Data Validation Package

August 2011
Water Sampling at the
Tuba City, Arizona, Disposal Site

November 2011

U.S. DEPARTMENT OF ENERGY | Legacy Management

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Sampling Event Summary

Site: Tuba City, Arizona, Disposal Site

Sampling Period: August 15-17, 2011

The groundwater compliance strategy for the Tuba City Disposal Site is defined in the 1999 *Phase I Ground Water Compliance Action Plan for the Tuba City, Arizona, UMTRA Site*. Samples are collected and analyzed on a semiannual basis to evaluate the performance of the Phase I remediation system.

Sampling and analysis were conducted as specified in *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* (LMS/PLN/S04351, continually updated).

U.S. Environmental Protection Agency (EPA) groundwater standards were exceeded in samples collected from monitoring wells as listed in Table 1.

The data from this sampling event are generally consistent with previously obtained values and are acceptable for general use as qualified. Data anomalies are not significant with respect to the known nature and extent of contamination and progress of remedial action at the site. The data from this sampling event will be incorporated into the annual performance evaluation report that will present a comprehensive hydrologic summary and evaluation of groundwater remedial action performance at the Tuba City site through March 2012.

Table 1. Tuba City Wells with Analyte Concentrations that Exceed EPA Standards

Analyte	Standard (mg/L)	Location	Concentration (mg/L)
Arsenic	0.05	1105	1
Arsenic	0.05	1106	0.32
Molybdenum	0.1	0262	0.75
Molybdenum	0.1	0287	0.12
Molybdenum	0.1	1105	1
Molybdenum	0.1	1129	1.1
Molybdenum	0.1	1132	2.8
Nitrate + Nitrite as Nitrogen	10	0262	190
Nitrate + Nitrite as Nitrogen	10	0263	230
Nitrate + Nitrite as Nitrogen	10	0264	10
Nitrate + Nitrite as Nitrogen	10	0265	150
Nitrate + Nitrite as Nitrogen	10	0267	300
Nitrate + Nitrite as Nitrogen	10	0268	17
Nitrate + Nitrite as Nitrogen	10	0273	42
Nitrate + Nitrite as Nitrogen	10	0275	250
Nitrate + Nitrite as Nitrogen	10	0281	33
Nitrate + Nitrite as Nitrogen	10	0282	40

Table 1 (continued). Tuba City Wells with Analyte Concentrations that Exceed EPA Standards

Analyte	Standard (mg/L)	Location	Concentration (mg/L)
Nitrate + Nitrite as Nitrogen	10	0286	190
Nitrate + Nitrite as Nitrogen	10	0287	280
Nitrate + Nitrite as Nitrogen	10	0288	50
Nitrate + Nitrite as Nitrogen	10	0289	39
Nitrate + Nitrite as Nitrogen	10	0290	39
Nitrate + Nitrite as Nitrogen	10	0691	62
Nitrate + Nitrite as Nitrogen	10	0903	13
Nitrate + Nitrite as Nitrogen	10	0906	350
Nitrate + Nitrite as Nitrogen	10	0908	180
Nitrate + Nitrite as Nitrogen	10	0912	69
Nitrate + Nitrite as Nitrogen	10	0929	15
Nitrate + Nitrite as Nitrogen	10	0930	15
Nitrate + Nitrite as Nitrogen	10	0934	360
Nitrate + Nitrite as Nitrogen	10	0935	260
Nitrate + Nitrite as Nitrogen	10	0938	330
Nitrate + Nitrite as Nitrogen	10	0940	440
Nitrate + Nitrite as Nitrogen	10	0941	250
Nitrate + Nitrite as Nitrogen	10	0942	140
Nitrate + Nitrite as Nitrogen	10	1003	61
Nitrate + Nitrite as Nitrogen	10	1102	150
Nitrate + Nitrite as Nitrogen	10	1103	180
Nitrate + Nitrite as Nitrogen	10	1104	170
Nitrate + Nitrite as Nitrogen	10	1105	240
Nitrate + Nitrite as Nitrogen	10	1106	97
Nitrate + Nitrite as Nitrogen	10	1107	160
Nitrate + Nitrite as Nitrogen	10	1108	110
Nitrate + Nitrite as Nitrogen	10	1111	110
Nitrate + Nitrite as Nitrogen	10	1112	48
Nitrate + Nitrite as Nitrogen	10	1113	23
Nitrate + Nitrite as Nitrogen	10	1117	36
Nitrate + Nitrite as Nitrogen	10	1118	36
Nitrate + Nitrite as Nitrogen	10	1119	37
Nitrate + Nitrite as Nitrogen	10	1120	31
Nitrate + Nitrite as Nitrogen	10	1122	42
Nitrate + Nitrite as Nitrogen	10	1123	16
Nitrate + Nitrite as Nitrogen	10	1124	110
Nitrate + Nitrite as Nitrogen	10	1129	140
Nitrate + Nitrite as Nitrogen	10	1130	280
Nitrate + Nitrite as Nitrogen	10	1132	290
Nitrate + Nitrite as Nitrogen	10	1133	31
Selenium	0.01	0262	0.072
Selenium	0.01	0263	0.043
Selenium	0.01	0267	0.049
Selenium	0.01	0273	0.016
Selenium	0.01	0275	0.034
Selenium	0.01	0286	0.027

Table 1 (continued). Tuba City Wells with Analyte Concentrations that Exceed EPA Standards

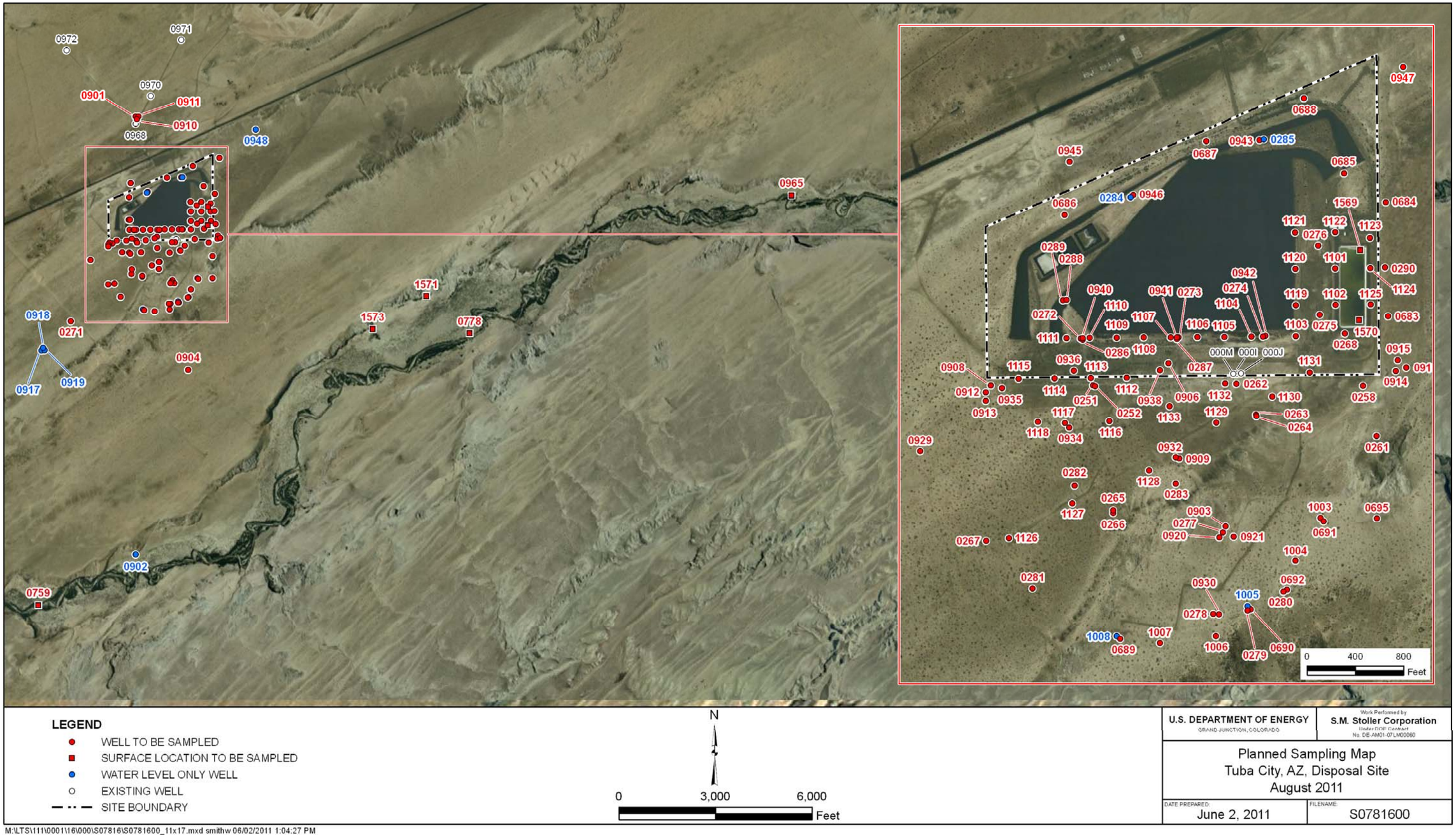
Analyte	Standard (mg/L)	Location	Concentration (mg/L)
Selenium	0.01	0287	0.098
Selenium	0.01	0904	0.013
Selenium	0.01	0906	0.017
Selenium	0.01	0908	0.024
Selenium	0.01	0934	0.014
Selenium	0.01	0935	0.016
Selenium	0.01	0938	0.065
Selenium	0.01	0940	0.064
Selenium	0.01	0941	0.11
Selenium	0.01	0942	0.055
Selenium	0.01	1102	0.037
Selenium	0.01	1103	0.035
Selenium	0.01	1104	0.047
Selenium	0.01	1105	0.071
Selenium	0.01	1106	0.05
Selenium	0.01	1107	0.056
Selenium	0.01	1108	0.034
Selenium	0.01	1111	0.012
Selenium	0.01	1119	0.011
Selenium	0.01	1120	0.013
Selenium	0.01	1122	0.025
Selenium	0.01	1123	0.014
Selenium	0.01	1124	0.033
Selenium	0.01	1129	0.082
Selenium	0.01	1130	0.046
Selenium	0.01	1132	0.22
Selenium	0.01	1133	0.015
Uranium	0.044	0262	0.81
Uranium	0.044	0263	0.16
Uranium	0.044	0265	0.061
Uranium	0.044	0267	0.077
Uranium	0.044	0275	0.42
Uranium	0.044	0286	0.4
Uranium	0.044	0287	0.24
Uranium	0.044	0691	0.052
Uranium	0.044	0906	0.51
Uranium	0.044	0908	0.083
Uranium	0.044	0934	0.17
Uranium	0.044	0935	0.14
Uranium	0.044	0938	0.37
Uranium	0.044	0940	0.39
Uranium	0.044	0941	0.23
Uranium	0.044	0942	0.4
Uranium	0.044	1102	0.54
Uranium	0.044	1103	0.45
Uranium	0.044	1104	1.4

Table 1 (continued). Tuba City Wells with Analyte Concentrations that Exceed EPA Standards

Analyte	Standard (mg/L)	Location	Concentration (mg/L)
Uranium	0.044	1105	2.1
Uranium	0.044	1106	2
Uranium	0.044	1107	0.26
Uranium	0.044	1108	0.76
Uranium	0.044	1111	0.16
Uranium	0.044	1112	0.052
Uranium	0.044	1119	0.14
Uranium	0.044	1120	0.13
Uranium	0.044	1122	0.2
Uranium	0.044	1123	0.27
Uranium	0.044	1124	0.33
Uranium	0.044	1129	1
Uranium	0.044	1130	0.5
Uranium	0.044	1132	3.5
Uranium	0.044	1133	0.064

TR Bartlett
Tim Bartlett
Site Hydrologist, S.M. Stoller Corporation

11/23/11
Date



Tuba City, Arizona, Disposal Site, Sample Location Map

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Data Assessment Summary

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Water Sampling Field Activities Verification Checklist

Project	Tuba City, Arizona	**Date(s) of Water Sampling**	August 15-17, 2011
Date(s) of Verification	October 25, 2011	**Name of Verifier**	Gretchen Baer

	Response (Yes, No, NA)	Comments
1. Is the SAP the primary document directing field procedures?	Yes	
List other documents, SOPs, instructions.		Work Order Letter dated June 6, 2011.
2. Were the sampling locations specified in the planning documents sampled?	No	Monitoring wells 0283 and 0909 did not have enough water to sample. The pumps at 11 extraction wells (0936, 1101, 1109, 1110, 1114, 1115, 1121, 1126, 1127, 1128, and 1131) were not functioning; 1205 is the treatment system distillate. The treatment system was not operating.
3. Was a pre-trip calibration conducted as specified in the above-named documents?	Yes	Pre-trip calibrations were performed on August 11, 12, and 16, 2011.
4. Was an operational check of the field equipment conducted daily?	Yes	
Did the operational checks meet criteria?	Yes	pH pre-trip calibration: at 180.4, a span was slightly out of range (165-180), which is acceptable.
5. Were the number and types (alkalinity, temperature, specific conductance, pH, turbidity, DO, ORP) of field measurements taken as specified?	No	Alkalinity not recorded at 0277, 0759, and 1573.
6. Was the category of the well documented?	Yes	
7. Were the following conditions met when purging a Category I well:		
Was one pump/tubing volume purged prior to sampling?	Yes	
Did the water level stabilize prior to sampling?	Yes	
Did pH, specific conductance, and turbidity measurements stabilize prior to sampling?	Yes	
Was the flow rate less than 500 mL/min?	Yes	
If a portable pump was used, was there a 4-hour delay between pump installation and sampling?	NA	

Water Sampling Field Activities Verification Checklist (continued)

	Response (Yes, No, NA)	Comments
8. Were the following conditions met when purging a Category II well:		
Was the flow rate less than 500 mL/min?	Yes	
Was one pump/tubing volume removed prior to sampling?	Yes	
9. Were duplicates taken at a frequency of one per 20 samples?	Yes	Six duplicate samples were collected.
10. Were equipment blanks taken at a frequency of one per 20 samples that were collected with nondedicated equipment?	Yes	One equipment blank taken for surface water reel.
11. Were trip blanks prepared and included with each shipment of VOC samples?	NA	
12. Were QC samples assigned a fictitious site identification number?	Yes	
Was the true identity of the samples recorded on the Quality Assurance Sample Log or in the Field Data Collection System (FDCS) report?	Yes	QC samples are also listed in the trip report.
13. Were samples collected in the containers specified?	Yes	
14. Were samples filtered and preserved as specified?	No	Some samples were received by laboratory unpreserved and were acidified by the laboratory upon receipt. No qualification necessary.
15. Were the number and types of samples collected as specified?	Yes	
16. Were chain of custody records completed and was sample custody maintained?	Yes	With the exception that a laboratory representative neglected to sign or date two pages of a Chain of Custody upon receipt of the samples.
17. Are field data sheets signed and dated by both team members (hardcopies) or are dates present for the “Date Signed” fields (FDCS)?	Yes	
18. Was all other pertinent information documented on the field data sheets?	Yes	
19. Was the presence or absence of ice in the cooler documented at every sample location?	Yes	
20. Were water levels measured at the locations specified in the planning documents?	Yes	

Laboratory Performance Assessment

General Information

Requisition No.:	11084014
Sample Event:	August 15-17, 2011
Site(s):	Tuba City, Arizona
Laboratory:	ALS Laboratory Group, Fort Collins, Colorado
Work Order No.:	1108259
Analysis:	Metals and Inorganics
Validator:	Gretchen Baer
Review Date:	October 25, 2011

This validation was performed according to the *Environmental Procedures Catalog*, (LMS/PRO/S04325, continually updated) "Standard Practice for Validation of Laboratory Data." The procedure was applied at Level 3, Data Validation. See attached Data Validation Worksheets for supporting documentation on the data review and validation. All analyses were successfully completed. The samples were prepared and analyzed using accepted procedures based on methods specified by line item code, which are listed in Table 2.

Table 2. Analytes and Methods

Analyte	Line Item Code	Prep Method	Analytical Method
Ammonia as N	WCH-A-005	MCAWW 350.1	MCAWW 350.1
Arsenic, Molybdenum, Selenium, Uranium	LMM-02	SW-846 3005A	SW-846 6020A
Calcium, Iron, Magnesium, Manganese, Potassium, Silica, Sodium	LMM-01	SW-846 3005A	SW-846 6010B
Chloride	MIS-A-039	SW-846 9056	SW-846 9056
Nitrite + Nitrate as N	WCH-A-022	MCAWW 353.2	MCAWW 353.2
Sulfate	MIS-A-044	SW-846 9056	SW-846 9056
Total Dissolved Solids	WCH-A-033	MCAWW 160.1	MCAWW 160.1

Data Qualifier Summary

Analytical results were qualified as listed in Table 3. Refer to the attached validation worksheets and the sections below for an explanation of the data qualifiers applied.

Table 3. Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
1108259-1	0258	Iron	J	Negative method blank
1108259-1	0258	Manganese	U	Less than 5 times the calibration blank
1108259-1	0258	Manganese	J	Negative method blank
1108259-2	0261	Iron	J	Negative method blank
1108259-2	0261	Manganese	U	Less than 5 times the calibration blank
1108259-3	0262	Iron	J	Negative method blank
1108259-4	0290	Manganese	U	Less than 5 times the calibration blank
1108259-5 thru 1108259-14	Various	Iron	J	Negative method blank
1108259-5	0683	Manganese	J	Negative method blank
1108259-6	0684	Manganese	J	Negative method blank
1108259-7	0912	Manganese	U	Less than 5 times the calibration blank
1108259-8	0913	Manganese	J	Negative method blank
1108259-9	0914	Manganese	J	Negative method blank
1108259-10	0915	Manganese	J	Negative method blank
1108259-11	0916	Magnesium	J	Negative method blank
1108259-11	0916	Manganese	J	Negative method blank
1108259-13	0947	Manganese	J	Negative method blank
1108259-13	0947	Potassium	J	Intercept greater than 3 times MDL
1108259-13	0947	TDS	J	Exceeded holding time
1108259-14	0251	Manganese	J	Negative method blank
1108259-14	0251	TDS	J	Exceeded holding time
1108259-15	0252	TDS	J	Exceeded holding time
1108259-16 thru 1108259-24	Various	Iron	J	Negative method blank
1108259-16	0263	TDS	J	Exceeded holding time
1108259-17	0264	Manganese	J	Negative method blank
1108259-17	0264	TDS	J	Exceeded holding time
1108259-18	0265	Iron	U	Less than 5 times the calibration blank
1108259-18	0265	Manganese	U	Less than 5 times the calibration blank
1108259-18	0265	Manganese	J	Negative method blank
1108259-19	0266	Manganese	J	Negative method blank
1108259-20	0267	Iron	U	Less than 5 times the calibration blank
1108259-21	0271	Manganese	J	Negative method blank
1108259-22	0278	Manganese	J	Negative method blank
1108259-24	0280	Potassium	J	Intercept greater than 3 times MDL Negative method blank
1108259-26	0282	Iron	U	Less than 5 times the calibration blank
1108259-27	0689	Iron	J	Negative method blank
1108259-27	0689	Manganese	J	Negative method blank
1108259-28	0690	Iron	U	Less than 5 times the calibration blank
1108259-28	0690	Iron	J	Negative method blank
1108259-29	0691	Iron	J	Negative method blank
1108259-29	0691	Sodium	J	Serial dilution failure

Table 3 (continued). Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
1108259-31 thru 1108259-37	Various	Iron	J	Negative method blank
1108259-31	0695	Manganese	J	Negative method blank
1108259-32	0904	Manganese	U	Less than 5 times the calibration blank
1108259-32	0904	Potassium	J	Intercept greater than 3 times MDL
1108259-33	0908	Iron	U	Less than 5 times the calibration blank
1108259-33	0908	TDS	J	Exceeded holding time
1108259-34	0929	Manganese	J	Negative method blank
1108259-35	0930	Manganese	J	Negative method blank
1108259-37	0272	Manganese	J	Negative method blank
1108259-38	0935	Iron	U	Less than 5 times the calibration blank
1108259-39 thru 1108259-52	Various	Iron	J	Negative method blank
1108259-41	0946	Iron	U	Less than 5 times the calibration blank
1108259-41	0946	Potassium	J	Intercept greater than 3 times MDL Negative method blank
1108259-41 thru 1108259-107	Various	TDS	J	Exceeded holding time
1108259-42	1102	Iron	U	Less than 5 times the calibration blank
1108259-50	1112	Manganese	U	Less than 5 times the method blank
1108259-51	1113	Manganese	J	Negative method blank
1108259-52	1116	Manganese	J	Negative method blank
1108259-54	1118	Iron	J	Negative method blank
1108259-55	1119	Iron	U	Less than 5 times the calibration blank
1108259-55	1119	Iron	J	Negative method blank
1108259-56	1120	Iron	J	Negative method blank
1108259-59 thru 1108259-69	Various	Iron	J	Negative method blank
1108259-59	1124	Manganese	U	Less than 5 times the method blank
1108259-59	1124	Manganese	J	Negative method blank
1108259-60	1125	Manganese	U	Less than 5 times the method blank
1108259-61	1129	Iron	U	Less than 5 times the calibration blank
1108259-61	1129	Manganese	U	Less than 5 times the method blank
1108259-62	1130	Iron	U	Less than 5 times the calibration blank
1108259-63	1132	Manganese	U	Less than 5 times the method blank
1108259-64	1133	Manganese	U	Less than 5 times the method blank
1108259-65	1132 Dup, 2186	Manganese	U	Less than 5 times the method blank
1108259-66	1133 Dup, 2532	Manganese	U	Less than 5 times the method blank
1108259-67	1113 Dup, 2988	Manganese	J	Negative method blank
1108259-68	1112 Dup, 2989	Manganese	U	Less than 5 times the method blank
1108259-69	1116 Dup, 2990	Manganese	J	Negative method blank
1108259-70	0935 Dup, 2987	Molybdenum	U	Less than 5 times the calibration blank
1108259-71	0268	Iron	J	Negative method blank
1108259-71	0268	Manganese	U	Less than 5 times the calibration blank
1108259-71	0268	Manganese	J	Negative method blank

Table 3 (continued). Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
1108259-72	0273	Manganese	U	Less than 5 times the calibration blank
1108259-73	0274	Iron	J	Negative method blank
1108259-73	0274	Manganese	U	Less than 5 times the calibration blank
1108259-75	0287	Iron	U	Less than 5 times the calibration blank
1108259-76	0288	Iron	U	Less than 5 times the calibration blank
1108259-76	0288	Manganese	U	Less than 5 times the calibration blank
1108259-77	0906	Iron	J	Negative method blank
1108259-78	0940	Iron	J	Negative method blank
1108259-79	0941	Iron	J	Negative method blank
1108259-80	0945	Iron	J	Negative method blank
1108259-80	0945	Manganese	U	Less than 5 times the calibration blank
1108259-83	Equip Blank, 2991	Iron	J	Negative method blank
1108259-83	Equip Blank, 2991	Potassium	J	Negative method blank
1108259-84	0289	Iron	J	Negative method blank
1108259-85	0277	Iron	J	Negative method blank
1108259-87 thru 1108259-99	Various	Iron	J	Negative method blank
1108259-87 thru 1108259-95	Various	Manganese	J	Negative method blank
1108259-88	0910	Potassium	J	Intercept greater than 3 times MDL
1108259-89	0911	Manganese	U	Less than 5 times the calibration blank
1108259-95	1006	Manganese	U	Less than 5 times the calibration blank
1108259-97	0276	Manganese	J	Negative method blank
1108259-98	0685	Manganese	U	Less than 5 times the calibration blank
1108259-98	0685	Manganese	J	Negative method blank
1108259-99	0686	Manganese	U	Less than 5 times the calibration blank
1108259-100	0687	Manganese	U	Less than 5 times the calibration blank
1108259-100	0687	Potassium	J	Intercept greater than 3 times MDL
1108259-101	0688	Iron	J	Negative method blank
1108259-101	0688	Manganese	U	Less than 5 times the calibration blank
1108259-102	0943	Iron	J	Negative method blank
1108259-102	0943	Potassium	J	Intercept greater than 3 times MDL
1108259-103	0759	Manganese	U	Less than 5 times the calibration blank
1108259-104	0778	Iron	J	Negative method blank
1108259-104	0778	Manganese	U	Less than 5 times the calibration blank
1108259-105	0965	Iron	J	Negative method blank
1108259-106	1571	Manganese	U	Less than 5 times the calibration blank
1108259-107	1573	Manganese	U	Less than 5 times the calibration blank
1108259-107	1573	Potassium	J	Intercept greater than 3 times MDL Negative method blank

Sample Shipping/Receiving

ALS Laboratory Group in Fort Collins, Colorado, received 107 samples on August 18 and 20, 2011, accompanied by Chain of Custody forms. The shipment received on August 20, 2011, was received a day late due to a FedEx delay. Copies of the air bills were included in the receiving documentation. The Chain of Custody forms were checked to confirm that all of the samples were listed with sample collection dates and times, and that signatures and dates were present indicating sample relinquishment and receipt. The Chain of Custody forms had no errors or omissions, with the exception that a laboratory representative neglected to sign or date two pages of a Chain of Custody upon receipt of the samples.

Preservation and Holding Times

The sample shipments were received intact with temperatures inside the iced coolers at 2.8, 4.8, 1.2, and 3.6 °C, which complies with requirements. All samples were received in the correct container types and had been preserved correctly for the requested analyses, with these exceptions: bottles collected for nitrate, ammonia, and/or metals at 0266, 0280, 0759, 0778, 0921, 0965, 1119, 1571, and 1573 were received unpreserved and were acidified by the laboratory upon receipt; no data qualification is necessary. All samples were analyzed within the applicable holding times, with the following exceptions: 36 of the samples collected on August 15-16 and shipped on August 17 exceeded the 7-day holding time for total dissolved solids (TDS) analysis. All 37 samples collected on August 17 and shipped on August 18 also exceeded the TDS holding time. All samples were received by the laboratory on day 2 or 3 of the 7-day holding time. These TDS results are qualified with a “J” flag as estimated values.

Laboratory Instrument Calibration

Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for all analytes. Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing a linear curve. Compliance requirements for continuing calibration checks are established to ensure that the instrument continues to be capable of producing acceptable qualitative and quantitative data. All laboratory instrument calibrations were performed correctly in accordance with the cited methods.

Method MCAWW 160.1

There is no initial or continuing calibration requirement associated with the determination of TDS.

Method MCAWW 350.1

The initial calibrations for ammonia as N were performed on August 25, September 1 and 7, 2011, using six calibration standards. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than 3 times the method detection limit (MDL). Calibration and laboratory spike standards were prepared from independent sources. Initial and continuing calibration verification checks were made at the

required frequency resulting in 21 verification checks. All calibration verification checks met the acceptance criteria.

Method MCAWW 353.2

The initial calibrations for nitrate + nitrite as N were performed on September 8 and 12, 2011, using seven calibration standards. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than 3 times the MDL. Calibration and laboratory spike standards were prepared from independent sources. Initial and continuing calibration verification checks were made at the required frequency resulting in 16 verification checks. All calibration verification checks met the acceptance criteria.

Method SW-846 6010B

Calibrations for calcium, iron, magnesium, manganese, potassium, silica, and sodium were performed August 24-25 and September 8, 2011. The absolute values of the intercepts were less than or only slightly above 3 times the MDL, with the exception of the intercepts for calcium, potassium, silicon, and sodium. These intercepts were less than 3 times the reporting limits and, except for potassium, all results were above the reporting limits. All field sample results for potassium less than the reporting limit are qualified with a "J" flag as estimated values. Calibration and laboratory spike standards were prepared from independent sources. Initial and continuing calibration verification checks were made at the required frequency resulting in 48 verification checks. All calibration checks met the acceptance criteria. Reporting limit verification checks were made at the required frequency to verify the linearity of the calibration curve near the practical quantitation limit (PQL) and all results were within the acceptance range.

Method SW-846 6020A

Calibrations for arsenic, molybdenum, selenium, and uranium were performed August 26, 29, and September 9, 2011, using four calibration standards. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than 3 times the MDL. Calibration and laboratory spike standards were prepared from independent sources. Initial and continuing calibration verification checks were made at the required frequency resulting in 32 verification checks. All calibration checks met the acceptance criteria. Reporting limit verification checks were made at the required frequency to verify the linearity of the calibration curve near the PQL and all results were within the acceptance range. Mass calibration and resolution verifications were performed at the beginning of each analytical run in accordance with the analytical procedure. Internal standard recoveries associated with requested analytes were stable and within acceptable ranges.

Method SW-846 9056

Calibrations for chloride and sulfate were performed on August 17, 2011, using five calibration standards. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than 3 times the MDL. Calibration and laboratory spike standards were prepared from independent sources. Initial and continuing calibration

verification checks were made at the required frequency resulting in 30 verification checks. All calibration checks met the acceptance criteria.

Method and Calibration Blanks

Method blanks are analyzed to assess any contamination that may have occurred during sample preparation. Calibration blanks are analyzed to assess instrument contamination prior to and during sample analysis. All method blank and initial and continuing calibration blank results associated with the samples were below the PQL for all analytes with these exceptions. Some sulfate calibration blanks were slightly above the PQL. All samples associated with these blanks had sulfate concentrations greater than 10 times the blank. In cases where a blank concentration exceeds the MDL, the associated sample results are qualified with a "U" flag (not detected) when the sample result is greater than the MDL but less than 5 times the blank concentration.

For the method 6010B metals, the values of some blank results were negative and the absolute values were greater than the MDLs. Associated samples with results less than 5 times the MDL are flagged with a "J" as estimated values.

Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Analysis

ICP interference check samples ICSA and ICSAB were analyzed at the required frequency to verify the instrumental interelement and background correction factors. All check sample results met the acceptance criteria.

Matrix Spike Analysis

Matrix spike and matrix spike duplicate (MS/MSD) samples are used to measure method performance in the sample matrix. The MS/MSD data are not evaluated when the concentration of the unspiked sample is greater than 4 times the spike concentration. The spike recoveries met the recovery and precision criteria for all analytes evaluated with the following exceptions. One of the spikes for sodium resulted in recoveries slightly below the acceptance criteria. Since the spiked sample was the equipment blank, the low recoveries suggest an inaccuracy in the laboratory spike rather than matrix interferences. The sodium results reported for the field samples are acceptable without further qualification. At 123 percent, the spike recovery of potassium at location 1111 exceeded the laboratory's acceptance criteria, but was within the ±25 percent requirement.

Laboratory Replicate Analysis

Laboratory replicate analyses are used to determine laboratory precision for each sample matrix. The relative percent difference for replicate results that are greater than 5 times the PQL should be less than 20 percent. For results that are less than 5 times the PQL, the range should be no greater than the PQL. The replicate results met these criteria, demonstrating acceptable laboratory precision.

Laboratory Control Sample

Laboratory control samples were analyzed at the correct frequency to provide information on the accuracy of the analytical method and the overall laboratory performance, including sample preparation. The results were acceptable for all analytes.

Metals Serial Dilution

Serial dilutions were prepared and analyzed for the metals analyses to monitor chemical or physical interferences in the sample matrix. Serial dilution data are evaluated when the concentration of the undiluted sample is greater than 50 times the PQL for method 6010 or greater than 100 times the PQL for method 6020. All evaluated serial dilution data were acceptable with the following exception. A percent difference for an evaluated sodium dilution was above the acceptance range of 10 percent. The associated sodium result is qualified with a "J" flag (estimated).

Detection Limits/Dilutions

Samples were diluted in a consistent and acceptable manner when required. The required detection limits were achieved for all analytes.

Completeness

Results were reported in the correct units for all analytes requested using contract-required laboratory qualifiers.

Chromatography Peak Integration

The integration of analyte peaks was reviewed for all ion chromatography data. There were no manual integrations performed and all peak integrations were satisfactory.

Electronic Data Deliverable (EDD) File

A revised EDD file arrived on October 28, 2011, in response to Request for Information #11-3328. The revision included corrections to some metals results. The Sample Management System EDD validation module was used to verify that the EDD file was complete and in compliance with requirements. The module compares the contents of the file to the requested analyses to ensure all and only the requested data are delivered. The contents of the EDD were manually examined to verify that the sample results accurately reflect the data contained in the sample data package.

Anion/Cation Balance

The anion/cation balance is used to determine if major ion concentrations have been quantified correctly. The total anions should balance with (be equal to) the total cations when expressed in milliequivalents per liter (meq/L). Table 4 shows the total anion and cation results from this event and the charge balance, which is a relative percent difference calculation. Typically, a charge balance difference of 10 percent is considered acceptable.

Table 4. Comparison of Major Anions and Cations

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
0251	2.2	2.4	4.3
0252	1.8	2.5	14.7
0258	2.8	2.6	4.0
0261	2.8	2.7	1.4
0262	67.3	67.6	0.3
0263	86.8	87.6	0.5
0264	5.0	5.5	5.1
0265	46.2	45.2	1.1
0266	2.3	3.0	13.1
0267	112.1	112.6	0.2
0268	6.3	10.1	23.2
0271	2.7	3.4	12.9
0272	2.5	3.1	10.5
0273	11.0	11.2	1.1
0274	2.7	3.1	7.6
0275	76.4	90.4	8.4
0276	2.7	2.6	2.1
0277	2.5	NA	NA
0278	2.4	3.3	15.9
0279	4.4	5.3	9.4
0280	3.0	3.9	13.3
0281	8.5	10.8	12.1
0282	8.6	8.6	0.3
0286	80.5	79.4	0.7
0287	70.7	76.0	3.7
0288	14.2	13.8	1.7
0289	11.7	12.6	3.8
0290	11.5	10.6	3.8
0683	2.9	2.8	1.2
0684	2.7	2.6	3.0
0685	2.8	2.8	0.5
0686	4.5	5.4	8.9
0687	1.5	1.6	3.3
0688	5.1	5.2	1.3
0689	2.6	3.4	13.4
0690	2.5	3.7	20.6
0691	21.6	21.9	0.7
0692	2.5	3.5	16.1
0695	3.5	5.1	18.7
0759	18.9	NA	NA
0778	18.2	18.7	1.5
0901	3.8	5.7	20.1
0903	4.8	6.5	15.0
0904	8.5	9.7	6.2
0906	80.9	79.8	0.7
0908	86.9	86.0	0.5

Table 4 (continued). Comparison of Major Anions and Cations

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
0910	2.6	3.7	17.6
0911	2.0	2.8	14.8
0912	23.8	22.3	3.4
0913	2.0	1.9	2.7
0914	1.3	1.5	7.0
0915	1.6	1.3	9.3
0916	5.3	4.8	4.9
0920	2.5	3.7	19.9
0921	1.9	3.5	28.1
0929	3.8	4.4	7.9
0930	5.1	5.6	5.2
0932	3.5	3.4	2.0
0934	106.9	104.1	1.3
0935	80.2	81.1	0.5
0938	98.2	99.1	0.5
0940	222.6	223.3	0.2
0941	63.1	66.5	2.6
0942	88.7	93.6	2.7
0943	1.2	1.3	5.7
0945	4.0	4.4	4.7
0946	1.5	2.7	28.7
0947	2.7	2.5	3.0
0965	17.4	16.7	2.1
1003	20.8	21.8	2.3
1004	3.8	4.7	10.5
1006	2.2	3.5	22.6
1007	2.3	3.2	16.6
1102	64.2	67.0	2.2
1103	65.9	67.8	1.4
1104	77.2	78.6	0.9
1105	84.9	86.9	1.2
1106	39.1	41.1	2.5
1107	51.1	50.0	1.1
1108	53.1	52.4	0.7
1111	43.3	42.9	0.6
1112	12.0	14.8	10.6
1113	6.9	7.9	6.5
1116	2.4	3.0	11.3
1117	13.2	12.9	1.2
1118	13.3	12.3	4.0
1119	25.5	27.4	3.6
1120	52.4	55.9	3.3
1122	48.2	52.0	3.8
1123	55.6	57.5	1.7
1124	63.8	64.7	0.7
1125	4.4	4.9	5.0
1129	42.1	41.5	0.8

Table 4 (continued). Comparison of Major Anions and Cations

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
1130	94.7	94.1	0.3
1132	93.8	80.4	7.7
1133	9.3	9.7	2.1
1569	2426.6	3017.4	10.9
1570	2527.1	3024.6	9.0
1571	5.9	7.8	13.9
1573	4.3	NA	NA

At locations 0277, 0759, and 1573 the alkalinity results were not determined. The charge balance is therefore not applicable. The charge balance value for most locations was less than 10 percent but 26 locations had charge balances above 10 percent. Two of these locations (1569 and 1571) are surface waters with difficult matrices. The other 24 locations have measured alkalinity values that are slightly high compared to historic data. Many of these alkalinity values have been "J" flagged as estimated values for a suspected high bias. There were no analytical errors identified during the review of the laboratory data.

SAMPLE MANAGEMENT SYSTEM
General Data Validation Report

RIN: 11084014 **Lab Code:** PAR **Validator:** Gretchen Baer **Validation Date:** 10/20/2011

Project: Tuba City **Analysis Type:** ☑ Metals ☑ General Chem ☐ Rad ☐ Organics

# of Samples: 107 **Matrix:** WATER **Requested Analysis Completed:** Yes

Chain of Custody

Present: OK **Signed:** OK **Dated:** OK

Sample

Integrity: OK **Preservation:** OK **Temperature:** OK

Select Quality Parameters

☑ Holding Times	There are 73 holding time failures.
☑ Detection Limits	The reported detection limits are equal to or below contract requirements.
☑ Field/Trip Blanks	There was 1 trip/equipment blank evaluated.
☑ Field Duplicates	There were 6 duplicates evaluated.

SAMPLE MANAGEMENT SYSTEM

Non-Compliance Report: Holding Times

RIN: 11084014 **Lab Code:** PAR

Project: Tuba City

Validation Date: 10/20/2011

				Holding Times			Criteria			Reported Dates		
Ticket	Location	Lab Sample ID	Method Code	Collection to Preparation	Preparation to Analysis	Collection to Analysis	Collection to Preparation	Preparation to Analysis	Collection to Analysis	Collection Date	Preparation Date	Analysis Date
JJS 274	0251	1108259-14	WCH-A-033			8			7	08/15/2011	08/23/2011	08/24/2011
JJS 275	0252	1108259-15	WCH-A-033			8			7	08/15/2011	08/23/2011	08/24/2011
JJS 279	0263	1108259-16	WCH-A-033			8			7	08/15/2011	08/23/2011	08/24/2011
JJS 280	0264	1108259-17	WCH-A-033			8			7	08/15/2011	08/23/2011	08/24/2011
JJS 284	0268	1108259-71	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 287	0273	1108259-72	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 288	0274	1108259-73	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 289	0275	1108259-96	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 290	0276	1108259-97	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 291	0277	1108259-85	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 299	0685	1108259-98	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 300	0686	1108259-99	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 301	0687	1108259-100	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 302	0688	1108259-101	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 307	0901	1108259-86	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 308	0903	1108259-87	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 310	0908	1108259-33	WCH-A-033			8			7	08/15/2011	08/23/2011	08/24/2011
JJS 312	0910	1108259-88	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 313	0911	1108259-89	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 319	0920	1108259-90	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 320	0921	1108259-91	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 328	0943	1108259-102	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 329	0945	1108259-80	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 330	0946	1108259-41	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 331	0947	1108259-13	WCH-A-033			8			7	08/15/2011	08/23/2011	08/24/2011
JJS 332	1003	1108259-92	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 333	1004	1108259-94	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 334	1006	1108259-95	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 335	1007	1108259-93	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 337	1102	1108259-42	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 338	1103	1108259-43	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 339	1105	1108259-45	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 340	1107	1108259-47	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 341	1108	1108259-48	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 344	1111	1108259-49	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011

SAMPLE MANAGEMENT SYSTEM

Non-Compliance Report: Holding Times

RIN: 11084014 **Lab Code:** PAR

Project: Tuba City

Validation Date: 10/20/2011

				Holding Times			Criteria			Reported Dates		
Ticket	Location	Lab Sample ID	Method Code	Collection to Preparation	Preparation to Analysis	Collection to Analysis	Collection to Preparation	Preparation to Analysis	Collection to Analysis	Collection Date	Preparation Date	Analysis Date
JJS 345	1112	1108259-50	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 346	1113	1108259-51	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 348	1116	1108259-52	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 349	1117	1108259-53	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 350	1118	1108259-54	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 351	1119	1108259-55	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 352	1120	1108259-56	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 354	1123	1108259-58	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 355	1125	1108259-60	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 356	1129	1108259-61	WCH-A-033			14			7	08/16/2011	08/30/2011	08/31/2011
JJS 357	1130	1108259-62	WCH-A-033			14			7	08/16/2011	08/30/2011	08/31/2011
JJS 358	1132	1108259-63	WCH-A-033			14			7	08/16/2011	08/30/2011	08/31/2011
JJS 359	1569	1108259-81	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 360	1570	1108259-82	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 361	1571	1108259-106	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 362	1573	1108259-107	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 363	2987	1108259-70	WCH-A-033			14			7	08/16/2011	08/30/2011	08/31/2011
JJS 364	2988	1108259-67	WCH-A-033			14			7	08/16/2011	08/30/2011	08/31/2011
JJS 365	2989	1108259-68	WCH-A-033			14			7	08/16/2011	08/30/2011	08/31/2011
JJS 366	2990	1108259-69	WCH-A-033			14			7	08/16/2011	08/30/2011	08/31/2011
JJS 367	2991	1108259-83	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 368	0941	1108259-79	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 371	1133	1108259-64	WCH-A-033			14			7	08/16/2011	08/30/2011	08/31/2011
JJS 372	2532	1108259-66	WCH-A-033			14			7	08/16/2011	08/30/2011	08/31/2011
JJS 373	0286	1108259-74	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 374	0287	1108259-75	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 375	0288	1108259-76	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 376	0289	1108259-84	WCH-A-033			12			7	08/17/2011	08/29/2011	08/30/2011
JJS 378	1106	1108259-46	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 379	0906	1108259-77	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 380	1104	1108259-44	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 382	0940	1108259-78	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 383	1122	1108259-57	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 384	1124	1108259-59	WCH-A-033			10			7	08/16/2011	08/26/2011	08/29/2011
JJS 390	0759	1108259-103	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011

SAMPLE MANAGEMENT SYSTEM

RIN: 11084014 Lab Code: PAR

Non-Compliance Report: Holding Times

Project: Tuba City

Validation Date: 10/20/2011

				Holding Times			Criteria			Reported Dates		
Ticket	Location	Lab Sample ID	Method Code	Collection to Preparation	Preparation to Analysis	Collection to Analysis	Collection to Preparation	Preparation to Analysis	Collection to Analysis	Collection Date	Preparation Date	Analysis Date
JJS 391	0965	1108259-105	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011
JJS 393	2186	1108259-65	WCH-A-033			14			7	08/16/2011	08/30/2011	08/31/2011
JJS 395	0778	1108259-104	WCH-A-033			13			7	08/17/2011	08/30/2011	08/31/2011

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 11084014 **Lab Code:** PAR **Date Due:** 9/17/2011

Matrix: Water **Site Code:** TUB **Date Completed:** 9/22/2011

Analyte	Method Type	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Arsenic	ICP/MS	08/26/2011	-0.0050	1.0000	OK	OK	OK	OK			103.0	106.0	3.0			
Arsenic	ICP/MS	08/26/2011									99.0	100.0	2.0	108.0	1.0	108.0
Arsenic	ICP/MS	08/29/2011							OK	92.0	93.0	91.0	3.0			108.0
Arsenic	ICP/MS	08/29/2011	-0.0100	1.0000	OK	OK	OK	OK	OK	94.0	94.0	93.0	0.0			
Arsenic	ICP/MS	08/29/2011							OK	92.0				107.0		103.0
Arsenic	ICP/MS	09/09/2011							OK	93.0	95.0	93.0	1.0			99.0
Arsenic	ICP/MS	09/09/2011	-0.0070	1.0000	OK	OK	OK	OK	OK	94.0	95.0	93.0	2.0	100.0		120.0
Arsenic	ICP/MS	08/29/2011							OK	92.0						106.0
Molybdenum	ICP/MS	08/26/2011	-0.0020	1.0000	OK	OK	OK	OK			101.0	104.0	3.0			92.0
Molybdenum	ICP/MS	08/29/2011	-0.0220	1.0000	OK	OK	OK	OK	OK	94.0	94.0	94.0	0.0			90.0
Molybdenum	ICP/MS	08/29/2011							OK	91.0				89.0		109.0
Molybdenum	ICP/MS	08/29/2011							OK	92.0				102.0		106.0
Molybdenum	ICP/MS	08/29/2011							OK	92.0	93.0	92.0	1.0	101.0		103.0
Molybdenum	ICP/MS	09/09/2011							OK	95.0	94.0	92.0	2.0			93.0
Molybdenum	ICP/MS	08/26/2011									98.0	99.0	1.0			
Molybdenum	ICP/MS	09/09/2011	-0.0200	1.0000	OK	OK	OK	OK	OK	91.0	93.0	93.0	0.0			
Selenium	ICP/MS	09/09/2011							OK	96.0	96.0	94.0	3.0		3.0	

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 11084014 **Lab Code:** PAR **Date Due:** 9/17/2011

Matrix: Water **Site Code:** TUB **Date Completed:** 9/22/2011

Analyte	Method Type	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Selenium	ICP/MS	08/29/2011							OK	96.0				109.0		95.0
Selenium	ICP/MS	08/26/2011	-0.0300	1.0000	OK	OK	OK	OK			105.0	107.0	2.0	105.0		108.0
Selenium	ICP/MS	09/09/2011	-0.0280	1.0000	OK	OK	OK	OK	OK	98.0	96.0	97.0	0.0			99.0
Selenium	ICP/MS	08/26/2011									103.0	103.0	0.0	104.0		118.0
Selenium	ICP/MS	08/29/2011							OK	95.0	97.0	94.0	3.0			95.0
Selenium	ICP/MS	08/29/2011	-0.0320	1.0000	OK	OK	OK	OK	OK	96.0						
Selenium	ICP/MS	08/29/2011							OK	92.0	93.0	93.0	0.0			108.0
Uranium	ICP/MS	08/29/2011							OK	98.0	94.0	96.0	2.0		2.0	
Uranium	ICP/MS	09/09/2011							OK	101.0	98.0	100.0	2.0			100.0
Uranium	ICP/MS	08/29/2011							OK	94.0				104.0		100.0
Uranium	ICP/MS	08/29/2011	-0.0020	1.0000	OK	OK	OK	OK	OK	96.0	101.0	96.0	4.0			105.0
Uranium	ICP/MS	08/26/2011	-0.0010	1.0000	OK	OK	OK	OK					3.0	107.0	6.0	100.0
Uranium	ICP/MS	08/26/2011									101.0	111.0	2.0			
Uranium	ICP/MS	08/29/2011							OK	94.0				104.0	3.0	120.0
Uranium	ICP/MS	09/09/2011	-0.0020	1.0000	OK	OK	OK	OK	OK	99.0	102.0	102.0	0.0		3.0	100.0
Calcium	ICP/ES	08/25/2011							OK	97.0	100.0	97.7	2.0	101.0		103.0
Calcium	ICP/ES	08/25/2011							OK	98.0	112.0	101.7	1.0	104.0	0.0	103.0

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 11084014 **Lab Code:** PAR **Date Due:** 9/17/2011

Matrix: Water **Site Code:** TUB **Date Completed:** 9/22/2011

Analyte	Method Type	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Calcium	ICP/ES	09/08/2011							OK	96.0	98.0	97.0	1.0	104.0	2.0	103.0
Calcium	ICP/ES	09/08/2011	-0.0650	0.9999	OK	OK	OK	OK	OK	97.0	97.0	98.0	1.0	106.0	3.0	106.0
Calcium	ICP/ES	08/24/2011	-0.0620	0.9999	OK	OK	OK	OK	OK	97.0	99.0	100.0	1.0	105.0	0.0	106.0
Calcium	ICP/ES	08/25/2011	-0.0630	1.0000	OK	OK	OK	OK	OK	94.0	102.0	85.4	2.0	104.0		105.0
Iron	ICP/ES	08/25/2011	-0.0110	1.0000	OK	OK	OK	OK	OK	95.0	92.0	91.0	1.0	106.0		107.0
Iron	ICP/ES	09/08/2011							OK	97.0	93.0	112.0	19.0	103.0		106.0
Iron	ICP/ES	08/25/2011							OK	96.0	97.0	96.0	1.0	107.0		113.0
Iron	ICP/ES	09/08/2011	-0.0150	1.0000	OK	OK	OK	OK	OK	96.0	96.0	96.0	0.0	109.0		109.0
Iron	ICP/ES	08/25/2011							OK	97.0	89.0	88.0	1.0	108.0		100.0
Iron	ICP/ES	08/24/2011	-0.0110	1.0000	OK	OK	OK	OK	OK	97.0	97.0	98.0	1.0	108.0		105.0
Magnesium	ICP/ES	08/24/2011	-0.0390	0.9999	OK	OK	OK	OK	OK	100.0	100.0	101.0	1.0	105.0		103.0
Magnesium	ICP/ES	09/08/2011							OK	100.0	96.0	97.0	1.0	108.0	2.0	105.0
Magnesium	ICP/ES	09/08/2011	-0.0470	0.9999	OK	OK	OK	OK	OK	99.0	96.0	96.0	0.0	107.0	6.0	104.0
Magnesium	ICP/ES	08/25/2011							OK	96.0	98.0	96.1	1.0	105.0		103.0
Magnesium	ICP/ES	08/25/2011							OK	100.0	102.0	101.0	1.0	107.0	2.0	102.0
Magnesium	ICP/ES	08/25/2011	-0.0410	1.0000	OK	OK	OK	OK	OK	102.0	98.0	96.9	0.0	108.0	1.0	105.0
Manganese	ICP/ES	09/08/2011	0.0000	1.0000	OK	OK	OK	OK	OK	97.0	91.0	92.0	1.0	98.0	8.0	109.0

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 11084014 **Lab Code:** PAR **Date Due:** 9/17/2011

Matrix: Water **Site Code:** TUB **Date Completed:** 9/22/2011

Analyte	Method Type	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Manganese	ICP/ES	08/25/2011	-0.0010	1.0000	OK	OK	OK	OK	OK	96.0	97.0	96.0	1.0	97.0		108.0
Manganese	ICP/ES	08/24/2011	-0.0010	1.0000	OK	OK	OK	OK	OK	97.0	96.0	97.0	1.0	95.0		106.0
Manganese	ICP/ES	09/08/2011							OK	96.0	90.0	90.0	0.0	97.0		107.0
Manganese	ICP/ES	08/25/2011							OK	95.0	92.0	91.2	1.0	98.0		108.0
Manganese	ICP/ES	08/25/2011							OK	100.0	91.0	88.5	1.0	95.0		109.0
Potassium	ICP/ES	08/24/2011	-1.3400	1.0000	OK	OK	OK	OK	OK	97.0	102.0	103.0	1.0			77.0
Potassium	ICP/ES	08/25/2011	-1.3900	1.0000	OK	OK	OK	OK	OK	93.0	113.0	112.5	0.0			75.0
Potassium	ICP/ES	08/25/2011							OK	96.0	103.0	102.1	1.0			77.0
Potassium	ICP/ES	08/25/2011							OK	97.0	123.0	122.9	0.0			78.0
Potassium	ICP/ES	09/08/2011	-1.3900	1.0000	OK	OK	OK	OK	OK	94.0	96.0	97.0	1.0			78.0
Potassium	ICP/ES	09/08/2011							OK	94.0	94.0	94.0	0.0			78.0
Silicon	ICP/ES	09/08/2011	-0.1360	1.0000	OK	OK	OK	OK	OK	104.0	101.0	101.0	0.0	95.0	0.0	100.0
Silicon	ICP/ES	09/08/2011							OK	104.0	96.0	99.0	1.0	96.0	2.0	105.0
Silicon	ICP/ES	08/24/2011	-0.1410	1.0000	OK	OK	OK	OK	OK	104.0	99.0	103.0	1.0	90.0		78.0
Silicon	ICP/ES	08/25/2011	-0.1450	1.0000	OK	OK	OK	OK	OK	102.0	94.0	90.5	1.0	95.0	4.0	99.0
Silicon	ICP/ES	08/25/2011							OK	103.0	92.0	85.2	1.0	96.0	1.0	97.0
Silicon	ICP/ES	08/25/2011							OK	105.0	96.0	94.5	0.0	95.0	3.0	102.0

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 11084014 **Lab Code:** PAR **Date Due:** 9/17/2011

Matrix: Water **Site Code:** TUB **Date Completed:** 9/22/2011

Analyte	Method Type	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Sodium	ICP/ES	08/25/2011	-0.0950	1.0000	OK	OK	OK	OK	OK	95.0	90.0	95.6	1.0			78.0
Sodium	ICP/ES	09/08/2011	-0.0580	1.0000	OK	OK	OK	OK	OK	90.0	74.0	74.0	0.0			82.0
Sodium	ICP/ES	09/08/2011							OK	91.0	89.0	90.0	1.0			85.0
Sodium	ICP/ES	08/25/2011							OK	94.0	100.0	98.1	1.0		14.0	85.0
Sodium	ICP/ES	08/24/2011	-0.0650	1.0000	OK	OK	OK	OK	OK	97.0	101.0	102.0	1.0			87.0
Sodium	ICP/ES	08/25/2011							OK	92.0	98.0	96.5	1.0			84.0

SAMPLE MANAGEMENT SYSTEM

Wet Chemistry Data Validation Worksheet

RIN: 11084014 **Lab Code:** PAR **Date Due:** 9/17/2011

Matrix: Water **Site Code:** TUB **Date Completed:** 9/22/2011

Analyte	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	ICV	CCV	ICB	CCB						
AMMONIA AS N	08/25/2011	-0.005	0.9998	OK	OK	OK	OK	OK	95	96	95	1	
AMMONIA AS N	08/25/2011							OK	101	94	96	2	
AMMONIA AS N	09/01/2011	0.009	1.0000	OK	OK	OK	OK	OK	94	109	108	1	
AMMONIA AS N	09/01/2011							OK	95	109	105	4	
AMMONIA AS N	09/07/2011	0.061	0.9996	OK	OK	OK	OK	OK	99	112	113	1	
CHLORIDE	08/17/2011	0.041	0.9999	OK		OK							
CHLORIDE	08/26/2011				OK		OK	OK	95	96			
CHLORIDE	08/27/2011									98	95	0	
CHLORIDE	08/30/2011				OK		OK	OK	97	104	106	0	
CHLORIDE	08/30/2011							OK	97	105			
CHLORIDE	09/01/2011				OK		OK	OK	100	107	106	0	
CHLORIDE	09/01/2011							OK	97	108	99	1	
CHLORIDE	09/01/2011									99			
CHLORIDE	09/02/2011				OK		OK	OK	101	108			
CHLORIDE	09/08/2011				OK		OK			103	101	2	

SAMPLE MANAGEMENT SYSTEM

Wet Chemistry Data Validation Worksheet

RIN: 11084014 **Lab Code:** PAR **Date Due:** 9/17/2011

Matrix: Water **Site Code:** TUB **Date Completed:** 9/22/2011

Analyte	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	ICV	CCV	ICB	CCB						
Nitrate+Nitrite as N	09/08/2011	0.000	0.9998	OK	OK	OK	OK	OK	100	101	106	2	
Nitrate+Nitrite as N	09/08/2011							OK	101	95	104	3	
Nitrate+Nitrite as N	09/08/2011							OK	99				
Nitrate+Nitrite as N	09/12/2011	0.000	0.9998	OK	OK	OK	OK	OK	104	104	91	4	
Nitrate+Nitrite as N	09/12/2011							OK	103	93	90	1	
Nitrate+Nitrite as N	09/12/2011							OK	104	101	101	0	
SULFATE	08/17/2011	0.538	0.9999	OK		OK							
SULFATE	08/26/2011				OK		OK	OK	95	99			
SULFATE	08/27/2011									91	99	0	
SULFATE	08/30/2011				OK		OK	OK	96	111	102	2	
SULFATE	08/30/2011							OK	96	103	110	1	
SULFATE	08/30/2011									106			
SULFATE	09/01/2011				OK		OK	OK	100	104	106	1	
SULFATE	09/01/2011							OK	96	104	100	1	
SULFATE	09/01/2011									109			

SAMPLE MANAGEMENT SYSTEM

Wet Chemistry Data Validation Worksheet

RIN: 11084014 **Lab Code:** PAR **Date Due:** 9/17/2011

Matrix: Water **Site Code:** TUB **Date Completed:** 9/22/2011

Analyte	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	ICV	CCV	ICB	CCB						
SULFATE	09/01/2011									102			
SULFATE	09/02/2011				OK		OK	OK	100	106			
SULFATE	09/08/2011				OK		OK			106	103	1	
Total Dissolved Solids	08/24/2011							OK	101			1	
Total Dissolved Solids	08/24/2011							OK	100			3	
Total Dissolved Solids	08/24/2011											0	
Total Dissolved Solids	08/24/2011											0	
Total Dissolved Solids	08/29/2011							OK	102			1	
Total Dissolved Solids	08/29/2011											1	
Total Dissolved Solids	08/30/2011							OK	101			1	
Total Dissolved Solids	08/30/2011											1	
Total Dissolved Solids	08/31/2011							OK	102			0	
Total Dissolved Solids	08/31/2011							OK	101			3	
Total Dissolved Solids	08/31/2011											1	

Sampling Quality Control Assessment

The following information summarizes and assesses quality control for this sampling event.

Sampling Protocol

Sample results for all monitoring wells met the Category I, II, or III low-flow sampling criteria and were qualified with an "F" flag in the database, indicating the wells were purged and sampled using the low-flow sampling method. All monitoring wells are equipped with either dedicated downhole and pumphead tubing or a bladder pump.

Extraction wells (0935, 0938, 0942, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1111, 1112, 1113, 1116, 1117, 1118, 1119, 1120, 1122, 1123, 1124, 1125, 1129, 1130, 1132, and 1133) are spigot samples and are designated as Category IV.

These 36 wells were classified as Category II or III: 0251, 0258, 0262, 0263, 0264, 0266, 0272, 0273, 0274, 0277, 0278, 0280, 0281, 0286, 0287, 0288, 0289, 0290, 0683, 0684, 0690, 0692, 0906, 0908, 0911, 0912, 0913, 0914, 0915, 0916, 0929, 0934, 0940, 0941, 0945, and 0947. The sample results for these wells were qualified with a "Q" flag, indicating the data are qualitative because of the sampling technique.

Results obtained from wells with a pH greater than 9 (wells 0914, 0915, and 0916) are qualified with a "G" flag, indicating potential grout contamination.

Equipment Blank Assessment

An equipment blank (field ID 2991) was collected after decontamination of the tubing reel used to collect some surface water samples (0759, 0778, 0965, and 1571). The following analytes were detected in the equipment blank: ammonia as N, calcium, magnesium, manganese, sodium, sulfate, and uranium. All results for these analytes in the associated samples were either greater than 5 times the equipment blank or were "U" flagged during data validation, so no further data qualification is necessary. The equipment blank results indicate adequate decontamination of the sampling equipment.

Field Duplicate Analysis

Field duplicate samples are collected and analyzed as an indication of overall precision of the measurement process. The precision observed includes both field and laboratory precision and has more variability than laboratory duplicates, which measure only laboratory performance. The relative percent difference for duplicate results that are greater than 5 times the PQL should be less than 20 percent. For results that are less than 5 times the PQL, the range should be no greater than the PQL. Duplicate samples were collected from locations 0935, 1112, 1113, 1116, 1132, and 1133. The duplicate results met the criteria, demonstrating acceptable overall precision.

SAMPLE MANAGEMENT SYSTEM

Validation Report: Equipment/Trip Blanks

RIN: 11084014 **Lab Code:** PAR **Project:** Tuba City **Validation Date:** 10/20/2011

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1108259-83	SW6010	Calcium	210	B	12	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1108259-103	JJS 390	0759	220000	1		
1108259-104	JJS 395	0778	210000	1		
1108259-105	JJS 391	0965	200000	1		
1108259-106	JJS 361	1571	35000	1		

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1108259-83	SW6010	Magnesium	1100	E	13	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1108259-103	JJS 390	0759	53000	1		
1108259-104	JJS 395	0778	51000	1		
1108259-105	JJS 391	0965	49000	1		
1108259-106	JJS 361	1571	11000	1		

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1108259-83	SW6010	Manganese	21	E	0.11	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1108259-103	JJS 390	0759	4.7	1	B	J
1108259-104	JJS 395	0778	1.7	1	B	J
1108259-105	JJS 391	0965	190	1		
1108259-106	JJS 361	1571	5.6	1		J

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1108259-83	SW6010	Sodium	4300	EN	6.6	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1108259-103	JJS 390	0759	75000	1		
1108259-104	JJS 395	0778	73000	1		

SAMPLE MANAGEMENT SYSTEM

Validation Report: Equipment/Trip Blanks

RIN: 11084014 **Lab Code:** PAR **Project:** Tuba City **Validation Date:** 10/20/2011

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1108259-83		Sodium				

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1108259-105	JJS 391	0965	71000	1		
1108259-106	JJS 361	1571	73000	1		

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1108259-83	SW6020	Uranium	0.012		0.0029	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1108259-103	JJS 390	0759	4.4	1		
1108259-104	JJS 395	0778	4.8	1		
1108259-105	JJS 391	0965	4.3	1		
1108259-106	JJS 361	1571	3.5	1		

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1108259-83	SW9056	SULFATE	0.61		0.5	MG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1108259-103	JJS 390	0759	770	20		
1108259-104	JJS 395	0778	720	20		
1108259-105	JJS 391	0965	650	20		
1108259-106	JJS 361	1571	87	5		

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1108259-83	EPA350.1	AMMONIA AS N	0.12		0.1	MG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier

SAMPLE MANAGEMENT SYSTEM

Validation Report: Field Duplicates

RIN: 11084014 **Lab Code:** PAR **Project:** Tuba City **Validation Date:** 10/20/2011

Duplicate: 2186 **Sample:** 1132

Analyte	Sample Result	Flag	Error	Dilution	Duplicate Result	Flag	Error	Dilution	RPD	RER	Units
AMMONIA AS N	0.1	U		1	0.1	U		1			MG/L
Arsenic	1.9			5	1.9			5	0		UG/L
Calcium	1100000			10	920000			10	17.82		UG/L
CHLORIDE	140			100	150			50	6.90		MG/L
Iron	0.0049	U		1	0.0049	U		1			UG/L
Magnesium	220000			1	220000			1	0		UG/L
Manganese	7.3			1	7.1			1	2.78		UG/L
Molybdenum	2600			200	2800			200	7.41		UG/L
Nitrate+Nitrite as N	290			200	290			200	0		MG/L
Potassium	13000			1	13000			1	0		UG/L
Selenium	220			200	210			200	4.65		UG/L
Silica	15000			1	15000			1	0		UG/L
Silicon	7100			1	7200			1	1.40		UG/L
Sodium	470000			10	410000			10	13.64		UG/L
SULFATE	2000			100	2200			50	9.52		MG/L
TOTAL DISSOLVED SOLIDS	5900			1	6000			1	1.68		MG/L
Uranium	3400			200	3500			200	2.90		UG/L

Duplicate: 2532 **Sample:** 1133

Analyte	Sample Result	Flag	Error	Dilution	Duplicate Result	Flag	Error	Dilution	RPD	RER	Units
Arsenic	1.6			5	1.6			5	0		UG/L
Calcium	130000			1	130000			1	0		UG/L
CHLORIDE	23			10	23			10	0		MG/L
Iron	0.0049	U		1	0.0049	U		1			UG/L
Magnesium	23000			1	23000			1	0		UG/L
Manganese	0.00011	U		1	0.00011	U		1			UG/L
Molybdenum	12			5	12			5	0		UG/L
Nitrate+Nitrite as N	30			20	31			20	3.28		MG/L
Potassium	2200			1	2100			1	4.65		UG/L
Selenium	15			5	15			5	0		UG/L
Sodium	20000			1	20000			1	0		UG/L
SULFATE	150			10	140			10	6.90		MG/L
TOTAL DISSOLVED SOLIDS	630			1	640			1	1.57		MG/L
Uranium	64			5	64			5	0		UG/L

SAMPLE MANAGEMENT SYSTEM

Validation Report: Field Duplicates

RIN: 11084014 **Lab Code:** PAR **Project:** Tuba City **Validation Date:** 10/20/2011

Duplicate: 2987 **Sample:** 0935

	Sample				Duplicate						
Analyte	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution	RPD	RER	Units
Arsenic	1.4			10	1.5			2	6.90		UG/L
Calcium	690000			10	680000			10	1.46		UG/L
CHLORIDE	79			50	78			50	1.27		MG/L
Iron	0.0049	U		1	66	B		1			UG/L
Magnesium	330000			1	330000			1	0		UG/L
Manganese	790			1	790			1	0		UG/L
Molybdenum	0.32	U		10	0.11	B		2			UG/L
Nitrate+Nitrite as N	250			200	260			200	3.92		MG/L
Potassium	28000			1	27000			1	3.64		UG/L
Selenium	16			10	16			2	0		UG/L
Sodium	300000			10	280000			10	6.90		UG/L
SULFATE	2300			50	2400			50	4.26		MG/L
TOTAL DISSOLVED SOLIDS	5700			1	5700			1	0		MG/L
Uranium	140			10	130			2	7.41		UG/L

Duplicate: 2988 **Sample:** 1113

	Sample				Duplicate						
Analyte	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution	RPD	RER	Units
AMMONIA AS N	0.1	U		1	0.1	U		1			MG/L
Arsenic	1.5			1	1.5			1	0		UG/L
Calcium	95000			1	95000			1	0		UG/L
CHLORIDE	15			5	15			5	0		MG/L
Iron	0.0049	U		1	0.0049	U		1			UG/L
Magnesium	20000			1	20000			1	0		UG/L
Manganese	0.00011	U		1	0.00011	U		1			UG/L
Molybdenum	0.29			1	0.37			1	24.24		UG/L
Nitrate+Nitrite as N	22			20	23			20	4.44		MG/L
Potassium	2400			1	2400			1	0		UG/L
Selenium	2.4			1	2.4			1	0		UG/L
Silica	12000			1	12000			1	0		UG/L
Silicon	5600			1	5500			1	1.80		UG/L
Sodium	11000			1	11000			1	0		UG/L
SULFATE	100			5	100			5	0		MG/L
TOTAL DISSOLVED SOLIDS	500			1	490			1	2.02		MG/L
Uranium	14			1	14			1	0		UG/L

SAMPLE MANAGEMENT SYSTEM

Validation Report: Field Duplicates

RIN: 11084014 **Lab Code:** PAR **Project:** Tuba City **Validation Date:** 10/20/2011

Duplicate: 2989 **Sample:** 1112

Analyte	Sample Result	Flag	Error	Dilution	Duplicate Result	Flag	Error	Dilution	RPD	RER	Units
AMMONIA AS N	0.1	U		1	0.1	U		1			MG/L
Arsenic	1.5			5	1.3			1	14.29		UG/L
Calcium	150000			1	150000			1	0		UG/L
CHLORIDE	23			20	20			10	13.95		MG/L
Iron	0.0049	U		1	0.0049	U		1			UG/L
Magnesium	41000			1	40000			1	2.47		UG/L
Manganese	0.00011	U		1	5.2			1			UG/L
Molybdenum	0.24	B		5	0.16			1			UG/L
Nitrate+Nitrite as N	48			50	50			50	4.08		MG/L
Potassium	2700			1	2600			1	3.77		UG/L
Selenium	5.2			5	5.1			1	1.94		UG/L
Silica	12000			1	12000			1	0		UG/L
Silicon	5700			1	5600			1	1.77		UG/L
Sodium	24000			1	24000			1	0		UG/L
SULFATE	300			20	260			10	14.29		MG/L
TOTAL DISSOLVED SOLIDS	1100			1	910			1	18.91		MG/L
Uranium	52			5	49			1	5.94		UG/L

Duplicate: 2990 **Sample:** 1116

Analyte	Sample Result	Flag	Error	Dilution	Duplicate Result	Flag	Error	Dilution	RPD	RER	Units
AMMONIA AS N	0.1	U		1	0.1	U		1			MG/L
Arsenic	1.7			1	2			1	16.22		UG/L
Calcium	30000			1	32000			1	6.45		UG/L
CHLORIDE	8.3			1	7.6			1	8.81		MG/L
Iron	0.0049	U		1	4.9	U		1			UG/L
Magnesium	7100			1	7300			1	2.78		UG/L
Manganese	0.00011	U		1	0.11	U		1			UG/L
Molybdenum	0.19			1	0.21			1	10.00		UG/L
Nitrate+Nitrite as N	3.6			5	3.8			5	5.41		MG/L
Potassium	1600			1	1400			1	13.33		UG/L
Selenium	1.1			1	1.2			1	8.70		UG/L
Silica	11000			1	11000			1	0		UG/L
Silicon	5300			1	5300			1	0		UG/L
Sodium	5700			1	6000			1	5.13		UG/L
SULFATE	14			1	12			1	15.38		MG/L
TOTAL DISSOLVED SOLIDS	170			1	150			1	12.50		MG/L

SAMPLE MANAGEMENT SYSTEM

Validation Report: Field Duplicates

RIN: 11084014 **Lab Code:** PAR **Project:** Tuba City **Validation Date:** 10/20/2011

Duplicate: 2990 **Sample:** 1116

Analyte	Sample Result	Flag	Error	Dilution	Duplicate Result	Flag	Error	Dilution	RPD	RER	Units
Uranium	1.8			1	1.6			1	11.76		UG/L

Certification

All laboratory analytical quality control criteria were met except as qualified in this report. The data qualifiers listed on the SEEPro database reports are defined on the last page of each report. All data in this package are considered validated and available for use.

Laboratory Coordinator: Steve Donivan — Date: 11-28-2011

Data Validation Lead: Gretchen Baer — Date: 11/23/11

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Attachment 1
Assessment of Anomalous Data

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Potential Outliers Report

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Potential Outliers Report

Potential outliers are measurements that are extremely large or small relative to the rest of the data and, therefore, are suspected of misrepresenting the population from which they were collected. Potential outliers may result from transcription errors, data-coding errors, or measurement system problems. However, outliers may also represent true extreme values of a distribution and indicate more variability in the population than was expected.

Statistical outlier tests give probabilistic evidence that an extreme value does not "fit" with the distribution of the remainder of the data and is therefore a statistical outlier. These tests should only be used to identify data points that require further investigation. The tests alone cannot determine whether a statistical outlier should be discarded or corrected within a data set.

There are three steps involved in identifying extreme values or outliers:

1. Identify extreme values that may be potential outliers by generating the Outliers Report using the Sample Management System from data in the SEEPro database. The application compares the new data set with historical data and lists the new data that fall outside the historical data range. A determination is also made if the data are normally distributed using the Shapiro-Wilk Test.
2. Apply the appropriate statistical test. Dixon's Extreme Value test is used to test for statistical outliers when the sample size is less than or equal to 25. This test considers both extreme values that are much smaller than the rest of the data (case 1) and extreme values that are much larger than the rest of the data (case 2). This test is valid only if the data without the suspected outlier are normally distributed. Rosner's Test is a parametric test that is used to detect outliers for sample sizes of 25 or more. This test also assumes that the data without the suspected outliers are normally distributed.
3. Scientifically review statistical outliers and decide on their disposition.

In the Trip Report, the following note was made for the oxidation/reduction potential (ORP) measurements at 14 locations (0258, 0261, 0290, 0683, 0684, 0759, 0778, 0914, 0915, 0916, 0947, 0965, 1571, and 1573): “Measurements were recorded with YSI ‘G.’ This instrument may have had a low bias for ORP only, based on comparison with historical results and on tap water checks. The tap water checks demonstrated a possible low bias, but not an equipment failure.” Review of the Outliers Report for field parameters indicates that these ORP measurements are anomalous and they are qualified with an “R” flag as rejected. Other potential anomalies in the field parameters were also examined for patterns of repeated high or low bias, which may suggest systematic errors due to instrument malfunction. The alkalinity measurements associated with one of the field kits were biased slightly high and are qualified with a “J” flag (estimated). All other data from this event are acceptable as qualified.

Thirty-six laboratory results were identified as potentially anomalous. Most of these 36 results were identified as potentially anomalous because of the low variability of the historical data or because of downward or upward trending in the data. Three potentially anomalous laboratory results are listed on the Anomalous Data Review Checksheet for further review: the manganese results from locations 0965 (surface water), 1117, and 1123 (extraction wells) were significantly

higher than historical results. At this time, all data from this sampling event may be treated as validated results.

Table 5 summarizes the anomalies identified in a previous report (July 2010). The right-hand column describes the result for this sampling event (August 2011).

Table 5. Comparison of July 2010 Anomalies with August 2011 Results

Location	Analyte	Type of Anomaly in July 2010	August 2011 Measurement
0684	Alkalinity (Field Measurement)	High	Measurement is lower & within historical range.
0938	Manganese	High	High value confirmed by high results in February 2011 and August 2011.
1004	Iron	High	Measurement is lower & within historical range.
1103	Arsenic	High	Measurement is lower but still elevated; possible upward trend.
1103	Iron	High	Measurement is lower & within historical range.

Data Validation Outliers Report - No Field Parameters
Comparison: All Historical Data
Laboratory: ALS Laboratory Group
RIN: 11084014
Report Date: 11/1/2011

					Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
						Qualifiers			Qualifiers			Qualifiers				
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0251	N001	08/15/2011	Molybdenum	0.00019		FQ	0.003	U		0.00022		FQ	26	18	No
TUB01	0251	N001	08/15/2011	Nitrate + Nitrite as Nitrogen	3.2		FQ	5.1	N	FQ	3.27		FQ	15	0	No
TUB01	0252	N001	08/15/2011	Molybdenum	0.00012		F	0.002	B	F	0.00014	B	UF	25	17	No
TUB01	0261	N001	08/16/2011	Chloride	12		F	14		F	12.4		F	9	0	No
TUB01	0262	N001	08/16/2011	Arsenic	0.002		FQ	0.0019		FQ	0.001		F	15	1	No
TUB01	0262	N001	08/16/2011	Magnesium	190		FQ	171		FQ	71		FQ	16	0	No
TUB01	0262	N001	08/16/2011	Sodium	240		FQ	232		FQ	73.7			16	0	No
TUB01	0262	N001	08/16/2011	Total Dissolved Solids	5200		FQ	5100		FQ	2000		FQ	16	0	No
TUB01	0263	N001	08/15/2011	Magnesium	490		FQ	442		FQ	220		F	16	0	No
TUB01	0263	N001	08/15/2011	Silicon	7.8		FQ	7.5		QF	6		F	13	0	Yes
TUB01	0263	N001	08/15/2011	Total Dissolved Solids	6500		FQJ	6300		FQ	4200		F	16	0	No
TUB01	0264	N001	08/15/2011	Magnesium	13		FQ	12		FQ	8.48			16	0	No
TUB01	0264	N001	08/15/2011	Sulfate	76		FQ	68.7		FQ	37.7			16	0	No
TUB01	0266	N001	08/16/2011	Molybdenum	0.0002		FQ	0.0017	U	QF	0.00032	B	UFQ	16	10	No
TUB01	0266	N001	08/16/2011	Sodium	5.3		FQ	7	N	FJ	5.5		F	16	0	No
TUB01	0271	N001	08/16/2011	Molybdenum	0.00028		F	0.003	U		0.00031		F	15	10	No
TUB01	0274	N001	08/17/2011	Molybdenum	0.00039		FQ	0.0016		UFQ	0.00042		FQ	13	7	No
TUB01	0275	N001	08/17/2011	Selenium	0.034		F	0.0338		F	0.017		F	13	0	No
TUB01	0275	N001	08/17/2011	Sulfate	2800		F	2400		F	1900		F	13	0	No
TUB01	0276	N001	08/17/2011	Molybdenum	0.00043		F	0.00204	B	UF	0.00044	B	F	15	9	No
TUB01	0277	N001	08/17/2011	Molybdenum	0.00017		FQ	0.0016		F	0.0002		FQ	7	3	No
TUB01	0277	N001	08/17/2011	Selenium	0.0015		FQ	0.0014		FQ	0.00087			7	0	No
TUB01	0277	N001	08/17/2011	Sodium	9.8		FQ	13		FQ	11		FQ	7	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All Historical Data
Laboratory: ALS Laboratory Group
RIN: 11084014
Report Date: 11/1/2011

					Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
						Qualifiers			Qualifiers			Qualifiers				
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0278	N001	08/16/2011	Chloride	8.6		FQ	10		FQ	8.9		FQ	7	0	No
TUB01	0278	N001	08/16/2011	Molybdenum	0.0003		FQ	0.00073	B	FQ	0.00036	B	FQ	7	5	No
TUB01	0278	N001	08/16/2011	Potassium	1.7		FQ	2.9		FQ	1.9		FQJ	7	0	No
TUB01	0278	N001	08/16/2011	Sodium	8		FQ	9.4		F	8.2		FQ	7	0	No
TUB01	0279	N001	08/16/2011	Manganese	0.001	B	F	0.64		F	0.0021	B	F	7	0	No
TUB01	0279	N001	08/16/2011	Potassium	1.6		F	2.7		F	1.8		FJ	7	0	No
TUB01	0280	N001	08/16/2011	Chloride	20		FQ	24		FQ	21		FQ	8	0	No
TUB01	0280	N001	08/16/2011	Molybdenum	0.00046		FQ	0.0013		UFQ	0.00051		FQ	8	5	No
TUB01	0280	N001	08/16/2011	Potassium	0.28	B	FQJ	2.2		FQ	1.4		FQJ	8	0	Yes
TUB01	0280	N001	08/16/2011	Sodium	18		FQ	21		FQ	19		FQ	8	0	No
TUB01	0280	N001	08/16/2011	Sulfate	20		FQ	24		FQJ	21		FQ	8	0	No
TUB01	0281	N001	08/16/2011	Manganese	0.01		FQ	0.14		FQ	0.0127		FQ	14	0	No
TUB01	0281	N001	08/16/2011	Molybdenum	0.00055		FQ	0.0046		FQJ	0.00063	B	QF	14	5	No
TUB01	0281	N001	08/16/2011	Sodium	17		FQ	30		FQ	18.5		FQ	14	0	No
TUB01	0282	N001	08/16/2011	Molybdenum	0.00041		F	0.0048		F	0.000435	B	FQ	13	5	No
TUB01	0286	N001	08/17/2011	Magnesium	450		FQ	284		FQ	10		FQ	7	0	No
TUB01	0286	N001	08/17/2011	Nitrate + Nitrite as Nitrogen	190		FQ	176		FQ	9.2		FQ	7	0	No
TUB01	0286	N001	08/17/2011	Potassium	17		FQ	12.2	E	FQ	1.8		FQ	7	0	No
TUB01	0286	N001	08/17/2011	Sulfate	2400		FQ	2290		FQ	34		FQ	8	0	No
TUB01	0286	N001	08/17/2011	Total Dissolved Solids	5800		FQJ	5010		FQ	250		FQ	7	0	No
TUB01	0287	N001	08/17/2011	Chloride	220		FQ	210		FQ	121			8	0	No
TUB01	0287	N001	08/17/2011	Potassium	10		FQ	9.7		FQJ	4.6	B	FQJ	7	0	No
TUB01	0287	N001	08/17/2011	Sodium	290		FQ	273		FQ	170		FQ	7	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All Historical Data

Laboratory: ALS Laboratory Group

RIN: 11084014

Report Date: 11/1/2011

					Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
						Qualifiers			Qualifiers			Qualifiers				
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0287	N001	08/17/2011	Sulfate	1700		FQ	1540		FQ	905			8	0	No
TUB01	0287	N001	08/17/2011	Total Dissolved Solids	5800		FQJ	5300		FQ	3200		FQ	7	0	No
TUB01	0288	N001	08/17/2011	Calcium	190		FQ	330		FQ	193		FQ	7	0	No
TUB01	0288	N001	08/17/2011	Chloride	21		FQ	44			23.8		FQ	8	0	No
TUB01	0288	N001	08/17/2011	Magnesium	36		FQ	63		FQ	38		FQ	7	0	No
TUB01	0288	N001	08/17/2011	Nitrate + Nitrite as Nitrogen	50		FQ	110		FQJ	55		FQ	7	0	No
TUB01	0288	N001	08/17/2011	Silicon	7.1		FQ	8.4		FQ	7.2		FQ	6	0	No
TUB01	0288	N001	08/17/2011	Sodium	39		FQ	74		FQ	48		FQ	7	0	No
TUB01	0288	N001	08/17/2011	Sulfate	230		FQ	632			280		FQ	8	0	No
TUB01	0288	N001	08/17/2011	Total Dissolved Solids	1000		FQJ	1600		FQ	1080		FQ	7	0	No
TUB01	0288	N001	08/17/2011	Uranium	0.011		FQ	0.0342			0.012		FQ	8	0	No
TUB01	0289	N001	08/17/2011	Ammonia Total as N	0.19		FQ	0.1	U	F	0.049	J	FQ	7	6	No
TUB01	0289	N001	08/17/2011	Manganese	0.011		FQ	0.0254		FQ	0.012		FQ	7	0	No
TUB01	0289	N001	08/17/2011	Selenium	0.0022		FQ	0.0036		FQ	0.00222	B	FQ	7	0	No
TUB01	0289	N001	08/17/2011	Sodium	26		FQ	45		FQ	34.2		FQ	7	0	No
TUB01	0290	N001	08/16/2011	Calcium	160		FQ	109		FQ	35		FQ	7	0	No
TUB01	0290	N001	08/16/2011	Chloride	36		FQ	27		FQ	13		FQ	8	0	No
TUB01	0290	N001	08/16/2011	Magnesium	26		FQ	19		FQ	5.8		FQ	7	0	No
TUB01	0290	N001	08/16/2011	Molybdenum	0.00022		FQ	0.0018		FQJ	0.00033		FQ	7	1	No
TUB01	0290	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	39		FQ	28.3		FQ	3.6		FQ	7	0	No
TUB01	0290	N001	08/16/2011	Potassium	3.1		FQ	2.63	BE	FQ	1.1		FQJ	7	0	No
TUB01	0290	N001	08/16/2011	Selenium	0.0042		FQ	0.00323	B	FQ	0.0014	E	FQ	7	0	No
TUB01	0290	N001	08/16/2011	Silica	15		FQ	14.9		FQ	11		FQ	7	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All Historical Data
Laboratory: ALS Laboratory Group
RIN: 11084014
Report Date: 11/1/2011

					Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
						Qualifiers			Qualifiers			Qualifiers				
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0290	N001	08/16/2011	Silicon	7.2		FQ	6.3		FQ	5.4		FQ	6	0	No
TUB01	0290	N001	08/16/2011	Sodium	29		FQ	22.5		FQ	13		FQ	7	0	No
TUB01	0290	N001	08/16/2011	Sulfate	200		FQ	126		FQ	19		FQ	8	0	No
TUB01	0290	N001	08/16/2011	Total Dissolved Solids	860		FQ	522		FQ	180		FQ	7	0	No
TUB01	0290	N001	08/16/2011	Uranium	0.0089		FQ	0.00368		FQ	0.0014		FQ	8	0	Yes
TUB01	0683	N001	08/16/2011	Molybdenum	0.00046		FQ	0.003	U		0.00047	B	QF	17	9	No
TUB01	0683	N001	08/16/2011	Sulfate	17		FQ	22		FQ	17.4		L	17	0	No
TUB01	0684	N001	08/16/2011	Chloride	10		FQ	13		FQ	10.3		F	12	1	No
TUB01	0684	N001	08/16/2011	Sulfate	15		FQ	22		FQ	16		FQ	15	0	No
TUB01	0685	N001	08/17/2011	Molybdenum	0.00035		F	0.0031	B	L	0.00037	B	F	15	8	No
TUB01	0685	N001	08/17/2011	Potassium	1.1		F	2.6			1.2		FJ	12	0	No
TUB01	0685	N001	08/17/2011	Sodium	10		F	14		F	11		F	12	0	No
TUB01	0686	N001	08/17/2011	Sodium	25		F	23		F	10.9		L	20	0	No
TUB01	0688	N001	08/17/2011	Nitrate + Nitrite as Nitrogen	4.7		F	12		FJ	6.7		F	8	0	No
TUB01	0688	N001	08/17/2011	Potassium	1.8		F	5.7		F	1.84		F	16	0	No
TUB01	0689	N001	08/16/2011	Molybdenum	0.00035		F	0.003	U		0.0004	B	UQF	19	13	No
TUB01	0689	N001	08/16/2011	Potassium	1		F	2.3		F	1.3		FQJ	16	0	No
TUB01	0689	N001	08/16/2011	Sodium	7.6		F	11		F	7.8		F	16	0	No
TUB01	0690	N001	08/16/2011	Potassium	2		FQ	3.3		FQ	2.2		FQJ	17	0	No
TUB01	0690	N001	08/16/2011	Sodium	8		FQ	21.2		L	8.6		FQ	17	0	No
TUB01	0692	N001	08/16/2011	Sodium	11		FQ	21.2		L	12		FQ	16	0	No
TUB01	0695	N001	08/16/2011	Potassium	1.5		F	2.7		F	1.8		FJ	13	0	No
TUB01	0759	0001	08/17/2011	Arsenic	0.0007			0.00051			0.00025			6	1	No

Data Validation Outliers Report - No Field Parameters
Comparison: All Historical Data
Laboratory: ALS Laboratory Group
RIN: 11084014
Report Date: 11/1/2011

					Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
						Qualifiers			Qualifiers			Qualifiers				
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0759	0001	08/17/2011	Manganese	0.0047	B	U	0.023			0.0067			11	0	No
TUB01	0759	0001	08/17/2011	Sodium	75			112			84			10	0	No
TUB01	0778	0001	08/17/2011	Chloride	13			11			8.1			9	0	Yes
TUB01	0778	0001	08/17/2011	Manganese	0.0017	B	U	0.077			0.0036	B		10	0	No
TUB01	0778	0001	08/17/2011	Sodium	73			130			79			9	0	No
TUB01	0903	N001	08/17/2011	Molybdenum	0.00023		F	0.01	U	F	0.00028	B	UF	43	41	No
TUB01	0910	N001	08/17/2011	Ammonia Total as N	0.13		F	0.1	U	F	0.1	U	F	7	7	No
TUB01	0910	N001	08/17/2011	Molybdenum	0.00045		F	0.01	U	F	0.00048	B	F	22	19	No
TUB01	0911	N001	08/17/2011	Ammonia Total as N	0.12		FQ	0.1	U	F	0.1	U	F	7	7	No
TUB01	0911	N001	08/17/2011	Sodium	6.1		FQ	13.1		GF	7.1		F	14	0	No
TUB01	0912	N001	08/16/2011	Molybdenum	0.000055	B	FQ	0.02			0.00016		FQ	38	32	No
TUB01	0913	N001	08/16/2011	Molybdenum	0.00011		FQ	0.01	U	F	0.00013	B	UFQ	26	23	No
TUB01	0913	N001	08/16/2011	Sodium	6.7		FQ	9.57			6.8		FQ	25	0	No
TUB01	0914	N001	08/16/2011	Arsenic	0.00061		FQG	0.01	U	F	0.00074		FQ	21	10	No
TUB01	0915	N001	08/16/2011	Arsenic	0.000047	B	FQG	0.01	U	F	0.000054	B	UQF	12	8	No
TUB01	0915	N001	08/16/2011	Uranium	0.0000029	U	FQG	0.0018		GF	0.000009	B	FQ	23	10	No
TUB01	0916	N001	08/16/2011	Uranium	0.000013		FQG	0.0022		G	0.000015	B	UFQ	17	12	No
TUB01	0920	N001	08/17/2011	Molybdenum	0.00023		F	0.01	U	F	0.0003	U	F	27	25	No
TUB01	0920	N001	08/17/2011	Sodium	6.4		F	9.73			6.6			26	0	No
TUB01	0921	N001	08/17/2011	Sodium	7.6	E	F	12.3			8.1		F	26	0	Yes
TUB01	0930	N001	08/16/2011	Uranium	0.0033		F	0.0031		F	0.0019			27	0	No
TUB01	0932	N001	08/16/2011	Molybdenum	0.00029		F	0.01	U		0.00035	B	F	32	26	No
TUB01	0932	N001	08/16/2011	Sodium	10		F	14.4			11.6		F	29	0	Yes

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TUB01	0934	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	360		FQ	520		FQJ	370		FQ	17	0	No
TUB01	0934	N001	08/16/2011	Selenium	0.014		FQ	0.013		FQ	0.005	U	F	31	1	No
TUB01	0935	N002	08/16/2011	Manganese	0.79			0.751			0.264		F	28	0	No
TUB01	0935	N001	08/16/2011	Manganese	0.79			0.751			0.264		F	28	0	No
TUB01	0938	N001	08/16/2011	Potassium	18			15		J	5.34			19	0	No
TUB01	0938	N001	08/16/2011	Silica	14			17			15		FQ	12	0	No
TUB01	0938	N001	08/16/2011	Silicon	6.6			7.8			7.1			11	0	No
TUB01	0938	N001	08/16/2011	Total Dissolved Solids	7700			7600			2700		F	19	0	No
TUB01	0940	N001	08/17/2011	Silica	15		FQ	23.4		F	17		QF	10	0	No
TUB01	0941	N001	08/17/2011	Total Dissolved Solids	5200		FQJ	4900		FQ	755			28	0	No
TUB01	0942	N001	08/16/2011	Calcium	550			847		F	570			31	0	No
TUB01	0942	N001	08/16/2011	Magnesium	390			755		F	410			31	0	No
TUB01	0942	N001	08/16/2011	Molybdenum	0.0051			0.0794		F	0.0065			35	0	No
TUB01	0942	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	140			380		F	180			15	0	No
TUB01	0943	N001	08/17/2011	Arsenic	0.005		F	0.0044			0.00078		F	15	0	No
TUB01	0943	N001	08/17/2011	Calcium	9		F	300		F	11			19	0	No
TUB01	0943	N001	08/17/2011	Chloride	1.6		F	100		F	2			19	1	No
TUB01	0943	N001	08/17/2011	Magnesium	1.9		F	61		F	2.4			19	0	No
TUB01	0943	N001	08/17/2011	Nitrate + Nitrite as Nitrogen	2		F	75		F	2.3			10	0	No
TUB01	0943	N001	08/17/2011	Selenium	0.00026		F	0.01		F	0.00035		J	23	3	No
TUB01	0943	N001	08/17/2011	Sodium	13		F	89		F	15			19	0	No
TUB01	0943	N001	08/17/2011	Sulfate	17		F	620		F	26			22	0	No
TUB01	0943	N001	08/17/2011	Total Dissolved Solids	100		FJ	1600		F	110			19	0	No

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TUB01	0945	N001	08/17/2011	Total Dissolved Solids	280		FQJ	275		FQ	160		QF	20	0	No
TUB01	0946	N001	08/16/2011	Calcium	12		F	165		F	14		F	13	0	No
TUB01	0946	N001	08/16/2011	Magnesium	2.1		F	27.6		F	2.4		F	13	0	No
TUB01	0946	N001	08/16/2011	Molybdenum	0.00032		F	0.012		F	0.00049		F	13	5	Yes
TUB01	0946	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	1.6		F	8.1		FJ	2.3		F	9	0	No
TUB01	0946	N001	08/16/2011	Selenium	0.00041		F	0.0175		F	0.00063		F	13	0	No
TUB01	0946	N001	08/16/2011	Sulfate	20		F	191		F	25		F	13	0	No
TUB01	0946	N001	08/16/2011	Uranium	0.000084		F	0.0032		F	0.000093	B	UF	13	4	No
TUB01	0947	N001	08/15/2011	Molybdenum	0.00041		FQ	0.01	U	F	0.00044		FQ	10	6	No
TUB01	0947	N001	08/15/2011	Sodium	9.6		FQ	13		QF	10		FQ	9	0	No
TUB01	0965	0001	08/17/2011	Arsenic	0.00083			0.00063			0.00017			6	1	No
TUB01	0965	0001	08/17/2011	Magnesium	49			43			14.8			9	0	No
TUB01	0965	0001	08/17/2011	Manganese	0.19			0.045			0.0031	B		10	0	Yes
TUB01	0965	0001	08/17/2011	Sulfate	650			630			178			10	0	No
TUB01	0965	0001	08/17/2011	Total Dissolved Solids	1200		J	1100			515			9	0	No
TUB01	1003	N001	08/17/2011	Chloride	56		F	54.1		F	14		F	11	0	No
TUB01	1003	N001	08/17/2011	Magnesium	46		F	45.2		F	9.6		F	11	0	No
TUB01	1003	N001	08/17/2011	Molybdenum	0.00014		F	0.0018	U	F	0.00017		F	11	10	No
TUB01	1003	N001	08/17/2011	Sulfate	520		F	490		F	46		F	11	0	No
TUB01	1003	N001	08/17/2011	Uranium	0.039		F	0.038		F	0.0021		F	11	0	No
TUB01	1004	N001	08/17/2011	Chloride	13		F	21		F	14.3		L	14	0	No
TUB01	1004	N001	08/17/2011	Molybdenum	0.00035		F	0.0018	U	F	0.00038	B	F	14	10	No
TUB01	1004	N001	08/17/2011	Sodium	11		F	18		F	13		F	14	0	No

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TUB01	1006	N001	08/17/2011	Ammonia Total as N	0.11		F	0.1	U	F	0.1	U	F	7	7	No
TUB01	1006	N001	08/17/2011	Molybdenum	0.00029		F	0.0018	U	F	0.0003	B	QF	11	6	No
TUB01	1006	N001	08/17/2011	Sodium	6.9		F	9.48		L	8.3			11	0	Yes
TUB01	1007	N001	08/17/2011	Molybdenum	0.00021		F	0.0018	U	F	0.00022	B	F	11	7	No
TUB01	1102	N001	08/16/2011	Arsenic	0.0019			0.0017			0.00088			12	0	No
TUB01	1102	N001	08/16/2011	Calcium	730			690			460			15	0	No
TUB01	1102	N001	08/16/2011	Chloride	160			103			63.8			16	0	Yes
TUB01	1102	N001	08/16/2011	Selenium	0.037			0.024			0.0092			19	0	Yes
TUB01	1102	N001	08/16/2011	Sodium	290			200			120			15	0	Yes
TUB01	1102	N001	08/16/2011	Sulfate	2000			1600			972			20	0	Yes
TUB01	1102	N001	08/16/2011	Total Dissolved Solids	4800		J	3900			300			15	0	No
TUB01	1103	N001	08/16/2011	Molybdenum	0.005			0.0049			0.0004	U		18	11	No
TUB01	1104	N001	08/16/2011	Ammonia Total as N	52			37		F	19			6	0	No
TUB01	1104	N001	08/16/2011	Arsenic	0.0029			0.0022			0.0011		J	10	0	Yes
TUB01	1104	N001	08/16/2011	Calcium	650			506			278			13	0	Yes
TUB01	1104	N001	08/16/2011	Molybdenum	0.029			0.103			0.037			17	0	No
TUB01	1104	N001	08/16/2011	Potassium	24			16.1			8.44			13	0	Yes
TUB01	1104	N001	08/16/2011	Selenium	0.047			0.035			0.0182			17	0	No
TUB01	1104	N001	08/16/2011	Sodium	420			335			160			13	0	No
TUB01	1104	N001	08/16/2011	Sulfate	2400			1930			950			18	0	No
TUB01	1104	N001	08/16/2011	Total Dissolved Solids	5400		J	4740			2570			13	0	No
TUB01	1104	N001	08/16/2011	Uranium	1.4			0.68			0.0945			18	0	No
TUB01	1105	N001	08/16/2011	Ammonia Total as N	33			27		J	2		J	7	0	No

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TUB01	1105	N001	08/16/2011	Magnesium	290			250			69		F	16	0	No
TUB01	1105	N001	08/16/2011	Potassium	21			20			4.18			16	0	No
TUB01	1105	N001	08/16/2011	Sodium	500			490			87.2			16	0	No
TUB01	1105	N001	08/16/2011	Total Dissolved Solids	6200		J	5600		J	1570			16	0	No
TUB01	1106	N001	08/16/2011	Ammonia Total as N	35			20			1.5		F	8	0	No
TUB01	1106	N001	08/16/2011	Calcium	360			342			130			15	0	No
TUB01	1106	N001	08/16/2011	Magnesium	95			84.7			26			15	0	No
TUB01	1106	N001	08/16/2011	Manganese	0.1			0.0678			0.0025	BE	UJ	19	1	No
TUB01	1106	N001	08/16/2011	Potassium	15			11			2.53			15	0	Yes
TUB01	1106	N001	08/16/2011	Silicon	7.2			6.9			5.6		F	9	0	No
TUB01	1106	N001	08/16/2011	Sulfate	1100			1050			250			20	0	No
TUB01	1106	N001	08/16/2011	Total Dissolved Solids	2900		J	2620		J	740			15	0	No
TUB01	1107	N001	08/16/2011	Ammonia Total as N	1.4			0.59			0.1	U	F	8	7	No
TUB01	1107	N001	08/16/2011	Potassium	10			9.3		J	2.32			16	0	No
TUB01	1107	N001	08/16/2011	Uranium	0.26			0.23			0.034			21	0	No
TUB01	1108	N001	08/16/2011	Magnesium	170			669			210			15	0	No
TUB01	1108	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	110			220		J	130			7	0	No
TUB01	1108	N001	08/16/2011	Uranium	0.76			0.646			0.218			21	0	No
TUB01	1112	N002	08/16/2011	Molybdenum	0.00016			0.003	U		0.00023			18	14	No
TUB01	1116	N002	08/16/2011	Arsenic	0.002			0.0017	B		0.0012			9	0	No
TUB01	1116	N001	08/16/2011	Calcium	30			250			39.4			11	0	No
TUB01	1116	N002	08/16/2011	Calcium	32			250			39.4			11	0	No
TUB01	1116	N001	08/16/2011	Chloride	8.3			35		J	10.3			12	0	No

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TUB01	1116	N002	08/16/2011	Chloride	7.6			35		J	10.3			12	0	No
TUB01	1116	N002	08/16/2011	Magnesium	7.3			66.4			9.44			11	0	No
TUB01	1116	N001	08/16/2011	Magnesium	7.1			66.4			9.44			11	0	No
TUB01	1116	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	3.6			63		J	20			7	0	No
TUB01	1116	N002	08/16/2011	Nitrate + Nitrite as Nitrogen	3.8			63		J	20			7	0	No
TUB01	1116	N001	08/16/2011	Potassium	1.6			4.3			1.83	E	J	11	0	No
TUB01	1116	N002	08/16/2011	Potassium	1.4			4.3			1.83	E	J	11	0	No
TUB01	1116	N001	08/16/2011	Selenium	0.0011			0.0036			0.0016	B		15	0	No
TUB01	1116	N002	08/16/2011	Selenium	0.0012			0.0036			0.0016	B		15	0	No
TUB01	1116	N001	08/16/2011	Silica	11			14			11.3			15	0	No
TUB01	1116	N002	08/16/2011	Silica	11			14			11.3			15	0	No
TUB01	1116	N002	08/16/2011	Silicon	5.3			6.6			5.7		F	7	0	No
TUB01	1116	N001	08/16/2011	Silicon	5.3			6.6			5.7		F	7	0	No
TUB01	1116	N001	08/16/2011	Sodium	5.7			36			8.21			11	0	No
TUB01	1116	N002	08/16/2011	Sodium	6			36			8.21			11	0	No
TUB01	1116	N002	08/16/2011	Sulfate	12			330		J	31			16	0	No
TUB01	1116	N001	08/16/2011	Sulfate	14			330		J	31			16	0	No
TUB01	1116	N001	08/16/2011	Total Dissolved Solids	170		J	1200		J	195			11	0	No
TUB01	1116	N002	08/16/2011	Total Dissolved Solids	150		J	1200		J	195			11	0	No
TUB01	1116	N002	08/16/2011	Uranium	0.0016			0.025			0.002			16	0	No
TUB01	1116	N001	08/16/2011	Uranium	0.0018			0.025			0.002			16	0	No
TUB01	1117	N001	08/16/2011	Arsenic	0.0022			0.0016		F	0.0011	B		12	0	Yes
TUB01	1117	N001	08/16/2011	Iron	0.087	B		0.067	B		0.0018	B		19	13	No

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TUB01	1117	N001	08/16/2011	Manganese	0.3			0.02			0.0001	U		19	7	No
TUB01	1117	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	36			150		J	76			8	0	No
TUB01	1117	N001	08/16/2011	Silica	12			17		F	12.7			19	0	No
TUB01	1117	N001	08/16/2011	Silicon	5.7			8.2		F	6.9			8	0	No
TUB01	1118	N001	08/16/2011	Ammonia Total as N	1.1			14			3.8		F	7	0	No
TUB01	1118	N001	08/16/2011	Calcium	140			620			141			13	0	No
TUB01	1118	N001	08/16/2011	Chloride	19			67			26.1			14	0	No
TUB01	1118	N001	08/16/2011	Molybdenum	0.00016			0.003	U		0.00029	B		17	10	No
TUB01	1118	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	36			190		J	130		F	7	0	Yes
TUB01	1118	N001	08/16/2011	Silica	12			18			12.6			17	0	No
TUB01	1118	N001	08/16/2011	Silicon	5.8			8.2		J	7.1			8	0	Yes
TUB01	1119	N001	08/16/2011	Calcium	200			680			284			16	0	No
TUB01	1119	N001	08/16/2011	Chloride	54			226			59			17	0	No
TUB01	1119	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	37			200		J	110			8	0	No
TUB01	1119	N001	08/16/2011	Selenium	0.011			0.0346			0.0148			20	0	No
TUB01	1119	N001	08/16/2011	Sodium	130			347			140			16	0	No
TUB01	1119	N001	08/16/2011	Total Dissolved Solids	1900		J	4700			2400			16	0	No
TUB01	1119	N001	08/16/2011	Uranium	0.14			0.599			0.16			21	0	No
TUB01	1120	N001	08/16/2011	Chloride	51			197			61			18	0	No
TUB01	1120	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	31			110		F	38			10	0	No
TUB01	1120	N001	08/16/2011	Selenium	0.013			0.0697			0.016			21	0	No
TUB01	1120	N001	08/16/2011	Uranium	0.13			1.64			0.15			22	0	No
TUB01	1122	N001	08/16/2011	Manganese	12			10.2			2			16	0	No

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TUB01	1122	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	42			140		F	44			5	0	No
TUB01	1122	N001	08/16/2011	Uranium	0.2			1.14			0.22			17	0	No
TUB01	1123	N001	08/16/2011	Ammonia Total as N	23			21			0.1	U	F	6	4	No
TUB01	1123	N001	08/16/2011	Manganese	0.41			0.098			0.00006	B	U	17	5	No
TUB01	1123	N001	08/16/2011	Potassium	20			19		J	2.1			14	0	No
TUB01	1124	N001	08/16/2011	Arsenic	0.002			0.0018			0.0011	B		9	0	No
TUB01	1124	N001	08/16/2011	Calcium	780			740			230			12	0	No
TUB01	1124	N001	08/16/2011	Chloride	130			110			38		J	12	0	No
TUB01	1124	N001	08/16/2011	Magnesium	120			110			37			12	0	No
TUB01	1124	N001	08/16/2011	Potassium	9.1			7.7			3.9			12	0	No
TUB01	1124	N001	08/16/2011	Selenium	0.033			0.03			0.0061			18	0	No
TUB01	1124	N001	08/16/2011	Sodium	340			260			46			12	0	Yes
TUB01	1124	N001	08/16/2011	Sulfate	2100			1700			320		J	18	0	Yes
TUB01	1124	N001	08/16/2011	Total Dissolved Solids	4800		J	4000			1100		J	12	0	No
TUB01	1124	N001	08/16/2011	Uranium	0.33			0.3			0.051			18	0	Yes
TUB01	1129	N001	08/16/2011	Arsenic	0.0019			0.0017			0.001		F	6	0	No
TUB01	1129	N001	08/16/2011	Magnesium	120			110			87			6	0	No
TUB01	1129	N001	08/16/2011	Molybdenum	1.1			0.75			0.45		F	6	0	Yes
TUB01	1129	N001	08/16/2011	Selenium	0.082			0.065			0.057			6	0	Yes
TUB01	1129	N001	08/16/2011	Sodium	140			100			75			6	0	Yes
TUB01	1129	N001	08/16/2011	Total Dissolved Solids	3000		J	2800			2400			6	0	No
TUB01	1129	N001	08/16/2011	Uranium	1			0.74			0.61		F	7	0	Yes
TUB01	1130	N001	08/16/2011	Ammonia Total as N	73			19			1.4		F	6	0	Yes

Data Validation Outliers Report - No Field Parameters
Comparison: All Historical Data
Laboratory: ALS Laboratory Group
RIN: 11084014
Report Date: 11/1/2011

					Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
						Qualifiers			Qualifiers			Qualifiers				
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	1130	N001	08/16/2011	Chloride	180			170			69			7	0	No
TUB01	1130	N001	08/16/2011	Iron	0.0052	B	UJ	0.028	U		0.0058	B	J	6	3	No
TUB01	1130	N001	08/16/2011	Magnesium	420			240			95			6	0	Yes
TUB01	1130	N001	08/16/2011	Manganese	0.91			0.22			0.083			6	0	Yes
TUB01	1130	N001	08/16/2011	Potassium	32			18			6.2	E	J	6	0	Yes
TUB01	1130	N001	08/16/2011	Selenium	0.046			0.03			0.017			6	0	Yes
TUB01	1130	N001	08/16/2011	Sodium	440			260			120			6	0	Yes
TUB01	1130	N001	08/16/2011	Sulfate	2600			2000	N	J	870			7	0	No
TUB01	1130	N001	08/16/2011	Total Dissolved Solids	6400		J	5000		J	2300			6	0	No
TUB01	1130	N001	08/16/2011	Uranium	0.5			0.28			0.14			7	0	Yes
TUB01	1132	N001	08/16/2011	Calcium	1100			1000		F	350			6	0	No
TUB01	1132	N002	08/16/2011	Chloride	150			140		F	48			7	0	No
TUB01	1132	N001	08/16/2011	Molybdenum	2.6			1.8			0.25			6	0	No
TUB01	1132	N002	08/16/2011	Molybdenum	2.8			1.8			0.25			6	0	No
TUB01	1132	N002	08/16/2011	Nitrate + Nitrite as Nitrogen	290			270			73			6	0	No
TUB01	1132	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	290			270			73			6	0	No
TUB01	1132	N001	08/16/2011	Potassium	13			11		F	5.3			6	0	No
TUB01	1132	N002	08/16/2011	Potassium	13			11		F	5.3			6	0	No
TUB01	1132	N002	08/16/2011	Selenium	0.21			0.14			0.03			6	0	No
TUB01	1132	N001	08/16/2011	Selenium	0.22			0.14			0.03			6	0	No
TUB01	1132	N001	08/16/2011	Sodium	470			410			68			6	0	No
TUB01	1132	N001	08/16/2011	Uranium	3.4			2.3			0.37			7	0	No
TUB01	1132	N002	08/16/2011	Uranium	3.5			2.3			0.37			7	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All Historical Data
Laboratory: ALS Laboratory Group
RIN: 11084014
Report Date: 11/1/2011

					Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
						Qualifiers			Qualifiers			Qualifiers				
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	1133	N002	08/16/2011	Chloride	23			120			27			6	0	No
TUB01	1133	N001	08/16/2011	Chloride	23			120			27			6	0	No
TUB01	1133	N002	08/16/2011	Nitrate + Nitrite as Nitrogen	31			80		F	33			5	0	No
TUB01	1133	N001	08/16/2011	Nitrate + Nitrite as Nitrogen	30			80		F	33			5	0	No
TUB01	1133	N001	08/16/2011	Sodium	20			35		F	22			5	0	No
TUB01	1133	N002	08/16/2011	Sodium	20			35		F	22			5	0	No
TUB01	1133	N001	08/16/2011	Sulfate	150			555			180			6	0	No
TUB01	1133	N002	08/16/2011	Sulfate	140			555			180			6	0	No
TUB01	1133	N001	08/16/2011	Total Dissolved Solids	630		J	1400		F	720			5	0	No
TUB01	1133	N002	08/16/2011	Total Dissolved Solids	640		J	1400		F	720			5	0	No
TUB01	1569	N001	08/17/2011	Iron	13			9.8			0.0008	U		22	11	No
TUB01	1570	N001	08/17/2011	Iron	14			13.1			0.0008	U		27	17	Yes
TUB01	1573	N001	08/17/2011	Chloride	30			29			23			12	0	No
TUB01	1573	N001	08/17/2011	Iron	0.1			0.03	B	U	0.0022	B	U	15	10	Yes
TUB01	1573	N001	08/17/2011	Molybdenum	0.0013			0.0047	B		0.0014			15	3	No
TUB01	1573	N001	08/17/2011	Nitrate + Nitrite as Nitrogen	0.01	U		1.2			0.51			7	0	No
TUB01	1573	N001	08/17/2011	Potassium	0.35	B	J	3.1			0.73	B	J	12	0	No

STATISTICAL TESTS:
The distribution of the data is tested for normality or lognormality using the Shapiro-Wilk Test
Outliers are identified using Dixon's Test when there are 25 or fewer data points.
Outliers are identified using Rosner's Test when there are 26 or more data points.
See Data Quality Assessment: Statistical Methods for Practitioners, EPA QC/G-9S, February 2006.

Data Validation Outliers Report - Field Parameters Only
Comparison: All Historical Data
Laboratory: Field Measurements
RIN: 11084014
Report Date: 11/1/2011

					Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
						Qualifiers			Qualifiers			Qualifiers				
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0258	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	83		FQ	107		FQ	86			15	0	No
TUB01	0258	N001	08/16/2011	Oxidation Reduction Potential	-57.9		RFQ	205.8		FQ	55		FQ	14	0	Yes
TUB01	0258	N001	08/16/2011	Specific Conductance	362		FQ	300		FQ	250			14	0	Yes
TUB01	0258	N001	08/16/2011	Temperature	21.01		FQ	20.1		F	13.14		F	14	0	No
TUB01	0261	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	90		F	200			91		F	13	0	No
TUB01	0261	N001	08/16/2011	Oxidation Reduction Potential	-113		RF	248		F	69.8		F	9	0	Yes
TUB01	0263	N001	08/15/2011	Alkalinity, Total (as $CaCO_3$)	563		FQJ	538		FQ	287		FQ	17	0	No
TUB01	0263	N001	08/15/2011	Oxidation Reduction Potential	233.8		FQ	233.4		FQ	70.5		FQ	15	0	No
TUB01	0266	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	115		FQJ	109		QF	58		F	17	0	No
TUB01	0271	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	127		FJ	110		F	50		F	17	0	No
TUB01	0272	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	119		FQ	118		F	80		F	13	0	No
TUB01	0272	N001	08/16/2011	Turbidity	6.01		FQ	2.26		F	0.4		F	13	0	Yes
TUB01	0275	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	499		F	670		F	505		F	13	0	No
TUB01	0275	N001	08/17/2011	Temperature	20.58		F	18.98		F	13.7		F	13	0	No
TUB01	0276	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	86		F	192		F	89		F	13	0	No
TUB01	0277	N001	08/17/2011	Specific Conductance	268		FQ	294		F	275		FQ	6	0	No
TUB01	0277	N001	08/17/2011	Turbidity	8.32		FQ	5.7		FQ	1.05		FQ	7	0	No
TUB01	0278	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	127		FQJ	96		FQ	70		FQ	7	0	Yes
TUB01	0279	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	132		FJ	113		F	76		F	7	0	No
TUB01	0279	N001	08/16/2011	Turbidity	1.49		F	9.7		F	1.57		F	7	0	No
TUB01	0280	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	139		FQJ	103		FQ	87		FQ	7	0	Yes
TUB01	0280	N001	08/16/2011	pH	7.71		FQ	8.18		FQ	7.83		FQ	7	0	No

Data Validation Outliers Report - Field Parameters Only
Comparison: All Historical Data
Laboratory: Field Measurements
RIN: 11084014
Report Date: 11/1/2011

					Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
						Qualifiers			Qualifiers			Qualifiers				
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0281	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	243		FQJ	182		FQ	102		FQ	13	0	Yes
TUB01	0281	N001	08/16/2011	Temperature	20.72		FQ	18.9		QF	14.53		FQ	13	0	No
TUB01	0286	N001	08/17/2011	Specific Conductance	5610		FQ	5290		FQ	511		FQ	9	0	No
TUB01	0287	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	722		FQ	610		FQ	298			8	0	No
TUB01	0287	N001	08/17/2011	Specific Conductance	5530		FQ	5400		FQ	3447			9	0	No
TUB01	0287	N001	08/17/2011	Turbidity	8.84		FQ	7.01		FQ	1.24			8	0	No
TUB01	0288	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	240		FQ	336		FQ	261		FQ	8	0	No
TUB01	0288	N001	08/17/2011	Specific Conductance	1390		FQ	2530			1643		FQ	9	0	No
TUB01	0290	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	133		FQ	131		FQ	71			8	0	No
TUB01	0290	N001	08/16/2011	Oxidation Reduction Potential	-36.6		RFQ	209.7		FQJ	84			8	0	No
TUB01	0290	N001	08/16/2011	Specific Conductance	1112		FQ	812		FQ	273		FQ	9	0	No
TUB01	0683	N001	08/16/2011	Oxidation Reduction Potential	-68.5		RFQ	252		F	-8			16	0	Yes
TUB01	0683	N001	08/16/2011	Specific Conductance	370		FQ	303			120		F	16	0	No
TUB01	0684	N001	08/16/2011	Specific Conductance	357		FQ	308		FQ	117		F	15	0	No
TUB01	0686	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	127		F	125		F	15		F	24	0	No
TUB01	0688	N001	08/17/2011	Oxidation Reduction Potential	222.9		F	217.8		F	37			18	0	No
TUB01	0691	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	255		FJ	246			117		F	32	0	No
TUB01	0692	N001	08/16/2011	Specific Conductance	258		FQ	364		L	267		FQ	21	0	No
TUB01	0759	N001	08/17/2011	Oxidation Reduction Potential	66.4		R	202			80			9	0	No
TUB01	0759	N001	08/17/2011	pH	6.22			9.8			7.73			10	0	No
TUB01	0759	N001	08/17/2011	Specific Conductance	2758			1619			538			10	0	Yes
TUB01	0778	N001	08/17/2011	Oxidation Reduction Potential	-79.8		R	184.7			47			9	0	Yes
TUB01	0901	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	205		FJ	149		F	75			35	0	No

Data Validation Outliers Report - Field Parameters Only
Comparison: All Historical Data
Laboratory: Field Measurements
RIN: 11084014
Report Date: 11/1/2011

					Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
						Qualifiers			Qualifiers			Qualifiers				
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0903	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	179		FJ	129		F	72		F	45	0	No
TUB01	0904	N001	08/16/2011	Temperature	24.82		F	20.3		F	14.78		F	28	0	No
TUB01	0910	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	147		FJ	120		F	87			22	0	Yes
TUB01	0910	N001	08/17/2011	Temperature	20.72		F	19.29		F	13		F	22	0	No
TUB01	0911	N001	08/17/2011	Turbidity	3.22		FQ	2.92		FQ	0.44		FQ	7	0	No
TUB01	0914	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	35		FQG	109		F	38		QF	36	0	No
TUB01	0914	N001	08/16/2011	Oxidation Reduction Potential	-104.4		RFQ G	428		F	26.4		FQ	19	0	Yes
TUB01	0915	N001	08/16/2011	Oxidation Reduction Potential	-111		RFQ G	416		F	33		F	17	0	No
TUB01	0916	N001	08/16/2011	Oxidation Reduction Potential	-119.8		RFQ G	404.2		GF	-18.3		FQ	14	0	No
TUB01	0920	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	149		FJ	141			70		F	28	0	No
TUB01	0932	N001	08/16/2011	Temperature	19.88		F	19.8		F	14.76		F	29	0	No
TUB01	0940	N001	08/17/2011	pH	6.59		FQ	6.52		F	5.48		L	18	0	No
TUB01	0941	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	720		FQ	570		FQ	118		F	36	0	No
TUB01	0943	N001	08/17/2011	Specific Conductance	136		F	1942		F	163			19	0	No
TUB01	0943	N001	08/17/2011	Temperature	21.09		F	21		F	14.4			19	0	No
TUB01	0945	N001	08/17/2011	Oxidation Reduction Potential	390		FQ	371		F	-128		L	22	0	No
TUB01	0946	N001	08/16/2011	Specific Conductance	170		F	691		F	197		F	12	0	No
TUB01	0946	N001	08/16/2011	Temperature	21.7		F	21.4		F	14.6		F	12	0	No
TUB01	0947	N001	08/15/2011	Oxidation Reduction Potential	34.9		RFQ	309		F	81		QF	9	0	No
TUB01	0947	N001	08/15/2011	Specific Conductance	349		FQ	290		FQ	191		F	10	0	No
TUB01	0947	N001	08/15/2011	Temperature	18.56		FQ	18.49		FQ	15.3		F	10	0	No
TUB01	0965	N001	08/17/2011	Oxidation Reduction Potential	-43.4		R	215			36			9	0	No

Data Validation Outliers Report - Field Parameters Only
Comparison: All Historical Data
Laboratory: Field Measurements
RIN: 11084014
Report Date: 11/1/2011

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current Result	Current Qualifiers Lab	Current Qualifiers Data	Historical Maximum Result	Historical Maximum Qualifiers Lab	Historical Maximum Qualifiers Data	Historical Minimum Result	Historical Minimum Qualifiers Lab	Historical Minimum Qualifiers Data	Number of Data Points N	Number of Data Points N Below Detect	Statistical Outlier
TUB01	0965	N001	08/17/2011	Specific Conductance	1469			1302			754			10	0	No
TUB01	0965	N001	08/17/2011	Temperature	28.88			25.96			0.34			10	0	No
TUB01	1003	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	253		FJ	202		F	105		F	12	0	No
TUB01	1004	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	149		FJ	135		F	82		F	14	0	Yes
TUB01	1006	N001	08/17/2011	Alkalinity, Total (as $CaCO_3$)	142		FJ	121		F	75		F	12	0	No
TUB01	1102	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	508			419			289			24	0	Yes
TUB01	1102	N001	08/16/2011	Specific Conductance	4820			4241			2887			18	0	Yes
TUB01	1102	N001	08/16/2011	Turbidity	6.24			5.9			0			17	0	No
TUB01	1104	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	626			530			240			23	0	No
TUB01	1104	N001	08/16/2011	Specific Conductance	5860			5605			3190			17	0	No
TUB01	1105	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	779			674			230		F	24	0	No
TUB01	1105	N001	08/16/2011	Specific Conductance	6320			5667			1787			17	0	No
TUB01	1106	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	435			405			153			24	0	No
TUB01	1113	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	191			160			48			24	0	Yes
TUB01	1113	N001	08/16/2011	pH	8.14			8.09			6.96			18	0	No
TUB01	1116	N001	08/16/2011	pH	8.09			8.08			7			15	0	No
TUB01	1118	N001	08/16/2011	pH	7.23			7.08			6.49			16	0	No
TUB01	1119	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	226			604			285			24	0	No
TUB01	1119	N001	08/16/2011	pH	6.89			6.69			6.36			18	0	No
TUB01	1119	N001	08/16/2011	Specific Conductance	2265			4810			2550			18	0	No
TUB01	1124	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	471			434			177			22	0	No
TUB01	1124	N001	08/16/2011	Specific Conductance	5690			4046			1287			16	0	Yes
TUB01	1125	N001	08/16/2011	Oxidation Reduction Potential	10			231			50.5			17	0	No

Data Validation Outliers Report - Field Parameters Only
Comparison: All Historical Data
Laboratory: Field Measurements
RIN: 11084014
Report Date: 11/1/2011

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current Result	Current Qualifiers Lab	Current Qualifiers Data	Historical Maximum Result	Historical Maximum Qualifiers Lab	Historical Maximum Qualifiers Data	Historical Minimum Result	Historical Minimum Qualifiers Lab	Historical Minimum Qualifiers Data	Number of Data Points N	Number of Data Points N Below Detect	Statistical Outlier
TUB01	1125	N001	08/16/2011	pH	8.16			7.84			7.27			18	0	No
TUB01	1129	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	338			299			213			7	0	No
TUB01	1130	N001	08/16/2011	Alkalinity, Total (as $CaCO_3$)	746			420			249			7	0	Yes
TUB01	1130	N001	08/16/2011	Specific Conductance	6910			5616			2081			7	0	No
TUB01	1569	N001	08/17/2011	Turbidity	3.24			40.9			4.18			17	0	No
TUB01	1573	N001	08/17/2011	Oxidation Reduction Potential	-13.7		R	274			9.8			13	0	Yes

STATISTICAL TESTS:
The distribution of the data is tested for normality or lognormality using the Shapiro-Wilk Test
Outliers are identified using Dixon's Test when there are 25 or fewer data points.
Outliers are identified using Rosner's Test when there are 26 or more data points.
See Data Quality Assessment: Statistical Methods for Practitioners, EPA QC/G-9S, February 2006.

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Anomalous Data Review Checksheet

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Anomalous Data Review Checksheet

Site: Tuba City, Arizona, Disposal Site **Sampling Data:** Water

Reviewer: Gretchen Baer — Signature — 11/23/11 Date

Site Hydrologist: Tim Bartlett — Signature — 11/23/11 Date

Date of Review: October 25, 2011

Loc. No.	Analyte	Type of Anomaly	Disposition
0965	Manganese	High	Compare to future results
1117	Manganese	High	Compare to future results
1123	Manganese	High	Compare to future results

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Attachment 2
Data Presentation

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Groundwater Quality Data

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Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0251 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/15/2011	N001	200	-	300	87		FQJ	#		
Ammonia Total as N	mg/L	08/15/2011	N001	200	-	300	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/15/2011	N001	200	-	300	0.0021		FQ	#	0.000015	
Calcium	mg/L	08/15/2011	N001	200	-	300	28		FQ	#	0.012	
Chloride	mg/L	08/15/2011	N001	200	-	300	6.1		FQ	#	0.2	
Iron	mg/L	08/15/2011	N001	200	-	300	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/15/2011	N001	200	-	300	5.9		FQ	#	0.013	
Manganese	mg/L	08/15/2011	N001	200	-	300	0.00014	B	FQJ	#	0.00011	
Molybdenum	mg/L	08/15/2011	N001	200	-	300	0.00019		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/15/2011	N001	200	-	300	3.2		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/15/2011	N001	200	-	300	160.8		FQ	#		
pH	s.u.	08/15/2011	N001	200	-	300	8		FQ	#		
Potassium	mg/L	08/15/2011	N001	200	-	300	1.8		FQ	#	0.11	
Selenium	mg/L	08/15/2011	N001	200	-	300	0.00086		FQ	#	0.000032	
Silica	mg/L	08/15/2011	N001	200	-	300	10		FQ	#	0.0095	
Silicon	mg/L	08/15/2011	N001	200	-	300	4.9		FQ	#	0.0044	
Sodium	mg/L	08/15/2011	N001	200	-	300	5.5		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/15/2011	N001	200	-	300	221		FQ	#		
Sulfate	mg/L	08/15/2011	N001	200	-	300	11		FQ	#	0.5	
Temperature	C	08/15/2011	N001	200	-	300	19.48		FQ	#		
Total Dissolved Solids	mg/L	08/15/2011	N001	200	-	300	140		FQJ	#	20	
Turbidity	NTU	08/15/2011	N001	200	-	300	2.05		FQ	#		
Uranium	mg/L	08/15/2011	N001	200	-	300	0.0015		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0252 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/15/2011	N001	400	-	500	102		FJ	#		
Ammonia Total as N	mg/L	08/15/2011	N001	400	-	500	0.1	U	F	#	0.1	
Arsenic	mg/L	08/15/2011	N001	400	-	500	0.0021		F	#	0.000015	
Calcium	mg/L	08/15/2011	N001	400	-	500	21		F	#	0.012	
Chloride	mg/L	08/15/2011	N001	400	-	500	4.5		F	#	0.2	
Iron	mg/L	08/15/2011	N001	400	-	500	0.036	B	F	#	0.0049	
Magnesium	mg/L	08/15/2011	N001	400	-	500	4.2		F	#	0.013	
Manganese	mg/L	08/15/2011	N001	400	-	500	0.018		F	#	0.00011	
Molybdenum	mg/L	08/15/2011	N001	400	-	500	0.00012		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/15/2011	N001	400	-	500	2.3		F	#	0.05	
Oxidation Reduction Potential	mV	08/15/2011	N001	400	-	500	186.9		F	#		
pH	s.u.	08/15/2011	N001	400	-	500	8.08		F	#		
Potassium	mg/L	08/15/2011	N001	400	-	500	1.7		F	#	0.11	
Selenium	mg/L	08/15/2011	N001	400	-	500	0.00072		F	#	0.000032	
Silica	mg/L	08/15/2011	N001	400	-	500	10		F	#	0.0095	
Silicon	mg/L	08/15/2011	N001	400	-	500	4.7		F	#	0.0044	
Sodium	mg/L	08/15/2011	N001	400	-	500	9		F	#	0.0066	
Specific Conductance	umhos /cm	08/15/2011	N001	400	-	500	188		F	#		
Sulfate	mg/L	08/15/2011	N001	400	-	500	6.4		F	#	0.5	
Temperature	C	08/15/2011	N001	400	-	500	19.76		F	#		
Total Dissolved Solids	mg/L	08/15/2011	N001	400	-	500	110		FJ	#	20	
Turbidity	NTU	08/15/2011	N001	400	-	500	4.64		F	#		
Uranium	mg/L	08/15/2011	N001	400	-	500	0.0019		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0258 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	159	-	199	83		FQ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	159	-	199	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	159	-	199	0.0024		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	159	-	199	34		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	159	-	199	12		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	159	-	199	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	159	-	199	7.3		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	159	-	199	0.00037	B	UFQJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	159	-	199	0.00042		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	159	-	199	3.5		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	159	-	199	-57.9		RFQ	#		
pH	s.u.	08/16/2011	N001	159	-	199	7.92		FQ	#		
Potassium	mg/L	08/16/2011	N001	159	-	199	1.4		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	159	-	199	0.0016		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	159	-	199	12		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	159	-	199	5.8		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	159	-	199	11	E	FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	159	-	199	362		FQ	#		
Sulfate	mg/L	08/16/2011	N001	159	-	199	17		FQ	#	0.5	
Temperature	C	08/16/2011	N001	159	-	199	21.01		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	159	-	199	180		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	159	-	199	4.24		FQ	#		
Uranium	mg/L	08/16/2011	N001	159	-	199	0.0013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0261 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	160	-	200	90		F	#		
Ammonia Total as N	mg/L	08/16/2011	N001	160	-	200	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	160	-	200	0.0021		F	#	0.000015	
Calcium	mg/L	08/16/2011	N001	160	-	200	33		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	160	-	200	12		F	#	0.2	
Iron	mg/L	08/16/2011	N001	160	-	200	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	160	-	200	7.9		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	160	-	200	0.0038	B	UF	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	160	-	200	0.00047		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	160	-	200	3.5		F	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	160	-	200	-113		RF	#		
pH	s.u.	08/16/2011	N001	160	-	200	7.95		F	#		
Potassium	mg/L	08/16/2011	N001	160	-	200	1.4		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	160	-	200	0.0017		F	#	0.000032	
Silica	mg/L	08/16/2011	N001	160	-	200	13		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	160	-	200	6		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	160	-	200	11		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	160	-	200	365		F	#		
Sulfate	mg/L	08/16/2011	N001	160	-	200	17		F	#	0.5	
Temperature	C	08/16/2011	N001	160	-	200	18.72		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	160	-	200	180		F	#	20	
Turbidity	NTU	08/16/2011	N001	160	-	200	0.39		F	#		
Uranium	mg/L	08/16/2011	N001	160	-	200	0.0013		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0262 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	60	-	100	452		FQ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	60	-	100	0.39		FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	60	-	100	0.002		FQ	#	0.000074	
Calcium	mg/L	08/16/2011	N001	60	-	100	820		FQ	#	0.12	
Chloride	mg/L	08/16/2011	N001	60	-	100	120		FQ	#	10	
Iron	mg/L	08/16/2011	N001	60	-	100	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	60	-	100	190		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	60	-	100	0.015		FQ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	60	-	100	0.75		FQ	#	0.0016	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	60	-	100	190		FQ	#	2	
Oxidation Reduction Potential	mV	08/16/2011	N001	60	-	100	222.2		FQ	#		
pH	s.u.	08/16/2011	N001	60	-	100	6.61		FQ	#		
Potassium	mg/L	08/16/2011	N001	60	-	100	11		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	60	-	100	0.072		FQ	#	0.0016	
Silica	mg/L	08/16/2011	N001	60	-	100	18		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	60	-	100	8.4		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	60	-	100	240		FQ	#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	60	-	100	4774		FQ	#		
Sulfate	mg/L	08/16/2011	N001	60	-	100	2000		FQ	#	25	
Temperature	C	08/16/2011	N001	60	-	100	18.57		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	60	-	100	5200		FQ	#	80	
Turbidity	NTU	08/16/2011	N001	60	-	100	1.78		FQ	#		
Uranium	mg/L	08/16/2011	N001	60	-	100	0.81		FQ	#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0263 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/15/2011	N001	60	-	100	563		FQJ	#		
Ammonia Total as N	mg/L	08/15/2011	N001	60	-	100	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/15/2011	N001	60	-	100	0.0023		FQ	#	0.00015	
Calcium	mg/L	08/15/2011	N001	60	-	100	690		FQ	#	0.12	
Chloride	mg/L	08/15/2011	N001	60	-	100	130		FQ	#	10	
Iron	mg/L	08/15/2011	N001	60	-	100	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/15/2011	N001	60	-	100	490		FQ	#	0.13	
Manganese	mg/L	08/15/2011	N001	60	-	100	0.002	B	FQ	#	0.00011	
Molybdenum	mg/L	08/15/2011	N001	60	-	100	0.041		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/15/2011	N001	60	-	100	230		FQ	#	2	
Oxidation Reduction Potential	mV	08/15/2011	N001	60	-	100	233.8		FQ	#		
pH	s.u.	08/15/2011	N001	60	-	100	6.56		FQ	#		
Potassium	mg/L	08/15/2011	N001	60	-	100	11		FQ	#	0.11	
Selenium	mg/L	08/15/2011	N001	60	-	100	0.043		FQ	#	0.00032	
Silica	mg/L	08/15/2011	N001	60	-	100	17		FQ	#	0.0095	
Silicon	mg/L	08/15/2011	N001	60	-	100	7.8		FQ	#	0.0044	
Sodium	mg/L	08/15/2011	N001	60	-	100	270		FQ	#	0.066	
Specific Conductance	umhos /cm	08/15/2011	N001	60	-	100	6040		FQ	#		
Sulfate	mg/L	08/15/2011	N001	60	-	100	2700		FQ	#	25	
Temperature	C	08/15/2011	N001	60	-	100	19.03		FQ	#		
Total Dissolved Solids	mg/L	08/15/2011	N001	60	-	100	6500		FQJ	#	80	
Turbidity	NTU	08/15/2011	N001	60	-	100	3.42		FQ	#		
Uranium	mg/L	08/15/2011	N001	60	-	100	0.16		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0264 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/15/2011	N001	160	-	200	141		FQJ	#		
Ammonia Total as N	mg/L	08/15/2011	N001	160	-	200	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/15/2011	N001	160	-	200	0.0021		FQ	#	0.000015	
Calcium	mg/L	08/15/2011	N001	160	-	200	65		FQ	#	0.012	
Chloride	mg/L	08/15/2011	N001	160	-	200	14		FQ	#	0.2	
Iron	mg/L	08/15/2011	N001	160	-	200	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/15/2011	N001	160	-	200	13		FQ	#	0.013	
Manganese	mg/L	08/15/2011	N001	160	-	200	0.00011	U	FQJ	#	0.00011	
Molybdenum	mg/L	08/15/2011	N001	160	-	200	0.00032		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/15/2011	N001	160	-	200	10		FQ	#	0.1	
Oxidation Reduction Potential	mV	08/15/2011	N001	160	-	200	204.4		FQ	#		
pH	s.u.	08/15/2011	N001	160	-	200	7.71		FQ	#		
Potassium	mg/L	08/15/2011	N001	160	-	200	1.7		FQ	#	0.11	
Selenium	mg/L	08/15/2011	N001	160	-	200	0.0018		FQ	#	0.000032	
Silica	mg/L	08/15/2011	N001	160	-	200	13		FQ	#	0.0095	
Silicon	mg/L	08/15/2011	N001	160	-	200	6.1		FQ	#	0.0044	
Sodium	mg/L	08/15/2011	N001	160	-	200	14		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/15/2011	N001	160	-	200	488		FQ	#		
Sulfate	mg/L	08/15/2011	N001	160	-	200	76		FQ	#	0.5	
Temperature	C	08/15/2011	N001	160	-	200	19.5		FQ	#		
Total Dissolved Solids	mg/L	08/15/2011	N001	160	-	200	330		FQJ	#	20	
Turbidity	NTU	08/15/2011	N001	160	-	200	7.91		FQ	#		
Uranium	mg/L	08/15/2011	N001	160	-	200	0.0035		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0265 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	60	-	100	410		FJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	60	-	100	0.0012		F	#	0.000074	
Calcium	mg/L	08/16/2011	N001	60	-	100	530		F	#	0.12	
Chloride	mg/L	08/16/2011	N001	60	-	100	120		F	#	4	
Iron	mg/L	08/16/2011	N001	60	-	100	0.0061	B	UFJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	60	-	100	180		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	60	-	100	0.00038	B	UFJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	60	-	100	0.00016	U	F	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	60	-	100	150		F	#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	60	-	100	255.7		F	#		
pH	s.u.	08/16/2011	N001	60	-	100	6.7		F	#		
Potassium	mg/L	08/16/2011	N001	60	-	100	6.4		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	60	-	100	0.0068		F	#	0.00016	
Silica	mg/L	08/16/2011	N001	60	-	100	16		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	60	-	100	7.3		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	60	-	100	110		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	60	-	100	3601		F	#		
Sulfate	mg/L	08/16/2011	N001	60	-	100	1100		F	#	10	
Temperature	C	08/16/2011	N001	60	-	100	18.4		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	60	-	100	3700		F	#	40	
Turbidity	NTU	08/16/2011	N001	60	-	100	4.75		F	#		
Uranium	mg/L	08/16/2011	N001	60	-	100	0.061		F	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0266 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	160	-	200	115		FQJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	160	-	200	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	160	-	200	0.0018		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	160	-	200	28		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	160	-	200	7.2		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	160	-	200	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	160	-	200	7.2		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	160	-	200	0.00011	U	FQJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	160	-	200	0.0002		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	160	-	200	3.4		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	160	-	200	217.6		FQ	#		
pH	s.u.	08/16/2011	N001	160	-	200	8.06		FQ	#		
Potassium	mg/L	08/16/2011	N001	160	-	200	1.6		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	160	-	200	0.001		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	160	-	200	12		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	160	-	200	5.4		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	160	-	200	5.3		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	160	-	200	229		FQ	#		
Sulfate	mg/L	08/16/2011	N001	160	-	200	10		FQ	#	0.5	
Temperature	C	08/16/2011	N001	160	-	200	19.06		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	160	-	200	150		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	160	-	200	2.79		FQ	#		
Uranium	mg/L	08/16/2011	N001	160	-	200	0.0015		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0267 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	60	-	100	969		FJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	60	-	100	0.0041		F	#	0.00015	
Calcium	mg/L	08/16/2011	N001	60	-	100	590		F	#	0.12	
Chloride	mg/L	08/16/2011	N001	60	-	100	110		F	#	10	
Iron	mg/L	08/16/2011	N001	60	-	100	0.0093	B	UFJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	60	-	100	800		F	#	0.13	
Manganese	mg/L	08/16/2011	N001	60	-	100	0.013		F	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	60	-	100	0.00032	U	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	60	-	100	300		F	#	2	
Oxidation Reduction Potential	mV	08/16/2011	N001	60	-	100	259.4		F	#		
pH	s.u.	08/16/2011	N001	60	-	100	6.39		F	#		
Potassium	mg/L	08/16/2011	N001	60	-	100	14		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	60	-	100	0.049		F	#	0.00032	
Silica	mg/L	08/16/2011	N001	60	-	100	21		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	60	-	100	9.9		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	60	-	100	380		F	#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	60	-	100	7382		F	#		
Sulfate	mg/L	08/16/2011	N001	60	-	100	3300		F	#	25	
Temperature	C	08/16/2011	N001	60	-	100	19.05		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	60	-	100	7900		F	#	80	
Turbidity	NTU	08/16/2011	N001	60	-	100	1.6		F	#		
Uranium	mg/L	08/16/2011	N001	60	-	100	0.077		F	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0268 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	200	-	300	310		F	#		
Ammonia Total as N	mg/L	08/17/2011	N001	200	-	300	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	200	-	300	0.00079		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	200	-	300	85		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	200	-	300	15		F	#	1	
Iron	mg/L	08/17/2011	N001	200	-	300	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	200	-	300	16		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	200	-	300	0.00023	B	UFJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	200	-	300	0.00024		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	200	-	300	17		F	#	0.1	
Oxidation Reduction Potential	mV	08/17/2011	N001	200	-	300	115		F	#		
pH	s.u.	08/17/2011	N001	200	-	300	7.47		F	#		
Potassium	mg/L	08/17/2011	N001	200	-	300	3.5		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	200	-	300	0.002		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	200	-	300	11		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	200	-	300	4.9		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	200	-	300	15		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	200	-	300	630		F	#		
Sulfate	mg/L	08/17/2011	N001	200	-	300	110		F	#	2.5	
Temperature	C	08/17/2011	N001	200	-	300	18.2		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	200	-	300	450		FJ	#	40	
Turbidity	NTU	08/17/2011	N001	200	-	300	1.94		F	#		
Uranium	mg/L	08/17/2011	N001	200	-	300	0.015		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0271 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	60	-	100	127		FJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	60	-	100	0.0021		F	#	0.000015	
Calcium	mg/L	08/16/2011	N001	60	-	100	34		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	60	-	100	11		F	#	0.2	
Iron	mg/L	08/16/2011	N001	60	-	100	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	60	-	100	6.6		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	60	-	100	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	60	-	100	0.00028		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	60	-	100	4.2		F	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	60	-	100	221.9		F	#		
pH	s.u.	08/16/2011	N001	60	-	100	7.94		F	#		
Potassium	mg/L	08/16/2011	N001	60	-	100	1.2		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	60	-	100	0.0014		F	#	0.000032	
Silica	mg/L	08/16/2011	N001	60	-	100	11		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	60	-	100	5.1		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	60	-	100	8.7		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	60	-	100	265		F	#		
Sulfate	mg/L	08/16/2011	N001	60	-	100	14		F	#	0.5	
Temperature	C	08/16/2011	N001	60	-	100	19.36		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	60	-	100	170		F	#	20	
Turbidity	NTU	08/16/2011	N001	60	-	100	1.49		F	#		
Uranium	mg/L	08/16/2011	N001	60	-	100	0.0014		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0272 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	159.1	-	179.1	119		FQ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	159.1	-	179.1	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	159.1	-	179.1	0.0018		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	159.1	-	179.1	33		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	159.1	-	179.1	7.8		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	159.1	-	179.1	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	159.1	-	179.1	7		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	159.1	-	179.1	0.00011	U	FQJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	159.1	-	179.1	0.00022		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	159.1	-	179.1	3.8		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	159.1	-	179.1	170		FQ	#		
pH	s.u.	08/16/2011	N001	159.1	-	179.1	7.7		FQ	#		
Potassium	mg/L	08/16/2011	N001	159.1	-	179.1	1.1		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	159.1	-	179.1	0.001		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	159.1	-	179.1	11		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	159.1	-	179.1	5.3		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	159.1	-	179.1	5.8		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	159.1	-	179.1	250		FQ	#		
Sulfate	mg/L	08/16/2011	N001	159.1	-	179.1	11		FQ	#	0.5	
Temperature	C	08/16/2011	N001	159.1	-	179.1	18.2		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	159.1	-	179.1	140		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	159.1	-	179.1	6.01		FQ	#		
Uranium	mg/L	08/16/2011	N001	159.1	-	179.1	0.0014		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0273 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	153	-	173	180		FQ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	153	-	173	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/17/2011	N001	153	-	173	0.002		FQ	#	0.000074	
Calcium	mg/L	08/17/2011	N001	153	-	173	150		FQ	#	0.012	
Chloride	mg/L	08/17/2011	N001	153	-	173	39		FQ	#	2	
Iron	mg/L	08/17/2011	N001	153	-	173	0.058	B	FQ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	153	-	173	27		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	153	-	173	0.0019	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	153	-	173	0.02		FQ	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	153	-	173	42		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/17/2011	N001	153	-	173	110		FQ	#		
pH	s.u.	08/17/2011	N001	153	-	173	7.29		FQ	#		
Potassium	mg/L	08/17/2011	N001	153	-	173	2.6		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	153	-	173	0.016		FQ	#	0.00016	
Silica	mg/L	08/17/2011	N001	153	-	173	13		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	153	-	173	6.2		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	153	-	173	28		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	153	-	173	1010		FQ	#		
Sulfate	mg/L	08/17/2011	N001	153	-	173	170		FQ	#	5	
Temperature	C	08/17/2011	N001	153	-	173	18.3		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	153	-	173	850		FQJ	#	40	
Turbidity	NTU	08/17/2011	N001	153	-	173	4.85		FQ	#		
Uranium	mg/L	08/17/2011	N001	153	-	173	0.035		FQ	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0274 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	149	-	169	112		FQ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	149	-	169	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/17/2011	N001	149	-	169	0.002		FQ	#	0.000015	
Calcium	mg/L	08/17/2011	N001	149	-	169	33		FQ	#	0.012	
Chloride	mg/L	08/17/2011	N001	149	-	169	10		FQ	#	0.2	
Iron	mg/L	08/17/2011	N001	149	-	169	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	149	-	169	6.8		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	149	-	169	0.00084	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	149	-	169	0.00039		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	149	-	169	3.6		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	149	-	169	110		FQ	#		
pH	s.u.	08/17/2011	N001	149	-	169	7.74		FQ	#		
Potassium	mg/L	08/17/2011	N001	149	-	169	1		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	149	-	169	0.0015		FQ	#	0.000032	
Silica	mg/L	08/17/2011	N001	149	-	169	11		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	149	-	169	5.3		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	149	-	169	9.6		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	149	-	169	275		FQ	#		
Sulfate	mg/L	08/17/2011	N001	149	-	169	15		FQ	#	0.5	
Temperature	C	08/17/2011	N001	149	-	169	18.5		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	149	-	169	180		FQJ	#	20	
Turbidity	NTU	08/17/2011	N001	149	-	169	8.2		FQ	#		
Uranium	mg/L	08/17/2011	N001	149	-	169	0.0017		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0275 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	158.2	-	178.2	499		F	#		
Ammonia Total as N	mg/L	08/17/2011	N001	158.2	-	178.2	32		F	#	2	
Arsenic	mg/L	08/17/2011	N001	158.2	-	178.2	0.0012		F	#	0.00015	
Calcium	mg/L	08/17/2011	N001	158.2	-	178.2	710		F	#	0.12	
Chloride	mg/L	08/17/2011	N001	158.2	-	178.2	150		F	#	4	
Iron	mg/L	08/17/2011	N001	158.2	-	178.2	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	158.2	-	178.2	320		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	158.2	-	178.2	8.5		F	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	158.2	-	178.2	0.00032	U	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	158.2	-	178.2	250		F	#	2	
Oxidation Reduction Potential	mV	08/17/2011	N001	158.2	-	178.2	238.7		F	#		
pH	s.u.	08/17/2011	N001	158.2	-	178.2	6.32		F	#		
Potassium	mg/L	08/17/2011	N001	158.2	-	178.2	23		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	158.2	-	178.2	0.034		F	#	0.00032	
Silica	mg/L	08/17/2011	N001	158.2	-	178.2	16		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	158.2	-	178.2	7.3		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	158.2	-	178.2	270		F	#	0.066	
Specific Conductance	umhos /cm	08/17/2011	N001	158.2	-	178.2	5471		F	#		
Sulfate	mg/L	08/17/2011	N001	158.2	-	178.2	2800		F	#	25	
Temperature	C	08/17/2011	N001	158.2	-	178.2	20.58		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	158.2	-	178.2	5200		FJ	#	200	
Turbidity	NTU	08/17/2011	N001	158.2	-	178.2	0.95		F	#		
Uranium	mg/L	08/17/2011	N001	158.2	-	178.2	0.42		F	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0276 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	154.5	-	174.5	86		F	#		
Ammonia Total as N	mg/L	08/17/2011	N001	154.5	-	174.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	154.5	-	174.5	0.0027		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	154.5	-	174.5	33		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	154.5	-	174.5	11		F	#	0.2	
Iron	mg/L	08/17/2011	N001	154.5	-	174.5	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	154.5	-	174.5	6.7		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	154.5	-	174.5	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	154.5	-	174.5	0.00043		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	154.5	-	174.5	3.3		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	154.5	-	174.5	212.3		F	#		
pH	s.u.	08/17/2011	N001	154.5	-	174.5	7.84		F	#		
Potassium	mg/L	08/17/2011	N001	154.5	-	174.5	1		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	154.5	-	174.5	0.0016		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	154.5	-	174.5	12		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	154.5	-	174.5	5.4		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	154.5	-	174.5	11		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	154.5	-	174.5	268		F	#		
Sulfate	mg/L	08/17/2011	N001	154.5	-	174.5	16		F	#	0.5	
Temperature	C	08/17/2011	N001	154.5	-	174.5	19.83		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	154.5	-	174.5	180		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	154.5	-	174.5	0.6		F	#		
Uranium	mg/L	08/17/2011	N001	154.5	-	174.5	0.0015		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0277 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Ammonia Total as N	mg/L	08/17/2011	N001	95.7	-	105.7	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/17/2011	N001	95.7	-	105.7	0.00048		FQ	#	0.000015	
Calcium	mg/L	08/17/2011	N001	95.7	-	105.7	26		FQ	#	0.012	
Chloride	mg/L	08/17/2011	N001	95.7	-	105.7	9.9		FQ	#	0.2	
Iron	mg/L	08/17/2011	N001	95.7	-	105.7	0.021	B	FQJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	95.7	-	105.7	8.5		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	95.7	-	105.7	0.056		FQ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	95.7	-	105.7	0.00017		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	95.7	-	105.7	3.1		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	95.7	-	105.7	136.3		FQ	#		
pH	s.u.	08/17/2011	N001	95.7	-	105.7	7.62		FQ	#		
Potassium	mg/L	08/17/2011	N001	95.7	-	105.7	1.9		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	95.7	-	105.7	0.0015		FQ	#	0.000032	
Silica	mg/L	08/17/2011	N001	95.7	-	105.7	14		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	95.7	-	105.7	6.5		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	95.7	-	105.7	9.8		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	95.7	-	105.7	268		FQ	#		
Sulfate	mg/L	08/17/2011	N001	95.7	-	105.7	16		FQ	#	0.5	
Temperature	C	08/17/2011	N001	95.7	-	105.7	17.45		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	95.7	-	105.7	170		FQJ	#	20	
Turbidity	NTU	08/17/2011	N001	95.7	-	105.7	8.32		FQ	#		
Uranium	mg/L	08/17/2011	N001	95.7	-	105.7	0.0024		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0278 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	90.5	-	100.5	127		FQJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	90.5	-	100.5	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	90.5	-	100.5	0.0017		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	90.5	-	100.5	28		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	90.5	-	100.5	8.6		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	90.5	-	100.5	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	90.5	-	100.5	6.9		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	90.5	-	100.5	0.00011	U	FQJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	90.5	-	100.5	0.0003		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	90.5	-	100.5	3.1		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	90.5	-	100.5	195.2		FQ	#		
pH	s.u.	08/16/2011	N001	90.5	-	100.5	7.81		FQ	#		
Potassium	mg/L	08/16/2011	N001	90.5	-	100.5	1.7		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	90.5	-	100.5	0.0011		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	90.5	-	100.5	11		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	90.5	-	100.5	5.3		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	90.5	-	100.5	8		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	90.5	-	100.5	240		FQ	#		
Sulfate	mg/L	08/16/2011	N001	90.5	-	100.5	12		FQ	#	0.5	
Temperature	C	08/16/2011	N001	90.5	-	100.5	18.25		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	90.5	-	100.5	150		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	90.5	-	100.5	1.1		FQ	#		
Uranium	mg/L	08/16/2011	N001	90.5	-	100.5	0.0013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0279 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	26.5	-	36.5	132		FJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	26.5	-	36.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	26.5	-	36.5	0.00078		F	#	0.000015	
Calcium	mg/L	08/16/2011	N001	26.5	-	36.5	55		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	26.5	-	36.5	25		F	#	1	
Iron	mg/L	08/16/2011	N001	26.5	-	36.5	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	26.5	-	36.5	12		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	26.5	-	36.5	0.001	B	F	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	26.5	-	36.5	0.00078		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	26.5	-	36.5	9.5		F	#	0.1	
Oxidation Reduction Potential	mV	08/16/2011	N001	26.5	-	36.5	233.2		F	#		
pH	s.u.	08/16/2011	N001	26.5	-	36.5	7.65		F	#		
Potassium	mg/L	08/16/2011	N001	26.5	-	36.5	1.6		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	26.5	-	36.5	0.0023		F	#	0.000032	
Silica	mg/L	08/16/2011	N001	26.5	-	36.5	12		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	26.5	-	36.5	5.7		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	26.5	-	36.5	13		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	26.5	-	36.5	445		F	#		
Sulfate	mg/L	08/16/2011	N001	26.5	-	36.5	59		F	#	0.5	
Temperature	C	08/16/2011	N001	26.5	-	36.5	17.15		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	26.5	-	36.5	300		F	#	20	
Turbidity	NTU	08/16/2011	N001	26.5	-	36.5	1.49		F	#		
Uranium	mg/L	08/16/2011	N001	26.5	-	36.5	0.0019		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0280 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	26.5	-	36.5	139		FQJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	26.5	-	36.5	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	26.5	-	36.5	0.0022		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	26.5	-	36.5	33		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	26.5	-	36.5	20		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	26.5	-	36.5	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	26.5	-	36.5	6.9		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	26.5	-	36.5	0.001	B	FQ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	26.5	-	36.5	0.00046		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	26.5	-	36.5	2.4		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	26.5	-	36.5	227.3		FQ	#		
pH	s.u.	08/16/2011	N001	26.5	-	36.5	7.71		FQ	#		
Potassium	mg/L	08/16/2011	N001	26.5	-	36.5	0.28	B	FQJ	#	0.11	
Selenium	mg/L	08/16/2011	N001	26.5	-	36.5	0.002		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	26.5	-	36.5	12		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	26.5	-	36.5	5.7		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	26.5	-	36.5	18		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	26.5	-	36.5	309		FQ	#		
Sulfate	mg/L	08/16/2011	N001	26.5	-	36.5	20		FQ	#	0.5	
Temperature	C	08/16/2011	N001	26.5	-	36.5	17.96		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	26.5	-	36.5	190		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	26.5	-	36.5	3.21		FQ	#		
Uranium	mg/L	08/16/2011	N001	26.5	-	36.5	0.0014		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0281 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	70.5	-	80.5	243		FQJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	70.5	-	80.5	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	70.5	-	80.5	0.001		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	70.5	-	80.5	120		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	70.5	-	80.5	25		FQ	#	0.4	
Iron	mg/L	08/16/2011	N001	70.5	-	80.5	0.5		FQ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	70.5	-	80.5	21		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	70.5	-	80.5	0.01		FQ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	70.5	-	80.5	0.00055		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	70.5	-	80.5	33		FQ	#	0.2	
Oxidation Reduction Potential	mV	08/16/2011	N001	70.5	-	80.5	218.1		FQ	#		
pH	s.u.	08/16/2011	N001	70.5	-	80.5	7.39		FQ	#		
Potassium	mg/L	08/16/2011	N001	70.5	-	80.5	1.7		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	70.5	-	80.5	0.002		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	70.5	-	80.5	14		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	70.5	-	80.5	6.6		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	70.5	-	80.5	17		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	70.5	-	80.5	828		FQ	#		
Sulfate	mg/L	08/16/2011	N001	70.5	-	80.5	140		FQ	#	1	
Temperature	C	08/16/2011	N001	70.5	-	80.5	20.72		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	70.5	-	80.5	660		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	70.5	-	80.5	9.92		FQ	#		
Uranium	mg/L	08/16/2011	N001	70.5	-	80.5	0.0074		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0282 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	74.1	-	84.1	146		FJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	74.1	-	84.1	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	74.1	-	84.1	0.00012		F	#	0.000015	
Calcium	mg/L	08/16/2011	N001	74.1	-	84.1	120		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	74.1	-	84.1	39		F	#	1	
Iron	mg/L	08/16/2011	N001	74.1	-	84.1	0.031	B	UF	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	74.1	-	84.1	23		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	74.1	-	84.1	0.0012	B	F	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	74.1	-	84.1	0.00041		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	74.1	-	84.1	40		F	#	0.2	
Oxidation Reduction Potential	mV	08/16/2011	N001	74.1	-	84.1	233.3		F	#		
pH	s.u.	08/16/2011	N001	74.1	-	84.1	7.61		F	#		
Potassium	mg/L	08/16/2011	N001	74.1	-	84.1	2.2		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	74.1	-	84.1	0.0016		F	#	0.000032	
Silica	mg/L	08/16/2011	N001	74.1	-	84.1	14		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	74.1	-	84.1	6.7		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	74.1	-	84.1	16		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	74.1	-	84.1	836		F	#		
Sulfate	mg/L	08/16/2011	N001	74.1	-	84.1	82		F	#	2.5	
Temperature	C	08/16/2011	N001	74.1	-	84.1	19.57		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	74.1	-	84.1	700		F	#	20	
Turbidity	NTU	08/16/2011	N001	74.1	-	84.1	3.74		F	#		
Uranium	mg/L	08/16/2011	N001	74.1	-	84.1	0.0048		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0286 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	93.2	-	103.2	665		FQ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	93.2	-	103.2	16		FQ	#	1	
Arsenic	mg/L	08/17/2011	N001	93.2	-	103.2	0.0014		FQ	#	0.00015	
Calcium	mg/L	08/17/2011	N001	93.2	-	103.2	630		FQ	#	0.12	
Chloride	mg/L	08/17/2011	N001	93.2	-	103.2	90		FQ	#	10	
Iron	mg/L	08/17/2011	N001	93.2	-	103.2	0.026	B	FQ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	93.2	-	103.2	450		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	93.2	-	103.2	2.5		FQ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	93.2	-	103.2	0.00058	B	FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	93.2	-	103.2	190		FQ	#	1	
Oxidation Reduction Potential	mV	08/17/2011	N001	93.2	-	103.2	165		FQ	#		
pH	s.u.	08/17/2011	N001	93.2	-	103.2	6.41		FQ	#		
Potassium	mg/L	08/17/2011	N001	93.2	-	103.2	17		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	93.2	-	103.2	0.027		FQ	#	0.00032	
Silica	mg/L	08/17/2011	N001	93.2	-	103.2	16		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	93.2	-	103.2	7.6		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	93.2	-	103.2	240		FQ	#	0.066	
Specific Conductance	umhos /cm	08/17/2011	N001	93.2	-	103.2	5610		FQ	#		
Sulfate	mg/L	08/17/2011	N001	93.2	-	103.2	2400		FQ	#	25	
Temperature	C	08/17/2011	N001	93.2	-	103.2	18.4		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	93.2	-	103.2	5800		FQJ	#	200	
Turbidity	NTU	08/17/2011	N001	93.2	-	103.2	9.26		FQ	#		
Uranium	mg/L	08/17/2011	N001	93.2	-	103.2	0.4		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0287 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	100.7	-	110.7	722		FQ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	100.7	-	110.7	0.42		FQ	#	0.1	
Arsenic	mg/L	08/17/2011	N001	100.7	-	110.7	0.0016		FQ	#	0.00015	
Calcium	mg/L	08/17/2011	N001	100.7	-	110.7	910		FQ	#	0.12	
Chloride	mg/L	08/17/2011	N001	100.7	-	110.7	220		FQ	#	10	
Iron	mg/L	08/17/2011	N001	100.7	-	110.7	0.038	B	UFQ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	100.7	-	110.7	150		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	100.7	-	110.7	0.012		FQ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	100.7	-	110.7	0.12		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	100.7	-	110.7	280		FQ	#	2	
Oxidation Reduction Potential	mV	08/17/2011	N001	100.7	-	110.7	155		FQ	#		
pH	s.u.	08/17/2011	N001	100.7	-	110.7	6.44		FQ	#		
Potassium	mg/L	08/17/2011	N001	100.7	-	110.7	10		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	100.7	-	110.7	0.098		FQ	#	0.00032	
Silica	mg/L	08/17/2011	N001	100.7	-	110.7	17		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	100.7	-	110.7	7.9		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	100.7	-	110.7	290		FQ	#	0.066	
Specific Conductance	umhos /cm	08/17/2011	N001	100.7	-	110.7	5530		FQ	#		
Sulfate	mg/L	08/17/2011	N001	100.7	-	110.7	1700		FQ	#	25	
Temperature	C	08/17/2011	N001	100.7	-	110.7	18.6		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	100.7	-	110.7	5800		FQJ	#	200	
Turbidity	NTU	08/17/2011	N001	100.7	-	110.7	8.84		FQ	#		
Uranium	mg/L	08/17/2011	N001	100.7	-	110.7	0.24		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0288 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	104	-	114	240		FQ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	104	-	114	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/17/2011	N001	104	-	114	0.00062		FQ	#	0.000015	
Calcium	mg/L	08/17/2011	N001	104	-	114	190		FQ	#	0.012	
Chloride	mg/L	08/17/2011	N001	104	-	114	21		FQ	#	4	
Iron	mg/L	08/17/2011	N001	104	-	114	0.026	B	UFQ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	104	-	114	36		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	104	-	114	0.005	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	104	-	114	0.00011		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	104	-	114	50		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/17/2011	N001	104	-	114	110		FQ	#		
pH	s.u.	08/17/2011	N001	104	-	114	6.81		FQ	#		
Potassium	mg/L	08/17/2011	N001	104	-	114	3.5		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	104	-	114	0.0026		FQ	#	0.000032	
Silica	mg/L	08/17/2011	N001	104	-	114	15		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	104	-	114	7.1		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	104	-	114	39		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	104	-	114	1390		FQ	#		
Sulfate	mg/L	08/17/2011	N001	104	-	114	230		FQ	#	10	
Temperature	C	08/17/2011	N001	104	-	114	17.4		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	104	-	114	1000		FQJ	#	40	
Turbidity	NTU	08/17/2011	N001	104	-	114	6.85		FQ	#		
Uranium	mg/L	08/17/2011	N001	104	-	114	0.011		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0289 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	148.3	-	158.3	264		FQ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	148.3	-	158.3	0.19		FQ	#	0.1	
Arsenic	mg/L	08/17/2011	N001	148.3	-	158.3	0.00093		FQ	#	0.000015	
Calcium	mg/L	08/17/2011	N001	148.3	-	158.3	160		FQ	#	0.012	
Chloride	mg/L	08/17/2011	N001	148.3	-	158.3	20		FQ	#	2	
Iron	mg/L	08/17/2011	N001	148.3	-	158.3	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	148.3	-	158.3	30		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	148.3	-	158.3	0.011		FQ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	148.3	-	158.3	0.00037		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	148.3	-	158.3	39		FQ	#	0.2	
Oxidation Reduction Potential	mV	08/17/2011	N001	148.3	-	158.3	90		FQ	#		
pH	s.u.	08/17/2011	N001	148.3	-	158.3	6.96		FQ	#		
Potassium	mg/L	08/17/2011	N001	148.3	-	158.3	3.1		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	148.3	-	158.3	0.0022		FQ	#	0.000032	
Silica	mg/L	08/17/2011	N001	148.3	-	158.3	14		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	148.3	-	158.3	6.6		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	148.3	-	158.3	26		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	148.3	-	158.3	1150		FQ	#		
Sulfate	mg/L	08/17/2011	N001	148.3	-	158.3	190		FQ	#	5	
Temperature	C	08/17/2011	N001	148.3	-	158.3	17.4		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	148.3	-	158.3	750		FQJ	#	40	
Turbidity	NTU	08/17/2011	N001	148.3	-	158.3	3.28		FQ	#		
Uranium	mg/L	08/17/2011	N001	148.3	-	158.3	0.015		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0290 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	102.7	-	112.7	133		FQ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	102.7	-	112.7	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	102.7	-	112.7	0.0015		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	102.7	-	112.7	160		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	102.7	-	112.7	36		FQ	#	2	
Iron	mg/L	08/16/2011	N001	102.7	-	112.7	0.092	B	FQ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	102.7	-	112.7	26		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	102.7	-	112.7	0.003	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	102.7	-	112.7	0.00022		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	102.7	-	112.7	39		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/16/2011	N001	102.7	-	112.7	-36.6		RFQ	#		
pH	s.u.	08/16/2011	N001	102.7	-	112.7	7.28		FQ	#		
Potassium	mg/L	08/16/2011	N001	102.7	-	112.7	3.1		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	102.7	-	112.7	0.0042		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	102.7	-	112.7	15		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	102.7	-	112.7	7.2		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	102.7	-	112.7	29		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	102.7	-	112.7	1112		FQ	#		
Sulfate	mg/L	08/16/2011	N001	102.7	-	112.7	200		FQ	#	5	
Temperature	C	08/16/2011	N001	102.7	-	112.7	17.36		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	102.7	-	112.7	860		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	102.7	-	112.7	6.31		FQ	#		
Uranium	mg/L	08/16/2011	N001	102.7	-	112.7	0.0089		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0683 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	95	-	145	94		FQ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	95	-	145	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	95	-	145	0.0022		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	95	-	145	36		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	95	-	145	12		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	95	-	145	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	95	-	145	6.2		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	95	-	145	0.00011	U	FQJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	95	-	145	0.00046		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	95	-	145	3.2		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	95	-	145	-68.5		RFQ	#		
pH	s.u.	08/16/2011	N001	95	-	145	7.87		FQ	#		
Potassium	mg/L	08/16/2011	N001	95	-	145	1.4		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	95	-	145	0.0018		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	95	-	145	13		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	95	-	145	6		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	95	-	145	12		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	95	-	145	370		FQ	#		
Sulfate	mg/L	08/16/2011	N001	95	-	145	17		FQ	#	0.5	
Temperature	C	08/16/2011	N001	95	-	145	17.28		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	95	-	145	180		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	95	-	145	2.11		FQ	#		
Uranium	mg/L	08/16/2011	N001	95	-	145	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0684 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	124.2	-	175.5	88		FQ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	124.2	-	175.5	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	124.2	-	175.5	0.0028		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	124.2	-	175.5	33		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	124.2	-	175.5	10		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	124.2	-	175.5	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	124.2	-	175.5	6.5		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	124.2	-	175.5	0.00011	U	FQJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	124.2	-	175.5	0.00042		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	124.2	-	175.5	3.2		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	124.2	-	175.5	9.4		RFQ	#		
pH	s.u.	08/16/2011	N001	124.2	-	175.5	7.96		FQ	#		
Potassium	mg/L	08/16/2011	N001	124.2	-	175.5	1.1		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	124.2	-	175.5	0.0015		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	124.2	-	175.5	12		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	124.2	-	175.5	5.4		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	124.2	-	175.5	12		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	124.2	-	175.5	357		FQ	#		
Sulfate	mg/L	08/16/2011	N001	124.2	-	175.5	15		FQ	#	0.5	
Temperature	C	08/16/2011	N001	124.2	-	175.5	17.24		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	124.2	-	175.5	180		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	124.2	-	175.5	1.43		FQ	#		
Uranium	mg/L	08/16/2011	N001	124.2	-	175.5	0.0013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0685 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	93.66	-	145.5	87		F	#		
Ammonia Total as N	mg/L	08/17/2011	N001	93.66	-	145.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	93.66	-	145.5	0.0028		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	93.66	-	145.5	36		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	93.66	-	145.5	15		F	#	0.2	
Iron	mg/L	08/17/2011	N001	93.66	-	145.5	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	93.66	-	145.5	7		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	93.66	-	145.5	0.00031	B	UFJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	93.66	-	145.5	0.00035		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	93.66	-	145.5	3.3		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	93.66	-	145.5	217.2		F	#		
pH	s.u.	08/17/2011	N001	93.66	-	145.5	7.89		F	#		
Potassium	mg/L	08/17/2011	N001	93.66	-	145.5	1.1		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	93.66	-	145.5	0.0018		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	93.66	-	145.5	12		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	93.66	-	145.5	5.4		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	93.66	-	145.5	10		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	93.66	-	145.5	284		F	#		
Sulfate	mg/L	08/17/2011	N001	93.66	-	145.5	20		F	#	0.5	
Temperature	C	08/17/2011	N001	93.66	-	145.5	20.77		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	93.66	-	145.5	180		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	93.66	-	145.5	1.12		F	#		
Uranium	mg/L	08/17/2011	N001	93.66	-	145.5	0.0013		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0686 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	60	-	100	127		F	#		
Ammonia Total as N	mg/L	08/17/2011	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	60	-	100	0.0016		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	60	-	100	54		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	60	-	100	36		F	#	1	
Iron	mg/L	08/17/2011	N001	60	-	100	0.024	B	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	60	-	100	8		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	60	-	100	0.00057	B	UF	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	60	-	100	0.0015		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	60	-	100	2.6		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	60	-	100	209		F	#		
pH	s.u.	08/17/2011	N001	60	-	100	7.78		F	#		
Potassium	mg/L	08/17/2011	N001	60	-	100	1.8		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	60	-	100	0.0047		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	60	-	100	11		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	60	-	100	5.3		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	60	-	100	25		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	60	-	100	475		F	#		
Sulfate	mg/L	08/17/2011	N001	60	-	100	78		F	#	2.5	
Temperature	C	08/17/2011	N001	60	-	100	19.08		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	60	-	100	320		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	60	-	100	2.01		F	#		
Uranium	mg/L	08/17/2011	N001	60	-	100	0.0014		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0687 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	60	-	100	42		F	#		
Ammonia Total as N	mg/L	08/17/2011	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	60	-	100	0.012		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	60	-	100	12		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	60	-	100	4.1		F	#	0.2	
Iron	mg/L	08/17/2011	N001	60	-	100	0.043	B	F	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	60	-	100	1.6		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	60	-	100	0.00095	B	UF	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	60	-	100	0.0026		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	60	-	100	2		F	#	0.01	
Oxidation Reduction Potential	mV	08/17/2011	N001	60	-	100	190.2		F	#		
pH	s.u.	08/17/2011	N001	60	-	100	8.54		F	#		
Potassium	mg/L	08/17/2011	N001	60	-	100	0.79	B	FJ	#	0.11	
Selenium	mg/L	08/17/2011	N001	60	-	100	0.00056		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	60	-	100	11		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	60	-	100	5.3		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	60	-	100	17		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	60	-	100	172		F	#		
Sulfate	mg/L	08/17/2011	N001	60	-	100	24		F	#	0.5	
Temperature	C	08/17/2011	N001	60	-	100	20.82		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	60	-	100	120		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	60	-	100	2.49		F	#		
Uranium	mg/L	08/17/2011	N001	60	-	100	0.00016		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0688 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	60	-	100	77		F	#		
Ammonia Total as N	mg/L	08/17/2011	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	60	-	100	0.0018		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	60	-	100	67		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	60	-	100	38		F	#	0.4	
Iron	mg/L	08/17/2011	N001	60	-	100	0.011	B	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	60	-	100	9.1		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	60	-	100	0.00057	B	UF	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	60	-	100	0.002		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	60	-	100	4.7		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	60	-	100	222.9		F	#		
pH	s.u.	08/17/2011	N001	60	-	100	7.75		F	#		
Potassium	mg/L	08/17/2011	N001	60	-	100	1.8		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	60	-	100	0.0047		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	60	-	100	13		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	60	-	100	6.1		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	60	-	100	22		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	60	-	100	506		F	#		
Sulfate	mg/L	08/17/2011	N001	60	-	100	110		F	#	1	
Temperature	C	08/17/2011	N001	60	-	100	19.01		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	60	-	100	350		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	60	-	100	4.26		F	#		
Uranium	mg/L	08/17/2011	N001	60	-	100	0.0021		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0689 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	55	-	95	130		FJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	55	-	95	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	55	-	95	0.002		F	#	0.000015	
Calcium	mg/L	08/16/2011	N001	55	-	95	33		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	55	-	95	10		F	#	0.2	
Iron	mg/L	08/16/2011	N001	55	-	95	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	55	-	95	6.8		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	55	-	95	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	55	-	95	0.00035		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	55	-	95	2.7		F	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	55	-	95	180.6		F	#		
pH	s.u.	08/16/2011	N001	55	-	95	7.78		F	#		
Potassium	mg/L	08/16/2011	N001	55	-	95	1		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	55	-	95	0.0012		F	#	0.000032	
Silica	mg/L	08/16/2011	N001	55	-	95	12		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	55	-	95	5.7		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	55	-	95	7.6		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	55	-	95	259		F	#		
Sulfate	mg/L	08/16/2011	N001	55	-	95	14		F	#	0.5	
Temperature	C	08/16/2011	N001	55	-	95	17.51		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	55	-	95	170		F	#	20	
Turbidity	NTU	08/16/2011	N001	55	-	95	1.7		F	#		
Uranium	mg/L	08/16/2011	N001	55	-	95	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0690 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	55	-	95	150		FQJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	55	-	95	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	55	-	95	0.0013		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	55	-	95	28		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	55	-	95	8.7		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	55	-	95	0.012	B	UFQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	55	-	95	7.9		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	55	-	95	0.022		FQ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	55	-	95	0.00032		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	55	-	95	3.2		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	55	-	95	222.5		FQ	#		
pH	s.u.	08/16/2011	N001	55	-	95	7.91		FQ	#		
Potassium	mg/L	08/16/2011	N001	55	-	95	2		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	55	-	95	0.0012		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	55	-	95	12		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	55	-	95	5.4		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	55	-	95	8		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	55	-	95	245		FQ	#		
Sulfate	mg/L	08/16/2011	N001	55	-	95	12		FQ	#	0.5	
Temperature	C	08/16/2011	N001	55	-	95	18.22		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	55	-	95	160		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	55	-	95	1.47		FQ	#		
Uranium	mg/L	08/16/2011	N001	55	-	95	0.0016		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0691 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	55	-	95	255		FJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	55	-	95	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	55	-	95	0.0012		F	#	0.000074	
Calcium	mg/L	08/16/2011	N001	55	-	95	310		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	55	-	95	54		F	#	2	
Iron	mg/L	08/16/2011	N001	55	-	95	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	55	-	95	50		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	55	-	95	0.012		F	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	55	-	95	0.00016	U	F	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	55	-	95	62		F	#	0.5	
Oxidation Reduction Potential	mV	08/16/2011	N001	55	-	95	248.2		F	#		
pH	s.u.	08/16/2011	N001	55	-	95	7.12		F	#		
Potassium	mg/L	08/16/2011	N001	55	-	95	4.4		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	55	-	95	0.0037		F	#	0.00016	
Silica	mg/L	08/16/2011	N001	55	-	95	15		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	55	-	95	7		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	55	-	95	43	E	FJ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	55	-	95	1784		F	#		
Sulfate	mg/L	08/16/2011	N001	55	-	95	520		F	#	5	
Temperature	C	08/16/2011	N001	55	-	95	18.67		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	55	-	95	1600		F	#	20	
Turbidity	NTU	08/16/2011	N001	55	-	95	2.31		F	#		
Uranium	mg/L	08/16/2011	N001	55	-	95	0.052		F	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0692 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	55	-	95	131		FQJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	55	-	95	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	55	-	95	0.0068		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	55	-	95	28		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	55	-	95	12		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	55	-	95	0.3		FQ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	55	-	95	6.7		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	55	-	95	0.075		FQ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	55	-	95	0.0003		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	55	-	95	3		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	55	-	95	221.1		FQ	#		
pH	s.u.	08/16/2011	N001	55	-	95	7.93		FQ	#		
Potassium	mg/L	08/16/2011	N001	55	-	95	3.3		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	55	-	95	0.0014		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	55	-	95	12		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	55	-	95	5.8		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	55	-	95	11		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	55	-	95	258		FQ	#		
Sulfate	mg/L	08/16/2011	N001	55	-	95	15		FQ	#	0.5	
Temperature	C	08/16/2011	N001	55	-	95	17.66		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	55	-	95	170		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	55	-	95	7.63		FQ	#		
Uranium	mg/L	08/16/2011	N001	55	-	95	0.0017		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0695 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	55	-	95	169		FJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	55	-	95	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	55	-	95	0.0016		F	#	0.000015	
Calcium	mg/L	08/16/2011	N001	55	-	95	47		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	55	-	95	13		F	#	0.2	
Iron	mg/L	08/16/2011	N001	55	-	95	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	55	-	95	7.6		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	55	-	95	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	55	-	95	0.00056		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	55	-	95	7.3		F	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	55	-	95	233.5		F	#		
pH	s.u.	08/16/2011	N001	55	-	95	7.93		F	#		
Potassium	mg/L	08/16/2011	N001	55	-	95	1.5		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	55	-	95	0.0017		F	#	0.000032	
Silica	mg/L	08/16/2011	N001	55	-	95	12		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	55	-	95	5.7		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	55	-	95	11		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	55	-	95	355		F	#		
Sulfate	mg/L	08/16/2011	N001	55	-	95	40		F	#	0.5	
Temperature	C	08/16/2011	N001	55	-	95	19.83		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	55	-	95	210		F	#	20	
Turbidity	NTU	08/16/2011	N001	55	-	95	1.12		F	#		
Uranium	mg/L	08/16/2011	N001	55	-	95	0.002		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0901 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	58	-	78	205		FJ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	58	-	78	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	58	-	78	0.0024		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	58	-	78	47		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	58	-	78	21		F	#	0.4	
Iron	mg/L	08/17/2011	N001	58	-	78	0.12		F	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	58	-	78	8.1		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	58	-	78	0.0095		F	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	58	-	78	0.00054		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	58	-	78	3.6		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	58	-	78	231.5		F	#		
pH	s.u.	08/17/2011	N001	58	-	78	7.97		F	#		
Potassium	mg/L	08/17/2011	N001	58	-	78	1.2		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	58	-	78	0.0029		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	58	-	78	13		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	58	-	78	6		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	58	-	78	17		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	58	-	78	388		F	#		
Sulfate	mg/L	08/17/2011	N001	58	-	78	36		F	#	1	
Temperature	C	08/17/2011	N001	58	-	78	20.38		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	58	-	78	250		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	58	-	78	9.82		F	#		
Uranium	mg/L	08/17/2011	N001	58	-	78	0.0031		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0903 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	28	-	48	179		FJ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	28	-	48	0.1		F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	28	-	48	0.0018		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	28	-	48	64		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	28	-	48	21		F	#	1	
Iron	mg/L	08/17/2011	N001	28	-	48	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	28	-	48	13		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	28	-	48	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	28	-	48	0.00023		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	28	-	48	13		F	#	0.1	
Oxidation Reduction Potential	mV	08/17/2011	N001	28	-	48	160.9		F	#		
pH	s.u.	08/17/2011	N001	28	-	48	7.79		F	#		
Potassium	mg/L	08/17/2011	N001	28	-	48	1.6		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	28	-	48	0.0019		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	28	-	48	12		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	28	-	48	5.4		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	28	-	48	11		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	28	-	48	484		F	#		
Sulfate	mg/L	08/17/2011	N001	28	-	48	66		F	#	2.5	
Temperature	C	08/17/2011	N001	28	-	48	18.47		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	28	-	48	330		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	28	-	48	0.94		F	#		
Uranium	mg/L	08/17/2011	N001	28	-	48	0.0021		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0904 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	28	-	38	200		FJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	28	-	38	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	28	-	38	0.00053		F	#	0.000015	
Calcium	mg/L	08/16/2011	N001	28	-	38	62		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	28	-	38	130		F	#	2	
Iron	mg/L	08/16/2011	N001	28	-	38	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	28	-	38	16		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	28	-	38	0.00069	B	UF	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	28	-	38	0.00067		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	28	-	38	1		F	#	0.01	
Oxidation Reduction Potential	mV	08/16/2011	N001	28	-	38	205.8		F	#		
pH	s.u.	08/16/2011	N001	28	-	38	7.66		F	#		
Potassium	mg/L	08/16/2011	N001	28	-	38	0.75	B	FJ	#	0.11	
Selenium	mg/L	08/16/2011	N001	28	-	38	0.013		F	#	0.000032	
Silica	mg/L	08/16/2011	N001	28	-	38	20		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	28	-	38	9.2		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	28	-	38	94		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	28	-	38	911		F	#		
Sulfate	mg/L	08/16/2011	N001	28	-	38	92		F	#	1	
Temperature	C	08/16/2011	N001	28	-	38	24.82		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	28	-	38	540		F	#	20	
Turbidity	NTU	08/16/2011	N001	28	-	38	1.86		F	#		
Uranium	mg/L	08/16/2011	N001	28	-	38	0.0043		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0906 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	44	-	64	920		FQ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	44	-	64	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/17/2011	N001	44	-	64	0.0013		FQ	#	0.00015	
Calcium	mg/L	08/17/2011	N001	44	-	64	920		FQ	#	0.12	
Chloride	mg/L	08/17/2011	N001	44	-	64	110		FQ	#	10	
Iron	mg/L	08/17/2011	N001	44	-	64	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	44	-	64	290		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	44	-	64	0.045		FQ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	44	-	64	0.0018		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	44	-	64	350		FQ	#	2	
Oxidation Reduction Potential	mV	08/17/2011	N001	44	-	64	165		FQ	#		
pH	s.u.	08/17/2011	N001	44	-	64	6.33		FQ	#		
Potassium	mg/L	08/17/2011	N001	44	-	64	11		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	44	-	64	0.017		FQ	#	0.00032	
Silica	mg/L	08/17/2011	N001	44	-	64	15		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	44	-	64	6.8		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	44	-	64	250		FQ	#	0.066	
Specific Conductance	umhos /cm	08/17/2011	N001	44	-	64	5960		FQ	#		
Sulfate	mg/L	08/17/2011	N001	44	-	64	1600		FQ	#	25	
Temperature	C	08/17/2011	N001	44	-	64	19.1		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	44	-	64	6200		FQJ	#	200	
Turbidity	NTU	08/17/2011	N001	44	-	64	8.23		FQ	#		
Uranium	mg/L	08/17/2011	N001	44	-	64	0.51		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0908 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/15/2011	N001	52	-	67	648		FQJ	#		
Ammonia Total as N	mg/L	08/15/2011	N001	52	-	67	69		FQ	#	2	
Arsenic	mg/L	08/15/2011	N001	52	-	67	0.0011		FQ	#	0.00015	
Calcium	mg/L	08/15/2011	N001	52	-	67	600		FQ	#	0.12	
Chloride	mg/L	08/15/2011	N001	52	-	67	68		FQ	#	10	
Iron	mg/L	08/15/2011	N001	52	-	67	0.0094	B	UFQJ	#	0.0049	
Magnesium	mg/L	08/15/2011	N001	52	-	67	480		FQ	#	0.013	
Manganese	mg/L	08/15/2011	N001	52	-	67	0.14		FQ	#	0.00011	
Molybdenum	mg/L	08/15/2011	N001	52	-	67	0.00039	B	FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/15/2011	N001	52	-	67	180		FQ	#	1	
Oxidation Reduction Potential	mV	08/15/2011	N001	52	-	67	202.3		FQ	#		
pH	s.u.	08/15/2011	N001	52	-	67	6.43		FQ	#		
Potassium	mg/L	08/15/2011	N001	52	-	67	33		FQ	#	0.11	
Selenium	mg/L	08/15/2011	N001	52	-	67	0.024		FQ	#	0.00032	
Silica	mg/L	08/15/2011	N001	52	-	67	18		FQ	#	0.0095	
Silicon	mg/L	08/15/2011	N001	52	-	67	8.6		FQ	#	0.0044	
Sodium	mg/L	08/15/2011	N001	52	-	67	270		FQ	#	0.066	
Specific Conductance	umhos /cm	08/15/2011	N001	52	-	67	5961		FQ	#		
Sulfate	mg/L	08/15/2011	N001	52	-	67	2800		FQ	#	25	
Temperature	C	08/15/2011	N001	52	-	67	19.51		FQ	#		
Total Dissolved Solids	mg/L	08/15/2011	N001	52	-	67	5800		FQJ	#	80	
Turbidity	NTU	08/15/2011	N001	52	-	67	8.12		FQ	#		
Uranium	mg/L	08/15/2011	N001	52	-	67	0.083		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0910 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	97	-	197	147		FJ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	97	-	197	0.13		F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	97	-	197	0.0019		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	97	-	197	33		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	97	-	197	10		F	#	0.2	
Iron	mg/L	08/17/2011	N001	97	-	197	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	97	-	197	5.6		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	97	-	197	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	97	-	197	0.00045		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	97	-	197	3.2		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	97	-	197	198.7		F	#		
pH	s.u.	08/17/2011	N001	97	-	197	7.97		F	#		
Potassium	mg/L	08/17/2011	N001	97	-	197	0.92	B	FJ	#	0.11	
Selenium	mg/L	08/17/2011	N001	97	-	197	0.0015		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	97	-	197	11		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	97	-	197	5.1		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	97	-	197	11		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	97	-	197	264		F	#		
Sulfate	mg/L	08/17/2011	N001	97	-	197	14		F	#	0.5	
Temperature	C	08/17/2011	N001	97	-	197	20.72		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	97	-	197	170		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	97	-	197	1.12		F	#		
Uranium	mg/L	08/17/2011	N001	97	-	197	0.0011		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0911 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	309.4	-	349.4	108		FQJ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	309.4	-	349.4	0.12		FQ	#	0.1	
Arsenic	mg/L	08/17/2011	N001	309.4	-	349.4	0.0019		FQ	#	0.000015	
Calcium	mg/L	08/17/2011	N001	309.4	-	349.4	26		FQ	#	0.012	
Chloride	mg/L	08/17/2011	N001	309.4	-	349.4	6.5		FQ	#	0.2	
Iron	mg/L	08/17/2011	N001	309.4	-	349.4	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	309.4	-	349.4	5.3		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	309.4	-	349.4	0.0002	B	UFQJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	309.4	-	349.4	0.0002		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	309.4	-	349.4	3.1		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	309.4	-	349.4	221.7		FQ	#		
pH	s.u.	08/17/2011	N001	309.4	-	349.4	8.12		FQ	#		
Potassium	mg/L	08/17/2011	N001	309.4	-	349.4	1.2		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	309.4	-	349.4	0.00094		FQ	#	0.000032	
Silica	mg/L	08/17/2011	N001	309.4	-	349.4	12		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	309.4	-	349.4	5.6		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	309.4	-	349.4	6.1		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	309.4	-	349.4	216		FQ	#		
Sulfate	mg/L	08/17/2011	N001	309.4	-	349.4	8.8		FQ	#	0.5	
Temperature	C	08/17/2011	N001	309.4	-	349.4	18.56		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	309.4	-	349.4	130		FQJ	#	20	
Turbidity	NTU	08/17/2011	N001	309.4	-	349.4	3.22		FQ	#		
Uranium	mg/L	08/17/2011	N001	309.4	-	349.4	0.0013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0912 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	123	-	163	284		FQ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	123	-	163	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	123	-	163	0.00093		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	123	-	163	300		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	123	-	163	29		FQ	#	2	
Iron	mg/L	08/16/2011	N001	123	-	163	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	123	-	163	69		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	123	-	163	0.00096	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	123	-	163	0.000055	B	FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	123	-	163	69		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/16/2011	N001	123	-	163	231.8		FQ	#		
pH	s.u.	08/16/2011	N001	123	-	163	6.74		FQ	#		
Potassium	mg/L	08/16/2011	N001	123	-	163	5.7		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	123	-	163	0.0066		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	123	-	163	14		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	123	-	163	6.4		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	123	-	163	69		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	123	-	163	1865		FQ	#		
Sulfate	mg/L	08/16/2011	N001	123	-	163	520		FQ	#	5	
Temperature	C	08/16/2011	N001	123	-	163	18.05		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	123	-	163	1700		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	123	-	163	0.96		FQ	#		
Uranium	mg/L	08/16/2011	N001	123	-	163	0.024		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0913 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	328.7	-	368.7	69		FQ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	328.7	-	368.7	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	328.7	-	368.7	0.0023		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	328.7	-	368.7	25		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	328.7	-	368.7	5.2		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	328.7	-	368.7	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	328.7	-	368.7	5		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	328.7	-	368.7	0.00011	U	FQJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	328.7	-	368.7	0.00011		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	328.7	-	368.7	2.9		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	328.7	-	368.7	204.5		FQ	#		
pH	s.u.	08/16/2011	N001	328.7	-	368.7	8.04		FQ	#		
Potassium	mg/L	08/16/2011	N001	328.7	-	368.7	1.4		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	328.7	-	368.7	0.00091		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	328.7	-	368.7	10		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	328.7	-	368.7	4.8		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	328.7	-	368.7	6.7		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	328.7	-	368.7	191		FQ	#		
Sulfate	mg/L	08/16/2011	N001	328.7	-	368.7	7.4		FQ	#	0.5	
Temperature	C	08/16/2011	N001	328.7	-	368.7	17.59		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	328.7	-	368.7	120		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	328.7	-	368.7	1.29		FQ	#		
Uranium	mg/L	08/16/2011	N001	328.7	-	368.7	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0914 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	137.2	-	154.2	35		FQG	#		
Ammonia Total as N	mg/L	08/16/2011	N001	137.2	-	154.2	0.1	U	FQG	#	0.1	
Arsenic	mg/L	08/16/2011	N001	137.2	-	154.2	0.00061		FQG	#	0.000015	
Calcium	mg/L	08/16/2011	N001	137.2	-	154.2	7.1		FQG	#	0.012	
Chloride	mg/L	08/16/2011	N001	137.2	-	154.2	11		FQG	#	0.2	
Iron	mg/L	08/16/2011	N001	137.2	-	154.2	0.0049	U	FQG J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	137.2	-	154.2	0.51	B	FQG	#	0.013	
Manganese	mg/L	08/16/2011	N001	137.2	-	154.2	0.00011	U	FQG J	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	137.2	-	154.2	0.00085		FQG	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	137.2	-	154.2	2.7		FQG	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	137.2	-	154.2	-104.4		RFQ G	#		
pH	s.u.	08/16/2011	N001	137.2	-	154.2	9.83		FQG	#		
Potassium	mg/L	08/16/2011	N001	137.2	-	154.2	4.7		FQG	#	0.11	
Selenium	mg/L	08/16/2011	N001	137.2	-	154.2	0.0011		FQG	#	0.000032	
Silica	mg/L	08/16/2011	N001	137.2	-	154.2	31		FQG	#	0.0095	
Silicon	mg/L	08/16/2011	N001	137.2	-	154.2	15		FQG	#	0.0044	
Sodium	mg/L	08/16/2011	N001	137.2	-	154.2	17	E	FQG	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	137.2	-	154.2	250		FQG	#		
Sulfate	mg/L	08/16/2011	N001	137.2	-	154.2	12		FQG	#	0.5	
Temperature	C	08/16/2011	N001	137.2	-	154.2	18.45		FQG	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	137.2	-	154.2	130		FQG	#	20	
Turbidity	NTU	08/16/2011	N001	137.2	-	154.2	1.74		FQG	#		
Uranium	mg/L	08/16/2011	N001	137.2	-	154.2	0.000041		FQG	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0915 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	170	-	180	22		FQG	#		
Ammonia Total as N	mg/L	08/16/2011	N001	170	-	180	0.1	U	FQG	#	0.1	
Arsenic	mg/L	08/16/2011	N001	170	-	180	0.000047	B	FQG	#	0.000015	
Calcium	mg/L	08/16/2011	N001	170	-	180	20		FQG	#	0.012	
Chloride	mg/L	08/16/2011	N001	170	-	180	12		FQG	#	0.2	
Iron	mg/L	08/16/2011	N001	170	-	180	0.0049	U	FQG J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	170	-	180	0.49	B	FQG	#	0.013	
Manganese	mg/L	08/16/2011	N001	170	-	180	0.00011	U	FQG J	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	170	-	180	0.00056		FQG	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	170	-	180	3.2		FQG	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	170	-	180	-111		RFQ G	#		
pH	s.u.	08/16/2011	N001	170	-	180	10.8		FQG	#		
Potassium	mg/L	08/16/2011	N001	170	-	180	1.9		FQG	#	0.11	
Selenium	mg/L	08/16/2011	N001	170	-	180	0.0016		FQG	#	0.000032	
Silica	mg/L	08/16/2011	N001	170	-	180	6.4		FQG	#	0.0095	
Silicon	mg/L	08/16/2011	N001	170	-	180	3		FQG	#	0.0044	
Sodium	mg/L	08/16/2011	N001	170	-	180	12		FQG	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	170	-	180	360		FQG	#		
Sulfate	mg/L	08/16/2011	N001	170	-	180	16		FQG	#	0.5	
Temperature	C	08/16/2011	N001	170	-	180	19.04		FQG	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	170	-	180	100		FQG	#	20	
Turbidity	NTU	08/16/2011	N001	170	-	180	2.64		FQG	#		
Uranium	mg/L	08/16/2011	N001	170	-	180	0.0000029	U	FQG	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0916 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	345.7	-	355.7	214		FQG	#		
Ammonia Total as N	mg/L	08/16/2011	N001	345.7	-	355.7	0.1	U	FQG	#	0.1	
Arsenic	mg/L	08/16/2011	N001	345.7	-	355.7	0.00016		FQG	#	0.000015	
Calcium	mg/L	08/16/2011	N001	345.7	-	355.7	88		FQG	#	0.012	
Chloride	mg/L	08/16/2011	N001	345.7	-	355.7	7.3		FQG	#	0.2	
Iron	mg/L	08/16/2011	N001	345.7	-	355.7	0.0049	U	FQG J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	345.7	-	355.7	0.013	U	FQG J	#	0.013	
Manganese	mg/L	08/16/2011	N001	345.7	-	355.7	0.00011	U	FQG J	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	345.7	-	355.7	0.00096		FQG	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	345.7	-	355.7	1.9		FQG	#	0.01	
Oxidation Reduction Potential	mV	08/16/2011	N001	345.7	-	355.7	-119.8		RFQ G	#		
pH	s.u.	08/16/2011	N001	345.7	-	355.7	11.59		FQG	#		
Potassium	mg/L	08/16/2011	N001	345.7	-	355.7	6.1		FQG	#	0.11	
Selenium	mg/L	08/16/2011	N001	345.7	-	355.7	0.00085		FQG	#	0.000032	
Silica	mg/L	08/16/2011	N001	345.7	-	355.7	14		FQG	#	0.0095	
Silicon	mg/L	08/16/2011	N001	345.7	-	355.7	6.8		FQG	#	0.0044	
Sodium	mg/L	08/16/2011	N001	345.7	-	355.7	17		FQG	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	345.7	-	355.7	1137		FQG	#		
Sulfate	mg/L	08/16/2011	N001	345.7	-	355.7	8.4		FQG	#	0.5	
Temperature	C	08/16/2011	N001	345.7	-	355.7	17.85		FQG	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	345.7	-	355.7	280		FQG	#	20	
Turbidity	NTU	08/16/2011	N001	345.7	-	355.7	1.99		FQG	#		
Uranium	mg/L	08/16/2011	N001	345.7	-	355.7	0.000013		FQG	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0920 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	114.4	-	154.4	149		FJ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	114.4	-	154.4	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	114.4	-	154.4	0.0023		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	114.4	-	154.4	32		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	114.4	-	154.4	8.8		F	#	0.2	
Iron	mg/L	08/17/2011	N001	114.4	-	154.4	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	114.4	-	154.4	6.9		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	114.4	-	154.4	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	114.4	-	154.4	0.00023		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	114.4	-	154.4	3.3		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	114.4	-	154.4	139		F	#		
pH	s.u.	08/17/2011	N001	114.4	-	154.4	8.03		F	#		
Potassium	mg/L	08/17/2011	N001	114.4	-	154.4	1.3		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	114.4	-	154.4	0.0013		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	114.4	-	154.4	11		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	114.4	-	154.4	5		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	114.4	-	154.4	6.4		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	114.4	-	154.4	256		F	#		
Sulfate	mg/L	08/17/2011	N001	114.4	-	154.4	12		F	#	0.5	
Temperature	C	08/17/2011	N001	114.4	-	154.4	17.68		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	114.4	-	154.4	170		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	114.4	-	154.4	0.9		F	#		
Uranium	mg/L	08/17/2011	N001	114.4	-	154.4	0.0014		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0921 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	313.2	-	353.2	147		FJ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	313.2	-	353.2	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	313.2	-	353.2	0.00023		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	313.2	-	353.2	24		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	313.2	-	353.2	6.1		F	#	0.2	
Iron	mg/L	08/17/2011	N001	313.2	-	353.2	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	313.2	-	353.2	3.5		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	313.2	-	353.2	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	313.2	-	353.2	0.00017		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	313.2	-	353.2	2.5		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	313.2	-	353.2	158.8		F	#		
pH	s.u.	08/17/2011	N001	313.2	-	353.2	8.23		F	#		
Potassium	mg/L	08/17/2011	N001	313.2	-	353.2	4.7		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	313.2	-	353.2	0.00087		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	313.2	-	353.2	8.9		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	313.2	-	353.2	4.2		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	313.2	-	353.2	7.6	E	F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	313.2	-	353.2	210		F	#		
Sulfate	mg/L	08/17/2011	N001	313.2	-	353.2	8.2		F	#	0.5	
Temperature	C	08/17/2011	N001	313.2	-	353.2	18.61		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	313.2	-	353.2	130		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	313.2	-	353.2	0.7		F	#		
Uranium	mg/L	08/17/2011	N001	313.2	-	353.2	0.0047		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0929 WELL No Log Information.

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	48.2	-	88.2	119		FQJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	48.2	-	88.2	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	48.2	-	88.2	0.0015		FQ	#	0.000015	
Calcium	mg/L	08/16/2011	N001	48.2	-	88.2	51		FQ	#	0.012	
Chloride	mg/L	08/16/2011	N001	48.2	-	88.2	16		FQ	#	0.2	
Iron	mg/L	08/16/2011	N001	48.2	-	88.2	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	48.2	-	88.2	8.8		FQ	#	0.013	
Manganese	mg/L	08/16/2011	N001	48.2	-	88.2	0.00011	U	FQJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	48.2	-	88.2	0.00029		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	48.2	-	88.2	15		FQ	#	0.1	
Oxidation Reduction Potential	mV	08/16/2011	N001	48.2	-	88.2	230.6		FQ	#		
pH	s.u.	08/16/2011	N001	48.2	-	88.2	7.5		FQ	#		
Potassium	mg/L	08/16/2011	N001	48.2	-	88.2	1.5		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	48.2	-	88.2	0.0023		FQ	#	0.000032	
Silica	mg/L	08/16/2011	N001	48.2	-	88.2	12		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	48.2	-	88.2	5.5		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	48.2	-	88.2	11		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	48.2	-	88.2	401		FQ	#		
Sulfate	mg/L	08/16/2011	N001	48.2	-	88.2	26		FQ	#	0.5	
Temperature	C	08/16/2011	N001	48.2	-	88.2	20.7		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	48.2	-	88.2	260		FQ	#	20	
Turbidity	NTU	08/16/2011	N001	48.2	-	88.2	1.2		FQ	#		
Uranium	mg/L	08/16/2011	N001	48.2	-	88.2	0.0015		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0930 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	20	-	50	116		FJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	20	-	50	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	20	-	50	0.0015		F	#	0.000015	
Calcium	mg/L	08/16/2011	N001	20	-	50	66		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	20	-	50	21		F	#	0.4	
Iron	mg/L	08/16/2011	N001	20	-	50	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	20	-	50	15		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	20	-	50	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	20	-	50	0.00016		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	20	-	50	15		F	#	0.1	
Oxidation Reduction Potential	mV	08/16/2011	N001	20	-	50	230.5		F	#		
pH	s.u.	08/16/2011	N001	20	-	50	7.73		F	#		
Potassium	mg/L	08/16/2011	N001	20	-	50	1.8		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	20	-	50	0.0018		F	#	0.000032	
Silica	mg/L	08/16/2011	N001	20	-	50	13		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	20	-	50	5.9		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	20	-	50	11		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	20	-	50	516		F	#		
Sulfate	mg/L	08/16/2011	N001	20	-	50	78		F	#	0.5	
Temperature	C	08/16/2011	N001	20	-	50	17.11		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	20	-	50	340		F	#	20	
Turbidity	NTU	08/16/2011	N001	20	-	50	1.21		F	#		
Uranium	mg/L	08/16/2011	N001	20	-	50	0.0033		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0932 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	112.5	-	132.5	97		F	#		
Ammonia Total as N	mg/L	08/16/2011	N001	112.5	-	132.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	112.5	-	132.5	0.0017		F	#	0.000015	
Calcium	mg/L	08/16/2011	N001	112.5	-	132.5	46		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	112.5	-	132.5	12		F	#	0.2	
Iron	mg/L	08/16/2011	N001	112.5	-	132.5	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	112.5	-	132.5	9.1		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	112.5	-	132.5	0.00089	B	F	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	112.5	-	132.5	0.00029		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	112.5	-	132.5	6.7		F	#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	112.5	-	132.5	206.3		F	#		
pH	s.u.	08/16/2011	N001	112.5	-	132.5	7.77		F	#		
Potassium	mg/L	08/16/2011	N001	112.5	-	132.5	1.4		F	#	0.11	
Selenium	mg/L	08/16/2011	N001	112.5	-	132.5	0.0015		F	#	0.000032	
Silica	mg/L	08/16/2011	N001	112.5	-	132.5	12		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	112.5	-	132.5	5.7		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	112.5	-	132.5	10		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	112.5	-	132.5	335		F	#		
Sulfate	mg/L	08/16/2011	N001	112.5	-	132.5	30		F	#	0.5	
Temperature	C	08/16/2011	N001	112.5	-	132.5	19.88		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	112.5	-	132.5	210		F	#	20	
Turbidity	NTU	08/16/2011	N001	112.5	-	132.5	0.95		F	#		
Uranium	mg/L	08/16/2011	N001	112.5	-	132.5	0.0022		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0934 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	45	-	90	696		FQJ	#		
Ammonia Total as N	mg/L	08/16/2011	N001	45	-	90	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/16/2011	N001	45	-	90	0.00084		FQ	#	0.000074	
Calcium	mg/L	08/16/2011	N001	45	-	90	680		FQ	#	0.12	
Chloride	mg/L	08/16/2011	N001	45	-	90	220		FQ	#	10	
Iron	mg/L	08/16/2011	N001	45	-	90	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	45	-	90	810		FQ	#	0.13	
Manganese	mg/L	08/16/2011	N001	45	-	90	0.0059		FQ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	45	-	90	0.0013		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	45	-	90	360		FQ	#	2	
Oxidation Reduction Potential	mV	08/16/2011	N001	45	-	90	224.6		FQ	#		
pH	s.u.	08/16/2011	N001	45	-	90	6.58		FQ	#		
Potassium	mg/L	08/16/2011	N001	45	-	90	11		FQ	#	0.11	
Selenium	mg/L	08/16/2011	N001	45	-	90	0.014		FQ	#	0.00032	
Silica	mg/L	08/16/2011	N001	45	-	90	16		FQ	#	0.0095	
Silicon	mg/L	08/16/2011	N001	45	-	90	7.6		FQ	#	0.0044	
Sodium	mg/L	08/16/2011	N001	45	-	90	140		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	45	-	90	7114		FQ	#		
Sulfate	mg/L	08/16/2011	N001	45	-	90	2800		FQ	#	25	
Temperature	C	08/16/2011	N001	45	-	90	20.53		FQ	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	45	-	90	7900		FQ	#	400	
Turbidity	NTU	08/16/2011	N001	45	-	90	1.17		FQ	#		
Uranium	mg/L	08/16/2011	N001	45	-	90	0.17		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0935 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	50	-	90	655			#		
Ammonia Total as N	mg/L	08/16/2011	N001	50	-	90	68			#	2	
Arsenic	mg/L	08/16/2011	N001	50	-	90	0.0014			#	0.00015	
Arsenic	mg/L	08/16/2011	N002	50	-	90	0.0015			#	0.00003	
Calcium	mg/L	08/16/2011	N001	50	-	90	690			#	0.12	
Calcium	mg/L	08/16/2011	N002	50	-	90	680			#	0.12	
Chloride	mg/L	08/16/2011	N001	50	-	90	79			#	10	
Chloride	mg/L	08/16/2011	N002	50	-	90	78			#	10	
Iron	mg/L	08/16/2011	N001	50	-	90	0.026	B	U	#	0.0049	
Iron	mg/L	08/16/2011	N002	50	-	90	0.066	B		#	0.0049	
Magnesium	mg/L	08/16/2011	N001	50	-	90	330			#	0.013	
Magnesium	mg/L	08/16/2011	N002	50	-	90	330			#	0.013	
Manganese	mg/L	08/16/2011	N001	50	-	90	0.79			#	0.00011	
Manganese	mg/L	08/16/2011	N002	50	-	90	0.79			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	50	-	90	0.00032	U		#	0.00032	
Molybdenum	mg/L	08/16/2011	N002	50	-	90	0.00011	B	U	#	0.000064	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	50	-	90	250			#	2	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N002	50	-	90	260			#	2	
Oxidation Reduction Potential	mV	08/16/2011	N001	50	-	90	260			#		
pH	s.u.	08/16/2011	N001	50	-	90	6.49			#		
Potassium	mg/L	08/16/2011	N001	50	-	90	28			#	0.11	
Potassium	mg/L	08/16/2011	N002	50	-	90	27			#	0.11	
Selenium	mg/L	08/16/2011	N001	50	-	90	0.016			#	0.00032	
Selenium	mg/L	08/16/2011	N002	50	-	90	0.016			#	0.000065	
Silica	mg/L	08/16/2011	N001	50	-	90	20			#	0.0095	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0935 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Silicon	mg/L	08/16/2011	N001	50	-	90	9.2			#	0.0044	
Sodium	mg/L	08/16/2011	N001	50	-	90	300			#	0.066	
Sodium	mg/L	08/16/2011	N002	50	-	90	280			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	50	-	90	5935			#		
Sulfate	mg/L	08/16/2011	N001	50	-	90	2300			#	25	
Sulfate	mg/L	08/16/2011	N002	50	-	90	2400			#	25	
Temperature	C	08/16/2011	N001	50	-	90	17.7			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	50	-	90	5700			#	80	
Total Dissolved Solids	mg/L	08/16/2011	N002	50	-	90	5700		J	#	200	
Turbidity	NTU	08/16/2011	N001	50	-	90	2.71			#		
Uranium	mg/L	08/16/2011	N001	50	-	90	0.14			#	0.000029	
Uranium	mg/L	08/16/2011	N002	50	-	90	0.13			#	0.0000058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0938 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	40	-	95	832			#		
Ammonia Total as N	mg/L	08/16/2011	N001	40	-	95	0.47			#	0.1	
Arsenic	mg/L	08/16/2011	N001	40	-	95	0.0015			#	0.00015	
Calcium	mg/L	08/16/2011	N001	40	-	95	920			#	0.12	
Chloride	mg/L	08/16/2011	N001	40	-	95	170			#	10	
Iron	mg/L	08/16/2011	N001	40	-	95	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	40	-	95	450			#	0.013	
Manganese	mg/L	08/16/2011	N001	40	-	95	0.73			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	40	-	95	0.0034			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	40	-	95	330			#	2	
Oxidation Reduction Potential	mV	08/16/2011	N001	40	-	95	215			#		
pH	s.u.	08/16/2011	N001	40	-	95	6.6			#		
Potassium	mg/L	08/16/2011	N001	40	-	95	18			#	0.11	
Selenium	mg/L	08/16/2011	N001	40	-	95	0.065			#	0.00032	
Silica	mg/L	08/16/2011	N001	40	-	95	14			#	0.0095	
Silicon	mg/L	08/16/2011	N001	40	-	95	6.6			#	0.0044	
Sodium	mg/L	08/16/2011	N001	40	-	95	340			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	40	-	95	7025			#		
Sulfate	mg/L	08/16/2011	N001	40	-	95	2600			#	25	
Temperature	C	08/16/2011	N001	40	-	95	17.9			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	40	-	95	7700			#	80	
Turbidity	NTU	08/16/2011	N001	40	-	95	1.71			#		
Uranium	mg/L	08/16/2011	N001	40	-	95	0.37			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0940 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	45	-	60	818		FQ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	45	-	60	16		FQ	#	0.5	
Arsenic	mg/L	08/17/2011	N001	45	-	60	0.0024		FQ	#	0.00015	
Calcium	mg/L	08/17/2011	N001	45	-	60	460		FQ	#	0.012	
Chloride	mg/L	08/17/2011	N001	45	-	60	170		FQ	#	20	
Iron	mg/L	08/17/2011	N001	45	-	60	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	45	-	60	2200		FQ	#	0.13	
Manganese	mg/L	08/17/2011	N001	45	-	60	22		FQ	#	0.0011	
Molybdenum	mg/L	08/17/2011	N001	45	-	60	0.0015		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	45	-	60	440		FQ	#	5	
Oxidation Reduction Potential	mV	08/17/2011	N001	45	-	60	165		FQ	#		
pH	s.u.	08/17/2011	N001	45	-	60	6.59		FQ	#		
Potassium	mg/L	08/17/2011	N001	45	-	60	39		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	45	-	60	0.064		FQ	#	0.00032	
Silica	mg/L	08/17/2011	N001	45	-	60	15		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	45	-	60	6.9		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	45	-	60	380		FQ	#	0.066	
Specific Conductance	umhos /cm	08/17/2011	N001	45	-	60	12220		FQ	#		
Sulfate	mg/L	08/17/2011	N001	45	-	60	8200		FQ	#	50	
Temperature	C	08/17/2011	N001	45	-	60	19.2		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	45	-	60	16000		FQJ	#	200	
Turbidity	NTU	08/17/2011	N001	45	-	60	3.6		FQ	#		
Uranium	mg/L	08/17/2011	N001	45	-	60	0.39		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0941 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	45	-	65	720		FQ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	45	-	65	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/17/2011	N001	45	-	65	0.0018		FQ	#	0.00015	
Calcium	mg/L	08/17/2011	N001	45	-	65	890		FQ	#	0.12	
Chloride	mg/L	08/17/2011	N001	45	-	65	180		FQ	#	10	
Iron	mg/L	08/17/2011	N001	45	-	65	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	45	-	65	140		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	45	-	65	0.044		FQ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	45	-	65	0.026		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	45	-	65	250		FQ	#	2	
Oxidation Reduction Potential	mV	08/17/2011	N001	45	-	65	140		FQ	#		
pH	s.u.	08/17/2011	N001	45	-	65	6.68		FQ	#		
Potassium	mg/L	08/17/2011	N001	45	-	65	8.3		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	45	-	65	0.11		FQ	#	0.00032	
Silica	mg/L	08/17/2011	N001	45	-	65	17		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	45	-	65	7.8		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	45	-	65	160		FQ	#	0.066	
Specific Conductance	umhos /cm	08/17/2011	N001	45	-	65	4745		FQ	#		
Sulfate	mg/L	08/17/2011	N001	45	-	65	1400		FQ	#	25	
Temperature	C	08/17/2011	N001	45	-	65	18.3		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	45	-	65	5200		FQJ	#	80	
Turbidity	NTU	08/17/2011	N001	45	-	65	4.87		FQ	#		
Uranium	mg/L	08/17/2011	N001	45	-	65	0.23		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0942 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	54	-	74	625			#		
Ammonia Total as N	mg/L	08/16/2011	N001	54	-	74	110			#	5	
Arsenic	mg/L	08/16/2011	N001	54	-	74	0.0023			#	0.00015	
Calcium	mg/L	08/16/2011	N001	54	-	74	550			#	0.12	
Chloride	mg/L	08/16/2011	N001	54	-	74	160			#	10	
Iron	mg/L	08/16/2011	N001	54	-	74	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	54	-	74	390			#	0.013	
Manganese	mg/L	08/16/2011	N001	54	-	74	4			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	54	-	74	0.0051			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	54	-	74	140			#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	54	-	74	245			#		
pH	s.u.	08/16/2011	N001	54	-	74	6.39			#		
Potassium	mg/L	08/16/2011	N001	54	-	74	35			#	0.11	
Selenium	mg/L	08/16/2011	N001	54	-	74	0.055			#	0.00032	
Silica	mg/L	08/16/2011	N001	54	-	74	16			#	0.0095	
Silicon	mg/L	08/16/2011	N001	54	-	74	7.4			#	0.0044	
Sodium	mg/L	08/16/2011	N001	54	-	74	470			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	54	-	74	6750			#		
Sulfate	mg/L	08/16/2011	N001	54	-	74	3200			#	25	
Temperature	C	08/16/2011	N001	54	-	74	17.9			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	54	-	74	6300			#	80	
Turbidity	NTU	08/16/2011	N001	54	-	74	2.29			#		
Uranium	mg/L	08/16/2011	N001	54	-	74	0.4			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0943 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	101	-	121	40		F	#		
Ammonia Total as N	mg/L	08/17/2011	N001	101	-	121	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	101	-	121	0.005		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	101	-	121	9		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	101	-	121	1.6		F	#	0.2	
Iron	mg/L	08/17/2011	N001	101	-	121	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	101	-	121	1.9		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	101	-	121	0.021		F	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	101	-	121	0.00051		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	101	-	121	2		F	#	0.02	
Oxidation Reduction Potential	mV	08/17/2011	N001	101	-	121	204		F	#		
pH	s.u.	08/17/2011	N001	101	-	121	7.08		F	#		
Potassium	mg/L	08/17/2011	N001	101	-	121	0.77	B	FJ	#	0.11	
Selenium	mg/L	08/17/2011	N001	101	-	121	0.00026		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	101	-	121	16		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	101	-	121	7.3		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	101	-	121	13		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	101	-	121	136		F	#		
Sulfate	mg/L	08/17/2011	N001	101	-	121	17		F	#	0.5	
Temperature	C	08/17/2011	N001	101	-	121	21.09		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	101	-	121	100		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	101	-	121	0.75		F	#		
Uranium	mg/L	08/17/2011	N001	101	-	121	0.0062		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0945 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	110	-	130	113		FQ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	110	-	130	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/17/2011	N001	110	-	130	0.002		FQ	#	0.000015	
Calcium	mg/L	08/17/2011	N001	110	-	130	51		FQ	#	0.012	
Chloride	mg/L	08/17/2011	N001	110	-	130	41		FQ	#	1	
Iron	mg/L	08/17/2011	N001	110	-	130	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	110	-	130	10		FQ	#	0.013	
Manganese	mg/L	08/17/2011	N001	110	-	130	0.0025	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	110	-	130	0.00062		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	110	-	130	5		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	110	-	130	390		FQ	#		
pH	s.u.	08/17/2011	N001	110	-	130	7.87		FQ	#		
Potassium	mg/L	08/17/2011	N001	110	-	130	1.6		FQ	#	0.11	
Selenium	mg/L	08/17/2011	N001	110	-	130	0.0037		FQ	#	0.000032	
Silica	mg/L	08/17/2011	N001	110	-	130	12		FQ	#	0.0095	
Silicon	mg/L	08/17/2011	N001	110	-	130	5.7		FQ	#	0.0044	
Sodium	mg/L	08/17/2011	N001	110	-	130	14		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	110	-	130	400		FQ	#		
Sulfate	mg/L	08/17/2011	N001	110	-	130	31		FQ	#	1	
Temperature	C	08/17/2011	N001	110	-	130	18.6		FQ	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	110	-	130	280		FQJ	#	20	
Turbidity	NTU	08/17/2011	N001	110	-	130	2.39		FQ	#		
Uranium	mg/L	08/17/2011	N001	110	-	130	0.0013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0946 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	40	-	60	100		F	#		
Ammonia Total as N	mg/L	08/16/2011	N001	40	-	60	0.1	U	F	#	0.1	
Arsenic	mg/L	08/16/2011	N001	40	-	60	0.013		F	#	0.000015	
Calcium	mg/L	08/16/2011	N001	40	-	60	12		F	#	0.012	
Chloride	mg/L	08/16/2011	N001	40	-	60	5.5		F	#	0.2	
Iron	mg/L	08/16/2011	N001	40	-	60	0.016	B	UFJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	40	-	60	2.1		F	#	0.013	
Manganese	mg/L	08/16/2011	N001	40	-	60	0.0027	B	F	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	40	-	60	0.00032		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	40	-	60	1.6		F	#	0.01	
Oxidation Reduction Potential	mV	08/16/2011	N001	40	-	60	160		F	#		
pH	s.u.	08/16/2011	N001	40	-	60	8.4		F	#		
Potassium	mg/L	08/16/2011	N001	40	-	60	0.46	B	FJ	#	0.11	
Selenium	mg/L	08/16/2011	N001	40	-	60	0.00041		F	#	0.000032	
Silica	mg/L	08/16/2011	N001	40	-	60	12		F	#	0.0095	
Silicon	mg/L	08/16/2011	N001	40	-	60	5.8		F	#	0.0044	
Sodium	mg/L	08/16/2011	N001	40	-	60	16		F	#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	40	-	60	170		F	#		
Sulfate	mg/L	08/16/2011	N001	40	-	60	20		F	#	0.5	
Temperature	C	08/16/2011	N001	40	-	60	21.7		F	#		
Total Dissolved Solids	mg/L	08/16/2011	N001	40	-	60	130		FJ	#	20	
Turbidity	NTU	08/16/2011	N001	40	-	60	5.35		F	#		
Uranium	mg/L	08/16/2011	N001	40	-	60	0.000084		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 0947 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/15/2011	N001	105	-	125	83		FQ	#		
Ammonia Total as N	mg/L	08/15/2011	N001	105	-	125	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/15/2011	N001	105	-	125	0.0028		FQ	#	0.000015	
Calcium	mg/L	08/15/2011	N001	105	-	125	34		FQ	#	0.012	
Chloride	mg/L	08/15/2011	N001	105	-	125	12		FQ	#	0.2	
Iron	mg/L	08/15/2011	N001	105	-	125	0.0049	U	FQJ	#	0.0049	
Magnesium	mg/L	08/15/2011	N001	105	-	125	6.7		FQ	#	0.013	
Manganese	mg/L	08/15/2011	N001	105	-	125	0.00022	B	FQJ	#	0.00011	
Molybdenum	mg/L	08/15/2011	N001	105	-	125	0.00041		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/15/2011	N001	105	-	125	2.9		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/15/2011	N001	105	-	125	34.9		RFQ	#		
pH	s.u.	08/15/2011	N001	105	-	125	7.8		FQ	#		
Potassium	mg/L	08/15/2011	N001	105	-	125	0.98	B	FQJ	#	0.11	
Selenium	mg/L	08/15/2011	N001	105	-	125	0.0016		FQ	#	0.000032	
Silica	mg/L	08/15/2011	N001	105	-	125	12		FQ	#	0.0095	
Silicon	mg/L	08/15/2011	N001	105	-	125	5.4		FQ	#	0.0044	
Sodium	mg/L	08/15/2011	N001	105	-	125	9.6		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/15/2011	N001	105	-	125	349		FQ	#		
Sulfate	mg/L	08/15/2011	N001	105	-	125	16		FQ	#	0.5	
Temperature	C	08/15/2011	N001	105	-	125	18.56		FQ	#		
Total Dissolved Solids	mg/L	08/15/2011	N001	105	-	125	160		FQJ	#	20	
Turbidity	NTU	08/15/2011	N001	105	-	125	1.28		FQ	#		
Uranium	mg/L	08/15/2011	N001	105	-	125	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1003 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	55.5	-	105.5	253		FJ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	55.5	-	105.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	55.5	-	105.5	0.0013		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	55.5	-	105.5	310		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	55.5	-	105.5	56		F	#	4	
Iron	mg/L	08/17/2011	N001	55.5	-	105.5	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	55.5	-	105.5	46		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	55.5	-	105.5	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	55.5	-	105.5	0.00014		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	55.5	-	105.5	61		F	#	0.5	
Oxidation Reduction Potential	mV	08/17/2011	N001	55.5	-	105.5	193		F	#		
pH	s.u.	08/17/2011	N001	55.5	-	105.5	7.26		F	#		
Potassium	mg/L	08/17/2011	N001	55.5	-	105.5	4		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	55.5	-	105.5	0.0037		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	55.5	-	105.5	13		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	55.5	-	105.5	6.3		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	55.5	-	105.5	34		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	55.5	-	105.5	1734		F	#		
Sulfate	mg/L	08/17/2011	N001	55.5	-	105.5	520		F	#	10	
Temperature	C	08/17/2011	N001	55.5	-	105.5	19.03		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	55.5	-	105.5	1400		FJ	#	40	
Turbidity	NTU	08/17/2011	N001	55.5	-	105.5	2.83		F	#		
Uranium	mg/L	08/17/2011	N001	55.5	-	105.5	0.039		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1004 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	45.5	-	95.5	149		FJ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	45.5	-	95.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	45.5	-	95.5	0.0025		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	45.5	-	95.5	51		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	45.5	-	95.5	13		F	#	0.4	
Iron	mg/L	08/17/2011	N001	45.5	-	95.5	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	45.5	-	95.5	9.2		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	45.5	-	95.5	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	45.5	-	95.5	0.00035		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	45.5	-	95.5	6.6		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	45.5	-	95.5	191.9		F	#		
pH	s.u.	08/17/2011	N001	45.5	-	95.5	7.63		F	#		
Potassium	mg/L	08/17/2011	N001	45.5	-	95.5	1.1		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	45.5	-	95.5	0.0017		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	45.5	-	95.5	12		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	45.5	-	95.5	5.5		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	45.5	-	95.5	11		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	45.5	-	95.5	390		F	#		
Sulfate	mg/L	08/17/2011	N001	45.5	-	95.5	43		F	#	1	
Temperature	C	08/17/2011	N001	45.5	-	95.5	17.99		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	45.5	-	95.5	240		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	45.5	-	95.5	1.36		F	#		
Uranium	mg/L	08/17/2011	N001	45.5	-	95.5	0.0049		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1006 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	45.74	-	95.74	142		FJ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	45.74	-	95.74	0.11		F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	45.74	-	95.74	0.0017		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	45.74	-	95.74	26		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	45.74	-	95.74	8.4		F	#	0.2	
Iron	mg/L	08/17/2011	N001	45.74	-	95.74	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	45.74	-	95.74	7		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	45.74	-	95.74	0.00016	B	UFJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	45.74	-	95.74	0.00029		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	45.74	-	95.74	3		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	45.74	-	95.74	185.8		F	#		
pH	s.u.	08/17/2011	N001	45.74	-	95.74	8.08		F	#		
Potassium	mg/L	08/17/2011	N001	45.74	-	95.74	1.7		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	45.74	-	95.74	0.0012		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	45.74	-	95.74	12		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	45.74	-	95.74	5.4		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	45.74	-	95.74	6.9		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	45.74	-	95.74	236		F	#		
Sulfate	mg/L	08/17/2011	N001	45.74	-	95.74	11		F	#	0.5	
Temperature	C	08/17/2011	N001	45.74	-	95.74	19.59		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	45.74	-	95.74	150		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	45.74	-	95.74	0.56		F	#		
Uranium	mg/L	08/17/2011	N001	45.74	-	95.74	0.0013		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1007 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	45.79	-	95.99	126		FJ	#		
Ammonia Total as N	mg/L	08/17/2011	N001	45.79	-	95.99	0.1	U	F	#	0.1	
Arsenic	mg/L	08/17/2011	N001	45.79	-	95.99	0.0019		F	#	0.000015	
Calcium	mg/L	08/17/2011	N001	45.79	-	95.99	29		F	#	0.012	
Chloride	mg/L	08/17/2011	N001	45.79	-	95.99	8.4		F	#	0.2	
Iron	mg/L	08/17/2011	N001	45.79	-	95.99	0.0049	U	FJ	#	0.0049	
Magnesium	mg/L	08/17/2011	N001	45.79	-	95.99	7		F	#	0.013	
Manganese	mg/L	08/17/2011	N001	45.79	-	95.99	0.00011	U	FJ	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	45.79	-	95.99	0.00021		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	45.79	-	95.99	3.3		F	#	0.05	
Oxidation Reduction Potential	mV	08/17/2011	N001	45.79	-	95.99	191.3		F	#		
pH	s.u.	08/17/2011	N001	45.79	-	95.99	8.02		F	#		
Potassium	mg/L	08/17/2011	N001	45.79	-	95.99	1.4		F	#	0.11	
Selenium	mg/L	08/17/2011	N001	45.79	-	95.99	0.0013		F	#	0.000032	
Silica	mg/L	08/17/2011	N001	45.79	-	95.99	12		F	#	0.0095	
Silicon	mg/L	08/17/2011	N001	45.79	-	95.99	5.7		F	#	0.0044	
Sodium	mg/L	08/17/2011	N001	45.79	-	95.99	5.8		F	#	0.0066	
Specific Conductance	umhos /cm	08/17/2011	N001	45.79	-	95.99	243		F	#		
Sulfate	mg/L	08/17/2011	N001	45.79	-	95.99	12		F	#	0.5	
Temperature	C	08/17/2011	N001	45.79	-	95.99	18.43		F	#		
Total Dissolved Solids	mg/L	08/17/2011	N001	45.79	-	95.99	150		FJ	#	20	
Turbidity	NTU	08/17/2011	N001	45.79	-	95.99	1.36		F	#		
Uranium	mg/L	08/17/2011	N001	45.79	-	95.99	0.0014		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1102 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	101.5 - 251.5	508			#		
Ammonia Total as N	mg/L	08/16/2011	N001	101.5 - 251.5	0.94			#	0.1	
Arsenic	mg/L	08/16/2011	N001	101.5 - 251.5	0.0019			#	0.00015	
Calcium	mg/L	08/16/2011	N001	101.5 - 251.5	730			#	0.12	
Chloride	mg/L	08/16/2011	N001	101.5 - 251.5	160			#	10	
Iron	mg/L	08/16/2011	N001	101.5 - 251.5	0.0057	B	UJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	101.5 - 251.5	180			#	0.013	
Manganese	mg/L	08/16/2011	N001	101.5 - 251.5	0.16			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	101.5 - 251.5	0.00032	U		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	101.5 - 251.5	150			#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	101.5 - 251.5	80			#		
pH	s.u.	08/16/2011	N001	101.5 - 251.5	6.62			#		
Potassium	mg/L	08/16/2011	N001	101.5 - 251.5	11			#	0.11	
Selenium	mg/L	08/16/2011	N001	101.5 - 251.5	0.037			#	0.00032	
Silica	mg/L	08/16/2011	N001	101.5 - 251.5	16			#	0.0095	
Silicon	mg/L	08/16/2011	N001	101.5 - 251.5	7.4			#	0.0044	
Sodium	mg/L	08/16/2011	N001	101.5 - 251.5	290			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	101.5 - 251.5	4820			#		
Sulfate	mg/L	08/16/2011	N001	101.5 - 251.5	2000			#	25	
Temperature	C	08/16/2011	N001	101.5 - 251.5	18.3			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	101.5 - 251.5	4800		J	#	200	
Turbidity	NTU	08/16/2011	N001	101.5 - 251.5	6.24			#		
Uranium	mg/L	08/16/2011	N001	101.5 - 251.5	0.54			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1103 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	100	-	250	498			#		
Ammonia Total as N	mg/L	08/16/2011	N001	100	-	250	28			#	2	
Arsenic	mg/L	08/16/2011	N001	100	-	250	0.0019			#	0.00015	
Calcium	mg/L	08/16/2011	N001	100	-	250	580			#	0.12	
Chloride	mg/L	08/16/2011	N001	100	-	250	120			#	10	
Iron	mg/L	08/16/2011	N001	100	-	250	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	100	-	250	250			#	0.013	
Manganese	mg/L	08/16/2011	N001	100	-	250	3.8			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	100	-	250	0.005			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	100	-	250	180			#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	100	-	250	140			#		
pH	s.u.	08/16/2011	N001	100	-	250	6.45			#		
Potassium	mg/L	08/16/2011	N001	100	-	250	20			#	0.11	
Selenium	mg/L	08/16/2011	N001	100	-	250	0.035			#	0.00032	
Silica	mg/L	08/16/2011	N001	100	-	250	15			#	0.0095	
Silicon	mg/L	08/16/2011	N001	100	-	250	6.9			#	0.0044	
Sodium	mg/L	08/16/2011	N001	100	-	250	320			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	100	-	250	5140			#		
Sulfate	mg/L	08/16/2011	N001	100	-	250	2000			#	25	
Temperature	C	08/16/2011	N001	100	-	250	17			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	100	-	250	4900		J	#	200	
Turbidity	NTU	08/16/2011	N001	100	-	250	4.52			#		
Uranium	mg/L	08/16/2011	N001	100	-	250	0.45			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1104 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	90	-	245	626			#		
Ammonia Total as N	mg/L	08/16/2011	N001	90	-	245	52			#	5	
Arsenic	mg/L	08/16/2011	N001	90	-	245	0.0029			#	0.000074	
Calcium	mg/L	08/16/2011	N001	90	-	245	650			#	0.12	
Chloride	mg/L	08/16/2011	N001	90	-	245	140			#	10	
Iron	mg/L	08/16/2011	N001	90	-	245	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	90	-	245	270			#	0.013	
Manganese	mg/L	08/16/2011	N001	90	-	245	1.3			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	90	-	245	0.029			#	0.0016	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	90	-	245	170			#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	90	-	245	210			#		
pH	s.u.	08/16/2011	N001	90	-	245	6.62			#		
Potassium	mg/L	08/16/2011	N001	90	-	245	24			#	0.11	
Selenium	mg/L	08/16/2011	N001	90	-	245	0.047			#	0.0016	
Silica	mg/L	08/16/2011	N001	90	-	245	16			#	0.0095	
Silicon	mg/L	08/16/2011	N001	90	-	245	7.5			#	0.0044	
Sodium	mg/L	08/16/2011	N001	90	-	245	420			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	90	-	245	5860			#		
Sulfate	mg/L	08/16/2011	N001	90	-	245	2400			#	25	
Temperature	C	08/16/2011	N001	90	-	245	17.2			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	90	-	245	5400		J	#	200	
Turbidity	NTU	08/16/2011	N001	90	-	245	3.7			#		
Uranium	mg/L	08/16/2011	N001	90	-	245	1.4			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1105 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	90	-	245	779			#		
Ammonia Total as N	mg/L	08/16/2011	N001	90	-	245	33			#	2	
Arsenic	mg/L	08/16/2011	N001	90	-	245	1			#	0.003	
Calcium	mg/L	08/16/2011	N001	90	-	245	730			#	0.12	
Chloride	mg/L	08/16/2011	N001	90	-	245	150			#	10	
Iron	mg/L	08/16/2011	N001	90	-	245	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	90	-	245	290			#	0.013	
Manganese	mg/L	08/16/2011	N001	90	-	245	0.3			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	90	-	245	1			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	90	-	245	240			#	2	
Oxidation Reduction Potential	mV	08/16/2011	N001	90	-	245	210			#		
pH	s.u.	08/16/2011	N001	90	-	245	6.53			#		
Potassium	mg/L	08/16/2011	N001	90	-	245	21			#	0.11	
Selenium	mg/L	08/16/2011	N001	90	-	245	0.071			#	0.0065	
Silica	mg/L	08/16/2011	N001	90	-	245	16			#	0.0095	
Silicon	mg/L	08/16/2011	N001	90	-	245	7.3			#	0.0044	
Sodium	mg/L	08/16/2011	N001	90	-	245	500			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	90	-	245	6320			#		
Sulfate	mg/L	08/16/2011	N001	90	-	245	2400			#	25	
Temperature	C	08/16/2011	N001	90	-	245	17			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	90	-	245	6200		J	#	200	
Turbidity	NTU	08/16/2011	N001	90	-	245	2.93			#		
Uranium	mg/L	08/16/2011	N001	90	-	245	2.1			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1106 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	96.5	-	251.1	435			#		
Ammonia Total as N	mg/L	08/16/2011	N001	96.5	-	251.1	35			#	2	
Arsenic	mg/L	08/16/2011	N001	96.5	-	251.1	0.32			#	0.003	
Calcium	mg/L	08/16/2011	N001	96.5	-	251.1	360			#	0.012	
Chloride	mg/L	08/16/2011	N001	96.5	-	251.1	90			#	10	
Iron	mg/L	08/16/2011	N001	96.5	-	251.1	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	96.5	-	251.1	95			#	0.013	
Manganese	mg/L	08/16/2011	N001	96.5	-	251.1	0.1			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	96.5	-	251.1	0.092			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	96.5	-	251.1	97			#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	96.5	-	251.1	200			#		
pH	s.u.	08/16/2011	N001	96.5	-	251.1	6.84			#		
Potassium	mg/L	08/16/2011	N001	96.5	-	251.1	15			#	0.11	
Selenium	mg/L	08/16/2011	N001	96.5	-	251.1	0.05			#	0.0065	
Silica	mg/L	08/16/2011	N001	96.5	-	251.1	15			#	0.0095	
Silicon	mg/L	08/16/2011	N001	96.5	-	251.1	7.2			#	0.0044	
Sodium	mg/L	08/16/2011	N001	96.5	-	251.1	240			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	96.5	-	251.1	3450			#		
Sulfate	mg/L	08/16/2011	N001	96.5	-	251.1	1100			#	25	
Temperature	C	08/16/2011	N001	96.5	-	251.1	17.1			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	96.5	-	251.1	2900		J	#	80	
Turbidity	NTU	08/16/2011	N001	96.5	-	251.1	0.94			#		
Uranium	mg/L	08/16/2011	N001	96.5	-	251.1	2			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1107 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	91.1	-	245.5	525			#		
Ammonia Total as N	mg/L	08/16/2011	N001	91.1	-	245.5	1.4			#	0.1	
Arsenic	mg/L	08/16/2011	N001	91.1	-	245.5	0.0025			#	0.00015	
Calcium	mg/L	08/16/2011	N001	91.1	-	245.5	610			#	0.12	
Chloride	mg/L	08/16/2011	N001	91.1	-	245.5	110			#	10	
Iron	mg/L	08/16/2011	N001	91.1	-	245.5	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	91.1	-	245.5	120			#	0.013	
Manganese	mg/L	08/16/2011	N001	91.1	-	245.5	0.1			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	91.1	-	245.5	0.097			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	91.1	-	245.5	160			#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	91.1	-	245.5	190			#		
pH	s.u.	08/16/2011	N001	91.1	-	245.5	6.6			#		
Potassium	mg/L	08/16/2011	N001	91.1	-	245.5	10			#	0.11	
Selenium	mg/L	08/16/2011	N001	91.1	-	245.5	0.056			#	0.00032	
Silica	mg/L	08/16/2011	N001	91.1	-	245.5	16			#	0.0095	
Silicon	mg/L	08/16/2011	N001	91.1	-	245.5	7.3			#	0.0044	
Sodium	mg/L	08/16/2011	N001	91.1	-	245.5	240			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	91.1	-	245.5	4190			#		
Sulfate	mg/L	08/16/2011	N001	91.1	-	245.5	1200			#	25	
Temperature	C	08/16/2011	N001	91.1	-	245.5	17.8			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	91.1	-	245.5	4100		J	#	200	
Turbidity	NTU	08/16/2011	N001	91.1	-	245.5	1.48			#		
Uranium	mg/L	08/16/2011	N001	91.1	-	245.5	0.26			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1108 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	96.3 - 246.3	551			#		
Ammonia Total as N	mg/L	08/16/2011	N001	96.3 - 246.3	47			#	5	
Arsenic	mg/L	08/16/2011	N001	96.3 - 246.3	0.0013			#	0.00015	
Calcium	mg/L	08/16/2011	N001	96.3 - 246.3	490			#	0.012	
Chloride	mg/L	08/16/2011	N001	96.3 - 246.3	82			#	10	
Iron	mg/L	08/16/2011	N001	96.3 - 246.3	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	96.3 - 246.3	170			#	0.013	
Manganese	mg/L	08/16/2011	N001	96.3 - 246.3	3.3			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	96.3 - 246.3	0.00043	B		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	96.3 - 246.3	110			#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	96.3 - 246.3	215			#		
pH	s.u.	08/16/2011	N001	96.3 - 246.3	6.69			#		
Potassium	mg/L	08/16/2011	N001	96.3 - 246.3	17			#	0.11	
Selenium	mg/L	08/16/2011	N001	96.3 - 246.3	0.034			#	0.00032	
Silica	mg/L	08/16/2011	N001	96.3 - 246.3	16			#	0.0095	
Silicon	mg/L	08/16/2011	N001	96.3 - 246.3	7.3			#	0.0044	
Sodium	mg/L	08/16/2011	N001	96.3 - 246.3	250			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	96.3 - 246.3	4230			#		
Sulfate	mg/L	08/16/2011	N001	96.3 - 246.3	1500			#	25	
Temperature	C	08/16/2011	N001	96.3 - 246.3	17.1			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	96.3 - 246.3	3800		J	#	200	
Turbidity	NTU	08/16/2011	N001	96.3 - 246.3	1.97			#		
Uranium	mg/L	08/16/2011	N001	96.3 - 246.3	0.76			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1111 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	90.68	-	245.1	422			#		
Ammonia Total as N	mg/L	08/16/2011	N001	90.68	-	245.1	17			#	1	
Arsenic	mg/L	08/16/2011	N001	90.68	-	245.1	0.0011			#	0.00015	
Calcium	mg/L	08/16/2011	N001	90.68	-	245.1	460			#	0.012	
Chloride	mg/L	08/16/2011	N001	90.68	-	245.1	56			#	10	
Iron	mg/L	08/16/2011	N001	90.68	-	245.1	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	90.68	-	245.1	150			#	0.013	
Manganese	mg/L	08/16/2011	N001	90.68	-	245.1	0.98			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	90.68	-	245.1	0.00032	U		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	90.68	-	245.1	110			#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	90.68	-	245.1	170			#		
pH	s.u.	08/16/2011	N001	90.68	-	245.1	6.82			#		
Potassium	mg/L	08/16/2011	N001	90.68	-	245.1	12	EN		#	0.11	
Selenium	mg/L	08/16/2011	N001	90.68	-	245.1	0.012			#	0.00032	
Silica	mg/L	08/16/2011	N001	90.68	-	245.1	16			#	0.0095	
Silicon	mg/L	08/16/2011	N001	90.68	-	245.1	7.3			#	0.0044	
Sodium	mg/L	08/16/2011	N001	90.68	-	245.1	150	E		#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	90.68	-	245.1	3530			#		
Sulfate	mg/L	08/16/2011	N001	90.68	-	245.1	1200			#	25	
Temperature	C	08/16/2011	N001	90.68	-	245.1	17.8			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	90.68	-	245.1	3200		J	#	80	
Turbidity	NTU	08/16/2011	N001	90.68	-	245.1	2.34			#		
Uranium	mg/L	08/16/2011	N001	90.68	-	245.1	0.16			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1112 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	90.5	-	245.5	225			#		
Ammonia Total as N	mg/L	08/16/2011	N001	90.5	-	245.5	0.1	U		#	0.1	
Ammonia Total as N	mg/L	08/16/2011	N002	90.5	-	245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/16/2011	N001	90.5	-	245.5	0.0015			#	0.000074	
Arsenic	mg/L	08/16/2011	N002	90.5	-	245.5	0.0013			#	0.000015	
Calcium	mg/L	08/16/2011	N001	90.5	-	245.5	150			#	0.012	
Calcium	mg/L	08/16/2011	N002	90.5	-	245.5	150			#	0.012	
Chloride	mg/L	08/16/2011	N001	90.5	-	245.5	23			#	4	
Chloride	mg/L	08/16/2011	N002	90.5	-	245.5	20			#	2	
Iron	mg/L	08/16/2011	N001	90.5	-	245.5	0.0049	U	J	#	0.0049	
Iron	mg/L	08/16/2011	N002	90.5	-	245.5	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	90.5	-	245.5	41			#	0.013	
Magnesium	mg/L	08/16/2011	N002	90.5	-	245.5	40			#	0.013	
Manganese	mg/L	08/16/2011	N001	90.5	-	245.5	0.0028	B	U	#	0.00011	
Manganese	mg/L	08/16/2011	N002	90.5	-	245.5	0.0052		U	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	90.5	-	245.5	0.00024	B		#	0.00016	
Molybdenum	mg/L	08/16/2011	N002	90.5	-	245.5	0.00016			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	90.5	-	245.5	48			#	0.5	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N002	90.5	-	245.5	50			#	0.5	
Oxidation Reduction Potential	mV	08/16/2011	N001	90.5	-	245.5	200			#		
pH	s.u.	08/16/2011	N001	90.5	-	245.5	6.99			#		
Potassium	mg/L	08/16/2011	N001	90.5	-	245.5	2.7			#	0.11	
Potassium	mg/L	08/16/2011	N002	90.5	-	245.5	2.6			#	0.11	
Selenium	mg/L	08/16/2011	N001	90.5	-	245.5	0.0052			#	0.00016	
Selenium	mg/L	08/16/2011	N002	90.5	-	245.5	0.0051			#	0.000032	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1112 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Silica	mg/L	08/16/2011	N001	90.5	-	245.5	12			#	0.0095	
Silica	mg/L	08/16/2011	N002	90.5	-	245.5	12			#	0.0095	
Silicon	mg/L	08/16/2011	N001	90.5	-	245.5	5.7			#	0.0044	
Silicon	mg/L	08/16/2011	N002	90.5	-	245.5	5.6			#	0.0044	
Sodium	mg/L	08/16/2011	N001	90.5	-	245.5	24			#	0.0066	
Sodium	mg/L	08/16/2011	N002	90.5	-	245.5	24			#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	90.5	-	245.5	1065			#		
Sulfate	mg/L	08/16/2011	N001	90.5	-	245.5	300			#	10	
Sulfate	mg/L	08/16/2011	N002	90.5	-	245.5	260			#	5	
Temperature	C	08/16/2011	N001	90.5	-	245.5	18			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	90.5	-	245.5	1100		J	#	40	
Total Dissolved Solids	mg/L	08/16/2011	N002	90.5	-	245.5	910		J	#	40	
Turbidity	NTU	08/16/2011	N001	90.5	-	245.5	1.34			#		
Uranium	mg/L	08/16/2011	N001	90.5	-	245.5	0.052			#	0.000015	
Uranium	mg/L	08/16/2011	N002	90.5	-	245.5	0.049			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1113 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	90.5	-	245.5	191			#		
Ammonia Total as N	mg/L	08/16/2011	N001	90.5	-	245.5	0.1	U		#	0.1	
Ammonia Total as N	mg/L	08/16/2011	N002	90.5	-	245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/16/2011	N001	90.5	-	245.5	0.0015			#	0.000015	
Arsenic	mg/L	08/16/2011	N002	90.5	-	245.5	0.0015			#	0.000015	
Calcium	mg/L	08/16/2011	N001	90.5	-	245.5	95			#	0.012	
Calcium	mg/L	08/16/2011	N002	90.5	-	245.5	95			#	0.012	
Chloride	mg/L	08/16/2011	N001	90.5	-	245.5	15			#	1	
Chloride	mg/L	08/16/2011	N002	90.5	-	245.5	15			#	1	
Iron	mg/L	08/16/2011	N001	90.5	-	245.5	0.0049	U	J	#	0.0049	
Iron	mg/L	08/16/2011	N002	90.5	-	245.5	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	90.5	-	245.5	20			#	0.013	
Magnesium	mg/L	08/16/2011	N002	90.5	-	245.5	20			#	0.013	
Manganese	mg/L	08/16/2011	N001	90.5	-	245.5	0.00011	U	J	#	0.00011	
Manganese	mg/L	08/16/2011	N002	90.5	-	245.5	0.00011	U	J	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	90.5	-	245.5	0.00029			#	0.000032	
Molybdenum	mg/L	08/16/2011	N002	90.5	-	245.5	0.00037			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	90.5	-	245.5	22			#	0.2	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N002	90.5	-	245.5	23			#	0.2	
Oxidation Reduction Potential	mV	08/16/2011	N001	90.5	-	245.5	180			#		
pH	s.u.	08/16/2011	N001	90.5	-	245.5	8.14			#		
Potassium	mg/L	08/16/2011	N001	90.5	-	245.5	2.4			#	0.11	
Potassium	mg/L	08/16/2011	N002	90.5	-	245.5	2.4			#	0.11	
Selenium	mg/L	08/16/2011	N001	90.5	-	245.5	0.0024			#	0.000032	
Selenium	mg/L	08/16/2011	N002	90.5	-	245.5	0.0024			#	0.000032	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1113 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Silica	mg/L	08/16/2011	N001	90.5	-	245.5	12			#	0.0095	
Silica	mg/L	08/16/2011	N002	90.5	-	245.5	12			#	0.0095	
Silicon	mg/L	08/16/2011	N001	90.5	-	245.5	5.6			#	0.0044	
Silicon	mg/L	08/16/2011	N002	90.5	-	245.5	5.5			#	0.0044	
Sodium	mg/L	08/16/2011	N001	90.5	-	245.5	11			#	0.0066	
Sodium	mg/L	08/16/2011	N002	90.5	-	245.5	11			#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	90.5	-	245.5	760			#		
Sulfate	mg/L	08/16/2011	N001	90.5	-	245.5	100			#	2.5	
Sulfate	mg/L	08/16/2011	N002	90.5	-	245.5	100			#	2.5	
Temperature	C	08/16/2011	N001	90.5	-	245.5	17.3			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	90.5	-	245.5	500		J	#	20	
Total Dissolved Solids	mg/L	08/16/2011	N002	90.5	-	245.5	490		J	#	40	
Turbidity	NTU	08/16/2011	N001	90.5	-	245.5	1.24			#		
Uranium	mg/L	08/16/2011	N001	90.5	-	245.5	0.014			#	0.0000029	
Uranium	mg/L	08/16/2011	N002	90.5	-	245.5	0.014			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1116 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	92.37	-	195.5	110			#		
Ammonia Total as N	mg/L	08/16/2011	N001	92.37	-	195.5	0.1	U		#	0.1	
Ammonia Total as N	mg/L	08/16/2011	N002	92.37	-	195.5	0.1	U		#	0.1	
Arsenic	mg/L	08/16/2011	N001	92.37	-	195.5	0.0017			#	0.000015	
Arsenic	mg/L	08/16/2011	N002	92.37	-	195.5	0.002			#	0.000015	
Calcium	mg/L	08/16/2011	N001	92.37	-	195.5	30			#	0.012	
Calcium	mg/L	08/16/2011	N002	92.37	-	195.5	32			#	0.012	
Chloride	mg/L	08/16/2011	N001	92.37	-	195.5	8.3			#	0.2	
Chloride	mg/L	08/16/2011	N002	92.37	-	195.5	7.6			#	0.2	
Iron	mg/L	08/16/2011	N001	92.37	-	195.5	0.0049	U	J	#	0.0049	
Iron	mg/L	08/16/2011	N002	92.37	-	195.5	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	92.37	-	195.5	7.1			#	0.013	
Magnesium	mg/L	08/16/2011	N002	92.37	-	195.5	7.3			#	0.013	
Manganese	mg/L	08/16/2011	N001	92.37	-	195.5	0.00011	U	J	#	0.00011	
Manganese	mg/L	08/16/2011	N002	92.37	-	195.5	0.00011	U	J	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	92.37	-	195.5	0.00019			#	0.000032	
Molybdenum	mg/L	08/16/2011	N002	92.37	-	195.5	0.00021			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	92.37	-	195.5	3.6			#	0.05	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N002	92.37	-	195.5	3.8			#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	92.37	-	195.5	180			#		
pH	s.u.	08/16/2011	N001	92.37	-	195.5	8.09			#		
Potassium	mg/L	08/16/2011	N001	92.37	-	195.5	1.6			#	0.11	
Potassium	mg/L	08/16/2011	N002	92.37	-	195.5	1.4			#	0.11	
Selenium	mg/L	08/16/2011	N001	92.37	-	195.5	0.0011			#	0.000032	
Selenium	mg/L	08/16/2011	N002	92.37	-	195.5	0.0012			#	0.000032	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1116 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Silica	mg/L	08/16/2011	N001	92.37	-	195.5	11			#	0.0095	
Silica	mg/L	08/16/2011	N002	92.37	-	195.5	11			#	0.0095	
Silicon	mg/L	08/16/2011	N001	92.37	-	195.5	5.3			#	0.0044	
Silicon	mg/L	08/16/2011	N002	92.37	-	195.5	5.3			#	0.0044	
Sodium	mg/L	08/16/2011	N001	92.37	-	195.5	5.7			#	0.0066	
Sodium	mg/L	08/16/2011	N002	92.37	-	195.5	6			#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	92.37	-	195.5	260			#		
Sulfate	mg/L	08/16/2011	N001	92.37	-	195.5	14			#	0.5	
Sulfate	mg/L	08/16/2011	N002	92.37	-	195.5	12			#	0.5	
Temperature	C	08/16/2011	N001	92.37	-	195.5	17.1			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	92.37	-	195.5	170		J	#	20	
Total Dissolved Solids	mg/L	08/16/2011	N002	92.37	-	195.5	150		J	#	20	
Turbidity	NTU	08/16/2011	N001	92.37	-	195.5	1.3			#		
Uranium	mg/L	08/16/2011	N001	92.37	-	195.5	0.0018			#	0.0000029	
Uranium	mg/L	08/16/2011	N002	92.37	-	195.5	0.0016			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1117 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	92.3	-	195.5	195			#		
Ammonia Total as N	mg/L	08/16/2011	N001	92.3	-	195.5	0.1	U		#	0.1	
Arsenic	mg/L	08/16/2011	N001	92.3	-	195.5	0.0022			#	0.000015	
Calcium	mg/L	08/16/2011	N001	92.3	-	195.5	140			#	0.012	
Chloride	mg/L	08/16/2011	N001	92.3	-	195.5	20			#	4	
Iron	mg/L	08/16/2011	N001	92.3	-	195.5	0.087	B		#	0.0049	
Magnesium	mg/L	08/16/2011	N001	92.3	-	195.5	54			#	0.013	
Manganese	mg/L	08/16/2011	N001	92.3	-	195.5	0.3			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	92.3	-	195.5	0.00033			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	92.3	-	195.5	36			#	0.5	
Oxidation Reduction Potential	mV	08/16/2011	N001	92.3	-	195.5	215			#		
pH	s.u.	08/16/2011	N001	92.3	-	195.5	7.38			#		
Potassium	mg/L	08/16/2011	N001	92.3	-	195.5	3.2			#	0.11	
Selenium	mg/L	08/16/2011	N001	92.3	-	195.5	0.0049			#	0.000032	
Silica	mg/L	08/16/2011	N001	92.3	-	195.5	12			#	0.0095	
Silicon	mg/L	08/16/2011	N001	92.3	-	195.5	5.7			#	0.0044	
Sodium	mg/L	08/16/2011	N001	92.3	-	195.5	38			#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	92.3	-	195.5	1175			#		
Sulfate	mg/L	08/16/2011	N001	92.3	-	195.5	280			#	10	
Temperature	C	08/16/2011	N001	92.3	-	195.5	17.2			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	92.3	-	195.5	920		J	#	40	
Turbidity	NTU	08/16/2011	N001	92.3	-	195.5	1.4			#		
Uranium	mg/L	08/16/2011	N001	92.3	-	195.5	0.011			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1118 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	89.93	-	195.5	200			#		
Ammonia Total as N	mg/L	08/16/2011	N001	89.93	-	195.5	1.1			#	0.1	
Arsenic	mg/L	08/16/2011	N001	89.93	-	195.5	0.0016			#	0.000015	
Calcium	mg/L	08/16/2011	N001	89.93	-	195.5	140			#	0.012	
Chloride	mg/L	08/16/2011	N001	89.93	-	195.5	19			#	2	
Iron	mg/L	08/16/2011	N001	89.93	-	195.5	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	89.93	-	195.5	56			#	0.013	
Manganese	mg/L	08/16/2011	N001	89.93	-	195.5	0.019			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	89.93	-	195.5	0.00016			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	89.93	-	195.5	36			#	0.2	
Oxidation Reduction Potential	mV	08/16/2011	N001	89.93	-	195.5	215			#		
pH	s.u.	08/16/2011	N001	89.93	-	195.5	7.23			#		
Potassium	mg/L	08/16/2011	N001	89.93	-	195.5	4.1			#	0.11	
Selenium	mg/L	08/16/2011	N001	89.93	-	195.5	0.0039			#	0.000032	
Silica	mg/L	08/16/2011	N001	89.93	-	195.5	12			#	0.0095	
Silicon	mg/L	08/16/2011	N001	89.93	-	195.5	5.8			#	0.0044	
Sodium	mg/L	08/16/2011	N001	89.93	-	195.5	36			#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	89.93	-	195.5	1065			#		
Sulfate	mg/L	08/16/2011	N001	89.93	-	195.5	250			#	5	
Temperature	C	08/16/2011	N001	89.93	-	195.5	17.6			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	89.93	-	195.5	860		J	#	40	
Turbidity	NTU	08/16/2011	N001	89.93	-	195.5	1.14			#		
Uranium	mg/L	08/16/2011	N001	89.93	-	195.5	0.013			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1119 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	95.33	-	245.33	226			#		
Ammonia Total as N	mg/L	08/16/2011	N001	95.33	-	245.33	9.3			#	0.5	
Arsenic	mg/L	08/16/2011	N001	95.33	-	245.33	0.0022			#	0.00015	
Calcium	mg/L	08/16/2011	N001	95.33	-	245.33	200			#	0.012	
Chloride	mg/L	08/16/2011	N001	95.33	-	245.33	54			#	4	
Iron	mg/L	08/16/2011	N001	95.33	-	245.33	0.0079	B	UJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	95.33	-	245.33	110			#	0.013	
Manganese	mg/L	08/16/2011	N001	95.33	-	245.33	3			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	95.33	-	245.33	0.0027			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	95.33	-	245.33	37			#	0.5	
Oxidation Reduction Potential	mV	08/16/2011	N001	95.33	-	245.33	134			#		
pH	s.u.	08/16/2011	N001	95.33	-	245.33	6.89			#		
Potassium	mg/L	08/16/2011	N001	95.33	-	245.33	6.5			#	0.11	
Selenium	mg/L	08/16/2011	N001	95.33	-	245.33	0.011			#	0.00032	
Silica	mg/L	08/16/2011	N001	95.33	-	245.33	15			#	0.0095	
Silicon	mg/L	08/16/2011	N001	95.33	-	245.33	6.8			#	0.0044	
Sodium	mg/L	08/16/2011	N001	95.33	-	245.33	130			#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	95.33	-	245.33	2265			#		
Sulfate	mg/L	08/16/2011	N001	95.33	-	245.33	900			#	10	
Temperature	C	08/16/2011	N001	95.33	-	245.33	17.1			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	95.33	-	245.33	1900		J	#	80	
Turbidity	NTU	08/16/2011	N001	95.33	-	245.33	2.07			#		
Uranium	mg/L	08/16/2011	N001	95.33	-	245.33	0.14			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1120 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	95.5	-	245.5	218			#		
Ammonia Total as N	mg/L	08/16/2011	N001	95.5	-	245.5	32			#	1	
Arsenic	mg/L	08/16/2011	N001	95.5	-	245.5	0.0015			#	0.00015	
Calcium	mg/L	08/16/2011	N001	95.5	-	245.5	500			#	0.12	
Chloride	mg/L	08/16/2011	N001	95.5	-	245.5	51			#	10	
Iron	mg/L	08/16/2011	N001	95.5	-	245.5	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	95.5	-	245.5	190			#	0.013	
Manganese	mg/L	08/16/2011	N001	95.5	-	245.5	52			#	0.0011	
Molybdenum	mg/L	08/16/2011	N001	95.5	-	245.5	0.037			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	95.5	-	245.5	31			#	0.2	
Oxidation Reduction Potential	mV	08/16/2011	N001	95.5	-	245.5	160			#		
pH	s.u.	08/16/2011	N001	95.5	-	245.5	6.63			#		
Potassium	mg/L	08/16/2011	N001	95.5	-	245.5	15			#	0.11	
Selenium	mg/L	08/16/2011	N001	95.5	-	245.5	0.013			#	0.00032	
Silica	mg/L	08/16/2011	N001	95.5	-	245.5	21			#	0.0095	
Silicon	mg/L	08/16/2011	N001	95.5	-	245.5	9.9			#	0.0044	
Sodium	mg/L	08/16/2011	N001	95.5	-	245.5	210			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	95.5	-	245.5	3975			#		
Sulfate	mg/L	08/16/2011	N001	95.5	-	245.5	2300			#	25	
Temperature	C	08/16/2011	N001	95.5	-	245.5	16.8			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	95.5	-	245.5	4200		J	#	200	
Turbidity	NTU	08/16/2011	N001	95.5	-	245.5	4.54			#		
Uranium	mg/L	08/16/2011	N001	95.5	-	245.5	0.13			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1122 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	96.94	-	251.1	302			#		
Ammonia Total as N	mg/L	08/16/2011	N001	96.94	-	251.1	16			#	1	
Arsenic	mg/L	08/16/2011	N001	96.94	-	251.1	0.0019			#	0.00015	
Calcium	mg/L	08/16/2011	N001	96.94	-	251.1	410			#	0.012	
Chloride	mg/L	08/16/2011	N001	96.94	-	251.1	120			#	10	
Iron	mg/L	08/16/2011	N001	96.94	-	251.1	0.092	B		#	0.0049	
Magnesium	mg/L	08/16/2011	N001	96.94	-	251.1	180			#	0.013	
Manganese	mg/L	08/16/2011	N001	96.94	-	251.1	12			#	0.0011	
Molybdenum	mg/L	08/16/2011	N001	96.94	-	251.1	0.00076	B		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	96.94	-	251.1	42			#	0.5	
Oxidation Reduction Potential	mV	08/16/2011	N001	96.94	-	251.1	104			#		
pH	s.u.	08/16/2011	N001	96.94	-	251.1	6.46			#		
Potassium	mg/L	08/16/2011	N001	96.94	-	251.1	17			#	0.11	
Selenium	mg/L	08/16/2011	N001	96.94	-	251.1	0.025			#	0.00032	
Silica	mg/L	08/16/2011	N001	96.94	-	251.1	18			#	0.0095	
Silicon	mg/L	08/16/2011	N001	96.94	-	251.1	8.5			#	0.0044	
Sodium	mg/L	08/16/2011	N001	96.94	-	251.1	260			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	96.94	-	251.1	3770			#		
Sulfate	mg/L	08/16/2011	N001	96.94	-	251.1	1900			#	25	
Temperature	C	08/16/2011	N001	96.94	-	251.1	17.6			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	96.94	-	251.1	3700		J	#	200	
Turbidity	NTU	08/16/2011	N001	96.94	-	251.1	8.14			#		
Uranium	mg/L	08/16/2011	N001	96.94	-	251.1	0.2			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1123 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	91	-	245	358			#		
Ammonia Total as N	mg/L	08/16/2011	N001	91	-	245	23			#	1	
Arsenic	mg/L	08/16/2011	N001	91	-	245	0.0026			#	0.00015	
Calcium	mg/L	08/16/2011	N001	91	-	245	440			#	0.012	
Chloride	mg/L	08/16/2011	N001	91	-	245	120			#	10	
Iron	mg/L	08/16/2011	N001	91	-	245	0.13			#	0.0049	
Magnesium	mg/L	08/16/2011	N001	91	-	245	240			#	0.013	
Manganese	mg/L	08/16/2011	N001	91	-	245	0.41			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	91	-	245	0.00032	U		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	91	-	245	16			#	0.2	
Oxidation Reduction Potential	mV	08/16/2011	N001	91	-	245	115			#		
pH	s.u.	08/16/2011	N001	91	-	245	6.81			#		
Potassium	mg/L	08/16/2011	N001	91	-	245	20			#	0.11	
Selenium	mg/L	08/16/2011	N001	91	-	245	0.014			#	0.00032	
Silica	mg/L	08/16/2011	N001	91	-	245	17			#	0.0095	
Silicon	mg/L	08/16/2011	N001	91	-	245	8			#	0.0044	
Sodium	mg/L	08/16/2011	N001	91	-	245	270			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	91	-	245	4150			#		
Sulfate	mg/L	08/16/2011	N001	91	-	245	2200			#	25	
Temperature	C	08/16/2011	N001	91	-	245	17.6			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	91	-	245	4100		J	#	200	
Turbidity	NTU	08/16/2011	N001	91	-	245	3.19			#		
Uranium	mg/L	08/16/2011	N001	91	-	245	0.27			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1124 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	87.9	-	245.5	471			#		
Ammonia Total as N	mg/L	08/16/2011	N001	87.9	-	245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/16/2011	N001	87.9	-	245.5	0.002			#	0.00015	
Calcium	mg/L	08/16/2011	N001	87.9	-	245.5	780			#	0.12	
Chloride	mg/L	08/16/2011	N001	87.9	-	245.5	130			#	10	
Iron	mg/L	08/16/2011	N001	87.9	-	245.5	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	87.9	-	245.5	120			#	0.013	
Manganese	mg/L	08/16/2011	N001	87.9	-	245.5	0.00016	B	UJ	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	87.9	-	245.5	0.00032	U		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	87.9	-	245.5	110			#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	87.9	-	245.5	105			#		
pH	s.u.	08/16/2011	N001	87.9	-	245.5	6.8			#		
Potassium	mg/L	08/16/2011	N001	87.9	-	245.5	9.1			#	0.11	
Selenium	mg/L	08/16/2011	N001	87.9	-	245.5	0.033			#	0.00032	
Silica	mg/L	08/16/2011	N001	87.9	-	245.5	16			#	0.0095	
Silicon	mg/L	08/16/2011	N001	87.9	-	245.5	7.3			#	0.0044	
Sodium	mg/L	08/16/2011	N001	87.9	-	245.5	340			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	87.9	-	245.5	5690			#		
Sulfate	mg/L	08/16/2011	N001	87.9	-	245.5	2100			#	25	
Temperature	C	08/16/2011	N001	87.9	-	245.5	17.8			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	87.9	-	245.5	4800		J	#	200	
Turbidity	NTU	08/16/2011	N001	87.9	-	245.5	2.68			#		
Uranium	mg/L	08/16/2011	N001	87.9	-	245.5	0.33			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1125 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	95.5	-	245.5	130			#		
Ammonia Total as N	mg/L	08/16/2011	N001	95.5	-	245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/16/2011	N001	95.5	-	245.5	0.0021			#	0.000015	
Calcium	mg/L	08/16/2011	N001	95.5	-	245.5	56			#	0.012	
Chloride	mg/L	08/16/2011	N001	95.5	-	245.5	14			#	0.4	
Iron	mg/L	08/16/2011	N001	95.5	-	245.5	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	95.5	-	245.5	11			#	0.013	
Manganese	mg/L	08/16/2011	N001	95.5	-	245.5	0.0026	B	U	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	95.5	-	245.5	0.00032			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	95.5	-	245.5	8.3			#	0.05	
Oxidation Reduction Potential	mV	08/16/2011	N001	95.5	-	245.5	10			#		
pH	s.u.	08/16/2011	N001	95.5	-	245.5	8.16			#		
Potassium	mg/L	08/16/2011	N001	95.5	-	245.5	1.4			#	0.11	
Selenium	mg/L	08/16/2011	N001	95.5	-	245.5	0.0023			#	0.000032	
Silica	mg/L	08/16/2011	N001	95.5	-	245.5	12			#	0.0095	
Silicon	mg/L	08/16/2011	N001	95.5	-	245.5	5.6			#	0.0044	
Sodium	mg/L	08/16/2011	N001	95.5	-	245.5	15			#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	95.5	-	245.5	540			#		
Sulfate	mg/L	08/16/2011	N001	95.5	-	245.5	61			#	1	
Temperature	C	08/16/2011	N001	95.5	-	245.5	27			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	95.5	-	245.5	340		J	#	20	
Turbidity	NTU	08/16/2011	N001	95.5	-	245.5	5.62			#		
Uranium	mg/L	08/16/2011	N001	95.5	-	245.5	0.0073			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1129 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	68.2 - 98.2	338			#		
Ammonia Total as N	mg/L	08/16/2011	N001	68.2 - 98.2	0.1	U		#	0.1	
Arsenic	mg/L	08/16/2011	N001	68.2 - 98.2	0.0019			#	0.000074	
Calcium	mg/L	08/16/2011	N001	68.2 - 98.2	520			#	0.12	
Chloride	mg/L	08/16/2011	N001	68.2 - 98.2	64			#	10	
Iron	mg/L	08/16/2011	N001	68.2 - 98.2	0.021	B	UJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	68.2 - 98.2	120			#	0.013	
Manganese	mg/L	08/16/2011	N001	68.2 - 98.2	0.0049	B	U	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	68.2 - 98.2	1.1			#	0.0016	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	68.2 - 98.2	140			#	1	
Oxidation Reduction Potential	mV	08/16/2011	N001	68.2 - 98.2	220			#		
pH	s.u.	08/16/2011	N001	68.2 - 98.2	7			#		
Potassium	mg/L	08/16/2011	N001	68.2 - 98.2	6.8			#	0.11	
Selenium	mg/L	08/16/2011	N001	68.2 - 98.2	0.082			#	0.0016	
Silica	mg/L	08/16/2011	N001	68.2 - 98.2	15			#	0.0095	
Silicon	mg/L	08/16/2011	N001	68.2 - 98.2	7.2			#	0.0044	
Sodium	mg/L	08/16/2011	N001	68.2 - 98.2	140			#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	68.2 - 98.2	3290			#		
Sulfate	mg/L	08/16/2011	N001	68.2 - 98.2	1100			#	25	
Temperature	C	08/16/2011	N001	68.2 - 98.2	17.7			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	68.2 - 98.2	3000		J	#	80	
Turbidity	NTU	08/16/2011	N001	68.2 - 98.2	2.37			#		
Uranium	mg/L	08/16/2011	N001	68.2 - 98.2	1			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1130 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	71.7	-	121.7	746			#		
Ammonia Total as N	mg/L	08/16/2011	N001	71.7	-	121.7	73			#	5	
Arsenic	mg/L	08/16/2011	N001	71.7	-	121.7	0.0016			#	0.000074	
Calcium	mg/L	08/16/2011	N001	71.7	-	121.7	700			#	0.12	
Chloride	mg/L	08/16/2011	N001	71.7	-	121.7	180			#	20	
Iron	mg/L	08/16/2011	N001	71.7	-	121.7	0.0052	B	UJ	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	71.7	-	121.7	420			#	0.013	
Manganese	mg/L	08/16/2011	N001	71.7	-	121.7	0.91			#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	71.7	-	121.7	0.051			#	0.0016	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	71.7	-	121.7	280			#	2	
Oxidation Reduction Potential	mV	08/16/2011	N001	71.7	-	121.7	260			#		
pH	s.u.	08/16/2011	N001	71.7	-	121.7	6.45			#		
Potassium	mg/L	08/16/2011	N001	71.7	-	121.7	32			#	0.11	
Selenium	mg/L	08/16/2011	N001	71.7	-	121.7	0.046			#	0.0016	
Silica	mg/L	08/16/2011	N001	71.7	-	121.7	15			#	0.0095	
Silicon	mg/L	08/16/2011	N001	71.7	-	121.7	6.9			#	0.0044	
Sodium	mg/L	08/16/2011	N001	71.7	-	121.7	440			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	71.7	-	121.7	6910			#		
Sulfate	mg/L	08/16/2011	N001	71.7	-	121.7	2600			#	50	
Temperature	C	08/16/2011	N001	71.7	-	121.7	18.5			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	71.7	-	121.7	6400		J	#	200	
Turbidity	NTU	08/16/2011	N001	71.7	-	121.7	1.65			#		
Uranium	mg/L	08/16/2011	N001	71.7	-	121.7	0.5			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1132 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	49.7	-	99.7	706			#		
Ammonia Total as N	mg/L	08/16/2011	N001	49.7	-	99.7	0.1	U		#	0.1	
Ammonia Total as N	mg/L	08/16/2011	N002	49.7	-	99.7	0.1	U		#	0.1	
Arsenic	mg/L	08/16/2011	N001	49.7	-	99.7	0.0019			#	0.000074	
Arsenic	mg/L	08/16/2011	N002	49.7	-	99.7	0.0019			#	0.000074	
Calcium	mg/L	08/16/2011	N001	49.7	-	99.7	1100			#	0.12	
Calcium	mg/L	08/16/2011	N002	49.7	-	99.7	920			#	0.12	
Chloride	mg/L	08/16/2011	N001	49.7	-	99.7	140			#	20	
Chloride	mg/L	08/16/2011	N002	49.7	-	99.7	150			#	10	
Iron	mg/L	08/16/2011	N001	49.7	-	99.7	0.0049	U	J	#	0.0049	
Iron	mg/L	08/16/2011	N002	49.7	-	99.7	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	49.7	-	99.7	220			#	0.013	
Magnesium	mg/L	08/16/2011	N002	49.7	-	99.7	220			#	0.013	
Manganese	mg/L	08/16/2011	N001	49.7	-	99.7	0.0073		U	#	0.00011	
Manganese	mg/L	08/16/2011	N002	49.7	-	99.7	0.0071		U	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	49.7	-	99.7	2.6			#	0.0064	
Molybdenum	mg/L	08/16/2011	N002	49.7	-	99.7	2.8			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	49.7	-	99.7	290			#	2	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N002	49.7	-	99.7	290			#	2	
Oxidation Reduction Potential	mV	08/16/2011	N001	49.7	-	99.7	230			#		
pH	s.u.	08/16/2011	N001	49.7	-	99.7	6.6			#		
Potassium	mg/L	08/16/2011	N001	49.7	-	99.7	13			#	0.11	
Potassium	mg/L	08/16/2011	N002	49.7	-	99.7	13			#	0.11	
Selenium	mg/L	08/16/2011	N001	49.7	-	99.7	0.22			#	0.0065	
Selenium	mg/L	08/16/2011	N002	49.7	-	99.7	0.21			#	0.0065	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1132 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Silica	mg/L	08/16/2011	N001	49.7	-	99.7	15			#	0.0095	
Silica	mg/L	08/16/2011	N002	49.7	-	99.7	15			#	0.0095	
Silicon	mg/L	08/16/2011	N001	49.7	-	99.7	7.1			#	0.0044	
Silicon	mg/L	08/16/2011	N002	49.7	-	99.7	7.2			#	0.0044	
Sodium	mg/L	08/16/2011	N001	49.7	-	99.7	470			#	0.066	
Sodium	mg/L	08/16/2011	N002	49.7	-	99.7	410			#	0.066	
Specific Conductance	umhos /cm	08/16/2011	N001	49.7	-	99.7	5800			#		
Sulfate	mg/L	08/16/2011	N001	49.7	-	99.7	2000			#	50	
Sulfate	mg/L	08/16/2011	N002	49.7	-	99.7	2200			#	25	
Temperature	C	08/16/2011	N001	49.7	-	99.7	17.8			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	49.7	-	99.7	5900		J	#	200	
Total Dissolved Solids	mg/L	08/16/2011	N002	49.7	-	99.7	6000		J	#	200	
Turbidity	NTU	08/16/2011	N001	49.7	-	99.7	1.62			#		
Uranium	mg/L	08/16/2011	N001	49.7	-	99.7	3.4			#	0.00058	
Uranium	mg/L	08/16/2011	N002	49.7	-	99.7	3.5			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1133 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/16/2011	N001	59.7	-	99.7	190			#		
Ammonia Total as N	mg/L	08/16/2011	N001	59.7	-	99.7	0.1	U		#	0.1	
Arsenic	mg/L	08/16/2011	N001	59.7	-	99.7	0.0016			#	0.000074	
Arsenic	mg/L	08/16/2011	N002	59.7	-	99.7	0.0016			#	0.000074	
Calcium	mg/L	08/16/2011	N001	59.7	-	99.7	130			#	0.012	
Calcium	mg/L	08/16/2011	N002	59.7	-	99.7	130			#	0.012	
Chloride	mg/L	08/16/2011	N001	59.7	-	99.7	23			#	2	
Chloride	mg/L	08/16/2011	N002	59.7	-	99.7	23			#	2	
Iron	mg/L	08/16/2011	N001	59.7	-	99.7	0.0049	U	J	#	0.0049	
Iron	mg/L	08/16/2011	N002	59.7	-	99.7	0.0049	U	J	#	0.0049	
Magnesium	mg/L	08/16/2011	N001	59.7	-	99.7	23			#	0.013	
Magnesium	mg/L	08/16/2011	N002	59.7	-	99.7	23			#	0.013	
Manganese	mg/L	08/16/2011	N001	59.7	-	99.7	0.00085	B	U	#	0.00011	
Manganese	mg/L	08/16/2011	N002	59.7	-	99.7	0.00056	B	U	#	0.00011	
Molybdenum	mg/L	08/16/2011	N001	59.7	-	99.7	0.012			#	0.00016	
Molybdenum	mg/L	08/16/2011	N002	59.7	-	99.7	0.012			#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N001	59.7	-	99.7	30			#	0.2	
Nitrate + Nitrite as Nitrogen	mg/L	08/16/2011	N002	59.7	-	99.7	31			#	0.2	
Oxidation Reduction Potential	mV	08/16/2011	N001	59.7	-	99.7	185			#		
pH	s.u.	08/16/2011	N001	59.7	-	99.7	7.48			#		
Potassium	mg/L	08/16/2011	N001	59.7	-	99.7	2.2			#	0.11	
Potassium	mg/L	08/16/2011	N002	59.7	-	99.7	2.1			#	0.11	
Selenium	mg/L	08/16/2011	N001	59.7	-	99.7	0.015			#	0.00016	
Selenium	mg/L	08/16/2011	N002	59.7	-	99.7	0.015			#	0.00016	
Silica	mg/L	08/16/2011	N001	59.7	-	99.7	13			#	0.0095	
Silicon	mg/L	08/16/2011	N001	59.7	-	99.7	6.1			#	0.0044	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/1/2011

Location: 1133 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sodium	mg/L	08/16/2011	N001	59.7	-	99.7	20			#	0.0066	
Sodium	mg/L	08/16/2011	N002	59.7	-	99.7	20			#	0.0066	
Specific Conductance	umhos /cm	08/16/2011	N001	59.7	-	99.7	915			#		
Sulfate	mg/L	08/16/2011	N001	59.7	-	99.7	150			#	5	
Sulfate	mg/L	08/16/2011	N002	59.7	-	99.7	140			#	5	
Temperature	C	08/16/2011	N001	59.7	-	99.7	17.9			#		
Total Dissolved Solids	mg/L	08/16/2011	N001	59.7	-	99.7	630		J	#	40	
Total Dissolved Solids	mg/L	08/16/2011	N002	59.7	-	99.7	640		J	#	40	
Turbidity	NTU	08/16/2011	N001	59.7	-	99.7	1.81			#		
Uranium	mg/L	08/16/2011	N001	59.7	-	99.7	0.064			#	0.000015	
Uranium	mg/L	08/16/2011	N002	59.7	-	99.7	0.064			#	0.000015	

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

LAB QUALIFIERS:

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

DATA QUALIFIERS:

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

QA QUALIFIER:

#	Validated according to quality assurance guidelines.

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Surface Water Quality Data

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Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/1/2011
Location: 0759 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Arsenic	mg/L	08/17/2011	0001	0.0007			#	0.000015	
Calcium	mg/L	08/17/2011	0001	220			#	0.012	
Chloride	mg/L	08/17/2011	0001	14			#	4	
Iron	mg/L	08/17/2011	0001	0.03	B		#	0.0049	
Magnesium	mg/L	08/17/2011	0001	53			#	0.013	
Manganese	mg/L	08/17/2011	0001	0.0047	B	U	#	0.00011	
Molybdenum	mg/L	08/17/2011	0001	0.0027			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	0001	1.3			#	0.01	
Oxidation Reduction Potential	mV	08/17/2011	N001	66.4		R	#		
pH	s.u.	08/17/2011	N001	6.22			#		
Potassium	mg/L	08/17/2011	0001	12			#	0.11	
Selenium	mg/L	08/17/2011	0001	0.0011			#	0.000032	
Sodium	mg/L	08/17/2011	0001	75			#	0.0066	
Specific Conductance	umhos/cm	08/17/2011	N001	2758			#		
Sulfate	mg/L	08/17/2011	0001	770			#	10	
Temperature	C	08/17/2011	N001	24.04			#		
Total Dissolved Solids	mg/L	08/17/2011	0001	1300		J	#	40	
Uranium	mg/L	08/17/2011	0001	0.0044			#	0.0000029	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/1/2011
Location: 0778 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	0001	162			#		
Arsenic	mg/L	08/17/2011	0001	0.00081			#	0.000015	
Calcium	mg/L	08/17/2011	0001	210			#	0.012	
Chloride	mg/L	08/17/2011	0001	13			#	4	
Iron	mg/L	08/17/2011	0001	0.0065	B	J	#	0.0049	
Magnesium	mg/L	08/17/2011	0001	51			#	0.013	
Manganese	mg/L	08/17/2011	0001	0.0017	B	U	#	0.00011	
Molybdenum	mg/L	08/17/2011	0001	0.0028			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	0001	1.7			#	0.01	
Oxidation Reduction Potential	mV	08/17/2011	N001	-79.8		R	#		
pH	s.u.	08/17/2011	N001	7.8			#		
Potassium	mg/L	08/17/2011	0001	12			#	0.11	
Selenium	mg/L	08/17/2011	0001	0.0011			#	0.000032	
Sodium	mg/L	08/17/2011	0001	73			#	0.0066	
Specific Conductance	umhos/cm	08/17/2011	N001	1498			#		
Sulfate	mg/L	08/17/2011	0001	720			#	10	
Temperature	C	08/17/2011	N001	27.51			#		
Total Dissolved Solids	mg/L	08/17/2011	0001	1300		J	#	40	
Turbidity	NTU	08/17/2011	N001	1000			#		
Uranium	mg/L	08/17/2011	0001	0.0048			#	0.0000029	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/1/2011
Location: 0965 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	0001	135			#		
Arsenic	mg/L	08/17/2011	0001	0.00083			#	0.000015	
Calcium	mg/L	08/17/2011	0001	200			#	0.012	
Chloride	mg/L	08/17/2011	0001	13			#	4	
Iron	mg/L	08/17/2011	0001	0.023	B	J	#	0.0049	
Magnesium	mg/L	08/17/2011	0001	49			#	0.013	
Manganese	mg/L	08/17/2011	0001	0.19			#	0.00011	
Molybdenum	mg/L	08/17/2011	0001	0.0026			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	0001	0.95			#	0.01	
Oxidation Reduction Potential	mV	08/17/2011	N001	-43.4		R	#		
pH	s.u.	08/17/2011	N001	7.51			#		
Potassium	mg/L	08/17/2011	0001	11			#	0.11	
Selenium	mg/L	08/17/2011	0001	0.0009			#	0.000032	
Sodium	mg/L	08/17/2011	0001	71			#	0.0066	
Specific Conductance	umhos/cm	08/17/2011	N001	1469			#		
Sulfate	mg/L	08/17/2011	0001	650			#	10	
Temperature	C	08/17/2011	N001	28.88			#		
Total Dissolved Solids	mg/L	08/17/2011	0001	1200		J	#	40	
Turbidity	NTU	08/17/2011	N001	1000			#		
Uranium	mg/L	08/17/2011	0001	0.0043			#	0.0000029	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/1/2011
Location: 1569 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	0			#		
Arsenic	mg/L	08/17/2011	N001	0.86			#	0.003	
Calcium	mg/L	08/17/2011	N001	1000			#	0.6	
Chloride	mg/L	08/17/2011	N001	84000			#	1000	
Iron	mg/L	08/17/2011	N001	13			#	0.25	
Magnesium	mg/L	08/17/2011	N001	7000			#	0.65	
Manganese	mg/L	08/17/2011	N001	130			#	0.0057	
Molybdenum	mg/L	08/17/2011	N001	0.95			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	4700			#	50	
Oxidation Reduction Potential	mV	08/17/2011	N001	510			#		
pH	s.u.	08/17/2011	N001	1.61			#		
Potassium	mg/L	08/17/2011	N001	690			#	5.4	
Selenium	mg/L	08/17/2011	N001	0.86			#	0.0065	
Sodium	mg/L	08/17/2011	N001	41000			#	6.6	
Specific Conductance	umhos/cm	08/17/2011	N001	151800			#		
Sulfate	mg/L	08/17/2011	N001	15000			#	2500	
Temperature	C	08/17/2011	N001	31.2			#		
Total Dissolved Solids	mg/L	08/17/2011	N001	190000		J	#	2000	
Turbidity	NTU	08/17/2011	N001	3.24			#		
Uranium	mg/L	08/17/2011	N001	3.2			#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/1/2011
Location: 1570 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	0			#		
Arsenic	mg/L	08/17/2011	N001	0.89			#	0.003	
Calcium	mg/L	08/17/2011	N001	1100			#	0.6	
Chloride	mg/L	08/17/2011	N001	84000			#	1000	
Iron	mg/L	08/17/2011	N001	14			#	0.25	
Magnesium	mg/L	08/17/2011	N001	7100			#	0.65	
Manganese	mg/L	08/17/2011	N001	130			#	0.0057	
Molybdenum	mg/L	08/17/2011	N001	0.96			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	4800			#	50	
Oxidation Reduction Potential	mV	08/17/2011	N001	560			#		
pH	s.u.	08/17/2011	N001	1.63			#		
Potassium	mg/L	08/17/2011	N001	700			#	5.4	
Selenium	mg/L	08/17/2011	N001	0.89			#	0.0065	
Sodium	mg/L	08/17/2011	N001	43000			#	6.6	
Specific Conductance	umhos/cm	08/17/2011	N001	152100			#		
Sulfate	mg/L	08/17/2011	N001	15000			#	2500	
Temperature	C	08/17/2011	N001	30.6			#		
Total Dissolved Solids	mg/L	08/17/2011	N001	190000		J	#	2000	
Turbidity	NTU	08/17/2011	N001	4.34			#		
Uranium	mg/L	08/17/2011	N001	3.2			#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/1/2011
Location: 1571 SURFACE LOCATION Jimmy Spring West

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/17/2011	N001	238			#		
Arsenic	mg/L	08/17/2011	N001	0.0022			#	0.000015	
Calcium	mg/L	08/17/2011	N001	35			#	0.012	
Chloride	mg/L	08/17/2011	N001	40			#	1	
Iron	mg/L	08/17/2011	N001	0.063	B		#	0.0049	
Magnesium	mg/L	08/17/2011	N001	11			#	0.013	
Manganese	mg/L	08/17/2011	N001	0.0056		U	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	0.0031			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	1.9			#	0.01	
Oxidation Reduction Potential	mV	08/17/2011	N001	-102.2		R	#		
pH	s.u.	08/17/2011	N001	8.54			#		
Potassium	mg/L	08/17/2011	N001	4			#	0.11	
Selenium	mg/L	08/17/2011	N001	0.0043			#	0.000032	
Sodium	mg/L	08/17/2011	N001	73			#	0.0066	
Specific Conductance	umhos/cm	08/17/2011	N001	673			#		
Sulfate	mg/L	08/17/2011	N001	87			#	2.5	
Temperature	C	08/17/2011	N001	26.64			#		
Total Dissolved Solids	mg/L	08/17/2011	N001	420		J	#	40	
Turbidity	NTU	08/17/2011	N001	8.71			#		
Uranium	mg/L	08/17/2011	N001	0.0035			#	0.0000029	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/1/2011
Location: 1573 SURFACE LOCATION Shonto Well West Pipe

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Arsenic	mg/L	08/17/2011	N001	0.0047			#	0.000015	
Calcium	mg/L	08/17/2011	N001	16			#	0.012	
Chloride	mg/L	08/17/2011	N001	30			#	0.4	
Iron	mg/L	08/17/2011	N001	0.1			#	0.0049	
Magnesium	mg/L	08/17/2011	N001	4			#	0.013	
Manganese	mg/L	08/17/2011	N001	0.0054		U	#	0.00011	
Molybdenum	mg/L	08/17/2011	N001	0.0013			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/17/2011	N001	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	08/17/2011	N001	-13.7		R	#		
pH	s.u.	08/17/2011	N001	8.43			#		
Potassium	mg/L	08/17/2011	N001	0.35	B	J	#	0.11	
Selenium	mg/L	08/17/2011	N001	0.0032			#	0.000032	
Sodium	mg/L	08/17/2011	N001	73			#	0.0066	
Specific Conductance	umhos/cm	08/17/2011	N001	533			#		
Sulfate	mg/L	08/17/2011	N001	30			#	1	
Temperature	C	08/17/2011	N001	27.3			#		
Total Dissolved Solids	mg/L	08/17/2011	N001	290		J	#	20	
Turbidity	NTU	08/17/2011	N001	4.21			#		
Uranium	mg/L	08/17/2011	N001	0.0058			#	0.0000029	

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

LAB QUALIFIERS:

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

DATA QUALIFIERS:

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

QA QUALIFIER:

#	Validated according to quality assurance guidelines.

Equipment Blank Data

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BLANKS REPORT
LAB: PARAGON/ALS LABORATORY GROUP (Fort Collins, CO)
RIN: 11084014
Report Date: 11/2/2011

Parameter	Site Code	Location ID	Sample Date	Sample ID	Units	Result	Qualifiers Lab	Qualifiers Data	Detection Limit	Uncertainty	Sample Type
Ammonia Total as N	TUB01	0999	08/17/2011	N001	mg/L	0.12			0.1		E
Arsenic	TUB01	0999	08/17/2011	N001	mg/L	0.000015	U		0.000015		E
Calcium	TUB01	0999	08/17/2011	N001	mg/L	0.21	B		0.012		E
Chloride	TUB01	0999	08/17/2011	N001	mg/L	0.2	U		0.2		E
Iron	TUB01	0999	08/17/2011	N001	mg/L	0.0049	U	J	0.0049		E
Magnesium	TUB01	0999	08/17/2011	N001	mg/L	1.1	E		0.013		E
Manganese	TUB01	0999	08/17/2011	N001	mg/L	0.021	E		0.00011		E
Molybdenum	TUB01	0999	08/17/2011	N001	mg/L	0.000032	U		0.000032		E
Nitrate + Nitrite as Nitrogen	TUB01	0999	08/17/2011	N001	mg/L	0.01	U		0.01		E
Potassium	TUB01	0999	08/17/2011	N001	mg/L	0.11	U	J	0.11		E
Selenium	TUB01	0999	08/17/2011	N001	mg/L	0.000032	U		0.000032		E
Silica	TUB01	0999	08/17/2011	N001	mg/L	0.0095	U		0.0095		E
Silicon	TUB01	0999	08/17/2011	N001	mg/L	0.0044	U		0.0044		E
Sodium	TUB01	0999	08/17/2011	N001	mg/L	4.3	EN		0.0066		E
Sulfate	TUB01	0999	08/17/2011	N001	mg/L	0.61			0.5		E
Total Dissolved Solids	TUB01	0999	08/17/2011	N001	mg/L	20	U	J	20		E
Uranium	TUB01	0999	08/17/2011	N001	mg/L	0.000012			0.0000029		E

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

LAB QUALIFIERS:

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

DATA QUALIFIERS:

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

SAMPLE TYPES:

E	Equipment Blank.

Static Water Level Data

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STATIC WATER LEVELS (USEE700) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/2/2011

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Measurement Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
0251		5061.25	08/15/2011	17:07:35	68.09	4993.16	
0252		5061.3	08/15/2011	17:35:00	71	4990.3	
0258		5055.56	08/16/2011	13:15:21	99.72	4955.84	
0261		5069.69	08/16/2011	14:00:11	129.33	4940.36	
0262		5061.99	08/16/2011	15:00:05	51.18	5010.81	
0263		5063.1	08/15/2011	17:56:55	58.22	5004.88	
0264		5062.19	08/15/2011	18:17:25	84.52	4977.67	
0265		5053.88	08/16/2011	16:48:11	80.29	4973.59	
0266		5053.32	08/16/2011	17:20:54	94.75	4958.57	
0267		5053.4	08/16/2011	15:56:33	62.45	4990.95	
0268		5067.24	08/17/2011	14:00:23	93.02	4974.22	
0271		5046.72	08/16/2011	15:17:52	54.94	4991.78	
0272		5064.24	08/16/2011	18:15:00	60.48	5003.76	
0273		5064.74	08/17/2011	12:00:06	58.18	5006.56	
0274		5064.42	08/17/2011	12:55:37	63.39	5001.03	
0275		5062.64	08/17/2011	14:30:59	74.3	4988.34	
0276		5067.55	08/17/2011	13:35:59	65.73	5001.82	
0277		4982.35	08/17/2011	09:15:39	36.68	4945.67	
0278		4956.09	08/16/2011	09:06:48	23.44	4932.65	
0279		4951.04	08/16/2011	09:49:14	25.86	4925.18	
0280		4951.52	08/16/2011	10:34:30	27.65	4923.87	
0281		5051	08/16/2011	16:16:44	70.19	4980.81	
0282		5060.04	08/16/2011	17:49:12	83.45	4976.59	
0283		5057.97	08/16/2011	17:52:00			D
0284		5098.72	08/16/2011	09:20:00	29.36	5069.36	
0285		5096.47	08/16/2011	09:17:00			D
0286		5063.99	08/17/2011	10:40:30	59.5	5004.49	

STATIC WATER LEVELS (USEE700) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/2/2011

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Measurement Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
0287		5065.65	08/17/2011	11:40:20	51.42	5014.23	
0288		5072.54	08/17/2011	10:15:15	55.68	5016.86	
0289		5070.82	08/17/2011	09:55:54	55.5	5015.32	
0290		5068.91	08/16/2011	09:00:54	88.62	4980.29	
0683		5070.64	08/16/2011	09:30:44	102.59	4968.05	
0684		5070.05	08/16/2011	08:35:43	68.92	5001.13	
0685		5072.44	08/17/2011	11:20:47	48.42	5024.02	
0686		5107.97	08/17/2011	15:30:39	65.26	5042.71	
0687		5109.82	08/17/2011	10:05:27	55.31	5054.51	
0688		5106.98	08/17/2011	10:40:24	61.09	5045.89	
0689		4981.63	08/16/2011	08:43:20	39.88	4941.75	
0690		4950.87	08/16/2011	10:05:48	25.51	4925.36	
0691		4979.41	08/16/2011	10:57:27	42.62	4936.79	
0692		4953.31	08/16/2011	10:23:19	26.81	4926.5	
0695		4976.83	08/16/2011	11:17:52	50.83	4926	
0901	U	5105.46	08/17/2011	15:08:23	48.1	5057.36	
0902	N	4737.42	08/16/2011	18:42:00	30.49	4706.93	
0903	D	4983.33	08/17/2011	09:46:47	33.69	4949.64	
0904	N	4904.11	08/16/2011	13:23:06	23	4881.11	
0906	O	5062.1	08/17/2011	12:25:35	50.68	5011.42	
0908	D	5058.14	08/15/2011	16:38:25	59.55	4998.59	
0909	D	5057.17	08/16/2011	15:28:00			B
0910	U	5106.7	08/17/2011	14:17:11	51.02	5055.68	
0911	U	5106.96	08/17/2011	15:38:02	47.44	5059.52	
0912	D	5059.97	08/16/2011	18:05:34	61.09	4998.88	
0913	D	5060.16	08/16/2011	17:45:33	67.38	4992.78	
0914	D	5070.1	08/16/2011	10:00:38	113.21	4956.89	

STATIC WATER LEVELS (USEE700) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/2/2011

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Measurement Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
0915	D	5070.84	08/16/2011	11:35:18	110.41	4960.43	
0916	D	5070	08/16/2011	11:05:52	119.35	4950.65	
0917	D	5048.02	08/16/2011	12:45:00	69.51	4978.51	
0918	D	5049.63	08/16/2011	18:40:00			D
0919	D	5048.56	08/16/2011	18:41:00	146.11	4902.45	
0920	D	4982.97	08/17/2011	09:01:59	34.19	4948.78	
0921	D	4979.08	08/17/2011	10:20:16	39.65	4939.43	
0929	D	5060.82	08/16/2011	14:48:05	61.82	4999	
0930	D	4954.96	08/16/2011	09:28:05	21.55	4933.41	
0932	D	5057.32	08/16/2011	16:35:41	101.11	4956.21	
0934	D	5059.73	08/16/2011	14:28:27	76.52	4983.21	
0940	D	5064.77	08/17/2011	10:55:57	59.7	5005.07	
0941	D	5065.97	08/17/2011	11:20:27	48.1	5017.87	
0943	U	5098.05	08/17/2011	11:55:52	52.03	5046.02	
0945	U	5140.49	08/17/2011	15:40:53	89.56	5050.93	
0946	C	5100.5	08/16/2011	17:45:55	50	5050.5	
0947	U	5097.01	08/15/2011	18:05:04	68.07	5028.94	
0948	U	5117.8	08/17/2011	09:26:00	135.37	4982.43	
1003		4976.58	08/17/2011	11:17:59	40	4936.58	
1004		4961.55	08/17/2011	11:43:54	25.99	4935.56	
1005		4947.83	08/16/2011	09:30:00	22.51	4925.32	
1006		4947.08	08/17/2011	12:10:19	17.32	4929.76	
1007		4958.56	08/17/2011	12:38:50	22.41	4936.15	
1008		4980.52	08/16/2011	08:25:00	38.24	4942.28	

FLOW CODES: B BACKGROUND C CROSS GRADIENT D DOWN GRADIENT F OFF SITE
N UNKNOWN O ON SITE U UPGRADIENT

WATER LEVEL FLAGS: D Dry F FLOWING

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Time-Concentration Graphs

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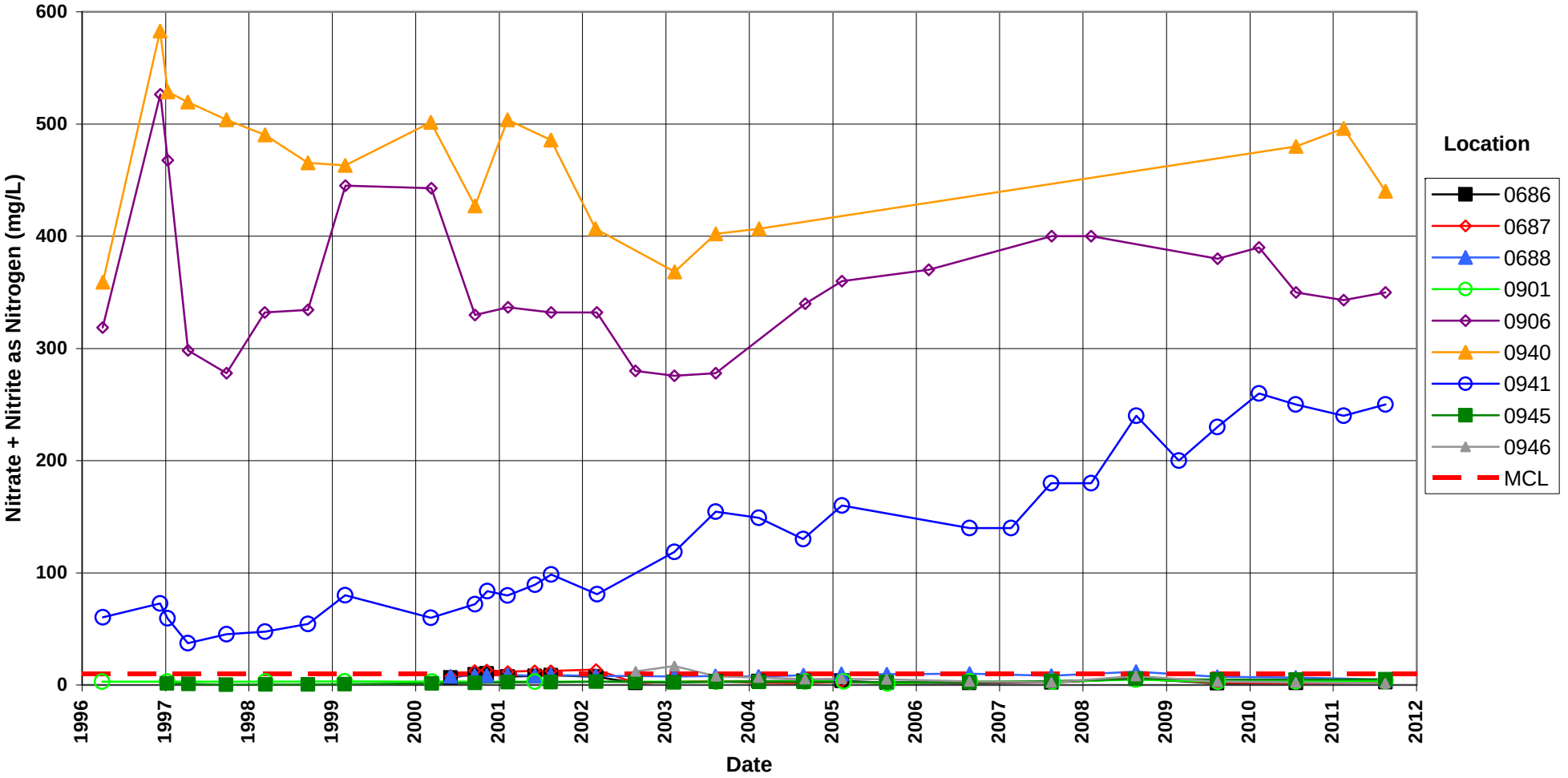
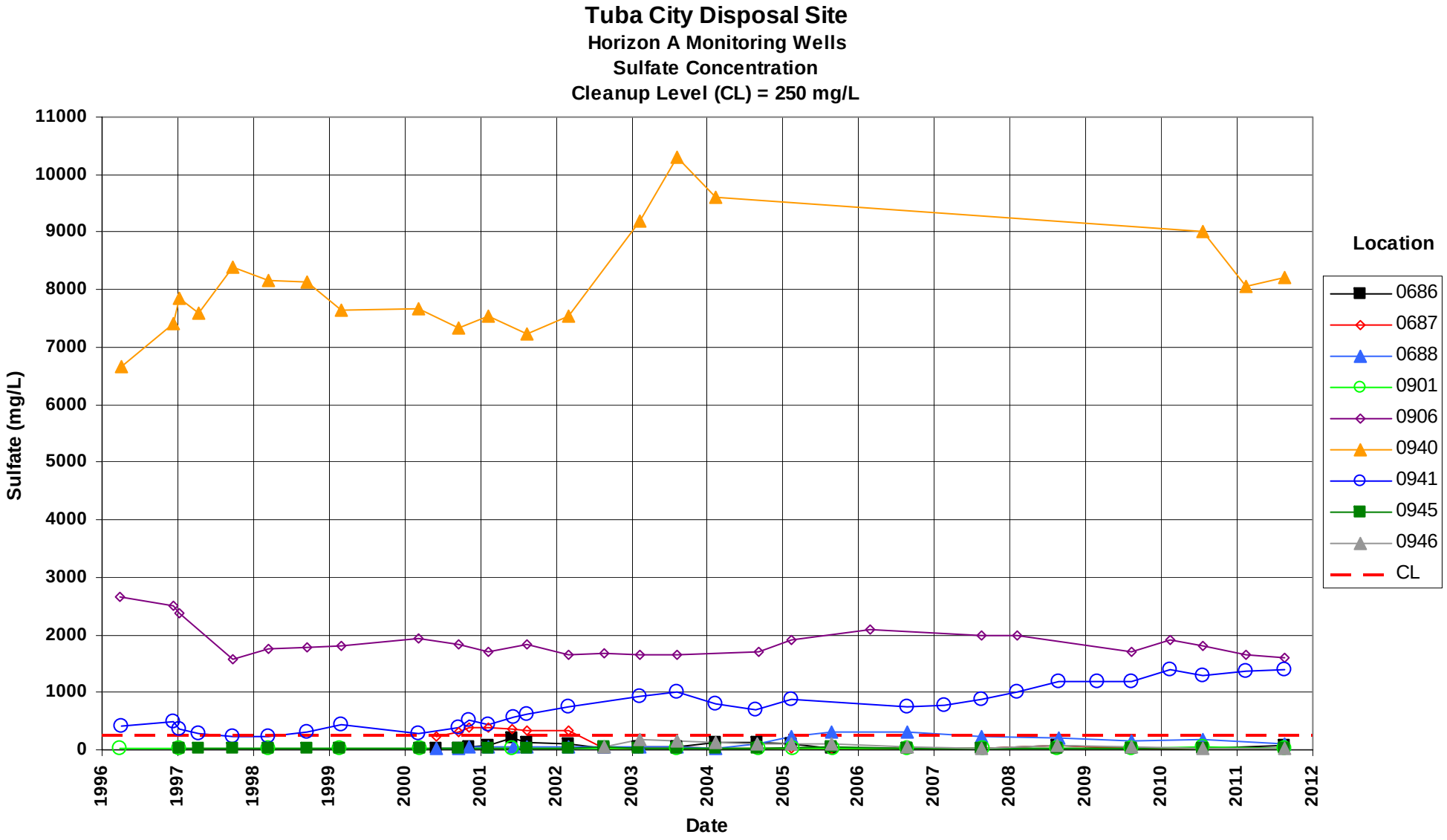
Tuba City Disposal Site

Horizon A Monitoring Wells

Nitrate + Nitrite as Nitrogen Concentration

Maximum Contaminant Level (MCL) = 10.0 mg/L




Tuba City Disposal Site
Horizon A Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
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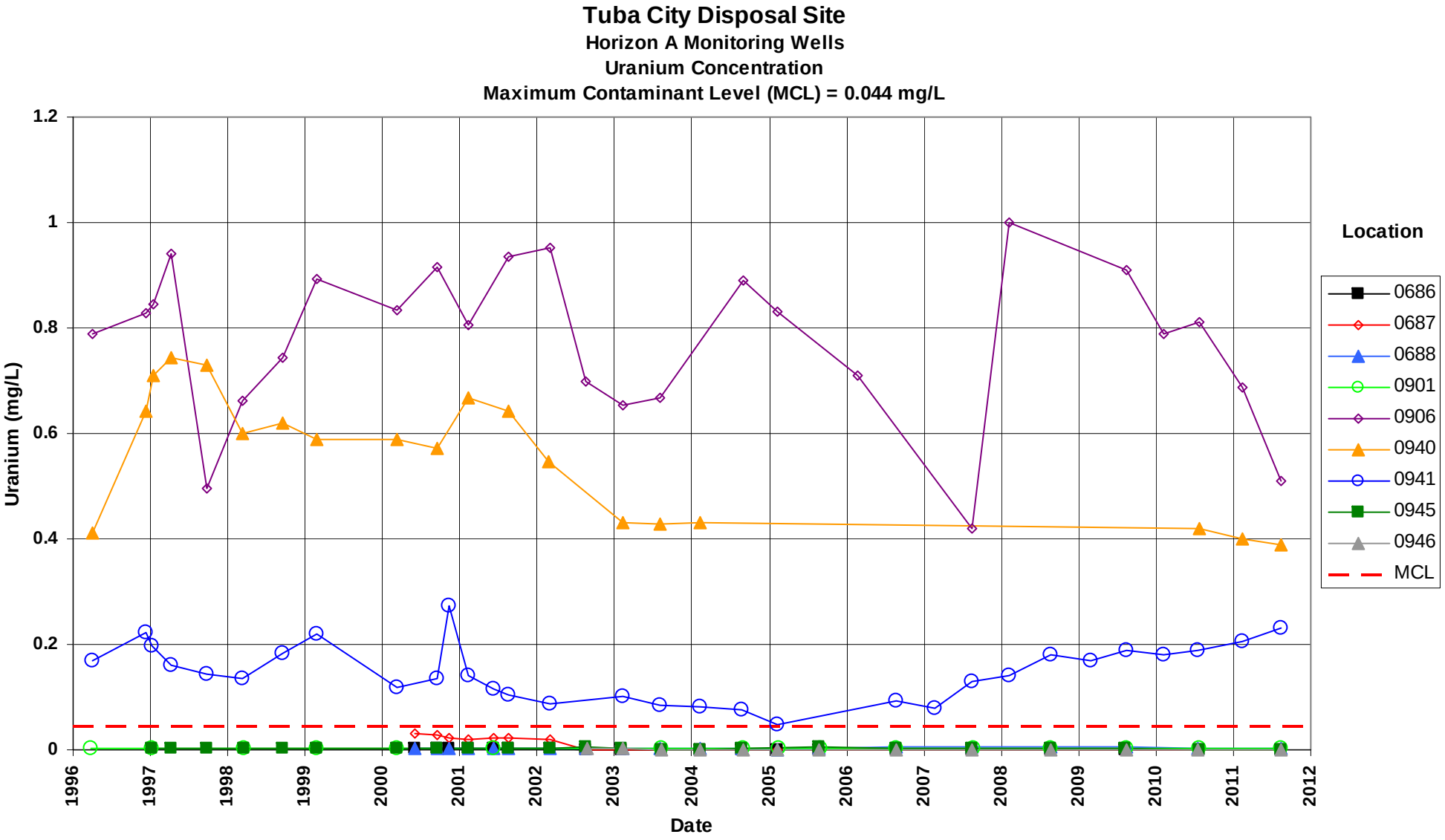
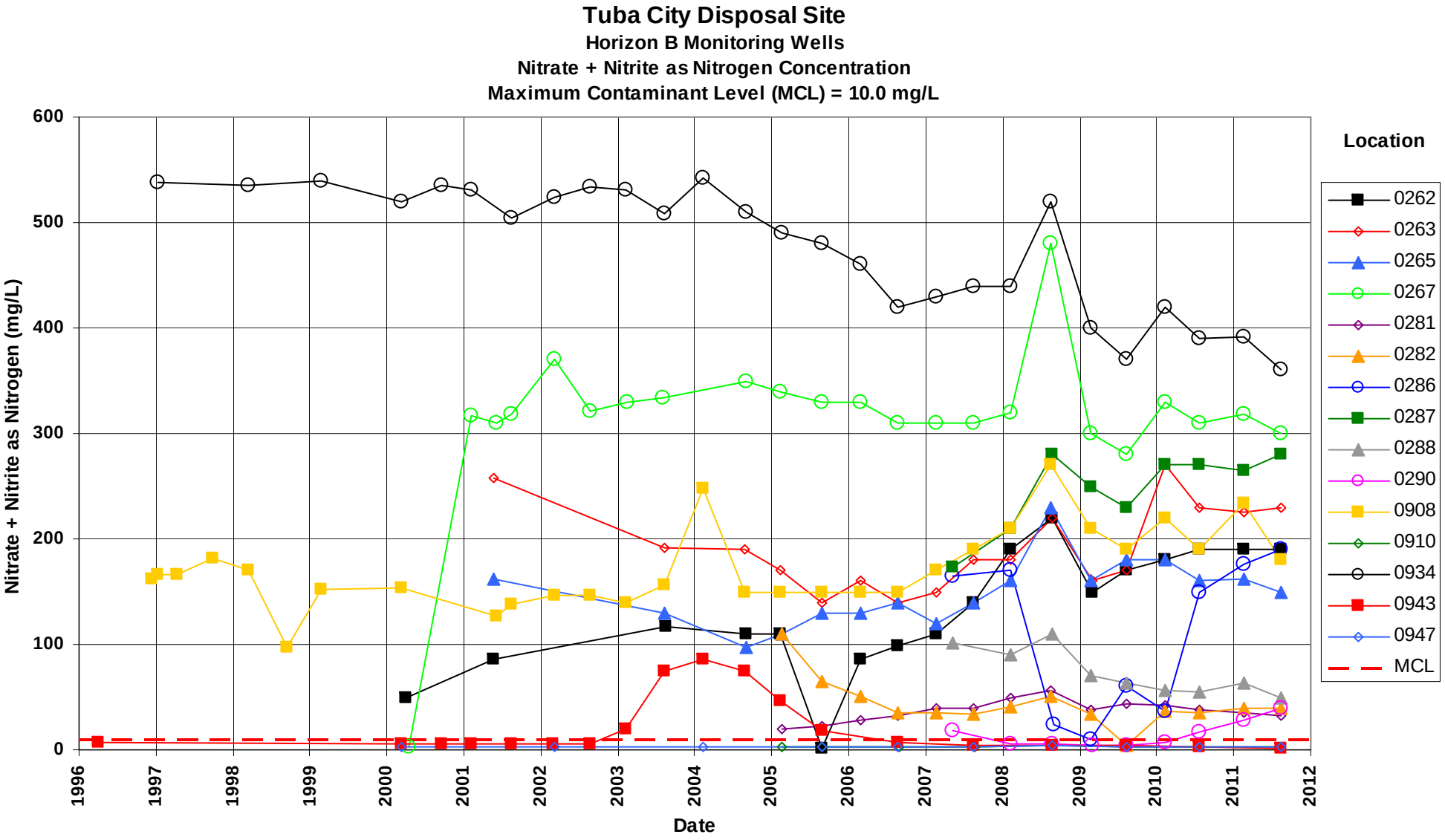
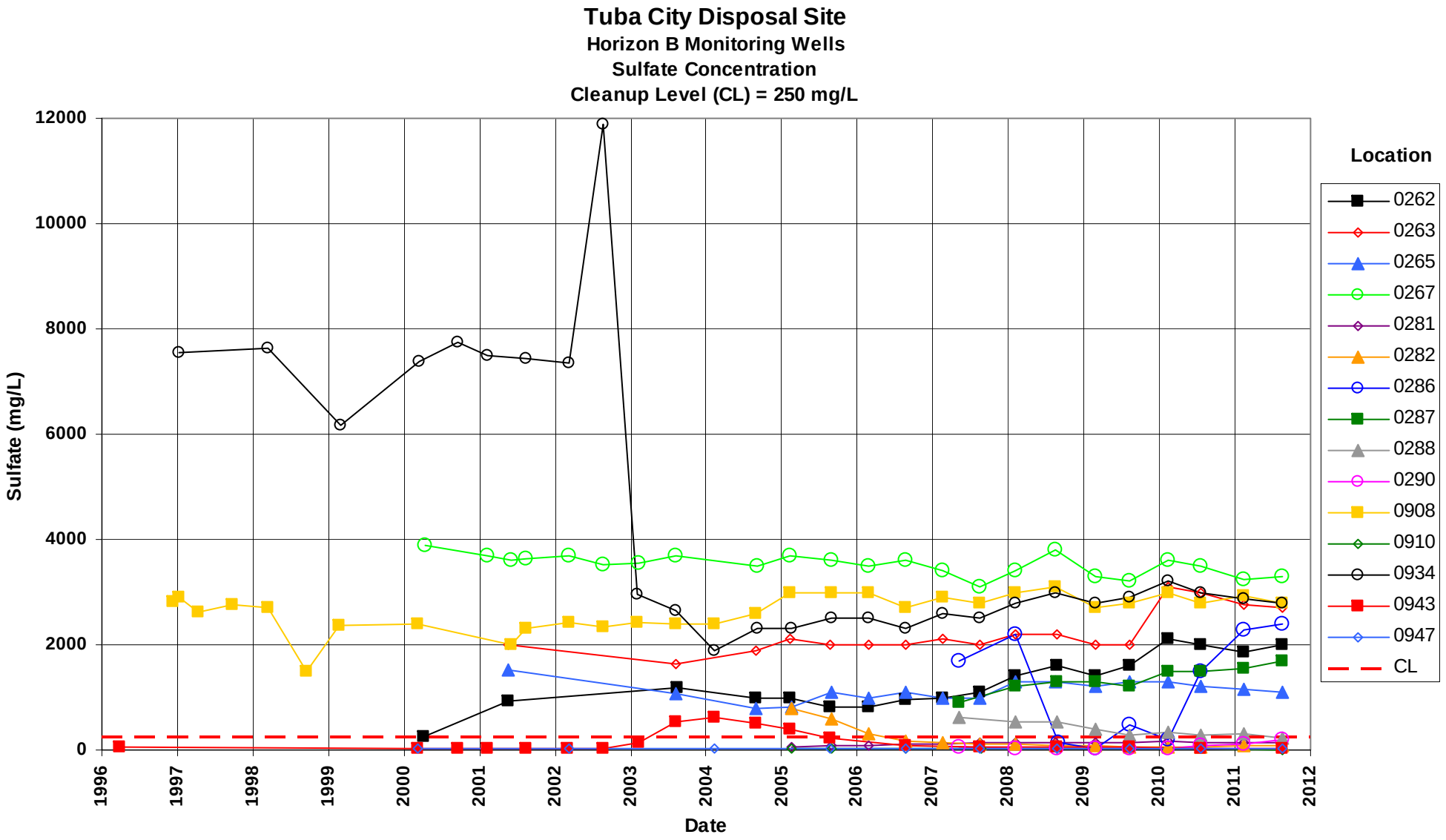
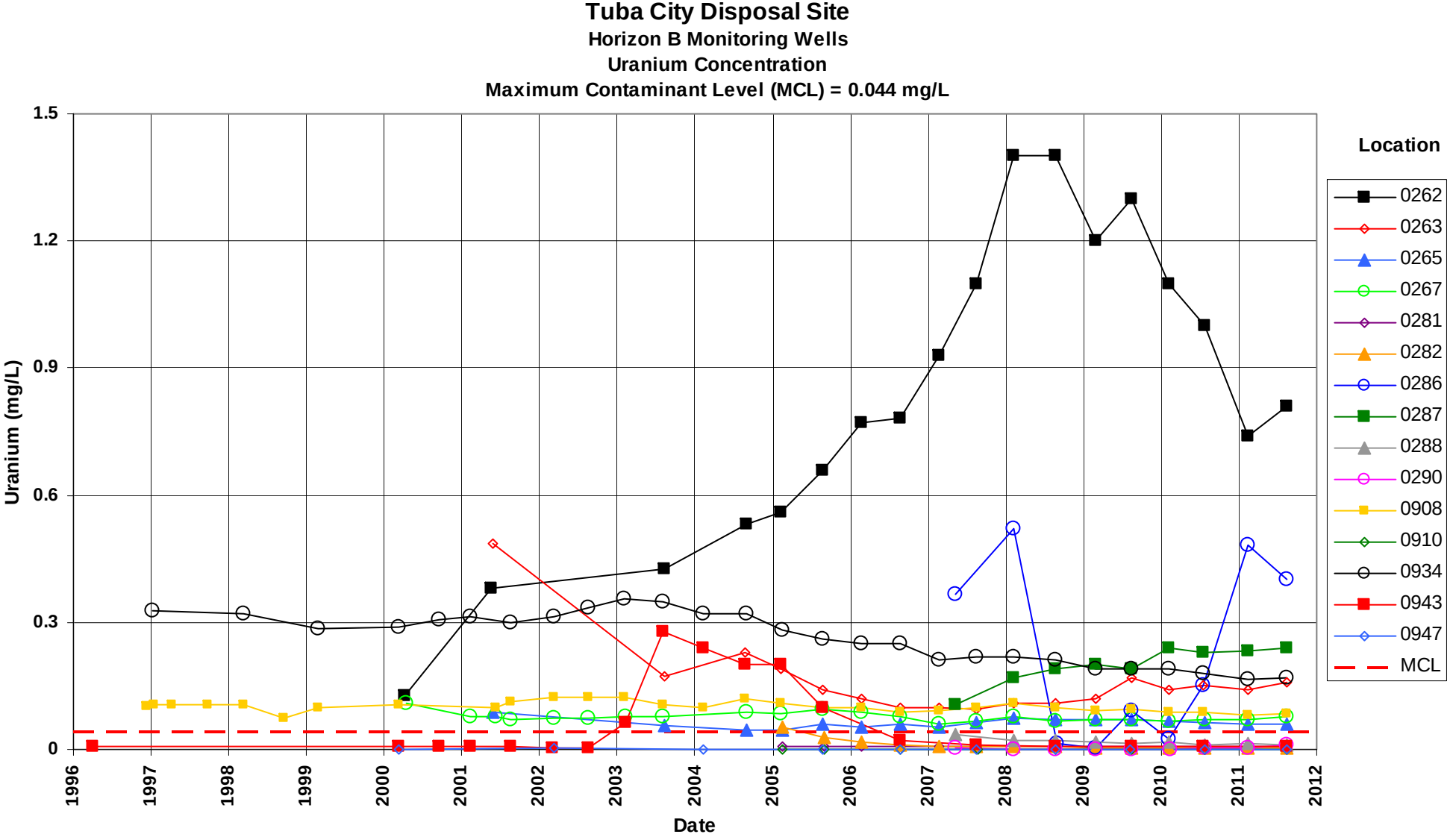
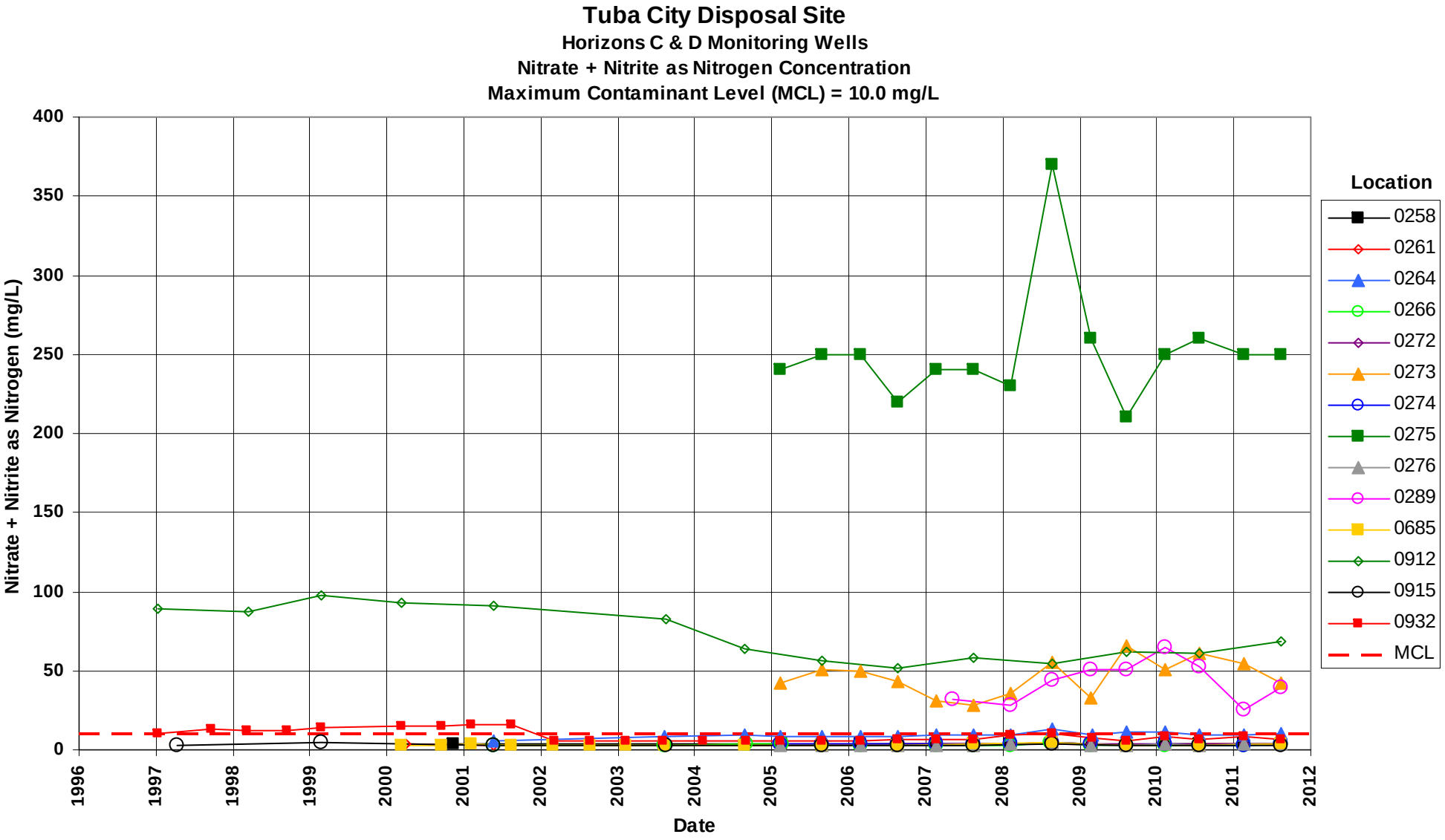
2010
2011
2012
Date
Location
0686
0687
0688
0901
0906
0940
0941
0945
0946
CL

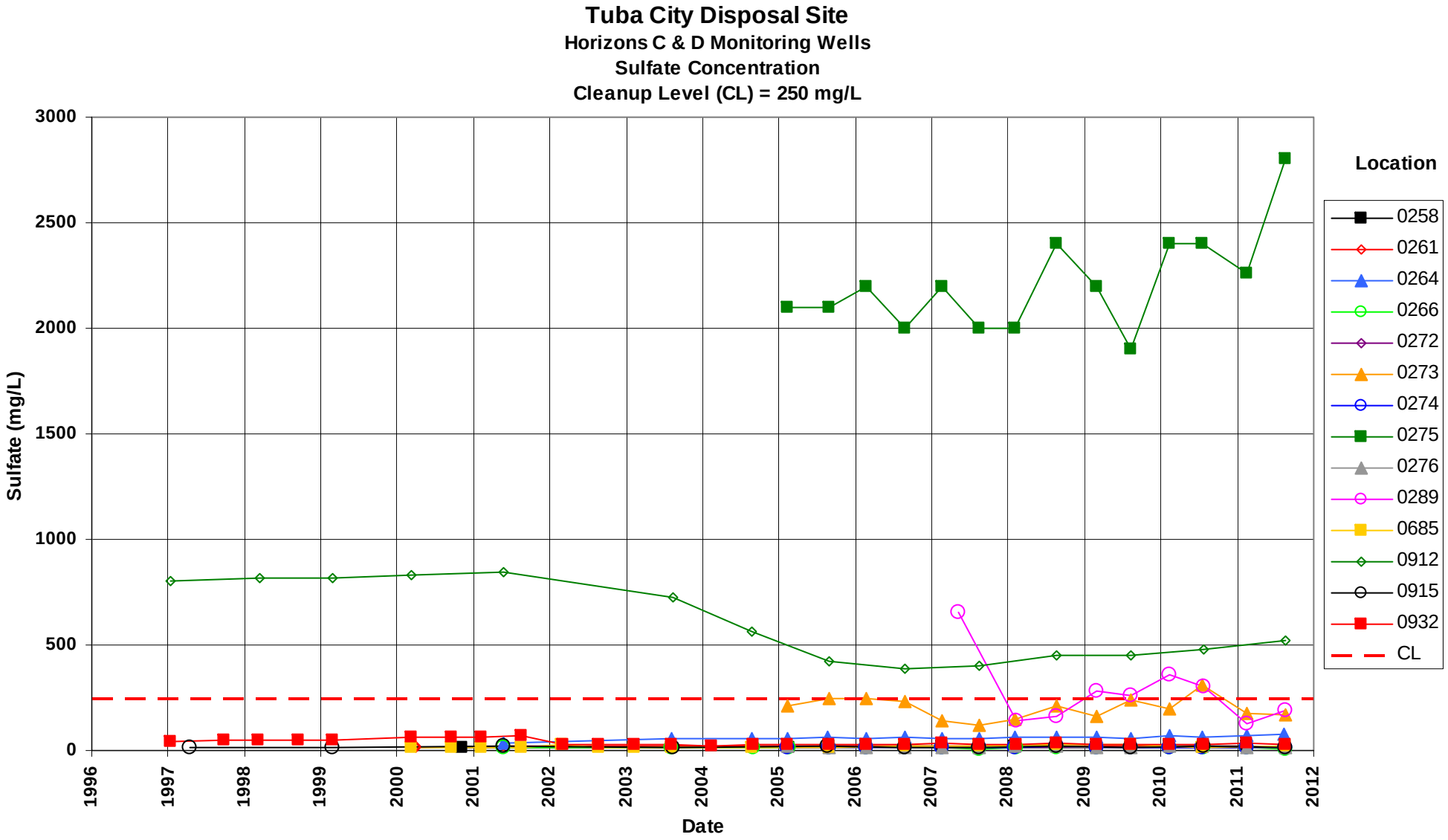

Tuba City Disposal Site
Horizon A Monitoring Wells
Uranium Concentration
Maximum Contaminant Level (MCL) = 0.044 mg/L
Uranium (mg/L)
1.2
1
0.8
0.6
0.4
0.2
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0686
0687
0688
0901
0906
0940
0941
0945
0946
MCL

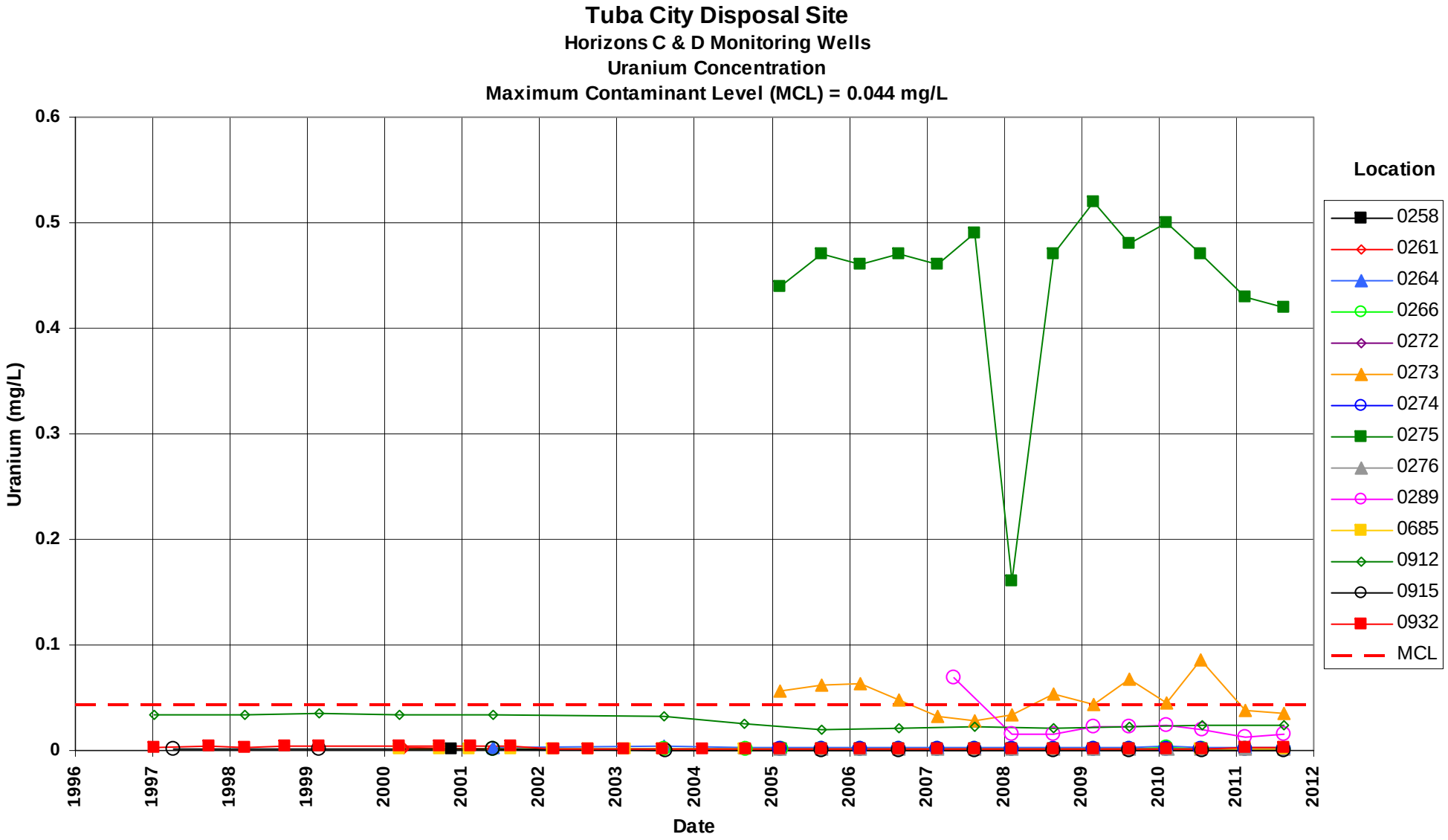

Tuba City Disposal Site
Horizon B Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Contaminant Level (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
600
500
400
300
200
100
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0262
0263
0265
0267
0281
0282
0286
0287
0288
0290
0908
0910
0934
0943
0947
MCL

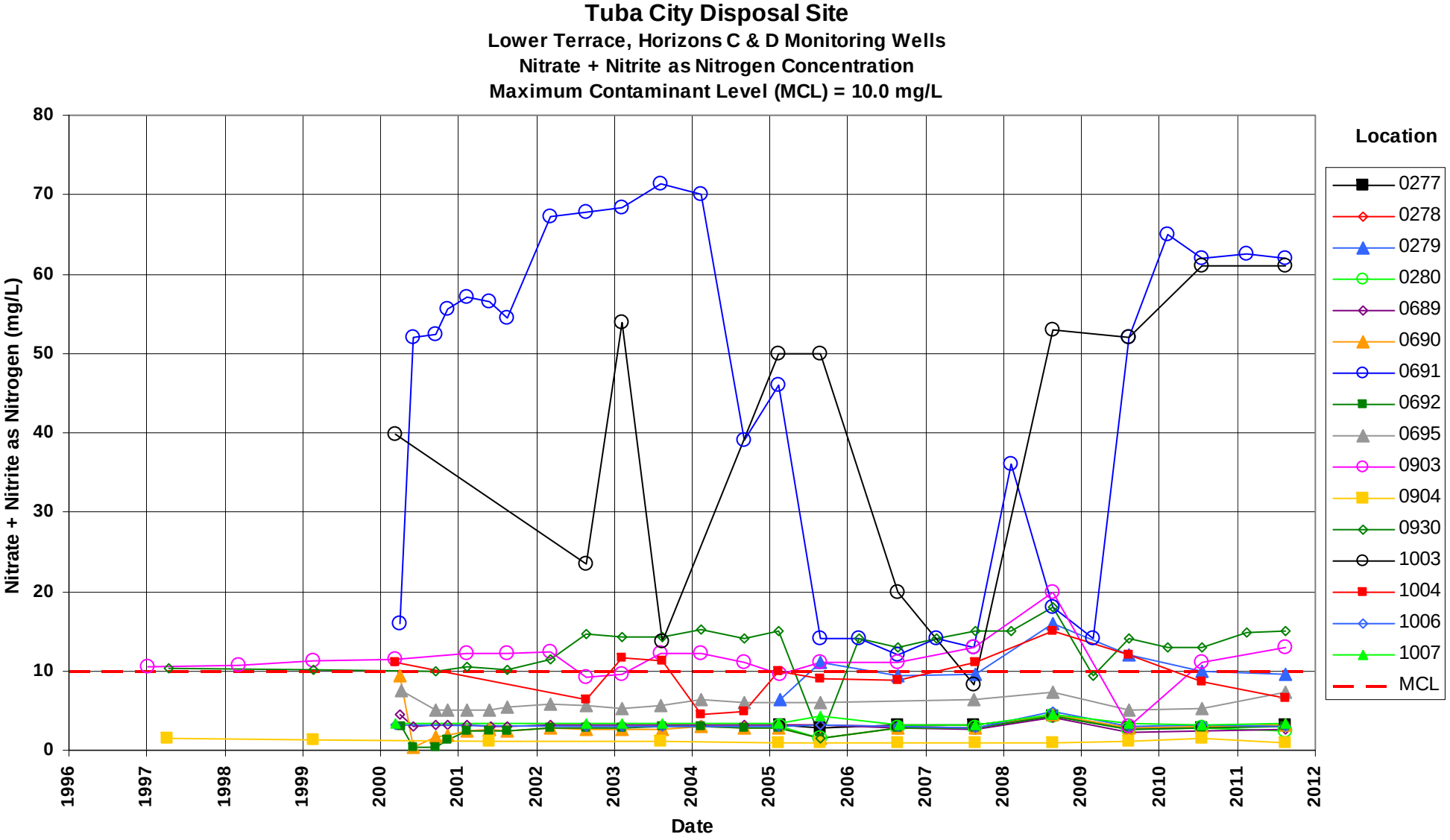

Tuba City Disposal Site
Horizon B Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
12000
10000
8000
6000
4000
2000
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0262
0263
0265
0267
0281
0282
0286
0287
0288
0290
0908
0910
0934
0943
0947
CL

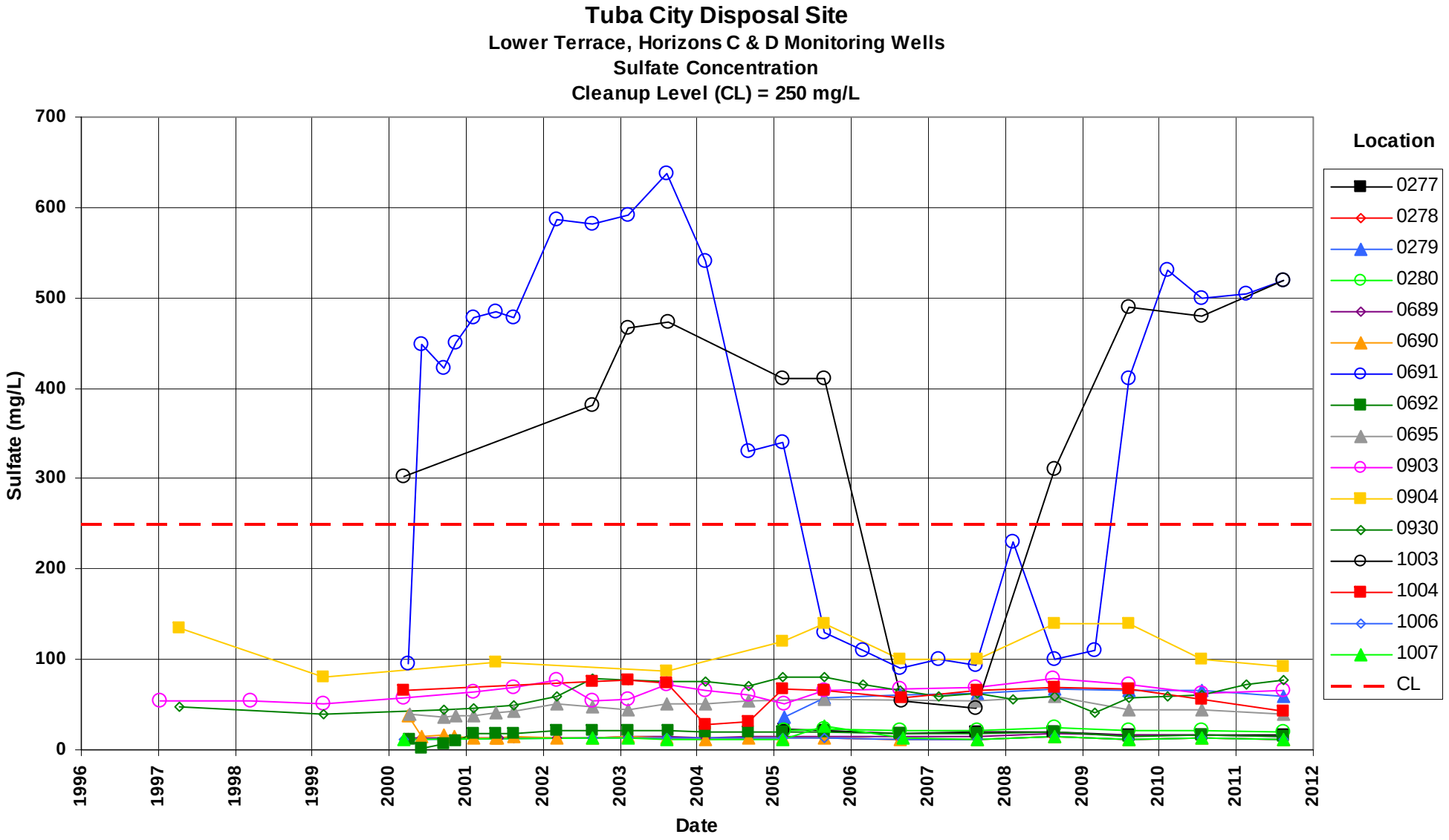

Tuba City Disposal Site
Horizon B Monitoring Wells
Uranium Concentration
Maximum Contaminant Level (MCL) = 0.044 mg/L
Uranium (mg/L)
1.5
1.2
0.9
0.6
0.3
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0262
0263
0265
0267
0281
0282
0286
0287
0288
0290
0908
0910
0934
0943
0947
MCL

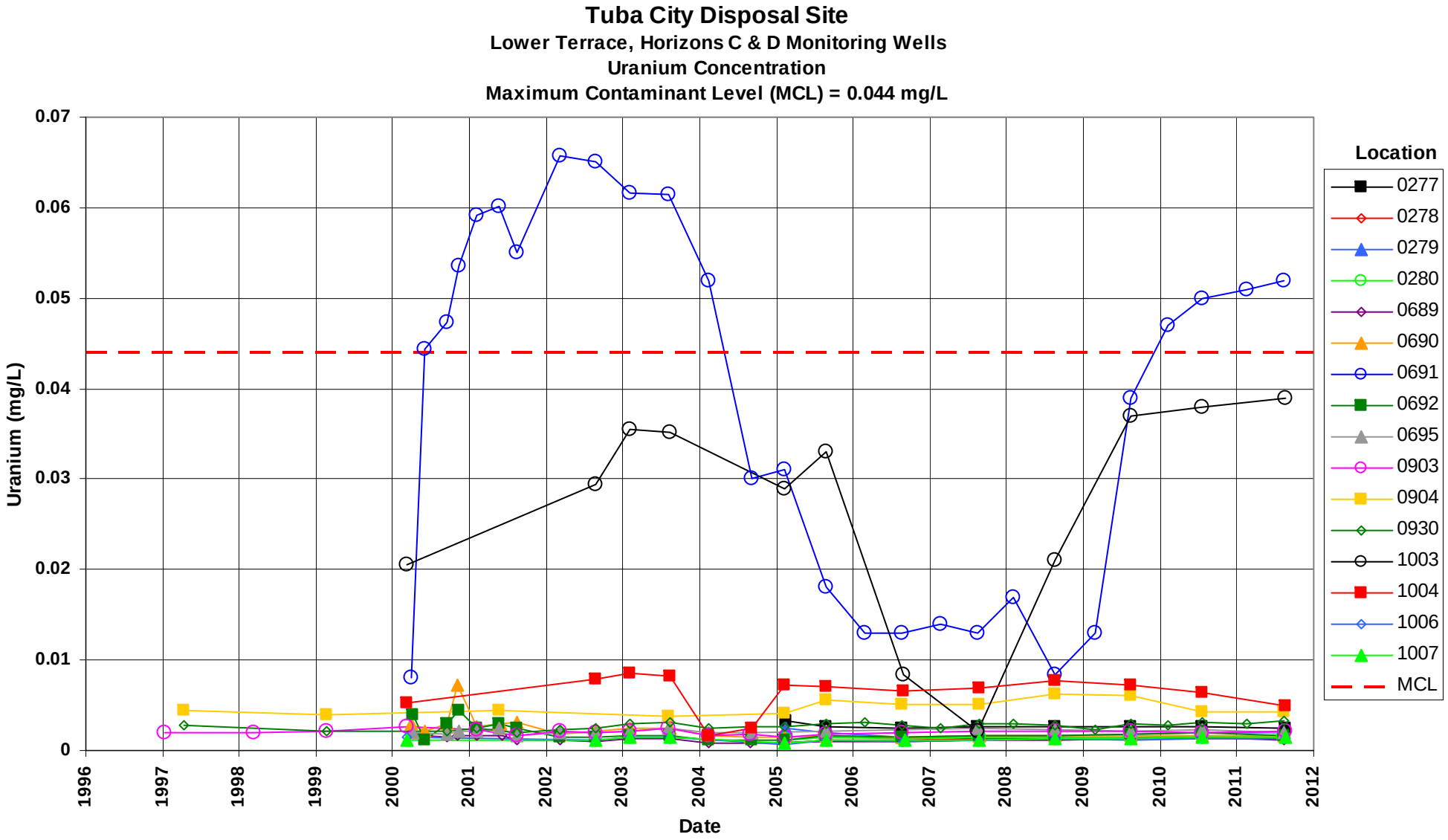

Tuba City Disposal Site
Horizons C & D Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Contaminant Level (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
400
350
300
250
200
150
100
50
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0258
0261
0264
0266
0272
0273
0274
0275
0276
0289
0685
0912
0915
0932
MCL

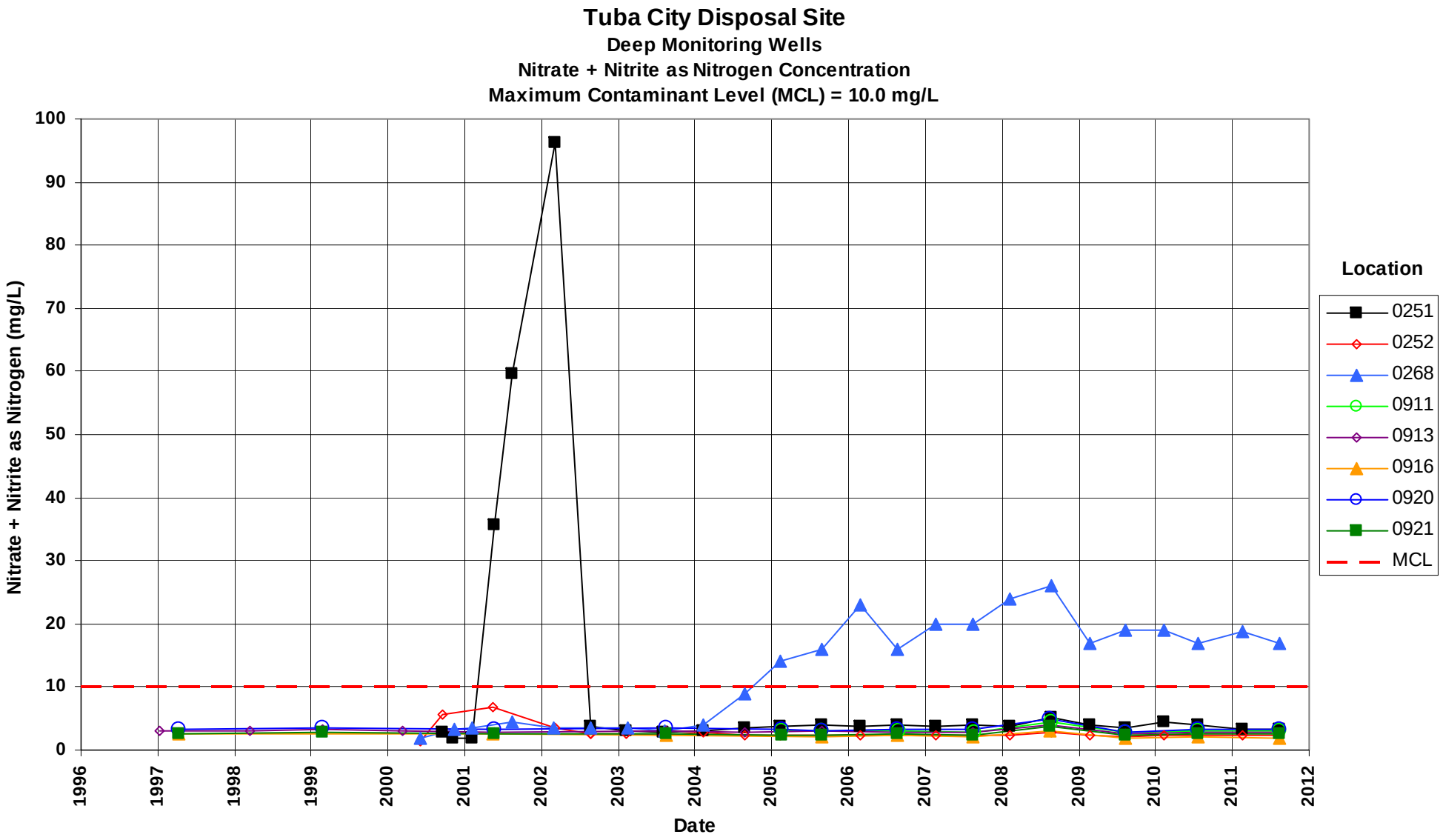

Tuba City Disposal Site
Horizons C & D Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
3000
2500
2000
1500
1000
500
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0258
0261
0264
0266
0272
0273
0274
0275
0276
0289
0685
0912
0915
0932
CL

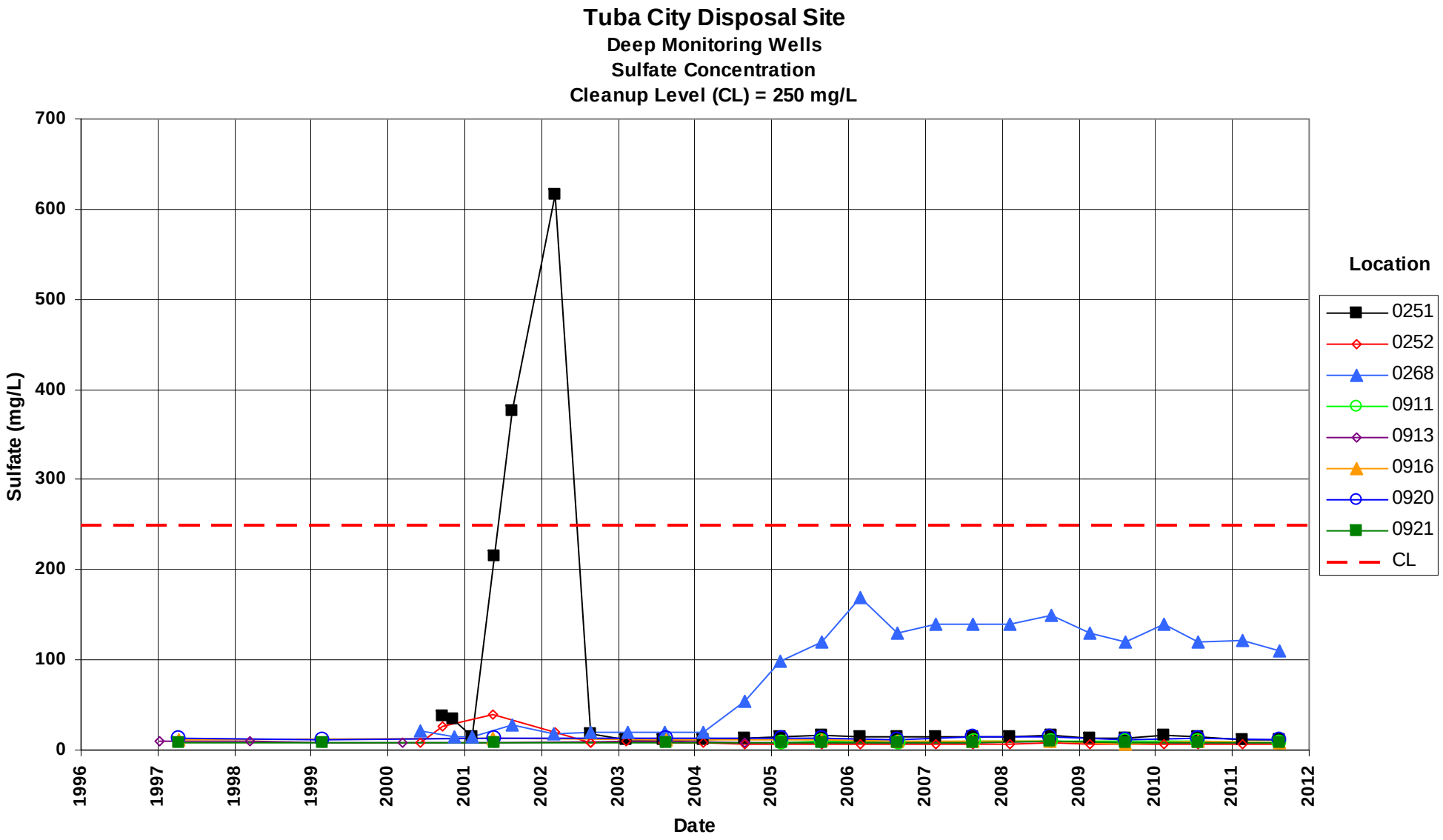

Tuba City Disposal Site
Horizons C & D Monitoring Wells
Uranium Concentration
Maximum Contaminant Level (MCL) = 0.044 mg/L
Uranium (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0258
0261
0264
0266
0272
0273
0274
0275
0276
0289
0685
0912
0915
0932
MCL

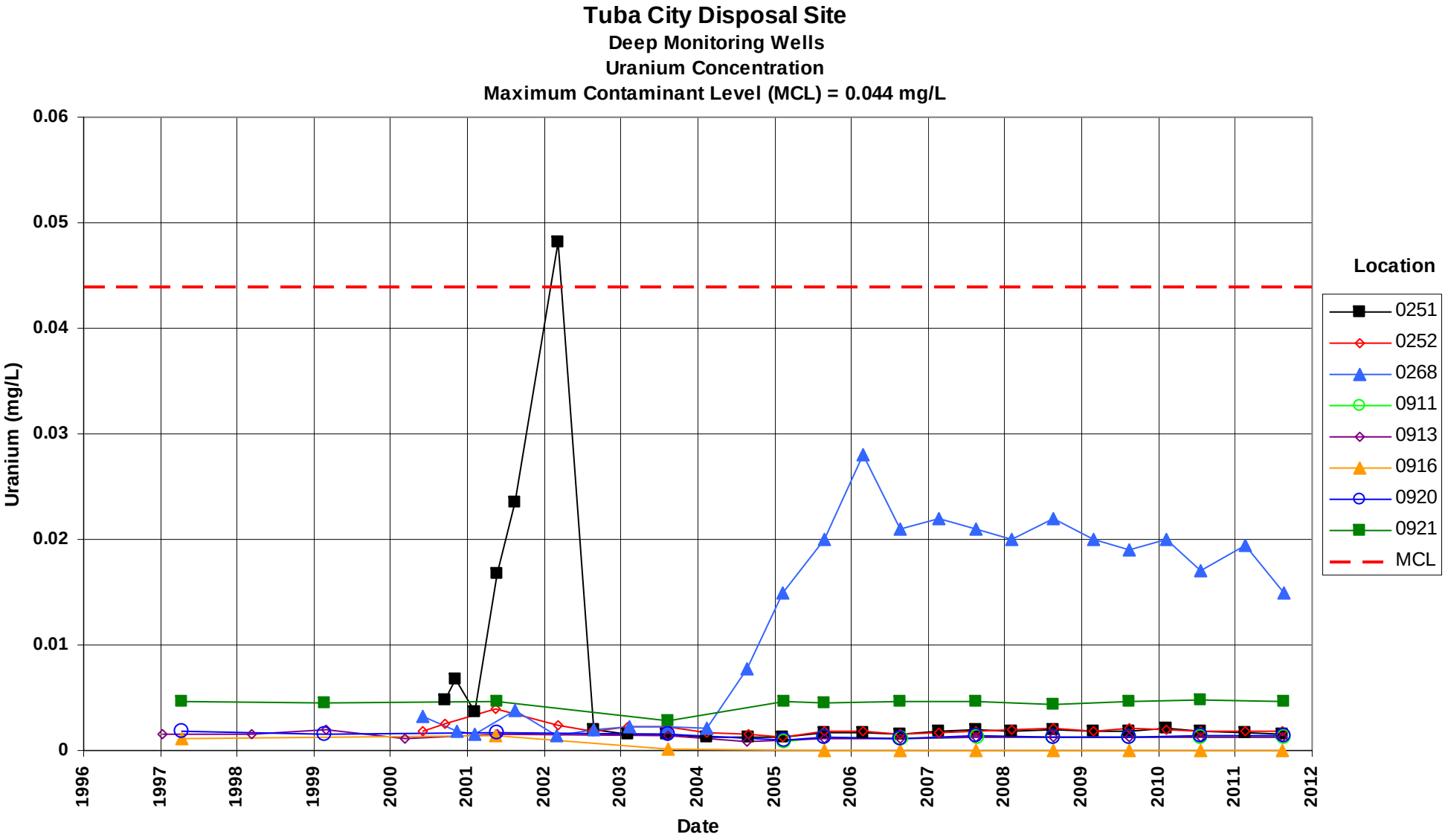

Tuba City Disposal Site
Lower Terrace, Horizons C & D Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Contaminant Level (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
Date
Location
0277
0278
0279
0280
0689
0690
0691
0692
0695
0903
0904
0930
1003
1004
1006
1007
MCL

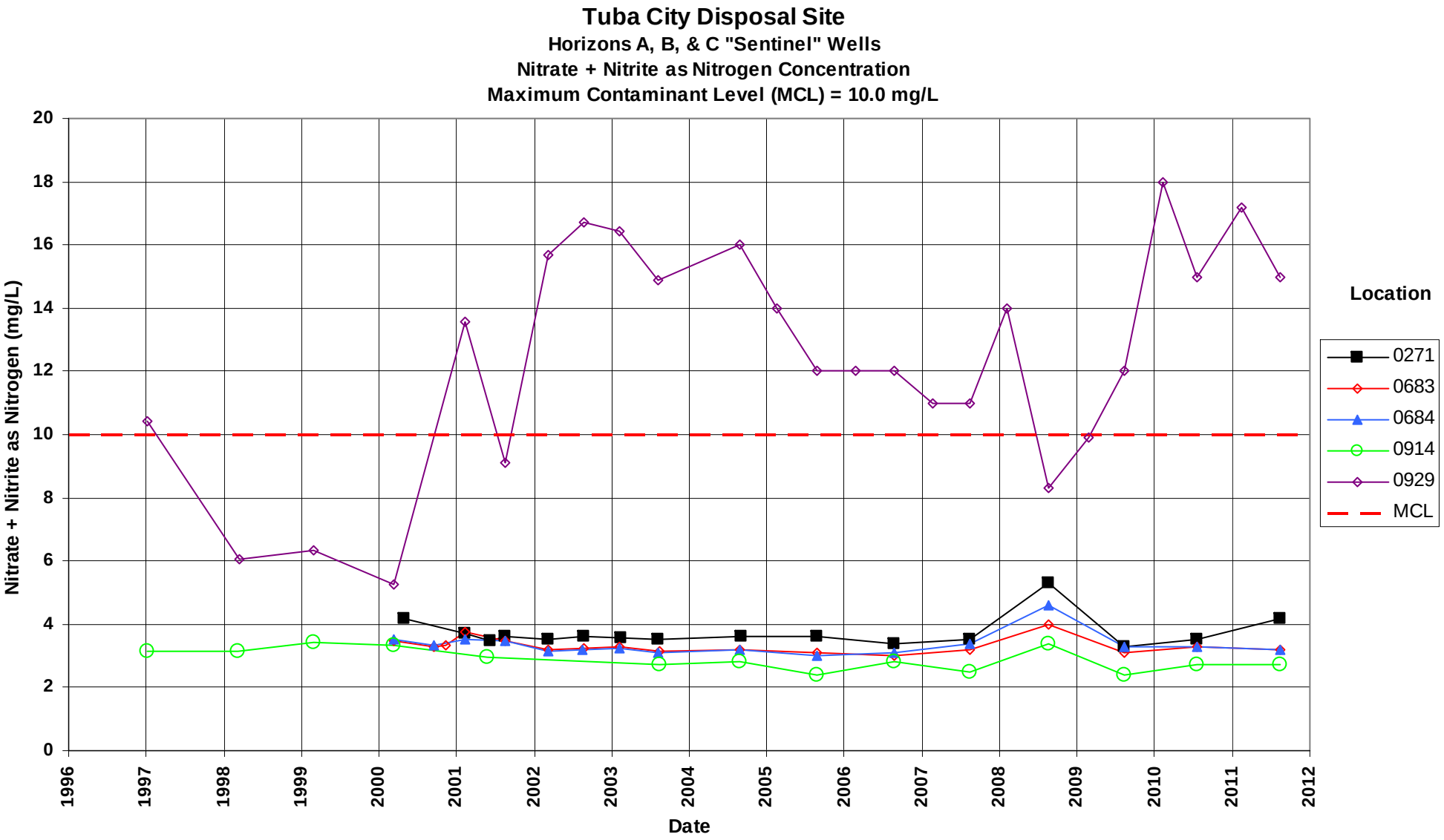

Tuba City Disposal Site
Lower Terrace, Horizons C & D Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
700
600
500
400
300
200
100
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0277
0278
0279
0280
0689
0690
0691
0692
0695
0903
0904
0930
1003
1004
1006
1007
CL

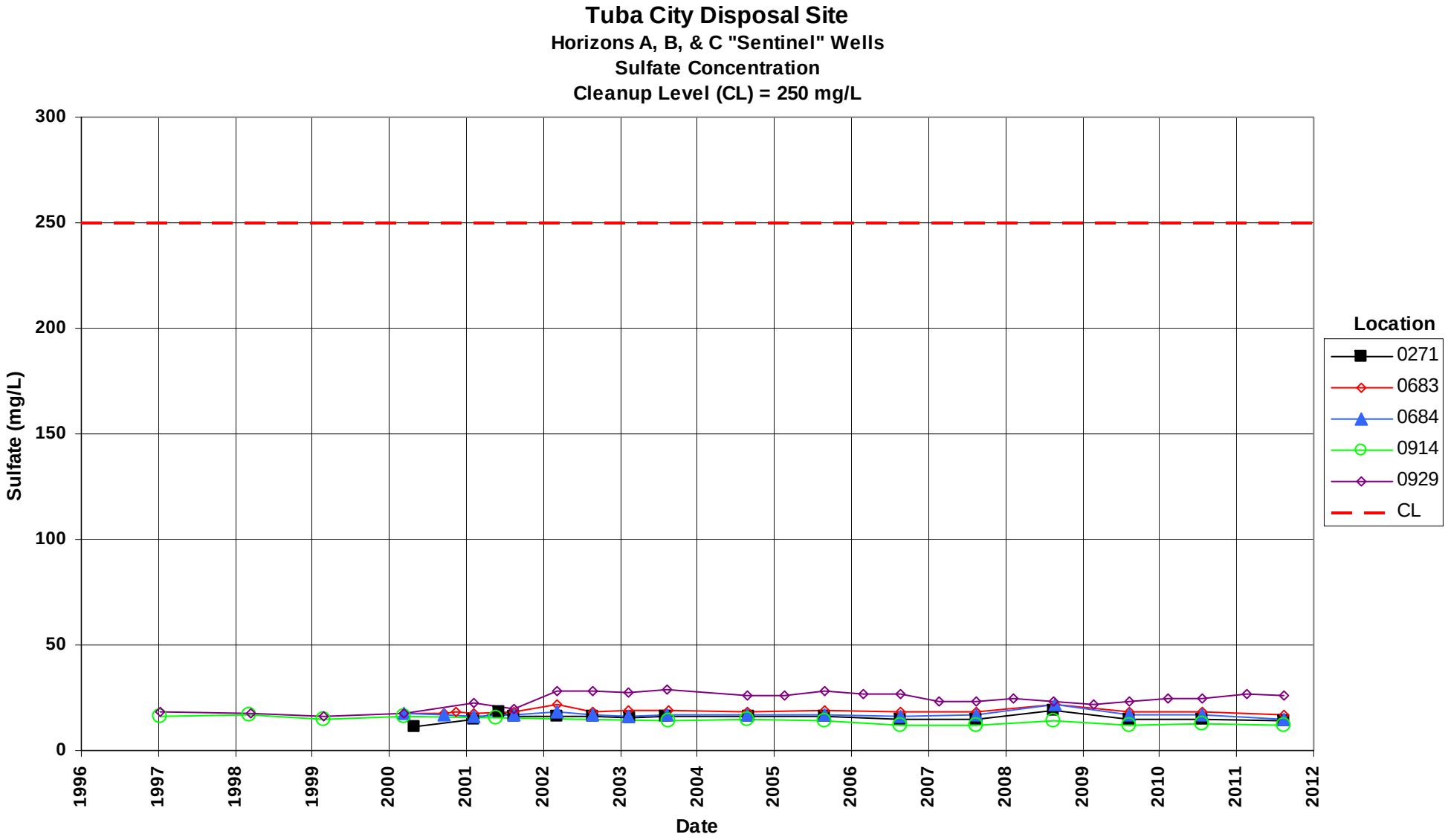

Tuba City Disposal Site
Lower Terrace, Horizons C & D Monitoring Wells
Uranium Concentration
Maximum Contaminant Level (MCL) = 0.044 mg/L
Uranium (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0277
0278
0279
0280
0689
0690
0691
0692
0695
0903
0904
0930
1003
1004
1006
1007
MCL

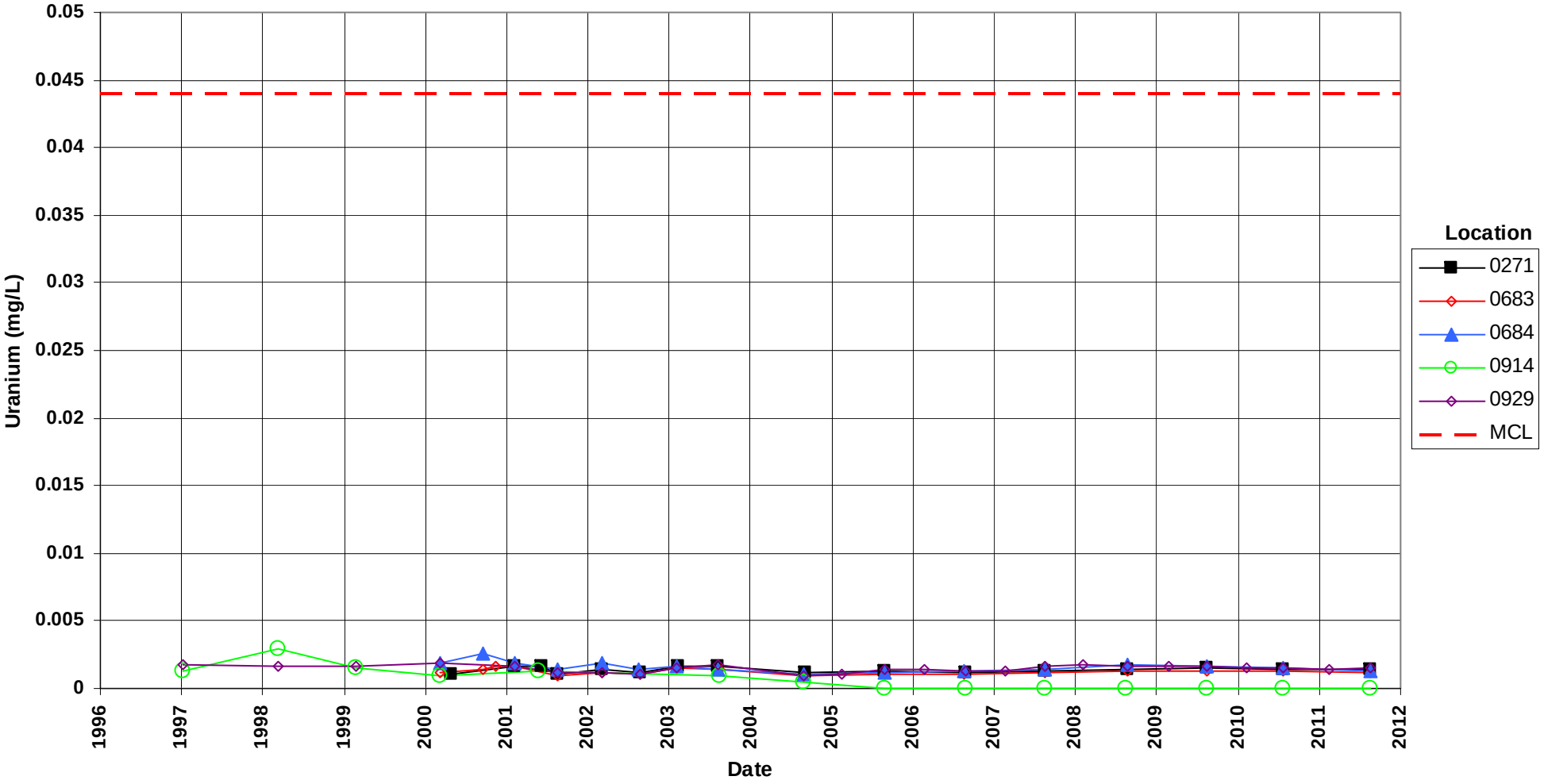

Tuba City Disposal Site
Deep Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Contaminant Level (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
100
90
80
70
60
50
40
30
20
10
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0251
0252
0268
0911
0913
0916
0920
0921
MCL

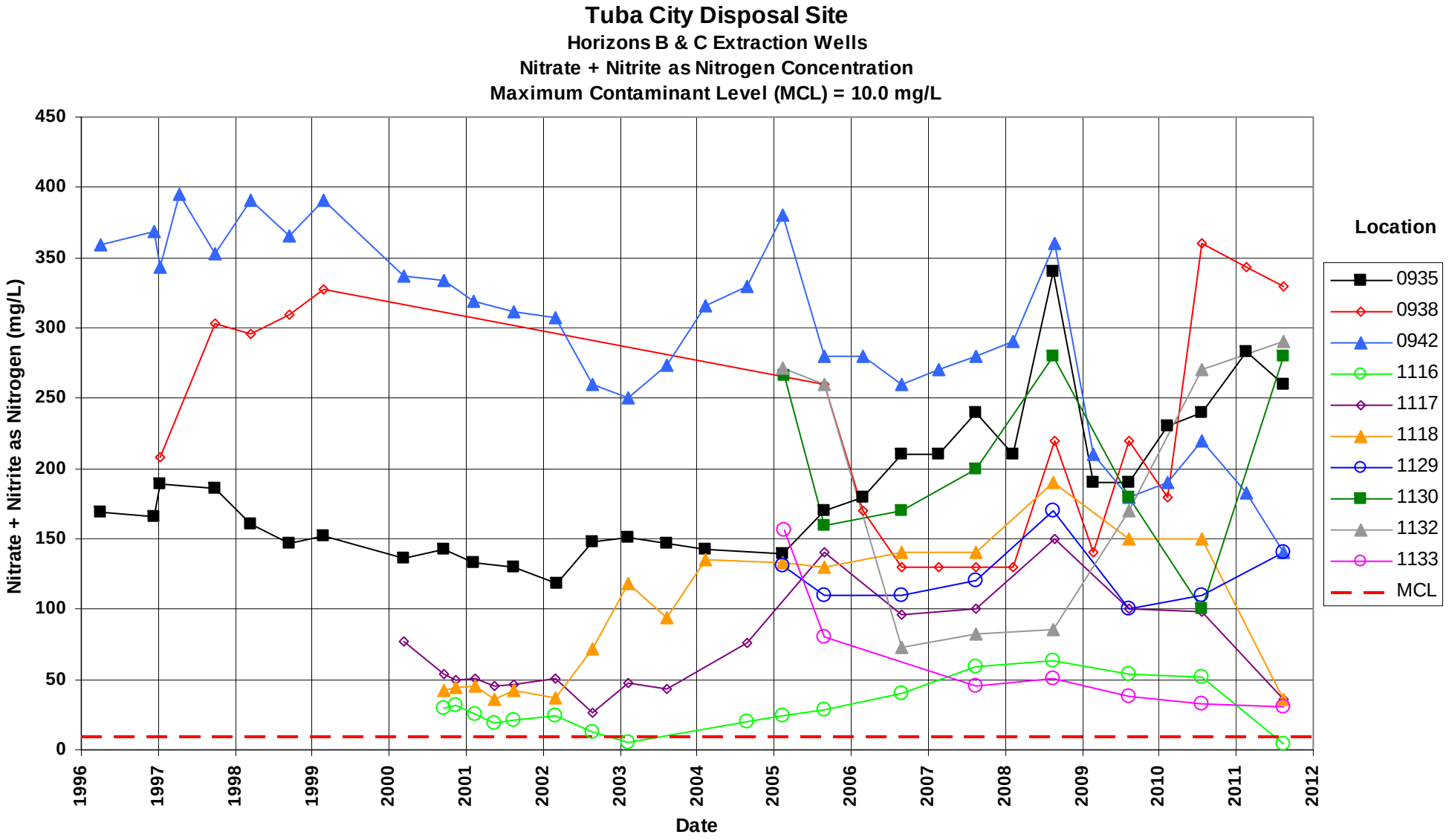

Tuba City Disposal Site
Deep Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
700
600
500
400
300
200
100
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0251
0252
0268
0911
0913
0916
0920
0921
CL

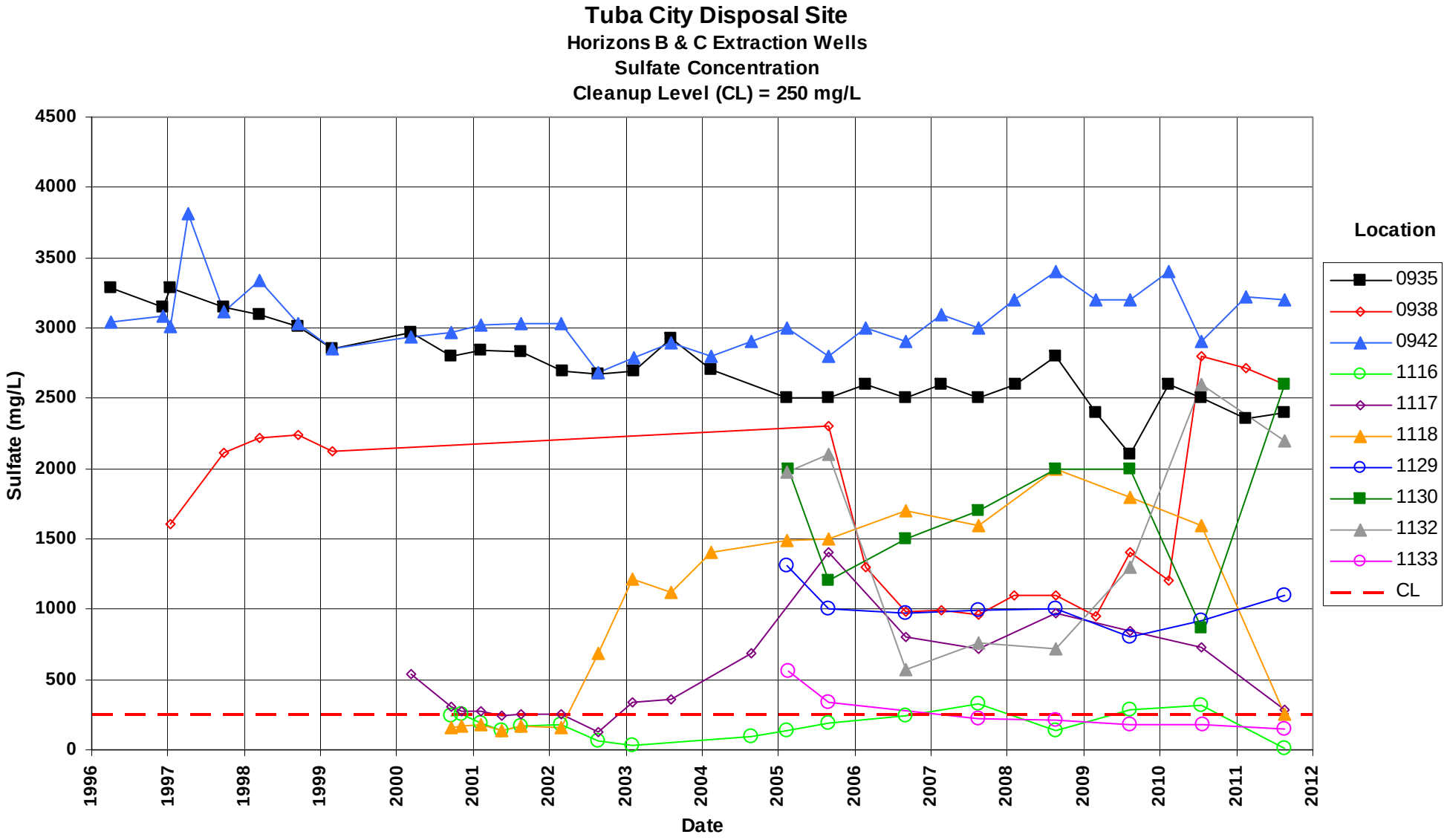

Tuba City Disposal Site
Deep Monitoring Wells
Uranium Concentration
Maximum Contaminant Level (MCL) = 0.044 mg/L
Uranium (mg/L)
0.06
0.05
0.04
0.03
0.02
0.01
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0251
0252
0268
0911
0913
0916
0920
0921
MCL

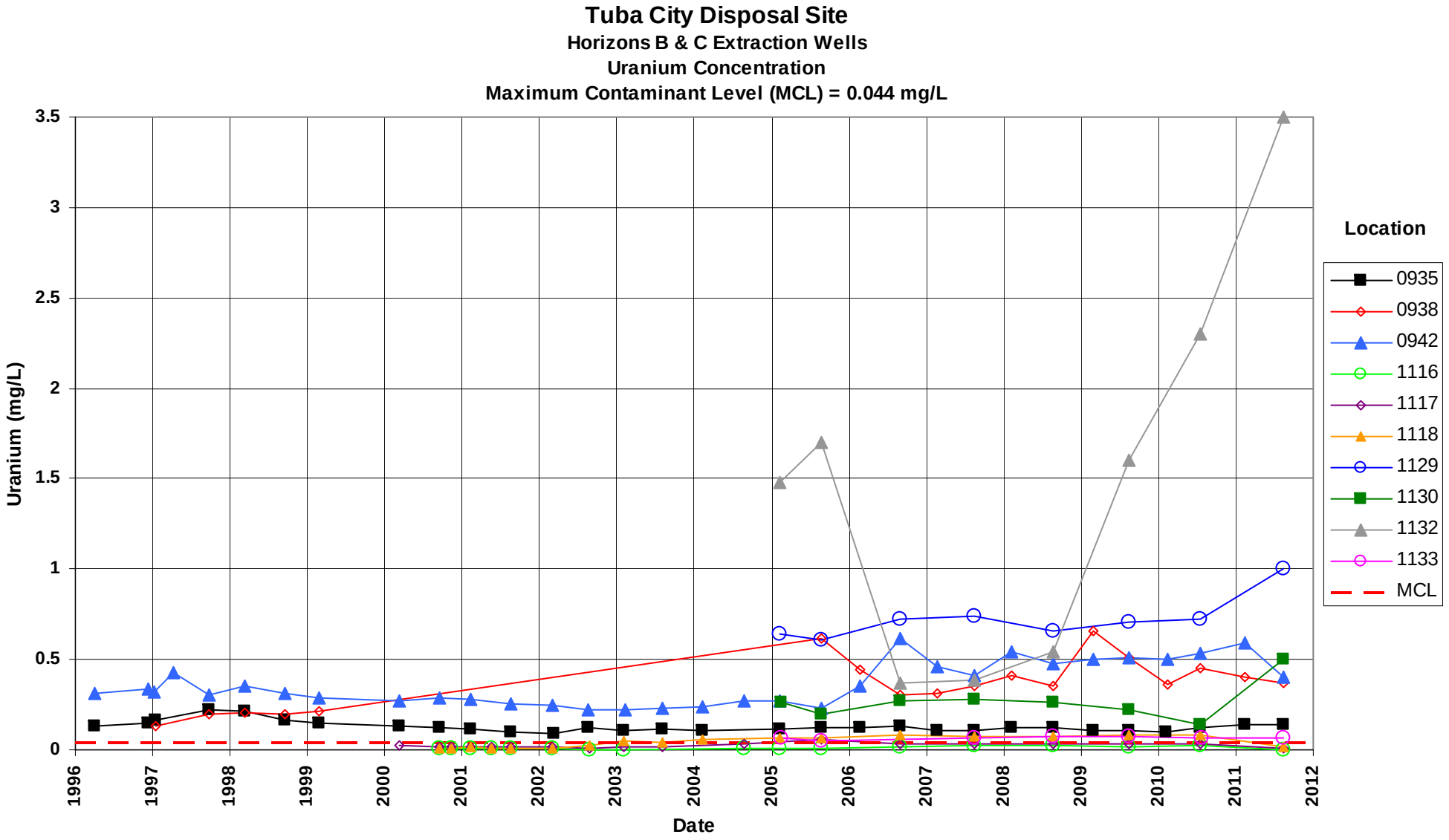

Tuba City Disposal Site
Horizons A, B, & C "Sentinel" Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Contaminant Level (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
0
2
4
6
8
10
12
14
16
18
20
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0271
0683
0684
0914
0929
MCL

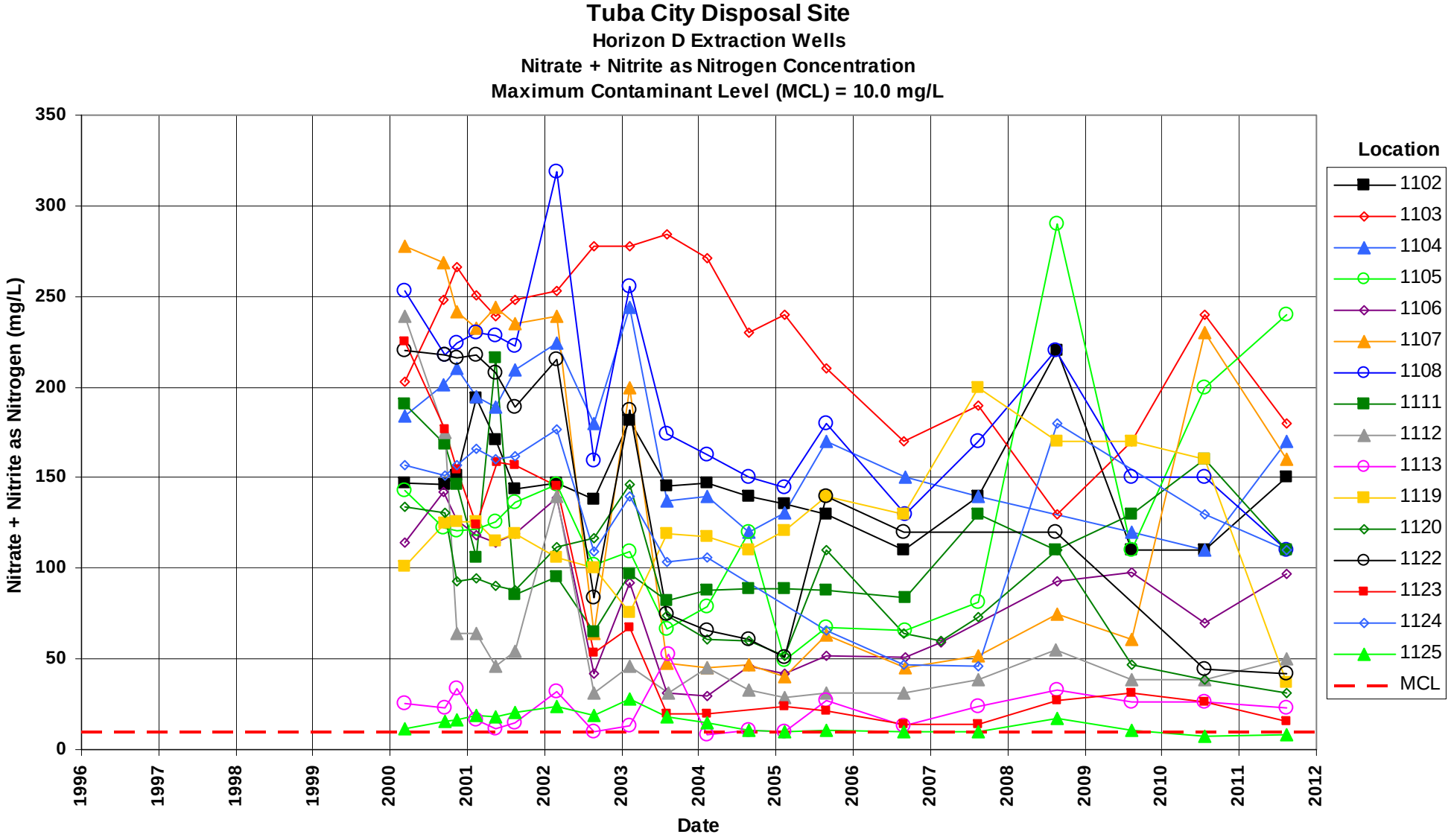

Tuba City Disposal Site
Horizons A, B, & C "Sentinel" Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
300
250
200
150
100
50
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0271
0683
0684
0914
0929
CL

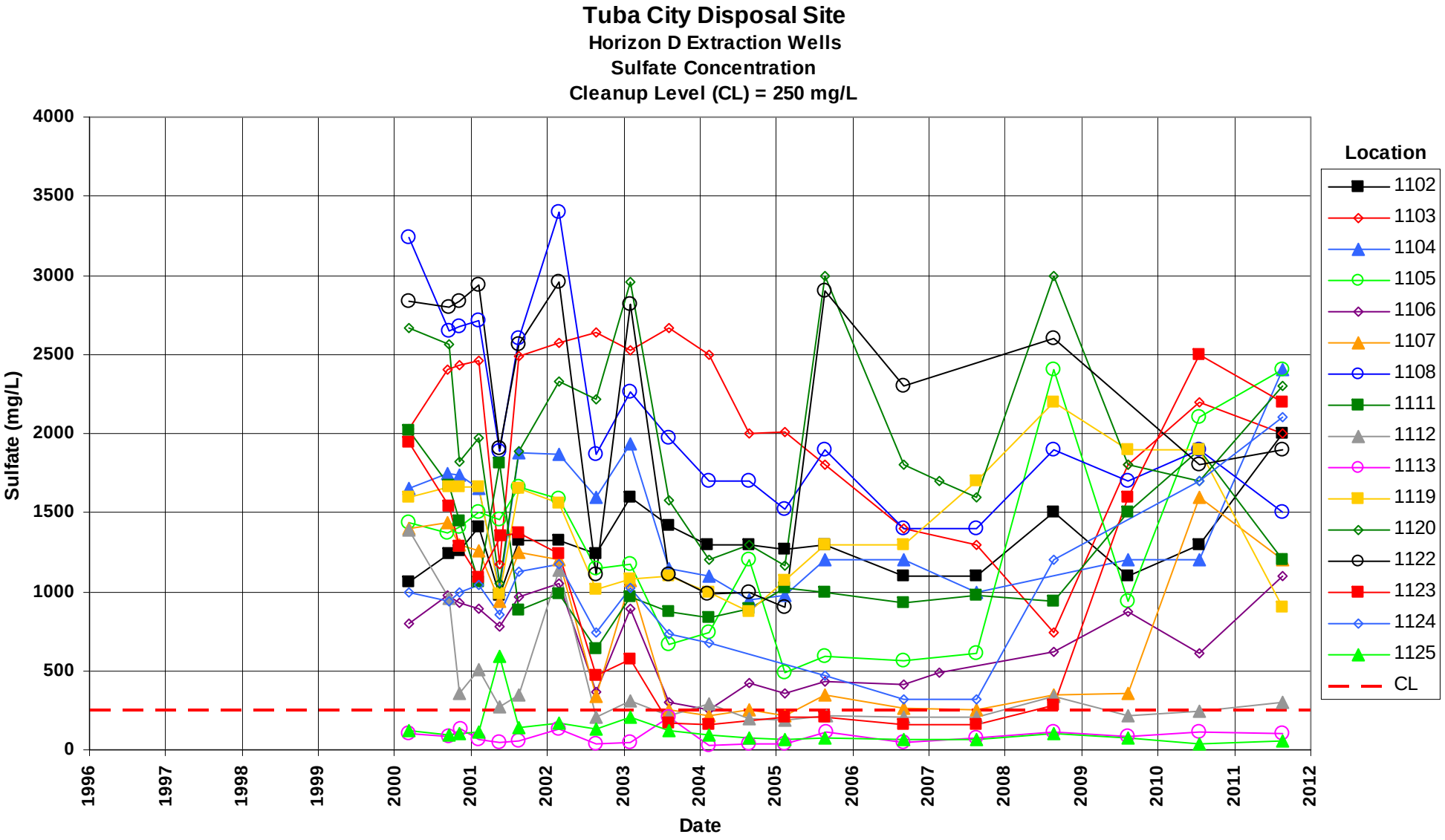

Tuba City Disposal Site
Horizons A, B, & C "Sentinel" Wells
Uranium Concentration
Maximum Contaminant Level (MCL) = 0.044 mg/L
Uranium (mg/L)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0271
0683
0684
0914
0929
MCL

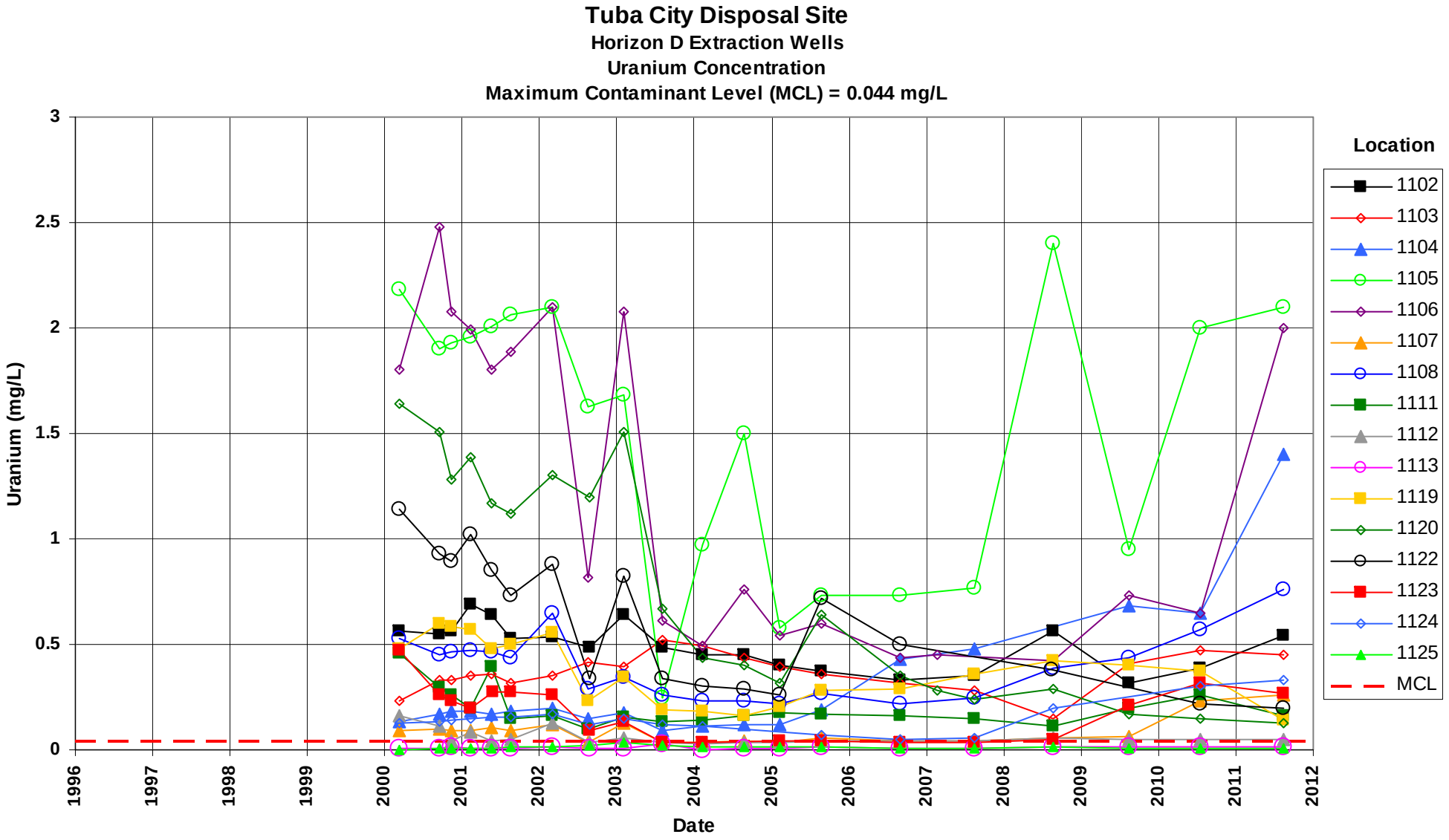

Tuba City Disposal Site
Horizons B & C Extraction Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Contaminant Level (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
Date
Location
0935
0938
0942
1116
1117
1118
1129
1130
1132
1133
MCL


Tuba City Disposal Site
Horizons B & C Extraction Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0935
0938
0942
1116
1117
1118
1129
1130
1132
1133
CL


Tuba City Disposal Site
Horizons B & C Extraction Wells
Uranium Concentration
Maximum Contaminant Level (MCL) = 0.044 mg/L
Uranium (mg/L)
3.5
3
2.5
2
1.5
1
0.5
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
0935
0938
0942
1116
1117
1118
1129
1130
1132
1133
MCL


Tuba City Disposal Site
Horizon D Extraction Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Contaminant Level (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
350
300
250
200
150
100
50
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
1102
1103
1104
1105
1106
1107
1108
1111
1112
1113
1119
1120
1122
1123
1124
1125
MCL


Tuba City Disposal Site
Horizon D Extraction Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
4000
3500
3000
2500
2000
1500
1000
500
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
1102
1103
1104
1105
1106
1107
1108
1111
1112
1113
1119
1120
1122
1123
1124
1125
CL


Tuba City Disposal Site
Horizon D Extraction Wells
Uranium Concentration
Maximum Contaminant Level (MCL) = 0.044 mg/L
Uranium (mg/L)
3
2.5
2
1.5
1
0.5
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Date
Location
1102
1103
1104
1105
1106
1107
1108
1111
1112
1113
1119
1120
1122
1123
1124
1125
MCL

Attachment 3
Sampling and Analysis Work Order

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Stoller

established 1959

Task Order LM00-501
Control Number 11-0712

June 6, 2011

U.S. Department of Energy
Office of Legacy Management
ATTN: Richard Bush
Site Manager
2597 Legacy Way
Grand Junction, CO 81503

SUBJECT: Contract No. DE-AM01-07LM00060, S.M. Stoller Corporation (Stoller)
August 2011 Environmental Sampling at Tuba City, Arizona, Disposal Site

REFERENCE: Task Order LM00-501-02-122-402, Tuba City, AZ, Disposal Site

Dear Mr. Bush:

The purpose of this letter is to inform you of the upcoming sampling event at Tuba City, AZ. Enclosed are the map and tables specifying sample locations and analytes for monitoring at the Tuba City, AZ, Disposal Site. Water quality data will be collected from monitoring wells and surface locations at this site as part of the routine environmental sampling currently scheduled to begin the week of August 1, 2011.

The following lists show the monitoring wells (with zone of completion) and surface locations scheduled to be sampled during this event.

Monitoring Wells*

251 Na	276 Na	685 Al	910 Na	938 Na	1104 Na	1119 Na
252 Na	277 Na	686 Na	911 Na	940 Na	1105 Na	1120 Na
258 Na	278 Na	687 Na	912 Na	941 Na	1106 Na	1121 Na
261 Na	279 Na	688 Na	913 Na	942 Na	1107 Na	1122 Na
262 Na	280 Na	689 Na	914 Na	943 Na	1108 Na	1123 Na
263 Na	281 Na	690 Na	915 Na	945 Na	1109 Na	1124 Na
264 Na	282 Na	691 Na	916 Na	946 Na	1110 Na	1125 Na
265 Na	283 Na	692 Na	920 Na	947 Na	1111 Na	1126 Na
266 Na	286 Na	695 Na	921 Na	1003 Al	1112 Na	1127 Na
267 Na	287 Na	901 Na	929 Na	1004 Al	1113 Na	1128 Na
268 Na	288 Na	903 Na	930 Na	1006 Al	1114 Na	1129 Na
271 Na	289 Na	904 Na	932 Na	1007 Al	1115 Na	1130 Na
272 Na	290 Na	906 Na	934 Na	1101 Na	1116 Na	1131 Na
273 Na	683 Al	908 Na	935 Na	1102 Na	1117 Na	1132 Na
274 Na	684 Al	909 Na	936 Na	1103 Na	1118 Na	1133 Na
275 Na						

*NOTE: Al = alluvium; Na = Navajo sandstone

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Surface locations

759	965	1205	1569	1570	1571	1573
778						

All samples will be collected as directed in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*. In addition, water levels will be collected from all wells on site.

Please contact me at (970) 248-6568 if you have any questions.

Sincerely,

Carl Jacobson
Site Manager

CJ/lcg/lb

Enclosures (3)

cc: (electronic)
Steve Donivan, Stoller
Lauren Goodknight, Stoller
Carl Jacobson, Stoller
Clint Mori, Stoller
Troy Thompson, Stoller
EDD Delivery
rc-grand.junction
File: TUB 410.02 (A)

The S.M. Stoller Corporation 2597 Legacy Way Grand Junction, CO 81503 (970) 248-6000 Fax (970) 248-6040

Constituent Sampling Breakdown

Site	Tuba City				
Analyte	Groundwater	Surface Water	Required Detection Limit (mg/L)	Analytical Method	Line Item Code
Approx. No. Samples/yr	143	9			
Field Measurements					
Alkalinity	X	X			
Dissolved Oxygen					
Redox Potential	X	X			
pH	X	X			
Specific Conductance	X	X			
Turbidity	X				
Temperature	X	X			
Laboratory Measurements					
Aluminum					
Ammonia as N (NH3-N)	X		0.1	EPA 350.1	WCH-A-005
Arsenic	X	X	0.0001	SW-846 6020	LMM-02
Calcium	X	X	5	SW-846 6010	LMM-01
Chloride	X	X	0.5	SW-846 9056	WCH-A-039
Chromium					
Iron	X	X	0.05	SW-846 6020	LMM-02
Lead					
Magnesium	X	X	5	SW-846 6010	LMM-01
Manganese	X	X	0.005	SW-846 6010	LMM-01
Molybdenum	X	X	0.003	SW-846 6020	LMM-02
Nickel					
Nitrate + Nitrite as N (NO3+NO2)-N	X	X	0.05	EPA 353.1	WCH-A-022
Potassium	X	X	1	SW-846 6010	LMM-01
Radium-226					
Radium-228					
Selenium	X	X	0.0001	SW-846 6020	LMM-02
Silica	X		0.2	SW-846 6010	LMM-01
Sodium	X	X	1	SW-846 6010	LMM-01
Strontium					
Sulfate	X	X	0.5	SW-846 9056	MIS-A-044
Sulfide					
Total Dissolved Solids	X	X	10	SM2540 C	WCH-A-033
Total Organic Carbon					
Uranium	X	X	0.0001	SW-846 6020	LMM-02
Vanadium					
Zinc					
Total No. of Analytes	16	14			

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

Sampling Frequencies for Locations at Tuba City, Arizona

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Monitoring Wells						
251		X				
252		X				
258		X				
261			X			August
262		X				
263		X				
264		X				
265		X				
266		X				
267		X				
268		X				
271			X			August
272		X				
273		X				
274		X				
275		X				
276		X				
277			X			August
278			X			August
279			X			August
280			X			August
281		X				
282		X				
283		X				
284					X	Water level only
285					X	Water level only
286		X				
287		X				
288		X				
289		X				
290		X				
683			X			August
684			X			August
685			X			August
686			X			DATA LOGGER; August
687			X			DATA LOGGER; August
688			X			DATA LOGGER; August
689			X			August
690			X			August
691		X				
692			X			August
695			X			August
901			X			August
902					X	Water level only
903			X			August
904			X			August

Sampling Frequencies for Locations at Tuba City, Arizona

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Monitoring Wells						
906		X				DATA LOGGER
908		X				DATA LOGGER
909		X				DATA LOGGER
910			X			August
911			X			August
912			X			August
913			X			August
914			X			August
915			X			August
916			X			August
917					X	Water level only
918					X	Water level only
919					X	Water level only
920			X			August
921			X			August
929		X				
930		X				
932		X				
934		X				DATA LOGGER
935		X				Converted to extraction well 7/05
936		X				DATA LOGGER
938		X				Converted to extraction well 7/05
940		X				DATA LOGGER
941		X				DATA LOGGER
942		X				DATA LOGGER
943			X			DATA LOGGER; August
945			X			August
946			X			DATA LOGGER; August
947			X			August
948					X	Water level only
1003			X			August
1004			X			August
1005					X	Water level only
1006			X			August
1007			X			August
1008					X	Water level only
1101			X			August
1102			X			August
1103			X			August
1104			X			August
1105			X			August
1106			X			August
1107			X			August
1108			X			August
1109			X			August
1110			X			August

Sampling Frequencies for Locations at Tuba City, Arizona

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Monitoring Wells						
1111			X			August
1112			X			August
1113			X			August
1114			X			August
1115			X			August
1116			X			August
1117			X			August
1118			X			August
1119			X			August
1120			X			August
1121			X			August
1122			X			August
1123			X			August
1124			X			August
1125			X			August
1126			X			August
1127			X			August
1128			X			August
1129			X			August
1130			X			August
1131			X			August
1132			X			August
1133			X			August
Surface Locations						
759			X			August; Moenkopi wash-downgradient
778			X			August; Moenkopi wash-at Jimmy Spring
965			X			August; Moenkopi wash-far upgradient
1205		X				Treatment system distillate
1569		X				Evap pond - North
1570		X				Evap pond - South
1571			X			Jimmy Spr West - August
1573			X			West pipe Shonto Well - August

Semi-annual sampling conducted in February and August; Annual sampling conducted in August.

Attachment 4
Trip Report

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Stoller

established 1959

Memorandum

DATE: September 8, 2011

TO: Carl Jacobson

FROM: Gretchen Baer

SUBJECT: Trip Report

Site: Tuba City, Arizona

Dates of Sampling Event: August 15-17, 2011

Team Members: Jeff Price, Joe Trevino, Dave Atkinson, Kent Moe, Jeff Walters, Dan Sellers, and Gretchen Baer

Number of Locations Sampled: Samples were collected from 100 of the 114 locations identified on the sampling notification letter as follows.

	Locations That Were Sampled	Planned Locations
Monitoring wells	67	69
Extraction wells	26	37
Surface locations	7	7
Treatment System locations	0	1

Locations Not Sampled/Reason: A total of 14 locations were not sampled for the following reasons:

- Monitoring wells 0283 and 0909 did not have enough water to sample.
- The pumps at 11 extraction wells (0936, 1101, 1109, 1110, 1114, 1115, 1121, 1126, 1127, 1128, and 1131) were not functioning.
- 1205 is the treatment system distillate. The treatment system was not operating.

Location Specific Information:

Location IDs	Comments
0251, 0258, 0262, 0263, 0264, 0266, 0272, 0273, 0274, 0277, 0278, 0280, 0281, 0286, 0287, 0288, 0289, 0290, 0683, 0684, 0690, 0692, 0906, 0908, 0911, 0912, 0913, 0914, 0915, 0916, 0929, 0934, 0940, 0941, 0945, 0947	Category II based on water level drop.

The S.M. Stoller Corporation 2597 Legacy Way Grand Junction, CO 81503 (970) 248-6000 Fax (970) 248-6040

Location IDs	Comments
0258, 0261, 0290, 0683, 0684, 0759, 0778, 0914, 0915, 0916, 0947, 0965, 1571, 1573	Measurements were recorded with YSI "G." This instrument may have had a low bias for ORP only, based on comparison with historical results and on tap water checks. The tap water checks demonstrated a possible low bias, but not an equipment failure.
0282	Well was purged to below top of pump; pump depth measured at 84.69'.
0283	Could not sample. Hit top of pump at 80.23'.
0686	Deep sand around this well. Parked by ponds to the south and walked to well.
0759, 1573	Surface water. Not enough water collected to record alkalinity.
0901	Turbidity requirements met but a slow and long purge is necessary.
0903	Pump produces half volumes each cycle.
0909	Could not sample. Top of pump = 73.35'. WL = 74.70'. Total Depth measured = 76.9'. Note that this WL was taken immediately after the pump was removed: It is not a measurement of the static water level.
0914, 0915, 0916	pH is ~10 or higher.

Quality Control Sample Cross Reference: The following are the false identifications assigned to the quality control samples.

False ID	True ID	Ticket Number	Sample Type	Associated Matrix
2186	1132	JJS 393	Duplicate	Groundwater
2532	1133	JJS 372	Duplicate	Groundwater
2987	0935	JJS 363	Duplicate	Groundwater
2988	1113	JJS 364	Duplicate	Groundwater
2989	1112	JJS 365	Duplicate	Groundwater
2990	1116	JJS 366	Duplicate	Groundwater
2991	Associated with 0759, 0778, 0965, 1571	JJS 367	Equipment Blank	Surface Water

Report Identification Number (RIN) Assigned: 11084014. Field data sheets can be found in Condor\sms\11084014 in the FieldData folder.

Sample Shipment: Samples were shipped overnight via FedEx to ALS Laboratory Group, Fort Collins, CO, from Tuba City, Arizona, on August 17 and 18, 2011. The second shipment was received by the laboratory a day late on August 20, 2011, due to a FedEx delay.

Water Level Measurements: Water levels were measured in all sampled wells, and in 9 additional wells. Water level data reports for these 9 additional wells (TUB01_8192001.pdf and TUB01_8262011.pdf) can be found in Condor\sms\11084014. Well 0948 is a former monitoring well with a pump added to supply the treatment plant lab with domestic non-potable water. Historically, the water level at this well has fluctuated widely because it is pumped.

Well Inspection Summary: All wells were in good condition.

Field Variance:

- At the Category I well 0282, the water level was below the top of the pump during the purge and could not be measured; therefore, water level stability could not be documented.

- Surface water locations 0759 and 1573: insufficient volume was collected to measure alkalinity.

All other samples were collected according to the *Sampling and Analysis Plan for the U. S. Department of Energy Office of Legacy Management Sites.*

Equipment: All equipment functioned properly. Multi-gas meters were used to verify the air quality in the extraction vaults. Monitoring wells were sampled with a peristaltic pump and dedicated tubing or a dedicated bladder pump. Extraction wells have dedicated submersible pumps and were sampled at taps. Surface waters were sampled using a peristaltic pump and dedicated tubing, a peristaltic pump and tubing reel, or by container immersion. New, dedicated tubing was placed at pond locations 1569 and 1570. This tubing was left at the site. An equipment blank was collected after decontamination of non-dedicated equipment (the tubing reel).

Dataloggers: Dataloggers were downloaded and checked for accuracy at the following locations: 0263, 0264, 0265, 0274, 0286, 0287, 0908, 0929, 0934, 0941, 0943, and 0946. Data and information from each data logger can be viewed electronically using SEEPro.

Regulatory: Nothing to note.

Institutional Controls:

Fences, Gates, and Locks: Acceptable
Signs: Acceptable
Trespassing/Site Disturbances: None observed

Site Issues: Cell phone service (Verizon) was weak but available at the site.

Disposal Cell/Drainage Structure Integrity: No issues observed
Vegetation/Noxious Weed Concerns: None observed
Maintenance Requirements:

- The well completion data for 0283 and 0909 should be examined before the next event. If it is determined that the water in these wells is formation water and not just sump water, the water may have to be sampled by (1) lowering the installed pumps, (2) bailing, or (3) installing new pumps with more flexible bladders.
- An unusual number of extraction well pumps were non-functional for this event. Site personnel are working to get the parts necessary to repair the controls for the pumps.

Safety Issues: None
Access Issues: None

Corrective Action Required/Taken: None

(GB/lcg)

cc: (electronic)
Richard Bush, DOE
Timothy Bartlett, Stoller
Steve Donivan, Stoller
Susan Kamp, Stoller
EDD Delivery

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