UMTRA GROUND WATER PROJECT

DATA VALIDATION FOR THE SHIPROCK, NEW MEXICO UMTRA SITE

February 1998
Water Sampling

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

SHIPROCK, NEW MEXICO
Sampled February 1998

DATA PACKAGE CONTENTS

This data package includes the following information:

Item No.	Description of Contents
1.	**Site Sampling Lead/ Site Hydrologist Summary**
2.	**Data Package Assessment,** which includes the following: a. Field procedures verification checklist b. 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.	**Suspected Anomalies Reports** (SAR), which is generated by the UMTRA database system. This report compares the new data set with historical data and designates "suspected anomalies" based on the many criteria listed as footnotes on each page. In aggregate, these criteria cause the suspected anomaly program to be very conservative; many of the data shown in the tables are not, in the evaluators judgment; truly anomalies, but merely natural variations in data or routine changes in laboratory detection limits. The designation "OK" affirms the judgment that the particular entry is not an anomaly and, therefore, requires no further inquiry.
4.	**Anomalous Data Review Checksheet** which lists data that merits explanation or follow-up action. The "Disposition" column of this report describes the evaluators judgments on the listed potential anomalies.
5.	**UMTRA Database Printouts** of analytical data organized as follows: a. Ground Water Quality Data (included on disk) b. Surface Water Data (included on disk) c. Field QC Sample Data (included on disk) d. Static Ground Water Level Measurement Data
6.	**Sampling and Analysis Work Order and Trip Report.**

Site Hydrologist Summary

Site: Shiprock

Sampling Period: February 1998

SUMMARY CRITERIA

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

   There were no domestic wells sampled during this sampling 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?**

   There is no indication of unexpected movement of contaminated ground water; however, previous ground water sampling at the Shiprock site has indicated that contamination has been present in both the terrace ground water and alluvial aquifer systems since samples were first collected in 1982. Assessment of the rate of contaminated ground water movement will be made in conjunction with a field investigation at the Shiprock site in the near future.

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?**

   There are not enough historical data points (less than 10) from upstream locations to make a valid statistical comparison between upstream and downstream water quality.

Site Hydrologist Summary (continued)

Wells with sample concentrations that exceeded UMTRA ground water standards are listed in Table 1.

Table 1. Shiprock Wells where UMTRA Standards were Exceeded in February 1998.

Analyte	Standard (mg/L)[1]	Wells Exceeding Standards (Concentration[1])
Cadmium	0.01	603 (0.0221), 730 (0.0466)
Gross Alpha[2]	15	600 (366.15), 602 (356.38), 604 (110.78), 726 (92.57), 727 (53.92), 728 (107.62), 731 (40.55), 614 (116.98), 615 (150.83), 617 (35.42), 620 (44.71), 733 (16.08), 734 (64.81), 736 (130.00), MW-1 (56.52)
Nitrate	44.27	600 (493), 602 (56.1), 603 (4,190), 604 (2,610), 725 (191), 726 (76.7), 727 (2,010), 728 (4,170), 730 (407), 731 (791), 608 (2,350), 610 (2,880), 614 (3,750), 615 (2,250), 617 (595), 619 (389), 620 (155), 624 (368), 630 (126), 734 (161), 735 (1,790)
Radium-226 +228	5	600 (5.54), 727 (8.22), 728 (15.5)
Selenium	0.01	603 (0.353), 604 (0.119), 725 (0.0446), 728 (0.0365), 730 (0.0175), 731 (0.300), 610 (0.0268), 614 (0.0917), 615 (0.864), 616 (0.0214), 617 (0.0430), 619 (0.345), 620 (0.327), 624 (0.186), 626 (0.0296), 628 (0.0308), 630 (0.164), 734 (0.150), 735 (0.0954)
Uranium	0.044	600 (1.25), 602 (0.653), 604 (0.060), 725 (0.325), 727 (0.402), 728 (0.579), 731 (0.0477), 608 (2.02), 610 (1.79), 614 (2.46), 615 (1.91), 616 (0.422), 617 (0.533), 619 (1.80), 620 (1.27), 624 (1.61), 626 (0.152), 630 (0.340), 734 (0.139), 735 (0.160), 736 (0.746)

[1] Units are in mg/L for inorganic analytes and pCi/L for radiological analytes.
[2] Uranium activities were subtracted from the gross alpha results in order to compare to the standard, which excludes uranium and radon.

Craig Goodknight — 4/14/98

Craig Goodknight
Project Manager

Date

Mark Kautsky — 4-14-98

Mark Kautsky
Site Hydrologist

Date

DATA ASSESSMENT

UGW Water Sampling Field Activities Verification Checklist

Project Shiprock

Date(s) of Ground Water Sampling 2-2-98 to 2-4-98

Date(s) of Verification 3-24-98

Name of Verifier Sam Campbell

	Response (Yes, No, N/A)	Comments
1. Is the SAP the primary document directing field procedures?	Yes	
List other documents, SOPs, Instructions.		Work Order memo 1-26-98
2. Were the sampling locations specified in the planning documents sampled?	No	well 612 was obstructed.
3. Was field equipment calibrated as specified in the above named documents?	Yes	
Were the number and types (alkalinity, temperature, conductivity pH, turbidity, DO, Eh) of field measurements taken as specified?	Yes	
Were the standard solutions used for the calibration and operational checks of the field instruments brought to within 10°C of the temperature of the water to be sampled?	Yes	except for 658, 735
Was the calibration information recorded on the field data sheets?	Yes	
4. Was a duplicate alkalinity measurement conducted on a frequency of one duplicate per 20 samples?	No	2 dups for 41 samples
5. Was depth to water measured before purging?	Yes	
Was this information used to calculate the purge volume?	Yes	
6. If conventional purging was used, were the wells purged until parameters stabilized and 3 casing volumes were removed or until the well was purged dry?	No	No conductivity stabilization on 725, no turbidity stabilization on wells 619, 728 and 733
7. If low-flow purging was used, was the purge rate less than 0.125 gal/min, and was the drawdown less than 0.3 feet?	NA	

8. Were duplicates taken at a frequency of one per 20 samples?	No	2 dups for 41 samples.
9. Were equipment blanks taken at a frequency of one per 20 samples that were collected with nondedicated equipment?	No	2 equip blanks for 41 samples
10. Were trip blanks prepared and included with each shipment of VOC samples?	NA	
11. Were QC samples assigned a fictitious site identification number?	Yes	
Was the true identity of the samples recorded in the field notes?	Yes	
12. Were samples collected in the containers specified?	Yes	
Were certified pre-cleaned containers used for the sampling?	Yes	
13. Were samples filtered and preserved as specified?	Yes	Work order specified unfiltered surface water samples, however, samples were filtered per direction from the site hydrologist
14. Were the number and types of samples collected as specified?	Yes	Ammonium was added as directed by the site hydrologist.
15. Were chain of custody records completed and was sample custody maintained?	Yes	
16. Were sample ticket book numbers recorded in the field notebook, on field data forms, and on the chain of custody?	Yes	Logbook not used during this sampling event
17. Are field notebooks and field data sheets signed and dated by the field team leader?	Yes	" "
18. Was all other pertinent information documented on the field data sheets/forms?	Yes	Turbidity op check not recorded at 604
19. Was the presence or absence of ice in the cooler documented in the field notebook for every sample location?	No	Not documented at 12 locations
20. Were water levels measured at the locations specified in the planning documents?	Yes	Work order memo specified all locations, but number of measurements was changed by the Site Lead (see trip report).

DATA PACKAGE ASSESSMENT

REQUISITION NUMBERS: 15854 SITE: Shiprock LABORATORY: GJO ANALYSIS DATES: 2-9-98 to 3-12-98

REVIEWER: Sam Campbell (NAME print) Sam Campbell (SIGNATURE) 3-25-98 (DATE)

	ICP-MS	ICP-AES	GFAA	FAA	$NaBH_4$	AS	LSc	PC	IC	Gravimetric	Colorimetric	Other (BJ CC)	
CHAIN OF CUSTODY	OK	OK	NA	OK	OK	OK	NA	OK	OK	OK	OK	OK	
HOLDING TIME	OK	OK		OK	OK	OK		OK	OK	OK	OK	OK	
CALIB. VERIFICATION (For AS, internal tracer)	OK	OK		OK	OK	OK		OK	OK	NA	OK	OK	
PREP. BLANKS (Only if digestion)	NA	NA		OK	NA	OK		OK	OK	NA	OK	OK	
INT. CAL. BLANKS	(2)	(3)		OK	OK	NA	NA	NA	(1)	NA	OK	NA	
CONT. CAL. BLANKS	OK	(5)		OK	OK	NA	NA	NA	(4)	NA	OK	NA	
ICS (ICP ONLY)	OK	OK	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
LCS (Lab. control sample)	OK	OK		OK	OK	OK		OK	OK	OK	OK	OK	
DUPLICATES	OK	OK		OK	OK	(6)		OK	OK	OK	OK	(6)	
POSTDIGEST. SPKS. (Only if MS fails)	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	
MATRIX SPKS.	OK	OK		OK	OK	NA		OK	OK	NA	OK	NA	
OVERALL ASSESS.	OK	OK		OK	OK	OK		OK	OK	OK	OK	OK	

REVIEWER COMMENTS: (1) sulfate detected in the ICB- no samples affected. (2) Antimony detected in the ICB- no samples affected. (3) Sodium detected in the ICB- no samples affected. (6) No duplicate on one batch of Ra-226 and Ra-228 because insufficient sample volume was provided. No duplicate was reported for a batch of Ra-226 analyses because of poor resolution.

ITEMS REQUIRING ATTENTION: (4) U flag chloride result of sample 249658 because of CCB contamination. (5) U flag Ca result 249658; Fe results 249652, 249654, 249684, 249721; Mn results 249648, 249656, 249665; and Na result 249688 because of CCB contamination.

SHIPROCK, NEW MEXICO
FEBRUARY 1998 SAMPLING
DATA ASSESSMENT SUMMARY

The DOE-GJO Analytical Laboratory analyzed samples and reported results for this sampling event under requisition number 15854 for the UMTRA Ground Water Project.

RADIOCHEMICAL ANALYSIS

The determination of gross alpha was performed using gas proportional counting (PC). 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. Except as noted, all quality control requirements were met during the course of these analyses.

Radium-226 and polonium-210 were determined using alpha spectrometry (AS), and radium-228 was determined by beta/gamma coincidence counting (β-γ CC). Duplicate analyses were not performed with one of the radium-226 and radium-228 batches because insufficient sample was provided. In addition, a duplicate was not reported for one batch of radium-226 because of poor resolution.

Gross alpha, gross beta, polonium-210, radium-226, and radium-228 results that were less than the minimum detectable activity (MDA) and/or the 3-sigma counting statistic range were qualified with a non-detect flag (U) in the database, as reflected on the Ground Water Quality Data by Parameter, Surface Water Quality Data by Parameter, and equipment blank printouts.

METALS/MAJOR CATIONS ANALYSIS

The determination of calcium, iron, magnesium, manganese, sodium, and strontium was performed using inductively coupled plasma-atomic emission spectrometry (ICP-AES). Antimony, cadmium, and uranium were analyzed using inductively coupled-mass spectrometry (ICP-MS). Arsenic and selenium were determined by hydride generation atomic absorption spectroscopy ($NaBr_4$), and potassium was analyzed using flame atomic absorption spectrometry (FAA).

The following samples will be qualified with a "U" flag in the data base because of continuing calibration blank (CCB) contamination: calcium result 249658 (equipment blank); iron results 249652 (656), 249654 (658), 249684 (602), and 249721 (MW-1); manganese results 249648 (556), 249656 (662), and 249665 (725); and sodium result 249688 (equipment blank).

INORGANIC ANALYSIS

Chloride, fluoride, nitrate, and sulfate were determined by ion chromatography (IC), and ammonium was determined by spectrophotometry (or colorimetric). TDS was determined gravimetrically. Except as noted all quality control requirements were met during the course of these analyses.

The chloride result from sample 249658 (equipment blank) was qualified with a "U" flag in the data base because of CCB contamination.

FIELD ANALYSIS/ACTIVITIES

There were no wells with a measured pH greater than 9 during this sampling event; therefore "G" flags indicating potential grout contamination were not required. Because low-flow purging was not used during this sampling event, "F" flags were not required.

Wells 600, 604, 610, 615, 726, 727, 730, 731, 734, and MW-1 were purged dry prior to three casing volumes being removed. Although it is assumed that all of the stagnant water was removed from the well prior to sampling, results from these wells will be qualified with an "L" flag, indicating three casing volumes were not removed prior to sampling

Two equipment blank were collected for the 41 locations where samples were collected using non-dedicated equipment. The equipment blanks were analyzed for the same constituents as the environmental samples. All UMTRA related contaminants had equipment blank concentrations less than the contract required detection limit (CRDL) or MDA/3-sigma, with the exception of a radium-226 result of 0.11 pCi/L.

Two field duplicate samples were collected during this event. There is no established regulatory criteria for the evaluation of field duplicate samples. However, using the EPA guidance for laboratory duplicates (which is conservative for field duplicates), all results were within acceptable guidelines.

SAR

A SAR was produced with the Shiprock (SHP01) data. Values listed in the SAR were considered valid if: (1) identified low concentrations were the result of low detection limits; (2) the concentration detected was within 50 percent of the historical minimum or maximum concentration; or (3) there were fewer than 5 historical samples for comparison.

Although a SAR was produced for the SHP01 site, problems in the SEE UMTRA data base precluded the production of a SAR for the Shiprock repository site (SHP02). ***Instead, historical data were reviewed as part of the evaluation of suspected anomalous data.*** Data from Shiprock repository site were compared to historical minimum and maximum values. Results from this sampling event that varied more than 50 percent from historical minimum or maximum concentration (excluding results with less than 5 historical data points) are listed on the Anomalous Data Review Checksheet and will be compared to

results of the next sampling round to make a final determination of validity.

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 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 meet the validation criteria and may be treated as final results.

A disk copy of the Ground Water Quality Data by Parameter, Surface Water Quality by Parameter, and equipment blank database printouts with the qualifiers incorporated are included in this package.

Sam Campbell — 4-14-98
Sam Campbell — Date
Data Validation Lead

Craig Goodknight — 4/14/98
Craig Goodknight — Date
Project Manager

Mark Kautsky — 4-14-98
Mark Kautsky — Date
Project Hydrologist

SAR

SUSPECTED ANOMALIES REPORT

REPORT DATE: 3/24/98 TIME: 3:24:58 PM

Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	# OF SAMP. / %NON DETE C	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DET LIM
0426	6	CACO3	2/5/98	N001	511.0000				5	402.000	485.000	302.8939	1/24/97	N001	402.0000				2/21/93	N001	653.0000				9/19/92	N001	581.0000			
	OK	mg/L							0	581.000	653.000	487.8206									0					0				
	6	K	2/5/98	0001	23.3000				6	19.500	20.000	15.2276	1/24/97	0001	19.5000				2/21/93	0001	24.3000				2/21/93	N001	25.5000			
	OK	mg/L							0	30.000	30.000	22.0128									0					0				
	6	MG	2/5/98	0001	379.0000				6	280.000	376.000	81.8608	1/24/97	0001	280.0000				2/21/93	N001	389.0000				2/21/93	0001	408.0000			
	OK	mg/L							0	787.000	787.000	350.8129									0					0				
	3	MN	2/5/98	0001	0.0010				7	0.008	0.010	0.0050	1/24/97	0001	0.0075				5/20/93	0001	346.0000				2/21/93	N001	0.1000			
	OK	mg/L	U		0.001				14.286	0.260	346.000	519.0000	B								0					0				
	6	NA	2/5/98	0001	1610.0000				6	1250.000	1510.000	926.4774	1/24/97	0001	1250.0000				2/21/93	N001	1870.0000				2/21/93	0001	1960.0000			
	OK	mg/L							0	1960.000	2000.000	1521.8345									0					0				
	3	NH4	2/5/98	0001	0.0361				3	0.100	0.200	0.0500	2/21/93	N001	0.1000				5/15/91	0001	0.2000				1/8/91	N001	1.8000			
	OK	mg/L	B						33.333	1.800	1.800	3.6000	U	0	0.1						0	0.1			H	0	0.01			
	3	RA-228	2/5/98	0001	0.6000				4	0.980	1.000	0.6566	1/24/97	0001	1.0000				2/21/93	0001	3.2000				9/19/92	0001	0.9800			
	OK	pCi/L		0.3	0.5				25	4.900	4.900	7.3500	U	0.6	1						2.4	3.6				0.68	1.23			
	6	SO4	2/5/98	0001	4770.0000				6	4180.000	5160.000	3471.6129	1/24/97	0001	4180.0000				2/21/93	0001	5700.0000				2/21/93	N001	6040.0000			
	OK	mg/L							0	5700.000	6040.000	4616.3794									0	1				0	1			
	6	TDS	2/5/98	0001	8330.0000				6	7170.000	7800.000	5876.4492	1/24/97	0001	7170.0000				2/21/93	N001	9550.0000				2/21/93	0001	9800.0000			
	OK	mg/L							0	9550.000	9800.000	8060.0746									0	10				0	10			
0546	3	AS	2/3/98	0001	0.0010				5	0.003	0.005	0.0017	1/25/97	N001	0.0025				1/7/96	0001	0.0050				1/28/95	N001	0.0050			
	OK	mg/L	U		0.001				60	0.007	0.007	0.0105	B						UW	0	0.005				UW	0	0.005			
	5	CA	2/3/98	0001	50.6000				5	62.500	75.600	76.1815	1/25/97	N001	87.4000				1/7/96	0001	75.6000				1/28/95	N001	90.9000			
	OK	mg/L							0	87.400	90.900	103.5229									0	1				0	0.1			
	5	CACO3	2/3/98	N001	114.0000				5	121.000	123.000	131.6540	1/25/97	N001	142.0000				1/7/96	N001	123.0000				1/28/95	N001	123.0000			
	OK	mg/L							0	124.000	142.000	149.3574									0	10				0	10			
	5	CHLORI	2/3/98	0001	9.9400				5	8.300	12.400	27.5034	1/25/97	N001	31.1000				1/7/96	0001	16.6000				1/28/95	N001	15.6000			
	OK	mg/L							0	16.600	31.100	38.1774									0	0.5				0	0.5			

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 Sam Campbell Date 3-27-98

Hydrologist "Ok" indicates insignificant variation

Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DETLIM	# OF SAMP. / %NON DETE C	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DETLIM	LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DETLIM	LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DET LIM
0546	3	GA	2/3/98	0001	0.9300	1	9.900	9.900	2.4750	1/25/97	N001	9.9000	1/25/97	N001	9.9000	1/25/97	N001	9.9000
	OK	pCi/L		1.24	2.1	100	9.900	9.900	39.6000	U	5.54	9.9	U	5.54	9.9	U	5.54	9.9
	5	K	2/3/98	0001	2.0700	4	2.200	2.600	3.4712	1/25/97	N001	6.2600	1/7/96	0001	2.6000	1/28/95	N001	6.6000
	OK	mg/L				0	6.260	6.600	9.3776					0	0.1		0	0.3
	5	MG	2/3/98	0001	9.9800	4	14.100	15.200	16.7750	1/25/97	N001	20.7000	1/7/96	0001	15.2000	1/28/95	N001	21.0000
	OK	mg/L				0	20.700	21.000	25.5938					0	0.1		0	0.1
	5	NA	2/3/98	0001	28.8000	5	35.000	36.000	50.7671	1/25/97	N001	58.6000	1/7/96	0001	43.1000	1/28/95	N001	58.5000
	OK	mg/L				0	58.500	58.600	74.2389					0	1	E	0	1
	3	NH4	2/3/98	0001	0.0076	2	0.100	0.100	0.0500	1/7/96	N001	0.1000	2/25/93	N001	0.1000	2/25/93	N001	0.1000
	OK	mg/L	B			100	0.100	0.100	0.2000	U	0	0.1	U	0	0.1	U	0	0.1
	5	NO3	2/3/98	0001	1.0700	5	1.000	2.000	2.3438	1/25/97	N001	2.2100	1/7/96	N001	2.0000	1/28/95	N001	2.1000
	OK	mg/L				20	2.100	2.210	3.2835					0	1		0	1
	3	SB	2/3/98	0001	0.0010	4	0.002	0.003	0.0011	1/25/97	N001	0.0016	1/7/96	0001	0.0030	1/28/95	N001	0.0030
	OK	mg/L	U		0.001	75	0.003	0.003	0.0045	BN			UW	0	0.003	UN	0	0.003
	5	SO4	2/3/98	0001	121.0000	5	116.000	150.000	198.7363	1/25/97	N001	193.0000	1/7/96	0001	175.0000	1/28/95	N001	179.0000
	OK	mg/L				0	179.000	193.000	229.8018				I	0	0.4	I	0	4.9
	5	SR	2/3/98	0001	0.5990	4	0.740	0.850	0.9440	1/25/97	N001	1.0500	1/7/96	0001	0.8500	1/11/94	N001	0.7400
	OK	mg/L				0	0.850	1.050	1.1579					0	0.01		0	0.01
0548	3	AS	2/5/98	0001	0.0010	5	0.004	0.005	0.0027	1/25/97	N001	0.0040	1/7/96	0001	0.0050	1/28/95	N001	0.0050
	OK	mg/L	U		0.001	60	0.012	0.012	0.0180	B			U	0	0.005	U	0	0.005
	5	CA	2/5/98	0001	52.7000	5	63.300	76.900	72.3374	1/25/97	N001	93.0000	1/7/96	0001	76.9000	1/28/95	N001	85.1000
	OK	mg/L				0	94.800	94.800	105.9475					0	1		0	0.1
	5	CACO3	2/5/98	N001	119.0000	5	124.000	126.000	122.1297	1/25/97	N001	150.0000	1/7/96	N001	126.0000	1/28/95	N001	124.0000
	OK	mg/L				0	148.000	150.000	158.5682					0	10		0	10
	5	CHLORI	2/5/98	0001	11.5000	5	12.800	13.600	24.0399	1/25/97	N001	29.7000	1/7/96	0001	16.1000	1/28/95	N001	16.1000
	OK	mg/L				0	16.100	29.700	35.5387					0	0.5		0	0.5

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Approved by Dan Campbell Date 3-27-98

Hydrologist "Ok" indicates insignificant variation

Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DETLIM	# OF SAMP. / %NON DETE C	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DETLIM	LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DETLIM	LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DET LIM
0548	3	GA	2/5/98	0001	1.1800	1	9.350	9.350	2.3375	1/25/97	N001	9.3500	1/25/97	N001	9.3500	1/25/97	N001	9.3500
	OK	pCi/L		1.3	2.13	100	9.350	9.350	37.4000	U	5.07	9.35	U	5.07	9.35	U	5.07	9.35
	5	K	2/5/98	0001	2.2500	4	2.300	2.520	5.8975	1/25/97	N001	8.7800	1/7/96	0001	2.5200	1/28/95	N001	5.6000
	OK	mg/L				0	5.600	8.780	12.3256					0	0.1		0	0.3
	5	MG	2/5/98	0001	11.5000	4	14.400	15.600	20.5764	1/25/97	N001	23.5000	1/7/96	0001	15.6000	1/28/95	N001	18.8000
	OK	mg/L				0	18.800	23.500	28.1810					0	0.1		0	0.1
	5	NA	2/5/98	0001	30.8000	5	38.000	42.500	41.5414	1/25/97	N001	59.4000	1/7/96	0001	42.5000	1/28/95	N001	56.4000
	OK	mg/L				0	58.000	59.400	68.9311					0	1	E	0	1
	3	NH4	2/5/98	0001	0.0100	2	0.100	0.100	0.0500	1/7/96	N001	0.1000	2/23/93	N001	0.1000	2/23/93	N001	0.1000
	OK	mg/L	B			100	0.100	0.100	0.2000	U	0	0.1	U	0	0.1	U	0	0.1
	5	NO3	2/5/98	0001	1.1600	5	1.000	1.500	2.1808	1/25/97	N001	2.2700	1/7/96	N001	2.0000	1/28/95	N001	2.0000
	OK	mg/L				0	2.000	2.270	2.9681					0	1		0	1
	3	PO-210	2/5/98	0001	0.0000	3	0.360	0.400	0.1800	1/25/97	N001	0.9400	1/11/94	N001	0.3600	2/23/93	N001	0.4000
	OK	pCi/L		-0.31	0.37	0	0.400	0.940	1.8800		0.22	0.05		0.31	0.2	N	0.5	0.7
	5	SO4	2/5/98	0001	130.0000	5	154.000	174.000	171.9790	1/25/97	N001	197.0000	1/7/96	0001	174.0000	1/28/95	N001	178.0000
	OK	mg/L				0	192.000	197.000	214.1686				I	0	0.4	I	0	4.9
	5	SR	2/5/98	0001	0.6280	4	0.760	0.860	0.7686	1/25/97	N001	1.0900	1/7/96	0001	0.8600	1/11/94	N001	0.7600
	OK	mg/L				0	1.180	1.180	1.2241					0	0.01		0	0.01
0549	5	CA	2/3/98	0001	50.8000	5	63.400	69.300	82.6823	1/26/97	N001	85.1000	1/9/96	0001	78.9000	1/28/95	N001	84.0000
	OK	mg/L				0	84.000	85.100	98.7418					0	1		0	0.1
	5	CACO3	2/3/98	N001	107.0000	5	103.000	127.000	133.6325	1/26/97	N001	142.0000	1/9/96	N001	132.0000	1/28/95	N001	130.0000
	OK	mg/L				0	132.000	142.000	161.1270					0	10		0	10
	5	CHLORI	2/3/98	0001	10.7000	5	8.400	13.900	21.7559	1/26/97	N001	20.4000	1/9/96	0001	18.0000	1/28/95	N001	17.5000
	OK	mg/L				0	18.000	20.400	25.8009					0	0.5		0	0.5
	3	GA	2/3/98	0001	2.1700	1	9.840	9.840	2.4600	1/26/97	N001	9.8400	1/26/97	N001	9.8400	1/26/97	N001	9.8400
	OK	pCi/L		1.43	2.07	100	9.840	9.840	39.3600	U	5.18	9.84	U	5.18	9.84	U	5.18	9.84

Error Type Flags :
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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 Sam Campbell Date 3-27-98

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Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

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			FLAGS	UNCERTAINTY	DETLIM					FLAGS	UNCERTAINTY	DETLIM
0549	5	MG	2/3/98	0001	10.2000	4	16.900	20.100	18.8680	1/26/97	N001	20.9000
	OK	mg/L				0	20.900	23.400	25.4554			
	5	NA	2/3/98	0001	29.7000	5	36.000	44.000	58.5320	1/26/97	N001	62.6000
	OK	mg/L				0	62.600	70.600	85.7819			
	3	NH4	2/3/98	0001	0.0148	2	0.100	0.100	0.0500	1/9/96	N001	0.1000
	OK	mg/L	B			100	0.100	0.100	0.2000	U	0	0.1
	5	NO3	2/3/98	0001	1.2400	5	1.100	2.000	3.3067	1/26/97	N001	3.1900
	OK	mg/L				0	2.900	3.190	4.2498			
	3	PO-210	2/3/98	0001	0.0300	3	0.130	0.200	0.0650	1/26/97	N001	0.1300
	OK	pCi/L		0.37	0.39	33.333	0.200	0.990	1.9800	U	0.13	0.13
	5	SO4	2/3/98	0001	125.0000	5	121.000	177.000	248.3774	1/26/97	N001	233.0000
	OK	mg/L				0	233.000	235.000	305.4256			
	5	SR	2/3/98	0001	0.6030	4	0.750	0.800	1.0187	1/26/97	N001	1.0600
	OK	mg/L				0	0.890	1.060	1.1666			
	5	U	2/3/98	0001	0.0016	5	0.001	0.004	0.0019	1/26/97	N001	0.0036
	OK	mg/L				0	0.006	0.009	0.0099			
0551	5	CACO3	2/3/98	N001	112.0000	8	88.000	121.000	129.2044	1/28/95	N001	177.0000
	OK	mg/L				0	177.000	204.000	210.3068		0	10
	5	FE	2/3/98	0001	0.0050	9	0.020	0.030	1.2014	1/26/97	N001	2.9200
	OK	mg/L	U		0.005	11.111	5.270	50.200	7.6792			
	3	GB	2/3/98	0001	2.3800	4	4.600	6.200	3.0820	1/26/97	N001	12.1600
	OK	pCi/L		1.86	3.03	25	12.160	53.000	79.5000	U	7.22	12.16
	3	NH4	2/3/98	0001	0.0148	6	0.100	0.300	0.0670	2/24/93	N001	0.1000
	OK	mg/L	B			83.333	0.100	0.300	0.4500	U	0	0.1
	5	PO-210	2/3/98	0001	-0.0500	7	0.000	0.130	0.0450	1/26/97	N001	0.1700
	OK	pCi/L		-0.14	0.23	0	0.200	0.400	0.3512		0.18	0.13

LOG DATE	SAMPLE	VALUE	LOG DATE	SAMPLE	VALUE
FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM
1/9/96	0001	20.1000	1/28/95	N001	23.4000
	0	0.1		0	0.1
1/9/96	0001	56.7000	1/28/95	N001	70.6000
	0	1	E	0	1
2/25/93	N001	0.1000	2/25/93	N001	0.1000
U	0	0.1	U	0	0.1
1/9/96	N001	2.7000	1/28/95	N001	2.9000
	0	1		0	1
1/12/94	N001	0.9900	2/25/93	N001	0.2000
	0.5	0.2	N	0.4	0.7
1/9/96	0001	235.0000	1/28/95	N001	220.0000
I	0	0.8	I	0	4.9
1/9/96	0001	0.8900	1/12/94	N001	0.7500
	0	0.01		0	0.01
1/9/96	0001	0.0060	1/28/95	N001	0.0090
	0	0.001		0	0.001
1/11/94	N001	123.0000	2/24/93	N001	142.0000
	0	0		0	0
1/28/95	N001	5.2700	1/11/94	N001	0.6800
	0	0.03	N	0	0.03
4/20/89	0001	53.0000	10/7/88	0001	6.2000
	18	1		1.8	1
4/20/89	0001	0.3000	10/7/88	0001	0.1000
	0	0.1	U	0	0.1
1/11/94	N001	0.1300	2/24/93	N001	0.4000
	0.17	0.2		0.5	0.7

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Approved by Sam Campbell Date 3-27-98

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LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	# OF SAMP. / %NON DETEC	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DET LIM
0551	5	RA-228	2/3/98	0001	0.3000				6	0.000	0.800	0.3686	1/26/97	N001	0.8000				4/20/89	0001	0.0000				10/7/88	0001	0.0000			
	ok	pCi/L		0.5	0.8				16.667	0.000	0.800	0.4218	U	0.4	0.8					0.7	1					0.7	1			
	5	SR	2/3/98	0001	0.6880				8	0.480	0.660	0.8915	1/26/97	N001	1.3700				1/11/94	N001	0.7700				2/24/93	N001	1.1000			
	ok	mg/L							0	1.370	4.500	1.7077								0	0.01					0	0.01			
0553	5	CA	2/3/98	0001	51.4000				9	39.900	45.900	71.4280	1/26/97	N001	84.1000				1/9/96	0001	78.1000				1/12/94	N001	61.1000			
	ok	mg/L							0	84.100	97.500	98.8471								0	1					0	0.5			
	5	CACO3	2/3/98	N001	108.0000				9	98.000	102.000	129.9720	1/26/97	N001	153.0000				1/9/96	N001	127.0000				1/12/94	N001	123.0000			
	ok	mg/L							0	147.000	153.000	162.4863								0	10					0	0			
	5	CHLORI	2/3/98	0001	11.1000				9	3.800	5.000	16.9580	1/26/97	N001	19.6000				1/9/96	0001	16.4000				1/12/94	N001	12.6000			
	ok	mg/L							0	16.400	19.600	21.8149								0	0.5					0	0.5			
	3	GB	2/3/98	0001	2.4200				4	3.800	6.500	2.5460	1/26/97	N001	9.7200				4/4/89	0001	3.8000				10/9/88	0001	6.5000			
	ok	pCi/L		1.52	2.44				25	19.000	19.000	28.5000	U	5.82	9.72					1.4	1					1.7	1			
	5	K	2/3/98	0001	2.0400				8	1.900	1.950	2.4524	1/26/97	N001	3.5000				1/9/96	0001	2.3900				1/12/94	N001	2.3000			
	ok	mg/L							0	2.900	3.500	3.6517								0	0.1					0	0.1			
	5	MG	2/3/98	0001	10.3000				8	7.450	12.200	17.1441	1/26/97	N001	19.4000				1/9/96	0001	16.4000				1/12/94	N001	14.4000			
	ok	mg/L							0	16.400	19.400	20.6266								0	0.1					0	0.1			
	5	MN	2/3/98	0001	0.0045				8	0.010	0.020	0.0534	1/26/97	N001	0.0953				1/9/96	0001	0.0500				1/12/94	N001	0.0700			
	ok	mg/L	B						0	0.095	1.230	0.1299								0	0.01					0	0.01			
	5	NA	2/3/98	0001	30.3000				9	16.400	29.900	42.2596	1/26/97	N001	58.8000				1/9/96	0001	45.5000				1/12/94	N001	39.0000			
	ok	mg/L							0	58.800	62.000	70.3176								0	1					0	1			
	3	NH4	2/3/98	0001	0.0124				7	0.100	0.100	0.0670	1/9/96	N001	0.1000				2/23/93	N001	0.1000				4/4/89	0001	0.1000			
	ok	mg/L	B						100	0.100	0.100	0.1500	U	0	0.1				U	0	0.1				U	0	0.1			
	5	NO3	2/3/98	0001	1.2700				9	0.100	0.400	1.8103	1/26/97	N001	2.7400				1/9/96	N001	1.9000				1/12/94	N001	1.0000			
	ok	mg/L							22.222	2.100	2.740	3.2047								0	1					0	1			
	3	RA-228	2/3/98	0001	-0.6000				6	0.000	0.700	0.0000	1/26/97	N001	0.7000				1/9/96	N001	0.0000				4/4/89	0001	0.0000			
	ok	pCi/L		0.5	1				16.667	0.000	0.700	1.0500	U	0.4	0.7					0.2	0.5					1	1			

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Approved by Jan Campbell Date 3-27-98

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Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

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			FLAGS	UNCERTAINTY	DETLIM					FLAGS	UNCERTAINTY	DETLIM
0553	3	SB	2/3/98	0001	0.0010	8	0.002	0.003	0.0010	1/26/97	N001	0.0015
	OK	mg/L	U		0.001	62.5	0.003	0.020	0.0300	BN		
	5	SO4	2/3/98	0001	126.0000	9	70.000	124.000	186.3347	1/26/97	N001	221.0000
	OK	mg/L				0	202.000	221.000	248.7717			
	5	SR	2/3/98	0001	0.6110	9	0.450	0.600	0.8085	1/26/97	N001	1.0500
	OK	mg/L				0	1.050	1.240	1.2308			
	5	TDS	2/3/98	0001	302.0000	8	214.000	328.000	445.7691	1/26/97	N001	520.0000
	OK	mg/L				0	430.000	520.000	584.7925			
	5	U	2/3/98	0001	0.0015	9	0.000	0.001	0.0019	1/26/97	N001	0.0022
	OK	mg/L				11.111	0.002	0.002	0.0027			
0555	5	CA	2/3/98	0001	50.9000	7	41.700	46.100	214.0457	1/27/97	0001	222.0000
	OK	mg/L				0	96.300	222.000	254.3457			
	5	CHLORI	2/3/98	0001	11.2000	7	3.300	5.600	19.3795	1/27/97	0001	21.1000
	OK	mg/L				0	15.000	21.100	24.7134			
	3	FE	2/3/98	0001	0.0050	7	0.010	0.030	0.0067	1/27/97	0001	34.9000
	OK	mg/L	U		0.005	42.857	34.900	67.800	101.7000			
	5	GA	2/3/98	0001	0.8600	4	0.000	0.400	19.7915	1/27/97	0001	18.7700
	OK	pCi/L		1.46	2.56	0	3.300	18.770	21.8928		9.31	10.54
	5	GB	2/3/98	0001	3.0200	4	3.400	4.200	20.4173	1/27/97	0001	19.6600
	OK	pCi/L		1.88	3.03	0	6.600	19.660	22.4214		7.73	11.75
	5	K	2/3/98	0001	2.1100	6	1.770	1.900	12.7161	1/27/97	0001	12.3000
	OK	mg/L				0	2.720	12.300	14.0666			
	5	MG	2/3/98	0001	11.2000	6	7.350	12.000	48.3790	1/27/97	0001	46.4000
	OK	mg/L				0	13.100	46.400	52.0943			
	5	MN	2/3/98	0001	0.0071	6	0.010	0.020	2.9466	1/27/97	0001	3.0800
	OK	mg/L	B			0	1.140	3.080	3.6254			

LOG DATE	SAMPLE	VALUE	LOG DATE	SAMPLE	VALUE
FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM
1/9/96	0001	0.0030	1/12/94	N001	0.0030
UW	0	0.003	UN	0	0.003
1/9/96	0001	190.0000	1/12/94	N001	152.0000
I	0	0.8		0	1
1/9/96	0001	0.8800	1/12/94	N001	0.7700
	0	0.01		0	0.01
1/9/96	0001	430.0000	2/23/93	N001	520.0000
	0	10		0	10
1/9/96	0001	0.0020	1/12/94	N001	0.0020
	0	0.001		0	0.001
2/23/93	N001	96.3000	4/2/89	0001	56.1000
	0	0.5		0	0.01
2/23/93	N001	13.8000	4/2/89	0001	8.9000
	0	0.5		0	1
2/23/93	N001	67.8000	4/2/89	0001	0.0300
	0	0.03	U	0	0.03
4/2/89	0001	0.0000	10/9/88	0001	3.3000
	2.1	0.2		3	0.2
4/2/89	0001	3.4000	10/9/88	0001	6.6000
	1.3	1		1.7	1
4/2/89	0001	1.9000	10/9/88	0001	2.6000
	0	0.01		0	0.01
4/2/89	0001	12.0000	10/9/88	0001	13.1000
	0	0.001		0	0.001
2/23/93	N001	1.1400	4/2/89	0001	0.0100
	0	0.01		0	0.01

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Approved by Jim Campbell Date 3-27-98

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0555	5	NA	2/3/98	0001	32.2000				7	19.300	29.100	158.1958	1/27/97	0001	180.0000				2/23/93	N001	61.0000				4/2/89	0001	29.1000			
	OK	mg/L							0	61.000	180.000	215.2659								0	1					0	0.002			
	3	NH4	2/3/98	0001	0.0171				6	0.100	0.100	0.0670	2/23/93	N001	0.1000				4/2/89	0001	0.1000				10/9/88	0001	0.1000			
	OK	mg/L	B						100	0.100	0.100	0.1500	U	0	0.1				U	0	0.1				U	0	0.1			
	5	NO3	2/3/98	0001	1.4500				7	0.100	0.400	6.9755	1/27/97	0001	7.1200				2/23/93	N001	1.7000				4/2/89	0001	2.3000			
	OK	mg/L							28.571	2.300	7.120	8.3142								0	1					0	1			
	5	PO-210	2/3/98	0001	0.0500				5	0.000	0.100	0.5101	1/27/97	0001	0.5700				2/23/93	N001	0.2000				4/2/89	0001	0.2000			
	OK	pCi/L		0.38	0.39				0	0.200	0.570	0.6766		0.26	0.11				N	0.4	0.7					0.4	1			
	5	RA-226	2/3/98	0001	0.2000				6	0.000	0.100	2.3512	1/27/97	0001	2.2600				2/23/93	N001	1.3000				4/2/89	0001	0.0000			
	OK	pCi/L		0.23	0.14				0	1.300	2.260	2.6532		0.83	0.23					0.5	0.4					0.2	1			
	5	RA-228	2/3/98	0001	-0.2000				5	0.000	0.100	0.6122	1/27/97	0001	1.2000				4/2/89	0001	0.1000				10/9/88	0001	0.3000			
	OK	pCi/L		0.5	1				20	0.300	1.200	0.7654	U	0.7	1.2					0.1	1					0.8	1			
	5	SO4	2/3/98	0001	127.0000				7	73.000	119.000	290.9221	1/27/97	0001	298.0000				2/23/93	N001	199.0000				4/2/89	0001	119.0000			
	OK	mg/L							0	199.000	298.000	333.7175								0	1					0	0.1			
	5	SR	2/3/98	0001	0.6100				7	0.490	0.600	3.4337	1/27/97	0001	3.7600				2/23/93	N001	1.2300				4/2/89	0001	0.6000			
	OK	mg/L							0	1.230	3.760	4.4390								0	0.01					0	0.1			
	5	TDS	2/3/98	0001	305.0000				7	226.000	299.000	663.7489	1/27/97	0001	675.0000				2/23/93	N001	500.0000				4/2/89	0001	317.0000			
	OK	mg/L							0	500.000	675.000	752.0753								0	10					0	10			
0556	3	GA	2/3/98	0001	0.1200				1	9.510	9.510	2.3775	1/26/97	0001	9.5100				1/26/97	0001	9.5100				1/26/97	0001	9.5100			
	OK	pCi/L		1.07	2.06				100	9.510	9.510	38.0400	U	4.68	9.51				U	4.68	9.51				U	4.68	9.51			
	3	GB	2/3/98	0001	2.0600				1	9.710	9.710	2.4275	1/26/97	0001	9.7100				1/26/97	0001	9.7100				1/26/97	0001	9.7100			
	OK	pCi/L		1.49	2.42				100	9.710	9.710	38.8400	U	5.65	9.71				U	5.65	9.71				U	5.65	9.71			
	3	MN	2/3/98	0001	0.0061				3	0.030	0.033	0.0150	1/26/97	0001	0.0327				1/9/96	0001	0.0500				9/20/86	0001	0.0300			
	OK	mg/L	B						0	0.033	0.050	0.1000								0	0.01					0	0.01			
	3	NH4	2/3/98	0001	0.0124				2	0.100	0.100	0.0500	1/9/96	N001	0.1000				9/20/86	0001	0.1000				9/20/86	0001	0.1000			
	OK	mg/L	B						100	0.100	0.100	0.2000	U	0	0.1				U	0	0.1				U	0	0.1			

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Approved by Sam Campbell Date 3-27-98

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Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE	SAMPLE	VALUE	# OF SAMP. / %NON DETEC	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE	SAMPLE	VALUE	LOG DATE	SAMPLE	VALUE	LOG DATE	SAMPLE	VALUE
			FLAGS	UNCERTAINTY	DETLIM					FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DET LIM
0556	3	RA-228	2/3/98	0001	-0.1000	3	0.000	1.000	0.0000	1/26/97	0001	1.0000	1/9/96	N001	0.0000	9/20/86	0001	0.0000
	OK	pCi/L		0.2	0.4	33.333	0.000	1.000	2.0000	U	0.6	1		0.2	0.5		0.9	1
0608	5	NH4	2/3/98	0001	498.0000	11	170.000	380.000	543.1596	1/5/96	N001	546.0000	1/30/95	N001	570.0000	4/24/93	N001	542.0000
	OK	mg/L				0	546.000	570.000	659.4195		0	0.1		0	0.1		0	0.1
0610	5	CACO3	2/3/98	N001	468.0000	11	318.000	380.000	522.7653	1/28/97	N001	652.0000	1/4/96	N001	578.0000	2/21/93	N001	643.0000
	OK	mg/L				0	675.000	756.000	765.3931					0	10		0	0
	5	GA	2/3/98	0001	1051.0000	6	580.000	780.000	1198.6186	1/28/97	0001	1406.1700	2/21/93	N001	1050.0000	2/21/93	0001	1010.0000
	OK	pCi/L		175	117	0	1050.000	1406.170	1671.5071		309.71	191.66		209	175		211	181
	5	NH4	2/3/98	0001	78.5000	9	26.000	30.000	84.9256	1/4/96	N001	109.0000	2/21/93	0001	122.0000	5/14/91	0001	133.0000
	OK	mg/L				0	143.000	173.000	180.5238		0	0.1		0	0.1		0	0.1
	3	PO-210	2/3/98	0001	-0.0200	4	0.110	0.400	0.0737	1/28/97	0001	0.1100	4/3/89	0001	0.4000	9/21/87	0001	0.6000
	OK	pCi/L		-0.43	0.47	25	0.800	0.800	1.2000	U	0.12	0.11		0.4	1		0.7	1
	5	SO4	2/3/98	0001	9320.0000	12	4660.000	6800.000	9601.2550	1/28/97	0001	9690.0000	1/4/96	0001	10900.0000	2/21/93	N001	9840.0000
	OK	mg/L				0	9960.000	10900.000	11961.1322				I	0	80		0	1
0614	6	GA	2/3/98	0001	1807.0000	7	620.000	650.000	1347.4660	1/28/97	0001	1475.0600	2/21/93	0001	843.0000	2/21/93	N001	1140.0000
	OK	pCi/L		261	152	0	1200.000	1475.060	1728.1853		360.43	244.64		198	182		223	183
	3	PO-210	2/3/98	0001	0.0000	3	0.130	0.600	0.0650	1/28/97	0001	0.1300	4/3/89	0001	0.7000	9/18/87	0001	0.6000
	OK	pCi/L		-0.37	0.41	33.333	0.600	0.700	1.4000	U	0.14	0.13		0.4	1		0.6	1
0616	5	GA	2/3/98	0001	241.0000	6	180.000	230.000	265.9173	1/25/97	0001	285.2000	2/25/93	0001	314.0000	2/25/93	N001	277.0000
	OK	pCi/L		47.4	36.1	0	285.200	314.000	339.8596		80.09	84.13		67.1	53.8		66.3	59.8
	5	MN	2/3/98	0001	0.8320	12	0.480	0.920	1.9249	1/25/97	0001	2.8400	1/4/96	0001	3.2600	2/25/93	N001	4.7800
	OK	mg/L				0	5.000	5.200	5.2343					0	0.01		0	0.01
	5	NH4	2/3/98	0001	4.7700	9	1.000	6.100	13.6483	1/4/96	N001	18.9000	2/25/93	0001	36.3000	5/13/91	0001	28.9000
	OK	mg/L				0	28.900	36.300	37.8181		0	0.1		0	0.1		0	0.1
	5	NO3	2/3/98	0001	13.3000	11	1.800	8.000	16.7587	1/25/97	0001	77.6000	1/4/96	N001	52.4000	2/25/93	0001	229.0000
	OK	mg/L				0	160.000	229.000	144.4855					0	1		0	1

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Approved by Sam Campbell Date 3-27-98

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Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE / SAMPLE / VALUE / FLAGS / UNCERTAINTY / DETLIM	# OF SAMP. / %NON DETEC	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE / SAMPLE / VALUE / FLAGS / UNCERTAINTY / DETLIM								
0616	3	SB	2/3/98	0001	0.0010	9	0.002	0.002	0.0011	1/25/97	0001	0.0016	1/4/96	0001	0.0200	9/17/92	0001	0.0020
	OK	mg/L	U		0.001	44.444	0.020	0.080	0.1200	B			UIW	0	0.02	NW	0	0.0015
	6	SE	2/3/98	0001	0.0214	12	0.005	0.010	0.0000	1/25/97	0001	0.0096	1/4/96	0001	0.0500	2/25/93	N001	0.0050
	OK	mg/L				58.333	0.030	0.050	0.0182				UIW	0	0.05	UNW	0	0.005
0617	5	NH4	2/3/98	0001	58.7000	8	100.000	103.000	104.6823	1/4/96	N001	116.0000	2/22/93	N001	106.0000	5/13/91	0001	103.0000
	OK	mg/L				0	120.000	129.000	123.5576		0	0.1	N	0	0.1		0	0.1
	3	PO-210	2/3/98	0001	-0.1100	3	0.110	0.200	0.0550	1/25/97	0001	0.1100	4/4/89	0001	0.2000	9/18/87	0001	0.9000
	OK	pCi/L		-0.46	0.55	33.333	0.900	0.900	1.8000	U	0.1	0.11		0.4	1		0.7	1
	5	SR	2/3/98	0001	5.3800	10	4.070	5.220	5.5461	1/25/97	0001	6.5400	1/4/96	0001	6.8300	2/22/93	N001	8.2800
	OK	mg/L				0	7.700	8.280	8.8057					0	0.01		0	0.01
0619	6	CACO3	2/3/98	N001	1036.0000	11	643.000	690.000	572.3516	1/27/97	N001	878.0000	1/4/96	N001	880.0000	1/31/95	N001	724.0000
	OK	mg/L				0	1141.000	1210.000	999.8527					0	10		0	10
	6	CHLORI	2/3/98	0001	637.0000	12	364.000	400.000	173.9337	1/27/97	0001	364.0000	1/4/96	0001	499.0000	1/31/95	0001	523.0000
	OK	mg/L				0	800.000	1300.000	549.9778					0	0.5		0	0.5
	6	GA	2/3/98	0001	1215.0000	6	506.000	790.000	0.0000	1/27/97	0001	793.0300	2/23/93	N001	506.0000	2/23/93	0001	794.0000
	OK	pCi/L		206	139	0	1700.000	2700.000	1028.3287		235.14	187.38		162	168		185	156
	6	MG	2/3/98	0001	1530.0000	12	930.000	1060.000	530.7807	1/27/97	0001	1130.0000	1/4/96	0001	1200.0000	1/31/95	0001	930.0000
	OK	mg/L				0	2090.000	2210.000	1294.8675					0	0.5		0	0.5
	6	MN	2/3/98	0001	5.8200	12	3.670	3.890	2.3384	1/27/97	0001	4.9200	1/4/96	0001	4.3800	1/31/95	0001	3.8900
	OK	mg/L				0	8.330	8.650	5.4734					0	0.01		0	0.01
	6	NA	2/3/98	0001	3300.0000	12	2340.000	2510.000	1730.8699	1/27/97	0001	2790.0000	1/4/96	0001	2880.0000	1/31/95	0001	2340.0000
	OK	mg/L				0	7860.000	7860.000	3077.5709					0	5		0	1
	6	SE	2/3/98	0001	0.3450	12	0.005	0.030	0.0045	1/27/97	0001	0.2020	1/4/96	0001	0.1400	1/31/95	0001	0.0900
	ok	mg/L				16.667	0.372	0.456	0.2763				IS	0	0.05	IS	0	0.02
	6	SO4	2/3/98	0001	12200.0000	12	7490.000	8420.000	4806.0448	1/27/97	0001	7490.0000	1/4/96	0001	11000.0000	1/31/95	0001	8420.0000
	OK	mg/L				0	19200.000	19200.000	9018.5731				I	0	60	I	0	100

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Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	# OF SAMP. / %NON DETEC	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DET LIM
0619	6	SR	2/3/98	0001	11.8000				11	4.910	6.410	6.2775	1/27/97	0001	9.6000				1/4/96	0001	9.0300				1/31/95	0001	6.6300			
	ok	mg/L							0	9.790	10.800	10.9885									0.01						0.01			
	6	TDS	2/3/98	0001	20400.0000				12	15200.000	15500.000	10153.1083	1/27/97	0001	16600.0000				1/4/96	0001	16700.0000				1/31/95	0001	15200.0000			
	ok	mg/L							0	32600.000	32600.000	17438.1417									10						10			
	6	U	2/3/98	0001	1.8000				12	0.900	1.080	0.3247	1/27/97	0001	1.3200				1/4/96	0001	1.5000				1/31/95	0001	1.3300			
	ok	mg/L							0	3.050	3.140	1.6994									0.001						0.001			
0620	6	CHLORI	2/3/98	0001	572.0000				13	313.000	360.000	275.7526	1/28/97	0001	452.0000				1/5/96	0001	481.0000				1/30/95	0001	394.0000			
	ok	mg/L							0	719.000	750.000	528.1790									0.5						0.5			
	6	GA	2/3/98	0001	917.2000				8	366.000	430.000	71.1873	1/28/97	0001	684.2600				4/24/93	N001	442.0000				4/24/93	0001	452.0000			
	ok	pCi/L		176.3	132.1				0	1600.000	1600.000	891.3629		198.65	155.67					153	179					123	107			
	6	GB	2/3/98	0001	422.8000				8	63.000	104.000	0.0000	1/28/97	0001	244.1600				4/24/93	0001	63.0000				4/24/93	N001	104.0000			
	ok	pCi/L		112.1	160.6				12.5	1100.000	1100.000	153.6914	U	151.87	244.16					39.3	61					89.3	142			
	6	K	2/3/98	0001	55.9000				11	36.600	38.000	20.1965	1/28/97	0001	49.8000				1/5/96	0001	36.6000				2/21/93	N001	42.7000			
	ok	mg/L							0	81.500	106.000	50.9241									5						0.1			
	6	MG	2/3/98	0001	1510.0000				12	860.000	884.000	651.5135	1/28/97	0001	1150.0000				1/5/96	0001	1320.0000				1/30/95	0001	950.0000			
	ok	mg/L							0	1480.000	1980.000	1416.3624									0.5						0.5			
	6	NA	2/3/98	0001	2790.0000				14	1880.000	2040.000	1382.0731	1/28/97	0001	2070.0000				1/5/96	0001	2700.0000				1/30/95	0001	1880.0000			
	ok	mg/L							0	3584.000	3720.000	2377.1992									5						1			
	3	PO-210	2/3/98	0001	0.0900				4	0.140	0.900	0.0938	1/28/97	0001	0.1400				4/5/89	0001	0.9000				8/30/87	0001	1.4000			
	ok	pCi/L		0.31	0.3				25	2.300	2.300	3.4500	U	0.15	0.14					0.7	1					1.5	1			
	5	RA-228	2/3/98	0001	0.5000				9	0.000	0.700	0.5379	1/28/97	0001	1.3000				1/30/95	0001	1.5000				2/21/93	0001	1.0000			
	ok	pCi/L		0.3	0.4				11.111	1.500	1.900	2.0632	U	0.8	1.3					0.6	0.9					1.6	2.5			
	3	SB	2/3/98	0001	0.0010				11	0.002	0.003	0.0010	1/28/97	0001	0.0015				1/5/96	0001	0.0300				1/30/95	0001	0.0030			
	ok	mg/L	U		0.001				72.727	0.030	0.205	0.3075	B						UIW	0	0.03				U	0	0.003			
	6	SE	2/3/98	0001	0.3270				14	0.005	0.020	0.0336	1/28/97	0001	0.1200				1/5/96	0001	0.2000				1/30/95	0001	0.1510			
	ok	mg/L							7.1429	0.318	0.361	0.2617							IS	0	0.05				+	0	0.005			

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0620	6	SO4	2/3/98	0001	11200.0000				13	6950.000	7740.000	5930.8123	1/28/97	0001	8840.0000				1/5/96	0001	9990.0000				1/30/95	0001	7740.0000
	OK	mg/L							0	14300.000	14500.000	10683.5285							I	0	60				I	0	100
	6	TDS	2/3/98	0001	19100.0000				13	11900.000	12600.000	9577.9663	1/28/97	0001	15000.0000				1/5/96	0001	17100.0000				1/30/95	0001	13300.0000
	OK	mg/L							0	24100.000	26600.000	18000.6799								0	10					0	10
0624	6	CACO3	2/3/98	N001	935.0000				10	436.000	495.000	343.7817	1/27/97	N001	749.0000				1/4/96	N001	662.0000				1/31/95	N001	550.0000
	OK	mg/L							0	960.000	1374.000	876.9032								0	10					0	10
	6	CHLORI	2/3/98	0001	568.0000				10	180.000	197.000	84.6770	1/27/97	0001	363.0000				1/4/96	0001	360.0000				1/31/95	0001	249.0000
	OK	mg/L							0	730.000	750.000	444.6212								0	0.5					0	0.5
	6	GA	2/3/98	0001	1074.0000				4	160.000	697.930	0.0000	1/27/97	0001	697.9300				9/16/92	0001	160.0000				4/4/89	0001	2200.0000
	OK	pCi/L		173	111				0	1500.000	2200.000	1003.8289		184.48	133.89					88.1	85.3					300	0.2
	6	GB	2/3/98	0001	403.8000				4	130.000	295.390	0.0000	1/27/97	0001	295.3900				9/16/92	0001	130.0000				4/4/89	0001	840.0000
	OK	pCi/L		94.3	132				0	1100.000	1100.000	390.3696		132.16	204.79					53.1	76.1					110	1
	6	K	2/3/98	0001	64.5000				9	40.700	45.000	15.0109	1/27/97	0001	52.1000				1/4/96	0001	40.7000				9/16/92	0001	48.0000
	OK	mg/L							0	118.000	125.000	55.2811								0	5				E	0	0.2
	6	MG	2/3/98	0001	1290.0000				10	560.000	730.000	204.6091	1/27/97	0001	880.0000				1/4/96	0001	827.0000				1/31/95	0001	560.0000
	OK	mg/L							0	1853.000	1930.000	1010.2227								0	0.5					0	0.5
	6	MN	2/3/98	0001	5.7700				10	3.380	4.160	2.2506	1/27/97	0001	4.5000				1/4/96	0001	4.3300				1/31/95	0001	3.3800
	OK	mg/L							0	8.110	8.850	4.6969								0	0.01					0	0.01
	6	NA	2/3/98	0001	2770.0000				10	1580.000	1700.000	1189.2922	1/27/97	0001	2180.0000				1/4/96	0001	2220.0000				1/31/95	0001	1580.0000
	OK	mg/L							0	3430.000	3532.000	2401.2179								0	5					0	1
	6	SO4	2/3/98	0001	10500.0000				10	5940.000	6000.000	4281.4120	1/27/97	0001	7520.0000				1/4/96	0001	9010.0000				1/31/95	0001	5940.0000
	OK	mg/L							0	12700.000	13400.000	9201.9241							I	0	60				I	0	75
	6	SR	2/3/98	0001	12.0000				9	5.700	6.200	5.4180	1/27/97	0001	9.0600				1/4/96	0001	10.8000				1/31/95	0001	6.3300
	OK	mg/L							0	13.500	13.500	11.6251								0	0.01					0	0.01
	6	TDS	2/3/98	0001	17800.0000				10	9000.000	10200.000	5826.3849	1/27/97	0001	12700.0000				1/4/96	0001	12900.0000				1/31/95	0001	10200.0000
	OK	mg/L							0	22700.000	23700.000	14385.8388								0	10					0	10

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

Approved by Sam Campbell Date 3-27-98

Hydrologist "Ok" indicates insignificant variation

Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	# OF SAMP. / %NON DETEC	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DET LIM
0624	6	U	2/3/98	0001	1.6100				10	0.470	0.589	0.2350	1/27/97	0001	1.0200				1/4/96	0001	1.1000				1/31/95	0001	0.7610
	OK	mg/L							0	1.840	2.570	1.4232								0	0.001					0	0.001
0626	6	GA	2/4/98	0001	90.4200				6	49.100	83.600	0.0000	1/25/97	0001	93.5900				2/22/93	0001	83.6000				2/22/93	N001	49.1000
	OK	pCi/L		32.82	37.11				16.667	650.000	650.000	69.6786	U	58.94	93.59					44.1	53.7					40	55.4
	6	K	2/4/98	0001	16.8000				11	11.800	17.800	3.3931	1/25/97	0001	17.8000				1/5/96	0001	11.8000				2/22/93	N001	18.8000
	OK	mg/L							0	51.800	51.800	15.4927								0	5					0	0.1
	6	MN	2/4/98	0001	1.3900				12	0.870	0.920	0.0000	1/25/97	0001	0.9240				1/5/96	0001	0.8700				1/29/95	0001	1.6100
	OK	mg/L							0	4.060	4.060	1.2346								0	0.01					0	0.01
	6	NO3	2/4/98	0001	10.2000				11	0.628	0.680	0.0000	1/25/97	0001	0.6280				1/5/96	N001	3.8000				1/29/95	N001	1.0000
	OK	mg/L							27.273	23.000	190.000	6.8144								0	1				U	0	1
	6	SE	2/4/98	0001	0.0296				12	0.007	0.009	0.0000	1/25/97	0001	0.0111				1/5/96	0001	0.0200				1/29/95	0001	0.0090
	OK	mg/L							16.667	0.072	0.225	0.0201								UI	0.02				S	0	0.005
0628	6	K	2/3/98	0001	7.6200				11	8.390	9.050	4.4304	1/27/97	0001	8.3900				1/5/96	0001	9.0500				2/23/93	N001	14.9000
	OK	mg/L							0	27.100	27.100	7.2665								0	0.1					0	0.1
	5	MN	2/3/98	0001	1.4100				11	1.310	1.890	1.7108	1/27/97	0001	2.7200				1/5/96	0001	3.6600				2/23/93	N001	5.3600
	OK	mg/L							0	5.040	5.360	5.5032								0	0.01					0	0.01
	3	NH4	2/3/98	0001	0.0219				8	0.100	0.200	0.0670	1/5/96	N001	0.1000				2/23/93	N001	0.1000				5/12/91	0001	0.2000
	OK	mg/L	B						62.5	1.600	1.600	2.4000	U	0	0.1				UN	0	0.1					0	0.1
	5	SR	2/3/98	0001	6.7600				10	4.100	5.600	8.6275	1/27/97	0001	10.6000				1/5/96	0001	9.1900				2/23/93	0001	8.1900
	OK	mg/L							0	9.750	10.600	12.1517								0	0.01					0	0.01
0630	6	CA	2/4/98	0001	437.0000				13	257.000	327.000	286.0708	1/27/97	0001	362.0000				1/5/96	0001	364.0000				4/23/93	N001	348.0000
	OK	mg/L							0	498.000	498.000	412.3472								0	1					0	0.5
	6	NO3	2/4/98	0001	126.0000				11	31.000	47.100	0.0000	1/27/97	0001	50.6000				1/5/96	N001	47.1000				4/23/93	N001	93.0000
	OK	mg/L							0	180.000	265.000	97.3937								0	1					0	1
	3	SB	2/4/98	0001	0.0010				10	0.002	0.002	0.0010	1/27/97	0001	0.0020				1/5/96	0001	0.0300				4/23/93	0001	0.0030
	OK	mg/L	U		0.001				70	0.026	0.030	0.0450	B						UI	0	0.03				U	0	0.003

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Approved by Jan Campbell Date 3-27-98

Hydrologist "Ok" indicates insignificant variation

Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE / SAMPLE / VALUE / FLAGS / UNCERTAINTY / DETLIM	# OF SAMP. / %NON DETE C	ALL TIME MINIMUMS / ALL TIME MAXIMUMS	LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE / SAMPLE / VALUE / FLAGS / UNCERTAINTY / DETLIM
0655	3	FE	2/3/98 0001 0.0050	2	0.180 0.736	0.0900	1/26/97 N001 0.7360 | 1/11/94 N001 0.1800 | 1/11/94 N001 0.1800
	OK	mg/L	U 0.005	0	0.180 0.736	1.4720	N 0 0.03 | N 0 0.03
	3	PO-210	2/3/98 0001 -0.0700	2	0.120 0.200	0.0600	1/26/97 N001 0.1200 | 1/11/94 N001 0.2000 | 1/11/94 N001 0.2000
	OK	pCi/L	-0.12 0.23	0	0.200 0.200	0.4000	0.13 0.09 | 0.21 0.2 | 0.21 0.2
	3	RA-228	2/3/98 0001 0.1000	1	0.600 0.600	0.1500	1/26/97 N001 0.6000 | 1/26/97 N001 0.6000 | 1/26/97 N001 0.6000
	OK	pCi/L	0.5 0.9	100	0.600 0.600	2.4000	U 0.4 0.6 | U 0.4 0.6 | U 0.4 0.6
0656	3	AS	2/5/98 0001 0.0019	1	0.005 0.005	0.0025	1/29/95 N001 0.0050 | 1/29/95 N001 0.0050 | 1/29/95 N001 0.0050
	OK	mg/L	B	0	0.005 0.005	0.0100	S 0 0.005 | S 0 0.005 | S 0 0.005
	3	FE	2/5/98 0001 0.0064	1	24.100 24.100	12.0500	1/29/95 N001 24.1000 | 1/29/95 N001 24.1000 | 1/29/95 N001 24.1000
	OK	mg/L	B	0	24.100 24.100	48.2000	0 0.03 | 0 0.03 | 0 0.03
	3	K	2/5/98 0001 14.8000	1	49.000 49.000	24.5000	1/29/95 N001 49.0000 | 1/29/95 N001 49.0000 | 1/29/95 N001 49.0000
	OK	mg/L		0	49.000 49.000	98.0000	0 0.3 | 0 0.3 | 0 0.3
	3	MG	2/5/98 0001 143.0000	1	306.000 306.000	153.0000	1/29/95 N001 306.0000 | 1/29/95 N001 306.0000 | 1/29/95 N001 306.0000
	OK	mg/L		0	306.000 306.000	612.0000	0 0.1 | 0 0.1 | 0 0.1
	3	NH4	2/5/98 0001 0.0908	1	0.250 0.250	0.1250	1/29/95 N001 0.2500 | 1/29/95 N001 0.2500 | 1/29/95 N001 0.2500
	OK	mg/L	B	0	0.250 0.250	0.5000	0 0.1 | 0 0.1 | 0 0.1
	3	NO3	2/5/98 0001 0.1720	2	1.000 8.600	0.5000	1/29/95 N001 1.0000 | 5/19/93 N001 8.6000 | 5/19/93 N001 8.6000
	OK	mg/L	B	50	8.600 8.600	17.2000	U 0 1 | 0 1 | 0 1
	3	SE	2/5/98 0001 0.0010	2	0.005 0.020	0.0025	1/29/95 N001 0.0200 | 5/19/93 N001 0.0050 | 5/19/93 N001 0.0050
	OK	mg/L	U 0.001	100	0.005 0.020	0.0400	UIW 0 0.02 | U 0 0.005 | U 0 0.005
	4	SR	2/5/98 0001 7.8800	1	1.570 1.570	0.7850	5/19/93 N001 1.5700 | 5/19/93 N001 1.5700 | 5/19/93 N001 1.5700
	OK	mg/L		0	1.570 1.570	3.1400	0 0.01 | 0 0.01 | 0 0.01
0657	2	AS	2/5/98 0001 0.0010	1	0.000 0.000	0.0000	1/24/97 0001 0.0003 | 1/24/97 0001 0.0003 | 1/24/97 0001 0.0003
	OK	mg/L	U 0.001	0	0.000 0.000	0.0003	BN | BN | BN
	3	CA	2/5/98 0001 31.3000	1	125.000 125.000	62.5000	1/24/97 0001 125.0000 | 1/24/97 0001 125.0000 | 1/24/97 0001 125.0000
	OK	mg/L		0	125.000 125.000	250.0000	

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Flags :
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Approved by Sam Campbell Date 3-27-98

Hydrologist "Ok" indicates insignificant variation

Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE / SAMPLE / VALUE / FLAGS / UNCERTAINTY / DETLIM	# OF SAMP. / %NON DETEC	ALL TIME MINIMUMS / ALL TIME MAXIMUMS	LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE / SAMPLE / VALUE / FLAGS / UNCERTAINTY / DETLIM	LOG DATE / SAMPLE / VALUE / FLAGS / UNCERTAINTY / DETLIM	LOG DATE / SAMPLE / VALUE / FLAGS / UNCERTAINTY / DET LIM
0657	3	CACO3	2/5/98 N001 52.0000	1	107.000 107.000	53.5000	1/24/97 N001 107.0000	1/24/97 N001 107.0000	1/24/97 N001 107.0000
	OK	mg/L		0	107.000 107.000	214.0000			
	3	CHLORI	2/5/98 0001 21.6000	1	56.000 56.000	28.0000	1/24/97 0001 56.0000	1/24/97 0001 56.0000	1/24/97 0001 56.0000
	OK	mg/L		0	56.000 56.000	112.0000			
	4	FE	2/5/98 0001 0.4020	1	0.020 0.020	0.0101	1/24/97 0001 0.0201	1/24/97 0001 0.0201	1/24/97 0001 0.0201
	OK	mg/L		0	0.020 0.020	0.0402	B	B	B
	3	GA	2/5/98 0001 4.2900	1	55.510 55.510	13.8775	1/24/97 0001 55.5100	1/24/97 0001 55.5100	1/24/97 0001 55.5100
	OK	pCi/L	2.62 3.68	100	55.510 55.510	222.0400	U 26.82 55.51	U 26.82 55.51	U 26.82 55.51
	3	GB	2/5/98 0001 5.0800	1	60.560 60.560	15.1400	1/24/97 0001 60.5600	1/24/97 0001 60.5600	1/24/97 0001 60.5600
	OK	pCi/L	3.12 5.01	100	60.560 60.560	242.2400	U 35.33 60.56	U 35.33 60.56	U 35.33 60.56
	3	MG	2/5/98 0001 4.6400	1	19.800 19.800	9.9000	1/24/97 0001 19.8000	1/24/97 0001 19.8000	1/24/97 0001 19.8000
	OK	mg/L		0	19.800 19.800	39.6000			
	4	MN	2/5/98 0001 0.1090	2	0.030 0.031	0.0150	1/24/97 0001 0.0312	5/19/93 N001 0.0300	5/19/93 N001 0.0300
	OK	mg/L		0	0.030 0.031	0.0624		0 0.01	0 0.01
	3	NA	2/5/98 0001 142.0000	1	782.000 782.000	391.0000	1/24/97 0001 782.0000	1/24/97 0001 782.0000	1/24/97 0001 782.0000
	OK	mg/L		0	782.000 782.000	1564.0000			
	3	NO3	2/5/98 0001 0.2460	2	1.200 3.530	0.6000	1/24/97 0001 3.5300	5/19/93 N001 1.2000	5/19/93 N001 1.2000
	OK	mg/L	B	0	1.200 3.530	7.0600		0 1	0 1
	4	PO-210	2/5/98 0001 0.5300	1	0.060 0.060	0.0150	1/24/97 0001 0.0600	1/24/97 0001 0.0600	1/24/97 0001 0.0600
	OK	pCi/L	0.7 0.53	100	0.060 0.060	0.2400	U 0.06 0.06	U 0.06 0.06	U 0.06 0.06
	3	RA-228	2/5/98 0001 0.0000	1	0.900 0.900	0.2250	1/24/97 0001 0.9000	1/24/97 0001 0.9000	1/24/97 0001 0.9000
	OK	pCi/L	0.5 0.9	100	0.900 0.900	3.6000	U 0.5 0.9	U 0.5 0.9	U 0.5 0.9
	3	SE	2/5/98 0001 0.0010	2	0.003 0.005	0.0015	1/24/97 0001 0.0029	5/19/93 N001 0.0050	5/19/93 N001 0.0050
	OK	mg/L	U 0.001	50	0.005 0.005	0.0100	B	U 0 0.005	U 0 0.005
	3	SO4	2/5/98 0001 386.0000	1	1870.000 1870.000	935.0000	1/24/97 0001 1870.0000	1/24/97 0001 1870.0000	1/24/97 0001 1870.0000
	OK	mg/L		0	1870.000 1870.000	3740.0000			

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Approved by Tom Campbell Date 3-27-98

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Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	# OF SAMP. / %NON DETEC	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DET LIM
0657	3	SR	2/5/98	0001	1.8500				2	10.200	12.000	5.1000	1/24/97	0001	10.2000				5/19/93	N001	12.0000				5/19/93	N001	12.0000			
	OK	mg/L							0	12.000	12.000	24.0000								0	0.01					0	0.01			
	3	TDS	2/5/98	0001	687.0000				1	3010.000	3010.000	1505.0000	1/24/97	0001	3010.0000				1/24/97	0001	3010.0000				1/24/97	0001	3010.0000			
	OK	mg/L							0	3010.000	3010.000	6020.0000																		
0658	3	FE	2/5/98	0001	0.0404				2	0.430	1.860	0.2150	1/24/97	N001	1.8600				1/12/94	N001	0.4300				1/12/94	N001	0.4300			
	OK	mg/L							0	0.430	1.860	3.7200							N	0	0.03				N	0	0.03			
	3	GA	2/5/98	0001	9.9700				1	57.500	57.500	14.3750	1/24/97	N001	57.5000				1/24/97	N001	57.5000				1/24/97	N001	57.5000			
	OK	pCi/L		11.89	19.68				100	57.500	57.500	230.0000	U	31.29	57.5				U	31.29	57.5				U	31.29	57.5			
	3	GB	2/5/98	0001	11.0400				1	60.930	60.930	15.2325	1/24/97	N001	60.9300				1/24/97	N001	60.9300				1/24/97	N001	60.9300			
	OK	pCi/L		14.36	24.15				100	60.930	60.930	243.7200	U	35.65	60.93				U	35.65	60.93				U	35.65	60.93			
	3	RA-228	2/5/98	0001	0.3000				1	3.700	3.700	0.9250	1/24/97	N001	3.7000				1/24/97	N001	3.7000				1/24/97	N001	3.7000			
	OK	pCi/L		0.4	0.7				0	3.700	3.700	14.8000		1.1	1.7					1.1	1.7					1.1	1.7			
0662	3	FE	2/5/98	0001	0.0050				2	0.070	0.897	0.0350	1/26/97	N001	0.8970				1/12/94	N001	0.0700				1/12/94	N001	0.0700			
	OK	mg/L	U		0.005				0	0.070	0.897	1.7940							N	0	0.03				N	0	0.03			
	3	PO-210	2/5/98	0001	0.0200				2	0.220	0.360	0.1100	1/26/97	N001	0.3600				1/12/94	N001	0.2200				1/12/94	N001	0.2200			
	OK	pCi/L		0.24	0.29				0	0.220	0.360	0.7200		0.25	0.15					0.21	0.2					0.21	0.2			
	3	SE	2/5/98	0001	0.0010				3	0.005	0.006	0.0025	1/26/97	N001	0.0198				1/12/94	N001	0.0060				5/20/93	N001	0.0050			
	OK	mg/L	U		0.001				66.667	0.006	0.020	0.0396							UIN	0	0.006				U	0	0.005			
0732	6	CA	2/3/98	0001	109.0000				6	81.700	83.000	8.9233	1/25/97	0001	83.0000				1/4/96	0001	98.3000				1/28/95	0001	81.7000			
	OK	mg/L							0	181.000	182.000	81.6246								0	1					0	1			
	6	CHLORI	2/3/98	0001	40.8000				5	33.800	37.200	17.4345	1/25/97	0001	37.2000				1/4/96	0001	44.7000				1/28/95	0001	33.8000			
	OK	mg/L							0	65.000	65.000	40.0232								0	0.5					0	0.5			
	3	GA	2/3/98	0001	6.2700				3	16.090	32.200	8.0450	1/25/97	0001	16.0900				4/22/93	N001	39.2000				4/22/93	0001	32.2000			
	OK	pCi/L		4.93	7.46				33.333	32.200	39.200	78.4000	U	10.17	16.09					21.7	27.5					21.4	28.4			
	6	MG	2/3/98	0001	45.6000				4	40.800	43.200	33.8244	1/25/97	0001	40.8000				1/4/96	0001	45.8000				1/28/95	0001	43.2000			
	OK	mg/L							0	52.500	52.500	41.3881								0	0.1					0	0.1			

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Approved by Tom Campbell Date 3-27-98

Hydrologist "Ok" indicates insignificant variation

Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DETLIM	# OF SAMP. / %NON DETEC	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DETLIM	LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DETLIM	LOG DATE / FLAGS	SAMPLE / UNCERTAINTY	VALUE / DET LIM
0732	6	MN	2/3/98	0001	0.1620	6	0.041	0.170	0.0000	1/25/97	0001	0.0411	1/4/96	0001	0.1700	1/28/95	0001	0.2900
	OK	mg/L				0	1.280	1.320	-0.1472					0	0.01		0	0.01
	6	NA	2/3/98	0001	163.0000	6	146.000	148.000	12.0989	1/25/97	0001	146.0000	1/4/96	0001	196.0000	1/28/95	0001	148.0000
	OK	mg/L				0	331.000	345.000	153.6833					0	5		0	1
	6	NH4	2/3/98	0001	0.1690	4	0.290	0.500	0.0000	1/4/96	N001	0.2900	1/28/95	N001	0.6100	1/13/94	0001	0.5000
	OK	mg/L				0	2.300	2.300	-0.0853		0	0.1		0	0.1		0	0.1
	3	RA-228	2/3/98	0001	0.1000	3	0.300	0.500	0.1500	1/25/97	0001	0.5000	1/28/95	0001	0.3000	1/13/94	0001	0.7000
	OK	pCi/L		0.4	0.7	33.333	0.700	0.700	1.4000	U	0.3	0.5		0.6	1		0.4	1.4
	6	SO4	2/3/98	0001	553.0000	5	399.000	465.000	0.0000	1/25/97	0001	399.0000	1/4/96	0001	593.0000	1/28/95	0001	465.0000
	OK	mg/L				0	1630.000	1630.000	496.5798				I	0	6	I	0	5.9
	6	SR	2/3/98	0001	1.3700	6	1.090	1.110	0.0000	1/25/97	0001	1.1100	1/4/96	0001	1.5600	1/28/95	0001	1.0900
	OK	mg/L				0	2.660	2.780	1.2653					0	0.01		0	0.01
	6	TDS	2/3/98	0001	1110.0000	5	907.000	957.000	0.0000	1/25/97	0001	907.0000	1/4/96	0001	1160.0000	1/28/95	0001	957.0000
	OK	mg/L				0	2630.000	2630.000	1021.1661					0	10		0	10
0733	6	CACO3	2/4/98	N001	449.0000	5	386.000	420.000	381.6035	1/25/97	N001	420.0000	1/5/96	N001	431.0000	1/28/95	N001	386.0000
	OK	mg/L				0	448.000	448.000	444.4985					0	10		0	10
	5	CHLORI	2/4/98	0001	123.0000	5	125.000	152.000	145.7150	1/25/97	0001	216.0000	1/5/96	0001	152.0000	1/28/95	0001	125.0000
	OK	mg/L				0	181.000	216.000	244.2190					0	0.5		0	0.5
	6	MG	2/4/98	0001	255.0000	4	221.000	224.000	182.0045	1/25/97	0001	224.0000	1/5/96	0001	260.0000	1/28/95	0001	221.0000
	OK	mg/L				0	281.000	281.000	247.1689					0	0.5		0	0.5
0734	6	CACO3	2/3/98	N001	827.0000	5	406.000	525.000	530.4536	1/28/97	N001	531.0000	1/5/96	N001	621.0000	1/28/95	N001	537.0000
	OK	mg/L				0	537.000	621.000	697.4687					0	10		0	10
	6	CHLORI	2/3/98	0001	279.0000	5	184.000	216.000	161.7614	1/28/97	0001	216.0000	1/5/96	0001	229.0000	1/28/95	0001	184.0000
	OK	mg/L				0	272.000	272.000	239.2147					0	0.5		0	0.5
	6	MG	2/3/98	0001	638.0000	4	365.000	429.000	507.9925	1/28/97	0001	542.0000	1/5/96	0001	471.0000	1/28/95	0001	365.0000
	OK	mg/L				0	471.000	542.000	637.2968					0	0.5		0	0.5

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 Sam Campbell Date 3-27-98

Hydrologist "Ok" indicates insignificant variation

Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE	SAMPLE	VALUE	# OF SAMP. / %NON DETEC	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE	SAMPLE	VALUE	LOG DATE	SAMPLE	VALUE	LOG DATE	SAMPLE	VALUE
			FLAGS	UNCERTAINTY	DETLIM					FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DETLIM	FLAGS	UNCERTAINTY	DET LIM
0734	3	NH4	2/3/98	0001	0.0361	4	0.100	0.160	0.0670	1/5/96	N001	0.2700	1/28/95	N001	0.1600	1/13/94	0001	0.1000
	OK	mg/L	B			25	0.400	0.400	0.6000		0	0.1		0	0.1	U	0	0.1
	5	NO3	2/3/98	0001	161.0000	5	1.000	66.100	238.6357	1/28/97	0001	202.0000	1/5/96	N001	155.0000	1/28/95	N001	66.1000
	OK	mg/L				20	155.000	202.000	291.7333					0	1		0	1
0735	3	AS	2/3/98	0001	0.0010	4	0.005	0.010	0.0034	1/4/96	0001	0.0200	1/12/94	0001	0.0250	4/24/93	0001	0.0100
	OK	mg/L	U		0.001	100	0.020	0.025	0.0375	UIW	0	0.02	UI	0	0.025	UI	0	0.005
	6	CA	2/3/98	0001	365.0000	4	164.000	278.000	0.0000	1/4/96	0001	164.0000	1/12/94	0001	278.0000	4/24/93	0001	463.0000
	OK	mg/L				0	463.000	509.000	21.7899		0	1		0	0.5		0	0.5
	3	FE	2/3/98	0001	0.0050	3	0.030	0.100	0.0150	1/4/96	0001	0.0300	4/24/93	N001	0.0300	4/24/93	0001	0.1000
	OK	mg/L	U		0.005	100	0.100	0.100	0.2000	U	0	0.03	U	0	0.03	UI	0	0.03
	6	MN	2/3/98	0001	3.3300	4	1.810	3.130	0.0000	1/4/96	0001	1.8100	1/12/94	0001	3.1300	4/24/93	0001	4.6000
	OK	mg/L				0	4.600	5.080	0.2844		0	0.01		0	0.01		0	0.01
	6	NA	2/3/98	0001	1670.0000	4	926.000	1560.000	0.0000	1/4/96	0001	926.0000	1/12/94	0001	1560.0000	4/24/93	N001	2250.0000
	OK	mg/L				0	2040.000	2250.000	239.1895		0	5		0	1		0	0.1
	3	SB	2/3/98	0001	0.0010	4	0.003	0.015	0.0020	1/4/96	0001	0.0300	1/12/94	0001	0.0150	4/24/93	N001	0.0030
	OK	mg/L	U		0.001	100	0.015	0.030	0.0450	UI	0	0.03	UIN	0	0.015	U	0	0.003
	6	SE	2/3/98	0001	0.0954	5	0.050	0.061	0.0000	1/4/96	0001	0.0500	1/12/94	N001	0.0610	1/12/94	0001	0.0730
	OK	mg/L				20	0.160	0.160	-0.0216	UI	0	0.05		0	0.005	S	0	0.005
	6	SR	2/3/98	0001	7.5700	4	3.380	5.550	0.0000	1/4/96	0001	3.3800	1/12/94	0001	5.5500	4/24/93	0001	8.9000
	OK	mg/L				0	8.900	9.980	0.7241		0	0.01		0	0.01		0	0.01
	6	U	2/3/98	0001	0.1600	5	0.071	0.112	0.0054	1/4/96	0001	0.0710	1/12/94	0001	0.1120	1/12/94	N001	0.1150
	OK	mg/L				0	0.138	0.146	0.0276		0	0.001		0	0.001		0	0.001
0736	6	CACO3	2/3/98	N001	844.0000	5	623.000	677.000	409.9029	1/28/97	N001	623.0000	1/5/96	N001	833.0000	1/28/95	N001	677.0000
	OK	mg/L				0	881.000	1029.000	735.1996					0	10		0	10
	6	CHLORI	2/3/98	0001	453.0000	5	253.000	318.000	14.3634	1/28/97	0001	253.0000	1/5/96	0001	518.0000	1/28/95	0001	318.0000
	OK	mg/L				0	655.000	663.000	355.4451					0	0.5		0	0.5

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Approved by Jan Campbell Date 3-27-98

Hydrologist "Ok" indicates insignificant variation

Site : SHP01 SHIPROCK | Test Data Date Range : 1/31/98 to 3/1/98 | Older Data Only Used for Baseline Data | 680 Chemical Records | 4579 History Records

LOC. ID.	ERR. TYPE FLAG	PARAM CODE / UNITS	ANOMALOUS TEST DATA POINT: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	# OF SAMP. / %NON DETEC	ALL TIME MINIMUMS / ALL TIME MAXIMUMS		LOWER BOUND / UPPER BOUND	3 MOST RECENT SAMPLING EVENTS: LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DETLIM	LOG DATE	SAMPLE	VALUE	FLAGS	UNCERTAINTY	DET LIM
0736	6	MG	2/3/98	0001	1320.0000				4	787.000	975.000	236.3337	1/28/97	0001	787.0000				1/5/96	0001	1560.0000				1/28/95	0001	975.0000			
	OK	mg/L							0	1670.000	1670.000	1209.2378								0	0.5					0	0.5			
	5	MN	2/3/98	0001	2.2500				6	1.600	1.650	3.7671	1/28/97	0001	4.6800				1/5/96	0001	2.3900				1/28/95	0001	3.1600			
	OK	mg/L							0	3.160	4.680	5.7983								0	0.01					0	0.01			
	6	NA	2/3/98	0001	4090.0000				6	2560.000	3090.000	1554.9866	1/28/97	0001	2560.0000				1/5/96	0001	4350.0000				1/28/95	0001	3090.0000			
	OK	mg/L							0	4350.000	4800.000	3686.6972								0	5					0	1			
	3	NH4	2/3/98	0001	0.0148				4	0.100	0.130	0.0670	1/5/96	N001	0.1000				1/28/95	N001	0.1300				1/12/94	0001	0.1000			
	OK	mg/L		B					50	2.600	2.600	3.9000	U	0	0.1					0	0.1				U	0	0.1			
	3	PO-210	2/3/98	0001	-0.0300				3	0.000	0.080	0.0000	1/28/97	0001	0.0800				1/12/94	N001	3.8800				4/23/93	N001	0.0000			
	OK	pCi/L			-0.19	0.25			33.333	0.080	3.880	7.7600	U	0.1	0.08					0.99	0.2					0.4	0.6			
	3	RA-228	2/3/98	0001	-0.1000				3	0.000	1.100	0.0000	1/28/97	0001	1.1000				1/28/95	0001	0.0000				1/12/94	0001	1.4000			
	OK	pCi/L			0.2	0.4			33.333	1.400	1.400	2.8000	U	0.6	1.1					0.7	1.2					0.4	1.4			
	3	SE	2/3/98	0001	0.0033				7	0.005	0.010	0.0034	1/28/97	0001	0.0097				1/5/96	0001	0.0050				1/28/95	0001	0.0180			
	OK	mg/L		B					71.429	0.018	0.050	0.0750							UW	0	0.005	S				0	0.005			
	6	SO4	2/3/98	0001	13600.0000				5	8710.000	9890.000	2270.9574	1/28/97	0001	8710.0000				1/5/96	0001	17100.0000				1/28/95	0001	9890.0000			
	OK	mg/L							0	20800.000	20800.000	13121.0906							I	0	80	I				0	99			
	6	SR	2/3/98	0001	11.1000				6	6.340	8.250	5.0725	1/28/97	0001	8.2500				1/5/96	0001	10.5000				1/28/95	0001	6.3400			
	OK	mg/L							0	10.800	11.100	10.4080								0	0.01					0	0.01			
	6	TDS	2/3/98	0001	21300.0000				5	13900.000	16400.000	7409.3677	1/28/97	0001	13900.0000				1/5/96	0001	23800.0000				1/28/95	0001	16400.0000			
	OK	mg/L							0	23800.000	26500.000	19487.4790								0	10					0	10			
	6	U	2/3/98	0001	0.7460				7	0.531	0.697	0.0000	1/28/97	0001	0.5310				1/5/96	0001	1.0000				1/28/95	0001	0.6970			
	OK	mg/L							0	1.460	1.600	0.6990								0	0.001					0	0.001			

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Approved by Jon Campbell Date 3-27-98

Hydrologist "Ok" indicates insignificant variation

DATA REVIEW CHECKSHEET

ANOMALOUS DATA REVIEW CHECKSHEET

SITE: Shiprock SAMPLING DATA: Groundwater/Surface water

REVIEWER(s): Sam Campbell (NAME (print)) Sam Campbell (SIGNATURE) 3-28-98 (DATE)

SITE HYDROLOGIST: Mark Kautsky (NAME (print)) Mark Kautsky (SIGNATURE) 4-8-98 (DATE)

SITE GEOCHEMIST: Stan Morrison (NAME (print)) Stan Morrison (SIGNATURE) 4-13-98 (DATE)

DATE OF REVIEW: 3-28-98

WELL NO.	ANALYTE	TYPE OF ANOMALY	DISPOSITION
602	Ra-228	All time low	Compare to next sampling round
726	NH_4	↓	↓
727	NH_4	All time high	
728	Gross α	↓	
731	NH_4	All time low	
731	Mn	↓	

ANALYTICAL LABORATORY RESULTS

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:11:48 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity as CaCO3	mg/L	0608	02/03/98	N001	KM	D	1070			#	-	-
	mg/L	0610	02/03/98	N001	AL	D	468		L	#	-	-
	mg/L	0614	02/03/98	N001	AL	D	717			#	-	-
	mg/L	0615	02/03/98	N001	AL	D	629		L	#	-	-
	mg/L	0616	02/03/98	N001	AL	D	283			#	-	-
	mg/L	0617	02/03/98	N001	AL	D	349			#	-	-
	mg/L	0619	02/03/98	N001	AL	D	1036			#	-	-
	mg/L	0620	02/03/98	N001	AL	D	1045			#	-	-
	mg/L	0624	02/03/98	N001	AL	D	935			#	-	-
	mg/L	0626	02/04/98	N001	AL	D	457			#	-	-
	mg/L	0628	02/03/98	N001	AL	D	172			#	-	-
	mg/L	0630	02/04/98	N001	AL	D	479			#	-	-
	mg/L	0732	02/03/98	N001	AL	N	201			#	-	-
	mg/L	0733	02/04/98	N001	AL	N	449			#	-	-
	mg/L	0734	02/03/98	N001	AL	N	827		L	#	-	-
	mg/L	0735	02/03/98	N001	AL	N	540			#	-	-
	mg/L	0736	02/03/98	N001	AL	N	844			#	-	-
Ammonia as NH4	mg/L	0608	02/03/98	0001	KM	D	498.000			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	78.500		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	46.800			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	43.700		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	4.770			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	58.700			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	10.400			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	0.0836	B		#	-	-
	mg/L	0624	02/03/98	0001	AL	D	6.040			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	0.0361	B		#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:11:51 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Ammonia as NH4	mg/L	0626	02/04/98	0002	AL	D	0.0361	B		#	-	-
	mg/L	0628	02/03/98	0001	AL	D	0.0219	B		#	-	-
	mg/L	0630	02/04/98	0001	AL	D	0.0124	B		#	-	-
	mg/L	0732	02/03/98	0001	AL	N	0.169			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	0.162			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	0.0361	B	L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	15.800			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	0.0148	B		#	-	-
Antimony	mg/L	0608	02/03/98	0001	KM	D	0.0010	U		#	0.001	-
	mg/L	0610	02/03/98	0001	AL	D	0.0010	U	L	#	0.001	-
	mg/L	0614	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0615	02/03/98	0001	AL	D	0.0010	U	L	#	0.001	-
	mg/L	0616	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0617	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0619	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0620	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0624	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0626	02/04/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0626	02/04/98	0002	AL	D	0.0010	U		#	0.001	-
	mg/L	0628	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0630	02/04/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0732	02/03/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0733	02/04/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0734	02/03/98	0001	AL	N	0.0010	U	L	#	0.001	-
	mg/L	0735	02/03/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0736	02/03/98	0001	AL	N	0.0016	B		#	-	-
Arsenic	mg/L	0608	02/03/98	0001	KM	D	0.0010	U		#	0.001	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:11:54 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Arsenic	mg/L	0610	02/03/98	0001	AL	D	0.0010	U	L	#	0.001	-
	mg/L	0614	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0615	02/03/98	0001	AL	D	0.0010	U	L	#	0.001	-
	mg/L	0616	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0617	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0619	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0620	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0624	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0626	02/04/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0626	02/04/98	0002	AL	D	0.0010	U		#	0.001	-
	mg/L	0628	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0630	02/04/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0732	02/03/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0733	02/04/98	0001	AL	N	0.0027	B		#	-	-
	mg/L	0734	02/03/98	0001	AL	N	0.0010	U	L	#	0.001	-
	mg/L	0735	02/03/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0736	02/03/98	0001	AL	N	0.0086			#	-	-
Cadmium	mg/L	0608	02/03/98	0001	KM	D	0.0010			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	0.0010	U	L	#	0.001	-
	mg/L	0614	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0615	02/03/98	0001	AL	D	0.0010	U	L	#	0.001	-
	mg/L	0616	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0617	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0619	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0620	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0624	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0626	02/04/98	0001	AL	D	0.0010	U		#	0.001	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:11:58 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Cadmium	mg/L	0626	02/04/98	0002	AL	D	0.0010	U		#	0.001	-
	mg/L	0628	02/03/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0630	02/04/98	0001	AL	D	0.0010	U		#	0.001	-
	mg/L	0732	02/03/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0733	02/04/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0734	02/03/98	0001	AL	N	0.0010	U	L	#	0.001	-
	mg/L	0735	02/03/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0736	02/03/98	0001	AL	N	0.0010	U		#	0.001	-
Calcium	mg/L	0608	02/03/98	0001	KM	D	415.000			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	461.000		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	451.000			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	406.000		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	413.000			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	405.000			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	435.000			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	434.000			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	459.000			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	257.000			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	259.000			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	169.000			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	437.000			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	109.000			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	339.000			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	427.000		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	365.000			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	450.000			#	-	-
Chloride	mg/L	0608	02/03/98	0001	KM	D	325.000			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:01 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/L	0610	02/03/98	0001	AL	D	335.000		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	466.000			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	381.000		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	67.800			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	137.000			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	637.000			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	572.000			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	568.000			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	98.000			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	100.000			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	64.800			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	183.000			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	40.800			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	123.000			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	279.000		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	314.000			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	453.000			#	-	-
Gross Alpha	pCi/L	0608	02/03/98	0001	KM	D	1340			#	116	± 196.0
	pCi/L	0610	02/03/98	0001	AL	D	1051		L	#	117	± 175.0
	pCi/L	0614	02/03/98	0001	AL	D	1807			#	152	± 261.0
	pCi/L	0615	02/03/98	0001	AL	D	1463		L	#	130	± 217.0
	pCi/L	0616	02/03/98	0001	AL	D	241.0			#	36.1	± 47.40
	pCi/L	0617	02/03/98	0001	AL	D	401.6			#	52.3	± 73.10
	pCi/L	0619	02/03/98	0001	AL	D	1215			#	139	± 206.0
	pCi/L	0620	02/03/98	0001	AL	D	917.2			#	132.1	± 176.3
	pCi/L	0624	02/03/98	0001	AL	D	1074			#	111	± 173.0
	pCi/L	0626	02/04/98	0001	AL	D	90.42			#	37.11	± 32.82

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:04 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Gross Alpha	pCi/L	0626	02/04/98	0002	AL	D	80.78			#	36.52	± 31.26
	pCi/L	0628	02/03/98	0001	AL	D	25.46	U		#	25.46	± 16.12
	pCi/L	0630	02/04/98	0001	AL	D	238.0			#	51.3	± 57.80
	pCi/L	0732	02/03/98	0001	AL	N	7.46	U		#	7.46	± 4.93
	pCi/L	0733	02/04/98	0001	AL	N	31.77	U		#	31.77	± 21.56
	pCi/L	0734	02/03/98	0001	AL	N	160.3		L	#	78.2	± 65.30
	pCi/L	0735	02/03/98	0001	AL	N	102.8			#	68.6	± 52.20
	pCi/L	0736	02/03/98	0001	AL	N	633.5			#	136.9	± 154.0
Gross Beta	pCi/L	0608	02/03/98	0001	KM	D	466.6			#	164.5	± 115.7
	pCi/L	0610	02/03/98	0001	AL	D	450.2		L	#	161.3	± 113.5
	pCi/L	0614	02/03/98	0001	AL	D	509.5			#	219.5	± 149.4
	pCi/L	0615	02/03/98	0001	AL	D	525.5		L	#	165.9	± 119.1
	pCi/L	0616	02/03/98	0001	AL	D	105.1			#	42.8	± 29.60
	pCi/L	0617	02/03/98	0001	AL	D	131.7			#	64.6	± 43.30
	pCi/L	0619	02/03/98	0001	AL	D	389.1			#	163.8	± 112.2
	pCi/L	0620	02/03/98	0001	AL	D	422.8			#	160.6	± 112.1
	pCi/L	0624	02/03/98	0001	AL	D	403.8			#	132	± 94.30
	pCi/L	0626	02/04/98	0001	AL	D	41.48	U		#	41.48	± 25.65
	pCi/L	0626	02/04/98	0002	AL	D	46.53			#	41.32	± 25.98
	pCi/L	0628	02/03/98	0001	AL	D	30.34	U		#	30.34	± 18.00
	pCi/L	0630	02/04/98	0001	AL	D	76.55			#	62.85	± 39.75
	pCi/L	0732	02/03/98	0001	AL	N	8.70	U		#	8.7	± 5.12
	pCi/L	0733	02/04/98	0001	AL	N	40.30	U		#	40.3	± 23.70
	pCi/L	0734	02/03/98	0001	AL	N	88.42	U	L	#	88.42	± 54.64
	pCi/L	0735	02/03/98	0001	AL	N	86.82	U		#	86.82	± 53.31
	pCi/L	0736	02/03/98	0001	AL	N	244.2			#	158.2	± 102.6
Iron	mg/L	0608	02/03/98	0001	KM	D	0.0050	U		#	0.005	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:07 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	SAMPLE: ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	QUALIFIERS: DATA	QUALIFIERS: QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/L	0610	02/03/98	0001	AL	D	0.0050	U	L	#	0.005	-
	mg/L	0614	02/03/98	0001	AL	D	0.0050	U		#	0.005	-
	mg/L	0615	02/03/98	0001	AL	D	0.0050	U	L	#	0.005	-
	mg/L	0616	02/03/98	0001	AL	D	0.0050	U		#	0.005	-
	mg/L	0617	02/03/98	0001	AL	D	0.0050	U		#	0.005	-
	mg/L	0619	02/03/98	0001	AL	D	0.0050	U		#	0.005	-
	mg/L	0620	02/03/98	0001	AL	D	0.0050	U		#	0.005	-
	mg/L	0624	02/03/98	0001	AL	D	0.0050	U		#	0.005	-
	mg/L	0626	02/04/98	0001	AL	D	0.0050	U		#	0.005	-
	mg/L	0626	02/04/98	0002	AL	D	0.0050	U		#	0.005	-
	mg/L	0628	02/03/98	0001	AL	D	0.0699			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	0.0050	U		#	0.005	-
	mg/L	0732	02/03/98	0001	AL	N	0.0050	U		#	0.005	-
	mg/L	0733	02/04/98	0001	AL	N	3.740			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	0.0050	U	L	#	0.005	-
	mg/L	0735	02/03/98	0001	AL	N	0.0050	U		#	0.005	-
	mg/L	0736	02/03/98	0001	AL	N	0.100			#	-	-
Magnesium	mg/L	0608	02/03/98	0001	KM	D	1750.000			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	1720.000		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	2410.000			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	1660.000		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	300.000			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	601.000			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	1530.000			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	1510.000			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	1290.000			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	112.000			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:10 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	0626	02/04/98	0002	AL	D	116.000			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	40.200			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	205.000			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	45.600			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	255.000			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	638.000		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	744.000			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	1320.000			#	-	-
Manganese	mg/L	0608	02/03/98	0001	KM	D	7.590			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	3.110		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	5.630			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	5.370		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	0.832			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	5.390			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	5.820			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	3.090			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	5.770			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	1.390			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	1.410			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	1.410			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	0.905			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	0.162			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	3.080			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	2.800		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	3.330			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	2.250			#	-	-
Nitrate	mg/L	0608	02/03/98	0001	KM	D	2350.000			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:13 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Nitrate	mg/L	0610	02/03/98	0001	AL	D	2880.000		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	3750.000			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	2250.000		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	13.300			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	595.000			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	389.000			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	155.000			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	368.000			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	10.200			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	9.860			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	0.786	B		#	-	-
	mg/L	0630	02/04/98	0001	AL	D	126.000			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	28.500			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	0.110	B		#	-	-
	mg/L	0734	02/03/98	0001	AL	N	161.000		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	1790.000			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	5.880			#	-	-
pH	s.u.	0608	02/03/98	N001	KM	D	6.74			#	-	-
	s.u.	0610	02/03/98	N001	AL	D	7.03		L	#	-	-
	s.u.	0614	02/03/98	N001	AL	D	6.87			#	-	-
	s.u.	0615	02/03/98	N001	AL	D	7.07		L	#	-	-
	s.u.	0616	02/03/98	N001	AL	D	7.31			#	-	-
	s.u.	0617	02/03/98	N001	AL	D	7.13			#	-	-
	s.u.	0619	02/03/98	N001	AL	D	7.21			#	-	-
	s.u.	0620	02/03/98	N001	AL	D	7.06			#	-	-
	s.u.	0624	02/03/98	N001	AL	D	7.14			#	-	-
	s.u.	0626	02/04/98	N001	AL	D	6.87			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:17 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0628	02/03/98	N001	AL	D	7.66			#	-	-
	s.u.	0630	02/04/98	N001	AL	D	7.17			#	-	-
	s.u.	0732	02/03/98	N001	AL	N	7.64			#	-	-
	s.u.	0733	02/04/98	N001	AL	N	7.23			#	-	-
	s.u.	0734	02/03/98	N001	AL	N	7.81		L	#	-	-
	s.u.	0735	02/03/98	N001	AL	N	7.23			#	-	-
	s.u.	0736	02/03/98	N001	AL	N	7.75			#	-	-
Polonium-210	pCi/L	0608	02/03/98	0001	KM	D	0.23	U		#	0.23	± 0.31
	pCi/L	0610	02/03/98	0001	AL	D	0.47	U	L	#	0.47	± -0.43
	pCi/L	0614	02/03/98	0001	AL	D	0.41	U		#	0.41	± -0.37
	pCi/L	0615	02/03/98	0001	AL	D	0.27	U	L	#	0.27	± 0.31
	pCi/L	0616	02/03/98	0001	AL	D	0.37	U		#	0.37	± 0.35
	pCi/L	0617	02/03/98	0001	AL	D	0.55	U		#	0.55	± -0.46
	pCi/L	0619	02/03/98	0001	AL	D	0.52	U		#	0.52	± 0.55
	pCi/L	0620	02/03/98	0001	AL	D	0.30	U		#	0.3	± 0.31
	pCi/L	0624	02/03/98	0001	AL	D	0.23	U		#	0.23	± 0.26
	pCi/L	0626	02/04/98	0001	AL	D	0.42	U		#	0.42	± 0.46
	pCi/L	0626	02/04/98	0002	AL	D	0.23	U		#	0.23	± -0.18
	pCi/L	0628	02/03/98	0001	AL	D	0.30	U		#	0.3	± 0.31
	pCi/L	0630	02/04/98	0001	AL	D	0.36	U		#	0.36	± 0.33
	pCi/L	0732	02/03/98	0001	AL	N	0.52	U		#	0.52	± 0.54
	pCi/L	0733	02/04/98	0001	AL	N	0.39	U		#	0.39	± 0.37
	pCi/L	0734	02/03/98	0001	AL	N	0.21	U	L	#	0.21	± 0.19
	pCi/L	0735	02/03/98	0001	AL	N	0.27	U		#	0.27	± 0.32
	pCi/L	0736	02/03/98	0001	AL	N	0.25	U		#	0.25	± -0.19
Potassium	mg/L	0608	02/03/98	0001	KM	D	153.000			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	107.000		L	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:20 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Potassium	mg/L	0614	02/03/98	0001	AL	D	121.000			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	109.000		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	38.300			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	51.400			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	80.400			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	55.900			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	64.500			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	16.800			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	16.600			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	7.620			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	13.200			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	3.710			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	5.650			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	17.500		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	27.300			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	42.500			#	-	-
Radium-226	pCi/L	0608	02/03/98	0001	KM	D	0.08			#	0.01	± 0.05
	pCi/L	0610	02/03/98	0001	AL	D	0.11		L	#	0.03	± 0.07
	pCi/L	0614	02/03/98	0001	AL	D	0.07			#	0.01	± 0.04
	pCi/L	0615	02/03/98	0001	AL	D	0.11		L	#	0.02	± 0.06
	pCi/L	0616	02/03/98	0001	AL	D	0.06			#	0.02	± 0.04
	pCi/L	0617	02/03/98	0001	AL	D	0.06			#	0.01	± 0.04
	pCi/L	0619	02/03/98	0001	AL	D	0.08			#	0.02	± 0.05
	pCi/L	0620	02/03/98	0001	AL	D	0.06			#	0.01	± 0.04
	pCi/L	0624	02/03/98	0001	AL	D	0.05		U	#	0.02	± 0.04
	pCi/L	0626	02/04/98	0001	AL	D	0.05		U	#	0.01	± 0.04
	pCi/L	0626	02/04/98	0002	AL	D	0.05			#	0.01	± 0.03

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:23 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Radium-226	pCi/L	0628	02/03/98	0001	AL	D	0.06			#	0.01	± 0.03
	pCi/L	0630	02/04/98	0001	AL	D	0.17		U	#	0.16	± 0.24
	pCi/L	0732	02/03/98	0001	AL	N	0.04		U	#	0.01	± 0.03
	pCi/L	0733	02/04/98	0001	AL	N	0.11			#	0.02	± 0.06
	pCi/L	0734	02/03/98	0001	AL	N	0.09		L	#	0.02	± 0.05
	pCi/L	0735	02/03/98	0001	AL	N	0.13			#	0.02	± 0.06
	pCi/L	0736	02/03/98	0001	AL	N	0.09			#	0.02	± 0.05
Radium-228	pCi/L	0608	02/03/98	0001	KM	D	0.8	U		#	0.8	± 0.50
	pCi/L	0610	02/03/98	0001	AL	D	1.0	U	L	#	1	± 0.60
	pCi/L	0614	02/03/98	0001	AL	D	0.9	U		#	0.9	± 0.50
	pCi/L	0615	02/03/98	0001	AL	D	1.2		L	#	0.8	± 0.50
	pCi/L	0616	02/03/98	0001	AL	D	0.4	U		#	0.4	± 0.30
	pCi/L	0617	02/03/98	0001	AL	D	0.4			#	0.4	± 0.20
	pCi/L	0619	02/03/98	0001	AL	D	1.4			#	0.8	± 0.60
	pCi/L	0620	02/03/98	0001	AL	D	0.5			#	0.4	± 0.30
	pCi/L	0624	02/03/98	0001	AL	D	0.9	U		#	0.9	± 0.50
	pCi/L	0626	02/04/98	0001	AL	D	1.0	U		#	1	± 0.60
	pCi/L	0626	02/04/98	0002	AL	D	0.8	U		#	0.8	± 0.40
	pCi/L	0628	02/03/98	0001	AL	D	0.6	U		#	0.6	± 0.30
	pCi/L	0630	02/04/98	0001	AL	D	0.9	U		#	0.9	± 0.50
	pCi/L	0732	02/03/98	0001	AL	N	0.7	U		#	0.7	± 0.40
	pCi/L	0733	02/04/98	0001	AL	N	1.0	U		#	1	± 0.60
	pCi/L	0734	02/03/98	0001	AL	N	0.9	U	L	#	0.9	± 0.50
	pCi/L	0735	02/03/98	0001	AL	N	0.6	U		#	0.6	± 0.40
	pCi/L	0736	02/03/98	0001	AL	N	0.4	U		#	0.4	± 0.20
Redox Potential	mV	0608	02/03/98	N001	KM	D	247			#	-	-
	mV	0610	02/03/98	N001	AL	D	226		L	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:26 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Redox Potential	mV	0614	02/03/98	N001	AL	D	248			#	-	-
	mV	0615	02/03/98	N001	AL	D	232		L	#	-	-
	mV	0616	02/03/98	N001	AL	D	120			#	-	-
	mV	0617	02/03/98	N001	AL	D	137			#	-	-
	mV	0619	02/03/98	N001	AL	D	167			#	-	-
	mV	0620	02/03/98	N001	AL	D	109			#	-	-
	mV	0624	02/03/98	N001	AL	D	142			#	-	-
	mV	0626	02/04/98	N001	AL	D	86			#	-	-
	mV	0628	02/03/98	N001	AL	D	30			#	-	-
	mV	0630	02/04/98	N001	AL	D	208			#	-	-
	mV	0732	02/03/98	N001	AL	N	21			#	-	-
	mV	0733	02/04/98	N001	AL	N	-87			#	-	-
	mV	0734	02/03/98	N001	AL	N	183		L	#	-	-
	mV	0735	02/03/98	N001	AL	N	221			#	-	-
	mV	0736	02/03/98	N001	AL	N	37			#	-	-
Selenium	mg/L	0608	02/03/98	0001	KM	D	0.0078			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	0.0268		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	0.0917			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	0.864		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	0.0214			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	0.0430			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	0.345			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	0.327			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	0.186			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	0.0296			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	0.0312			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	0.0308			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:29 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL:	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Selenium	mg/L	0630	02/04/98	0001	AL	D	0.164			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	0.0037	B		#	-	-
	mg/L	0733	02/04/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0734	02/03/98	0001	AL	N	0.150		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	0.0954			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	0.0033	B		#	-	-
Sodium	mg/L	0608	02/03/98	0001	KM	D	1770.000			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	2040.000		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	2620.000			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	2540.000		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	616.000			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	814.000			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	3300.000			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	2790.000			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	2770.000			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	1150.000			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	1150.000			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	789.000			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	1290.000			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	163.000			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	520.000			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	1800.000		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	1670.000			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	4090.000			#	-	-
Specific Conductance	umhos/	0608	02/03/98	N001	KM	D	17030			#	-	-
	umhos/	0610	02/03/98	N001	AL	D	13130		L	#	-	-
	umhos/	0614	02/03/98	N001	AL	D	18510			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:32 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/	0615	02/03/98	N001	AL	D	14590		L	#	-	-
	umhos/	0616	02/03/98	N001	AL	D	5800			#	-	-
	umhos/	0617	02/03/98	N001	AL	D	8150			#	-	-
	umhos/	0619	02/03/98	N001	AL	D	18160			#	-	-
	umhos/	0620	02/03/98	N001	AL	D	16780			#	-	-
	umhos/	0624	02/03/98	N001	AL	D	16330			#	-	-
	umhos/	0626	02/04/98	N001	AL	D	6310			#	-	-
	umhos/	0628	02/03/98	N001	AL	D	4774			#	-	-
	umhos/	0630	02/04/98	N001	AL	D	739			#	-	-
	umhos/	0732	02/03/98	N001	AL	N	1630			#	-	-
	umhos/	0733	02/04/98	N001	AL	N	4650			#	-	-
	umhos/	0734	02/03/98	N001	AL	N	9563		L	#	-	-
	umhos/	0735	02/03/98	N001	AL	N	10590			#	-	-
	umhos/	0736	02/03/98	N001	AL	N	19050			#	-	-
Strontium	mg/L	0608	02/03/98	0001	KM	D	11.200			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	10.900		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	12.600			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	9.060		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	4.730			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	5.380			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	11.800			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	12.500			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	12.000			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	7.680			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	7.810			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	6.760			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	20.500			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:35 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Strontium	mg/L	0732	02/03/98	0001	AL	N	1.370			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	4.610			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	8.820		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	7.570			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	11.100			#	-	-
Sulfate	mg/L	0608	02/03/98	0001	KM	D	10700.000			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	9320.000		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	12200.000			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	10400.000		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	3310.000			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	4460.000			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	12200.000			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	11200.000			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	10500.000			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	3020.000			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	3060.000			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	2260.000			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	3970.000			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	553.000			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	2500.000			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	6590.000		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	5310.000			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	13600.000			#	-	-
Temperature	C	0608	02/03/98	N001	KM	D	7.2			#	-	-
	C	0610	02/03/98	N001	AL	D	8.5		L	#	-	-
	C	0614	02/03/98	N001	AL	D	10.3			#	-	-
	C	0615	02/03/98	N001	AL	D	9.0		L	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:38 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0616	02/03/98	N001	AL	D	10.7			#	-	-
	C	0617	02/03/98	N001	AL	D	11.9			#	-	-
	C	0619	02/03/98	N001	AL	D	14.0			#	-	-
	C	0620	02/03/98	N001	AL	D	11.6			#	-	-
	C	0624	02/03/98	N001	AL	D	14.7			#	-	-
	C	0626	02/04/98	N001	AL	D	10.4			#	-	-
	C	0628	02/03/98	N001	AL	D	6.2			#	-	-
	C	0630	02/04/98	N001	AL	D	9.7			#	-	-
	C	0732	02/03/98	N001	AL	N	12.1			#	-	-
	C	0733	02/04/98	N001	AL	N	12.7			#	-	-
	C	0734	02/03/98	N001	AL	N	7.3		L	#	-	-
	C	0735	02/03/98	N001	AL	N	7.3			#	-	-
	C	0736	02/03/98	N001	AL	N	9.3			#	-	-
Total Dissolved Solids	mg/L	0608	02/03/98	0001	KM	D	18200			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	18300		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	23600			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	19200		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	5320			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	7640			#	-	-
	mg/L	0619	02/03/98	0001	AL	D	20400			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	19100			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	17800			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	5170			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	5140			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	3600			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	6900			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	1110			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:42 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Total Dissolved Solids	mg/L	0733	02/04/98	0001	AL	N	4270			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	11000		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	11000			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	21300			#	-	-
Turbidity	NTU	0608	02/03/98	N001	KM	D	8.75			#	-	-
	NTU	0610	02/03/98	N001	AL	D	55.6		L	#	-	-
	NTU	0614	02/03/98	N001	AL	D	1.67			#	-	-
	NTU	0615	02/03/98	N001	AL	D	61.1		L	#	-	-
	NTU	0616	02/03/98	N001	AL	D	2.51			#	-	-
	NTU	0617	02/03/98	N001	AL	D	9.4			#	-	-
	NTU	0619	02/03/98	N001	AL	D	25.4			#	-	-
	NTU	0620	02/03/98	N001	AL	D	6.61			#	-	-
	NTU	0624	02/03/98	N001	AL	D	9.86			#	-	-
	NTU	0626	02/04/98	N001	AL	D	2.01			#	-	-
	NTU	0628	02/03/98	N001	AL	D	7.60			#	-	-
	NTU	0630	02/04/98	N001	AL	D	2.09			#	-	-
	NTU	0732	02/03/98	N001	AL	N	0.52			#	-	-
	NTU	0733	02/04/98	N001	AL	N	18.6			#	-	-
	NTU	0734	02/03/98	N001	AL	N	14		L	#	-	-
	NTU	0735	02/03/98	N001	AL	N	5.80			#	-	-
	NTU	0736	02/03/98	N001	AL	N	2.80			#	-	-
Uranium	mg/L	0608	02/03/98	0001	KM	D	2.020			#	-	-
	mg/L	0610	02/03/98	0001	AL	D	1.790		L	#	-	-
	mg/L	0614	02/03/98	0001	AL	D	2.460			#	-	-
	mg/L	0615	02/03/98	0001	AL	D	1.910		L	#	-	-
	mg/L	0616	02/03/98	0001	AL	D	0.422			#	-	-
	mg/L	0617	02/03/98	0001	AL	D	0.533			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:45 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0619	02/03/98	0001	AL	D	1.800			#	-	-
	mg/L	0620	02/03/98	0001	AL	D	1.270			#	-	-
	mg/L	0624	02/03/98	0001	AL	D	1.610			#	-	-
	mg/L	0626	02/04/98	0001	AL	D	0.152			#	-	-
	mg/L	0626	02/04/98	0002	AL	D	0.153			#	-	-
	mg/L	0628	02/03/98	0001	AL	D	0.0339			#	-	-
	mg/L	0630	02/04/98	0001	AL	D	0.340			#	-	-
	mg/L	0732	02/03/98	0001	AL	N	0.0084			#	-	-
	mg/L	0733	02/04/98	0001	AL	N	0.0206			#	-	-
	mg/L	0734	02/03/98	0001	AL	N	0.139		L	#	-	-
	mg/L	0735	02/03/98	0001	AL	N	0.160			#	-	-
	mg/L	0736	02/03/98	0001	AL	N	0.746			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK
REPORT DATE: 3/31/98 3:12:47 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY

RECORDS: SELECTED FROM USEE200 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 #2/1/98# and #2/5/98#

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 compund (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.

DATA QUALIFIERS:

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

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

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:16 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity as CaCO3	mg/L	0600	02/05/98	N001	KM	O	1435		L	#	-	-
	mg/L	0602	02/04/98	N001	KM	O	2010.			#	-	-
	mg/L	0603	02/04/98	N001	AL	N	273			#	-	-
	mg/L	0604	02/05/98	N001	KM	N	837		L	#	-	-
	mg/L	0725	02/04/98	N001	AL	N	354			#	-	-
	mg/L	0726	02/04/98	N001	KM	N	443		L	#	-	-
	mg/L	0727	02/04/98	N001	KM	N	1584		L	#	-	-
	mg/L	0728	02/04/98	N001	AL	N	1175			#	-	-
	mg/L	0730	02/04/98	N001	NR	N	19		L	#	-	-
	mg/L	0731	02/05/98	N001	NR	N	423		L	#	-	-
	mg/L	MW1	02/04/98	N001		O	1030		L	#	-	-
Ammonia as NH4	mg/L	0600	02/05/98	0001	KM	O	200.000		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	481.000			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	1850.000			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	0.570		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	0.0124	B		#	-	-
	mg/L	0726	02/04/98	0001	KM	N	0.0789	B	L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	15.300		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	218.000			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	180.000		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	23.300		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	1.560		L	#	-	-
Antimony	mg/L	0600	02/05/98	0001	KM	O	0.0010	U	L	#	0.001	-
	mg/L	0602	02/04/98	0001	KM	O	0.0010	U		#	0.001	-
	mg/L	0603	02/04/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0604	02/05/98	0001	KM	N	0.0010	U	L	#	0.001	-
	mg/L	0725	02/04/98	0001	AL	N	0.0010	U		#	0.001	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:19 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Antimony	mg/L	0726	02/04/98	0001	KM	N	0.0010	U	L	#	0.001	-
	mg/L	0727	02/04/98	0001	KM	N	0.0010	U	L	#	0.001	-
	mg/L	0728	02/04/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0730	02/04/98	0001	NR	N	0.0010	U	L	#	0.001	-
	mg/L	0731	02/05/98	0001	NR	N	0.0010	U	L	#	0.001	-
	mg/L	MW1	02/04/98	0001		O	0.0010	U	L	#	0.001	-
Arsenic	mg/L	0600	02/05/98	0001	KM	O	0.0010	U	L	#	0.001	-
	mg/L	0602	02/04/98	0001	KM	O	0.0010	U		#	0.001	-
	mg/L	0603	02/04/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0604	02/05/98	0001	KM	N	0.0010	U	L	#	0.001	-
	mg/L	0725	02/04/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0726	02/04/98	0001	KM	N	0.0010	U	L	#	0.001	-
	mg/L	0727	02/04/98	0001	KM	N	0.0010	U	L	#	0.001	-
	mg/L	0728	02/04/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0730	02/04/98	0001	NR	N	0.0010	U	L	#	0.001	-
	mg/L	0731	02/05/98	0001	NR	N	0.0010	U	L	#	0.001	-
	mg/L	MW1	02/04/98	0001		O	0.0010	U	L	#	0.001	-
Cadmium	mg/L	0600	02/05/98	0001	KM	O	0.0010	U	L	#	0.001	-
	mg/L	0602	02/04/98	0001	KM	O	0.0010	U		#	0.001	-
	mg/L	0603	02/04/98	0001	AL	N	0.0221			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	0.0010	U	L	#	0.001	-
	mg/L	0725	02/04/98	0001	AL	N	0.0010	U		#	0.001	-
	mg/L	0726	02/04/98	0001	KM	N	0.0010	U	L	#	0.001	-
	mg/L	0727	02/04/98	0001	KM	N	0.0010	U	L	#	0.001	-
	mg/L	0728	02/04/98	0001	AL	N	0.0010			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	0.0466		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	0.0010	U	L	#	0.001	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:22 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Cadmium	*mg/L*	MW1	02/04/98	0001		O	0.0010	U	L	#	0.001	-
Calcium	mg/L	0600	02/05/98	0001	KM	O	405.000		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	404.000			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	411.000			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	638.000		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	302.000			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	382.000		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	408.000		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	452.000			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	480.000		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	442.000		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	53.900		L	#	-	-
Chloride	mg/L	0600	02/05/98	0001	KM	O	434.000		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	685.000			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	394.000			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	3400.000		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	146.000			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	144.000		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	444.000		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	306.000			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	16.900		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	503.000		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	3060.000		L	#	-	-
Gross Alpha	pCi/L	0600	02/05/98	0001	KM	O	1224.9		L	#	105.6	± 179.1
	pCi/L	0602	02/04/98	0001	KM	O	805.0			#	180.8	± 200.1
	pCi/L	0603	02/04/98	0001	AL	N	101.53	U		#	101.53	± 50.32

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:25 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Gross Alpha	pCi/L	0604	02/05/98	0001	KM	N	169.6	U	L	#	169.6	± 113.6
	pCi/L	0725	02/04/98	0001	AL	N	197.8			#	36.7	± 44.00
	pCi/L	0726	02/04/98	0001	KM	N	112.5		L	#	72.4	± 55.60
	pCi/L	0727	02/04/98	0001	KM	N	330.1		L	#	135.6	± 119.9
	pCi/L	0728	02/04/98	0001	AL	N	505.4			#	134.9	± 139.5
	pCi/L	0730	02/04/98	0001	NR	N	23.38	U	L	#	23.38	± 12.13
	pCi/L	0731	02/05/98	0001	NR	N	73.32		L	#	69.2	± 48.13
	pCi/L	MW1	02/04/98	0001		O	58.65	U	L	#	58.65	± 33.07
Gross Beta	pCi/L	0600	02/05/98	0001	KM	O	313.6		L	#	133.3	± 90.90
	pCi/L	0602	02/04/98	0001	KM	O	379.1			#	210.4	± 139.0
	pCi/L	0603	02/04/98	0001	AL	N	163.8			#	120.5	± 77.20
	pCi/L	0604	02/05/98	0001	KM	N	202.67	U	L	#	202.67	± 119.2
	pCi/L	0725	02/04/98	0001	AL	N	71.43			#	42.48	± 27.80
	pCi/L	0726	02/04/98	0001	KM	N	87.32	U	L	#	87.32	± 53.81
	pCi/L	0727	02/04/98	0001	KM	N	167.7		L	#	155.1	± 97.10
	pCi/L	0728	02/04/98	0001	AL	N	235.8			#	156.8	± 101.4
	pCi/L	0730	02/04/98	0001	NR	N	32.75		L	#	29.92	± 18.78
	pCi/L	0731	02/05/98	0001	NR	N	86.56	U	L	#	86.56	± 51.98
	pCi/L	MW1	02/04/98	0001		O	61.47	U	L	#	61.47	± 35.42
Iron	mg/L	0600	02/05/98	0001	KM	O	0.0050	U	L	#	0.005	-
	mg/L	0602	02/04/98	0001	KM	O	0.0635		U	#	-	-
	mg/L	0603	02/04/98	0001	AL	N	0.0050	U		#	0.005	-
	mg/L	0604	02/05/98	0001	KM	N	0.0050	U	L	#	0.005	-
	mg/L	0725	02/04/98	0001	AL	N	0.0050	U		#	0.005	-
	mg/L	0726	02/04/98	0001	KM	N	0.0050	U	L	#	0.005	-
	mg/L	0727	02/04/98	0001	KM	N	0.0050	U	L	#	0.005	-
	mg/L	0728	02/04/98	0001	AL	N	0.0050	U		#	0.005	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:28 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/L	0730	02/04/98	0001	NR	N	0.311		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	0.0050	U	L	#	0.005	-
	mg/L	MW1	02/04/98	0001		O	0.0207	B	UL	#	-	-
Magnesium	mg/L	0600	02/05/98	0001	KM	O	847.000		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	2730.000			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	1140.000			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	1050.000		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	234.000			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	431.000		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	2220.000		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	2030.000			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	157.000		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	655.000		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	26.000		L	#	-	-
Manganese	mg/L	0600	02/05/98	0001	KM	O	1.410		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	1.950			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	34.000			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	0.378		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	0.0014	B	U	#	-	-
	mg/L	0726	02/04/98	0001	KM	N	0.467		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	1.330		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	2.510			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	21.200		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	0.0800		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	0.197		L	#	-	-
Nitrate	mg/L	0600	02/05/98	0001	KM	O	493.000		L	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:31 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Nitrate	mg/L	0602	02/04/98	0001	KM	O	56.100			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	4190.000			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	2610.000		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	191.000			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	76.700		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	2010.000		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	4170.000			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	407.000		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	791.000		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	9.330		L	#	-	-
pH	s.u.	0600	02/05/98	N001	KM	O	6.50		L	#	-	-
	s.u.	0602	02/04/98	N001	KM	O	6.86			#	-	-
	s.u.	0603	02/04/98	N001	AL	N	6.52			#	-	-
	s.u.	0604	02/05/98	N001	KM	N	7.08		L	#	-	-
	s.u.	0725	02/04/98	N001	AL	N	7.20			#	-	-
	s.u.	0726	02/04/98	N001	KM	N	6.96		L	#	-	-
	s.u.	0727	02/04/98	N001	KM	N	6.64		L	#	-	-
	s.u.	0728	02/04/98	N001	AL	N	6.60			#	-	-
	s.u.	0730	02/04/98	N001	NR	N	5.75		L	#	-	-
	s.u.	0731	02/05/98	N001	NR	N	7.01		L	#	-	-
	s.u.	MW1	02/04/98	N001		O	7.08		L	#	-	-
Polonium-210	pCi/L	0600	02/05/98	0001	KM	O	0.28	U	L	#	0.28	± 0.25
	pCi/L	0602	02/04/98	0001	KM	O	0.55	U		#	0.55	± 0.54
	pCi/L	0603	02/04/98	0001	AL	N	0.55	U		#	0.55	± 0.60
	pCi/L	0604	02/05/98	0001	KM	N	0.25	U	L	#	0.25	± 0.23
	pCi/L	0725	02/04/98	0001	AL	N	0.22	U		#	0.22	± 0.25
	pCi/L	0726	02/04/98	0001	KM	N	0.41	U	L	#	0.41	± -0.33

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:34 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Polonium-210	pCi/L	0727	02/04/98	0001	KM	N	0.39	U	L	#	0.39	± 0.37
	pCi/L	0728	02/04/98	0001	AL	N	0.39	U		#	0.39	± -0.34
	pCi/L	0730	02/04/98	0001	NR	N	0.40	U	L	#	0.4	± 0.43
	pCi/L	0731	02/05/98	0001	NR	N	0.23	U	L	#	0.23	± 0.21
	pCi/L	MW1	02/04/98	0001		O	0.61		UL	#	0.25	± 0.52
Potassium	mg/L	0600	02/05/98	0001	KM	O	90.800		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	208.000			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	214.000			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	39.100		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	12.900			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	33.100		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	68.600		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	142.000			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	24.200		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	44.200		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	10.900		L	#	-	-
Radium-226	pCi/L	0600	02/05/98	0001	KM	O	0.94		L	#	0.02	± 0.17
	pCi/L	0602	02/04/98	0001	KM	O	4.21			#	0.02	± 0.56
	pCi/L	0603	02/04/98	0001	AL	N	0.46			#	0.02	± 0.13
	pCi/L	0604	02/05/98	0001	KM	N	0.78		L	#	0.17	± 0.46
	pCi/L	0725	02/04/98	0001	AL	N	0.05		U	#	0.02	± 0.04
	pCi/L	0726	02/04/98	0001	KM	N	0.97		L	#	0.02	± 0.20
	pCi/L	0727	02/04/98	0001	KM	N	3.02		L	#	0.01	± 0.36
	pCi/L	0728	02/04/98	0001	AL	N	6.50			#	0.01	± 0.66
	pCi/L	0730	02/04/98	0001	NR	N	0.25		L	#	0.01	± 0.07
	pCi/L	0731	02/05/98	0001	NR	N	0.18		L	#	0.01	± 0.07
	pCi/L	MW1	02/04/98	0001		O	1.04		L	#	0.02	± 0.20

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:37 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Radium-228	pCi/L	0600	02/05/98	0001	KM	O	4.6		L	#	1.2	± 0.90
	pCi/L	0602	02/04/98	0001	KM	O	0.3			#	0.3	± 0.20
	pCi/L	0603	02/04/98	0001	AL	N	3.0			#	1.1	± 0.80
	pCi/L	0604	02/05/98	0001	KM	N	0.9	U	L	#	0.9	± 0.50
	pCi/L	0725	02/04/98	0001	AL	N	0.6	U		#	0.6	± 0.30
	pCi/L	0726	02/04/98	0001	KM	N	2.4		L	#	0.6	± 0.50
	pCi/L	0727	02/04/98	0001	KM	N	5.2		L	#	1.8	± 1.30
	pCi/L	0728	02/04/98	0001	AL	N	9.0			#	2.4	± 1.90
	pCi/L	0730	02/04/98	0001	NR	N	0.8	U	L	#	0.8	± 0.50
	pCi/L	0731	02/05/98	0001	NR	N	1.7		L	#	0.6	± 0.40
	pCi/L	MW1	02/04/98	0001		O	0.9	U	L	#	0.9	± 0.50
Redox Potential	mV	0600	02/05/98	N001	KM	O	169		L	#	-	-
	mV	0602	02/04/98	N001	KM	O	146			#	-	-
	mV	0603	02/04/98	N001	AL	N	199			#	-	-
	mV	0604	02/05/98	N001	KM	N	110		L	#	-	-
	mV	0725	02/04/98	N001	AL	N	194			#	-	-
	mV	0726	02/04/98	N001	KM	N	89		L	#	-	-
	mV	0727	02/04/98	N001	KM	N	223		L	#	-	-
	mV	0728	02/04/98	N001	AL	N	198			#	-	-
	mV	0730	02/04/98	N001	NR	N	146		L	#	-	-
	mV	0731	02/05/98	N001	NR	N	123		L	#	-	-
	mV	MW1	02/04/98	N001		O	113		L	#	-	-
Selenium	mg/L	0600	02/05/98	0001	KM	O	0.0021	B	L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	0.0049	B		#	-	-
	mg/L	0603	02/04/98	0001	AL	N	0.353			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	0.119		L	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:40 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Selenium	mg/L	0725	02/04/98	0001	AL	N	0.0446			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	0.0017	B	L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	0.0010	U	L	#	0.001	-
	mg/L	0728	02/04/98	0001	AL	N	0.0365			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	0.0175		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	0.300		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	0.0010	U	L	#	0.001	-
Sodium	mg/L	0600	02/05/98	0001	KM	O	2570.000		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	3010.000			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	1230.000			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	4880.000		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	1070.000			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	1930.000		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	2570.000		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	2230.000			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	95.400		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	1320.000		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	3110.000		L	#	-	-
Specific Conductance	umhos/	0600	02/05/98	N001	KM	O	16230		L	#	-	-
	umhos/	0602	02/04/98	N001	KM	O	23100			#	-	-
	umhos/	0603	02/04/98	N001	AL	N	20800			#	-	-
	umhos/	0604	02/05/98	N001	KM	N	19860		L	#	-	-
	umhos/	0725	02/04/98	N001	AL	N	667			#	-	-
	umhos/	0726	02/04/98	N001	KM	N	10380		L	#	-	-
	umhos/	0727	02/04/98	N001	KM	N	14260		L	#	-	-
	umhos/	0728	02/04/98	N001	AL	N	17870			#	-	-
	umhos/	0730	02/04/98	N001	NR	N	4710		L	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:43 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/	0731	02/05/98	N001	NR	N	10100		L	#	-	-
	umhos/	MW1	02/04/98	N001		O	13160		L	#	-	-
Strontium	mg/L	0600	02/05/98	0001	KM	O	9.460		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	12.800			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	2.820			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	18.300		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	9.300			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	6.420		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	13.800		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	13.400			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	2.500		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	8.910		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	4.620		L	#	-	-
Sulfate	mg/L	0600	02/05/98	0001	KM	O	9030.000		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	17100.000			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	10300.000			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	4240.000		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	3490.000			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	6200.000		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	11800.000		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	10300.000			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	2360.000		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	5060.000		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	1460.000		L	#	-	-
Temperature	C	0600	02/05/98	N001	KM	O	15.9		L	#	-	-
	C	0602	02/04/98	N001	KM	O	16.5			#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:46 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0603	02/04/98	N001	AL	N	16.4			#	-	-
	C	0604	02/05/98	N001	KM	N	12.0		L	#	-	-
	C	0725	02/04/98	N001	AL	N	9.4			#	-	-
	C	0726	02/04/98	N001	KM	N	15.9		L	#	-	-
	C	0727	02/04/98	N001	KM	N	12.0		L	#	-	-
	C	0728	02/04/98	N001	AL	N	14.8			#	-	-
	C	0730	02/04/98	N001	NR	N	12.1		L	#	-	-
	C	0731	02/05/98	N001	NR	N	15.2		L	#	-	-
	C	MW1	02/04/98	N001		O	14.8		L	#	-	-
Total Dissolved Solids	mg/L	0600	02/05/98	0001	KM	O	15200		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	27600			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	15300			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	15400		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	5810			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	9990		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	21400		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	21100			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	3480		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	9590		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	8610		L	#	-	-
Turbidity	NTU	0600	02/05/98	N001	KM	O	9.48		L	#	-	-
	NTU	0602	02/04/98	N001	KM	O	9.31			#	-	-
	NTU	0603	02/04/98	N001	AL	N	1.12			#	-	-
	NTU	0604	02/05/98	N001	KM	N	1000	>	L	#	-	-
	NTU	0725	02/04/98	N001	AL	N	1.73			#	-	-
	NTU	0726	02/04/98	N001	KM	N	21.0		L	#	-	-
	NTU	0727	02/04/98	N001	KM	N	259		L	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:49 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Turbidity	NTU	0728	02/04/98	N001	AL	N	15.4			#	-	-
	NTU	0730	02/04/98	N001	NR	N	135		L	#	-	-
	NTU	0731	02/05/98	N001	NR	N	110		L	#	-	-
	NTU	MW1	02/04/98	N001		O	24.7		L	#	-	-
Uranium	mg/L	0600	02/05/98	0001	KM	O	1.250		L	#	-	-
	mg/L	0602	02/04/98	0001	KM	O	0.653			#	-	-
	mg/L	0603	02/04/98	0001	AL	N	0.0130			#	-	-
	mg/L	0604	02/05/98	0001	KM	N	0.0600		L	#	-	-
	mg/L	0725	02/04/98	0001	AL	N	0.325			#	-	-
	mg/L	0726	02/04/98	0001	KM	N	0.0290		L	#	-	-
	mg/L	0727	02/04/98	0001	KM	N	0.402		L	#	-	-
	mg/L	0728	02/04/98	0001	AL	N	0.579			#	-	-
	mg/L	0730	02/04/98	0001	NR	N	0.0038		L	#	-	-
	mg/L	0731	02/05/98	0001	NR	N	0.0477		L	#	-	-
	mg/L	MW1	02/04/98	0001		O	0.0031		L	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 3/31/98 3:22:52 P

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL.	FLOW REL.	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY

RECORDS: SELECTED FROM USEE200 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 #2/1/98# and #2/5/98#

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 compund (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.

DATA QUALIFIERS:

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

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

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
REPORT DATE: 4/16/98 3:14:12 PM

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity as CaCO3	mg/L	0426	02/05/98	N001	511			#	-	-
	mg/L	0546	02/03/98	N001	114			#	-	-
	mg/L	0548	02/05/98	N001	119			#	-	-
	mg/L	0549	02/03/98	N001	107			#	-	-
	mg/L	0551	02/03/98	N001	112			#	-	-
	mg/L	0553	02/03/98	N001	108			#	-	-
	mg/L	0555	02/03/98	N001	103			#	-	-
	mg/L	0556	02/03/98	N001	103			#	-	-
	mg/L	0655	02/03/98	N001	193			#	-	-
	mg/L	0656	02/05/98	N001	623			#	-	-
	mg/L	0657	02/05/98	N001	52			#	-	-
	mg/L	0658	02/05/98	N001	99			#	-	-
Ammonia as NH4	mg/L	0426	02/05/98	0001	0.0361	B		#	-	-
	mg/L	0546	02/03/98	0001	0.0076	B		#	-	-
	mg/L	0548	02/05/98	0001	0.0100	B		#	-	-
	mg/L	0549	02/03/98	0001	0.0148	B		#	-	-
	mg/L	0551	02/03/98	0001	0.0148	B		#	-	-
	mg/L	0553	02/03/98	0001	0.0124	B		#	-	-
	mg/L	0553	02/03/98	0002	0.0100	B		#	-	-
	mg/L	0555	02/03/98	0001	0.0171	B		#	-	-
	mg/L	0556	02/03/98	0001	0.0124	B		#	-	-
	mg/L	0655	02/03/98	0001	0.0100	B		#	-	-
	mg/L	0656	02/05/98	0001	0.0908	B		#	-	-
	mg/L	0657	02/05/98	0001	0.0338	B		#	-	-
	mg/L	0658	02/05/98	0001	0.0480	B		#	-	-
Antimony	mg/L	0426	02/05/98	0001	0.0010	U		#	0.001	-
	mg/L	0546	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0548	02/05/98	0001	0.0010	U		#	0.001	-
	mg/L	0549	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0551	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0553	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0553	02/03/98	0002	0.0010	U		#	0.001	-
	mg/L	0555	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0556	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0655	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0656	02/05/98	0001	0.0010	U		#	0.001	-
	mg/L	0657	02/05/98	0001	0.0010	U		#	0.001	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
REPORT DATE: 4/16/98 3:14:12 PM

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Antimony	mg/L	0658	02/05/98	0001	0.0010 U			#	0.001	-
Arsenic	mg/L	0426	02/05/98	0001	0.0010 U			#	0.001	-
	mg/L	0546	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0548	02/05/98	0001	0.0010 U			#	0.001	-
	mg/L	0549	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0551	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0553	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0553	02/03/98	0002	0.0010 U			#	0.001	-
	mg/L	0555	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0556	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0655	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0656	02/05/98	0001	0.0019 B			#	-	-
	mg/L	0657	02/05/98	0001	0.0010 U			#	0.001	-
	mg/L	0658	02/05/98	0001	0.0010 U			#	0.001	-
Cadmium	mg/L	0426	02/05/98	0001	0.0010 U			#	0.001	-
	mg/L	0546	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0548	02/05/98	0001	0.0010 U			#	0.001	-
	mg/L	0549	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0551	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0553	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0553	02/03/98	0002	0.0010 U			#	0.001	-
	mg/L	0555	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0556	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0655	02/03/98	0001	0.0010 U			#	0.001	-
	mg/L	0656	02/05/98	0001	0.0010 U			#	0.001	-
	mg/L	0657	02/05/98	0001	0.0010 U			#	0.001	-
	mg/L	0658	02/05/98	0001	0.0010 U			#	0.001	-
Calcium	mg/L	0426	02/05/98	0001	389.000			#	-	-
	mg/L	0546	02/03/98	0001	50.600			#	-	-
	mg/L	0548	02/05/98	0001	52.700			#	-	-
	mg/L	0549	02/03/98	0001	50.800			#	-	-
	mg/L	0551	02/03/98	0001	54.500			#	-	-
	mg/L	0553	02/03/98	0001	51.400			#	-	-
	mg/L	0553	02/03/98	0002	50.400			#	-	-
	mg/L	0555	02/03/98	0001	50.900			#	-	-
	mg/L	0556	02/03/98	0001	50.500			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/L	0655	02/03/98	0001	198.000			#	-	-
	mg/L	0656	02/05/98	0001	312.000			#	-	-
	mg/L	0657	02/05/98	0001	31.300			#	-	-
	mg/L	0658	02/05/98	0001	116.000			#	-	-
Chloride	mg/L	0426	02/05/98	0001	196.000			#	-	-
	mg/L	0546	02/03/98	0001	9.940			#	-	-
	mg/L	0548	02/05/98	0001	11.500			#	-	-
	mg/L	0549	02/03/98	0001	10.700			#	-	-
	mg/L	0551	02/03/98	0001	11.700			#	-	-
	mg/L	0553	02/03/98	0001	11.100			#	-	-
	mg/L	0553	02/03/98	0002	11.100			#	-	-
	mg/L	0555	02/03/98	0001	11.200			#	-	-
	mg/L	0556	02/03/98	0001	10.900			#	-	-
	mg/L	0655	02/03/98	0001	75.700			#	-	-
	mg/L	0656	02/05/98	0001	170.000			#	-	-
	mg/L	0657	02/05/98	0001	21.600			#	-	-
	mg/L	0658	02/05/98	0001	58.200			#	-	-
Gross Alpha	pCi/L	0426	02/05/98	0001	283.4			#	52	± 62.6
	pCi/L	0546	02/03/98	0001	2.10	U		#	2.1	± 1.24
	pCi/L	0548	02/05/98	0001	2.13	U		#	2.13	± 1.30
	pCi/L	0549	02/03/98	0001	2.17			#	2.07	± 1.43
	pCi/L	0551	02/03/98	0001	2.61	U		#	2.61	± 1.52
	pCi/L	0553	02/03/98	0001	2.07	U		#	2.07	± 1.40
	pCi/L	0553	02/03/98	0002	2.07	U		#	2.07	± 1.25
	pCi/L	0555	02/03/98	0001	2.56	U		#	2.56	± 1.46
	pCi/L	0556	02/03/98	0001	2.06	U		#	2.06	± 1.07
	pCi/L	0655	02/03/98	0001	30.40			#	27.36	± 19.2
	pCi/L	0656	02/05/98	0001	202.4			#	53.9	± 55.8
	pCi/L	0657	02/05/98	0001	4.29			#	3.68	± 2.62
	pCi/L	0658	02/05/98	0001	19.68	U		#	19.68	± 11.8
Gross Beta	pCi/L	0426	02/05/98	0001	103.4			#	63.4	± 41.3
	pCi/L	0546	02/03/98	0001	2.76			#	2.43	± 1.53
	pCi/L	0548	02/05/98	0001	2.91			#	2.44	± 1.54
	pCi/L	0549	02/03/98	0001	3.46			#	2.44	± 1.57
	pCi/L	0551	02/03/98	0001	3.03	U		#	3.03	± 1.86
	pCi/L	0553	02/03/98	0001	2.44	U		#	2.44	± 1.52

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Gross Beta	pCi/L	0553	02/03/98	0002	2.43	U		#	2.43	± 1.49
	pCi/L	0555	02/03/98	0001	3.03	U		#	3.03	± 1.88
	pCi/L	0556	02/03/98	0001	2.42	U		#	2.42	± 1.49
	pCi/L	0655	02/03/98	0001	30.69	U		#	30.69	± 18.9
	pCi/L	0656	02/05/98	0001	67.88			#	62.7	± 39.2
	pCi/L	0657	02/05/98	0001	5.08			#	5.01	± 3.12
	pCi/L	0658	02/05/98	0001	24.15	U		#	24.15	± 14.3
Iron	mg/L	0426	02/05/98	0001	0.0050	U		#	0.005	-
	mg/L	0546	02/03/98	0001	0.0050	U		#	0.005	-
	mg/L	0548	02/05/98	0001	0.0050	U		#	0.005	-
	mg/L	0549	02/03/98	0001	0.0050	U		#	0.005	-
	mg/L	0551	02/03/98	0001	0.0050	U		#	0.005	-
	mg/L	0553	02/03/98	0001	0.0050	U		#	0.005	-
	mg/L	0553	02/03/98	0002	0.0050	U		#	0.005	-
	mg/L	0555	02/03/98	0001	0.0050	U		#	0.005	-
	mg/L	0556	02/03/98	0001	0.0050	U		#	0.005	-
	mg/L	0655	02/03/98	0001	0.0050	U		#	0.005	-
	mg/L	0656	02/05/98	0001	0.0064	B	U	#	-	-
	mg/L	0657	02/05/98	0001	0.402			#	-	-
	mg/L	0658	02/05/98	0001	0.0404		U	#	-	-
Magnesium	mg/L	0426	02/05/98	0001	379.000			#	-	-
	mg/L	0546	02/03/98	0001	9.980			#	-	-
	mg/L	0548	02/05/98	0001	11.500			#	-	-
	mg/L	0549	02/03/98	0001	10.200			#	-	-
	mg/L	0551	02/03/98	0001	11.800			#	-	-
	mg/L	0553	02/03/98	0001	10.300			#	-	-
	mg/L	0553	02/03/98	0002	10.100			#	-	-
	mg/L	0555	02/03/98	0001	11.200			#	-	-
	mg/L	0556	02/03/98	0001	10.200			#	-	-
	mg/L	0655	02/03/98	0001	72.100			#	-	-
	mg/L	0656	02/05/98	0001	143.000			#	-	-
	mg/L	0657	02/05/98	0001	4.640			#	-	-
	mg/L	0658	02/05/98	0001	19.700			#	-	-
Manganese	mg/L	0426	02/05/98	0001	0.0010	U		#	0.001	-
	mg/L	0546	02/03/98	0001	0.0077	B		#	-	-
	mg/L	0548	02/05/98	0001	0.0068	B		#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Manganese	mg/L	0549	02/03/98	0001	0.0076	B		#	-	-
	mg/L	0551	02/03/98	0001	0.0116			#	-	-
	mg/L	0553	02/03/98	0001	0.0045	B		#	-	-
	mg/L	0553	02/03/98	0002	0.0049	B		#	-	-
	mg/L	0555	02/03/98	0001	0.0071	B		#	-	-
	mg/L	0556	02/03/98	0001	0.0061	B	U	#	-	-
	mg/L	0655	02/03/98	0001	0.599			#	-	-
	mg/L	0656	02/05/98	0001	5.080			#	-	-
	mg/L	0657	02/05/98	0001	0.109			#	-	-
	mg/L	0658	02/05/98	0001	0.0565			#	-	-
Nitrate	mg/L	0426	02/05/98	0001	240.000			#	-	-
	mg/L	0546	02/03/98	0001	1.070			#	-	-
	mg/L	0548	02/05/98	0001	1.160			#	-	-
	mg/L	0549	02/03/98	0001	1.240			#	-	-
	mg/L	0551	02/03/98	0001	1.530			#	-	-
	mg/L	0553	02/03/98	0001	1.270			#	-	-
	mg/L	0553	02/03/98	0002	1.270			#	-	-
	mg/L	0555	02/03/98	0001	1.450			#	-	-
	mg/L	0556	02/03/98	0001	1.240			#	-	-
	mg/L	0655	02/03/98	0001	25.800			#	-	-
	mg/L	0656	02/05/98	0001	0.172	B		#	-	-
	mg/L	0657	02/05/98	0001	0.246	B		#	-	-
	mg/L	0658	02/05/98	0001	2.430			#	-	-
pH	s.u.	0426	02/05/98	N001	7.06			#	-	-
	s.u.	0546	02/03/98	N001	8.93			#	-	-
	s.u.	0548	02/05/98	N001	8.76			#	-	-
	s.u.	0549	02/03/98	N001	8.91			#	-	-
	s.u.	0551	02/03/98	N001	8.54			#	-	-
	s.u.	0553	02/03/98	N001	8.75			#	-	-
	s.u.	0555	02/03/98	N001	8.38			#	-	-
	s.u.	0556	02/03/98	N001	9.00			#	-	-
	s.u.	0655	02/03/98	N001	8.27			#	-	-
	s.u.	0656	02/05/98	N001	7.43			#	-	-
	s.u.	0657	02/05/98	N001	9.67			#	-	-
	s.u.	0658	02/05/98	N001	8.25			#	-	-
Polonium-210	pCi/L	0426	02/05/98	0001	0.24	U		#	0.24	± 0.25

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Polonium-210	pCi/L	0546	02/03/98	0001	0.25	U		#	0.25	± 0.24
	pCi/L	0548	02/05/98	0001	0.37	U		#	0.37	± -0.31
	pCi/L	0549	02/03/98	0001	0.39	U		#	0.39	± 0.37
	pCi/L	0551	02/03/98	0001	0.23	U		#	0.23	± -0.14
	pCi/L	0553	02/03/98	0001	0.52	U		#	0.52	± 0.49
	pCi/L	0553	02/03/98	0002	0.43	U		#	0.43	± 0.44
	pCi/L	0555	02/03/98	0001	0.39	U		#	0.39	± 0.38
	pCi/L	0556	02/03/98	0001	0.32	U		#	0.32	± 0.39
	pCi/L	0655	02/03/98	0001	0.23	U		#	0.23	± -0.12
	pCi/L	0656	02/05/98	0001	0.43	U		#	0.43	± 0.44
	pCi/L	0657	02/05/98	0001	0.53		U	#	0.53	± 0.70
	pCi/L	0658	02/05/98	0001	0.46	U		#	0.46	± 0.47
Potassium	mg/L	0426	02/05/98	0001	23.300			#	-	-
	mg/L	0546	02/03/98	0001	2.070			#	-	-
	mg/L	0548	02/05/98	0001	2.250			#	-	-
	mg/L	0549	02/03/98	0001	2.050			#	-	-
	mg/L	0551	02/03/98	0001	2.110			#	-	-
	mg/L	0553	02/03/98	0001	2.040			#	-	-
	mg/L	0553	02/03/98	0002	2.100			#	-	-
	mg/L	0555	02/03/98	0001	2.110			#	-	-
	mg/L	0556	02/03/98	0001	2.080			#	-	-
	mg/L	0655	02/03/98	0001	9.630			#	-	-
	mg/L	0656	02/05/98	0001	14.800			#	-	-
	mg/L	0657	02/05/98	0001	7.350			#	-	-
	mg/L	0658	02/05/98	0001	9.340			#	-	-
Radium-226	pCi/L	0426	02/05/98	0001	0.41			#	0.02	± 0.12
	pCi/L	0546	02/03/98	0001	0.32		U	#	0.21	± 0.34
	pCi/L	0548	02/05/98	0001	0.18			#	0.01	± 0.06
	pCi/L	0549	02/03/98	0001	0.10			#	0.02	± 0.06
	pCi/L	0551	02/03/98	0001	0.19			#	0.01	± 0.07
	pCi/L	0553	02/03/98	0001	0.11			#	0.02	± 0.06
	pCi/L	0553	02/03/98	0002	0.68			#	0.18	± 0.42
	pCi/L	0555	02/03/98	0001	0.20		U	#	0.14	± 0.23
	pCi/L	0556	02/03/98	0001	0.11			#	0.03	± 0.07
	pCi/L	0655	02/03/98	0001	0.26		U	#	0.2	± 0.30
	pCi/L	0656	02/05/98	0001	0.75	U		#	0.75	± 0.97
	pCi/L	0657	02/05/98	0001	0.22			#	0.02	± 0.08

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Radium-226	pCi/L	0658	02/05/98	0001	1.98		U	#	0.73	± 1.43
Radium-228	pCi/L	0426	02/05/98	0001	0.6			#	0.5	± 0.30
	pCi/L	0546	02/03/98	0001	0.6	U		#	0.6	± 0.30
	pCi/L	0548	02/05/98	0001	0.5	U		#	0.5	± 0.30
	pCi/L	0549	02/03/98	0001	0.6	U		#	0.6	± 0.30
	pCi/L	0551	02/03/98	0001	0.8	U		#	0.8	± 0.50
	pCi/L	0553	02/03/98	0001	1.0	U		#	1	± 0.50
	pCi/L	0553	02/03/98	0002	0.7	U		#	0.7	± 0.40
	pCi/L	0555	02/03/98	0001	1.0	U		#	1	± 0.50
	pCi/L	0556	02/03/98	0001	0.4	U		#	0.4	± 0.20
	pCi/L	0655	02/03/98	0001	0.9	U		#	0.9	± 0.50
	pCi/L	0656	02/05/98	0001	0.4	U		#	0.4	± 0.20
	pCi/L	0657	02/05/98	0001	0.9	U		#	0.9	± 0.50
	pCi/L	0658	02/05/98	0001	0.7	U		#	0.7	± 0.40
Redox Potential	mV	0426	02/05/98	N001	183			#	-	-
	mV	0546	02/03/98	N001	172			#	-	-
	mV	0548	02/05/98	N001	140			#	-	-
	mV	0549	02/03/98	N001	137			#	-	-
	mV	0551	02/03/98	N001	218			#	-	-
	mV	0553	02/03/98	N001	183			#	-	-
	mV	0555	02/03/98	N001	111			#	-	-
	mV	0556	02/03/98	N001	135			#	-	-
	mV	0655	02/03/98	N001	216			#	-	-
	mV	0656	02/05/98	N001	185			#	-	-
	mV	0657	02/05/98	N001	210			#	-	-
	mV	0658	02/05/98	N001	136			#	-	-
Selenium	mg/L	0426	02/05/98	0001	0.137			#	-	-
	mg/L	0546	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0548	02/05/98	0001	0.0010	U		#	0.001	-
	mg/L	0549	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0551	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0553	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0553	02/03/98	0002	0.0010	U		#	0.001	-
	mg/L	0555	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0556	02/03/98	0001	0.0010	U		#	0.001	-
	mg/L	0655	02/03/98	0001	0.0184			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Selenium	mg/L	0656	02/05/98	0001	0.0010	U		#	0.001	-
	mg/L	0657	02/05/98	0001	0.0010	U		#	0.001	-
	mg/L	0658	02/05/98	0001	0.0013	B		#	-	-
Sodium	mg/L	0426	02/05/98	0001	1610.000			#	-	-
	mg/L	0546	02/03/98	0001	28.800			#	-	-
	mg/L	0548	02/05/98	0001	30.800			#	-	-
	mg/L	0549	02/03/98	0001	29.700			#	-	-
	mg/L	0551	02/03/98	0001	37.500			#	-	-
	mg/L	0553	02/03/98	0001	30.300			#	-	-
	mg/L	0553	02/03/98	0002	30.000			#	-	-
	mg/L	0555	02/03/98	0001	32.200			#	-	-
	mg/L	0556	02/03/98	0001	29.600			#	-	-
	mg/L	0655	02/03/98	0001	964.000			#	-	-
	mg/L	0656	02/05/98	0001	2340.000			#	-	-
	mg/L	0657	02/05/98	0001	142.000			#	-	-
	mg/L	0658	02/05/98	0001	815.000			#	-	-
Specific Conductance	umhos/	0426	02/05/98	N001	8650			#	-	-
	umhos/	0546	02/03/98	N001	517			#	-	-
	umhos/	0548	02/05/98	N001	532			#	-	-
	umhos/	0549	02/03/98	N001	512			#	-	-
	umhos/	0551	02/03/98	N001	557			#	-	-
	umhos/	0553	02/03/98	N001	529			#	-	-
	umhos/	0555	02/03/98	N001	536			#	-	-
	umhos/	0556	02/03/98	N001	531			#	-	-
	umhos/	0655	02/03/98	N001	5520			#	-	-
	umhos/	0656	02/05/98	N001	11250			#	-	-
	umhos/	0657	02/05/98	N001	1460			#	-	-
	umhos/	0658	02/05/98	N001	4450			#	-	-
Strontium	mg/L	0426	02/05/98	0001	8.170			#	-	-
	mg/L	0546	02/03/98	0001	0.599			#	-	-
	mg/L	0548	02/05/98	0001	0.628			#	-	-
	mg/L	0549	02/03/98	0001	0.603			#	-	-
	mg/L	0551	02/03/98	0001	0.688			#	-	-
	mg/L	0553	02/03/98	0001	0.611			#	-	-
	mg/L	0553	02/03/98	0002	0.607			#	-	-
	mg/L	0555	02/03/98	0001	0.610			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Strontium	mg/L	0556	02/03/98	0001	0.603			#	-	-
	mg/L	0655	02/03/98	0001	11.500			#	-	-
	mg/L	0656	02/05/98	0001	7.880			#	-	-
	mg/L	0657	02/05/98	0001	1.850			#	-	-
	mg/L	0658	02/05/98	0001	11.800			#	-	-
Sulfate	mg/L	0426	02/05/98	0001	4770.000			#	-	-
	mg/L	0546	02/03/98	0001	121.000			#	-	-
	mg/L	0548	02/05/98	0001	130.000			#	-	-
	mg/L	0549	02/03/98	0001	125.000			#	-	-
	mg/L	0551	02/03/98	0001	144.000			#	-	-
	mg/L	0553	02/03/98	0001	126.000			#	-	-
	mg/L	0553	02/03/98	0002	126.000			#	-	-
	mg/L	0555	02/03/98	0001	127.000			#	-	-
	mg/L	0556	02/03/98	0001	126.000			#	-	-
	mg/L	0655	02/03/98	0001	2540.000			#	-	-
	mg/L	0656	02/05/98	0001	5410.000			#	-	-
	mg/L	0657	02/05/98	0001	386.000			#	-	-
	mg/L	0658	02/05/98	0001	2010.000			#	-	-
Temperature	C	0426	02/05/98	N001	11.7			#	-	-
	C	0546	02/03/98	N001	5.8			#	-	-
	C	0548	02/05/98	N001	7.7			#	-	-
	C	0549	02/03/98	N001	5.7			#	-	-
	C	0551	02/03/98	N001	4.0			#	-	-
	C	0553	02/03/98	N001	5.3			#	-	-
	C	0555	02/03/98	N001	3.9			#	-	-
	C	0556	02/03/98	N001	5.6			#	-	-
	C	0655	02/03/98	N001	2.7			#	-	-
	C	0656	02/05/98	N001	2.2			#	-	-
	C	0657	02/05/98	N001	2.1			#	-	-
	C	0658	02/05/98	N001	7.8			#	-	-
Total Dissolved Solids	mg/L	0426	02/05/98	0001	8330			#	-	-
	mg/L	0546	02/03/98	0001	297			#	-	-
	mg/L	0548	02/05/98	0001	297			#	-	-
	mg/L	0549	02/03/98	0001	293			#	-	-
	mg/L	0551	02/03/98	0001	308			#	-	-
	mg/L	0553	02/03/98	0001	302			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
REPORT DATE: 4/16/98 3:14:14 PM

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Total Dissolved Solids	mg/L	0553	02/03/98	0002	313			#	-	-
	mg/L	0555	02/03/98	0001	305			#	-	-
	mg/L	0556	02/03/98	0001	308			#	-	-
	mg/L	0655	02/03/98	0001	4130			#	-	-
	mg/L	0656	02/05/98	0001	8940			#	-	-
	mg/L	0657	02/05/98	0001	687			#	-	-
	mg/L	0658	02/05/98	0001	3130			#	-	-
Uranium	mg/L	0426	02/05/98	0001	0.435			#	-	-
	mg/L	0546	02/03/98	0001	0.0015			#	-	-
	mg/L	0548	02/05/98	0001	0.0016			#	-	-
	mg/L	0549	02/03/98	0001	0.0016			#	-	-
	mg/L	0551	02/03/98	0001	0.0019			#	-	-
	mg/L	0553	02/03/98	0001	0.0015			#	-	-
	mg/L	0553	02/03/98	0002	0.0015			#	-	-
	mg/L	0555	02/03/98	0001	0.0015			#	-	-
	mg/L	0556	02/03/98	0001	0.0016			#	-	-
	mg/L	0655	02/03/98	0001	0.0532			#	-	-
	mg/L	0656	02/05/98	0001	0.327			#	-	-
	mg/L	0657	02/05/98	0001	0.0047			#	-	-
	mg/L	0658	02/05/98	0001	0.0065			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK
REPORT DATE: 4/16/98 3:14:15 PM

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY

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 #2/1/98# and #2/28/98#

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 compund (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.

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: 4/16/98 3:15:02 PM

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity as CaCO3	mg/L	0662	02/05/98	N001	72			#	-	-
Ammonia as NH4	mg/L	0662	02/05/98	0001	0.0124	B		#	-	-
Antimony	mg/L	0662	02/05/98	0001	0.0010	U		#	0.001	-
Arsenic	mg/L	0662	02/05/98	0001	0.0010	U		#	0.001	-
Cadmium	mg/L	0662	02/05/98	0001	0.0010	U		#	0.001	-
Calcium	mg/L	0662	02/05/98	0001	105.000			#	-	-
Chloride	mg/L	0662	02/05/98	0001	52.500			#	-	-
Gross Alpha	pCi/L	0662	02/05/98	0001	19.53	U		#	19.53	± 11.78
Gross Beta	pCi/L	0662	02/05/98	0001	24.13	U		#	24.13	± 14.83
Iron	mg/L	0662	02/05/98	0001	0.0050	U		#	0.005	-
Magnesium	mg/L	0662	02/05/98	0001	14.200			#	-	-
Manganese	mg/L	0662	02/05/98	0001	0.0054	B	U	#	-	-
Nitrate	mg/L	0662	02/05/98	0001	1.270			#	-	-
pH	s.u.	0662	02/05/98	N001	8.30			#	-	-
Polonium-210	pCi/L	0662	02/05/98	0001	0.29	U		#	0.29	± 0.24
Potassium	mg/L	0662	02/05/98	0001	8.080			#	-	-
Radium-226	pCi/L	0662	02/05/98	0001	0.68			#	0.02	± 0.15
Radium-228	pCi/L	0662	02/05/98	0001	0.9			#	0.6	± 0.40
Redox Potential	mV	0662	02/05/98	N001	37			#	-	-
Selenium	mg/L	0662	02/05/98	0001	0.0010	U		#	0.001	-
Sodium	mg/L	0662	02/05/98	0001	822.000			#	-	-
Specific Conductance	umhos/	0662	02/05/98	N001	4080			#	-	-
Strontium	mg/L	0662	02/05/98	0001	12.000			#	-	-
Sulfate	mg/L	0662	02/05/98	0001	1940.000			#	-	-
Temperature	C	0662	02/05/98	N001	18.6			#	-	-
Total Dissolved Solids	mg/L	0662	02/05/98	0001	3100			#	-	-
Uranium	mg/L	0662	02/05/98	0001	0.0010	U		#	0.001	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)
REPORT DATE: 4/16/98 3:15:03 PM

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY

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 #2/1/98# and #2/28/98#

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 compund (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.

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.

WATER LEVELS

STATIC GROUND WATER LEVELS (USEE700) FOR SITE SHP01, SHIPROCK
REPORT DATE: 4/16/98 3:16:32 PM

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT NGVD)	MEASUREMENT DATE	MEASUREMENT TIME	DEPTH FROM TOP OF CASING (FT)	GROUND WATER ELEVATION (FT NGVD)
0608	D	4893.26	02/03/98		5.66	4887.60
0609	D	4892.35	02/05/98		4.79	4887.56
0610	D	4895.65	02/03/98		8.97	4886.68
0612	D	4893.14	02/03/98		5.39	4887.75
0614	D	4892.65	02/03/98		6.70	4885.95
0615	D	4892.11	02/03/98		7.03	4885.08
0616	D	4891.83	02/03/98		7.26	4884.57
0617	D	4891.93	02/03/98		7.01	4884.92
0619	D	4892.20	02/03/98		7.56	4884.64
0620	D	4889.77	02/03/98		4.36	4885.41
0624	D	4891.65	02/03/98		6.62	4885.03
0626	D	4890.49	02/04/98		5.05	4885.44
0628	D	4889.88	02/03/98		4.26	4885.62
0630	D	4887.64	02/04/98		1.50	4886.14
0631	D	4888.31	02/05/98		9.45	4878.86
0730	N	4979.26	02/04/98		37.09	4942.17
0733	N	4889.43	02/04/98		8.20	4881.23
0734	N	4886.74	02/03/98		5.98	4880.76
0735	N	4895.74	02/03/98		6.09	4889.65
0736	N	4887.97	02/03/98		5.33	4882.64

RECORDS: SELECTED FROM USEE700 WHERE site_code='SHP01' AND LOG_DATE between #2/1/98# and #2/28/98#

FLOW CODES:
D DOWN GRADIENT N UNKNOWN

STATIC GROUND WATER LEVELS (USEE700) FOR SITE SHP02, SHIPROCK (TAILIN
REPORT DATE: 4/16/98 3:15:57 PM

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT NGVD)	MEASUREMENT		DEPTH FROM TOP OF CASING (FT)	GROUND WATER ELEVATION (FT NGVD)
			DATE	TIME		
0600	O	4955.78	02/05/98		33.20	4922.58
0602	O	4956.89	02/04/98		18.83	4938.06
0603	N	4978.05	02/04/98		29.88	4948.17
0604	N	4995.38	02/05/98		44.63	4950.75
0725	N	4908.57	02/04/98		12.64	4895.93
0726	N	4939.87	02/04/98		25.80	4914.07
0727	N	4940.42	02/04/98		6.61	4933.81
0728	N	4964.03	02/04/98		23.80	4940.23
0731	N	4971.48	02/05/98		23.98	4947.50
0732	N	4897.32	02/03/98		7.23	4890.09
DM7	O	-	02/05/98			-50.20
MW1	O	4955.59	02/04/98		46.67	4908.92

RECORDS: SELECTED FROM USEE700 WHERE site_code='SHP02' AND LOG_DATE between #2/1/98# and #2/28/98#

FLOW CODES:
N UNKNOWN O ON-SITE

TRIP REPORT/WORK ORDER

CONTRACT NO.: DE-AC13-96GJ87335
TASK ORDER NO.: MAC98-05
CONTROL NO.: 3100-N/A

MEMO TO: Sam Marutzky

FROM: Dave Miller

DATE: February 23, 1998

SUBJECT: UMTRA Ground Water Trip Report

Site: Shiprock, NM.

Dates of Sampling Event: February 2, 1998 to February 4, 1998

Team Members: David Miller, Sam Campbell, Jeff Price, Chuck Poland, Dan Sellers, and David Traub

Number of Locations Sampled: 28 wells and 13 surface water locations

Locations Not Sampled/Reason: Well 612 has an obstruction (appears to be large roots) in the casing at a depth of 7.1 feet.

Location Specific Information: Wells 600, 604, 610, 615, 726, 727, 730, 731, 734, and MW-1 were purged dry prior to sampling.

Surface location 426 is a seep.

Well 604 was very muddy with a lot of sediment at the bottom, and appears to never have been developed.

Field Variance: Turbidity stabilization of 10 NTUs was not achieved at Wells 619, 728, and 733 due to the orange/yellow color of the water.

The Work Order indicated that samples at all surface water locations were to be collected unfiltered. However, at the direction of the Site Lead and the Site Hydrologist, all surface locations were filtered.

The Work Order did not indicate the collection and analysis of samples for ammonium. However, at the direction of the Site Hydrologist ammonium samples were collected.

Well MW-1 was not scheduled for sampling. Samples were mistakenly collected from this well and the Site Lead decided to submit them for analysis.

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CL\SHP\4.12

Quality Control Sample Cross Reference: A duplicate field alkalinity measurement was collected at locations 553 and 626.

The following are the false identifications assigned to the quality control samples submitted to the GJO analytical laboratory:

False ID	True ID	Sample Type	Associated Matrix	Ticket Number
900	553	Duplicate	Surface Water	NDB-280
901	Equipment Blank	Equipment Blank	Surface Water	NDB-291
904	626	Duplicate	Ground Water	NDC-450
905	Equipment Blank	Equipment Blank	Ground Water	NDB-333

Requisition Number Assigned: 15854.

Water Level Measurements: Water levels were planned to be completed on all wells at the site. However, at the direction of the Site Lead, water levels at locations not sampled were collected only at the following wells: 609 water level 4.79′, DM-7 water level 50.20′, and 631 water level 9.45′.

Well Inspection Summary: Well inspections were completed for all of the wells where water levels were collected. None of wells have guard posts and most do not have concrete surface pads.

Equipment: All equipment operated correctly.

Regulatory: Navajo Nation representative Harlan Charley was on site during some of the sampling.

Site Issues: None

DM/lcg
Distribution:

cc: R. Bowen
C. Goodknight
M. Kautsky
D. Metzler
K. Miller
~~GWHAT 14.12~~

mactec-ers
MACTEC ENVIRONMENTAL RESTORATION SERVICES, LLC

CONTRACT NO.: DE-AC13-96GJ87335
TASK ORDER NO.: MAC98-05
CONTROL NO.: 3100-T98-0566

January 26, 1998

Project Manager
Department of Energy
Grand Junction Office
2597 B¾ Road
Grand Junction, CO 81503
ATTN: Don Metzler

SUBJECT: Contract No. DE-AC13-96GJ87335—January 1998 UMTRA Ground Water Sampling at Shiprock, New Mexico (Revised)

Dear Mr. Metzler:

Attached are the revised 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 monitoring wells at this site as part of the routine UMTRA Ground Water sampling which is scheduled to begin February 2, 1998.

The following lists show the Ground Water Project well locations (with the associated zone of completion) and surface water locations that will be sampled during this sampling event.

Ground Water Project Monitor Wells (filtered)*

SHP01

608 Al	614 Al	617 Al	624 Al	630 Al	733 Al	735 Al
610 Al	615 Al	619 Al	626 Al	732 Al	734 Al	736 Al
612 Al	616 Al	620 Al	628 Al			

SHP02

600 Ta	603 Al	725 Nr	727 Nr	728 Nr	730 Al/Km	731 Al/Km
602 Ta	604 Al	726 Nr				

*NOTE: Ta = Mill tailings; Al = Alluvium; Km = Mancos shale; Nr = No recovery of data

Surface Water Locations (unfiltered)

426	548	551	555	655	657	662
546	549	553	556	656	658	

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

One QA/QC sample will be collected for every 20 water samples. Samples collected for alkalinity will not be filtered. Water level information will be collected from all wells at the Shiprock site. Monitor well inspections will be conducted and documented to confirm the status of all existing wells.

If you have any questions, please call me at extension 6059 or Dave Miller at extension 6652.

Sincerely,

Sam Marutzky
Project Manager

SM/lcg/ld

cc w/o R. A. Bowen
D. E. Miller
K. E. Miller
D. G. Traub
Contract File (C. Spor)
cc w/ GWSHP 14.6
C. Goodknight

Sampling Frequencies for Locations at Shiprock, New Mexico

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
600			X			
602			X			
603			X			
604			X			Added by C. Goodknight 1/98
608			X			
610			X			
612			X			Obstruction at 6.8'
614			X			
615			X			
616			X			
617			X			
619			X			
620			X			
624			X			
626			X			
628			X			
630			X			
725			X			
726			X			
727			X			
728			X			
730			X			Added by C. Goodknight 1/98
731			X			Added by C. Goodknight 1/98
732			X			
733			X			
734			X			
735			X			
736			X			
Surface Water/Sediment Locations						
426			X			
546			X			
548			X			
549			X			
551			X			
553			X			
555			X			
556			X			
655			X			
656			X			
657			X			
658			X			
662			X			

Constituent Sampling Breakdown For Individual UMTRA Sites

Site	Shiprock	
Analyte	Ground Water	Surface Water
Approx. No. Samples/yr	25	13
Field Measurements		
Alkalinity	X	X
Dissolved Oxygen		
Redox Potential	X	X
pH	X	X
Specific Conductance	X	X
Turbidity	X	X
Temperature	X	X
Laboratory Measurements		
Aluminum		
Ammonium		
Antimony	X	X
Arsenic	X	X
Barium		
Beryllium		
Bromide		
Cadmium	X	X
Calcium	X	X
Chloride	X	X
Chromium		
Cobalt		
Copper		
Cyanide		
Fluoride		
Gross Alpha	X	X
Gross Beta		
Iron	X	X
Lead		
Lead-210		
Magnesium	X	X
Manganese	X	X
Mercury		
Molybdenum		

1/26/98

Constituent Sampling Breakdown For Individual UMTRA Sites

Site	Shiprock	
Analyte	Ground Water	Surface Water
Laboratory Measurements (Continued)		
Nickel		
Nitrate	X	X
PCBs		
Phosphate		
Polonium-210	X	X
Potassium	X	X
Radium-226	X	X
Radium-228	X	X
Selenium	X	X
Semi VOC		
Silica		
Silver		
Sodium	X	X
Strontium	X	X
Sulfate	X	X
Sulfide		
Thallium		
Thorium-230		
Tin		
Total Dissolved Solids	X	X
Total Organic Carbon		
TPH		
Uranium	X	X
Vanadium		
Zinc		
Total Analytes	20	20

Note: All analyte samples are considered filtered unless stated otherwise.

All private well samples are to be unfiltered. The identity of the private wells are available in the "Sampling Frequencies for Locations" worksheet.

The total number of analytes does not include the field parameters.

All single numbers in the "Approximate No. Samples/yr" category are considered Ground Water Project samples.

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