (non-trend approach)
 5 - Too low (trend approach)
 6 - Too high (trend approach)

Flags :
 I - Increased detection limit due to required dilution.
 L - Less than three bore volumes removed before sampling.
 J - Estimated value.
 H - Hold time expired, value suspect.

Approved by A. Rice
 Hydrologist "Ok" indicates insignificant variation

Date 2/20/01

Site : SHP01 SHIPROCK

Test Data Date Range : 11/1/2000 to 11/30/2000

Older Data Only Used for Baseline Data

620 Chemical Records

2484 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE UNITS	ANOMALOUS TEST DATA POINT			# OF SAMP. %NON DETE C	ALL TIME MINIMUMS		LOWER BOUND UPPER BOUND	3 MOST RECENT SAMPLING EVENTS								
			LOG DATE	SAMPLE VALUE	VALUE		ALL TIME MAXIMUMS	LOG DATE		SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE	
			FLAGS	UNCERTAINTY	DETLIM			FLAGS		UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	
0658	6 OK	Mo mg/L	11/18/2000 B	0001 0.0003	0.0071 0.0003	5 20	0.001 0.010	0.002 0.010	0.0005 0.0060	7/16/2000 B	0001 0.0003	0.0009 0.0003	6/13/2000 B	0001 0.0003	0.0050 0.0003	2/2/2000 B	0001 0.0003	0.0058 0.0003
	6 OK	NO3 mg/L	11/18/2000	0001 0.0314	8.0200 0.0314	10 20	0.031 3.580	0.033 5.630	0.0000 2.3984	7/16/2000 U	0001 0.0628	0.0628 0.0628	6/13/2000 U	0001 0.0314	0.0314 0.0314	2/2/2000	0001	5.6300
	5 OK	ORP mV	11/18/2000	N001	-186.0000	8 0	-260.000 297.000	-230.000 297.000	0.0000 145.3137	7/16/2000	N001	-73.0000	6/13/2000	N001	-260.0000	2/2/2000	N001	200.0000
	6 OK	Se mg/L	11/18/2000	0001	0.0133 0.0001	10 50	0.000 0.005	0.001 0.012	0.0000 0.0026	7/16/2000 B	0001 0.0005	0.0005 0.0001	6/13/2000 B	0001 0.0016	0.0016 0.0001	2/2/2000	0001	0.0119
	6 OK	U mg/L	11/18/2000	0001	0.0322 0.0001	10 10	0.001 0.013	0.002 0.063	0.0000 0.0189	7/16/2000	0001	0.0063 0.0001	6/13/2000	0001	0.0134 0.0001	2/2/2000	0001	0.0632
	3 OK	Zobell T C	11/18/2000	N001	1.7000	2 0	25.000 26.000	26.000 26.000	12.5000 52.0000	7/16/2000	N001	25.0000	6/13/2000	N001	26.0000	6/13/2000	N001	26.0000
0887	6 OK	Ca mg/L	11/16/2000	0001	554.0000 1.2025	5 0	28.700 495.000	201.000 495.000	0.0000 545.7483	6/19/2000	0001	201.0000 0.0504	2/5/2000 E	0001	489.0000	6/3/1999	0001	28.7000
	6 OK	Chloride mg/L	11/16/2000	0001	153.0000 0.048	5 0	2.830 71.000	45.600 83.800	8.0933 105.4906	6/19/2000	0001	45.6000 0.048	2/5/2000	0001	83.8000	6/3/1999	0001	2.8300
	6 OK	Mg mg/L	11/16/2000	0001	322.0000 0.0352	6 0	4.830 509.000	101.000 509.000	0.0000 312.8808	6/19/2000	0001	101.0000 0.024	2/5/2000	0001	270.0000	6/3/1999	0001	4.8300
	6 OK	Na mg/L	11/16/2000	0001	478.0000 0.302	6 0	10.800 346.000	162.000 373.000	0.0000 452.1548	6/19/2000	0001	162.0000 0.434	2/5/2000	0001	373.0000	6/3/1999	0001	10.8000
	6 High	NO3 mg/L	11/16/2000	0001	322.0000 0.157	7 0	0.570 165.000	22.200 203.000	32.4848 290.3321	6/19/2000	0001	116.0000 0.0628	2/5/2000	0001	203.0000	6/3/1999	0001	0.5700
	2 OK	Po-210 pCi/L	11/16/2000	0001	0.3100 0.32 0.31	5 100	0.060 0.240	0.090 0.260	0.0000 0.2600	6/19/2000	0001	0.2600 0.26 0.26	2/5/2000	0001	0.0900 -0.07 0.09	6/3/1999	0001	0.2400 0.24 0.24
	2 OK	Ra-228 pCi/L	11/16/2000	0001	0.8900 0.52 0.89	5 100	0.580 0.660	0.630 0.850	0.0000 0.8500	6/19/2000	0001	0.6600 0.39 0.66	2/5/2000	0001	0.6500 0.38 0.65	6/3/1999	0001	0.8500 0.5 0.85

Error Type Flags : 2 - All time high detection limit
 3 - Too low (non-trend approach)
 4 - Too high (non-trend approach)
 5 - Too low (trend approach)
 6 - Too high (trend approach)

Flags : 1 - Increased detection limit due to required dilution.
 L - Less than three bore volumes removed before sampling
 J - Estimated value.
 H - Hold time expired, value suspect.

Approved by A. Price
 Hydrologist "OK" indicates insignificant variation

Date 2/20/01

Site : SHP01 SHIPROCK

Test Data Date Range : 11/1/2000 to 11/30/2000

Older Data Only Used for Baseline Data

620 Chemical Records

2484 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE UNITS	ANOMALOUS TEST DATA POINT			# OF SAMP. %NON DETE C	ALL TIME MINIMUMS		LOWER BOUND UPPER BOUND	3 MOST RECENT SAMPLING EVENTS								
			LOG DATE	SAMPLE	VALUE		ALL TIME MAXIMUMS	LOG DATE		SAMPLE	VALUE	LOG DATE	SAMPLE	VALUE	LOG DATE	SAMPLE	VALUE	
			FLAGS	UNCERTAINTY	DETLIM													FLAGS
0887	OK	Se mg/L	11/16/2000	0001	0.2150 0.04	6 33.333	0.001 0.200	0.088 0.200	0.0000 0.2096	6/19/2000	0001	0.0881 0.001	2/5/2000	0001	0.1520	6/3/1999	0001	0.0010 U 0.001
	OK	TDS mg/L	11/16/2000	0001	5270.0000 10	5 0	135.000 4460.000	1830.000 4560.000	0.0000 5152.8739	6/19/2000	0001	1830.0000 10	2/5/2000	0001	4560.0000 *	6/3/1999	0001	135.0000
	OK	V mg/L	11/16/2000	0001	0.0013 U 0.0013	1 0	0.001 0.001	0.001 0.001	0.0000 0.0009	6/3/1999	0001	0.0009 B	6/3/1999	0001	0.0009 B	6/3/1999	0001	0.0009 B
	OK	Zobell T C	11/16/2000	N001	6.2000	1 0	24.300 24.300	24.300 24.300	12.1500 48.6000	6/19/2000	N001	24.3000	6/19/2000	N001	24.3000	6/19/2000	N001	24.3000
0888	OK	Ca mg/L	11/16/2000	0001	115.0000 0.0481	5 0	30.000 92.100	57.500 92.100	18.3611 91.7829	7/13/2000	0001	57.5000 0.0504	2/4/2000	0001	80.3000 E	6/6/1999	0001	30.0000
	OK	Chloride mg/L	11/16/2000	0001	41.1000 0.024	5 0	3.040 43.000	14.300 43.000	0.0000 30.0962	7/13/2000	0001	14.3000	2/4/2000	0001	26.0000	6/6/1999	0001	3.0400
	OK	Fe mg/L	11/16/2000	0001	0.4690 0.0117	5 60	0.005 0.014	0.009 0.040	0.0034 0.0597	7/13/2000	0001	0.0091 U 0.0091	2/4/2000	0001	0.0144 U 0.0144	6/6/1999	0001	0.0398
	OK	K mg/L	11/16/2000	0001	6.4400 0.0327	5 0	1.430 6.500	2.520 6.500	0.0000 4.1930	7/13/2000	0001	2.5200 0.0456	2/4/2000	0001	3.7100	6/6/1999	0001	1.4300
	OK	Na mg/L	11/16/2000	0001	134.0000 0.302	6 0	11.400 170.000	37.300 170.000	0.0000 88.4056	7/13/2000	0001	37.3000 0.434	2/4/2000	0001	84.1000	6/6/1999	0001	11.4000
	OK	ORP mV	11/16/2000	N001	261.0000	5 0	83.000 214.000	103.000 214.000	23.6281 199.8542	7/13/2000	N001	103.0000	2/4/2000	N001	206.0000	6/6/1999	N001	83.0000
	OK	Ra-226 pCi/L	11/16/2000	0001	0.1900 U 0.11 0.19	5 100	0.100 0.140	0.130 0.140	0.0000 0.1400	7/13/2000	0001	0.1000 U 0.06 0.1	2/4/2000	0001	0.1300 U 0.08 0.13	6/6/1999	0001	0.1400 U 0.07 0.14
	OK	Ra-228 pCi/L	11/16/2000	0001	0.9500 U 0.56 0.95	5 100	0.570 0.830	0.810 0.830	0.0000 0.8300	7/13/2000	0001	0.5700 U 0.33 0.57	2/4/2000	0001	0.8200 U 0.48 0.82	6/6/1999	0001	0.8200 U 0.49 0.82
	OK	TDS mg/L	11/16/2000	0001	1080.0000 10	5 0	162.000 915.000	388.000 915.000	0.0000 732.9145	7/13/2000	0001	388.0000	2/4/2000	0001	660.0000	6/6/1999	0001	162.0000

Error Type Flags : 2 - All time high detection limit
 3 - Too low (non-trend approach)
 4 - Too high (non-trend approach)
 5 - Too low (trend approach)
 6 - Too high (trend approach)

Flags : I - Increased detection limit due to required dilution.
 L - Less than three bore volumes removed before sampling.
 J - Estimated value.
 H - Hold time expired, value suspect.

Approved by *A. Bin*
 Hydrologist "OK" indicates insignificant variation

Date 2/20/01

Site : SHP01 SHIPROCK

Test Data Date Range : 11/1/2000 to 11/30/2000

Older Data Only Used for Baseline Data

620 Chemical Records

2484 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE UNITS	ANOMALOUS TEST DATA POINT			# OF SAMP. %NON DETE C	ALL TIME MINIMUMS		LOWER BOUND UPPER BOUND	3 MOST RECENT SAMPLING EVENTS								
			LOG DATE	SAMPLE VALUE	VALUE		ALL TIME MAXIMUMS	LOG DATE		SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE	
			FLAGS	UNCERTAINTY	DETLIM			FLAGS		UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	
0888	OK	Zobell T C	11/16/2000	N001	4.6000	1	31.600	31.600	15.8000	7/13/2000	N001	31.6000	7/13/2000	N001	31.6000	7/13/2000	N001	31.6000
						0	31.600	31.600	63.2000									
0894	OK	ORP mV	11/15/2000	N001	189.0000	5	74.000	116.000	26.7988	7/14/2000	N001	74.0000	6/13/2000	N001	116.0000	2/3/2000	N001	208.0000
						0	198.000	208.000	163.5732									
	OK	Ra-226 pCi/L	11/15/2000	0001	0.1800	5	0.130	0.150	0.0000	7/14/2000	0001	0.1500	6/13/2000	0001	0.1500	2/3/2000	0001	0.1300
			U	0.09	0.18	100	0.130	0.150	0.1500	U	0.08	0.15	U	0.09	0.15	U	0.07	0.13
	OK	Zobell T C	11/15/2000	N001	7.6000	2	24.900	28.600	12.4500	7/14/2000	N001	24.9000	6/13/2000	N001	28.6000	6/13/2000	N001	28.6000
						0	28.600	28.600	57.2000									
0895	OK	ORP mV	11/15/2000	N001	230.0000	4	64.000	75.000	0.0000	7/14/2000	N001	75.0000	2/3/2000	N001	145.0000	6/5/1999	N001	64.0000
						0	214.000	214.000	150.1621									
	OK	Ra-226 pCi/L	11/15/2000	0001	0.1800	4	0.120	0.140	0.0000	7/14/2000	0001	0.1400	2/3/2000	0001	0.1400	6/5/1999	0001	0.1500
			U	0.09	0.18	100	0.140	0.150	0.1500	U	0.08	0.14	U	0.08	0.14	U	0.08	0.15
	OK	Ra-228 pCi/L	11/15/2000	0001	0.8600	4	0.720	0.820	0.0000	7/14/2000	0001	0.8200	2/3/2000	0001	0.8200	6/5/1999	0001	0.8300
			U	0.51	0.86	100	0.820	0.830	0.8300	U	0.48	0.82	U	0.48	0.82	U	0.49	0.83
	OK	Zobell T C	11/15/2000	N001	3.0000	1	24.000	24.000	12.0000	7/14/2000	N001	24.0000	7/14/2000	N001	24.0000	7/14/2000	N001	24.0000
						-0	24.000	24.000	48.0000									
0897	OK	ORP mV	11/17/2000	N001	226.0000	5	99.000	131.000	65.7774	7/11/2000	N001	131.0000	2/5/2000	N001	205.0000	6/7/1999	N001	99.0000
						0	205.000	218.000	215.5224									
	OK	Ra-226 pCi/L	11/17/2000	0001	0.1800	5	0.100	0.110	0.0000	7/11/2000	0001	0.1000	2/5/2000	0001	0.1300	6/7/1999	0001	0.1400
			U	0.1	0.18	100	0.130	0.140	0.1400	U	0.06	0.1	U	0.07	0.13	U	0.08	0.14
	OK	Ra-228 pCi/L	11/17/2000	0001	0.9000	5	0.560	0.650	0.0000	7/11/2000	0001	0.5600	2/5/2000	0001	0.8100	6/7/1999	0001	0.8000
			U	0.53	0.9	100	0.800	0.810	0.8100	U	0.33	0.56	U	0.47	0.81	U	0.48	0.8
	OK	V mg/L	11/17/2000	0001	0.0013	1	0.001	0.001	0.0000	6/7/1999	0001	0.0006	6/7/1999	0001	0.0006	6/7/1999	0001	0.0006
			U	0.0013	0.0013	100	0.001	0.001	0.0006	U	0.0006	0.0006	U	0.0006	0.0006	U	0.0006	0.0006
	OK	Zobell T C	11/17/2000	N001	3.2000	1	25.000	25.000	12.5000	7/11/2000	N001	25.0000	7/11/2000	N001	25.0000	7/11/2000	N001	25.0000
						0	25.000	25.000	50.0000									

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Flags :
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Approved by

Date 2/20/01

Hydrologist "Ok" indicates insignificant variation

Site : SHP01 SHIPROCK

Test Data Date Range : 11/1/2000 to 11/30/2000

Older Data Only Used for Baseline Data

620 Chemical Records

2484 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE UNITS	ANOMALOUS TEST DATA POINT			# OF SAMP. %NON DETE C	ALL TIME MINIMUMS		LOWER BOUND UPPER BOUND	3 MOST RECENT SAMPLING EVENTS								
			LOG DATE	SAMPLE VALUE	VALUE		ALL TIME MAXIMUMS	LOG DATE		SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE	
			FLAGS	UNCERTAINTY	DETLIM													FLAGS
0898	5 OK	NH4 mg/L	11/16/2000 U	0001 0	0.0047 0.0047	5 0	0.009 0.016	0.010 0.035	0.0049 0.0365	7/13/2000 B	0001	0.0088	2/2/2000 B	0001	0.0347	6/6/1999 B	0001	0.0162
	2 OK	Po-210 pCi/L	11/16/2000 U	0001 0.26	0.3000 0.3	5 100	0.070 0.190	0.100 0.260	0.0000 0.2600	7/13/2000 U	0001	0.1000 0.1	2/2/2000 U	0001	0.1200 0.12	6/6/1999 U	0001	0.2600 -0.22 0.26
	2 OK	Ra-226 pCi/L	11/16/2000 U	0001 0.1	0.1700 0.17	5 100	0.100 0.110	0.110 0.140	0.0000 0.1400	7/13/2000 U	0001	0.1000 0.06 0.1	2/2/2000 U	0001	0.1400 0.08 0.14	6/6/1999 U	0001	0.1400 0.08 0.14
	2 OK	Ra-228 pCi/L	11/16/2000 U	0001 0.51	0.8800 0.88	5 100	0.570 0.810	0.650 0.840	0.0000 0.8400	7/13/2000 U	0001	0.5700 0.33 0.57	2/2/2000 U	0001	0.8400 0.48 0.84	6/6/1999 U	0001	0.8100 0.48 0.81
	3 OK	Zobell T C	11/16/2000	N001	4.6000	1 0	26.600 26.600	26.600 26.600	13.3000 53.2000	7/13/2000	N001	26.6000	7/13/2000	N001	26.6000	7/13/2000	N001	26.6000
0939	6 OK	Chloride mg/L	11/16/2000	0001	64.4000 0.048	4 0	3.080 19.600	14.900 55.200	2.6701 59.5962	7/16/2000	0001	14.9000	6/19/2000	0001	19.6000 0.048	2/6/2000	0001	55.2000
	6 OK	Mn mg/L	11/16/2000	0001	1.2600 0.002	4 0	0.007 0.331	0.193 0.697	0.1138 0.8205	7/16/2000	0001	0.3310 0.0015	6/19/2000	0001	0.1930 0.0015	2/6/2000	0001	0.6970
	6 OK	Na mg/L	11/16/2000	0001	277.0000 0.302	4 0	11.400 77.400	53.700 267.000	0.0000 276.1965	7/16/2000	0001	53.7000 0.434	6/19/2000	0001	77.4000 0.434	2/6/2000	0001	267.0000
	6 OK	NO3 mg/L	11/16/2000	0001	129.0000 0.0628	5 0	0.536 242.000	1.410 242.000	0.0000 88.9599	7/16/2000	0001	1.4100	6/19/2000	0001	5.9200 0.0314	2/6/2000	0001	98.2000
	6 OK	ORP mV	11/16/2000	N001	214.0000	5 0	53.000 140.000	79.000 208.000	24.9209 196.7322	7/16/2000	N001	120.0000	6/19/2000	N001	53.0000	2/6/2000	N001	208.0000
	2 OK	Ra-226 pCi/L	11/16/2000 U	0001 0.1	0.1700 0.17	4 75	0.090 0.110	0.110 0.130	0.0000 0.1300	7/16/2000 U	0001	0.0900 0.06 0.09	6/19/2000 U	0001	0.1300 0.08 0.12	2/6/2000 U	0001	0.1300 0.08 0.13
	2 OK	Ra-228 pCi/L	11/16/2000 U	0001 0.51	0.8600 0.86	4 100	0.530 0.680	0.610 0.760	0.0000 0.7600	7/16/2000 U	0001	0.5300 0.31 0.53	6/19/2000 U	0001	0.6800 0.4 0.68	2/6/2000 U	0001	0.7600 0.44 0.76
	4 OK	Se mg/L	11/16/2000	0001	0.1800 0.04	4 25	0.001 0.016	0.007 0.114	0.0007 0.1710	7/16/2000	0001	0.0066 0.0001	6/19/2000	0001	0.0155 0.0001	2/6/2000	0001	0.1140

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Flags : I - Increased detection limit due to required dilution.
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Approved by *J. P. ...*
 Hydrologist "OK" indicates insignificant variation

Date 2/20/01

Site : SHP01 SHIPROCK

Test Data Date Range : 11/1/2000 to 11/30/2000

Older Data Only Used for Baseline Data

620 Chemical Records

2484 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE UNITS	ANOMALOUS TEST DATA POINT			# OF SAMP. %NON DETE C	ALL TIME MINIMUMS		LOWER BOUND UPPER BOUND	3 MOST RECENT SAMPLING EVENTS								
			LOG DATE	SAMPLE VALUE			ALL TIME MAXIMUMS	LOG DATE		SAMPLE VALUE	LOG DATE	SAMPLE VALUE	LOG DATE	SAMPLE VALUE				
			FLAGS	UNCERTAINTY	DETLIM			FLAGS		UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	
0939	6 OK	U mg/L	11/16/2000	0001	0.0351	5	0.000	0.004	0.0000	7/16/2000	0001	0.0043	6/19/2000	0001	0.0085	2/6/2000	0001	0.0393
					0.0001	0	0.043	0.043	0.0345			0.0001			0.0001			
0939	3 OK	Zobell T C	11/16/2000	N001	6.2000	2	17.900	26.100	8.9500	7/16/2000	N001	26.1000	6/19/2000	N001	17.9000	6/19/2000	N001	17.9000
						0	17.900	26.100	52.2000									
0940	2 OK	Ra-226 pCi/L	11/16/2000	0001	0.1700	4	0.090	0.110	0.0000	7/14/2000	0001	0.0900	6/20/2000	0001	0.1100	2/3/2000	0001	0.1600
			U	0.09	0.17	100	0.150	0.160	0.1600	U	0.06	0.09	U	0.07	0.11	U	0.09	0.16
0940	3 OK	Zobell T C	11/16/2000	N001	5.6000	2	24.500	28.700	12.2500	7/14/2000	N001	28.7000	6/20/2000	N001	24.5000	6/20/2000	N001	24.5000
						0	24.500	28.700	57.4000									
0956	2 OK	Fe mg/L	11/17/2000	0001	0.0117	2	0.009	0.009	0.0000	7/12/2000	0001	0.0091	6/16/2000	0001	0.0091	6/16/2000	0001	0.0091
			U		0.0117	100	0.009	0.009	0.0091	U		0.0091	U		0.0091	U		0.0091
	4 OK	NO3 mg/L	11/17/2000	0001	1.5300	2	0.103	0.394	0.0515	7/12/2000	0001	0.1030	6/16/2000	0001	0.3940	6/16/2000	0001	0.3940
					0.0314	0	0.394	0.394	0.7880	B			B		0.0314	B		0.0314
	2 OK	Po-210 pCi/L	11/17/2000	0001	0.2800	2	0.270	0.270	0.0000	7/12/2000	0001	0.2700	6/16/2000	0001	0.2700	6/16/2000	0001	0.2700
		U	0.28	0.28	100	0.270	0.270	0.2700	U	0.22	0.27	U	0.25	0.27	U	0.25	0.27	
0956	2 OK	Ra-226 pCi/L	11/17/2000	0001	0.1700	2	0.100	0.140	0.0000	7/12/2000	0001	0.1000	6/16/2000	0001	0.1400	6/16/2000	0001	0.1400
			U	0.09	0.17	100	0.140	0.140	0.1400	U	0.06	0.1	U	0.08	0.14	U	0.08	0.14
0956	2 OK	Ra-228 pCi/L	11/17/2000	0001	0.8100	2	0.530	0.780	0.0000	7/12/2000	0001	0.5300	6/16/2000	0001	0.7800	6/16/2000	0001	0.7800
			U	0.49	0.81	100	0.780	0.780	0.7800	U	0.31	0.53	U	0.45	0.78	U	0.45	0.78
0957	2 OK	Fe mg/L	11/16/2000	0001	0.0117	2	0.009	0.009	0.0000	7/16/2000	0001	0.0091	6/19/2000	0001	0.0091	6/19/2000	0001	0.0091
			U		0.0117	100	0.009	0.009	0.0091	U		0.0091	U		0.0091	U		0.0091
	4 OK	NO3 mg/L	11/16/2000	0001	1.4300	2	0.071	0.118	0.0354	7/16/2000	0001	0.1180	6/19/2000	0001	0.0708	6/19/2000	0001	0.0708
					0.0314	0	0.071	0.118	0.2360	B			B		0.0314	B		0.0314
0957	2 OK	Ra-226 pCi/L	11/16/2000	0001	0.1900	2	0.100	0.130	0.0000	7/16/2000	0001	0.1000	6/19/2000	0001	0.1300	6/19/2000	0001	0.1300
			U	0.1	0.19	100	0.130	0.130	0.1300	U	0.06	0.1	U	0.08	0.13	U	0.08	0.13
0957	2 OK	Ra-228 pCi/L	11/16/2000	0001	0.8800	2	0.540	0.740	0.0000	7/16/2000	0001	0.5400	6/19/2000	0001	0.7400	6/19/2000	0001	0.7400
			U	0.53	0.88	100	0.740	0.740	0.7400	U	0.31	0.54	U	0.43	0.74	U	0.43	0.74

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Approved by A. P. Pina
 Hydrologist "OK" indicates insignificant variation

Date 2/20/01

Site : SHP01 SHIPROCK

Test Data Date Range : 11/1/2000 to 11/30/2000

Older Data Only Used for Baseline Data

620 Chemical Records

2484 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE UNITS	ANOMALOUS TEST DATA POINT			# OF SAMP. %NON DETE C	ALL TIME MINIMUMS		LOWER BOUND UPPER BOUND	3 MOST RECENT SAMPLING EVENTS								
			LOG DATE	SAMPLE VALUE	VALUE		LOG DATE	SAMPLE VALUE		VALUE	LOG DATE	SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE		
			FLAGS	UNCERTAINTY	DETLIM		FLAGS	UNCERTAINTY		DETLIM	FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM		
0957	OK	Zobell T C	11/16/2000	N001	1.4000	2	17.900	26.100	8.9500	7/16/2000	N001	26.1000	6/19/2000	N001	17.9000	6/19/2000	N001	17.9000
						0	17.900	26.100	52.2000									
1201	OK	GB pCi/L	11/17/2000	0001	3.9200	3	11.600	11.620	5.8000	7/15/2000	0001	12.0200	3/14/2000	0001	11.6000	3/14/2000	N001	11.6200
			U		2.43	3.92	11.620	12.020	24.0400	UB	7.06	12.02	U	7.04	11.6	U	6.84	11.62
	OK	Mn mg/L	11/17/2000	0001	0.0035	3	0.016	0.022	0.0082	7/15/2000	0001	0.0218	3/14/2000	0001	0.0164	3/14/2000	N001	0.0745
			B		0.002	0	0.022	0.075	0.1490		0.0015							
	OK	NH4 mg/L	11/17/2000	0001	0.0047	3	0.027	0.030	0.0133	7/15/2000	0001	0.0303	3/14/2000	N001	0.0309	3/14/2000	0001	0.0265
			U		0.0047	0	0.030	0.031	0.0618	B			B			B		
	OK	Po-210 pCi/L	11/17/2000	0001	0.3400	1	0.250	0.250	0.0000	7/15/2000	0001	0.2500	7/15/2000	0001	0.2500	7/15/2000	0001	0.2500
			U		0.3	0.34	0.250	0.250	0.2500	U	0.19	0.25	U	0.19	0.25	U	0.19	0.25
	OK	Ra-226 pCi/L	11/17/2000	0001	0.1700	1	0.110	0.110	0.0000	7/15/2000	0001	0.1100	7/15/2000	0001	0.1100	7/15/2000	0001	0.1100
			U		0.1	0.17	0.110	0.110	0.1100	U	0.07	0.11	U	0.07	0.11	U	0.07	0.11
	OK	Ra-228 pCi/L	11/17/2000	0001	0.8700	1	0.820	0.820	0.0000	7/15/2000	0001	0.8200	7/15/2000	0001	0.8200	7/15/2000	0001	0.8200
			U		0.51	0.87	0.820	0.820	0.8200	U	0.48	0.82	U	0.48	0.82	U	0.48	0.82
1203	OK	NH4 mg/L	11/16/2000	0001	0.0047	3	0.015	0.030	0.0077	7/15/2000	0001	0.0303	3/14/2000	N001	0.0318	3/14/2000	0001	0.0154
			U		0.0047	0	0.030	0.032	0.0636	B			B			B		
	OK	NO3 mg/L	11/16/2000	0001	1.3100	3	0.055	0.526	0.0276	7/15/2000	0001	0.0552	3/14/2000	N001	0.5480	3/14/2000	0001	0.5260
					0.0314	0	0.526	0.548	1.0960	B			B			B		
	OK	ORP mV	11/16/2000	N001	190.0000	2	53.000	76.000	26.5000	7/15/2000	N001	76.0000	3/14/2000	N001	53.0000	3/14/2000	N001	53.0000
						0	53.000	76.000	152.0000									
	OK	Po-210 pCi/L	11/16/2000	0001	0.3200	1	0.150	0.150	0.0000	7/15/2000	0001	0.1500	7/15/2000	0001	0.1500	7/15/2000	0001	0.1500
			U		0.32	0.32	0.150	0.150	0.1500	U	0.14	0.15	U	0.14	0.15	U	0.14	0.15
	OK	Ra-226 pCi/L	11/16/2000	0001	0.1700	1	0.110	0.110	0.0000	7/15/2000	0001	0.1100	7/15/2000	0001	0.1100	7/15/2000	0001	0.1100
			U		0.09	0.17	0.110	0.110	0.1100		0.06	0.09		0.06	0.09		0.06	0.09
	OK	Ra-228 pCi/L	11/16/2000	0001	0.8400	1	0.690	0.690	0.0000	7/15/2000	0001	0.6900	7/15/2000	0001	0.6900	7/15/2000	0001	0.6900
			U		0.5	0.84	0.690	0.690	0.6900	U	0.4	0.69	U	0.4	0.69	U	0.4	0.69

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Approved by A. Rain
 Hydrologist "OK" indicates insignificant variation

Date 2/20/01

Site : SHP01 SHIPROCK

Test Data Date Range : 11/1/2000 to 11/30/2000

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620 Chemical Records

2484 History Records

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			LOG DATE	SAMPLE VALUE	VALUE		ALL TIME MAXIMUMS	LOG DATE		SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE	
			FLAGS	UNCERTAINTY	DETLIM			FLAGS		UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	FLAGS
1204	2	Fe OK mg/L	11/16/2000	0001	0.0117	1	0.009	0.009	0.0000	7/14/2000	0001	0.0091	7/14/2000	0001	0.0091	7/14/2000	0001	0.0091
			U		0.0117	100	0.009	0.009	0.0091	U	0.0091		U	0.0091	U		0.0091	
	3	GB OK pCi/L	11/16/2000	0001	3.9300	3	9.010	11.650	4.5050	7/14/2000	0001	11.9900	3/14/2000	N001	9.0100	3/14/2000	0001	11.6500
			U	2.36	3.93	100	11.650	11.990	23.9800	UB	6.84	11.99	U	5.33	9.01	U	7.15	11.65
	3	Mn OK mg/L	11/16/2000	0001	0.0032	3	0.013	0.015	0.0065	7/14/2000	0001	0.0148	3/14/2000	N001	0.0413	3/14/2000	0001	0.0130
			B		0.002	0	0.015	0.041	0.0826		0.0015							
1205	3	NH4 OK mg/L	11/16/2000	0001	0.0047	3	0.018	0.029	0.0091	7/14/2000	0001	0.0292	3/14/2000	N001	0.0318	3/14/2000	0001	0.0182
			U		0.0047	0	0.029	0.032	0.0636	B			B		B			
	2	Po-210 OK pCi/L	11/16/2000	0001	0.2600	1	0.240	0.240	0.0000	7/14/2000	0001	0.2400	7/14/2000	0001	0.2400	7/14/2000	0001	0.2400
			U	0.28	0.26	100	0.240	0.240	0.2400	U	0.26	0.24	U	0.26	0.24	U	0.26	0.24
	2	Ra-226 OK pCi/L	11/16/2000	0001	0.1700	1	0.130	0.130	0.0000	7/14/2000	0001	0.1300	7/14/2000	0001	0.1300	7/14/2000	0001	0.1300
			U	0.09	0.17	100	0.130	0.130	0.1300	U	0.08	0.13	U	0.08	0.13	U	0.08	0.13
1206	2	Fe OK mg/L	11/16/2000	0001	0.0117	1	0.009	0.009	0.0000	7/14/2000	0001	0.0091	7/14/2000	0001	0.0091	7/14/2000	0001	0.0091
			U		0.0117	100	0.009	0.009	0.0091	U	0.0091		U	0.0091	U		0.0091	
	3	Mn OK mg/L	11/16/2000	0001	0.0026	3	0.008	0.011	0.0039	7/14/2000	0001	0.0111	3/14/2000	0001	0.0078	3/14/2000	N001	0.0508
			B		0.002	0	0.011	0.051	0.1016		0.0015	B						
	2	Po-210 OK pCi/L	11/16/2000	0001	0.3300	1	0.160	0.160	0.0000	7/14/2000	0001	0.1600	7/14/2000	0001	0.1600	7/14/2000	0001	0.1600
		U	0.29	0.33	100	0.160	0.160	0.1600	U	0.12	0.16	U	0.12	0.16	U	0.12	0.16	
1206	2	Ra-226 OK pCi/L	11/16/2000	0001	0.1600	1	0.090	0.090	0.0000	7/14/2000	0001	0.0900	7/14/2000	0001	0.0900	7/14/2000	0001	0.0900
			U	0.09	0.16	100	0.090	0.090	0.0900	U	0.06	0.09	U	0.06	0.09	U	0.06	0.09
	2	Ra-228 OK pCi/L	11/16/2000	0001	0.8300	1	0.670	0.670	0.0000	7/14/2000	0001	0.6700	7/14/2000	0001	0.6700	7/14/2000	0001	0.6700
		U	0.48	0.83	100	0.670	0.670	0.6700	U	0.39	0.67	U	0.39	0.67	U	0.39	0.67	
1206	4	Fe OK mg/L	11/16/2000	0001	0.0678	1	0.009	0.009	0.0023	7/14/2000	0001	0.0091	7/14/2000	0001	0.0091	7/14/2000	0001	0.0091
					0.0117	100	0.009	0.009	0.0364	U	0.0091		U	0.0091	U		0.0091	
	2	Po-210 OK pCi/L	11/16/2000	0001	0.2100	1	0.170	0.170	0.0000	7/14/2000	0001	0.1700	7/14/2000	0001	0.1700	7/14/2000	0001	0.1700
			U	0.21	0.21	100	0.170	0.170	0.1700	U	0.16	0.17	U	0.16	0.17	U	0.16	0.17

Error Type Flags :
 2 - All time high detection limit
 3 - Too low (non-trend approach)
 4 - Too high (non-trend approach)
 5 - Too low (trend approach)
 6 - Too high (trend approach)

Flags :
 1 - Increased detection limit due to required dilution.
 L - Less than three bore volumes removed before sampling.
 J - Estimated value.
 H - Hold time expired, value suspect.

Approved by *A. P. [Signature]*
 Hydrologist "OK" indicates insignificant variation

Date 2/20/01

Site : SHP01 SHIPROCK

Test Data Date Range : 11/1/2000 to 11/30/2000

Older Data Only Used for Baseline Data

620 Chemical Records

2484 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE UNITS	ANOMALOUS TEST DATA POINT			# OF SAMP. %NON DETE C	ALL TIME MINIMUMS		LOWER BOUND UPPER BOUND	3 MOST RECENT SAMPLING EVENTS									
			LOG DATE	SAMPLE VALUE	VALUE		ALL TIME MAXIMUMS	LOG DATE		SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE	LOG DATE	SAMPLE VALUE	VALUE		
			FLAGS	UNCERTAINTY	DETLIM			FLAGS		UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM		
1206	OK	Ra-226	11/16/2000	0001	0.1900	1	0.090	0.090	0.0000	7/14/2000	0001	0.0900	7/14/2000	0001	0.0900	7/14/2000	0001	0.0900	
		pCi/L	U	0.1	0.19	100	0.090	0.090	0.0900	U	0.06	0.09	U	0.06	0.09	U	0.06	0.09	
OK	2	Ra-228	11/16/2000	0001	0.8800	1	0.670	0.670	0.0000	7/14/2000	0001	0.6700	7/14/2000	0001	0.6700	7/14/2000	0001	0.6700	
		pCi/L	U	0.53	0.88	100	0.670	0.670	0.6700	U	0.39	0.67	U	0.39	0.67	U	0.39	0.67	
1210	OK	Fe	11/16/2000	0001	0.0117	1	0.009	0.009	0.0000	7/16/2000	0001	0.0091	7/16/2000	0001	0.0091	7/16/2000	0001	0.0091	
		mg/L	U		0.0117	100	0.009	0.009	0.0091	U		0.0091	U		0.0091	U		0.0091	
	OK	3	GB	11/16/2000	0001	3.9200	3	9.000	11.630	4.5000	7/16/2000	0001	11.9900	3/14/2000	N001	9.0000	3/14/2000	0001	11.6300
			pCi/L	U	2.41	3.92	100	11.630	11.990	23.9800	U	6.94	11.99	U	5.49	9	U	6.65	11.63
	OK	3	Mn	11/16/2000	0001	0.0053	3	0.016	0.019	0.0079	7/16/2000	0001	0.0158	3/14/2000	0001	0.0191	3/14/2000	N001	0.0637
			mg/L	B		0.002	0	0.019	0.064	0.1274			0.0015						
	OK	3	NH4	11/16/2000	0001	0.0047	3	0.013	0.027	0.0063	7/16/2000	0001	0.0126	3/14/2000	0001	0.0265	3/14/2000	N001	0.0373
			mg/L	U		0.0047	0	0.027	0.037	0.0746	B			B			B		
OK	2	Ra-226	11/16/2000	0001	0.1800	1	0.090	0.090	0.0000	7/16/2000	0001	0.0900	7/16/2000	0001	0.0900	7/16/2000	0001	0.0900	
		pCi/L	U	0.1	0.18	100	0.090	0.090	0.0900	U	0.06	0.09	U	0.06	0.09	U	0.06	0.09	
OK	2	Ra-228	11/16/2000	0001	0.8500	1	0.530	0.530	0.0000	7/16/2000	0001	0.5300	7/16/2000	0001	0.5300	7/16/2000	0001	0.5300	
		pCi/L	U	0.51	0.85	100	0.530	0.530	0.5300	U	0.31	0.53	U	0.31	0.53	U	0.31	0.53	
OK	3	Zobell T	11/16/2000	N001	1.4000	2	14.700	30.300	7.3500	7/16/2000	N001	30.3000	3/14/2000	N001	14.7000	3/14/2000	N001	14.7000	
		C				0	14.700	30.300	60.6000										

Error Type Flags : 2 - All time high detection limit
 3 - Too low (non-trend approach)
 4 - Too high (non-trend approach)
 5 - Too low (trend approach)
 6 - Too high (trend approach)

Flags : I - Increased detection limit due to required dilution.
 L - Less than three bore volumes removed before sampling.
 J - Estimated value.
 H - Hold time expired, value suspect.

Approved by J. P. [Signature]
 Hydrologist "OK" indicates insignificant variation

Date 2/20/01

**MIN / MAX
TABLE**

Shiprock Tailings Area UGW November 2000 Data Validation Minimums and Maximums

SITE_	LOCATION_CODE	SDATE	ANALYTE	RESULT	LAB_Q	DATA_	MAXIMUM	MAX_L	MAX_D	MINIMUM	MIN_L	MIN_D	N	N_BELOW_DE
SHP02	0425	11/17/00	Gross Beta	182.32			160			109.68			10	0
SHP02	0425	11/17/00	Selenium	.0342			.2			.037	NW*		13	0
SHP02	0426	11/18/00	Chloride	125			369			135			12	0
SHP02	0426	11/18/00	Gross Alpha	146.6			470			168.8			10	0
SHP02	0426	11/18/00	Gross Beta	85.46			239			103.4			10	0
SHP02	0426	11/18/00	Radium-226	.23			1.5			.36			11	0
SHP02	0426	11/18/00	Uranium	.287			.773			.317			12	0
SHP02	0662	11/18/00	Manganese	.0361			.0223			.0014	B		12	4
SHP02	0662	11/18/00	Sodium	894			872			305			11	0
SHP02	0786	11/15/00	Nitrate	324			323			43.4			4	0
SHP02	0884	11/16/00	Ammonium	.0047	U		3.2			.0223	B		6	0
SHP02	0884	11/16/00	Ammonium	.0047	U		3.2			.0223	B		6	0
SHP02	0884	11/16/00	Calcium	544			543			492	E	J	5	0
SHP02	0884	11/16/00	Chloride	49.3			43.9			33.2			5	0
SHP02	0884	11/16/00	Chloride	48.9			43.9			33.2			5	0
SHP02	0884	11/16/00	Gross Beta	23.7	U		39.8			25.53			5	3
SHP02	0884	11/16/00	Gross Beta	23.75	U		39.8			25.53			5	3
SHP02	0884	11/16/00	Iron	.0389			.0144	U		.005	U		5	5
SHP02	0884	11/16/00	Iron	.0258	B		.0144	U		.005	U		5	5
SHP02	0884	11/16/00	Magnesium	194			189			158			5	0
SHP02	0884	11/16/00	Nitrate	135			93			28			6	0
SHP02	0884	11/16/00	Nitrate	135			93			28			6	0
SHP02	0884	11/16/00	Selenium	.275			.198			.131			5	0
SHP02	0884	11/16/00	Selenium	.279			.198			.131			5	0
SHP02	0884	11/16/00	Sodium	249			247			181			5	0
SHP02	0884	11/16/00	Specific Conductance	4040			4000			3490			5	0
SHP02	0885	11/18/00	Ammonium	10.1			.378			.0596	B		5	1
SHP02	0885	11/18/00	Antimony	.0017	B	U	.001	B	U	.00071	B	U	4	4
SHP02	0885	11/18/00	Arsenic	.0144			.001	UN	J	.0004	U		4	2
SHP02	0885	11/18/00	Iron	.341			.0591		U	.0059	U		4	4
SHP02	0885	11/18/00	Magnesium	700			554			495			4	0
SHP02	0885	11/18/00	Manganese	2.82			.0568			.0264			4	0
SHP02	0885	11/18/00	Nitrate	13.1			284			34.7			5	0
SHP02	0885	11/18/00	Polonium-210	.39		U	.32	U		.08		U	4	4
SHP02	0885	11/18/00	Potassium	30.4			26.1	E	J	20			4	0
SHP02	0885	11/18/00	Selenium	.0022	B		.119			.01			4	0
SHP02	0885	11/18/00	Sodium	1550			1340			1160			4	0
SHP02	0885	11/18/00	Specific Conductance	10000			9080			7690			5	0
SHP02	0885	11/18/00	Total Dissolved Solids	9700			9640		J	8570			4	0
SHP02	0885	11/18/00	Uranium	1			2.05			1.046			5	0
SHP02	0886	11/17/00	Iron	.0496		U	.0255	B		.003	U		6	4
SHP02	0886	11/17/00	Manganese	.608			.129			.0022	B		6	0
SHP02	0889	11/17/00	Iron	.16			.0436		U	.005	U		6	5
SHP02	0889	11/17/00	Manganese	.116			.0327			.005	B		6	0
SHP02	0889	11/17/00	Molybdenum	.0328			.0772			.0341			4	0
SHP02	0889	11/17/00	Specific Conductance	39300			35800			26000			8	0
SHP02	0933	11/16/00	Ammonium	.0415	B		1	U		.0713	B		5	1
SHP02	0933	11/16/00	Calcium	442			520			449	E	J	4	0
SHP02	0933	11/16/00	Chloride	255			240			165			4	0
SHP02	0933	11/16/00	Gross Alpha	111.54			91.56			51.56	U		4	3
SHP02	0933	11/16/00	Radium-228	.85	U		.84	U		.62	U		4	4

Shiprock Tailings Area UGW November 2000 Data Validation Minimums and Maximums

SITE_	LOCATION_CODE	SDATE	ANALYTE	RESULT	LAB_Q	DATA_	MAXIMUM	MAX_L	MAX_D	MINIMUM	MIN_L	MIN_D	N	N_BELOW	DE
SHP02	0933	11/16/00	Selenium	.307			.274			.203				4	0
SHP02	0933	11/16/00	Sodium	959			949			656				4	0
SHP02	0933	11/16/00	Specific Conductance	5340			8860			6190				6	0
SHP02	0933	11/16/00	Uranium	.0978			.0965			.068				6	0
SHP02	0934	11/17/00	Ammonium	.0173 B			.397			.0425 BN	J			4	0
SHP02	0934	11/17/00	Calcium	482			461 E	J		404				4	0
SHP02	0934	11/17/00	Chloride	54.2			41.8			27.6				4	0
SHP02	0934	11/17/00	Magnesium	146			132			117				4	0
SHP02	0934	11/17/00	Manganese	.0028 B			.0256			.0049 B				4	0
SHP02	0934	11/17/00	Nitrate	161			106			28.6				5	0
SHP02	0934	11/17/00	Selenium	.133			.103			.067				4	0
SHP02	0934	11/17/00	Sodium	215			188			151				4	0
SHP02	0934	11/17/00	Specific Conductance	353			3150			2520				5	0
SHP02	0934	11/17/00	Total Dissolved Solids	3300			3080			2570				4	0
SHP02	0935	11/16/00	Manganese	.002 U			.065			.0021 B				4	0
SHP02	0935	11/16/00	Molybdenum	.0084 B			.0197			.0107				4	0
SHP02	0935	11/16/00	Potassium	15.2			23			15.3				4	0
SHP02	0935	11/16/00	Radium-226	.66			.93			.68				4	0
SHP02	0935	11/16/00	Radium-228	.83 U			.82 U			.53 U				4	4
SHP02	0935	11/16/00	Specific Conductance	7140			6500			5580				5	0
SHP02	0936	11/16/00	Ammonium	.0119 B			.0459 B			.0266 B				4	0
SHP02	0936	11/16/00	Calcium	556			526			470 E	J			4	0
SHP02	0936	11/16/00	Chloride	147			89.9			55.6				4	0
SHP02	0936	11/16/00	Magnesium	298			286			237				4	0
SHP02	0936	11/16/00	Molybdenum	.0048 B			.008 B			.0062 B				4	0
SHP02	0936	11/16/00	Nitrate	487			237			90.2				5	0
SHP02	0936	11/16/00	Radium-226	.58			.57			.31				4	0
SHP02	0936	11/16/00	Radium-228	.87 U			.83 U			.65 U				4	4
SHP02	0936	11/16/00	Selenium	.331			.262			.167				4	0
SHP02	0936	11/16/00	Sodium	390			384			300				4	0
SHP02	0936	11/16/00	Specific Conductance	5420			4598			4070				4	0
SHP02	0936	11/16/00	Total Dissolved Solids	5040			4860			4140				4	0
SHP02	0942	11/17/00	Antimony	.00069 B	U		.00049 B	U		.0003 B	U			4	4
SHP02	0942	11/17/00	Calcium	556			533			461				4	0
SHP02	0942	11/17/00	Chloride	66.6			61.3			41.1				4	0
SHP02	0942	11/17/00	Iron	.0221 B			.0144 U			.0059 U				4	4
SHP02	0942	11/17/00	Nitrate	215			185			34.7				5	0
SHP02	0942	11/17/00	Selenium	.364			.34			.156				4	0
SHP02	0942	11/17/00	Specific Conductance	3920			3730			1890 S				5	0
SHP02	0942	11/17/00	Total Dissolved Solids	3890			3810	J		3540 *	J			4	0

91 rows selected.

DATA REVIEW CHECKSHEET

ANOMALOUS DATA REVIEW CHECKSHEET

SITE: Shp 02 SAMPLING DATA: November, 2000

REVIEWER(s): JEFF PRICE J.E. Price 2/22/01
NAME (print) SIGNATURE DATE

SITE HYDROLOGIST: Mark Kantzky Mark Kantzky 3-12-01
NAME (print) SIGNATURE DATE

DATE OF REVIEW: 2/22/01

LOC. NO.	ANALYTE	TYPE OF ANOMALY	DISPOSITION
662	Mn	high	Compare to next round ↓
884	NH ₄	low	
884	Fe	high	
885	NH ₄	high	
885	NO ₃	high	
886	Mn	high	
889	Fe	high	
* - 889	Mn	high	
934	NO ₃	high	
934	Spec. Conductance	low	
936	NO ₃	high	
 	 	 	
 	 	 	
 	 	 	
 	 	 	
 	 	 	
 	 	 	
 	 	 	

* - This was an anomaly in July 2000 also.

**SAMPLING WORK ORDER AND
TRIP REPORT**

MEMO TO: Sam Marutzky
FROM: David Traub
DATE: December 13, 2000
SUBJECT: Trip Report – Shiprock: UMTRA Ground Water

Dates of Sampling Event: November 13 through November 18, 2000

Team Members: Dave Traub, Joe Trevino, and Dan Sellers

General: This sampling event was to sample surface water samples at the Shiprock site. Data loggers were also downloaded this trip.

Number of Locations Sampled: Thirty-four locations were sampled during this event. Data loggers were downloaded at seventeen wells. Two data loggers were installed in wells and one data logger was removed from a well that had been vandalized.

Locations Not Sampled: Locations 947 and 948 were inadvertently missed.

Location Specific Information: Samples were collected using a battery powered peristaltic pump or an AC powered peristaltic pump. All of the locations had enough water to collect all analytes. The seep at location 786 was sampled over two days as it took about two hours to accumulate one gallon of fluid. This is the first event that seeps 885, 886, and 889 were sampled in their current configuration of 4-inch PVC pipes set in the boulder filled stream channels. The location where surface water sample 1201 was collected is actually closer to the mapped location of 1202. This is also true of the last sampling event when 1201 was sampled. In July, when 1201 was sampled previously, the sample was collected about 90 feet to the north due to the extreme low river level. The original stake at location 1201 was finally spotted from the opposite riverbank when flagging was set adjacent to well 732 so we could locate landmarks. There is no access to the original 1201 location due to undergrowth and the river.

About one day was spent this trip cutting and clearing vegetation to create access to locations 1203, 1204, and near well 735 which allowed access to location 1201.

Data Loggers: The data logger was replaced and restarted in well 728 with a new MiniTroll datalogger. The Geoguard data logger in well 602 was replaced with a Troll 4000 data logger. The Geoguard logger was operating and downloaded but was replaced as these units are failing rapidly and cannot be restarted in the year 2000. The data logger in well 845 was removed as this well was destroyed. The data logger was indicating incorrect battery levels and may need to be sent to the manufacturer for repairs.

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Quality Control Sample Cross Reference: Two sample duplicates were collected: location 1000 (NDM 094) was collected at location 1205. The equipment blank, location 1001 (NDJ 880), was collected through the water sampling Tygon tubing and peristaltic pump after sampling and decontamination at location 662. Another surface water sample duplicate, location 500, (NDK 890) was collected at location 884.

Water Level Measurements: Water level measurements were completed only on the wells where data loggers were downloaded.

Well Inspection Summary: All wells were in good condition except well 845. The square steel protective casing and the concrete pad had been completely pulled over leaving the 2 inch PVC well casing bent and exposed. I was able to retrieve the data logger by cutting the PVC off at ground level. The data logger was downloaded and it looks as if the well was destroyed on October 4. The data logger is reading incorrect battery voltage and may need to be returned to the manufacturer for repair. A J-plug was installed at ground level in the well and the plug covered with soil. This well could be converted to a flush mount well easily if so desired.

Requisition Numbers: All locations were sampled for the UMTRA Ground Water Project. The requisition number is 17216. Samples were delivered to the laboratory on November 20, 2000. All samples were received in good condition.

Equipment: No problems.

Regulatory Issues: None

Site Issues: None

Sample ID Numbers:

Sample ID	Location	Comment	Sample ID	Location	Comment
NDM 087	655		NDJ 881	662	
NDM 088	894		NDJ 882	885	
NDM 089	786		NDK 879	895	
NDM 090	1206		NDK 880	957	
NDM 091	940		NDK 881	935	
NDM 092	1205		NDK 882	1210	
NDM 093	1204		NDK 883	936	
NDM 094	1000	Sample Dup. at Loc. 1205	NDK 884	933	
NDM 095	1203		NDK 885	888	
NDM 096	555		NDK 886	898	
NDM 097	1201		NDK 887	939	
NDM 098	942		NDK 888	887	
NDM 099	554		NDK 889	884	
NDM 100	956		NDK 890	500	Sample Dup. at Loc. 884
NDJ 876	425		NDK 891	934	
NDJ 877	657		NDK 892	889	
NDJ 878	658		NDK 893	VOID	
NDJ 879	426		NDK 894	886	
NDJ 880	1001	Equip. Blank	NDK 895	897	

Notes for Next Sampling Event: None

DT/lcg

Distribution:

cc: C. Bahrke
C. Goodknight
D. Metzler
K. Miller
Project Record File GWSHP 14.12 thru P. Taylor

CONTRACT NO.: DE-AC13-96GJ87335
 TASK ORDER NO.: MAC00-05
 CONTROL NO.: 3100-T00-0961

September 20, 2000

Project/Technical Manager
 Department of Energy
 Grand Junction Office
 2597 B3/4 Road
 Grand Junction, CO 81503
 ATTN: Donald Metzler

SUBJECT: Contract No. DE-AC13-96GJ87335—October 2000 UMTRA Ground Water
 Sampling at Shiprock, New Mexico

Dear Mr. Metzler:

Attached are the map and tables specifying the sampling locations and analytes for routine monitoring at the Shiprock, New Mexico, UMTRA site. Water quality data will be collected from surface locations at this site as part of the routine UMTRA Ground Water sampling which is scheduled to begin the week of October 16, 2000.

This sampling event includes the 20 locations, which were scheduled to be sampled quarterly because their analyses from the February 2000 sampling exceeded benchmark values. For those locations, this will be the fourth and final sampling event. Also included in this sampling event are 16 locations along the San Juan and Chaco rivers that have been sampled earlier this year for ecological risk evaluation purposes.

The following list shows the Ground Water Project surface water locations that will be sampled during this sampling event.

Surface Water (filtered)

SHP01

554	658	895	939	948	1201	1205
555	887	897	940	956	1203	1206
655	888	898	947	957	1204	1210
657	894					

SHP02

425	662	884	886	933	935	942
426	786	885	889	934	936	

Data loggers will be downloaded from the following locations:

602	730	827	836	843	846	857
617	731	830	837	845	848	899
728	826	835	841			

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2597 B 3/4 ROAD
 GRAND JUNCTION, COLORADO 81503
 970/248-6000 (FAX) 970/248-6040

Donald Metzler
September 20, 2000
Page 2
Control No.: 3100-T00-0961

QA/QC samples will be collected as directed in the *Sampling and Analysis Plan for the UMTRA Ground Water Project*. Samples collected for alkalinity will be filtered and unfiltered. Access agreements are being reviewed and are expected to be completed by the beginning of fieldwork.

If you have any questions, please call me at extension 6059 or Dave Traub at extension 6557.

Sincerely,

A handwritten signature in black ink, appearing to read "Sam Marutzky". The signature is fluid and cursive, with a large initial "S" and "M".

Sam Marutzky
Project Manager

SM/lcg/ld
Attachments

cc w/o att: K. Miller
D. Traub
Contract File (J. Dearborn)
cc w/att: C. Bahrke
C. Goodknight
R. Chessmore
Project Record File GWSHP 14.06 thru P. Taylor

**Sampling Frequencies for Locations at
Shiprock, New Mexico**

Location	Quarterly	Semi-annually	Annually	Biennially	Not Sampled	Notes
Surface Water/Sediment Locations						
SHP01						
554	X					
555	X					
655	X					Drainage channel
656		X				Sample if enough water
657	X					Outflow ditch from wetland
658	X					Wetland
887	X					Distributary channel
888	X					
894	X					San Juan River
895	X					
897	X					
898	X					
939	X					Distributary channel
940	X					Just NE of 854, San Juan River
947	X					
948	X					
956	X					San Juan River at intake
957	X					San Juan River about 1500' below dist. Channel
1201	X					
1203	X					
1204	X					
1205	X					
1206	X					
1210	X					
SHP02						
425	X					Escarpment Seep
426	X					Escarpment Seep
662	X					Lower Bob Lee Wash
786	X					Seep below US Hwy 666 bridge
884	X					Irrigation return flow
885	X					Upper Bob Lee Wash
886	X					Many Devils Wash
889	X					Many Devils Wash
933	X					1st wash W of Highway 666
934	X					2nd wash W of Highway 666
935	X					Seep near 1st wash
936	X					Seep between 1st & 2nd washes
942	X					Pond NW of 847
958		X				Helium lateral canal where water comes into canal at pump station

**Constituent Sampling Breakdown
For Individual UMTRA Sites**

Site	Shiprock	
	Ground Water	Surface Water
Analyte		
Approx. No. Samples/yr	160	88
<i>Field Measurements</i>	<i>GW</i>	<i>GW</i>
Alkalinity	X	X
Dissolved Oxygen	X	X
Redox Potential	X	X
pH	X	X
Specific Conductance	X	X
Turbidity	X	
Temperature	X	X
<i>Laboratory Measurements</i>	<i>GW</i>	<i>GW</i>
Aluminum		
Ammonium	X	X
Antimony	X	X
Arsenic	X	X
Barium		
Beryllium		
Bromide		
Cadmium	X	X
Calcium	X	X
Chloride	X	X
Chromium		
Cobalt		
Copper		X
Fluoride	X	X
Gamma Spec		
Gross Alpha	X	X
Gross Beta		
Iron	X	X
Lead		
Lead-210		
Magnesium	X	X
Manganese	X	X
Molybdenum	X	X

**Constituent Sampling Breakdown
For Individual UMTRA Sites**

Site	Shiprock	
	Ground Water	Surface Water
<i>Laboratory Measurements (Continued)</i>	GW	GW
Nickel		
Nickel-63		
Nitrate	X	X
Organics		
PCBs		
Phosphate		
Polonium-210	X	X
Potassium	X	X
Radium-226	X	X
Radium-228	X	X
Selenium	X	X
Silica		
Sodium	X	X
Strontium	X	X
Sulfate	X	X
Sulfide		
Thallium		
Thorium-230		
Thorium-232		
Tin		
Total Dissolved Solids	X	X
Total Organic Carbon		
Tritium		
Uranium	X	X
Vanadium		X
Zinc		X
Total Analytes	23	26

Note: All samples are considered filtered unless stated otherwise. All private well samples are to be unfiltered. The total number of analytes does not include field parameters.

* The left number represents Ground Water Project samples and the right number represents LTSM Project samples.