LMS/TUB/S00813

Data Validation Package

August 2013
Groundwater and Surface Water Sampling at the Tuba City, Arizona, Disposal Site

November 2013

U.S. DEPARTMENT OF ENERGY Legacy Management

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Data Validation Package for the Tuba City, Arizona, Disposal Site, August 2013

The U.S. Department of Energy (DOE) has prepared a Data Validation Package containing the groundwater and surface water monitoring data generated from the August 2013 sampling event at the Tuba City, Arizona, Disposal Site. This package includes worksheets and reports that document the sampling activities and validation procedures conducted. **At your request, you are receiving a hard copy of the report.**

The report is also available for your review on the Internet at the DOE Office of Legacy Management (LM) website – http://energy.gov/lm. From the LM website home page, select the LM SITES MAP. Then select the Tuba City Site from the LM SITES list in the right column. The report will be available on the Tuba City Site page of the LM website under Site Documents and Links.

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Sampling Event Summary

Site: Tuba City, Arizona, Disposal Site

Sampling Period: August 26-29, 2013

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/PRO/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 2014.

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

Analyte	Standard (mg/L)	Location	Concentration (mg/L)
Arsenic	0.05	1105	0.31
Arsenic	0.05	1106	0.13
Molybdenum	0.1	0262	0.54
Molybdenum	0.1	0287	0.14
Molybdenum	0.1	0936	0.42
Molybdenum	0.1	1105	0.51
Molybdenum	0.1	1129	0.48
Molybdenum	0.1	1132	2
Nitrate + Nitrite as Nitrogen	10	0262	230
Nitrate + Nitrite as Nitrogen	10	0263	230
Nitrate + Nitrite as Nitrogen	10	0264	12
Nitrate + Nitrite as Nitrogen	10	0265	170
Nitrate + Nitrite as Nitrogen	10	0267	330
Nitrate + Nitrite as Nitrogen	10	0268	30
Nitrate + Nitrite as Nitrogen	10	0273	45
Nitrate + Nitrite as Nitrogen	10	0275	260
Nitrate + Nitrite as Nitrogen	10	0281	26

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

Analyte	Standard (mg/L)	Location	Concentration (mg/L)
Nitrate + Nitrite as Nitrogen	10	0282	47
Nitrate + Nitrite as Nitrogen	10	0286	310
Nitrate + Nitrite as Nitrogen	10	0287	280
Nitrate + Nitrite as Nitrogen	10	0288	52
Nitrate + Nitrite as Nitrogen	10	0289	53
Nitrate + Nitrite as Nitrogen	10	0290	60
Nitrate + Nitrite as Nitrogen	10	0691	78
Nitrate + Nitrite as Nitrogen	10	0903	16
Nitrate + Nitrite as Nitrogen	10	0906	390
Nitrate + Nitrite as Nitrogen	10	0908	220
Nitrate + Nitrite as Nitrogen	10	0912	65
Nitrate + Nitrite as Nitrogen	10	0929	14
Nitrate + Nitrite as Nitrogen	10	0930	29
Nitrate + Nitrite as Nitrogen	10	0934	380
Nitrate + Nitrite as Nitrogen	10	0935	210
Nitrate + Nitrite as Nitrogen	10	0936	290
Nitrate + Nitrite as Nitrogen	10	0938	350
Nitrate + Nitrite as Nitrogen	10	0940	420
Nitrate + Nitrite as Nitrogen	10	0941	310
Nitrate + Nitrite as Nitrogen	10	0942	190
Nitrate + Nitrite as Nitrogen	10	1003	65
Nitrate + Nitrite as Nitrogen	10	1101	100
Nitrate + Nitrite as Nitrogen	10	1102	240
Nitrate + Nitrite as Nitrogen	10	1103	230
Nitrate + Nitrite as Nitrogen	10	1104	150
Nitrate + Nitrite as Nitrogen	10	1105	120
Nitrate + Nitrite as Nitrogen	10	1106	75
Nitrate + Nitrite as Nitrogen	10	1107	110
Nitrate + Nitrite as Nitrogen	10	1108	160
Nitrate + Nitrite as Nitrogen	10	1109	120
Nitrate + Nitrite as Nitrogen	10	1110	62
Nitrate + Nitrite as Nitrogen	10	1111	100
Nitrate + Nitrite as Nitrogen	10	1112	49
Nitrate + Nitrite as Nitrogen	10	1113	35
Nitrate + Nitrite as Nitrogen	10	1114	80
Nitrate + Nitrite as Nitrogen	10	1115	82
Nitrate + Nitrite as Nitrogen	10	1116	39
Nitrate + Nitrite as Nitrogen	10	1117	120
Nitrate + Nitrite as Nitrogen	10	1118	190
Nitrate + Nitrite as Nitrogen	10	1119	150
Nitrate + Nitrite as Nitrogen	10	1120	30
Nitrate + Nitrite as Nitrogen	10	1121	11
Nitrate + Nitrite as Nitrogen	10	1122	31

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

Analyte	Standard (mg/L)	Location	Concentration (mg/L)
Nitrate + Nitrite as Nitrogen	10	1123	18
Nitrate + Nitrite as Nitrogen	10	1124	99
Nitrate + Nitrite as Nitrogen	10	1125	18
Nitrate + Nitrite as Nitrogen	10	1126	280
Nitrate + Nitrite as Nitrogen	10	1127	50
Nitrate + Nitrite as Nitrogen	10	1128	150
Nitrate + Nitrite as Nitrogen	10	1129	120
Nitrate + Nitrite as Nitrogen	10	1130	260
Nitrate + Nitrite as Nitrogen	10	1132	220
Nitrate + Nitrite as Nitrogen	10	1133	49
Selenium	0.01	0262	0.056
Selenium	0.01	0263	0.042
Selenium	0.01	0267	0.048
Selenium	0.01	0273	0.017
Selenium	0.01	0275	0.04
Selenium	0.01	0286	0.051
Selenium	0.01	0287	0.091
Selenium	0.01	0904	0.012
Selenium	0.01	0906	0.029
Selenium	0.01	0908	0.019
Selenium	0.01	0934	0.01
Selenium	0.01	0935	0.016
Selenium	0.01	0936	0.041
Selenium	0.01	0938	0.071
Selenium	0.01	0940	0.066
Selenium	0.01	0941	0.087
Selenium	0.01	0942	0.053
Selenium	0.01	1101	0.024
Selenium	0.01	1102	0.048
Selenium	0.01	1103	0.035
Selenium	0.01	1104	0.031
Selenium	0.01	1105	0.038
Selenium	0.01	1106	0.024
Selenium	0.01	1107	0.032
Selenium	0.01	1108	0.034
Selenium	0.01	1109	0.021
Selenium	0.01	1114	0.011
Selenium	0.01	1115	0.011
Selenium	0.01	1117	0.013
Selenium	0.01	1119	0.033
Selenium	0.01	1120	0.01
Selenium	0.01	1122	0.018
Selenium	0.01	1123	0.011

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

Analyte	Standard (mg/L)	Location	Concentration (mg/L)
Selenium	0.01	1124	0.028
Selenium	0.01	1126	0.015
Selenium	0.01	1128	0.021
Selenium	0.01	1129	0.049
Selenium	0.01	1130	0.05
Selenium	0.01	1132	0.14
Selenium	0.01	1133	0.024
Uranium	0.044	0262	0.61
Uranium	0.044	0263	0.25
Uranium	0.044	0265	0.061
Uranium	0.044	0267	0.064
Uranium	0.044	0275	0.43
Uranium	0.044	0286	0.44
Uranium	0.044	0287	0.26
Uranium	0.044	0691	0.077
Uranium	0.044	0906	0.62
Uranium	0.044	0908	0.075
Uranium	0.044	0934	0.12
Uranium	0.044	0935	0.11
Uranium	0.044	0936	0.51
Uranium	0.044	0938	0.29
Uranium	0.044	0940	0.59
Uranium	0.044	0941	0.24
Uranium	0.044	0942	0.47
Uranium	0.044	1101	0.3
Uranium	0.044	1102	0.52
Uranium	0.044	1103	0.41
Uranium	0.044	1104	0.67
Uranium	0.044	1105	1
Uranium	0.044	1106	0.86
Uranium	0.044	1107	0.27
Uranium	0.044	1108	0.93
Uranium	0.044	1109	0.4
Uranium	0.044	1110	0.083
Uranium	0.044	1111	0.12
Uranium	0.044	1112	0.056
Uranium	0.044	1114	0.073
Uranium	0.044	1115	0.092
Uranium	0.044	1118	0.049
Uranium	0.044	1119	0.35
Uranium	0.044	1120	0.11
Uranium	0.044	1121	0.045
Uranium	0.044	1122	0.16

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

Analyte	Standard (mg/L)	Location	Concentration (mg/L)
Uranium	0.044	1123	0.13
Uranium	0.044	1124	0.24
Uranium	0.044	1126	0.047
Uranium	0.044	1128	0.058
Uranium	0.044	1129	0.49
Uranium	0.044	1130	0.65
Uranium	0.044	1132	2.1
Uranium	0.044	1133	0.13

mg/L = milligrams per liter

TR Bartlett

Tim Bartlett
Site Hydrologist, S.M. Stoller Corporation

11/25/13

Date

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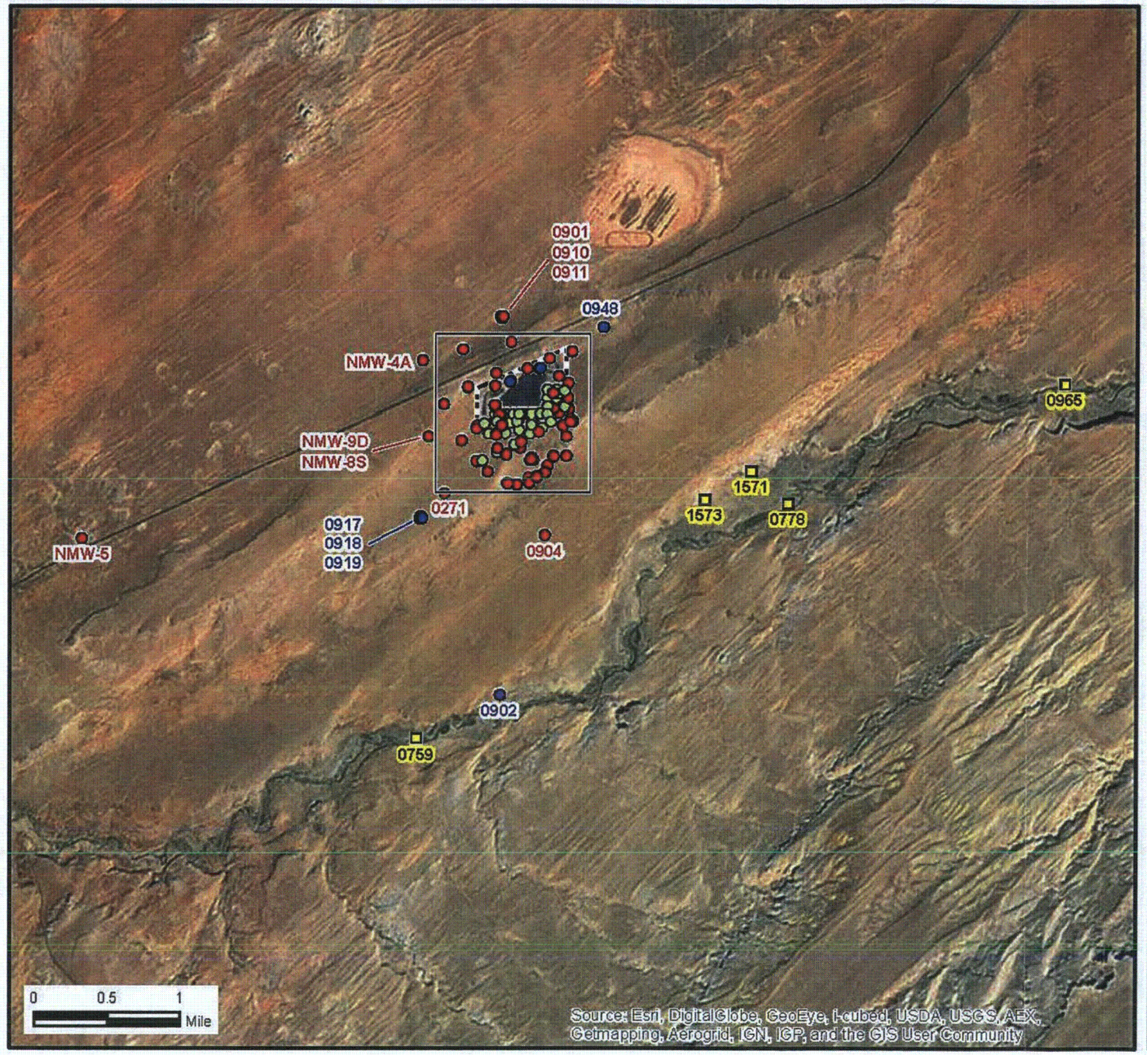

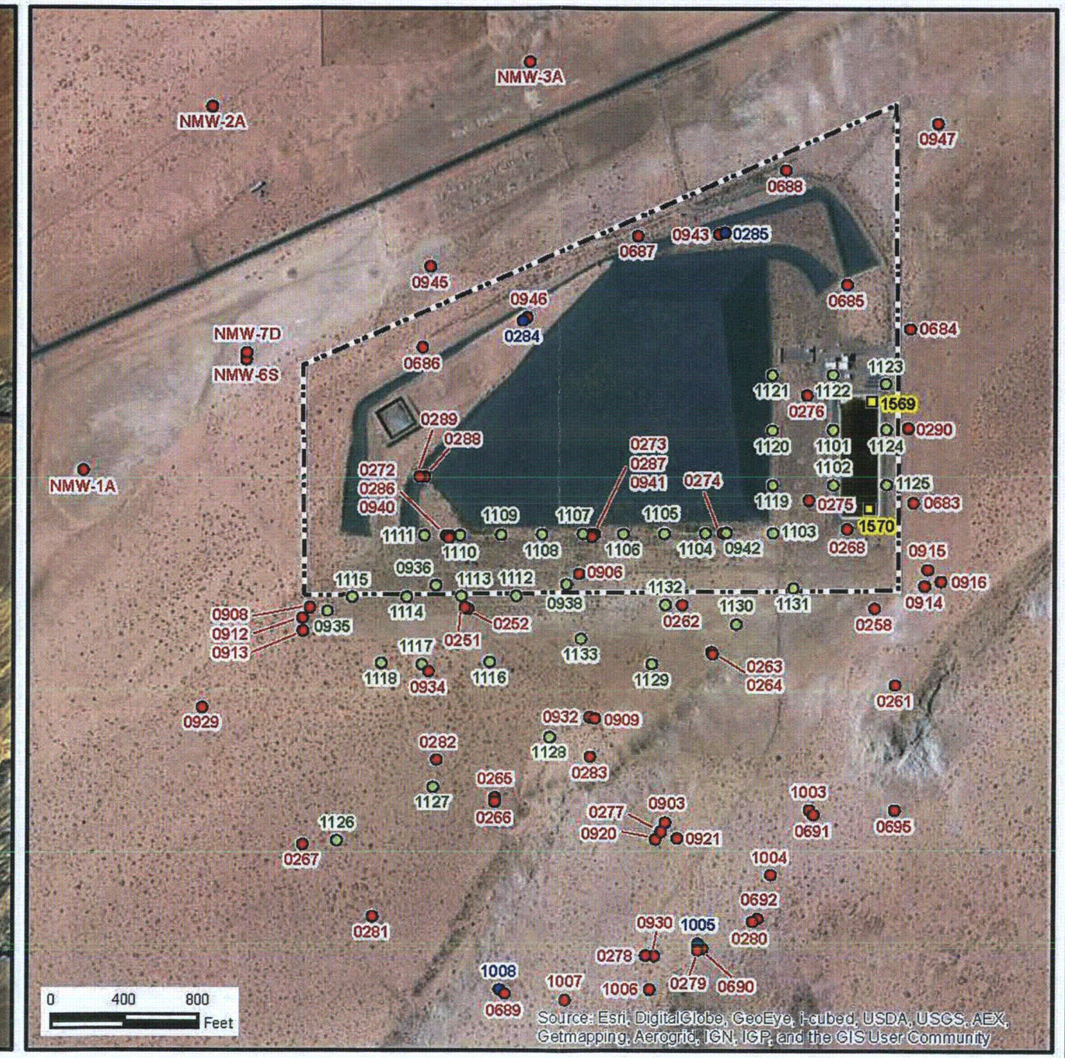

LEGEND

- MONITORING WELL TO BE SAMPLED
- EXTRACTION WELL TO BE SAMPLED
- MONITORING WELL - WATER LEVEL ONLY
- SURFACE LOCATION TO BE SAMPLED
- SITE BOUNDARY

N

U.S. DEPARTMENT OF ENERGY GRAND JUNCTION, COLORADO	Work Performed by: S.M. Stoller Corporation Under DOE Contract No. DE-AR01-07LM00060
Planned Sampling Map Tuba City, AZ, Disposal Site August 2013	
DATE PREPARED: July 11, 2013	FILENAME: S1043800

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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 26-29, 2013
Date(s) of Verification	November 14, 2013	**Name of Verifier**	Gretchen Baer

	Response (Yes, No, NA)	Comments
1. Is the SAP the primary document directing field procedures?	Yes	
List any Program Directives or other documents, SOPs, instructions.		Work Order letter dated July 15, 2013. Program Directive No. TUB-2013-01.
2. Were the sampling locations specified in the planning documents sampled?	No	Monitoring wells 0283 and 0909, and extraction well 1131 were dry.
3. Were calibrations conducted as specified in the above-named documents?	Yes	
4. Was an operational check of the field equipment conducted daily?	Yes	
Did the operational checks meet criteria?	No	The post-trip calibration check for ORP was slightly above the acceptance range, which is acceptable for this measurement.
5. Were the number and types (alkalinity, temperature, specific conductance, pH, turbidity, DO, ORP) of field measurements taken as specified?	Yes	
6. Were wells categorized correctly?	No	Two wells were mis-categorized in the field notes. The wells were purged using the correct criteria, so no data qualification was necessary.
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 meet criteria prior to sampling?	Yes	
Was the flow rate less than 500 mL/min?	Yes	

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	Seven duplicate samples were collected.
10. Were equipment blanks taken at a frequency of one per 20 samples that were collected with non-dedicated 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 the true identities of the QC samples documented?	Yes	QC samples are listed in the trip report and in the field notes.
13. Were samples collected in the containers specified?	Yes	
14. Were samples filtered and preserved as specified?	Yes	
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	
17. Was all pertinent information documented on the field data sheets?	Yes	
18. Was the presence or absence of ice in the cooler documented at every sample location?	Yes	
19. Were water levels measured at the locations specified in the planning documents?	Yes	Water levels were measured in all sampled wells and in nine additional wells, as planned.

Laboratory Performance Assessment

General Information

Requisition No.:	13085553
Sample Event:	August 26-29, 2013
Site(s):	Tuba City, Arizona
Laboratory:	ALS Laboratory Group, Fort Collins, Colorado
Work Order Nos.:	1308513
Analysis:	Metals and Inorganics
Validator:	Gretchen Baer
Review Date:	November 14, 2013

This validation was performed according to the *Environmental Procedures Catalog* (LMS/POL/S04325, continually updated), "Standard Practice for Validation of Environmental 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	EPA 350.1	EPA 350.1
Arsenic, Molybdenum, Selenium, Uranium	LMM-02	SW-846 3005A	SW-846 6020A EPA 200.8
Calcium, Iron, Magnesium, Manganese, Potassium, Silica, Sodium	LMM-01	SW-846 3005A	SW-846 6010B
Chloride, Sulfate	MIS-A-045	SW-846 9056	SW-846 9056
Nitrite + Nitrate as N	WCH-A-022	EPA 353.2	EPA 353.2
Total Dissolved Solids	WCH-A-033	EPA 160.1	EPA 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
1308513-1	0263	Ammonia as N	J	MS recovery < lower limit
1308513-1	0263	Potassium	J	Serial dilution result
1308513-3	0274	Iron	U	Less than 5 times the method blank
1308513-4	0287	Iron	U	Less than 5 times the method blank
1308513-5	0908	Molybdenum	U	Less than 5 times the method blank
1308513-8	0935	Arsenic	J	Reporting limit verification not performed
1308513-8	0935	Iron	U	Less than 5 times the method blank
1308513-13	1104	Arsenic	J	Reporting limit verification not performed

Table 3 (continued). Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
1308513-13	1104	Iron	U	Less than 5 times the method blank
1308513-15	1106	Selenium	J	Reporting limit verification > 130%
1308513-17	1108	Molybdenum	U	Less than 5 times the method blank
1308513-19	1111	Arsenic	J	Reporting limit verification not performed
1308513-20	1112	Molybdenum	J	Field duplicate range > PQL
1308513-20	1112	Molybdenum	U	Less than 5 times the method blank
1308513-21	1113	Ammonia as N	J	MS recovery < lower limit
1308513-21	1113	Calcium	J	MS recovery < lower limit
1308513-23	1116	Selenium	J	Serial dilution result
1308513-27	1121	Iron	U	Less than 5 times the method blank
1308513-33	1129	Arsenic	J	Reporting limit verification not performed
1308513-34	1130	Arsenic	J	Reporting limit verification not performed
1308513-35	1132	Arsenic	J	Reporting limit verification not performed
1308513-38	1114 Dup	Iron	U	Less than 5 times the method blank
1308513-39	1113 Dup	Calcium	J	MS recovery < lower limit
1308513-39	1113 Dup	Iron	U	Less than 5 times the method blank
1308513-40	1112 Dup	Manganese	U	Less than 5 times the calibration blank
1308513-40	1112 Dup	Molybdenum	J	Field duplicate range > PQL
1308513-41	1116 Dup	Selenium	J	Serial dilution result
1308513-43	0252	Iron	U	Less than 5 times the method blank
1308513-45	0261	Arsenic	J	Field duplicate RPD greater than 20%
1308513-45	0261	Calcium	J	CCV frequency not compliant
1308513-45	0261	Iron	J	CCV frequency not compliant
1308513-45	0261	Magnesium	J	CCV frequency not compliant
1308513-45	0261	Manganese	J	Field duplicate RPD greater than 20%
1308513-45	0261	Manganese	U	Less than 5 times the calibration blank
1308513-45	0261	Manganese	J	CCV frequency not compliant
1308513-45	0261	Potassium	J	CCV frequency not compliant
1308513-45	0261	Selenium	J	Field duplicate RPD greater than 20%
1308513-45	0261	Silica	J	CCV frequency not compliant
1308513-45	0261	Sodium	J	Field duplicate RPD greater than 20%
1308513-45	0261	Sodium	J	CCV frequency not compliant
1308513-47	0280	Iron	U	Less than 5 times the method blank
1308513-47	0280	Manganese	U	Less than 5 times the calibration blank
1308513-48	0290	Manganese	U	Less than 5 times the calibration blank
1308513-51	0686	Manganese	U	Less than 5 times the calibration blank
1308513-52	0687	Manganese	U	Less than 5 times the calibration blank
1308513-52	0687	Selenium	J	Reporting limit verification > 130%
1308513-53	0688	Iron	U	Less than 5 times the method blank
1308513-53	0688	Manganese	U	Less than 5 times the calibration blank
1308513-56	0695	Iron	U	Less than 5 times the method blank
1308513-57	0914	Magnesium	U	Less than 5 times the calibration blank
1308513-58	0915	Arsenic	J	Reporting limit verification > 130%
1308513-59	0916	Iron	U	Less than 5 times the method blank
1308513-59	0916	Magnesium	U	Less than 5 times the calibration blank
1308513-61	0947	Arsenic	J	Serial dilution result
1308513-61	0947	Iron	U	Less than 5 times the calibration blank

Table 3 (continued). Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
1308513-61	0947	Selenium	J	Serial dilution result
1308513-61	0947	Sodium	J	Serial dilution result
1308513-62	1003	Iron	U	Less than 5 times the calibration blank
1308513-62	1003	Manganese	U	Less than 5 times the calibration blank
1308513-63	1004	Manganese	U	Less than 5 times the calibration blank
1308513-66	0261 Dup	Arsenic	J	Field duplicate RPD greater than 20%
1308513-66	0261 Dup	Manganese	J	Field duplicate RPD greater than 20%
1308513-66	0261 Dup	Selenium	J	Field duplicate RPD greater than 20%
1308513-66	0261 Dup	Sodium	J	Field duplicate RPD greater than 20%
1308513-67	0266	Iron	U	Less than 5 times the calibration blank
1308513-70	0271	Iron	U	Less than 5 times the calibration blank
1308513-71	0272	Manganese	U	Less than 5 times the calibration blank
1308513-72	0273	Manganese	U	Less than 5 times the calibration blank
1308513-77	0286	Ammonia as N	J	Exceeded holding time
1308513-79	0289	Iron	U	Less than 5 times the calibration blank
1308513-80	0906	Iron	U	Less than 5 times the calibration blank
1308513-81	0912	Arsenic	J	Serial dilution result
1308513-81	0912	Iron	U	Less than 5 times the calibration blank
1308513-81	0912	Manganese	U	Less than 5 times the calibration blank
1308513-82	0913	Iron	U	Less than 5 times the calibration blank
1308513-86	1109	Iron	U	Less than 5 times the calibration blank
1308513-88	1118	Manganese	U	Less than 5 times the calibration blank
1308513-90	1127	Ammonia as N	J	Exceeded holding time
1308513-90	1127	Ammonia as N	J	MS recovery < lower limit
1308513-90	1127	Manganese	U	Less than 5 times the calibration blank
1308513-91	Equip Blank	Arsenic	J	Reporting limit verification > 130%
1308513-91	Equipment Blank	Calcium	U	Less than 5 times the calibration blank
1308513-91	Equipment Blank	Iron	U	Less than 5 times the calibration blank
1308513-91	Equipment Blank	Magnesium	U	Less than 5 times the calibration blank
1308513-91	Equipment Blank	Manganese	U	Less than 5 times the calibration blank
1308513-91	Equip Blank	Selenium	J	Reporting limit verification > 130%
1308513-91	Equipment Blank	Sodium	U	Less than 5 times the calibration blank
1308513-92	0277	Iron	U	Less than 5 times the calibration blank
1308513-94	0279	Iron	U	Less than 5 times the calibration blank
1308513-94	0279	Manganese	U	Less than 5 times the calibration blank
1308513-95	0689	Iron	U	Less than 5 times the calibration blank
1308513-98	0778	Iron	U	Less than 5 times the calibration blank
1308513-99	0903	Iron	U	Less than 5 times the calibration blank
1308513-99	0903	Manganese	U	Less than 5 times the calibration blank
1308513-109	1205	Calcium	U	Less than 5 times the calibration blank
1308513-113	0265	Manganese	U	Less than 5 times the calibration blank
1308513-116	0929	Manganese	U	Less than 5 times the calibration blank
1308513-118	0940	Arsenic	J	Field duplicate RPD greater than 20%
1308513-120	0946	Manganese	U	Less than 5 times the calibration blank
1308513-121	0940 Dup	Arsenic	J	Field duplicate RPD greater than 20%
1308513-123	NMW-2A	Iron	U	Less than 5 times the method blank
1308513-123	NMW-2A	Manganese	U	Less than 5 times the calibration blank

Table 3 (continued). Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
1308513-125	NMW-4A	Manganese	U	Less than 5 times the calibration blank
1308513-127	NMW-6S	Manganese	U	Less than 5 times the calibration blank
1308513-128	NMW-7D	Manganese	U	Less than 5 times the calibration blank
1308513-130	NMW-9D	Iron	U	Less than 5 times the method blank

RPD = relative percent difference
PQL = practical quantitation limit

Sample Shipping/Receiving

ALS Laboratory Group in Fort Collins, Colorado, received 130 samples on August 29 and 31, 2013, accompanied by a Chain of Custody form. 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.

Preservation and Holding Times

The sample shipment was received intact with the temperatures inside the iced coolers at 0.8, 1.6 and 2.4 °C, which complies with requirements. All samples were received in the correct container types and had been preserved correctly for the requested analyses, with one exception. A bottle for sample 1101 was received with a pH outside of the acceptance range. The laboratory adjusted the pH of the sample upon receipt. No data qualification or further corrective action is required. All samples were analyzed within the applicable holding times, with two exceptions. Due to laboratory error, two samples exceeded the 28-day holding time for ammonia as N analysis. The associated results are qualified with a "J" flag (estimated).

Detection and Quantitation Limits

The method detection limit (MDL) was reported for all analytes as required. The MDL, as defined in 40 CFR 136, is the minimum concentration of an analyte that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero. The practical quantitation limit (PQL) for these analytes is the lowest concentration that can be reliably measured, and is defined as 5 times the MDL. The reported MDLs for all analytes demonstrate compliance with contractual requirements.

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. 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. All calibration and laboratory spike standards were prepared from independent sources.

Method EPA 160.1
There is no initial or continuing calibration requirement associated with the determination of total dissolved solids.

Method EPA 350.1
The initial calibrations for ammonia as N were performed September 12 and October 7, 2013, 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 MDL. Initial and continuing calibration verification checks were made at the required frequency and all calibration check results met the acceptance criteria.

Method EPA 353.2
The initial calibrations for nitrate + nitrite as N were performed September 9 and 16, 2013, using seven calibration standards. The calibration curve correlation coefficient values and the absolute values of the intercepts were not provided. Initial and continuing calibration verification checks were made at the required frequency and all calibration check results met the acceptance criteria.

Method SW-846 6010B
Calibrations for calcium, iron, magnesium, manganese, potassium, silica, and sodium were performed September 19, 23, 24, 26, and 27, 2013, using three calibration standards. The correlation coefficient values were greater than 0.995. 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 all results were above the reporting limits. Initial and continuing calibration verification checks were not made at the required frequency. On September 24, 2013, 11 injections were made between a set of checks. All results not within 5 injections of a continuing calibration verification (CCV) sample are qualified with a "J" flag as estimated values. The calibration checks met the acceptance criteria with the exception of one check for sodium. No sample results associated with this check were reported for sodium, so no data were qualified. Reporting limit verification checks were made at the required frequency to verify the linearity of the calibration curve near the PQL and all results associated with the samples were within the acceptance range.

Method SW-846 6020A
Calibrations for arsenic, molybdenum, selenium, and uranium were performed September 20, 21, 23, and 26, 2013, using four calibration standards. The correlation coefficient values were greater than 0.995. The absolute values of the intercepts were less than 3 times the MDL. Initial and continuing calibration verification checks were made at the required frequency and all calibration check results met the acceptance criteria. Reporting limit verification checks were made to verify the linearity of the calibration curve near the PQL and all results were within the acceptance range, with the following exceptions. The arsenic and selenium check results (at 0.1 µg/L) were above the acceptance range. Affected (dilution-factor-corrected) results less than 5 times the PQL and above the MDL are qualified with a "J" flag (estimated). A reporting limit verification check was not performed on September 21, 2013, for a batch of samples that included arsenic and selenium results. Associated arsenic results are qualified with a "J" flag (estimated). Associated selenium results were well above the PQL and do not require qualification. 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 August 14 and September 9, 2013, 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. Initial and continuing calibration verification checks were made at the required frequency and all calibration check results 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 calibration blank results associated with the samples were below the PQL for all analytes. 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.

Inductively Coupled Plasma Interference Check Sample Analysis

Interference check samples 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. The spike recoveries met the acceptance criteria for all analytes evaluated with the following exceptions. A spike recovery for calcium was slightly below the acceptance range. Three spike recoveries for ammonia as N were also below the acceptance range. The affected results are qualified with a "J" flag (estimated).

Laboratory Replicate Analysis

Laboratory replicate analyses are used to determine laboratory precision for each sample matrix. The relative percent difference (RPD) for replicate results that are greater than 5 times 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 MDL. All evaluated serial dilution data were acceptable with the following exceptions. The percent difference for some arsenic, potassium, selenium, and sodium dilutions were outside the acceptance range of ±10 percent. Because of the possible reduced accuracy due to matrix interference, the associated results are qualified with a "J" flag as estimated values.

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 10, 2013, which included two ammonia results that were missing in the original EDD. 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. Table 4 shows the total anion and cation results from this event and the charge balance, which is an RPD 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	2.25	2.14	2.48
0252	1.84	1.89	1.21
0258	2.87	2.70	3.05
0261	2.94	2.81	2.33
0262	76.00	75.81	0.12
0263	82.47	81.09	0.84
0264	5.22	5.28	0.54
0265	45.77	49.83	4.25
0266	2.55	2.50	1.07

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

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
0267	112.66	103.21	4.38
0268	11.03	10.84	0.84
0271	2.71	3.13	7.26
0272	2.55	2.57	0.33
0273	11.72	11.74	0.08
0274	2.69	3.72	16.16
0275	85.83	83.27	1.51
0276	2.75	2.86	1.98
0277	2.49	2.60	2.18
0278	2.31	2.57	5.26
0279	4.22	4.50	3.21
0280	3.06	3.00	0.92
0281	7.14	6.98	1.08
0282	9.32	9.54	1.21
0286	115.92	121.16	2.21
0287	69.92	71.15	0.87
0288	14.50	14.26	0.84
0289	15.37	15.14	0.76
0290	17.26	16.41	2.51
0683	2.87	2.85	0.49
0684	2.88	2.91	0.50
0685	2.59	3.01	7.47
0686	5.93	6.03	0.84
0687	1.80	1.99	5.08
0688	8.06	7.69	2.37
0689	2.59	2.53	1.03
0690	2.39	2.50	2.23
0691	26.67	25.65	1.94
0692	2.58	2.40	3.67
0695	3.37	3.37	0.03
0759	18.20	18.29	0.25
0778	18.69	18.35	0.92
0901	3.52	3.62	1.43
0903	5.65	5.73	0.73
0904	8.97	9.33	1.96
0906	82.13	86.11	2.36
0908	81.24	79.51	1.07
0910	2.48	2.80	6.12
0911	2.20	2.08	2.73
0912	23.49	22.74	1.63
0913	1.92	2.27	8.34
0914	1.24	1.31	2.79
0915	1.52	1.57	1.49
0916	5.70	5.59	1.01
0920	2.66	2.63	0.64
0921	1.99	2.12	3.17
0929	3.69	3.59	1.35
0930	8.82	8.71	0.61
0932	3.48	3.55	1.01
0934	89.72	96.15	3.46
0935	72.31	72.32	0
0936	74.79	74.93	0.09

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

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
0938	98.69	97.04	0.85
0940	164.28	178.91	4.26
0941	74.19	75.25	0.70
0942	92.84	93.75	0.49
0943	1.44	1.91	13.88
0945	4.07	3.97	1.27
0946	2.42	3.27	14.88
0947	2.72	2.92	3.62
0965	19.43	18.16	3.37
1003	23.36	21.44	4.29
1004	3.61	3.31	4.26
1006	2.36	2.52	3.24
1007	2.48	2.62	2.68
1101	51.53	54.78	3.06
1102	89.70	96.84	3.83
1103	80.67	79.90	0.48
1104	53.15	52.55	0.57
1105	40.13	40.22	0.10
1106	24.68	24.47	0.44
1107	29.51	30.45	1.55
1108	57.24	55.38	1.66
1109	77.82	75.41	1.57
1110	22.58	22.10	1.07
1111	38.46	35.99	3.31
1112	13.69	13.10	2.20
1113	10.07	9.62	2.29
1114	28.62	27.60	1.82
1115	32.37	31.67	1.09
1116	12.12	12.49	1.51
1117	39.28	36.21	4.06
1118	34.90	35.45	0.78
1119	70.74	69.78	0.68
1120	36.26	37.48	1.65
1121	20.73	19.81	2.28
1122	43.39	42.43	1.11
1123	50.04	50.15	0.11
1124	51.83	51.25	0.56
1125	6.45	5.11	11.54
1126	96.85	106.84	4.90
1127	13.35	13.56	0.75
1128	33.68	34.38	1.03
1129	36.69	34.84	2.60
1130	87.83	86.99	0.48
1132	70.93	70.17	0.53
1133	13.62	13.40	0.82
1569	2202.03	2337.20	2.98
1570	4091.63	5198.10	11.91
1571	4.65	5.77	10.75
1573	3.95	4.95	11.29
NMW-1A	2.59	2.68	1.59
NMW-2A	2.52	2.31	4.30
NMW-3A	2.55	2.86	5.74

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

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
NMW-4A	2.50	2.75	4.72
NMW-5	3.45	3.80	4.84
NMW-6S	2.70	2.37	6.65
NMW-7D	2.03	1.98	1.30
NMW-8S	2.60	2.32	5.74
NMW-9D	2.95	2.89	0.94

meq/L = milliequivalents per liter

Seven locations (0274, 0943, 0946, 1125, 1570, 1571, and 1573) had charge balances slightly greater than 10 percent. There were no analytical errors identified during the review of the laboratory data.

SAMPLE MANAGEMENT SYSTEM
General Data Validation Report

RIN: 13085553 Lab Code: PAR Validator: Gretchen Baer Validation Date: 10/31/2013

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

# of Samples: 130 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 2 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 7 duplicates evaluated.

SAMPLE MANAGEMENT SYSTEM

RIN: 13085553 Lab Code: PAR

Non-Compliance Report: Holding Times

Project: Tuba City

Validation Date: 10/31/2013

				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
LJU 299	0286	1308513-77	WCH-A-005			40			28	08/28/2013	10/07/2013	10/07/2013
LJU 386	1127	1308513-90	WCH-A-005			39			28	08/29/2013	10/07/2013	10/07/2013

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 13085553 **Lab Code:** PAR **Date Due:** 9/28/2013

Matrix: Water **Site Code:** TUB01 **Date Completed:** 10/14/2013

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	CCV	CCB								
Calcium	ICP/ES	09/19/2013	-0.1100	1.0000	OK	OK	OK	99.0	95.0	92.0	0.0	101.0	2.0	101.0
Calcium	ICP/ES	09/26/2013	-0.0100	1.0000	OK	OK	OK	101.0	99.0	90.0	1.0	101.0	2.0	99.0
Calcium	ICP/ES	09/19/2013			OK	OK	OK	94.0	95.0	73.0	5.0	106.0	1.0	105.0
Calcium	ICP/ES	09/23/2013	-0.1200	1.0000					118.0			104.0		103.0
Calcium	ICP/ES	09/26/2013			OK	OK	OK	102.0	97.0	98.0	0.0	102.0	7.0	103.0
Calcium	ICP/ES	09/26/2013			OK	OK	OK	103.0	100.0	101.0	1.0	104.0	2.0	103.0
Calcium	ICP/ES	09/26/2013			OK	OK	OK	99.0			1.0	104.0	4.0	103.0
Calcium	ICP/ES	09/24/2013	-0.1900	1.0000	OK	OK	OK	101.0	90.0	100.0	2.0	103.0	5.0	102.0
Iron	ICP/ES	09/26/2013	-0.0170	0.9990	OK	OK	OK	101.0	99.0	95.0	4.0	111.0		100.0
Iron	ICP/ES	09/23/2013	-0.0180	0.9990	OK	OK	OK	95.0	93.0	95.0	2.0	104.0		96.0
Iron	ICP/ES	09/24/2013	-0.0200	0.9995										
Iron	ICP/ES	09/26/2013			OK	OK	OK	96.0	87.0	85.0	2.0			
Iron	ICP/ES	09/19/2013	-0.0160	0.9990	OK	OK	OK	83.0	90.0	86.0	5.0	106.0		96.0
Iron	ICP/ES	09/19/2013			OK	OK	OK	99.0	81.0	82.0	2.0	107.0		98.0
Iron	ICP/ES	09/26/2013			OK	OK	OK	101.0	94.0	97.0	3.0	108.0		99.0
Iron	ICP/ES	09/26/2013			OK	OK	OK	94.0	85.0	86.0	1.0	107.0		101.0
Magnesium	ICP/ES	09/26/2013			OK	OK	OK	101.0	100.0	100.0	1.0		3.0	

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 13085553 **Lab Code:** PAR **Date Due:** 9/28/2013

Matrix: Water **Site Code:** TUB01 **Date Completed:** 10/14/2013

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	CCV	CCB								
Magnesium	ICP/ES	09/26/2013	0.0100	1.0000	OK	OK	OK	102.0	99.0	99.0	0.0	103.0	0.0	101.0
Magnesium	ICP/ES	09/24/2013	0.0290	1.0000										
Magnesium	ICP/ES	09/26/2013			OK	OK	OK	100.0	98.0	95.0	1.0	104.0	3.0	104.0
Magnesium	ICP/ES	09/19/2013	0.0210	1.0000	OK	OK	OK	99.0	95.0	89.0	4.0	103.0	3.0	103.0
Magnesium	ICP/ES	09/26/2013			OK	OK	OK	97.0			1.0	104.0	0.0	105.0
Magnesium	ICP/ES	09/23/2013	-0.0210	1.0000	OK	OK	OK	100.0	99.0	100.0	1.0	105.0	1.0	103.0
Magnesium	ICP/ES	09/19/2013			OK	OK	OK	97.0	97.0	85.0	1.0	104.0	2.0	104.0
Manganese	ICP/ES	09/19/2013			OK	OK	OK	93.0	97.0	93.0	5.0	94.0		109.0
Manganese	ICP/ES	09/19/2013	-0.0010	1.0000	OK	OK	OK	100.0	91.0	95.0	4.0	96.0		113.0
Manganese	ICP/ES	09/26/2013			OK	OK	OK	107.0	99.0	100.0	1.0	95.0		111.0
Manganese	ICP/ES	09/26/2013			OK	OK	OK	102.0	101.0	104.0	2.0	92.0		106.0
Manganese	ICP/ES	09/23/2013	-0.0010	1.0000	OK	OK	OK	102.0	99.0	99.0	0.0	97.0		114.0
Manganese	ICP/ES	09/26/2013	-0.0010	1.0000	OK	OK	OK	99.0	92.0	91.0	1.0	98.0		114.0
Manganese	ICP/ES	09/24/2013	-0.0010	1.0000										114.0
Manganese	ICP/ES	09/26/2013										98.0		115.0
Manganese	ICP/ES	09/26/2013			OK	OK	OK	102.0			1.0	96.0	5.0	110.0
Potassium	ICP/ES	09/26/2013	-0.9300	1.0000	OK	OK	OK	98.0	103.0	100.0	1.0			81.0

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 13085553 **Lab Code:** PAR **Date Due:** 9/28/2013

Matrix: Water **Site Code:** TUB01 **Date Completed:** 10/14/2013

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	CCV	CCB								
Potassium	ICP/ES	09/26/2013			OK	OK	OK	100.0	118.0	116.0	2.0			80.0
Potassium	ICP/ES	09/19/2013	-0.5600	0.9999	OK	OK	OK	96.0	114.0	117.0	2.0			83.0
Potassium	ICP/ES	09/19/2013			OK	OK	OK	94.0	99.0	97.0	2.0		26.0	
Potassium	ICP/ES	09/24/2013	-0.6220	1.0000	OK	OK	OK	98.0	111.0	111.0	0.0			84.0
Potassium	ICP/ES	09/26/2013			OK	OK	OK	102.0	104.0	104.0	0.0			81.0
Potassium	ICP/ES	09/26/2013			OK	OK	OK	102.0	105.0	105.0	0.0		10.0	82.0
Silicon	ICP/ES	09/23/2013	-0.1800	1.0000	OK	OK	OK	114.0	89.0	98.0	1.0	89.0	1.0	90.0
Silicon	ICP/ES	09/24/2013	-0.1700	1.0000										
Silicon	ICP/ES	09/26/2013	-0.1700	1.0000	OK	OK	OK	118.0			1.0	89.0	4.0	89.0
Silicon	ICP/ES	09/26/2013			OK	OK	OK	115.0	106.0	97.0	1.0	92.0	2.0	89.0
Silicon	ICP/ES	09/26/2013									1.0	89.0	9.0	89.0
Silicon	ICP/ES	09/26/2013			OK	OK	OK	111.0	108.0	113.0	1.0	86.0	3.0	76.0
Silicon	ICP/ES	09/27/2013			OK	OK	OK	117.0				88.0		89.0
Silicon	ICP/ES	09/19/2013	-0.1800	1.0000	OK	OK	OK	110.0			2.0	92.0	1.0	100.0
Silicon	ICP/ES	09/19/2013			OK	OK	OK	102.0			4.0	86.0	8.0	79.0
Sodium	ICP/ES	09/19/2013	0.4100	0.9997	OK	OK	OK	100.0	115.0	104.0	1.0		9.0	81.0
Sodium	ICP/ES	09/19/2013			OK	OK	OK	96.0	104.0	99.0	3.0		4.0	82.0

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 13085553 **Lab Code:** PAR **Date Due:** 9/28/2013

Matrix: Water **Site Code:** TUB01 **Date Completed:** 10/14/2013

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	CCV	CCB								
Sodium	ICP/ES	09/23/2013	0.3900	0.9998										
Sodium	ICP/ES	09/24/2013	0.4000	0.9998	OK	OK	OK	100.0	112.0	112.0	0.0		4.0	83.0
Sodium	ICP/ES	09/26/2013	0.0030	0.9998	OK	OK	OK	104.0	109.0	108.0	0.0		8.0	
Sodium	ICP/ES	09/26/2013			OK	OK	OK	101.0	113.0	109.0	2.0		7.0	84.0
Sodium	ICP/ES	09/26/2013			OK	OK	OK	100.0	91.0	80.0	1.0		3.0	85.0
Sodium	ICP/ES	09/26/2013			OK	OK	OK	105.0	109.0	110.0	0.0		14.0	84.0
Arsenic	ICP/MS	09/20/2013	-0.0190	1.0000	OK	OK	OK	107.0	106.0	105.0	1.0			
Arsenic	ICP/MS	09/20/2013	-0.0120	1.0000	OK	OK	OK	102.0						
Arsenic	ICP/MS	09/26/2013			OK	OK	OK	101.0	103.0	99.0	4.0		14.0	
Arsenic	ICP/MS	09/26/2013			OK	OK	OK	99.0	105.0	101.0	4.0	102.0	7.0	128.0
Arsenic	ICP/MS	09/26/2013	-0.0110	1.0000	OK	OK	OK	102.0	107.0	105.0	2.0		18.0	
Arsenic	ICP/MS	09/23/2013	0.0180	1.0000					105.0	100.0	5.0	104.0		104.0
Arsenic	ICP/MS	09/26/2013			OK	OK	OK	103.0	102.0	97.0	5.0	100.0	5.0	157.0
Arsenic	ICP/MS	09/26/2013			OK	OK	OK	104.0	108.0	104.0	4.0	100.0	6.0	119.0
Molybdenum	ICP/MS	09/26/2013			OK	OK	OK	96.0	100.0	100.0	0.0	106.0		100.0
Molybdenum	ICP/MS	09/26/2013			OK	OK	OK	99.0	102.0	102.0	0.0	90.0		102.0
Molybdenum	ICP/MS	09/26/2013	0.0000	1.0000	OK	OK	OK	99.0	102.0	103.0	1.0	91.0		101.0

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 13085553 **Lab Code:** PAR **Date Due:** 9/28/2013

Matrix: Water **Site Code:** TUB01 **Date Completed:** 10/14/2013

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	CCV	CCB								
Molybdenum	ICP/MS	09/20/2013	0.0000	1.0000	OK	OK	OK	102.0	104.0	100.0	4.0			
Molybdenum	ICP/MS	09/20/2013	-0.0050	1.0000	OK	OK	OK	95.0						
Molybdenum	ICP/MS	09/23/2013	0.0000	1.0000					103.0	97.0	3.0		7.0	
Molybdenum	ICP/MS	09/26/2013			OK	OK	OK	98.0	100.0	96.0	3.0			
Molybdenum	ICP/MS	09/26/2013			OK	OK	OK	98.0	102.0	99.0	3.0	91.0		110.0
Selenium	ICP/MS	09/20/2013	-0.0330	1.0000	OK	OK	OK	104.0	115.0	109.0	5.0			
Selenium	ICP/MS	09/20/2013	-0.0230	1.0000	OK	OK	OK	102.0						
Selenium	ICP/MS	09/23/2013	-0.0500	1.0000					112.0	112.0	0.0		1.0	
Selenium	ICP/MS	09/26/2013	-0.0080	1.0000	OK	OK	OK	107.0	110.0	111.0	1.0		3.0	
Selenium	ICP/MS	09/26/2013			OK	OK	OK	107.0	110.0	102.0	7.0	111.0	20.0	179.0
Selenium	ICP/MS	09/26/2013			OK	OK	OK	106.0	108.0	104.0	4.0	104.0	12.0	95.0
Selenium	ICP/MS	09/26/2013			OK	OK	OK	117.0	110.0	109.0	1.0	104.0	4.0	155.0
Selenium	ICP/MS	09/26/2013			OK	OK	OK	113.0	109.0	123.0	7.0	102.0	5.0	123.0
Uranium	ICP/MS	09/20/2013	0.0000	1.0000	OK	OK	OK	103.0	124.0	119.0	1.0			
Uranium	ICP/MS	09/20/2013	0.0000	1.0000	OK	OK	OK	101.0					4.0	
Uranium	ICP/MS	09/23/2013	0.0000	1.0000							4.0		8.0	
Uranium	ICP/MS	09/26/2013	0.0000	1.0000	OK	OK	OK	106.0	110.0	105.0	4.0		2.0	

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 13085553 **Lab Code:** PAR **Date Due:** 9/28/2013

Matrix: Water **Site Code:** TUB01 **Date Completed:** 10/14/2013

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	CCV	CCB								
Uranium	ICP/MS	09/26/2013			OK	OK	OK	104.0	101.0	118.0	5.0	102.0	1.0	100.0
Uranium	ICP/MS	09/26/2013			OK	OK	OK	104.0	111.0	112.0	1.0	100.0	1.0	96.0
Uranium	ICP/MS	09/26/2013			OK	OK	OK	107.0	121.0	114.0	3.0	101.0	5.0	80.0
Uranium	ICP/MS	09/26/2013			OK	OK	OK	106.0	119.0	103.0	0.0	101.0	2.0	95.0

SAMPLE MANAGEMENT SYSTEM

Wet Chemistry Data Validation Worksheet

RIN: 13085553 **Lab Code:** PAR **Date Due:** 9/28/2013

Matrix: Water **Site Code:** TUB01 **Date Completed:** 10/14/2013

Analyte	Date Analyzed	CALIBRATION				Method Blank	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	CCV	CCB						
AMMONIA AS N	09/12/2013			OK	OK	OK	97.00	100.0	97.0	3.00	
AMMONIA AS N	09/12/2013			OK	OK	OK	97.00	84.0	86.0	2.00	
AMMONIA AS N	09/12/2013	-0.020	1.0000	OK	OK	OK	96.00	63.0	68.0	7.00	
AMMONIA AS N	09/12/2013			OK	OK	OK	96.00	29.0	29.0	0	
AMMONIA AS N	09/12/2013			OK	OK	OK	97.00	90.0	92.0	2.00	
AMMONIA AS N	09/12/2013			OK	OK	OK	96.00	79.0	79.0	0	
AMMONIA AS N	09/12/2013			OK	OK	OK	98.00				
AMMONIA AS N	10/07/2013	-0.006	1.0000	OK	OK	OK	93.00	65.0	66.0	2.00	
CHLORIDE	08/14/2013	0.017	0.9999								
CHLORIDE	09/04/2013			OK	OK	OK	100.00	98.0	97.0	1.00	
CHLORIDE	09/06/2013			OK	OK	OK	103.00	96.0	94.0	1.00	
CHLORIDE	09/09/2013	0.001	0.9999								
CHLORIDE	09/11/2013			OK	OK	OK	99.00	99.0	98.0	1.00	
CHLORIDE	09/16/2013			OK	OK	OK	100.00	91.0	88.0	1.00	
CHLORIDE	09/17/2013			OK	OK	OK	100.00	99.0	100.0	0	

SAMPLE MANAGEMENT SYSTEM

Wet Chemistry Data Validation Worksheet

RIN: 13085553 **Lab Code:** PAR **Date Due:** 9/28/2013

Matrix: Water **Site Code:** TUB01 **Date Completed:** 10/14/2013

Analyte	Date Analyzed	CALIBRATION				Method Blank	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	CCV	CCB						
CHLORIDE	09/19/2013			OK	OK	OK	101.00	103.0	100.0	1.00	
CHLORIDE	09/19/2013			OK	OK	OK	101.00	99.0	98.0	1.00	
Nitrate+Nitrite as N	09/09/2013			OK	OK	OK	102.00	102.0	105.0	2.00	
Nitrate+Nitrite as N	09/09/2013			OK	OK	OK	103.00	102.0	101.0	0	
Nitrate+Nitrite as N	09/09/2013			OK	OK	OK	102.00	97.0	99.0	0	
Nitrate+Nitrite as N	09/16/2013			OK	OK	OK	100.00	107.0	98.0	3.00	
Nitrate+Nitrite as N	09/16/2013			OK	OK	OK	100.00	98.0	96.0	1.00	
Nitrate+Nitrite as N	09/16/2013			OK	OK	OK	99.00	104.0	104.0	0	
Nitrate+Nitrite as N	09/16/2013			OK	OK	OK	98.00	98.0	96.0	1.00	
Sulfate	08/14/2013	0.471	0.9998								
Sulfate	09/09/2013	0.343	0.9999								
SULFATE	09/04/2013			OK	OK	OK	98.00	97.0	96.0	0	
SULFATE	09/06/2013			OK	OK	OK	99.00	97.0	94.0	1.00	
SULFATE	09/11/2013			OK	OK	OK	98.00	95.0	94.0	0	
SULFATE	09/16/2013			OK	OK	OK	99.00	101.0	99.0	1.00	

SAMPLE MANAGEMENT SYSTEM

Wet Chemistry Data Validation Worksheet

RIN: 13085553 **Lab Code:** PAR **Date Due:** 9/28/2013

Matrix: Water **Site Code:** TUB01 **Date Completed:** 10/14/2013

Analyte	Date Analyzed	CALIBRATION				Method Blank	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	CCV	CCB						
SULFATE	09/17/2013			OK	OK	OK	99.00	94.0	96.0	0	
SULFATE	09/19/2013			OK	OK	OK	100.00	93.0	87.0	1.00	
SULFATE	09/19/2013			OK	OK	OK	100.00	103.0	100.0	2.00	
TOTAL DISSOLVED SOLIDS	09/03/2013									2.00	
TOTAL DISSOLVED SOLIDS	09/03/2013					OK	102.00			5.00	
TOTAL DISSOLVED SOLIDS	09/03/2013					OK	105.00			1.00	
TOTAL DISSOLVED SOLIDS	09/04/2013									0	
TOTAL DISSOLVED SOLIDS	09/04/2013					OK	101.00			1.00	
TOTAL DISSOLVED SOLIDS	09/04/2013									5.00	
TOTAL DISSOLVED SOLIDS	09/04/2013					OK	106.00			1.00	
TOTAL DISSOLVED SOLIDS	09/04/2013									1.00	
TOTAL DISSOLVED SOLIDS	09/04/2013					OK	98.00			0	
TOTAL DISSOLVED SOLIDS	09/05/2013									0	
TOTAL DISSOLVED SOLIDS	09/05/2013					OK	106.00			7.00	
TOTAL DISSOLVED SOLIDS	09/05/2013					OK	107.00			2.00	

SAMPLE MANAGEMENT SYSTEM

Wet Chemistry Data Validation Worksheet

RIN: 13085553 **Lab Code:** PAR **Date Due:** 9/28/2013

Matrix: Water **Site Code:** TUB01 **Date Completed:** 10/14/2013

Analyte	Date Analyzed	CALIBRATION				Method Blank	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	CCV	CCB						
TOTAL DISSOLVED SOLIDS	09/06/2013					OK	98.00			0	
TOTAL DISSOLVED SOLIDS	09/06/2013									3.00	
TOTAL DISSOLVED SOLIDS	09/06/2013					OK	101.00			0	

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 or II 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 pump head tubing or a bladder pump.

Extraction wells are spigot samples and are designated as Category IV.

These 39 wells were classified as Category II: 0251, 0258, 0262, 0263, 0264, 0266, 0272, 0273, 0274, 0277, 0278, 0280, 0281, 0282, 0286, 0287, 0288, 0289, 0290, 0683, 0684, 0690, 0692, 0906, 0908, 0911, 0912, 0913, 0914, 0915, 0916, 0929, 0934, 0940, 0941, 0945, 0947, NMW-7D, and NMW-9D. The sample results for these wells were qualified with a "Q" flag, indicating the data are qualitative because of the sampling technique.

The three treatment plant locations 1202, 1205, and 1206 were sampled from valves.

Equipment Blank Assessment

Equipment blanks are prepared and analyzed to document contamination attributable to the sample collection process. An equipment blank was collected after decontamination of the non-dedicated sampling equipment used at some surface water locations. Arsenic, selenium, silica, and uranium were detected in the equipment blank. All associated sample results were greater than 5 times the equipment blank, so no further qualification is required. Calcium, iron, magnesium, manganese, and sodium were also detected in the blank by the laboratory, but these analytes have been qualified during data validation with a "U" flag as not detected. The equipment blank results indicate adequate decontamination of the sampling equipment.

Field Duplicate Assessment

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. Duplicate samples were collected from locations 0261, 0940, 1111, 1112, 1113, 1114, and 1116. The RPD for duplicate results that are greater than 5 times the PQL should be less than 20 percent. The RPD is not used to evaluate results that are less than 5 times the PQL. For these results (RPD is "NA" on the Field Duplicates report), the range should be no greater than the PQL. The duplicate results met the criteria, with the exception of arsenic, manganese, selenium, and sodium at location 0261; molybdenum at location 1112; and arsenic at location 0940. There were no analytical errors identified during the review of the data. The associated sample and duplicate results are qualified with a "J" flag as estimated values.

SAMPLE MANAGEMENT SYSTEM

Validation Report: Equipment/Trip Blanks

RIN: 13085553 Lab Code: PAR Project: Tuba City Validation Date: 10/31/2013

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1308513-91	SW6010	Silica	64	B	9.5	UG/L

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

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1308513-91	SW6010	Silicon	30	B	4.4	UG/L

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

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1308513-91	SW6020	Uranium	0.005	B	0.0029	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1308513-105	LJU 310	0965	3.5	1		
1308513-97	LJU 309	0759	3.1	1		
1308513-98	LJU 312	0778	3.3	1		

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1308513-91	SW6020	Arsenic	0.026	B	0.015	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1308513-105	LJU 310	0965	0.53	1		
1308513-97	LJU 309	0759	0.55	1		
1308513-98	LJU 312	0778	0.53	1		

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1308513-91	SW6020	Selenium	0.046	B	0.032	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1308513-105	LJU 310	0965	1.6	1		

SAMPLE MANAGEMENT SYSTEM

Validation Report: Equipment/Trip Blanks

RIN: 13085553 Lab Code: PAR Project: Tuba City Validation Date: 10/31/2013

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1308513-91		Selenium				

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1308513-97	LJU 309	0759	1.8	1		
1308513-98	LJU 312	0778	1.8	1		

SAMPLE MANAGEMENT SYSTEM

Validation Report: Field Duplicates

RIN: 13085553 Lab Code: PAR Project: Tuba City Validation Date: 11/1/2013

Duplicate: 2186 Sample: 0261

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	2.7			1	2.1			5	25.00		UG/L
Calcium	35000			1	33000			1	5.88		UG/L
CHLORIDE	13			1	13			1	0		MG/L
Iron	41	B		1	57	B		1	NA		UG/L
Magnesium	8100			1	8900			1	9.41		UG/L
Manganese	2.2	B		1	24			1	166.41		UG/L
Molybdenum	0.52			1	0.47	B		5			UG/L
Nitrate+Nitrite as N	3.4			5	3.6			5	5.71		MG/L
Potassium	1600			1	2000			1	NA		UG/L
Selenium	1.9			1	1.4			5	30.30		UG/L
Silica	13000			1	13000			1	0		UG/L
Silicon	5900			1	6000			1	1.68		UG/L
Sodium	11000			1	15000			1	30.77		UG/L
SULFATE	18			1	18			1	0		MG/L
TOTAL DISSOLVED SOLIDS	180			1	190			1	5.41		MG/L
Uranium	1.2			1	1.3			5	8.00		UG/L

Duplicate: 2386 Sample: 1111

Analyte	Sample Result	Flag	Error	Dilution	Duplicate Result	Flag	Error	Dilution	RPD	RER	Units
AMMONIA AS N	11			10	11			10	0		MG/L
Arsenic	1.1			2	1.1			2	0		UG/L
Calcium	430000			1	440000			1	2.30		UG/L
CHLORIDE	51			50	54			20	5.71		MG/L
Iron	4.9	U		1	4.9	U		1			UG/L
Magnesium	120000			1	120000			1	0		UG/L
Manganese	730			1	770			1	5.33		UG/L
Molybdenum	0.32	U		10	0.096	B		2			UG/L
Nitrate+Nitrite as N	100			100	100			200	0		MG/L
Potassium	9900			1	10000			1	1.01		UG/L
Selenium	8.8			2	9.7			2	9.73		UG/L
Silica	14000			1	15000			1	6.90		UG/L
Silicon	6600			1	7000			1	5.88		UG/L
Sodium	140000			1	150000			1	6.90		UG/L
SULFATE	990			50	1100			20	10.53		MG/L
TOTAL DISSOLVED SOLIDS	2700			1	2600			1	3.77		MG/L

SAMPLE MANAGEMENT SYSTEM

Validation Report: Field Duplicates

RIN: 13085553 Lab Code: PAR Project: Tuba City Validation Date: 11/1/2013

Duplicate: 2386 Sample: 1111

Analyte	Sample Result	Sample Flag	Sample Error	Sample Dilution	Duplicate Result	Duplicate Flag	Duplicate Error	Duplicate Dilution	RPD	RER	Units
Uranium	120			10	120			2	0		UG/L

Duplicate: 2532 Sample: 1114

Analyte	Sample Result	Sample Flag	Sample Error	Sample Dilution	Duplicate Result	Duplicate Flag	Duplicate Error	Duplicate Dilution	RPD	RER	Units
AMMONIA AS N	0.1	U		1	0.1	U		1			MG/L
Arsenic	1.1			5	1.2			5	8.70		UG/L
Calcium	380000			1	380000			1	0		UG/L
CHLORIDE	37			10	40			10	7.79		MG/L
Iron	43	B		1	9.3	B		1			UG/L
Magnesium	76000			1	75000			1	1.32		UG/L
Manganese	5.6			1	5.4			1	3.64		UG/L
Molybdenum	10			5	10			5	0		UG/L
Nitrate+Nitrite as N	80			100	82			100	2.47		MG/L
Potassium	5400			1	5300			1	1.87		UG/L
Selenium	11			5	11			5	0		UG/L
Silica	15000			1	14000			1	6.90		UG/L
Silicon	6800			1	6600			1	2.99		UG/L
Sodium	75000			1	73000			1	2.70		UG/L
SULFATE	710			10	720			10	1.40		MG/L
TOTAL DISSOLVED SOLIDS	2000			1	2000			1	0		MG/L
Uranium	73			5	73			5	0		UG/L

Duplicate: 2987 Sample: 1113

Analyte	Sample Result	Sample Flag	Sample Error	Sample Dilution	Duplicate Result	Duplicate Flag	Duplicate Error	Duplicate Dilution	RPD	RER	Units
AMMONIA AS N	0.1	UN		1	0.1	U		1			MG/L
Arsenic	1.4			1	1.5			1	6.90		UG/L
Calcium	140000	N		1	140000			1	0		UG/L
CHLORIDE	22			5	22			5	0		MG/L
Iron	4.9	U		1	17	B		1			UG/L
Magnesium	28000			1	28000			1	0		UG/L
Manganese	0.11	U		1	0.11	U		1			UG/L
Molybdenum	1			1	1			1	0		UG/L
Nitrate+Nitrite as N	35			200	36			100	2.82		MG/L
Potassium	3000			1	3000			1	0		UG/L
Selenium	3.5			1	3.4			1	2.90		UG/L

SAMPLE MANAGEMENT SYSTEM

Validation Report: Field Duplicates

RIN: 13085553 Lab Code: PAR Project: Tuba City Validation Date: 11/1/2013

Duplicate: 2987 Sample: 1113

Analyte	Sample Result	Sample Flag	Sample Error	Sample Dilution	Duplicate Result	Duplicate Flag	Duplicate Error	Duplicate Dilution	RPD	RER	Units
Silica	12000			1	12000			1	0		UG/L
Silicon	5800			1	5800			1	0		UG/L
Sodium	16000			1	16000			1	0		UG/L
SULFATE	170			5	170			5	0		MG/L
TOTAL DISSOLVED SOLIDS	690			1	680			1	1.46		MG/L
Uranium	26			1	26			1	0		UG/L

Duplicate: 2988 Sample: 1112

Analyte	Sample Result	Sample Flag	Sample Error	Sample Dilution	Duplicate Result	Duplicate Flag	Duplicate Error	Duplicate Dilution	RPD	RER	Units
AMMONIA AS N	0.1	U		1	2	U		20			MG/L
Arsenic	1.4			5	1.7			5	19.35		UG/L
Calcium	170000			1	170000			1	0		UG/L
CHLORIDE	21			10	23			5	9.09		MG/L
Iron	4.9	U		1	4.9	U		1			UG/L
Magnesium	47000			1	50000			1	6.19		UG/L
Manganese	1.3	B		1	0.77	B		1	NA		UG/L
Molybdenum	0.2	B		5	0.4	B		5			UG/L
Nitrate+Nitrite as N	49			100	50			200	2.02		MG/L
Potassium	2900			1	2900			1	0		UG/L
Selenium	6.5			5	6.6			5	1.53		UG/L
Silica	12000			1	12000			1	0		UG/L
Silicon	5600			1	5800			1	3.51		UG/L
Sodium	29000			1	29000			1	0		UG/L
SULFATE	280			10	290			5	3.51		MG/L
TOTAL DISSOLVED SOLIDS	960			1	920			1	4.26		MG/L
Uranium	55			5	56			50	1.80		UG/L

Duplicate: 2989 Sample: 1116

Analyte	Sample Result	Sample Flag	Sample Error	Sample Dilution	Duplicate Result	Duplicate Flag	Duplicate Error	Duplicate Dilution	RPD	RER	Units
AMMONIA AS N	0.1	U		1	0.1	U		1			MG/L
Arsenic	1.3			1	1.4			1	7.41		UG/L
Calcium	160000			1	170000			1	6.06		UG/L
CHLORIDE	27			5	25			5	7.69		MG/L
Iron	4.9	U		1	4.9	U		1			UG/L
Magnesium	36000			1	36000			1	0		UG/L

SAMPLE MANAGEMENT SYSTEM

Validation Report: Field Duplicates

RIN: 13085553 Lab Code: PAR Project: Tuba City Validation Date: 11/1/2013

Duplicate: 2989 Sample: 1116

Analyte	Sample Result	Sample Flag	Sample Error	Sample Dilution	Duplicate Result	Duplicate Flag	Duplicate Error	Duplicate Dilution	RPD	RER	Units
Manganese	0.12	B		1	0.11	U		1			UG/L
Molybdenum	0.15			1	0.15			1			UG/L
Nitrate+Nitrite as N	39			50	40			100	2.53		MG/L
Potassium	3000			1	3100			1	3.28		UG/L
Selenium	3.1			1	3.4	E		1	9.23		UG/L
Silica	13000			1	13000			1	0		UG/L
Silicon	6100			1	6200			1	1.63		UG/L
Sodium	25000			1	26000			1	3.92		UG/L
SULFATE	270			5	250			5	7.69		MG/L
TOTAL DISSOLVED SOLIDS	840			1	840			1	0		MG/L
Uranium	13			1	13			1	0		UG/L

Duplicate: 2990 Sample: 0940

Analyte	Sample Result	Sample Flag	Sample Error	Sample Dilution	Duplicate Result	Duplicate Flag	Duplicate Error	Duplicate Dilution	RPD	RER	Units
AMMONIA AS N	62			20	64			20	3.17		MG/L
Arsenic	2.2			10	1.7			10	25.64		UG/L
Calcium	490000			1	510000			10	4.00		UG/L
CHLORIDE	160			100	150			100	6.45		MG/L
Iron	4.9	U		1	4.9	U		1			UG/L
Magnesium	1400000			50	1400000			10	0		UG/L
Manganese	25000			50	24000			10	4.08		UG/L
Molybdenum	0.64	B		10	0.61	B		10			UG/L
Nitrate+Nitrite as N	420			500	430			500	2.35		MG/L
Potassium	44000			1	41000			1	7.06		UG/L
Selenium	66			10	63			10	4.65		UG/L
Silica	14000			1	14000			1	0		UG/L
Silicon	6700			1	6800			1	1.48		UG/L
Sodium	440000			50	450000			10	2.25		UG/L
SULFATE	6200			100	6100			100	1.63		MG/L
TOTAL DISSOLVED SOLIDS	11000			1	12000			1	8.70		MG/L
Uranium	590			10	590			10	0		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: Stephen Donivan — Date: 11-25-2013

Data Validation Lead: Stephen Donivan for Gretchen Baer GRB — Date: 11-25-2013

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 environmental database. The application compares the new data set (in standard environmental database units) 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. The review should include an evaluation of any notable trends in the data that may indicate the outliers represent true extreme values.

Data were identified as potentially anomalous from 21 locations. Most of these results were identified as potentially anomalous because of downward or upward trending in the data. At several locations, the iron results exceeded historical maximums. These iron analyses were performed concurrently with other metals and none of those results was anomalous. These observations indicate that analytical errors are unlikely. The laboratory results for this RIN are acceptable as qualified. Potential anomalies in the field parameters were also examined for patterns of repeated high or low bias, which suggest a systematic error due to instrument malfunction. No such patterns were found and all data from this event are acceptable as qualified.

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Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

					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	08/26/2013	Iron	0.11		FQ	0.032	B	UFQ	0.0015	U	QF	23	19	No
TUB01	0251	N001	08/26/2013	Manganese	0.052		FQ	0.014	E	JFQ	0.000054	U	F	23	11	No
TUB01	0261	N001	08/26/2013	Arsenic	0.0027		JF	0.0022		F	0.0017		F	10	0	Yes
TUB01	0261	N001	08/26/2013	Iron	0.041	B	JF	0.038	B	F	0.0033	B	UF	10	9	No
TUB01	0261	N002	08/26/2013	Iron	0.057	B	F	0.038	B	F	0.0033	B	UF	10	9	No
TUB01	0261	N002	08/26/2013	Magnesium	8.9		F	8.3		F	4.8		F	10	0	NA
TUB01	0261	N002	08/26/2013	Manganese	0.024		JF	0.0044	B	F	0.000095	U	F	10	7	Yes
TUB01	0262	N001	08/26/2013	Arsenic	0.0034		FQ	0.0023		FQ	0.001		F	19	1	Yes
TUB01	0262	N001	08/26/2013	Magnesium	240		FQ	210		FQ	71		FQ	19	0	No
TUB01	0262	N001	08/26/2013	Selenium	0.056		FQ	0.11		FQ	0.058		FQ	19	0	No
TUB01	0262	N001	08/26/2013	Sodium	310		FQ	250		FQ	76		FQ	19	0	No
TUB01	0262	N001	08/26/2013	Total Dissolved Solids	5300		FQ	5200		FQ	2000		FQ	19	0	No
TUB01	0263	N001	08/27/2013	Molybdenum	0.072		FQ	0.059		JFQ	0.012		QF	19	0	No
TUB01	0263	N001	08/27/2013	Sodium	340		FQ	330		JFQ	140			19	0	NA
TUB01	0264	N001	08/27/2013	Selenium	0.0024		FQ	0.0022		FQ	0.001			19	0	No
TUB01	0264	N001	08/27/2013	Total Dissolved Solids	350		FQ	340		FQ	260		FQ	19	0	No
TUB01	0265	N001	08/28/2013	Sodium	130		F	120		F	72		F	20	0	NA
TUB01	0266	N001	08/29/2013	Magnesium	7.9		FQ	7.65		FQ	6.6		FQ	19	0	No
TUB01	0266	N001	08/29/2013	Manganese	0.021		FQ	0.0038	B	F	0.000054	U	FQ	19	16	NA
TUB01	0266	N001	08/29/2013	Sodium	10		FQ	7	N	FJ	5.1		FQ	19	0	Yes

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

					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	0267	N001	08/28/2013	Iron	0.23		F	0.078	B	UF	0.0015	U	F	22	16	NA
TUB01	0267	N001	08/28/2013	Sodium	520		F	410		F	330		F	22	0	Yes
TUB01	0271	N001	08/29/2013	Manganese	0.0022	B	F	0.00046	B	UF	0.000095	U	F	11	10	Yes
TUB01	0274	N001	08/27/2013	Manganese	0.014		FQ	0.0062		FQ	0.0001	U	JFQ	17	12	No
TUB01	0275	N001	08/28/2013	Chloride	270		F	164		F	96		F	17	0	Yes
TUB01	0275	N001	08/28/2013	Potassium	27		F	24	EN	F	6.5		F	17	0	NA
TUB01	0275	N001	08/28/2013	Selenium	0.04		F	0.0375		F	0.017		F	17	0	NA
TUB01	0275	N001	08/28/2013	Sodium	490		F	350	E	F	89		F	17	0	Yes
TUB01	0276	N001	08/28/2013	Iron	0.11		F	0.0809	B	F	0.0016	U	JF	19	17	No
TUB01	0278	N001	08/28/2013	Total Dissolved Solids	180		FQ	170		FQ	140		F	9	0	No
TUB01	0280	N001	08/27/2013	Arsenic	0.0024		FQ	0.0023		FQ	0.0014		FQ	10	0	No
TUB01	0280	N001	08/27/2013	Nitrate + Nitrite as Nitrogen	1.4		FQ	4.4		FQJ	1.5		FQ	10	0	No
TUB01	0280	N001	08/27/2013	Potassium	0.11	U	FQ	2.2		FQ	0.28	B	FQJ	10	0	Yes
TUB01	0281	0001	08/28/2013	Manganese	0.0031	B	FQ	0.14		FQ	0.008		JFQ	18	0	NA
TUB01	0282	N001	08/28/2013	Iron	0.48		FQ	0.12		FQ	0.0014	U	FQ	17	12	Yes
TUB01	0286	0001	08/28/2013	Magnesium	850		FQ	840		FQ	10		FQ	11	0	No
TUB01	0286	0001	08/28/2013	Manganese	8.5		FQ	6.7		FQ	0.0036	B	FQ	11	0	No
TUB01	0286	0001	08/28/2013	Potassium	20		FQ	17		FQ	1.8		FQ	11	0	No
TUB01	0286	0001	08/28/2013	Selenium	0.051		FQ	0.045		FQ	0.0018		FQ	11	0	No
TUB01	0286	0001	08/28/2013	Sodium	320		FQ	280		FQ	9.7		FQ	11	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

					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	0286	0001	08/28/2013	Sulfate	3900		FQ	3700		FQJ	34		FQ	11	0	No
TUB01	0287	N001	08/27/2013	Ammonia Total as N	1		FQ	0.659		QF	0.1	U	FQ	11	2	No
TUB01	0287	N001	08/27/2013	Potassium	11		FQ	10		FQ	4.6	B	FQJ	11	0	No
TUB01	0287	N001	08/27/2013	Sodium	390		FQ	360		JFQ	170		FQ	11	0	No
TUB01	0289	N001	08/28/2013	Manganese	0.0024	B	FQ	0.0254		FQ	0.007		FQ	11	0	No
TUB01	0289	N001	08/28/2013	Molybdenum	0.00027		FQ	0.00112	B	UFQ	0.00032		FQ	11	3	No
TUB01	0290	N001	08/27/2013	Arsenic	0.0013		FQ	0.00214	B	QF	0.0014		FQ	11	1	No
TUB01	0686	N001	08/27/2013	Sodium	39		F	34		F	13		F	15	0	Yes
TUB01	0687	N001	08/27/2013	Iron	0.088	B	F	0.077		UF	0.002	B	UF	14	11	No
TUB01	0687	N001	08/27/2013	Selenium	0.00013		JF	0.0022		F	0.00029		FG	14	0	No
TUB01	0687	N001	08/27/2013	Sulfate	6		F	81		FJ	17		F	14	0	No
TUB01	0689	N001	08/28/2013	Total Dissolved Solids	200		F	180		FJ	142		F	13	0	NA
TUB01	0690	N001	08/28/2013	Total Dissolved Solids	180		FQ	170		FQ	130		FQ	13	0	No
TUB01	0691	N001	08/27/2013	Calcium	390		F	360		F	81		F	23	0	NA
TUB01	0691	N001	08/27/2013	Nitrate + Nitrite as Nitrogen	78		F	75		F	12		F	20	0	NA
TUB01	0691	N001	08/27/2013	Sodium	51		F	45		F	17		F	23	0	NA
TUB01	0695	N001	08/27/2013	Calcium	45		F	58		F	46		F	11	0	No
TUB01	0695	N001	08/27/2013	Molybdenum	0.00048		F	0.0018	U	F	0.00052		F	11	4	NA
TUB01	0695	N001	08/27/2013	Nitrate + Nitrite as Nitrogen	4.8		F	7.3		F	5		F	8	0	No
TUB01	0695	N001	08/27/2013	Sulfate	37		F	59		F	39		F	11	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

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	0695	N001	08/27/2013	Uranium	0.0018		F	0.0025		F	0.0019		F	11	0	No
TUB01	0759	0001	08/29/2013	Selenium	0.0018			0.0017			0.00027			8	0	No
TUB01	0901	N001	08/29/2013	Silicon	6.4		F	6.3		F	4.5		F	10	0	No
TUB01	0903	N001	08/28/2013	Calcium	75		F	71		F	53		F	13	0	No
TUB01	0903	N001	08/28/2013	Magnesium	15		F	14		F	10		F	13	0	No
TUB01	0903	N001	08/28/2013	Sulfate	92		F	85		F	51		F	13	0	No
TUB01	0903	N001	08/28/2013	Total Dissolved Solids	400		F	370		F	285		F	12	0	No
TUB01	0903	N001	08/28/2013	Uranium	0.0025		F	0.0024		F	0.0014		F	13	0	No
TUB01	0904	N001	08/29/2013	Arsenic	0.00063		F	0.00057		F	0.00032		F	10	0	No
TUB01	0904	N001	08/29/2013	Calcium	53		F	110		F	57		F	10	0	No
TUB01	0904	N001	08/29/2013	Iron	0.12		F	0.03	B	F	0.0034	U	QF	10	6	Yes
TUB01	0904	N001	08/29/2013	Magnesium	13		F	26		F	14		F	10	0	No
TUB01	0904	N001	08/29/2013	Manganese	0.015		F	0.0029	B	F	0.00011	U	F	10	7	No
TUB01	0904	N001	08/29/2013	Selenium	0.012		F	0.018		F	0.013		F	10	0	No
TUB01	0904	N001	08/29/2013	Sodium	120		F	100		F	72		F	10	0	No
TUB01	0904	N001	08/29/2013	Sulfate	77		F	140		F	79		F	10	0	No
TUB01	0906	N001	08/28/2013	Magnesium	240		FQ	450			263		F	15	0	No
TUB01	0906	N001	08/28/2013	Molybdenum	0.001		FQ	0.0527		F	0.0014		FQ	15	0	No
TUB01	0908	N001	08/27/2013	Silica	17		FQ	22.1		F	18		FQ	21	0	No
TUB01	0908	N001	08/27/2013	Silicon	8		FQ	10		QF	8.2		FQ	17	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

					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	0910	N001	08/29/2013	Calcium	31		F	37		F	32		F	10	0	No
TUB01	0910	N001	08/29/2013	Magnesium	5.1		F	6.1		F	5.5		F	10	0	No
TUB01	0911	N001	08/28/2013	Arsenic	0.002		FQ	0.0019		FQ	0.0012		F	9	0	No
TUB01	0911	N001	08/28/2013	Selenium	0.0012		FQ	0.0011		FQ	0.00053		FQ	9	0	No
TUB01	0913	N001	08/28/2013	Total Dissolved Solids	140		FQ	130		F	98		F	11	0	No
TUB01	0914	N001	08/26/2013	Arsenic	0.00059		FQ	0.0014	B	QF	0.00061		FQG	10	0	No
TUB01	0915	N001	08/26/2013	Arsenic	0.000033	B	JFQ	0.00013		FQ	0.000045	B	FQ	10	4	No
TUB01	0915	N001	08/26/2013	Silicon	3.6		FQ	3.3		FQ	2.4		FQ	9	0	No
TUB01	0916	N001	08/26/2013	Calcium	95		FQ	91		FQ	29.7		QF	9	0	NA
TUB01	0916	N001	08/26/2013	Sodium	18		FQ	17	E	FQ	14		FQG	9	0	No
TUB01	0916	N001	08/26/2013	Total Dissolved Solids	320		FQ	310		FQ	127		QF	9	0	No
TUB01	0916	N001	08/26/2013	Uranium	0.000012		FQ	0.0001	U	QF	0.000013		FQG	9	6	No
TUB01	0920	N001	08/28/2013	Arsenic	0.0025		F	0.0023		F	0.0016		F	11	0	NA
TUB01	0920	N001	08/28/2013	Total Dissolved Solids	180		F	170		FJ	125		F	9	0	No
TUB01	0930	N001	08/28/2013	Calcium	120		F	100		F	49		F	23	0	Yes
TUB01	0930	N001	08/28/2013	Magnesium	25		F	21		F	10		F	23	0	Yes
TUB01	0930	N001	08/28/2013	Molybdenum	0.00014		F	0.0018	U	F	0.00016	B	F	23	15	NA
TUB01	0930	N001	08/28/2013	Nitrate + Nitrite as Nitrogen	29		F	25		F	1.5		F	19	0	No
TUB01	0930	N001	08/28/2013	Selenium	0.0029		F	0.0026	B	F	0.0014		F	23	1	No
TUB01	0930	N001	08/28/2013	Sulfate	160		F	140		F	41		F	23	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
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RIN: 13085553
Report Date: 11/16/2013

					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	0930	N001	08/28/2013	Total Dissolved Solids	660		F	500		F	230		F	23	0	NA
TUB01	0930	N001	08/28/2013	Uranium	0.0058		F	0.0054		F	0.0023		F	23	0	NA
TUB01	0932	N001	08/28/2013	Total Dissolved Solids	260		F	230			140		F	23	0	NA
TUB01	0934	N001	08/28/2013	Manganese	0.0046	B	FQ	0.054		F	0.0049	B	UFQ	24	7	NA
TUB01	0934	N001	08/28/2013	Total Dissolved Solids	6300		FQ	8730		F	6630		QF	23	0	No
TUB01	0934	N001	08/28/2013	Uranium	0.12		FQ	0.355		F	0.13		FQ	24	0	No
TUB01	0935	N001	08/27/2013	Magnesium	290			410		F	306			20	0	No
TUB01	0935	N001	08/27/2013	Manganese	0.36			0.94		J	0.363		F	20	0	No
TUB01	0936	N001	08/27/2013	Ammonia Total as N	0.1			19			3.1			7	0	No
TUB01	0936	N001	08/27/2013	Manganese	0.65			6.85		F	1.3			11	0	Yes
TUB01	0936	N001	08/27/2013	Molybdenum	0.42			0.223		F	0.00056	B	U	11	6	NA
TUB01	0938	N001	08/27/2013	Molybdenum	0.003			0.14		F	0.0031			15	0	No
TUB01	0938	N001	08/27/2013	Sodium	400			380		J	120			15	0	NA
TUB01	0938	N001	08/27/2013	Uranium	0.29			0.66		F	0.3			15	0	No
TUB01	0940	N001	08/29/2013	Magnesium	1400		FQ	2800		FQ	1600		F	9	0	No
TUB01	0940	N002	08/29/2013	Magnesium	1400		FQ	2800		FQ	1600		F	9	0	No
TUB01	0940	N001	08/29/2013	Potassium	44		FQ	42		QF	20.9	E	FQ	9	0	No
TUB01	0940	N002	08/29/2013	Selenium	0.063		FQ	0.0897		FQ	0.064		FQ	9	0	No
TUB01	0940	N001	08/29/2013	Silica	14		FQ	23.4		F	15		FQ	9	0	No
TUB01	0940	N002	08/29/2013	Silica	14		FQ	23.4		F	15		FQ	9	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

					Current	Qualifiers		Historical Maximum	Qualifiers		Historical Minimum	Qualifiers		Number of Data Points		Statistical Outlier
Site Code	Location Code	Sample ID	Sample Date	Analyte	Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0940	N002	08/29/2013	Silicon	6.8		FQ	8.8		FQ	6.9		FQ	5	0	No
TUB01	0940	N001	08/29/2013	Silicon	6.7		FQ	8.8		FQ	6.9		FQ	5	0	No
TUB01	0940	N001	08/29/2013	Sodium	440		FQ	437		F	380		FQ	9	0	No
TUB01	0940	N002	08/29/2013	Sodium	450		FQ	437		F	380		FQ	9	0	No
TUB01	0940	N001	08/29/2013	Sulfate	6200		FQ	10300		F	6490		QF	9	0	No
TUB01	0940	N002	08/29/2013	Sulfate	6100		FQ	10300		F	6490		QF	9	0	No
TUB01	0940	N001	08/29/2013	Uranium	0.59		FQ	0.56		F	0.39		FQ	9	0	No
TUB01	0940	N002	08/29/2013	Uranium	0.59		FQ	0.56		F	0.39		FQ	9	0	No
TUB01	0941	N001	08/27/2013	Nitrate + Nitrite as Nitrogen	310		FQ	280		FQJ	130		FQ	16	0	No
TUB01	0941	N001	08/27/2013	Potassium	10		FQ	9.02		QF	5.15		QF	19	0	No
TUB01	0941	N001	08/27/2013	Sodium	250		FQ	225		F	80			19	0	No
TUB01	0941	N001	08/27/2013	Total Dissolved Solids	5800		FQ	5200		FQJ	2490		F	19	0	No
TUB01	0945	N001	08/27/2013	Molybdenum	0.00058		FQ	0.0018	U	QF	0.0006	B	FQ	12	4	NA
TUB01	0945	N001	08/27/2013	Selenium	0.0043		FQ	0.0038		FQ	0.0014		QJF	12	0	No
TUB01	0947	N001	08/27/2013	Arsenic	0.003	E	JFQ	0.0029	EN	FQ	0.0027		FQ	9	0	No
TUB01	0965	0001	08/29/2013	Calcium	240			220			89			8	0	No
TUB01	0965	0001	08/29/2013	Manganese	0.0011	B		0.19			0.0031	B		8	0	No
TUB01	0965	0001	08/29/2013	Nitrate + Nitrite as Nitrogen	2.1			1.9			0.11			7	0	No
TUB01	0965	0001	08/29/2013	Potassium	12			11			4.9			8	0	No
TUB01	0965	0001	08/29/2013	Selenium	0.0016			0.0014			0.00024			8	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

					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	0965	0001	08/29/2013	Sulfate	760			650			270		J	8	0	No
TUB01	0965	0001	08/29/2013	Total Dissolved Solids	1300			1200		J	500		J	8	0	No
TUB01	1003	N001	08/27/2013	Calcium	350		F	320		F	58		F	11	0	No
TUB01	1003	N001	08/27/2013	Magnesium	49		F	46		F	9.6		F	11	0	NA
TUB01	1003	N001	08/27/2013	Silica	15		F	14.3		F	12		F	11	0	No
TUB01	1003	N001	08/27/2013	Silicon	7		F	6.4		F	5.4		F	9	0	Yes
TUB01	1003	N001	08/27/2013	Sodium	40		F	35		F	15		F	11	0	NA
TUB01	1003	N001	08/27/2013	Sulfate	540		F	530		F	46		F	11	0	NA
TUB01	1003	N001	08/27/2013	Total Dissolved Solids	1700		F	1600		F	290		F	11	0	No
TUB01	1101	N001	08/29/2013	Chloride	210			200			83		J	12	0	NA
TUB01	1101	N001	08/29/2013	Potassium	14			13			6.7			12	0	No
TUB01	1101	N001	08/29/2013	Sodium	390			320			180			12	0	Yes
TUB01	1101	N001	08/29/2013	Sulfate	1700			1400		J	960		J	12	0	Yes
TUB01	1101	N001	08/29/2013	Total Dissolved Solids	3700			3200		J	2400		J	12	0	No
TUB01	1102	N001	08/29/2013	Ammonia Total as N	0.14			2.8		F	0.5			8	0	No
TUB01	1102	N001	08/29/2013	Arsenic	0.002			0.0019			0.00088			12	0	No
TUB01	1102	N001	08/29/2013	Calcium	800			730			460			12	0	No
TUB01	1102	N001	08/29/2013	Chloride	650			160			67			12	0	Yes
TUB01	1102	N001	08/29/2013	Manganese	2.5			2			0.16			12	1	No
TUB01	1102	N001	08/29/2013	Nitrate + Nitrite as Nitrogen	240			220		J	110			8	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

					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	1102	N001	08/29/2013	Potassium	14			13			6.6		J	12	0	No
TUB01	1102	N001	08/29/2013	Selenium	0.048			0.037			0.017			12	0	NA
TUB01	1102	N001	08/29/2013	Sodium	720			290			120			12	0	Yes
TUB01	1102	N001	08/29/2013	Sulfate	2500			2000			1100		J	12	0	Yes
TUB01	1102	N001	08/29/2013	Total Dissolved Solids	6600			4800		J	2700			12	0	Yes
TUB01	1106	N001	08/26/2013	Arsenic	0.13			1.11			0.18			13	0	NA
TUB01	1106	N001	08/26/2013	Molybdenum	0.082			1.37			0.088			13	0	No
TUB01	1107	N001	08/26/2013	Arsenic	0.0029			0.0027			0.0012			13	0	No
TUB01	1108	N001	08/26/2013	Arsenic	0.0016			0.0014			0.00062		J	13	0	No
TUB01	1108	N001	08/26/2013	Iron	0.83			0.0423			0.0019	B	U	13	11	Yes
TUB01	1108	N001	08/26/2013	Sodium	290			260			150			13	0	No
TUB01	1108	N001	08/26/2013	Uranium	0.93			0.76			0.22			13	0	NA
TUB01	1109	N001	08/29/2013	Ammonia Total as N	68			17			3.9			8	0	Yes
TUB01	1109	N001	08/29/2013	Calcium	520			511			286			11	0	No
TUB01	1109	N001	08/29/2013	Manganese	14			13			2.9		F	11	0	NA
TUB01	1109	N001	08/29/2013	Molybdenum	0.0042			0.0018	U		0.00028	B	U	11	5	Yes
TUB01	1109	N001	08/29/2013	Potassium	30			29			5.46			11	0	No
TUB01	1109	N001	08/29/2013	Sulfate	2700			2470			900			11	0	Yes
TUB01	1114	N001	08/27/2013	Magnesium	76			75			27.7			10	0	No
TUB01	1114	N001	08/27/2013	Manganese	0.0056			0.0051			0.00006	B	U	10	6	No

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

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	1114	N002	08/27/2013	Manganese	0.0054			0.0051			0.00006	B	U	10	6	No
TUB01	1114	N002	08/27/2013	Sodium	73			67			20.3			10	0	No
TUB01	1114	N001	08/27/2013	Sodium	75			67			20.3			10	0	No
TUB01	1115	N001	08/29/2013	Ammonia Total as N	0.78			0.11			0.1	U	F	7	5	NA
TUB01	1117	N001	08/27/2013	Arsenic	0.0026			0.0022			0.0011	B		12	0	NA
TUB01	1117	N001	08/27/2013	Iron	0.72			0.087	B		0.0034	U		12	7	No
TUB01	1118	N001	08/29/2013	Ammonia Total as N	0.1	U		14			1.1			9	0	No
TUB01	1118	N001	08/29/2013	Chloride	91			67			19			12	0	NA
TUB01	1118	N001	08/29/2013	Manganese	0.0026	B	U	0.26			0.019			12	0	No
TUB01	1118	N001	08/29/2013	Molybdenum	0.000067	B		0.0018	U		0.00016			12	4	No
TUB01	1119	N001	08/26/2013	Ammonia Total as N	25			21			4.3			11	0	No
TUB01	1119	N001	08/26/2013	Magnesium	260			240			100			14	0	No
TUB01	1119	N001	08/26/2013	Manganese	6.1			5.42			0.54			14	0	No
TUB01	1119	N001	08/26/2013	Molybdenum	0.0091			0.0069			0.00082	B	U	14	5	No
TUB01	1119	N001	08/26/2013	Potassium	21			20			6.33			14	0	No
TUB01	1119	N001	08/26/2013	Selenium	0.033			0.031			0.011			14	0	No
TUB01	1119	N001	08/26/2013	Sodium	370			340			130			14	0	No
TUB01	1120	N001	08/26/2013	Chloride	38			197			43			16	0	No
TUB01	1120	N001	08/26/2013	Sodium	160			631			200			16	0	NA
TUB01	1121	N001	08/26/2013	Chloride	18			152			25			11	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

					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	1121	N001	08/26/2013	Magnesium	55			349			61			11	0	No
TUB01	1121	N001	08/26/2013	Nitrate + Nitrite as Nitrogen	11			88			13			7	0	No
TUB01	1121	N001	08/26/2013	Potassium	5.5			22			6			11	0	No
TUB01	1121	N001	08/26/2013	Silica	14			25.2			16		F	11	0	No
TUB01	1121	N001	08/26/2013	Silicon	6.7			11		J	7.3			8	0	No
TUB01	1121	N001	08/26/2013	Sodium	76			710			94			11	0	No
TUB01	1121	N001	08/26/2013	Total Dissolved Solids	1400			6440			1500			11	0	No
TUB01	1121	N001	08/26/2013	Uranium	0.045			1.09			0.052			11	0	No
TUB01	1122	N001	08/26/2013	Nitrate + Nitrite as Nitrogen	31			140		F	42			6	0	No
TUB01	1122	N001	08/26/2013	Uranium	0.16			0.823			0.2			9	0	No
TUB01	1123	N001	08/26/2013	Manganese	0.85			0.49			0.00006	B	U	11	5	No
TUB01	1124	N001	08/26/2013	Iron	0.077	B		0.036	B		0.0049	U	J	11	9	Yes
TUB01	1124	N001	08/26/2013	Manganese	0.0029	B		0.0016	B	U	0.0001	U		11	11	Yes
TUB01	1125	N001	08/26/2013	Nitrate + Nitrite as Nitrogen	18			17		J	7.1			9	0	No
TUB01	1129	N001	08/27/2013	Selenium	0.049			0.082			0.05			8	0	No
TUB01	1129	N001	08/27/2013	Uranium	0.49			1			0.5			8	0	No
TUB01	1130	N001	08/27/2013	Arsenic	0.0017		J	0.0016			0.00093			7	0	No
TUB01	1130	N001	08/27/2013	Selenium	0.05			0.046			0.017			7	0	No
TUB01	1130	N001	08/27/2013	Sodium	450			440			120			7	0	No
TUB01	1130	N001	08/27/2013	Uranium	0.65			0.5			0.14			7	0	No

Data Validation Outliers Report - No Field Parameters
Comparison: All historical Data Beginning 1/1/2003
Laboratory: ALS Laboratory Group
RIN: 13085553
Report Date: 11/16/2013

					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	1132	N001	08/27/2013	Silicon	7.7			7.3		F	6.5			9	0	No
TUB01	1133	N001	08/27/2013	Molybdenum	0.022			0.013			0.0016		UF	8	1	Yes
TUB01	1133	N001	08/27/2013	Selenium	0.024			0.018			0.013		F	8	0	No
TUB01	1133	N001	08/27/2013	Uranium	0.13			0.078			0.047		F	8	0	Yes
TUB01	1202	N002	08/28/2013	Calcium	430			411			250			5	0	No
TUB01	1205	N002	08/28/2013	Calcium	0.097	B	U	0.649			0.114	B		7	3	No
TUB01	1569	0001	08/27/2013	Calcium	4100			1700			160			22	0	Yes
TUB01	1569	0001	08/27/2013	Sulfate	3300			53000			4800			22	0	No
TUB01	1571	0001	08/29/2013	Arsenic	0.0028			0.0027			0.0015			13	0	No
TUB01	1571	0001	08/29/2013	Sodium	48			109			58			13	0	Yes
TUB01	NMW-1A	N001	08/29/2013	Chloride	10		F	9.9		F	8.92		F	6	0	No
TUB01	NMW-1A	N001	08/29/2013	Uranium	0.0012		F	0.0019		F	0.0014		F	6	0	No
TUB01	NMW-8S	N001	08/29/2013	Selenium	0.0011		F	0.00175	B	F	0.0012		F	5	1	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.

NA: Data are not normally or lognormally distributed.

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: 11/16/2013
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	08/26/2013	N001	200	-	300	72		FQ	#		
Ammonia Total as N	mg/L	08/26/2013	N001	200	-	300	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/26/2013	N001	200	-	300	0.0025		FQ	#	0.000015	
Calcium	mg/L	08/26/2013	N001	200	-	300	29		FQ	#	0.012	
Chloride	mg/L	08/26/2013	N001	200	-	300	6.6		FQ	#	0.2	
Iron	mg/L	08/26/2013	N001	200	-	300	0.11		FQ	#	0.0049	
Magnesium	mg/L	08/26/2013	N001	200	-	300	6.1		FQ	#	0.013	
Manganese	mg/L	08/26/2013	N001	200	-	300	0.052		FQ	#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	200	-	300	0.0002		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	200	-	300	3.7		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/26/2013	N001	200	-	300	111		FQ	#		
pH	s.u.	08/26/2013	N001	200	-	300	7.75		FQ	#		
Potassium	mg/L	08/26/2013	N001	200	-	300	2.1		FQ	#	0.11	
Selenium	mg/L	08/26/2013	N001	200	-	300	0.0011		FQ	#	0.000032	
Silica	mg/L	08/26/2013	N001	200	-	300	11		FQ	#	0.0095	
Silicon	mg/L	08/26/2013	N001	200	-	300	4.9		FQ	#	0.0044	
Sodium	mg/L	08/26/2013	N001	200	-	300	5.5		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/26/2013	N001	200	-	300	230		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0251 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	200	-	300	12		FQ	#	0.5	
Temperature	C	08/26/2013	N001	200	-	300	17.06		FQ	#		
Total Dissolved Solids	mg/L	08/26/2013	N001	200	-	300	150		FQ	#	20	
Turbidity	NTU	08/26/2013	N001	200	-	300	2.41		FQ	#		
Uranium	mg/L	08/26/2013	N001	200	-	300	0.0015		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	400	-	500	72		F	#		
Ammonia Total as N	mg/L	08/26/2013	N001	400	-	500	0.1	U	F	#	0.1	
Arsenic	mg/L	08/26/2013	N001	400	-	500	0.0027		F	#	0.000015	
Calcium	mg/L	08/26/2013	N001	400	-	500	21		F	#	0.012	
Chloride	mg/L	08/26/2013	N001	400	-	500	4.8		F	#	0.2	
Iron	mg/L	08/26/2013	N001	400	-	500	0.015	B	UF	#	0.0049	
Magnesium	mg/L	08/26/2013	N001	400	-	500	4.2		F	#	0.013	
Manganese	mg/L	08/26/2013	N001	400	-	500	0.0074		F	#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	400	-	500	0.00013		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	400	-	500	2.5		F	#	0.05	
Oxidation Reduction Potential	mV	08/26/2013	N001	400	-	500	97		F	#		
pH	s.u.	08/26/2013	N001	400	-	500	7.95		F	#		
Potassium	mg/L	08/26/2013	N001	400	-	500	2		F	#	0.11	
Selenium	mg/L	08/26/2013	N001	400	-	500	0.00071		F	#	0.000032	
Silica	mg/L	08/26/2013	N001	400	-	500	10		F	#	0.0095	
Silicon	mg/L	08/26/2013	N001	400	-	500	4.7		F	#	0.0044	
Sodium	mg/L	08/26/2013	N001	400	-	500	9		F	#	0.0066	
Specific Conductance	umhos /cm	08/26/2013	N001	400	-	500	197		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0252 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	400	-	500	6.4		F	#	0.5	
Temperature	C	08/26/2013	N001	400	-	500	18.09		F	#		
Total Dissolved Solids	mg/L	08/26/2013	N001	400	-	500	130		F	#	20	
Turbidity	NTU	08/26/2013	N001	400	-	500	2		F	#		
Uranium	mg/L	08/26/2013	N001	400	-	500	0.0018		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	159	-	199	88		FQ	#		
Ammonia Total as N	mg/L	08/26/2013	N001	159	-	199	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/26/2013	N001	159	-	199	0.0024		FQ	#	0.000015	
Calcium	mg/L	08/26/2013	N001	159	-	199	35		FQ	#	0.012	
Chloride	mg/L	08/26/2013	N001	159	-	199	12		FQ	#	0.2	
Iron	mg/L	08/26/2013	N001	159	-	199	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/26/2013	N001	159	-	199	7.3		FQ	#	0.013	
Manganese	mg/L	08/26/2013	N001	159	-	199	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	159	-	199	0.00044		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	159	-	199	3.5		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/26/2013	N001	159	-	199	112		FQ	#		
pH	s.u.	08/26/2013	N001	159	-	199	7.61		FQ	#		
Potassium	mg/L	08/26/2013	N001	159	-	199	1.6		FQ	#	0.11	
Selenium	mg/L	08/26/2013	N001	159	-	199	0.0016		FQ	#	0.000032	
Silica	mg/L	08/26/2013	N001	159	-	199	12		FQ	#	0.0095	
Silicon	mg/L	08/26/2013	N001	159	-	199	5.7		FQ	#	0.0044	
Sodium	mg/L	08/26/2013	N001	159	-	199	11		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/26/2013	N001	159	-	199	310		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0258 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	159	-	199	17		FQ	#	0.5	
Temperature	C	08/26/2013	N001	159	-	199	17.4		FQ	#		
Total Dissolved Solids	mg/L	08/26/2013	N001	159	-	199	180		FQ	#	20	
Turbidity	NTU	08/26/2013	N001	159	-	199	1.68		FQ	#		
Uranium	mg/L	08/26/2013	N001	159	-	199	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	160	-	200	91		F	#		
Ammonia Total as N	mg/L	08/26/2013	N001	160	-	200	0.1	U	F	#	0.1	
Ammonia Total as N	mg/L	08/26/2013	N002	160	-	200	0.1	U	F	#	0.1	
Arsenic	mg/L	08/26/2013	N001	160	-	200	0.0027		JF	#	0.000015	
Arsenic	mg/L	08/26/2013	N002	160	-	200	0.0021		JF	#	0.000074	
Calcium	mg/L	08/26/2013	N001	160	-	200	35		JF	#	0.012	
Calcium	mg/L	08/26/2013	N002	160	-	200	33		F	#	0.012	
Chloride	mg/L	08/26/2013	N001	160	-	200	13		F	#	0.2	
Chloride	mg/L	08/26/2013	N002	160	-	200	13		F	#	0.2	
Iron	mg/L	08/26/2013	N001	160	-	200	0.041	B	JF	#	0.0049	
Iron	mg/L	08/26/2013	N002	160	-	200	0.057	B	F	#	0.0049	
Magnesium	mg/L	08/26/2013	N001	160	-	200	8.1		JF	#	0.013	
Magnesium	mg/L	08/26/2013	N002	160	-	200	8.9		F	#	0.013	
Manganese	mg/L	08/26/2013	N001	160	-	200	0.0022	B	UJF	#	0.00011	
Manganese	mg/L	08/26/2013	N002	160	-	200	0.024		JF	#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	160	-	200	0.00052		F	#	0.000032	
Molybdenum	mg/L	08/26/2013	N002	160	-	200	0.00047	B	F	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	160	-	200	3.4		F	#	0.05	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0261 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N002	160	-	200	3.6		F	#	0.05	
Oxidation Reduction Potential	mV	08/26/2013	N001	160	-	200	98		F	#		
pH	s.u.	08/26/2013	N001	160	-	200	7.71		F	#		
Potassium	mg/L	08/26/2013	N001	160	-	200	1.6		JF	#	0.11	
Potassium	mg/L	08/26/2013	N002	160	-	200	2		F	#	0.11	
Selenium	mg/L	08/26/2013	N001	160	-	200	0.0019		JF	#	0.000032	
Selenium	mg/L	08/26/2013	N002	160	-	200	0.0014		JF	#	0.00016	
Silica	mg/L	08/26/2013	N001	160	-	200	13		JF	#	0.0095	
Silica	mg/L	08/26/2013	N002	160	-	200	13		F	#	0.0095	
Silicon	mg/L	08/26/2013	N001	160	-	200	5.9		F	#	0.0044	
Silicon	mg/L	08/26/2013	N002	160	-	200	6		F	#	0.0044	
Sodium	mg/L	08/26/2013	N001	160	-	200	11		JF	#	0.0066	
Sodium	mg/L	08/26/2013	N002	160	-	200	15		JF	#	0.0066	
Specific Conductance	umhos /cm	08/26/2013	N001	160	-	200	297		F	#		
Sulfate	mg/L	08/26/2013	N001	160	-	200	18		F	#	0.5	
Sulfate	mg/L	08/26/2013	N002	160	-	200	18		F	#	0.5	
Temperature	C	08/26/2013	N001	160	-	200	18.37		F	#		
Total Dissolved Solids	mg/L	08/26/2013	N001	160	-	200	180		F	#	20	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0261 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Total Dissolved Solids	mg/L	08/26/2013	N002	160	-	200	190		F	#	20	
Turbidity	NTU	08/26/2013	N001	160	-	200	2.64		F	#		
Uranium	mg/L	08/26/2013	N001	160	-	200	0.0012		F	#	0.0000029	
Uranium	mg/L	08/26/2013	N002	160	-	200	0.0013		F	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	60 - 100	510		FQ	#		
Ammonia Total as N	mg/L	08/26/2013	N001	60 - 100	1.5		FQ	#	0.1	
Arsenic	mg/L	08/26/2013	N001	60 - 100	0.0034		FQ	#	0.00015	
Calcium	mg/L	08/26/2013	N001	60 - 100	850		FQ	#	0.12	
Chloride	mg/L	08/26/2013	N001	60 - 100	120		FQ	#	10	
Iron	mg/L	08/26/2013	N001	60 - 100	0.049	U	FQ	#	0.049	
Magnesium	mg/L	08/26/2013	N001	60 - 100	240		FQ	#	0.13	
Manganese	mg/L	08/26/2013	N001	60 - 100	0.017	B	FQ	#	0.0011	
Molybdenum	mg/L	08/26/2013	N001	60 - 100	0.54		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	60 - 100	230		FQ	#	2	
Oxidation Reduction Potential	mV	08/26/2013	N001	60 - 100	148		FQ	#		
pH	s.u.	08/26/2013	N001	60 - 100	6.51		FQ	#		
Potassium	mg/L	08/26/2013	N001	60 - 100	10		FQ	#	1.1	
Selenium	mg/L	08/26/2013	N001	60 - 100	0.056		FQ	#	0.00032	
Silica	mg/L	08/26/2013	N001	60 - 100	19		FQ	#	0.095	
Silicon	mg/L	08/26/2013	N001	60 - 100	8.9		FQ	#	0.044	
Sodium	mg/L	08/26/2013	N001	60 - 100	310		FQ	#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	60 - 100	5160		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0262 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	60	-	100	2200		FQ	#	25	
Temperature	C	08/26/2013	N001	60	-	100	17.37		FQ	#		
Total Dissolved Solids	mg/L	08/26/2013	N001	60	-	100	5300		FQ	#	80	
Turbidity	NTU	08/26/2013	N001	60	-	100	3.24		FQ	#		
Uranium	mg/L	08/26/2013	N001	60	-	100	0.61		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	60	-	100	580		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	60	-	100	0.1	UN	JFQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	60	-	100	0.0024		FQ	#	0.00015	
Calcium	mg/L	08/27/2013	N001	60	-	100	560		FQ	#	0.12	
Chloride	mg/L	08/27/2013	N001	60	-	100	110		FQ	#	20	
Iron	mg/L	08/27/2013	N001	60	-	100	0.083	B	FQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	60	-	100	480		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	60	-	100	0.0041	B	FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	60	-	100	0.072		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	60	-	100	230		FQ	#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	60	-	100	204.5		FQ	#		
pH	s.u.	08/27/2013	N001	60	-	100	6.38		FQ	#		
Potassium	mg/L	08/27/2013	N001	60	-	100	9.8	E	JFQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	60	-	100	0.042		FQ	#	0.00032	
Silica	mg/L	08/27/2013	N001	60	-	100	18		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	60	-	100	8.3		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	60	-	100	340		FQ	#	0.066	
Specific Conductance	umhos /cm	08/27/2013	N001	60	-	100	5769		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0263 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	60	-	100	2400		FQ	#	50	
Temperature	C	08/27/2013	N001	60	-	100	18.49		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	60	-	100	5600		FQ	#	80	
Turbidity	NTU	08/27/2013	N001	60	-	100	9.6		FQ	#		
Uranium	mg/L	08/27/2013	N001	60	-	100	0.25		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	160 - 200	109		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	160 - 200	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	160 - 200	0.0023		FQ	#	0.000015	
Calcium	mg/L	08/27/2013	N001	160 - 200	69		FQ	#	0.012	
Chloride	mg/L	08/27/2013	N001	160 - 200	16		FQ	#	1	
Iron	mg/L	08/27/2013	N001	160 - 200	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	160 - 200	13		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	160 - 200	0.00019	B	FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	160 - 200	0.0004		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	160 - 200	12		FQ	#	0.1	
Oxidation Reduction Potential	mV	08/27/2013	N001	160 - 200	170.2		FQ	#		
pH	s.u.	08/27/2013	N001	160 - 200	7.54		FQ	#		
Potassium	mg/L	08/27/2013	N001	160 - 200	2		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	160 - 200	0.0024		FQ	#	0.000032	
Silica	mg/L	08/27/2013	N001	160 - 200	13		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	160 - 200	5.9		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	160 - 200	15		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	160 - 200	537		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0264 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	160	-	200	86		FQ	#	2.5	
Temperature	C	08/27/2013	N001	160	-	200	18.45		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	160	-	200	350		FQ	#	20	
Turbidity	NTU	08/27/2013	N001	160	-	200	6.14		FQ	#		
Uranium	mg/L	08/27/2013	N001	160	-	200	0.0037		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	60	-	100	348		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	60	-	100	0.00096		F	#	0.000074	
Calcium	mg/L	08/28/2013	N001	60	-	100	520		F	#	0.6	
Chloride	mg/L	08/28/2013	N001	60	-	100	130		F	#	5	
Iron	mg/L	08/28/2013	N001	60	-	100	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	60	-	100	170		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	60	-	100	0.00034	B	UF	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	60	-	100	0.00016	U	F	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	60	-	100	170		F	#	2	
Oxidation Reduction Potential	mV	08/28/2013	N001	60	-	100	187.2		F	#		
pH	s.u.	08/28/2013	N001	60	-	100	6.71		F	#		
Potassium	mg/L	08/28/2013	N001	60	-	100	6.9		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	60	-	100	0.0067		F	#	0.00016	
Silica	mg/L	08/28/2013	N001	60	-	100	15		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	60	-	100	6.9		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	60	-	100	130		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	60	-	100	3678		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0265 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	60	-	100	1300		F	#	12	
Temperature	C	08/28/2013	N001	60	-	100	20.21		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	60	-	100	3600		F	#	80	
Turbidity	NTU	08/28/2013	N001	60	-	100	1.34		F	#		
Uranium	mg/L	08/28/2013	N001	60	-	100	0.061		F	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	N001	160	-	200	90		FQ	#		
Ammonia Total as N	mg/L	08/29/2013	N001	160	-	200	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/29/2013	N001	160	-	200	0.0018		FQ	#	0.000015	
Calcium	mg/L	08/29/2013	N001	160	-	200	28		FQ	#	0.012	
Chloride	mg/L	08/29/2013	N001	160	-	200	7.7		FQ	#	0.2	
Iron	mg/L	08/29/2013	N001	160	-	200	0.015	B	UFQ	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	160	-	200	7.9		FQ	#	0.013	
Manganese	mg/L	08/29/2013	N001	160	-	200	0.021		FQ	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	160	-	200	0.00027		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	160	-	200	3.5		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	160	-	200	-33.8		FQ	#		
pH	s.u.	08/29/2013	N001	160	-	200	8.01		FQ	#		
Potassium	mg/L	08/29/2013	N001	160	-	200	2.4		FQ	#	0.11	
Selenium	mg/L	08/29/2013	N001	160	-	200	0.0011		FQ	#	0.000032	
Silica	mg/L	08/29/2013	N001	160	-	200	12		FQ	#	0.0095	
Silicon	mg/L	08/29/2013	N001	160	-	200	5.5		FQ	#	0.0044	
Sodium	mg/L	08/29/2013	N001	160	-	200	10		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	160	-	200	255		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0266 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	160	-	200	11		FQ	#	0.5	
Temperature	C	08/29/2013	N001	160	-	200	18.7		FQ	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	160	-	200	140		FQ	#	20	
Turbidity	NTU	08/29/2013	N001	160	-	200	3.01		FQ	#		
Uranium	mg/L	08/29/2013	N001	160	-	200	0.0016		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	60	-	100	496		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	60	-	100	0.0027		F	#	0.00015	
Calcium	mg/L	08/28/2013	N001	60	-	100	610		F	#	0.6	
Chloride	mg/L	08/28/2013	N001	60	-	100	110		F	#	10	
Iron	mg/L	08/28/2013	N001	60	-	100	0.23		F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	60	-	100	720		F	#	0.65	
Manganese	mg/L	08/28/2013	N001	60	-	100	0.052		F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	60	-	100	0.00032	U	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	60	-	100	330		F	#	2	
Oxidation Reduction Potential	mV	08/28/2013	N001	60	-	100	-1.5		F	#		
pH	s.u.	08/28/2013	N001	60	-	100	6.33		F	#		
Potassium	mg/L	08/28/2013	N001	60	-	100	15		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	60	-	100	0.048		F	#	0.00032	
Silica	mg/L	08/28/2013	N001	60	-	100	24		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	60	-	100	11		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	60	-	100	520		F	#	0.33	
Specific Conductance	umhos /cm	08/28/2013	N001	60	-	100	7109		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0267 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	60	-	100	3200		F	#	25	
Temperature	C	08/28/2013	N001	60	-	100	17.56		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	60	-	100	7200		F	#	200	
Turbidity	NTU	08/28/2013	N001	60	-	100	2.76		F	#		
Uranium	mg/L	08/28/2013	N001	60	-	100	0.064		F	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	200	-	300	166		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	200	-	300	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	200	-	300	0.00064		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	200	-	300	150		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	200	-	300	21		F	#	1	
Iron	mg/L	08/28/2013	N001	200	-	300	0.05	B	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	200	-	300	27		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	200	-	300	0.0057		F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	200	-	300	0.00025		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	200	-	300	30		F	#	0.5	
Oxidation Reduction Potential	mV	08/28/2013	N001	200	-	300	38.1		F	#		
pH	s.u.	08/28/2013	N001	200	-	300	7.06		F	#		
Potassium	mg/L	08/28/2013	N001	200	-	300	5.5		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	200	-	300	0.0025		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	200	-	300	12		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	200	-	300	5.6		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	200	-	300	27		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	200	-	300	978		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0268 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	200	-	300	230		F	#	2.5	
Temperature	C	08/28/2013	N001	200	-	300	18.15		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	200	-	300	770		F	#	20	
Turbidity	NTU	08/28/2013	N001	200	-	300	1.33		F	#		
Uranium	mg/L	08/28/2013	N001	200	-	300	0.04		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	N001	60	-	100	112		F	#		
Ammonia Total as N	mg/L	08/29/2013	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/29/2013	N001	60	-	100	0.0021		F	#	0.000015	
Calcium	mg/L	08/29/2013	N001	60	-	100	35		F	#	0.012	
Chloride	mg/L	08/29/2013	N001	60	-	100	11		F	#	0.2	
Iron	mg/L	08/29/2013	N001	60	-	100	0.018	B	UF	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	60	-	100	6.3		F	#	0.013	
Manganese	mg/L	08/29/2013	N001	60	-	100	0.0022	B	F	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	60	-	100	0.0003		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	60	-	100	3.8		F	#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	60	-	100	-14.9		F	#		
pH	s.u.	08/29/2013	N001	60	-	100	7.91		F	#		
Potassium	mg/L	08/29/2013	N001	60	-	100	1.8		F	#	0.11	
Selenium	mg/L	08/29/2013	N001	60	-	100	0.0014		F	#	0.000032	
Silica	mg/L	08/29/2013	N001	60	-	100	11		F	#	0.0095	
Silicon	mg/L	08/29/2013	N001	60	-	100	5.2		F	#	0.0044	
Sodium	mg/L	08/29/2013	N001	60	-	100	9		F	#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	60	-	100	274		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0271 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	60	-	100	15		F	#	0.5	
Temperature	C	08/29/2013	N001	60	-	100	18.55		F	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	60	-	100	160		F	#	20	
Turbidity	NTU	08/29/2013	N001	60	-	100	1.5		F	#		
Uranium	mg/L	08/29/2013	N001	60	-	100	0.0014		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	159.1	-	179.1	88		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	159.1	-	179.1	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	159.1	-	179.1	0.0018		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	159.1	-	179.1	33		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	159.1	-	179.1	8.5		FQ	#	0.2	
Iron	mg/L	08/28/2013	N001	159.1	-	179.1	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	159.1	-	179.1	7.2		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	159.1	-	179.1	0.0014	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	159.1	-	179.1	0.00022		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	159.1	-	179.1	4.2		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	159.1	-	179.1	63.9		FQ	#		
pH	s.u.	08/28/2013	N001	159.1	-	179.1	7.32		FQ	#		
Potassium	mg/L	08/28/2013	N001	159.1	-	179.1	1.7		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	159.1	-	179.1	0.0011		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	159.1	-	179.1	11		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	159.1	-	179.1	5.3		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	159.1	-	179.1	6.1		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	159.1	-	179.1	262		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0272 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	159.1	-	179.1	13		FQ	#	0.5	
Temperature	C	08/28/2013	N001	159.1	-	179.1	18.32		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	159.1	-	179.1	180		FQ	#	20	
Turbidity	NTU	08/28/2013	N001	159.1	-	179.1	1.14		FQ	#		
Uranium	mg/L	08/28/2013	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: 11/16/2013
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	08/28/2013	N001	153	-	173	168		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	153	-	173	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	153	-	173	0.0013		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	153	-	173	160		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	153	-	173	43		FQ	#	1	
Iron	mg/L	08/28/2013	N001	153	-	173	0.03	B	FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	153	-	173	29		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	153	-	173	0.00047	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	153	-	173	0.021		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	153	-	173	45		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/28/2013	N001	153	-	173	28.4		FQ	#		
pH	s.u.	08/28/2013	N001	153	-	173	7.19		FQ	#		
Potassium	mg/L	08/28/2013	N001	153	-	173	3.4		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	153	-	173	0.017		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	153	-	173	13		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	153	-	173	6.2		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	153	-	173	29		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	153	-	173	1069		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0273 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	153	-	173	190		FQ	#	2.5	
Temperature	C	08/28/2013	N001	153	-	173	17.5		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	153	-	173	890		FQ	#	20	
Turbidity	NTU	08/28/2013	N001	153	-	173	1.77		FQ	#		
Uranium	mg/L	08/28/2013	N001	153	-	173	0.042		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	149	-	169	144		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	149	-	169	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	149	-	169	0.0025		FQ	#	0.000015	
Calcium	mg/L	08/27/2013	N001	149	-	169	34		FQ	#	0.012	
Chloride	mg/L	08/27/2013	N001	149	-	169	10		FQ	#	1	
Iron	mg/L	08/27/2013	N001	149	-	169	0.012	B	UFQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	149	-	169	6.5		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	149	-	169	0.014		FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	149	-	169	0.00038		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	149	-	169	3.5		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/27/2013	N001	149	-	169	162.2		FQ	#		
pH	s.u.	08/27/2013	N001	149	-	169	7.73		FQ	#		
Potassium	mg/L	08/27/2013	N001	149	-	169	1.2		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	149	-	169	0.0015		FQ	#	0.000032	
Silica	mg/L	08/27/2013	N001	149	-	169	11		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	149	-	169	5.1		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	149	-	169	9.6		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	149	-	169	280		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0274 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	149	-	169	15		FQ	#	2.5	
Temperature	C	08/27/2013	N001	149	-	169	20.37		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	149	-	169	170		FQ	#	20	
Turbidity	NTU	08/27/2013	N001	149	-	169	2.45		FQ	#		
Uranium	mg/L	08/27/2013	N001	149	-	169	0.0014		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	158.2	-	178.2	252		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	158.2	-	178.2	27		F	#	1	
Arsenic	mg/L	08/28/2013	N001	158.2	-	178.2	0.00077		F	#	0.00003	
Calcium	mg/L	08/28/2013	N001	158.2	-	178.2	680		F	#	0.6	
Chloride	mg/L	08/28/2013	N001	158.2	-	178.2	270		F	#	10	
Iron	mg/L	08/28/2013	N001	158.2	-	178.2	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	158.2	-	178.2	340		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	158.2	-	178.2	8.8		F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	158.2	-	178.2	0.00032	U	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	158.2	-	178.2	260		F	#	2	
Oxidation Reduction Potential	mV	08/28/2013	N001	158.2	-	178.2	80.1		F	#		
pH	s.u.	08/28/2013	N001	158.2	-	178.2	6.3		F	#		
Potassium	mg/L	08/28/2013	N001	158.2	-	178.2	27		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	158.2	-	178.2	0.04		F	#	0.00032	
Silica	mg/L	08/28/2013	N001	158.2	-	178.2	16		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	158.2	-	178.2	7.5		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	158.2	-	178.2	490		F	#	0.33	
Specific Conductance	umhos /cm	08/28/2013	N001	158.2	-	178.2	6339		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0275 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	158.2	-	178.2	2500		F	#	25	
Temperature	C	08/28/2013	N001	158.2	-	178.2	17.52		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	158.2	-	178.2	5700		F	#	200	
Turbidity	NTU	08/28/2013	N001	158.2	-	178.2	1.8		F	#		
Uranium	mg/L	08/28/2013	N001	158.2	-	178.2	0.43		F	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	154.5 - 174.5	96		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	154.5 - 174.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	154.5 - 174.5	0.0027		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	154.5 - 174.5	33		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	154.5 - 174.5	12		F	#	0.2	
Iron	mg/L	08/28/2013	N001	154.5 - 174.5	0.11		F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	154.5 - 174.5	6.6		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	154.5 - 174.5	0.0013	B	F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	154.5 - 174.5	0.00041		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	154.5 - 174.5	3.5		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	154.5 - 174.5	48.3		F	#		
pH	s.u.	08/28/2013	N001	154.5 - 174.5	7.61		F	#		
Potassium	mg/L	08/28/2013	N001	154.5 - 174.5	1.3		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	154.5 - 174.5	0.0016		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	154.5 - 174.5	12		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	154.5 - 174.5	5.4		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	154.5 - 174.5	12		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	154.5 - 174.5	279		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0276 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	154.5	-	174.5	17		F	#	0.5	
Temperature	C	08/28/2013	N001	154.5	-	174.5	17.24		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	154.5	-	174.5	180		F	#	20	
Turbidity	NTU	08/28/2013	N001	154.5	-	174.5	4.09		F	#		
Uranium	mg/L	08/28/2013	N001	154.5	-	174.5	0.0014		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0277 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	08/28/2013	N001	95.7	-	105.7	88		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	95.7	-	105.7	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	95.7	-	105.7	0.00048		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	95.7	-	105.7	26		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	95.7	-	105.7	10		FQ	#	0.2	
Iron	mg/L	08/28/2013	N001	95.7	-	105.7	0.03	B	UFQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	95.7	-	105.7	8.5		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	95.7	-	105.7	0.031		FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	95.7	-	105.7	0.00043		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	95.7	-	105.7	3.2		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	95.7	-	105.7	117		FQ	#		
pH	s.u.	08/28/2013	N001	95.7	-	105.7	7.17		FQ	#		
Potassium	mg/L	08/28/2013	N001	95.7	-	105.7	2.1		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	95.7	-	105.7	0.0014		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	95.7	-	105.7	14		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	95.7	-	105.7	6.7		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	95.7	-	105.7	10		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	95.7	-	105.7	268		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0277 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	95.7	-	105.7	16		FQ	#	0.5	
Temperature	C	08/28/2013	N001	95.7	-	105.7	18.84		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	95.7	-	105.7	190		FQ	#	20	
Turbidity	NTU	08/28/2013	N001	95.7	-	105.7	4.65		FQ	#		
Uranium	mg/L	08/28/2013	N001	95.7	-	105.7	0.0023		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	90.5 - 100.5	92		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	90.5 - 100.5	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	90.5 - 100.5	0.0016		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	90.5 - 100.5	27		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	90.5 - 100.5	9.2		FQ	#	0.2	
Iron	mg/L	08/28/2013	N001	90.5 - 100.5	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	90.5 - 100.5	6.8		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	90.5 - 100.5	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	90.5 - 100.5	0.00034		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	90.5 - 100.5	3.1		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	90.5 - 100.5	122		FQ	#		
pH	s.u.	08/28/2013	N001	90.5 - 100.5	7.62		FQ	#		
Potassium	mg/L	08/28/2013	N001	90.5 - 100.5	1.9		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	90.5 - 100.5	0.0012		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	90.5 - 100.5	11		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	90.5 - 100.5	5.3		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	90.5 - 100.5	8.1		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	90.5 - 100.5	248		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0278 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	90.5	-	100.5	12		FQ	#	0.5	
Temperature	C	08/28/2013	N001	90.5	-	100.5	18.15		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	90.5	-	100.5	180		FQ	#	20	
Turbidity	NTU	08/28/2013	N001	90.5	-	100.5	1.8		FQ	#		
Uranium	mg/L	08/28/2013	N001	90.5	-	100.5	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	26.5	-	36.5	92		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	26.5	-	36.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	26.5	-	36.5	0.00089		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	26.5	-	36.5	54		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	26.5	-	36.5	26		F	#	1	
Iron	mg/L	08/28/2013	N001	26.5	-	36.5	0.025	B	UF	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	26.5	-	36.5	11		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	26.5	-	36.5	0.0013	B	UF	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	26.5	-	36.5	0.00055		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	26.5	-	36.5	9.8		F	#	0.1	
Oxidation Reduction Potential	mV	08/28/2013	N001	26.5	-	36.5	133		F	#		
pH	s.u.	08/28/2013	N001	26.5	-	36.5	7.48		F	#		
Potassium	mg/L	08/28/2013	N001	26.5	-	36.5	1.9		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	26.5	-	36.5	0.0022		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	26.5	-	36.5	12		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	26.5	-	36.5	5.7		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	26.5	-	36.5	13		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	26.5	-	36.5	445		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0279 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	26.5	-	36.5	59		F	#	0.5	
Temperature	C	08/28/2013	N001	26.5	-	36.5	18.22		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	26.5	-	36.5	320		F	#	20	
Turbidity	NTU	08/28/2013	N001	26.5	-	36.5	1.61		F	#		
Uranium	mg/L	08/28/2013	N001	26.5	-	36.5	0.0018		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	26.5	-	36.5	95		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	26.5	-	36.5	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	26.5	-	36.5	0.0024		FQ	#	0.000015	
Calcium	mg/L	08/27/2013	N001	26.5	-	36.5	34		FQ	#	0.012	
Chloride	mg/L	08/27/2013	N001	26.5	-	36.5	20		FQ	#	0.2	
Iron	mg/L	08/27/2013	N001	26.5	-	36.5	0.034	B	UFQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	26.5	-	36.5	6.9		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	26.5	-	36.5	0.00081	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	26.5	-	36.5	0.00048		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	26.5	-	36.5	1.4		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/27/2013	N001	26.5	-	36.5	118		FQ	#		
pH	s.u.	08/27/2013	N001	26.5	-	36.5	6.79		FQ	#		
Potassium	mg/L	08/27/2013	N001	26.5	-	36.5	0.11	U	FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	26.5	-	36.5	0.0021		FQ	#	0.000032	
Silica	mg/L	08/27/2013	N001	26.5	-	36.5	12		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	26.5	-	36.5	5.7		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	26.5	-	36.5	18		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	26.5	-	36.5	304		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0280 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	26.5	-	36.5	21		FQ	#	0.5	
Temperature	C	08/27/2013	N001	26.5	-	36.5	18.47		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	26.5	-	36.5	180		FQ	#	20	
Turbidity	NTU	08/27/2013	N001	26.5	-	36.5	9.11		FQ	#		
Uranium	mg/L	08/27/2013	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: 11/16/2013
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	08/28/2013	0001	70.5	-	80.5	124		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	0001	70.5	-	80.5	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	0001	70.5	-	80.5	0.00077		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	0001	70.5	-	80.5	100		FQ	#	0.012	
Chloride	mg/L	08/28/2013	0001	70.5	-	80.5	20		FQ	#	1	
Iron	mg/L	08/28/2013	0001	70.5	-	80.5	0.073	B	FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	0001	70.5	-	80.5	18		FQ	#	0.013	
Manganese	mg/L	08/28/2013	0001	70.5	-	80.5	0.0031	B	FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	0001	70.5	-	80.5	0.00056		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	0001	70.5	-	80.5	26		FQ	#	0.2	
Oxidation Reduction Potential	mV	08/28/2013	N001	70.5	-	80.5	-6.6		FQ	#		
pH	s.u.	08/28/2013	N001	70.5	-	80.5	7.54		FQ	#		
Potassium	mg/L	08/28/2013	0001	70.5	-	80.5	1.9		FQ	#	0.11	
Selenium	mg/L	08/28/2013	0001	70.5	-	80.5	0.0021		FQ	#	0.000032	
Silica	mg/L	08/28/2013	0001	70.5	-	80.5	14		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	0001	70.5	-	80.5	6.7		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	0001	70.5	-	80.5	14		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	70.5	-	80.5	672		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0281 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	0001	70.5	-	80.5	100		FQ	#	2.5	
Temperature	C	08/28/2013	N001	70.5	-	80.5	19.21		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	0001	70.5	-	80.5	510		FQ	#	20	
Turbidity	NTU	08/28/2013	N001	70.5	-	80.5	26		FQ	#		
Uranium	mg/L	08/28/2013	0001	70.5	-	80.5	0.0058		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	74.1	-	84.1	130		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	74.1	-	84.1	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	74.1	-	84.1	0.00025		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	74.1	-	84.1	130		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	74.1	-	84.1	46		FQ	#	1	
Iron	mg/L	08/28/2013	N001	74.1	-	84.1	0.48		FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	74.1	-	84.1	25		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	74.1	-	84.1	0.01		FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	74.1	-	84.1	0.00061		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	74.1	-	84.1	47		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/28/2013	N001	74.1	-	84.1	-8.2		FQ	#		
pH	s.u.	08/28/2013	N001	74.1	-	84.1	7.46		FQ	#		
Potassium	mg/L	08/28/2013	N001	74.1	-	84.1	2.7		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	74.1	-	84.1	0.002		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	74.1	-	84.1	15		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	74.1	-	84.1	7.2		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	74.1	-	84.1	16		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	74.1	-	84.1	965		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0282 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	74.1	-	84.1	110		FQ	#	2.5	
Temperature	C	08/28/2013	N001	74.1	-	84.1	20.54		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	74.1	-	84.1	750		FQ	#	20	
Turbidity	NTU	08/28/2013	N001	74.1	-	84.1	5.08		FQ	#		
Uranium	mg/L	08/28/2013	N001	74.1	-	84.1	0.0056		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	0001	93.2	-	103.2	708		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	0001	93.2	-	103.2	9.1		JFQ	#	0.2	
Arsenic	mg/L	08/28/2013	0001	93.2	-	103.2	0.0019		FQ	#	0.00015	
Calcium	mg/L	08/28/2013	0001	93.2	-	103.2	620		FQ	#	0.6	
Chloride	mg/L	08/28/2013	0001	93.2	-	103.2	130		FQ	#	10	
Iron	mg/L	08/28/2013	0001	93.2	-	103.2	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	0001	93.2	-	103.2	850		FQ	#	0.65	
Manganese	mg/L	08/28/2013	0001	93.2	-	103.2	8.5		FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	0001	93.2	-	103.2	0.00039	B	FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	0001	93.2	-	103.2	310		FQ	#	2	
Oxidation Reduction Potential	mV	08/28/2013	N001	93.2	-	103.2	30.6		FQ	#		
pH	s.u.	08/28/2013	N001	93.2	-	103.2	6.44		FQ	#		
Potassium	mg/L	08/28/2013	0001	93.2	-	103.2	20		FQ	#	0.11	
Selenium	mg/L	08/28/2013	0001	93.2	-	103.2	0.051		FQ	#	0.00032	
Silica	mg/L	08/28/2013	0001	93.2	-	103.2	16		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	0001	93.2	-	103.2	7.3		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	0001	93.2	-	103.2	320		FQ	#	0.33	
Specific Conductance	umhos /cm	08/28/2013	N001	93.2	-	103.2	7615		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0286 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	0001	93.2	-	103.2	3900		FQ	#	25	
Temperature	C	08/28/2013	N001	93.2	-	103.2	19.88		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	0001	93.2	-	103.2	7600		FQ	#	200	
Turbidity	NTU	08/28/2013	N001	93.2	-	103.2	31.4		FQ	#		
Uranium	mg/L	08/28/2013	0001	93.2	-	103.2	0.44		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	100.7	-	110.7	568		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	100.7	-	110.7	1		FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	100.7	-	110.7	0.0021		FQ	#	0.00015	
Calcium	mg/L	08/27/2013	N001	100.7	-	110.7	840		FQ	#	0.12	
Chloride	mg/L	08/27/2013	N001	100.7	-	110.7	230		FQ	#	20	
Iron	mg/L	08/27/2013	N001	100.7	-	110.7	0.032	B	UFQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	100.7	-	110.7	130		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	100.7	-	110.7	0.0094		FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	100.7	-	110.7	0.14		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	100.7	-	110.7	280		FQ	#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	100.7	-	110.7	186.3		FQ	#		
pH	s.u.	08/27/2013	N001	100.7	-	110.7	6.26		FQ	#		
Potassium	mg/L	08/27/2013	N001	100.7	-	110.7	11		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	100.7	-	110.7	0.091		FQ	#	0.00032	
Silica	mg/L	08/27/2013	N001	100.7	-	110.7	17		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	100.7	-	110.7	7.8		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	100.7	-	110.7	390		FQ	#	0.066	
Specific Conductance	umhos /cm	08/27/2013	N001	100.7	-	110.7	5530		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0287 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	100.7	-	110.7	1600		FQ	#	50	
Temperature	C	08/27/2013	N001	100.7	-	110.7	18.13		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	100.7	-	110.7	5100		FQ	#	80	
Turbidity	NTU	08/27/2013	N001	100.7	-	110.7	2.45		FQ	#		
Uranium	mg/L	08/27/2013	N001	100.7	-	110.7	0.26		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	104	-	114	236		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	104	-	114	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	104	-	114	0.00063		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	104	-	114	190		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	104	-	114	22		FQ	#	2	
Iron	mg/L	08/28/2013	N001	104	-	114	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	104	-	114	37		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	104	-	114	0.0028	B	FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	104	-	114	0.00014		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	104	-	114	52		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/28/2013	N001	104	-	114	29.8		FQ	#		
pH	s.u.	08/28/2013	N001	104	-	114	6.85		FQ	#		
Potassium	mg/L	08/28/2013	N001	104	-	114	3.9		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	104	-	114	0.0026		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	104	-	114	15		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	104	-	114	7.2		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	104	-	114	43		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	104	-	114	1254		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0288 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	104	-	114	250		FQ	#	5	
Temperature	C	08/28/2013	N001	104	-	114	18.08		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	104	-	114	980		FQ	#	40	
Turbidity	NTU	08/28/2013	N001	104	-	114	1.77		FQ	#		
Uranium	mg/L	08/28/2013	N001	104	-	114	0.011		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	148.3 - 158.3	250		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	148.3 - 158.3	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	148.3 - 158.3	0.00098		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	148.3 - 158.3	210		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	148.3 - 158.3	26		FQ	#	2	
Iron	mg/L	08/28/2013	N001	148.3 - 158.3	0.0076	B	UFQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	148.3 - 158.3	38		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	148.3 - 158.3	0.0024	B	FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	148.3 - 158.3	0.00027		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	148.3 - 158.3	53		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/28/2013	N001	148.3 - 158.3	37.9		FQ	#		
pH	s.u.	08/28/2013	N001	148.3 - 158.3	6.88		FQ	#		
Potassium	mg/L	08/28/2013	N001	148.3 - 158.3	4.1		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	148.3 - 158.3	0.003		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	148.3 - 158.3	15		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	148.3 - 158.3	7		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	148.3 - 158.3	38		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	148.3 - 158.3	1311		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0289 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	148.3	-	158.3	270		FQ	#	5	
Temperature	C	08/28/2013	N001	148.3	-	158.3	17.81		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	148.3	-	158.3	1100		FQ	#	40	
Turbidity	NTU	08/28/2013	N001	148.3	-	158.3	1.84		FQ	#		
Uranium	mg/L	08/28/2013	N001	148.3	-	158.3	0.017		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	102.7	-	112.7	164		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	102.7	-	112.7	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	102.7	-	112.7	0.0013		FQ	#	0.000015	
Calcium	mg/L	08/27/2013	N001	102.7	-	112.7	240		FQ	#	0.012	
Chloride	mg/L	08/27/2013	N001	102.7	-	112.7	48		FQ	#	2	
Iron	mg/L	08/27/2013	N001	102.7	-	112.7	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	102.7	-	112.7	38		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	102.7	-	112.7	0.00014	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	102.7	-	112.7	0.00017		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	102.7	-	112.7	60		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/27/2013	N001	102.7	-	112.7	159		FQ	#		
pH	s.u.	08/27/2013	N001	102.7	-	112.7	6.61		FQ	#		
Potassium	mg/L	08/27/2013	N001	102.7	-	112.7	4.1		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	102.7	-	112.7	0.0073		FQ	#	0.000032	
Silica	mg/L	08/27/2013	N001	102.7	-	112.7	15		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	102.7	-	112.7	7		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	102.7	-	112.7	47		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	102.7	-	112.7	1484		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0290 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	102.7	-	112.7	360		FQ	#	5	
Temperature	C	08/27/2013	N001	102.7	-	112.7	19.95		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	102.7	-	112.7	1300		FQ	#	40	
Turbidity	NTU	08/27/2013	N001	102.7	-	112.7	6.22		FQ	#		
Uranium	mg/L	08/27/2013	N001	102.7	-	112.7	0.028		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	95	-	145	93		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	95	-	145	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	95	-	145	0.002		FQ	#	0.000015	
Calcium	mg/L	08/27/2013	N001	95	-	145	36		FQ	#	0.012	
Chloride	mg/L	08/27/2013	N001	95	-	145	13		FQ	#	0.2	
Iron	mg/L	08/27/2013	N001	95	-	145	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	95	-	145	6.2		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	95	-	145	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	95	-	145	0.00047		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	95	-	145	3.4		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/27/2013	N001	95	-	145	136		FQ	#		
pH	s.u.	08/27/2013	N001	95	-	145	7.4		FQ	#		
Potassium	mg/L	08/27/2013	N001	95	-	145	1.5		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	95	-	145	0.0018		FQ	#	0.000032	
Silica	mg/L	08/27/2013	N001	95	-	145	13		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	95	-	145	5.9		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	95	-	145	12		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	95	-	145	293		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0683 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	95	-	145	18		FQ	#	0.5	
Temperature	C	08/27/2013	N001	95	-	145	18.43		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	95	-	145	170		FQ	#	20	
Turbidity	NTU	08/27/2013	N001	95	-	145	2.59		FQ	#		
Uranium	mg/L	08/27/2013	N001	95	-	145	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	124.2	-	175.5	96		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	124.2	-	175.5	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	124.2	-	175.5	0.0029		FQ	#	0.000015	
Calcium	mg/L	08/27/2013	N001	124.2	-	175.5	35		FQ	#	0.012	
Chloride	mg/L	08/27/2013	N001	124.2	-	175.5	12		FQ	#	0.2	
Iron	mg/L	08/27/2013	N001	124.2	-	175.5	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	124.2	-	175.5	6.9		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	124.2	-	175.5	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	124.2	-	175.5	0.00049		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	124.2	-	175.5	3.8		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/27/2013	N001	124.2	-	175.5	149		FQ	#		
pH	s.u.	08/27/2013	N001	124.2	-	175.5	7.46		FQ	#		
Potassium	mg/L	08/27/2013	N001	124.2	-	175.5	1.3		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	124.2	-	175.5	0.0018		FQ	#	0.000032	
Silica	mg/L	08/27/2013	N001	124.2	-	175.5	12		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	124.2	-	175.5	5.4		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	124.2	-	175.5	12		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	124.2	-	175.5	290		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0684 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	124.2	-	175.5	18		FQ	#	0.5	
Temperature	C	08/27/2013	N001	124.2	-	175.5	19.02		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	124.2	-	175.5	170		FQ	#	20	
Turbidity	NTU	08/27/2013	N001	124.2	-	175.5	1.18		FQ	#		
Uranium	mg/L	08/27/2013	N001	124.2	-	175.5	0.0016		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	93.66	-	145.5	106		F	#		
Ammonia Total as N	mg/L	08/27/2013	N001	93.66	-	145.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/27/2013	N001	93.66	-	145.5	0.0028		F	#	0.000015	
Calcium	mg/L	08/27/2013	N001	93.66	-	145.5	32		F	#	0.012	
Chloride	mg/L	08/27/2013	N001	93.66	-	145.5	11		F	#	1	
Iron	mg/L	08/27/2013	N001	93.66	-	145.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	93.66	-	145.5	6.3		F	#	0.013	
Manganese	mg/L	08/27/2013	N001	93.66	-	145.5	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	93.66	-	145.5	0.00038		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	93.66	-	145.5	3.4		F	#	0.05	
Oxidation Reduction Potential	mV	08/27/2013	N001	93.66	-	145.5	20.6		F	#		
pH	s.u.	08/27/2013	N001	93.66	-	145.5	7.82		F	#		
Potassium	mg/L	08/27/2013	N001	93.66	-	145.5	1.2		F	#	0.11	
Selenium	mg/L	08/27/2013	N001	93.66	-	145.5	0.0015		F	#	0.000032	
Silica	mg/L	08/27/2013	N001	93.66	-	145.5	11		F	#	0.0095	
Silicon	mg/L	08/27/2013	N001	93.66	-	145.5	5.1		F	#	0.0044	
Sodium	mg/L	08/27/2013	N001	93.66	-	145.5	10		F	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	93.66	-	145.5	273		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0685 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	93.66	-	145.5	16		F	#	2.5	
Temperature	C	08/27/2013	N001	93.66	-	145.5	17.65		F	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	93.66	-	145.5	160		F	#	20	
Turbidity	NTU	08/27/2013	N001	93.66	-	145.5	2.43		F	#		
Uranium	mg/L	08/27/2013	N001	93.66	-	145.5	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	60	-	100	97		F	#		
Ammonia Total as N	mg/L	08/27/2013	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/27/2013	N001	60	-	100	0.0018		F	#	0.000015	
Calcium	mg/L	08/27/2013	N001	60	-	100	68		F	#	0.012	
Chloride	mg/L	08/27/2013	N001	60	-	100	55		F	#	1	
Iron	mg/L	08/27/2013	N001	60	-	100	0.065	B	F	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	60	-	100	9.4		F	#	0.013	
Manganese	mg/L	08/27/2013	N001	60	-	100	0.0002	B	UF	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	60	-	100	0.0018		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	60	-	100	3.5		F	#	0.02	
Oxidation Reduction Potential	mV	08/27/2013	N001	60	-	100	167		F	#		
pH	s.u.	08/27/2013	N001	60	-	100	7.65		F	#		
Potassium	mg/L	08/27/2013	N001	60	-	100	2.4		F	#	0.11	
Selenium	mg/L	08/27/2013	N001	60	-	100	0.0066		F	#	0.000032	
Silica	mg/L	08/27/2013	N001	60	-	100	11		F	#	0.0095	
Silicon	mg/L	08/27/2013	N001	60	-	100	5		F	#	0.0044	
Sodium	mg/L	08/27/2013	N001	60	-	100	39		F	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	60	-	100	648		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0686 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	60	-	100	110		F	#	2.5	
Temperature	C	08/27/2013	N001	60	-	100	17.86		F	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	60	-	100	390		F	#	20	
Turbidity	NTU	08/27/2013	N001	60	-	100	3.39		F	#		
Uranium	mg/L	08/27/2013	N001	60	-	100	0.0018		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	60	-	100	70		F	#		
Ammonia Total as N	mg/L	08/27/2013	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/27/2013	N001	60	-	100	0.0056		F	#	0.000015	
Calcium	mg/L	08/27/2013	N001	60	-	100	17		F	#	0.012	
Chloride	mg/L	08/27/2013	N001	60	-	100	5		F	#	0.2	
Iron	mg/L	08/27/2013	N001	60	-	100	0.088	B	F	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	60	-	100	2.1		F	#	0.013	
Manganese	mg/L	08/27/2013	N001	60	-	100	0.0002	B	UF	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	60	-	100	0.0047		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	60	-	100	4.5		F	#	0.05	
Oxidation Reduction Potential	mV	08/27/2013	N001	60	-	100	136		F	#		
pH	s.u.	08/27/2013	N001	60	-	100	8.55		F	#		
Potassium	mg/L	08/27/2013	N001	60	-	100	1.1		F	#	0.11	
Selenium	mg/L	08/27/2013	N001	60	-	100	0.00013		JF	#	0.000032	
Silica	mg/L	08/27/2013	N001	60	-	100	10		F	#	0.0095	
Silicon	mg/L	08/27/2013	N001	60	-	100	4.8		F	#	0.0044	
Sodium	mg/L	08/27/2013	N001	60	-	100	17		F	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	60	-	100	253		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0687 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	60	-	100	6		F	#	0.5	
Temperature	C	08/27/2013	N001	60	-	100	20.46		F	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	60	-	100	110		F	#	20	
Turbidity	NTU	08/27/2013	N001	60	-	100	4.48		F	#		
Uranium	mg/L	08/27/2013	N001	60	-	100	0.0018		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	60	-	100	78		F	#		
Ammonia Total as N	mg/L	08/27/2013	N001	60	-	100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/27/2013	N001	60	-	100	0.0016		F	#	0.000015	
Calcium	mg/L	08/27/2013	N001	60	-	100	110		F	#	0.012	
Chloride	mg/L	08/27/2013	N001	60	-	100	81		F	#	1	
Iron	mg/L	08/27/2013	N001	60	-	100	0.025	B	UF	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	60	-	100	15		F	#	0.013	
Manganese	mg/L	08/27/2013	N001	60	-	100	0.00069	B	UF	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	60	-	100	0.00092		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	60	-	100	7.2		F	#	0.05	
Oxidation Reduction Potential	mV	08/27/2013	N001	60	-	100	158		F	#		
pH	s.u.	08/27/2013	N001	60	-	100	7.79		F	#		
Potassium	mg/L	08/27/2013	N001	60	-	100	2.8		F	#	0.11	
Selenium	mg/L	08/27/2013	N001	60	-	100	0.0085		F	#	0.000032	
Silica	mg/L	08/27/2013	N001	60	-	100	13		F	#	0.0095	
Silicon	mg/L	08/27/2013	N001	60	-	100	6.1		F	#	0.0044	
Sodium	mg/L	08/27/2013	N001	60	-	100	29		F	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	60	-	100	961		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0688 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	60	-	100	160		F	#	2.5	
Temperature	C	08/27/2013	N001	60	-	100	17.52		F	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	60	-	100	560		F	#	20	
Turbidity	NTU	08/27/2013	N001	60	-	100	7.47		F	#		
Uranium	mg/L	08/27/2013	N001	60	-	100	0.0022		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	55 - 95	87		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	55 - 95	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	55 - 95	0.0021		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	55 - 95	33		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	55 - 95	10		F	#	0.2	
Iron	mg/L	08/28/2013	N001	55 - 95	0.022	B	UF	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	55 - 95	6.5		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	55 - 95	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	55 - 95	0.00037		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	55 - 95	3.1		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	55 - 95	99		F	#		
pH	s.u.	08/28/2013	N001	55 - 95	7.67		F	#		
Potassium	mg/L	08/28/2013	N001	55 - 95	1.3		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	55 - 95	0.0012		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	55 - 95	13		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	55 - 95	5.9		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	55 - 95	8.4		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	55 - 95	272		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0689 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	55	-	95	14		F	#	0.5	
Temperature	C	08/28/2013	N001	55	-	95	17.61		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	55	-	95	200		F	#	20	
Turbidity	NTU	08/28/2013	N001	55	-	95	1.2		F	#		
Uranium	mg/L	08/28/2013	N001	55	-	95	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	55	-	95	87		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	55	-	95	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	55	-	95	0.0013		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	55	-	95	27		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	55	-	95	9.3		FQ	#	0.2	
Iron	mg/L	08/28/2013	N001	55	-	95	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	55	-	95	7.6		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	55	-	95	0.0073		FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	55	-	95	0.00032		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	55	-	95	3.2		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	55	-	95	160		FQ	#		
pH	s.u.	08/28/2013	N001	55	-	95	7.45		FQ	#		
Potassium	mg/L	08/28/2013	N001	55	-	95	2.2		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	55	-	95	0.0013		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	55	-	95	11		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	55	-	95	5.3		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	55	-	95	8.2		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	55	-	95	263		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0690 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	55	-	95	13		FQ	#	0.5	
Temperature	C	08/28/2013	N001	55	-	95	18.02		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	55	-	95	180		FQ	#	20	
Turbidity	NTU	08/28/2013	N001	55	-	95	2.45		FQ	#		
Uranium	mg/L	08/28/2013	N001	55	-	95	0.0015		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	55	-	95	268		F	#		
Ammonia Total as N	mg/L	08/27/2013	N001	55	-	95	0.1	U	F	#	0.1	
Arsenic	mg/L	08/27/2013	N001	55	-	95	0.0012		F	#	0.000074	
Calcium	mg/L	08/27/2013	N001	55	-	95	390		F	#	0.012	
Chloride	mg/L	08/27/2013	N001	55	-	95	57		F	#	2	
Iron	mg/L	08/27/2013	N001	55	-	95	0.053	B	F	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	55	-	95	59		F	#	0.013	
Manganese	mg/L	08/27/2013	N001	55	-	95	0.065		F	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	55	-	95	0.00016	U	F	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	55	-	95	78		F	#	0.5	
Oxidation Reduction Potential	mV	08/27/2013	N001	55	-	95	155		F	#		
pH	s.u.	08/27/2013	N001	55	-	95	6.74		F	#		
Potassium	mg/L	08/27/2013	N001	55	-	95	5.2		F	#	0.11	
Selenium	mg/L	08/27/2013	N001	55	-	95	0.005		F	#	0.00016	
Silica	mg/L	08/27/2013	N001	55	-	95	15		F	#	0.0095	
Silicon	mg/L	08/27/2013	N001	55	-	95	7.1		F	#	0.0044	
Sodium	mg/L	08/27/2013	N001	55	-	95	51		F	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	55	-	95	2036		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0691 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	55	-	95	630		F	#	5	
Temperature	C	08/27/2013	N001	55	-	95	18.44		F	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	55	-	95	2000		F	#	40	
Turbidity	NTU	08/27/2013	N001	55	-	95	4.52		F	#		
Uranium	mg/L	08/27/2013	N001	55	-	95	0.077		F	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	55	-	95	75		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	55	-	95	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	55	-	95	0.0065		FQ	#	0.000015	
Calcium	mg/L	08/27/2013	N001	55	-	95	29		FQ	#	0.012	
Chloride	mg/L	08/27/2013	N001	55	-	95	13		FQ	#	0.2	
Iron	mg/L	08/27/2013	N001	55	-	95	0.21		FQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	55	-	95	6.8		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	55	-	95	0.074		FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	55	-	95	0.00042		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	55	-	95	3.1		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/27/2013	N001	55	-	95	113		FQ	#		
pH	s.u.	08/27/2013	N001	55	-	95	7.22		FQ	#		
Potassium	mg/L	08/27/2013	N001	55	-	95	3.6		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	55	-	95	0.0017		FQ	#	0.000032	
Silica	mg/L	08/27/2013	N001	55	-	95	12		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	55	-	95	5.8		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	55	-	95	11		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	55	-	95	267		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0692 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	55	-	95	15		FQ	#	0.5	
Temperature	C	08/27/2013	N001	55	-	95	19.05		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	55	-	95	160		FQ	#	20	
Turbidity	NTU	08/27/2013	N001	55	-	95	9.38		FQ	#		
Uranium	mg/L	08/27/2013	N001	55	-	95	0.0017		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	55	-	95	93		F	#		
Ammonia Total as N	mg/L	08/27/2013	N001	55	-	95	0.1	U	F	#	0.1	
Arsenic	mg/L	08/27/2013	N001	55	-	95	0.0016		F	#	0.000015	
Calcium	mg/L	08/27/2013	N001	55	-	95	45		F	#	0.012	
Chloride	mg/L	08/27/2013	N001	55	-	95	14		F	#	0.2	
Iron	mg/L	08/27/2013	N001	55	-	95	0.013	B	UF	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	55	-	95	7.2		F	#	0.013	
Manganese	mg/L	08/27/2013	N001	55	-	95	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	55	-	95	0.00048		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	55	-	95	4.8		F	#	0.05	
Oxidation Reduction Potential	mV	08/27/2013	N001	55	-	95	135		F	#		
pH	s.u.	08/27/2013	N001	55	-	95	7.55		F	#		
Potassium	mg/L	08/27/2013	N001	55	-	95	1.7		F	#	0.11	
Selenium	mg/L	08/27/2013	N001	55	-	95	0.0017		F	#	0.000032	
Silica	mg/L	08/27/2013	N001	55	-	95	12		F	#	0.0095	
Silicon	mg/L	08/27/2013	N001	55	-	95	5.6		F	#	0.0044	
Sodium	mg/L	08/27/2013	N001	55	-	95	11		F	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	55	-	95	345		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0695 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	55	-	95	37		F	#	0.5	
Temperature	C	08/27/2013	N001	55	-	95	18.64		F	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	55	-	95	220		F	#	20	
Turbidity	NTU	08/27/2013	N001	55	-	95	2.19		F	#		
Uranium	mg/L	08/27/2013	N001	55	-	95	0.0018		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	N001	58	-	78	110		F	#		
Ammonia Total as N	mg/L	08/29/2013	N001	58	-	78	0.1	U	F	#	0.1	
Arsenic	mg/L	08/29/2013	N001	58	-	78	0.0025		F	#	0.000015	
Calcium	mg/L	08/29/2013	N001	58	-	78	42		F	#	0.012	
Chloride	mg/L	08/29/2013	N001	58	-	78	19		F	#	0.2	
Iron	mg/L	08/29/2013	N001	58	-	78	0.2		F	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	58	-	78	7.3		F	#	0.013	
Manganese	mg/L	08/29/2013	N001	58	-	78	0.0097		F	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	58	-	78	0.00063		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	58	-	78	3.4		F	#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	58	-	78	171.5		F	#		
pH	s.u.	08/29/2013	N001	58	-	78	7.65		F	#		
Potassium	mg/L	08/29/2013	N001	58	-	78	1.4		F	#	0.11	
Selenium	mg/L	08/29/2013	N001	58	-	78	0.0027		F	#	0.000032	
Silica	mg/L	08/29/2013	N001	58	-	78	14		F	#	0.0095	
Silicon	mg/L	08/29/2013	N001	58	-	78	6.4		F	#	0.0044	
Sodium	mg/L	08/29/2013	N001	58	-	78	18		F	#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	58	-	78	354		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0901 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	58	-	78	31		F	#	0.5	
Temperature	C	08/29/2013	N001	58	-	78	18.16		F	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	58	-	78	240		F	#	20	
Turbidity	NTU	08/29/2013	N001	58	-	78	8.45		F	#		
Uranium	mg/L	08/29/2013	N001	58	-	78	0.0023		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	28	-	48	97		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	28	-	48	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	28	-	48	0.0017		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	28	-	48	75		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	28	-	48	26		F	#	1	
Iron	mg/L	08/28/2013	N001	28	-	48	0.039	B	UF	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	28	-	48	15		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	28	-	48	0.00027	B	UF	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	28	-	48	0.00023		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	28	-	48	16		F	#	0.2	
Oxidation Reduction Potential	mV	08/28/2013	N001	28	-	48	110		F	#		
pH	s.u.	08/28/2013	N001	28	-	48	7.63		F	#		
Potassium	mg/L	08/28/2013	N001	28	-	48	2.1		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	28	-	48	0.0019		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	28	-	48	12		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	28	-	48	5.6		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	28	-	48	14		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	28	-	48	570		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0903 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	28	-	48	92		F	#	0.5	
Temperature	C	08/28/2013	N001	28	-	48	21.35		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	28	-	48	400		F	#	20	
Turbidity	NTU	08/28/2013	N001	28	-	48	1.78		F	#		
Uranium	mg/L	08/28/2013	N001	28	-	48	0.0025		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	N001	28	-	38	169		F	#		
Ammonia Total as N	mg/L	08/29/2013	N001	28	-	38	0.1	U	F	#	0.1	
Arsenic	mg/L	08/29/2013	N001	28	-	38	0.00063		F	#	0.000015	
Calcium	mg/L	08/29/2013	N001	28	-	38	53		F	#	0.012	
Chloride	mg/L	08/29/2013	N001	28	-	38	150		F	#	2	
Iron	mg/L	08/29/2013	N001	28	-	38	0.12		F	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	28	-	38	13		F	#	0.013	
Manganese	mg/L	08/29/2013	N001	28	-	38	0.015		F	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	28	-	38	0.0009		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	28	-	38	1.6		F	#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	28	-	38	0		F	#		
pH	s.u.	08/29/2013	N001	28	-	38	7.5		F	#		
Potassium	mg/L	08/29/2013	N001	28	-	38	1.1		F	#	0.11	
Selenium	mg/L	08/29/2013	N001	28	-	38	0.012		F	#	0.000032	
Silica	mg/L	08/29/2013	N001	28	-	38	20		F	#	0.0095	
Silicon	mg/L	08/29/2013	N001	28	-	38	9.2		F	#	0.0044	
Sodium	mg/L	08/29/2013	N001	28	-	38	120		F	#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	28	-	38	878		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0904 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	28	-	38	77		F	#	2.5	
Temperature	C	08/29/2013	N001	28	-	38	18.57		F	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	28	-	38	560		F	#	20	
Turbidity	NTU	08/29/2013	N001	28	-	38	7.36		F	#		
Uranium	mg/L	08/29/2013	N001	28	-	38	0.0043		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	44	-	64	960		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	44	-	64	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	44	-	64	0.0011		FQ	#	0.00015	
Calcium	mg/L	08/28/2013	N001	44	-	64	1000		FQ	#	0.6	
Chloride	mg/L	08/28/2013	N001	44	-	64	130		FQ	#	10	
Iron	mg/L	08/28/2013	N001	44	-	64	0.0069	B	UFQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	44	-	64	240		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	44	-	64	0.082		FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	44	-	64	0.001		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	44	-	64	390		FQ	#	5	
Oxidation Reduction Potential	mV	08/28/2013	N001	44	-	64	6.2		FQ	#		
pH	s.u.	08/28/2013	N001	44	-	64	6.35		FQ	#		
Potassium	mg/L	08/28/2013	N001	44	-	64	12		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	44	-	64	0.029		FQ	#	0.00032	
Silica	mg/L	08/28/2013	N001	44	-	64	15		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	44	-	64	7.1		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	44	-	64	280		FQ	#	0.33	
Specific Conductance	umhos /cm	08/28/2013	N001	44	-	64	6252		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0906 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	44	-	64	1700		FQ	#	25	
Temperature	C	08/28/2013	N001	44	-	64	19.2		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	44	-	64	5900		FQ	#	200	
Turbidity	NTU	08/28/2013	N001	44	-	64	7.79		FQ	#		
Uranium	mg/L	08/28/2013	N001	44	-	64	0.62		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	52	-	67	489		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	52	-	67	72		FQ	#	2	
Arsenic	mg/L	08/27/2013	N001	52	-	67	0.00068		FQ	#	0.000074	
Calcium	mg/L	08/27/2013	N001	52	-	67	580		FQ	#	0.12	
Chloride	mg/L	08/27/2013	N001	52	-	67	70		FQ	#	20	
Iron	mg/L	08/27/2013	N001	52	-	67	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	52	-	67	410		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	52	-	67	0.13		FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	52	-	67	0.00022	B	UFQ	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	52	-	67	220		FQ	#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	52	-	67	216.5		FQ	#		
pH	s.u.	08/27/2013	N001	52	-	67	6.32		FQ	#		
Potassium	mg/L	08/27/2013	N001	52	-	67	32		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	52	-	67	0.019		FQ	#	0.00016	
Silica	mg/L	08/27/2013	N001	52	-	67	17		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	52	-	67	8		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	52	-	67	290		FQ	#	0.066	
Specific Conductance	umhos /cm	08/27/2013	N001	52	-	67	6011		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0908 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	52	-	67	2500		FQ	#	50	
Temperature	C	08/27/2013	N001	52	-	67	18.81		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	52	-	67	5500		FQ	#	80	
Turbidity	NTU	08/27/2013	N001	52	-	67	4.45		FQ	#		
Uranium	mg/L	08/27/2013	N001	52	-	67	0.075		FQ	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	N001	97	-	197	99		F	#		
Ammonia Total as N	mg/L	08/29/2013	N001	97	-	197	0.1	U	F	#	0.1	
Arsenic	mg/L	08/29/2013	N001	97	-	197	0.002		F	#	0.000015	
Calcium	mg/L	08/29/2013	N001	97	-	197	31		F	#	0.012	
Chloride	mg/L	08/29/2013	N001	97	-	197	11		F	#	0.2	
Iron	mg/L	08/29/2013	N001	97	-	197	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	97	-	197	5.1		F	#	0.013	
Manganese	mg/L	08/29/2013	N001	97	-	197	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	97	-	197	0.00048		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	97	-	197	3.1		F	#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	97	-	197	173		F	#		
pH	s.u.	08/29/2013	N001	97	-	197	8.04		F	#		
Potassium	mg/L	08/29/2013	N001	97	-	197	1.1		F	#	0.11	
Selenium	mg/L	08/29/2013	N001	97	-	197	0.0013		F	#	0.000032	
Silica	mg/L	08/29/2013	N001	97	-	197	11		F	#	0.0095	
Silicon	mg/L	08/29/2013	N001	97	-	197	4.9		F	#	0.0044	
Sodium	mg/L	08/29/2013	N001	97	-	197	11		F	#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	97	-	197	263		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0910 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	97	-	197	14		F	#	0.5	
Temperature	C	08/29/2013	N001	97	-	197	17.24		F	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	97	-	197	160		F	#	20	
Turbidity	NTU	08/29/2013	N001	97	-	197	0.67		F	#		
Uranium	mg/L	08/29/2013	N001	97	-	197	0.00098		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	309.4	-	349.4	73		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	309.4	-	349.4	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	309.4	-	349.4	0.002		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	309.4	-	349.4	28		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	309.4	-	349.4	7		FQ	#	0.2	
Iron	mg/L	08/28/2013	N001	309.4	-	349.4	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	309.4	-	349.4	5.5		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	309.4	-	349.4	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	309.4	-	349.4	0.00022		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	309.4	-	349.4	3.2		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	309.4	-	349.4	74		FQ	#		
pH	s.u.	08/28/2013	N001	309.4	-	349.4	7.63		FQ	#		
Potassium	mg/L	08/28/2013	N001	309.4	-	349.4	1.5		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	309.4	-	349.4	0.0012		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	309.4	-	349.4	13		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	309.4	-	349.4	6		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	309.4	-	349.4	7		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	309.4	-	349.4	259		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0911 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	309.4	-	349.4	9.4		FQ	#	0.5	
Temperature	C	08/28/2013	N001	309.4	-	349.4	17.44		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	309.4	-	349.4	150		FQ	#	20	
Turbidity	NTU	08/28/2013	N001	309.4	-	349.4	6.65		FQ	#		
Uranium	mg/L	08/28/2013	N001	309.4	-	349.4	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	123	-	163	290		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	123	-	163	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	123	-	163	0.0012	E	JFQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	123	-	163	310		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	123	-	163	30		FQ	#	2	
Iron	mg/L	08/28/2013	N001	123	-	163	0.025	B	UFQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	123	-	163	63		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	123	-	163	0.00091	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	123	-	163	0.00014		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	123	-	163	65		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/28/2013	N001	123	-	163	16.8		FQ	#		
pH	s.u.	08/28/2013	N001	123	-	163	6.83		FQ	#		
Potassium	mg/L	08/28/2013	N001	123	-	163	5.3		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	123	-	163	0.0081		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	123	-	163	13		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	123	-	163	6.2		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	123	-	163	62		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	123	-	163	1939		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0912 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	123	-	163	550		FQ	#	5	
Temperature	C	08/28/2013	N001	123	-	163	18.74		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	123	-	163	1600		FQ	#	40	
Turbidity	NTU	08/28/2013	N001	123	-	163	5.04		FQ	#		
Uranium	mg/L	08/28/2013	N001	123	-	163	0.025		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	328.7	-	368.7	86		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	328.7	-	368.7	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	328.7	-	368.7	0.0023		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	328.7	-	368.7	24		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	328.7	-	368.7	5.8		FQ	#	0.2	
Iron	mg/L	08/28/2013	N001	328.7	-	368.7	0.029	B	UFQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	328.7	-	368.7	4.9		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	328.7	-	368.7	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	328.7	-	368.7	0.00013		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	328.7	-	368.7	3.1		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	328.7	-	368.7	-7.6		FQ	#		
pH	s.u.	08/28/2013	N001	328.7	-	368.7	8.01		FQ	#		
Potassium	mg/L	08/28/2013	N001	328.7	-	368.7	1.5		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	328.7	-	368.7	0.0008		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	328.7	-	368.7	10		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	328.7	-	368.7	4.7		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	328.7	-	368.7	6.4		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	328.7	-	368.7	203		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0913 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	328.7	-	368.7	8.1		FQ	#	0.5	
Temperature	C	08/28/2013	N001	328.7	-	368.7	18.06		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	328.7	-	368.7	140		FQ	#	20	
Turbidity	NTU	08/28/2013	N001	328.7	-	368.7	3.43		FQ	#		
Uranium	mg/L	08/28/2013	N001	328.7	-	368.7	0.0013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	137.2	-	154.2	25		FQ	#		
Ammonia Total as N	mg/L	08/26/2013	N001	137.2	-	154.2	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/26/2013	N001	137.2	-	154.2	0.00059		FQ	#	0.000015	
Calcium	mg/L	08/26/2013	N001	137.2	-	154.2	5.9		FQ	#	0.012	
Chloride	mg/L	08/26/2013	N001	137.2	-	154.2	12		FQ	#	0.2	
Iron	mg/L	08/26/2013	N001	137.2	-	154.2	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/26/2013	N001	137.2	-	154.2	0.27	B	UFQ	#	0.013	
Manganese	mg/L	08/26/2013	N001	137.2	-	154.2	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	137.2	-	154.2	0.00079		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	137.2	-	154.2	2.8		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/26/2013	N001	137.2	-	154.2	138		FQ	#		
pH	s.u.	08/26/2013	N001	137.2	-	154.2	9		FQ	#		
Potassium	mg/L	08/26/2013	N001	137.2	-	154.2	5.2		FQ	#	0.11	
Selenium	mg/L	08/26/2013	N001	137.2	-	154.2	0.0012		FQ	#	0.000032	
Silica	mg/L	08/26/2013	N001	137.2	-	154.2	34		FQ	#	0.0095	
Silicon	mg/L	08/26/2013	N001	137.2	-	154.2	16		FQ	#	0.0044	
Sodium	mg/L	08/26/2013	N001	137.2	-	154.2	18		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/26/2013	N001	137.2	-	154.2	187		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0914 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	137.2	-	154.2	13		FQ	#	0.5	
Temperature	C	08/26/2013	N001	137.2	-	154.2	17.78		FQ	#		
Total Dissolved Solids	mg/L	08/26/2013	N001	137.2	-	154.2	120		FQ	#	20	
Turbidity	NTU	08/26/2013	N001	137.2	-	154.2	3.12		FQ	#		
Uranium	mg/L	08/26/2013	N001	137.2	-	154.2	0.000009	B	FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	170	-	180	32		FQ	#		
Ammonia Total as N	mg/L	08/26/2013	N001	170	-	180	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/26/2013	N001	170	-	180	0.000033	B	JFQ	#	0.000015	
Calcium	mg/L	08/26/2013	N001	170	-	180	18		FQ	#	0.012	
Chloride	mg/L	08/26/2013	N001	170	-	180	12		FQ	#	0.2	
Iron	mg/L	08/26/2013	N001	170	-	180	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/26/2013	N001	170	-	180	0.49	B	FQ	#	0.013	
Manganese	mg/L	08/26/2013	N001	170	-	180	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	170	-	180	0.00059		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	170	-	180	3.3		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/26/2013	N001	170	-	180	62		FQ	#		
pH	s.u.	08/26/2013	N001	170	-	180	10.27		FQ	#		
Potassium	mg/L	08/26/2013	N001	170	-	180	2.2		FQ	#	0.11	
Selenium	mg/L	08/26/2013	N001	170	-	180	0.0018		FQ	#	0.000032	
Silica	mg/L	08/26/2013	N001	170	-	180	7.6		FQ	#	0.0095	
Silicon	mg/L	08/26/2013	N001	170	-	180	3.6		FQ	#	0.0044	
Sodium	mg/L	08/26/2013	N001	170	-	180	12		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/26/2013	N001	170	-	180	279		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0915 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	170	-	180	17		FQ	#	0.5	
Temperature	C	08/26/2013	N001	170	-	180	17.8		FQ	#		
Total Dissolved Solids	mg/L	08/26/2013	N001	170	-	180	110		FQ	#	20	
Turbidity	NTU	08/26/2013	N001	170	-	180	3.27		FQ	#		
Uranium	mg/L	08/26/2013	N001	170	-	180	0.000003	B	FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	345.7	-	355.7	254		FQ	#		
Ammonia Total as N	mg/L	08/26/2013	N001	345.7	-	355.7	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/26/2013	N001	345.7	-	355.7	0.00021		FQ	#	0.000015	
Calcium	mg/L	08/26/2013	N001	345.7	-	355.7	95		FQ	#	0.012	
Chloride	mg/L	08/26/2013	N001	345.7	-	355.7	6.9		FQ	#	0.2	
Iron	mg/L	08/26/2013	N001	345.7	-	355.7	0.0058	B	UFQ	#	0.0049	
Magnesium	mg/L	08/26/2013	N001	345.7	-	355.7	0.031	B	UFQ	#	0.013	
Manganese	mg/L	08/26/2013	N001	345.7	-	355.7	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	345.7	-	355.7	0.0011		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	345.7	-	355.7	2		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/26/2013	N001	345.7	-	355.7	25		FQ	#		
pH	s.u.	08/26/2013	N001	345.7	-	355.7	11.17		FQ	#		
Potassium	mg/L	08/26/2013	N001	345.7	-	355.7	6.6		FQ	#	0.11	
Selenium	mg/L	08/26/2013	N001	345.7	-	355.7	0.00084		FQ	#	0.000032	
Silica	mg/L	08/26/2013	N001	345.7	-	355.7	17		FQ	#	0.0095	
Silicon	mg/L	08/26/2013	N001	345.7	-	355.7	7.8		FQ	#	0.0044	
Sodium	mg/L	08/26/2013	N001	345.7	-	355.7	18		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/26/2013	N001	345.7	-	355.7	1184		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0916 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	345.7	-	355.7	8.2		FQ	#	0.5	
Temperature	C	08/26/2013	N001	345.7	-	355.7	17.81		FQ	#		
Total Dissolved Solids	mg/L	08/26/2013	N001	345.7	-	355.7	320		FQ	#	21	
Turbidity	NTU	08/26/2013	N001	345.7	-	355.7	2.27		FQ	#		
Uranium	mg/L	08/26/2013	N001	345.7	-	355.7	0.000012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	114.4 - 154.4	92		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	114.4 - 154.4	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	114.4 - 154.4	0.0025		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	114.4 - 154.4	34		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	114.4 - 154.4	9.5		F	#	0.2	
Iron	mg/L	08/28/2013	N001	114.4 - 154.4	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	114.4 - 154.4	7.2		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	114.4 - 154.4	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	114.4 - 154.4	0.00031		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	114.4 - 154.4	3.5		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	114.4 - 154.4	110		F	#		
pH	s.u.	08/28/2013	N001	114.4 - 154.4	7.66		F	#		
Potassium	mg/L	08/28/2013	N001	114.4 - 154.4	1.6		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	114.4 - 154.4	0.0014		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	114.4 - 154.4	12		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	114.4 - 154.4	5.5		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	114.4 - 154.4	7.5		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	114.4 - 154.4	265		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0920 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	114.4	-	154.4	13		F	#	0.5	
Temperature	C	08/28/2013	N001	114.4	-	154.4	18.49		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	114.4	-	154.4	180		F	#	20	
Turbidity	NTU	08/28/2013	N001	114.4	-	154.4	2.38		F	#		
Uranium	mg/L	08/28/2013	N001	114.4	-	154.4	0.0013		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	313.2	-	353.2	79		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	313.2	-	353.2	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	313.2	-	353.2	0.00019		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	313.2	-	353.2	23		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	313.2	-	353.2	6.3		F	#	0.2	
Iron	mg/L	08/28/2013	N001	313.2	-	353.2	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	313.2	-	353.2	3.2		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	313.2	-	353.2	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	313.2	-	353.2	0.0002		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	313.2	-	353.2	2.6		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	313.2	-	353.2	110		F	#		
pH	s.u.	08/28/2013	N001	313.2	-	353.2	8.02		F	#		
Potassium	mg/L	08/28/2013	N001	313.2	-	353.2	5.6		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	313.2	-	353.2	0.001		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	313.2	-	353.2	10		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	313.2	-	353.2	4.7		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	313.2	-	353.2	9.8		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	313.2	-	353.2	209		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0921 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	313.2	-	353.2	8.3		F	#	0.5	
Temperature	C	08/28/2013	N001	313.2	-	353.2	19.66		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	313.2	-	353.2	140		F	#	20	
Turbidity	NTU	08/28/2013	N001	313.2	-	353.2	1.28		F	#		
Uranium	mg/L	08/28/2013	N001	313.2	-	353.2	0.0043		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	48.2	-	88.2	82		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	48.2	-	88.2	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	48.2	-	88.2	0.0017		FQ	#	0.000015	
Calcium	mg/L	08/28/2013	N001	48.2	-	88.2	50		FQ	#	0.012	
Chloride	mg/L	08/28/2013	N001	48.2	-	88.2	16		FQ	#	0.2	
Iron	mg/L	08/28/2013	N001	48.2	-	88.2	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	48.2	-	88.2	8.1		FQ	#	0.013	
Manganese	mg/L	08/28/2013	N001	48.2	-	88.2	0.00034	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	48.2	-	88.2	0.00028		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	48.2	-	88.2	14		FQ	#	0.2	
Oxidation Reduction Potential	mV	08/28/2013	N001	48.2	-	88.2	171.9		FQ	#		
pH	s.u.	08/28/2013	N001	48.2	-	88.2	7.53		FQ	#		
Potassium	mg/L	08/28/2013	N001	48.2	-	88.2	1.7		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	48.2	-	88.2	0.0023		FQ	#	0.000032	
Silica	mg/L	08/28/2013	N001	48.2	-	88.2	12		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	48.2	-	88.2	5.8		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	48.2	-	88.2	11		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	48.2	-	88.2	384		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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
Sulfate	mg/L	08/28/2013	N001	48.2	-	88.2	24		FQ	#	0.5	
Temperature	C	08/28/2013	N001	48.2	-	88.2	17.73		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	48.2	-	88.2	270		FQ	#	20	
Turbidity	NTU	08/28/2013	N001	48.2	-	88.2	1.74		FQ	#		
Uranium	mg/L	08/28/2013	N001	48.2	-	88.2	0.0014		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	20	-	50	112		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	20	-	50	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	20	-	50	0.0014		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	20	-	50	120		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	20	-	50	38		F	#	1	
Iron	mg/L	08/28/2013	N001	20	-	50	0.02	B	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	20	-	50	25		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	20	-	50	0.0002	B	F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	20	-	50	0.00014		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	20	-	50	29		F	#	0.5	
Oxidation Reduction Potential	mV	08/28/2013	N001	20	-	50	130		F	#		
pH	s.u.	08/28/2013	N001	20	-	50	7.51		F	#		
Potassium	mg/L	08/28/2013	N001	20	-	50	2.9		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	20	-	50	0.0029		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	20	-	50	14		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	20	-	50	6.4		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	20	-	50	16		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	20	-	50	820		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0930 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	20	-	50	160		F	#	2.5	
Temperature	C	08/28/2013	N001	20	-	50	17.79		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	20	-	50	660		F	#	20	
Turbidity	NTU	08/28/2013	N001	20	-	50	1.27		F	#		
Uranium	mg/L	08/28/2013	N001	20	-	50	0.0058		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	112.5 - 132.5	98		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	112.5 - 132.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	112.5 - 132.5	0.0013		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	112.5 - 132.5	43		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	112.5 - 132.5	13		F	#	0.2	
Iron	mg/L	08/28/2013	N001	112.5 - 132.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	112.5 - 132.5	8.7		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	112.5 - 132.5	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	112.5 - 132.5	0.00042		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	112.5 - 132.5	7.8		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	112.5 - 132.5	1.4		F	#		
pH	s.u.	08/28/2013	N001	112.5 - 132.5	7.69		F	#		
Potassium	mg/L	08/28/2013	N001	112.5 - 132.5	1.8		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	112.5 - 132.5	0.0016		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	112.5 - 132.5	12		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	112.5 - 132.5	5.5		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	112.5 - 132.5	13		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	112.5 - 132.5	353		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0932 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	112.5	-	132.5	32		F	#	0.5	
Temperature	C	08/28/2013	N001	112.5	-	132.5	18.19		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	112.5	-	132.5	260		F	#	20	
Turbidity	NTU	08/28/2013	N001	112.5	-	132.5	1.4		F	#		
Uranium	mg/L	08/28/2013	N001	112.5	-	132.5	0.0017		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	45	-	90	510		FQ	#		
Ammonia Total as N	mg/L	08/28/2013	N001	45	-	90	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/28/2013	N001	45	-	90	0.00056		FQ	#	0.000074	
Calcium	mg/L	08/28/2013	N001	45	-	90	690		FQ	#	0.6	
Chloride	mg/L	08/28/2013	N001	45	-	90	240		FQ	#	10	
Iron	mg/L	08/28/2013	N001	45	-	90	0.013	B	FQ	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	45	-	90	600		FQ	#	0.65	
Manganese	mg/L	08/28/2013	N001	45	-	90	0.0046	B	FQ	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	45	-	90	0.00072		FQ	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	45	-	90	380		FQ	#	5	
Oxidation Reduction Potential	mV	08/28/2013	N001	45	-	90	199.2		FQ	#		
pH	s.u.	08/28/2013	N001	45	-	90	6.44		FQ	#		
Potassium	mg/L	08/28/2013	N001	45	-	90	11		FQ	#	0.11	
Selenium	mg/L	08/28/2013	N001	45	-	90	0.01		FQ	#	0.00016	
Silica	mg/L	08/28/2013	N001	45	-	90	16		FQ	#	0.0095	
Silicon	mg/L	08/28/2013	N001	45	-	90	7.6		FQ	#	0.0044	
Sodium	mg/L	08/28/2013	N001	45	-	90	130		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	45	-	90	6472		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0934 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	45	-	90	2500		FQ	#	25	
Temperature	C	08/28/2013	N001	45	-	90	17.13		FQ	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	45	-	90	6300		FQ	#	200	
Turbidity	NTU	08/28/2013	N001	45	-	90	3.13		FQ	#		
Uranium	mg/L	08/28/2013	N001	45	-	90	0.12		FQ	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	50	-	90	449			#		
Ammonia Total as N	mg/L	08/27/2013	N001	50	-	90	49			#	1	
Arsenic	mg/L	08/27/2013	N001	50	-	90	0.00074		J	#	0.00003	
Calcium	mg/L	08/27/2013	N001	50	-	90	620			#	0.12	
Chloride	mg/L	08/27/2013	N001	50	-	90	90			#	20	
Iron	mg/L	08/27/2013	N001	50	-	90	0.017	B	U	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	50	-	90	290			#	0.013	
Manganese	mg/L	08/27/2013	N001	50	-	90	0.36			#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	50	-	90	0.00032	U		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	50	-	90	210			#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	50	-	90	211.1			#		
pH	s.u.	08/27/2013	N001	50	-	90	6.8			#		
Potassium	mg/L	08/27/2013	N001	50	-	90	21			#	0.11	
Selenium	mg/L	08/27/2013	N001	50	-	90	0.016			#	0.000065	
Silica	mg/L	08/27/2013	N001	50	-	90	19			#	0.0095	
Silicon	mg/L	08/27/2013	N001	50	-	90	8.7			#	0.0044	
Sodium	mg/L	08/27/2013	N001	50	-	90	310			#	0.066	
Specific Conductance	umhos /cm	08/27/2013	N001	50	-	90	5305			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0935 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	50	-	90	2200			#	50	
Temperature	C	08/27/2013	N001	50	-	90	24.87			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	50	-	90	5000			#	80	
Turbidity	NTU	08/27/2013	N001	50	-	90	1.98			#		
Uranium	mg/L	08/27/2013	N001	50	-	90	0.11			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0936 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	08/27/2013	N001	42	-	82	592			#		
Ammonia Total as N	mg/L	08/27/2013	N001	42	-	82	0.1			#	0.1	
Arsenic	mg/L	08/27/2013	N001	42	-	82	0.0011			#	0.00015	
Calcium	mg/L	08/27/2013	N001	42	-	82	800			#	0.12	
Chloride	mg/L	08/27/2013	N001	42	-	82	100			#	20	
Iron	mg/L	08/27/2013	N001	42	-	82	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	42	-	82	320			#	0.013	
Manganese	mg/L	08/27/2013	N001	42	-	82	0.65			#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	42	-	82	0.42			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	42	-	82	290			#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	42	-	82	44.6			#		
pH	s.u.	08/27/2013	N001	42	-	82	6.76			#		
Potassium	mg/L	08/27/2013	N001	42	-	82	11			#	0.11	
Selenium	mg/L	08/27/2013	N001	42	-	82	0.041			#	0.00032	
Silica	mg/L	08/27/2013	N001	42	-	82	16			#	0.0095	
Silicon	mg/L	08/27/2013	N001	42	-	82	7.5			#	0.0044	
Sodium	mg/L	08/27/2013	N001	42	-	82	190			#	0.066	
Specific Conductance	umhos /cm	08/27/2013	N001	42	-	82	5453			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0936 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	42	-	82	1900			#	50	
Temperature	C	08/27/2013	N001	42	-	82	25.82			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	42	-	82	5700			#	80	
Turbidity	NTU	08/27/2013	N001	42	-	82	1.2			#		
Uranium	mg/L	08/27/2013	N001	42	-	82	0.51			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	40	-	95	670			#		
Ammonia Total as N	mg/L	08/27/2013	N001	40	-	95	3.7			#	0.1	
Arsenic	mg/L	08/27/2013	N001	40	-	95	0.0014			#	0.00015	
Calcium	mg/L	08/27/2013	N001	40	-	95	840			#	0.12	
Chloride	mg/L	08/27/2013	N001	40	-	95	160			#	20	
Iron	mg/L	08/27/2013	N001	40	-	95	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	40	-	95	470			#	0.013	
Manganese	mg/L	08/27/2013	N001	40	-	95	0.61			#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	40	-	95	0.003			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	40	-	95	350			#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	40	-	95	1.2			#		
pH	s.u.	08/27/2013	N001	40	-	95	6.38			#		
Potassium	mg/L	08/27/2013	N001	40	-	95	18			#	0.11	
Selenium	mg/L	08/27/2013	N001	40	-	95	0.071			#	0.00032	
Silica	mg/L	08/27/2013	N001	40	-	95	14			#	0.0095	
Silicon	mg/L	08/27/2013	N001	40	-	95	6.6			#	0.0044	
Sodium	mg/L	08/27/2013	N001	40	-	95	400			#	0.066	
Specific Conductance	umhos /cm	08/27/2013	N001	40	-	95	6853			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0938 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	40	-	95	2600			#	50	
Temperature	C	08/27/2013	N001	40	-	95	18.12			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	40	-	95	6600			#	200	
Turbidity	NTU	08/27/2013	N001	40	-	95	4.3			#		
Uranium	mg/L	08/27/2013	N001	40	-	95	0.29			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	N001	45	-	60	766		FQ	#		
Ammonia Total as N	mg/L	08/29/2013	N001	45	-	60	62		FQ	#	2	
Ammonia Total as N	mg/L	08/29/2013	N002	45	-	60	64		FQ	#	2	
Arsenic	mg/L	08/29/2013	N001	45	-	60	0.0022		JFQ	#	0.00015	
Arsenic	mg/L	08/29/2013	N002	45	-	60	0.0017		JFQ	#	0.00015	
Calcium	mg/L	08/29/2013	N001	45	-	60	490		FQ	#	0.012	
Calcium	mg/L	08/29/2013	N002	45	-	60	510		FQ	#	0.12	
Chloride	mg/L	08/29/2013	N001	45	-	60	160		FQ	#	20	
Chloride	mg/L	08/29/2013	N002	45	-	60	150		FQ	#	20	
Iron	mg/L	08/29/2013	N001	45	-	60	0.0049	U	FQ	#	0.0049	
Iron	mg/L	08/29/2013	N002	45	-	60	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	45	-	60	1400		FQ	#	0.65	
Magnesium	mg/L	08/29/2013	N002	45	-	60	1400		FQ	#	0.13	
Manganese	mg/L	08/29/2013	N001	45	-	60	25		FQ	#	0.0057	
Manganese	mg/L	08/29/2013	N002	45	-	60	24		FQ	#	0.0011	
Molybdenum	mg/L	08/29/2013	N001	45	-	60	0.00064	B	FQ	#	0.00032	
Molybdenum	mg/L	08/29/2013	N002	45	-	60	0.00061	B	FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	45	-	60	420		FQ	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0940 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N002	45	-	60	430		FQ	#	5	
Oxidation Reduction Potential	mV	08/29/2013	N001	45	-	60	182.9		FQ	#		
pH	s.u.	08/29/2013	N001	45	-	60	6.32		FQ	#		
Potassium	mg/L	08/29/2013	N001	45	-	60	44		FQ	#	0.11	
Potassium	mg/L	08/29/2013	N002	45	-	60	41		FQ	#	0.11	
Selenium	mg/L	08/29/2013	N001	45	-	60	0.066		FQ	#	0.00032	
Selenium	mg/L	08/29/2013	N002	45	-	60	0.063		FQ	#	0.00032	
Silica	mg/L	08/29/2013	N001	45	-	60	14		FQ	#	0.0095	
Silica	mg/L	08/29/2013	N002	45	-	60	14		FQ	#	0.0095	
Silicon	mg/L	08/29/2013	N001	45	-	60	6.7		FQ	#	0.0044	
Silicon	mg/L	08/29/2013	N002	45	-	60	6.8		FQ	#	0.0044	
Sodium	mg/L	08/29/2013	N001	45	-	60	440		FQ	#	0.33	
Sodium	mg/L	08/29/2013	N002	45	-	60	450		FQ	#	0.066	
Specific Conductance	umhos /cm	08/29/2013	N001	45	-	60	10799		FQ	#		
Sulfate	mg/L	08/29/2013	N001	45	-	60	6200		FQ	#	50	
Sulfate	mg/L	08/29/2013	N002	45	-	60	6100		FQ	#	50	
Temperature	C	08/29/2013	N001	45	-	60	19.19		FQ	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	45	-	60	11000		FQ	#	200	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0940 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Total Dissolved Solids	mg/L	08/29/2013	N002	45	-	60	12000		FQ	#	200	
Turbidity	NTU	08/29/2013	N001	45	-	60	1.14		FQ	#		
Uranium	mg/L	08/29/2013	N001	45	-	60	0.59		FQ	#	0.000029	
Uranium	mg/L	08/29/2013	N002	45	-	60	0.59		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	45	-	65	736		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	45	-	65	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	45	-	65	0.0014		FQ	#	0.00015	
Calcium	mg/L	08/27/2013	N001	45	-	65	1000		FQ	#	0.12	
Chloride	mg/L	08/27/2013	N001	45	-	65	180		FQ	#	20	
Iron	mg/L	08/27/2013	N001	45	-	65	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	45	-	65	160		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	45	-	65	0.047		FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	45	-	65	0.023		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	45	-	65	310		FQ	#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	45	-	65	189.6		FQ	#		
pH	s.u.	08/27/2013	N001	45	-	65	6.29		FQ	#		
Potassium	mg/L	08/27/2013	N001	45	-	65	10		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	45	-	65	0.087		FQ	#	0.00032	
Silica	mg/L	08/27/2013	N001	45	-	65	17		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	45	-	65	7.8		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	45	-	65	250		FQ	#	0.066	
Specific Conductance	umhos /cm	08/27/2013	N001	45	-	65	5679		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0941 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	45	-	65	1600		FQ	#	50	
Temperature	C	08/27/2013	N001	45	-	65	18		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	45	-	65	5800		FQ	#	80	
Turbidity	NTU	08/27/2013	N001	45	-	65	7.17		FQ	#		
Uranium	mg/L	08/27/2013	N001	45	-	65	0.24		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	54	-	74	632			#		
Ammonia Total as N	mg/L	08/27/2013	N001	54	-	74	89			#	2	
Arsenic	mg/L	08/27/2013	N001	54	-	74	0.0035			#	0.00015	
Calcium	mg/L	08/27/2013	N001	54	-	74	570			#	0.12	
Chloride	mg/L	08/27/2013	N001	54	-	74	180			#	20	
Iron	mg/L	08/27/2013	N001	54	-	74	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	54	-	74	420			#	0.013	
Manganese	mg/L	08/27/2013	N001	54	-	74	3.8			#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	54	-	74	0.0048			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	54	-	74	190			#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	54	-	74	50.6			#		
pH	s.u.	08/27/2013	N001	54	-	74	6.69			#		
Potassium	mg/L	08/27/2013	N001	54	-	74	34			#	0.11	
Selenium	mg/L	08/27/2013	N001	54	-	74	0.053			#	0.00032	
Silica	mg/L	08/27/2013	N001	54	-	74	15			#	0.0095	
Silicon	mg/L	08/27/2013	N001	54	-	74	7.1			#	0.0044	
Sodium	mg/L	08/27/2013	N001	54	-	74	520			#	0.066	
Specific Conductance	umhos /cm	08/27/2013	N001	54	-	74	6813			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0942 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	54	-	74	3000			#	50	
Temperature	C	08/27/2013	N001	54	-	74	22.58			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	54	-	74	6600			#	200	
Turbidity	NTU	08/27/2013	N001	54	-	74	1.22			#		
Uranium	mg/L	08/27/2013	N001	54	-	74	0.47			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	101	-	121	57		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	101	-	121	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	101	-	121	0.004		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	101	-	121	11		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	101	-	121	2.2		F	#	0.2	
Iron	mg/L	08/28/2013	N001	101	-	121	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	101	-	121	2.5		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	101	-	121	0.094		F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	101	-	121	0.00037		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	101	-	121	2.3		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	101	-	121	159.9		F	#		
pH	s.u.	08/28/2013	N001	101	-	121	6.7		F	#		
Potassium	mg/L	08/28/2013	N001	101	-	121	1.1		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	101	-	121	0.00041		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	101	-	121	15		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	101	-	121	6.8		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	101	-	121	15		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	101	-	121	161		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0943 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	101	-	121	26		F	#	0.5	
Temperature	C	08/28/2013	N001	101	-	121	19.66		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	101	-	121	120		F	#	20	
Turbidity	NTU	08/28/2013	N001	101	-	121	1.2		F	#		
Uranium	mg/L	08/28/2013	N001	101	-	121	0.0078		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	110	-	130	82		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	110	-	130	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	110	-	130	0.0019		FQ	#	0.000015	
Calcium	mg/L	08/27/2013	N001	110	-	130	51		FQ	#	0.012	
Chloride	mg/L	08/27/2013	N001	110	-	130	40		FQ	#	1	
Iron	mg/L	08/27/2013	N001	110	-	130	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	110	-	130	10		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	110	-	130	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	110	-	130	0.00058		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	110	-	130	4.6		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/27/2013	N001	110	-	130	156		FQ	#		
pH	s.u.	08/27/2013	N001	110	-	130	7.46		FQ	#		
Potassium	mg/L	08/27/2013	N001	110	-	130	1.8		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	110	-	130	0.0043		FQ	#	0.000032	
Silica	mg/L	08/27/2013	N001	110	-	130	12		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	110	-	130	5.6		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	110	-	130	15		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	110	-	130	439		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0945 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	110	-	130	42		FQ	#	0.5	
Temperature	C	08/27/2013	N001	110	-	130	18.5		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	110	-	130	280		FQ	#	20	
Turbidity	NTU	08/27/2013	N001	110	-	130	4.41		FQ	#		
Uranium	mg/L	08/27/2013	N001	110	-	130	0.0014		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	40	-	60	82		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	40	-	60	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	40	-	60	0.008		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	40	-	60	22		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	40	-	60	16		F	#	0.2	
Iron	mg/L	08/28/2013	N001	40	-	60	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	40	-	60	4		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	40	-	60	0.00034	B	UF	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	40	-	60	0.00033		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	40	-	60	4.2		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	40	-	60	168		F	#		
pH	s.u.	08/28/2013	N001	40	-	60	7.91		F	#		
Potassium	mg/L	08/28/2013	N001	40	-	60	1.1		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	40	-	60	0.00059		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	40	-	60	12		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	40	-	60	5.4		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	40	-	60	22		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	40	-	60	275		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0946 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	40	-	60	42		F	#	0.5	
Temperature	C	08/28/2013	N001	40	-	60	19.06		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	40	-	60	190		F	#	20	
Turbidity	NTU	08/28/2013	N001	40	-	60	1.98		F	#		
Uranium	mg/L	08/28/2013	N001	40	-	60	0.00016		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	105	-	125	99		FQ	#		
Ammonia Total as N	mg/L	08/27/2013	N001	105	-	125	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/27/2013	N001	105	-	125	0.003	E	JFQ	#	0.000015	
Calcium	mg/L	08/27/2013	N001	105	-	125	34		FQ	#	0.012	
Chloride	mg/L	08/27/2013	N001	105	-	125	13		FQ	#	0.2	
Iron	mg/L	08/27/2013	N001	105	-	125	0.013	B	UFQ	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	105	-	125	6.8		FQ	#	0.013	
Manganese	mg/L	08/27/2013	N001	105	-	125	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	105	-	125	0.00048		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	105	-	125	3.1		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/27/2013	N001	105	-	125	151		FQ	#		
pH	s.u.	08/27/2013	N001	105	-	125	7.44		FQ	#		
Potassium	mg/L	08/27/2013	N001	105	-	125	1.3		FQ	#	0.11	
Selenium	mg/L	08/27/2013	N001	105	-	125	0.0018	E	JFQ	#	0.000032	
Silica	mg/L	08/27/2013	N001	105	-	125	12		FQ	#	0.0095	
Silicon	mg/L	08/27/2013	N001	105	-	125	5.6		FQ	#	0.0044	
Sodium	mg/L	08/27/2013	N001	105	-	125	9.7	E	JFQ	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	105	-	125	282		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0947 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	105	-	125	17		FQ	#	0.5	
Temperature	C	08/27/2013	N001	105	-	125	17.77		FQ	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	105	-	125	170		FQ	#	20	
Turbidity	NTU	08/27/2013	N001	105	-	125	2.12		FQ	#		
Uranium	mg/L	08/27/2013	N001	105	-	125	0.0011		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	55.5	-	105.5	196		F	#		
Ammonia Total as N	mg/L	08/27/2013	N001	55.5	-	105.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/27/2013	N001	55.5	-	105.5	0.0012		F	#	0.000015	
Calcium	mg/L	08/27/2013	N001	55.5	-	105.5	350		F	#	0.012	
Chloride	mg/L	08/27/2013	N001	55.5	-	105.5	58		F	#	2	
Iron	mg/L	08/27/2013	N001	55.5	-	105.5	0.0093	B	UF	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	55.5	-	105.5	49		F	#	0.013	
Manganese	mg/L	08/27/2013	N001	55.5	-	105.5	0.00016	B	UF	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	55.5	-	105.5	0.00016		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	55.5	-	105.5	65		F	#	1	
Oxidation Reduction Potential	mV	08/27/2013	N001	55.5	-	105.5	154		F	#		
pH	s.u.	08/27/2013	N001	55.5	-	105.5	6.78		F	#		
Potassium	mg/L	08/27/2013	N001	55.5	-	105.5	4.6		F	#	0.11	
Selenium	mg/L	08/27/2013	N001	55.5	-	105.5	0.0041		F	#	0.000032	
Silica	mg/L	08/27/2013	N001	55.5	-	105.5	15		F	#	0.0095	
Silicon	mg/L	08/27/2013	N001	55.5	-	105.5	7		F	#	0.0044	
Sodium	mg/L	08/27/2013	N001	55.5	-	105.5	40		F	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	55.5	-	105.5	1791		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1003 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	55.5	-	105.5	540		F	#	5	
Temperature	C	08/27/2013	N001	55.5	-	105.5	19.02		F	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	55.5	-	105.5	1700		F	#	40	
Turbidity	NTU	08/27/2013	N001	55.5	-	105.5	2.2		F	#		
Uranium	mg/L	08/27/2013	N001	55.5	-	105.5	0.038		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	45.5	-	95.5	89		F	#		
Ammonia Total as N	mg/L	08/27/2013	N001	45.5	-	95.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/27/2013	N001	45.5	-	95.5	0.0024		F	#	0.000015	
Calcium	mg/L	08/27/2013	N001	45.5	-	95.5	47		F	#	0.012	
Chloride	mg/L	08/27/2013	N001	45.5	-	95.5	14		F	#	0.2	
Iron	mg/L	08/27/2013	N001	45.5	-	95.5	0.069	B	F	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	45.5	-	95.5	8.5		F	#	0.013	
Manganese	mg/L	08/27/2013	N001	45.5	-	95.5	0.00066	B	UF	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	45.5	-	95.5	0.00036		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	45.5	-	95.5	5.4		F	#	0.1	
Oxidation Reduction Potential	mV	08/27/2013	N001	45.5	-	95.5	117		F	#		
pH	s.u.	08/27/2013	N001	45.5	-	95.5	6.88		F	#		
Potassium	mg/L	08/27/2013	N001	45.5	-	95.5	1.3		F	#	0.11	
Selenium	mg/L	08/27/2013	N001	45.5	-	95.5	0.0019		F	#	0.000032	
Silica	mg/L	08/27/2013	N001	45.5	-	95.5	13		F	#	0.0095	
Silicon	mg/L	08/27/2013	N001	45.5	-	95.5	6		F	#	0.0044	
Sodium	mg/L	08/27/2013	N001	45.5	-	95.5	12		F	#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	45.5	-	95.5	363		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1004 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	45.5	-	95.5	36		F	#	0.5	
Temperature	C	08/27/2013	N001	45.5	-	95.5	20.68		F	#		
Total Dissolved Solids	mg/L	08/27/2013	N001	45.5	-	95.5	240		F	#	20	
Turbidity	NTU	08/27/2013	N001	45.5	-	95.5	1.29		F	#		
Uranium	mg/L	08/27/2013	N001	45.5	-	95.5	0.0037		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	45.74	-	95.74	89		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	45.74	-	95.74	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	45.74	-	95.74	0.002		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	45.74	-	95.74	27		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	45.74	-	95.74	9.2		F	#	0.2	
Iron	mg/L	08/28/2013	N001	45.74	-	95.74	0.0097	B	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	45.74	-	95.74	7.3		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	45.74	-	95.74	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	45.74	-	95.74	0.0003		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	45.74	-	95.74	3.2		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	45.74	-	95.74	102		F	#		
pH	s.u.	08/28/2013	N001	45.74	-	95.74	7.89		F	#		
Potassium	mg/L	08/28/2013	N001	45.74	-	95.74	2.1		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	45.74	-	95.74	0.0015		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	45.74	-	95.74	13		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	45.74	-	95.74	6		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	45.74	-	95.74	8.1		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	45.74	-	95.74	241		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1006 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	45.74	-	95.74	12		F	#	0.5	
Temperature	C	08/28/2013	N001	45.74	-	95.74	23.52		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	45.74	-	95.74	160		F	#	20	
Turbidity	NTU	08/28/2013	N001	45.74	-	95.74	2.94		F	#		
Uranium	mg/L	08/28/2013	N001	45.74	-	95.74	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/28/2013	N001	45.79 - 95.99	92		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	45.79 - 95.99	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	45.79 - 95.99	0.0021		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	45.79 - 95.99	31		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	45.79 - 95.99	9.2		F	#	0.2	
Iron	mg/L	08/28/2013	N001	45.79 - 95.99	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	45.79 - 95.99	7.3		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	45.79 - 95.99	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	45.79 - 95.99	0.00028		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	45.79 - 95.99	3.5		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	45.79 - 95.99	98		F	#		
pH	s.u.	08/28/2013	N001	45.79 - 95.99	7.6		F	#		
Potassium	mg/L	08/28/2013	N001	45.79 - 95.99	1.7		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	45.79 - 95.99	0.0012		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	45.79 - 95.99	13		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	45.79 - 95.99	6.1		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	45.79 - 95.99	6.6		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	45.79 - 95.99	265		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1007 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	45.79 - 95.99	13		F	#	0.5	
Temperature	C	08/28/2013	N001	45.79 - 95.99	19		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	45.79 - 95.99	170		F	#	20	
Turbidity	NTU	08/28/2013	N001	45.79 - 95.99	1.24		F	#		
Uranium	mg/L	08/28/2013	N001	45.79 - 95.99	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1101 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	08/29/2013	N001	96.15	-	251.5	316			#		
Ammonia Total as N	mg/L	08/29/2013	N001	96.15	-	251.5	0.83			#	0.1	
Arsenic	mg/L	08/29/2013	N001	96.15	-	251.5	0.0012			#	0.00015	
Calcium	mg/L	08/29/2013	N001	96.15	-	251.5	470			#	0.6	
Chloride	mg/L	08/29/2013	N001	96.15	-	251.5	210			#	5	
Iron	mg/L	08/29/2013	N001	96.15	-	251.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/29/2013	N001	96.15	-	251.5	130			#	0.013	
Manganese	mg/L	08/29/2013	N001	96.15	-	251.5	1.4			#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	96.15	-	251.5	0.0011			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	96.15	-	251.5	100			#	1	
Oxidation Reduction Potential	mV	08/29/2013	N001	96.15	-	251.5	0.5			#		
pH	s.u.	08/29/2013	N001	96.15	-	251.5	7.15			#		
Potassium	mg/L	08/29/2013	N001	96.15	-	251.5	14			#	0.11	
Selenium	mg/L	08/29/2013	N001	96.15	-	251.5	0.024			#	0.00032	
Silica	mg/L	08/29/2013	N001	96.15	-	251.5	16			#	0.0095	
Silicon	mg/L	08/29/2013	N001	96.15	-	251.5	7.5			#	0.0044	
Sodium	mg/L	08/29/2013	N001	96.15	-	251.5	390			#	0.33	
Specific Conductance	umhos /cm	08/29/2013	N001	96.15	-	251.5	4147			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1101 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	96.15	-	251.5	1700			#	12	
Temperature	C	08/29/2013	N001	96.15	-	251.5	19.81			#		
Total Dissolved Solids	mg/L	08/29/2013	N001	96.15	-	251.5	3700			#	80	
Turbidity	NTU	08/29/2013	N001	96.15	-	251.5	2.35			#		
Uranium	mg/L	08/29/2013	N001	96.15	-	251.5	0.3			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	N001	101.5	-	251.5	466			#		
Ammonia Total as N	mg/L	08/29/2013	N001	101.5	-	251.5	0.14			#	0.1	
Arsenic	mg/L	08/29/2013	N001	101.5	-	251.5	0.002			#	0.00015	
Calcium	mg/L	08/29/2013	N001	101.5	-	251.5	800			#	0.6	
Chloride	mg/L	08/29/2013	N001	101.5	-	251.5	650			#	10	
Iron	mg/L	08/29/2013	N001	101.5	-	251.5	0.041	B		#	0.0049	
Magnesium	mg/L	08/29/2013	N001	101.5	-	251.5	220			#	0.013	
Manganese	mg/L	08/29/2013	N001	101.5	-	251.5	2.5			#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	101.5	-	251.5	0.00032	U		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	101.5	-	251.5	240			#	2	
Oxidation Reduction Potential	mV	08/29/2013	N001	101.5	-	251.5	8.9			#		
pH	s.u.	08/29/2013	N001	101.5	-	251.5	6.67			#		
Potassium	mg/L	08/29/2013	N001	101.5	-	251.5	14			#	0.11	
Selenium	mg/L	08/29/2013	N001	101.5	-	251.5	0.048			#	0.00032	
Silica	mg/L	08/29/2013	N001	101.5	-	251.5	16			#	0.0095	
Silicon	mg/L	08/29/2013	N001	101.5	-	251.5	7.4			#	0.0044	
Sodium	mg/L	08/29/2013	N001	101.5	-	251.5	720			#	0.33	
Specific Conductance	umhos /cm	08/29/2013	N001	101.5	-	251.5	7191			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1102 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	101.5	-	251.5	2500			#	25	
Temperature	C	08/29/2013	N001	101.5	-	251.5	18.17			#		
Total Dissolved Solids	mg/L	08/29/2013	N001	101.5	-	251.5	6600			#	200	
Turbidity	NTU	08/29/2013	N001	101.5	-	251.5	8.7			#		
Uranium	mg/L	08/29/2013	N001	101.5	-	251.5	0.52			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	100	-	250	464			#		
Ammonia Total as N	mg/L	08/26/2013	N001	100	-	250	39			#	2	
Arsenic	mg/L	08/26/2013	N001	100	-	250	0.0023			#	0.00015	
Calcium	mg/L	08/26/2013	N001	100	-	250	620			#	0.12	
Chloride	mg/L	08/26/2013	N001	100	-	250	150			#	20	
Iron	mg/L	08/26/2013	N001	100	-	250	0.0049	U		#	0.0049	
Magnesium	mg/L	08/26/2013	N001	100	-	250	330			#	0.013	
Manganese	mg/L	08/26/2013	N001	100	-	250	7.8			#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	100	-	250	0.0057			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	100	-	250	230			#	2	
Oxidation Reduction Potential	mV	08/26/2013	N001	100	-	250	97.7			#		
pH	s.u.	08/26/2013	N001	100	-	250	6.71			#		
Potassium	mg/L	08/26/2013	N001	100	-	250	26			#	0.11	
Selenium	mg/L	08/26/2013	N001	100	-	250	0.035			#	0.00032	
Silica	mg/L	08/26/2013	N001	100	-	250	16			#	0.0095	
Silicon	mg/L	08/26/2013	N001	100	-	250	7.5			#	0.0044	
Sodium	mg/L	08/26/2013	N001	100	-	250	440			#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	100	-	250	5949			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1103 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	100	-	250	2400			#	50	
Temperature	C	08/26/2013	N001	100	-	250	19.13			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	100	-	250	5400			#	80	
Turbidity	NTU	08/26/2013	N001	100	-	250	1.28			#		
Uranium	mg/L	08/26/2013	N001	100	-	250	0.41			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	90	-	245	402			#		
Ammonia Total as N	mg/L	08/26/2013	N001	90	-	245	24			#	1	
Arsenic	mg/L	08/26/2013	N001	90	-	245	0.002		J	#	0.000074	
Calcium	mg/L	08/26/2013	N001	90	-	245	490			#	0.12	
Chloride	mg/L	08/26/2013	N001	90	-	245	91			#	20	
Iron	mg/L	08/26/2013	N001	90	-	245	0.0056	B	U	#	0.0049	
Magnesium	mg/L	08/26/2013	N001	90	-	245	170			#	0.013	
Manganese	mg/L	08/26/2013	N001	90	-	245	0.87			#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	90	-	245	0.052			#	0.0016	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	90	-	245	150			#	2	
Oxidation Reduction Potential	mV	08/26/2013	N001	90	-	245	76			#		
pH	s.u.	08/26/2013	N001	90	-	245	6.54			#		
Potassium	mg/L	08/26/2013	N001	90	-	245	15			#	0.11	
Selenium	mg/L	08/26/2013	N001	90	-	245	0.031			#	0.00016	
Silica	mg/L	08/26/2013	N001	90	-	245	14			#	0.0095	
Silicon	mg/L	08/26/2013	N001	90	-	245	6.6			#	0.0044	
Sodium	mg/L	08/26/2013	N001	90	-	245	290			#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	90	-	245	4003			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1104 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	90	-	245	1500			#	50	
Temperature	C	08/26/2013	N001	90	-	245	23.14			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	90	-	245	3700			#	80	
Turbidity	NTU	08/26/2013	N001	90	-	245	1.38			#		
Uranium	mg/L	08/26/2013	N001	90	-	245	0.67			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	90	-	245	340			#		
Ammonia Total as N	mg/L	08/26/2013	N001	90	-	245	5.9			#	0.5	
Arsenic	mg/L	08/26/2013	N001	90	-	245	0.31			#	0.003	
Calcium	mg/L	08/26/2013	N001	90	-	245	410			#	0.012	
Chloride	mg/L	08/26/2013	N001	90	-	245	69			#	10	
Iron	mg/L	08/26/2013	N001	90	-	245	0.0049	U		#	0.0049	
Magnesium	mg/L	08/26/2013	N001	90	-	245	110			#	0.013	
Manganese	mg/L	08/26/2013	N001	90	-	245	0.091			#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	90	-	245	0.51			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	90	-	245	120			#	1	
Oxidation Reduction Potential	mV	08/26/2013	N001	90	-	245	57.4			#		
pH	s.u.	08/26/2013	N001	90	-	245	6.68			#		
Potassium	mg/L	08/26/2013	N001	90	-	245	7.9			#	0.11	
Selenium	mg/L	08/26/2013	N001	90	-	245	0.038			#	0.0065	
Silica	mg/L	08/26/2013	N001	90	-	245	13			#	0.0095	
Silicon	mg/L	08/26/2013	N001	90	-	245	6			#	0.0044	
Sodium	mg/L	08/26/2013	N001	90	-	245	230			#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	90	-	245	3130			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1105 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	90	-	245	1100			#	25	
Temperature	C	08/26/2013	N001	90	-	245	18.25			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	90	-	245	2800			#	80	
Turbidity	NTU	08/26/2013	N001	90	-	245	0.96			#		
Uranium	mg/L	08/26/2013	N001	90	-	245	1			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	96.5	-	251.1	252			#		
Ammonia Total as N	mg/L	08/26/2013	N001	96.5	-	251.1	16			#	2	
Arsenic	mg/L	08/26/2013	N001	96.5	-	251.1	0.13			#	0.003	
Calcium	mg/L	08/26/2013	N001	96.5	-	251.1	250			#	0.012	
Chloride	mg/L	08/26/2013	N001	96.5	-	251.1	56			#	5	
Iron	mg/L	08/26/2013	N001	96.5	-	251.1	0.0049	U		#	0.0049	
Magnesium	mg/L	08/26/2013	N001	96.5	-	251.1	58			#	0.013	
Manganese	mg/L	08/26/2013	N001	96.5	-	251.1	0.038			#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	96.5	-	251.1	0.082			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	96.5	-	251.1	75			#	1	
Oxidation Reduction Potential	mV	08/26/2013	N001	96.5	-	251.1	69.4			#		
pH	s.u.	08/26/2013	N001	96.5	-	251.1	6.94			#		
Potassium	mg/L	08/26/2013	N001	96.5	-	251.1	7.9			#	0.11	
Selenium	mg/L	08/26/2013	N001	96.5	-	251.1	0.024		J	#	0.0065	
Silica	mg/L	08/26/2013	N001	96.5	-	251.1	13			#	0.0095	
Silicon	mg/L	08/26/2013	N001	96.5	-	251.1	6.1			#	0.0044	
Sodium	mg/L	08/26/2013	N001	96.5	-	251.1	140			#	0.0066	
Specific Conductance	umhos /cm	08/26/2013	N001	96.5	-	251.1	2197			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1106 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	96.5	-	251.1	600			#	12	
Temperature	C	08/26/2013	N001	96.5	-	251.1	18.04			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	96.5	-	251.1	1700			#	40	
Turbidity	NTU	08/26/2013	N001	96.5	-	251.1	0.76			#		
Uranium	mg/L	08/26/2013	N001	96.5	-	251.1	0.86			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	91.1	-	245.5	314			#		
Ammonia Total as N	mg/L	08/26/2013	N001	91.1	-	245.5	1.1			#	0.1	
Arsenic	mg/L	08/26/2013	N001	91.1	-	245.5	0.0029			#	0.00015	
Calcium	mg/L	08/26/2013	N001	91.1	-	245.5	340			#	0.012	
Chloride	mg/L	08/26/2013	N001	91.1	-	245.5	69			#	10	
Iron	mg/L	08/26/2013	N001	91.1	-	245.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/26/2013	N001	91.1	-	245.5	65			#	0.013	
Manganese	mg/L	08/26/2013	N001	91.1	-	245.5	0.05			#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	91.1	-	245.5	0.049			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	91.1	-	245.5	110			#	2	
Oxidation Reduction Potential	mV	08/26/2013	N001	91.1	-	245.5	53			#		
pH	s.u.	08/26/2013	N001	91.1	-	245.5	6.76			#		
Potassium	mg/L	08/26/2013	N001	91.1	-	245.5	6.4			#	0.11	
Selenium	mg/L	08/26/2013	N001	91.1	-	245.5	0.032			#	0.00032	
Silica	mg/L	08/26/2013	N001	91.1	-	245.5	13			#	0.0095	
Silicon	mg/L	08/26/2013	N001	91.1	-	245.5	5.9			#	0.0044	
Sodium	mg/L	08/26/2013	N001	91.1	-	245.5	160			#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	91.1	-	245.5	2542			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1107 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	91.1	-	245.5	690			#	25	
Temperature	C	08/26/2013	N001	91.1	-	245.5	17.95			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	91.1	-	245.5	2100			#	40	
Turbidity	NTU	08/26/2013	N001	91.1	-	245.5	0.89			#		
Uranium	mg/L	08/26/2013	N001	91.1	-	245.5	0.27			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	96.3	-	246.3	512			#		
Ammonia Total as N	mg/L	08/26/2013	N001	96.3	-	246.3	37			#	2	
Arsenic	mg/L	08/26/2013	N001	96.3	-	246.3	0.0016			#	0.00015	
Calcium	mg/L	08/26/2013	N001	96.3	-	246.3	520			#	0.12	
Chloride	mg/L	08/26/2013	N001	96.3	-	246.3	88			#	20	
Iron	mg/L	08/26/2013	N001	96.3	-	246.3	0.83			#	0.0049	
Magnesium	mg/L	08/26/2013	N001	96.3	-	246.3	190			#	0.013	
Manganese	mg/L	08/26/2013	N001	96.3	-	246.3	3.1			#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	96.3	-	246.3	0.00077	B	U	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	96.3	-	246.3	160			#	1	
Oxidation Reduction Potential	mV	08/26/2013	N001	96.3	-	246.3	80.2			#		
pH	s.u.	08/26/2013	N001	96.3	-	246.3	6.55			#		
Potassium	mg/L	08/26/2013	N001	96.3	-	246.3	16			#	0.11	
Selenium	mg/L	08/26/2013	N001	96.3	-	246.3	0.034			#	0.00032	
Silica	mg/L	08/26/2013	N001	96.3	-	246.3	15			#	0.0095	
Silicon	mg/L	08/26/2013	N001	96.3	-	246.3	7.1			#	0.0044	
Sodium	mg/L	08/26/2013	N001	96.3	-	246.3	290			#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	96.3	-	246.3	4458			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1108 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	96.3	-	246.3	1500			#	50	
Temperature	C	08/26/2013	N001	96.3	-	246.3	17.3			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	96.3	-	246.3	3800			#	80	
Turbidity	NTU	08/26/2013	N001	96.3	-	246.3	1.47			#		
Uranium	mg/L	08/26/2013	N001	96.3	-	246.3	0.93			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1109 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	08/29/2013	N001	90.34 - 245.1	400			#		
Ammonia Total as N	mg/L	08/29/2013	N001	90.34 - 245.1	68			#	2	
Arsenic	mg/L	08/29/2013	N001	90.34 - 245.1	0.001			#	0.00015	
Calcium	mg/L	08/29/2013	N001	90.34 - 245.1	520			#	0.6	
Chloride	mg/L	08/29/2013	N001	90.34 - 245.1	93			#	10	
Iron	mg/L	08/29/2013	N001	90.34 - 245.1	0.0091	B	U	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	90.34 - 245.1	430			#	0.013	
Manganese	mg/L	08/29/2013	N001	90.34 - 245.1	14			#	0.0057	
Molybdenum	mg/L	08/29/2013	N001	90.34 - 245.1	0.0042			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	90.34 - 245.1	120			#	1	
Oxidation Reduction Potential	mV	08/29/2013	N001	90.34 - 245.1	71.7			#		
pH	s.u.	08/29/2013	N001	90.34 - 245.1	6.48			#		
Potassium	mg/L	08/29/2013	N001	90.34 - 245.1	30			#	0.11	
Selenium	mg/L	08/29/2013	N001	90.34 - 245.1	0.021			#	0.00032	
Silica	mg/L	08/29/2013	N001	90.34 - 245.1	15			#	0.0095	
Silicon	mg/L	08/29/2013	N001	90.34 - 245.1	6.9			#	0.0044	
Sodium	mg/L	08/29/2013	N001	90.34 - 245.1	250			#	0.33	
Specific Conductance	umhos /cm	08/29/2013	N001	90.34 - 245.1	5305			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1109 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	90.34	-	245.1	2700			#	25	
Temperature	C	08/29/2013	N001	90.34	-	245.1	17.33			#		
Total Dissolved Solids	mg/L	08/29/2013	N001	90.34	-	245.1	5000			#	80	
Turbidity	NTU	08/29/2013	N001	90.34	-	245.1	5.12			#		
Uranium	mg/L	08/29/2013	N001	90.34	-	245.1	0.4			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1110 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	08/27/2013	N001	95.5	-	245.5	254			#		
Ammonia Total as N	mg/L	08/27/2013	N001	95.5	-	245.5	2.4			#	0.5	
Arsenic	mg/L	08/27/2013	N001	95.5	-	245.5	0.0016			#	0.000074	
Calcium	mg/L	08/27/2013	N001	95.5	-	245.5	250			#	0.012	
Chloride	mg/L	08/27/2013	N001	95.5	-	245.5	33			#	5	
Iron	mg/L	08/27/2013	N001	95.5	-	245.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	95.5	-	245.5	80			#	0.013	
Manganese	mg/L	08/27/2013	N001	95.5	-	245.5	0.39			#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	95.5	-	245.5	0.00016	U		#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	95.5	-	245.5	62			#	0.5	
Oxidation Reduction Potential	mV	08/27/2013	N001	95.5	-	245.5	57.8			#		
pH	s.u.	08/27/2013	N001	95.5	-	245.5	5.95			#		
Potassium	mg/L	08/27/2013	N001	95.5	-	245.5	5.1			#	0.11	
Selenium	mg/L	08/27/2013	N001	95.5	-	245.5	0.0093			#	0.00016	
Silica	mg/L	08/27/2013	N001	95.5	-	245.5	13			#	0.0095	
Silicon	mg/L	08/27/2013	N001	95.5	-	245.5	5.8			#	0.0044	
Sodium	mg/L	08/27/2013	N001	95.5	-	245.5	74			#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	95.5	-	245.5	2408			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1110 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	95.5	-	245.5	560			#	12	
Temperature	C	08/27/2013	N001	95.5	-	245.5	18.02			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	95.5	-	245.5	1600			#	40	
Turbidity	NTU	08/27/2013	N001	95.5	-	245.5	1.46			#		
Uranium	mg/L	08/27/2013	N001	95.5	-	245.5	0.083			#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	90.68	-	245.1	340			#		
Ammonia Total as N	mg/L	08/27/2013	N001	90.68	-	245.1	11			#	1	
Ammonia Total as N	mg/L	08/27/2013	N002	90.68	-	245.1	11			#	1	
Arsenic	mg/L	08/27/2013	N001	90.68	-	245.1	0.0011		J	#	0.00003	
Arsenic	mg/L	08/27/2013	N002	90.68	-	245.1	0.0011			#	0.00003	
Calcium	mg/L	08/27/2013	N001	90.68	-	245.1	430			#	0.012	
Calcium	mg/L	08/27/2013	N002	90.68	-	245.1	440			#	0.012	
Chloride	mg/L	08/27/2013	N001	90.68	-	245.1	51			#	10	
Chloride	mg/L	08/27/2013	N002	90.68	-	245.1	54			#	4	
Iron	mg/L	08/27/2013	N001	90.68	-	245.1	0.0049	U		#	0.0049	
Iron	mg/L	08/27/2013	N002	90.68	-	245.1	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	90.68	-	245.1	120			#	0.013	
Magnesium	mg/L	08/27/2013	N002	90.68	-	245.1	120			#	0.013	
Manganese	mg/L	08/27/2013	N001	90.68	-	245.1	0.73			#	0.00011	
Manganese	mg/L	08/27/2013	N002	90.68	-	245.1	0.77			#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	90.68	-	245.1	0.00032	U		#	0.00032	
Molybdenum	mg/L	08/27/2013	N002	90.68	-	245.1	0.000096	B		#	0.000064	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	90.68	-	245.1	100			#	1	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1111 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N002	90.68	-	245.1	100			#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	90.68	-	245.1	27.6			#		
pH	s.u.	08/27/2013	N001	90.68	-	245.1	6.16			#		
Potassium	mg/L	08/27/2013	N001	90.68	-	245.1	9.9			#	0.11	
Potassium	mg/L	08/27/2013	N002	90.68	-	245.1	10			#	0.11	
Selenium	mg/L	08/27/2013	N001	90.68	-	245.1	0.0088			#	0.000065	
Selenium	mg/L	08/27/2013	N002	90.68	-	245.1	0.0097			#	0.000065	
Silica	mg/L	08/27/2013	N001	90.68	-	245.1	14			#	0.0095	
Silica	mg/L	08/27/2013	N002	90.68	-	245.1	15			#	0.0095	
Silicon	mg/L	08/27/2013	N001	90.68	-	245.1	6.6			#	0.0044	
Silicon	mg/L	08/27/2013	N002	90.68	-	245.1	7			#	0.0044	
Sodium	mg/L	08/27/2013	N001	90.68	-	245.1	140			#	0.0066	
Sodium	mg/L	08/27/2013	N002	90.68	-	245.1	150			#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	90.68	-	245.1	3018			#		
Sulfate	mg/L	08/27/2013	N001	90.68	-	245.1	990			#	25	
Sulfate	mg/L	08/27/2013	N002	90.68	-	245.1	1100			#	10	
Temperature	C	08/27/2013	N001	90.68	-	245.1	18.4			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	90.68	-	245.1	2700			#	40	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1111 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Total Dissolved Solids	mg/L	08/27/2013	N002	90.68	-	245.1	2600			#	40	
Turbidity	NTU	08/27/2013	N001	90.68	-	245.1	1.19			#		
Uranium	mg/L	08/27/2013	N001	90.68	-	245.1	0.12			#	0.000029	
Uranium	mg/L	08/27/2013	N002	90.68	-	245.1	0.12			#	0.0000058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	90.5	-	245.5	159			#		
Ammonia Total as N	mg/L	08/27/2013	N001	90.5	-	245.5	0.1	U		#	0.1	
Ammonia Total as N	mg/L	08/27/2013	N002	90.5	-	245.5	2	U		#	2	
Arsenic	mg/L	08/27/2013	N001	90.5	-	245.5	0.0014			#	0.000074	
Arsenic	mg/L	08/27/2013	N002	90.5	-	245.5	0.0017			#	0.000074	
Calcium	mg/L	08/27/2013	N001	90.5	-	245.5	170			#	0.012	
Calcium	mg/L	08/27/2013	N002	90.5	-	245.5	170			#	0.012	
Chloride	mg/L	08/27/2013	N001	90.5	-	245.5	21			#	2	
Chloride	mg/L	08/27/2013	N002	90.5	-	245.5	23			#	1	
Iron	mg/L	08/27/2013	N001	90.5	-	245.5	0.0049	U		#	0.0049	
Iron	mg/L	08/27/2013	N002	90.5	-	245.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	90.5	-	245.5	47			#	0.013	
Magnesium	mg/L	08/27/2013	N002	90.5	-	245.5	50			#	0.013	
Manganese	mg/L	08/27/2013	N001	90.5	-	245.5	0.0013	B		#	0.00011	
Manganese	mg/L	08/27/2013	N002	90.5	-	245.5	0.00077	B	U	#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	90.5	-	245.5	0.0002	B	UJ	#	0.00016	
Molybdenum	mg/L	08/27/2013	N002	90.5	-	245.5	0.0004	B	J	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	90.5	-	245.5	49			#	1	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1112 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N002	90.5	-	245.5	50			#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	90.5	-	245.5	41.2			#		
pH	s.u.	08/27/2013	N001	90.5	-	245.5	6.95			#		
Potassium	mg/L	08/27/2013	N001	90.5	-	245.5	2.9			#	0.11	
Potassium	mg/L	08/27/2013	N002	90.5	-	245.5	2.9			#	0.11	
Selenium	mg/L	08/27/2013	N001	90.5	-	245.5	0.0065			#	0.00016	
Selenium	mg/L	08/27/2013	N002	90.5	-	245.5	0.0066			#	0.00016	
Silica	mg/L	08/27/2013	N001	90.5	-	245.5	12			#	0.0095	
Silica	mg/L	08/27/2013	N002	90.5	-	245.5	12			#	0.0095	
Silicon	mg/L	08/27/2013	N001	90.5	-	245.5	5.6			#	0.0044	
Silicon	mg/L	08/27/2013	N002	90.5	-	245.5	5.8			#	0.0044	
Sodium	mg/L	08/27/2013	N001	90.5	-	245.5	29			#	0.0066	
Sodium	mg/L	08/27/2013	N002	90.5	-	245.5	29			#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	90.5	-	245.5	1246			#		
Sulfate	mg/L	08/27/2013	N001	90.5	-	245.5	280			#	5	
Sulfate	mg/L	08/27/2013	N002	90.5	-	245.5	290			#	2.5	
Temperature	C	08/27/2013	N001	90.5	-	245.5	18.27			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	90.5	-	245.5	960			#	20	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1112 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Total Dissolved Solids	mg/L	08/27/2013	N002	90.5	-	245.5	920			#	20	
Turbidity	NTU	08/27/2013	N001	90.5	-	245.5	2.09			#		
Uranium	mg/L	08/27/2013	N001	90.5	-	245.5	0.055			#	0.000015	
Uranium	mg/L	08/27/2013	N002	90.5	-	245.5	0.056			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	90.5	-	245.5	148			#		
Ammonia Total as N	mg/L	08/27/2013	N001	90.5	-	245.5	0.1	UN	J	#	0.1	
Ammonia Total as N	mg/L	08/27/2013	N002	90.5	-	245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/27/2013	N001	90.5	-	245.5	0.0014			#	0.000015	
Arsenic	mg/L	08/27/2013	N002	90.5	-	245.5	0.0015			#	0.000015	
Calcium	mg/L	08/27/2013	N001	90.5	-	245.5	140	N	J	#	0.012	
Calcium	mg/L	08/27/2013	N002	90.5	-	245.5	140		J	#	0.012	
Chloride	mg/L	08/27/2013	N001	90.5	-	245.5	22			#	1	
Chloride	mg/L	08/27/2013	N002	90.5	-	245.5	22			#	1	
Iron	mg/L	08/27/2013	N001	90.5	-	245.5	0.0049	U		#	0.0049	
Iron	mg/L	08/27/2013	N002	90.5	-	245.5	0.017	B	U	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	90.5	-	245.5	28			#	0.013	
Magnesium	mg/L	08/27/2013	N002	90.5	-	245.5	28			#	0.013	
Manganese	mg/L	08/27/2013	N001	90.5	-	245.5	0.00011	U		#	0.00011	
Manganese	mg/L	08/27/2013	N002	90.5	-	245.5	0.00011	U		#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	90.5	-	245.5	0.001			#	0.000032	
Molybdenum	mg/L	08/27/2013	N002	90.5	-	245.5	0.001			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	90.5	-	245.5	35			#	2	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1113 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N002	90.5	-	245.5	36			#	1	
Oxidation Reduction Potential	mV	08/27/2013	N001	90.5	-	245.5	0.1			#		
pH	s.u.	08/27/2013	N001	90.5	-	245.5	7.28			#		
Potassium	mg/L	08/27/2013	N001	90.5	-	245.5	3			#	0.11	
Potassium	mg/L	08/27/2013	N002	90.5	-	245.5	3			#	0.11	
Selenium	mg/L	08/27/2013	N001	90.5	-	245.5	0.0035			#	0.000032	
Selenium	mg/L	08/27/2013	N002	90.5	-	245.5	0.0034			#	0.000032	
Silica	mg/L	08/27/2013	N001	90.5	-	245.5	12			#	0.0095	
Silica	mg/L	08/27/2013	N002	90.5	-	245.5	12			#	0.0095	
Silicon	mg/L	08/27/2013	N001	90.5	-	245.5	5.8			#	0.0044	
Silicon	mg/L	08/27/2013	N002	90.5	-	245.5	5.8			#	0.0044	
Sodium	mg/L	08/27/2013	N001	90.5	-	245.5	16			#	0.0066	
Sodium	mg/L	08/27/2013	N002	90.5	-	245.5	16			#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	90.5	-	245.5	951			#		
Sulfate	mg/L	08/27/2013	N001	90.5	-	245.5	170			#	2.5	
Sulfate	mg/L	08/27/2013	N002	90.5	-	245.5	170			#	2.5	
Temperature	C	08/27/2013	N001	90.5	-	245.5	19.08			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	90.5	-	245.5	690			#	20	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1113 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Total Dissolved Solids	mg/L	08/27/2013	N002	90.5	-	245.5	680			#	20	
Turbidity	NTU	08/27/2013	N001	90.5	-	245.5	1.1			#		
Uranium	mg/L	08/27/2013	N001	90.5	-	245.5	0.026			#	0.0000029	
Uranium	mg/L	08/27/2013	N002	90.5	-	245.5	0.026			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1114 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	08/27/2013	N001	90.59	-	245.5	303			#		
Ammonia Total as N	mg/L	08/27/2013	N001	90.59	-	245.5	0.1	U		#	0.1	
Ammonia Total as N	mg/L	08/27/2013	N002	90.59	-	245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/27/2013	N001	90.59	-	245.5	0.0011			#	0.000074	
Arsenic	mg/L	08/27/2013	N002	90.59	-	245.5	0.0012			#	0.000074	
Calcium	mg/L	08/27/2013	N001	90.59	-	245.5	380			#	0.012	
Calcium	mg/L	08/27/2013	N002	90.59	-	245.5	380			#	0.012	
Chloride	mg/L	08/27/2013	N001	90.59	-	245.5	37			#	2	
Chloride	mg/L	08/27/2013	N002	90.59	-	245.5	40			#	2	
Iron	mg/L	08/27/2013	N001	90.59	-	245.5	0.043	B		#	0.0049	
Iron	mg/L	08/27/2013	N002	90.59	-	245.5	0.0093	B	U	#	0.0049	
Magnesium	mg/L	08/27/2013	N001	90.59	-	245.5	76			#	0.013	
Magnesium	mg/L	08/27/2013	N002	90.59	-	245.5	75			#	0.013	
Manganese	mg/L	08/27/2013	N001	90.59	-	245.5	0.0056			#	0.00011	
Manganese	mg/L	08/27/2013	N002	90.59	-	245.5	0.0054			#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	90.59	-	245.5	0.01			#	0.00016	
Molybdenum	mg/L	08/27/2013	N002	90.59	-	245.5	0.01			#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	90.59	-	245.5	80			#	1	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1114 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N002	90.59 - 245.5	82			#	1	
Oxidation Reduction Potential	mV	08/27/2013	N001	90.59 - 245.5	17.9			#		
pH	s.u.	08/27/2013	N001	90.59 - 245.5	6.67			#		
Potassium	mg/L	08/27/2013	N001	90.59 - 245.5	5.4			#	0.11	
Potassium	mg/L	08/27/2013	N002	90.59 - 245.5	5.3			#	0.11	
Selenium	mg/L	08/27/2013	N001	90.59 - 245.5	0.011			#	0.00016	
Selenium	mg/L	08/27/2013	N002	90.59 - 245.5	0.011			#	0.00016	
Silica	mg/L	08/27/2013	N001	90.59 - 245.5	15			#	0.0095	
Silica	mg/L	08/27/2013	N002	90.59 - 245.5	14			#	0.0095	
Silicon	mg/L	08/27/2013	N001	90.59 - 245.5	6.8			#	0.0044	
Silicon	mg/L	08/27/2013	N002	90.59 - 245.5	6.6			#	0.0044	
Sodium	mg/L	08/27/2013	N001	90.59 - 245.5	75			#	0.0066	
Sodium	mg/L	08/27/2013	N002	90.59 - 245.5	73			#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	90.59 - 245.5	2412			#		
Sulfate	mg/L	08/27/2013	N001	90.59 - 245.5	710			#	5	
Sulfate	mg/L	08/27/2013	N002	90.59 - 245.5	720			#	5	
Temperature	C	08/27/2013	N001	90.59 - 245.5	18.16			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	90.59 - 245.5	2000			#	40	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1114 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Total Dissolved Solids	mg/L	08/27/2013	N002	90.59	-	245.5	2000			#	40	
Turbidity	NTU	08/27/2013	N001	90.59	-	245.5	2.42			#		
Uranium	mg/L	08/27/2013	N001	90.59	-	245.5	0.073			#	0.000015	
Uranium	mg/L	08/27/2013	N002	90.59	-	245.5	0.073			#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1115 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	08/29/2013	N001	90.52	-	245.5	312			#		
Ammonia Total as N	mg/L	08/29/2013	N001	90.52	-	245.5	0.78			#	0.1	
Arsenic	mg/L	08/29/2013	N001	90.52	-	245.5	0.0009			#	0.000074	
Calcium	mg/L	08/29/2013	N001	90.52	-	245.5	390			#	0.012	
Chloride	mg/L	08/29/2013	N001	90.52	-	245.5	37			#	4	
Iron	mg/L	08/29/2013	N001	90.52	-	245.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/29/2013	N001	90.52	-	245.5	96			#	0.013	
Manganese	mg/L	08/29/2013	N001	90.52	-	245.5	0.16			#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	90.52	-	245.5	0.00016	U		#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	90.52	-	245.5	82			#	2	
Oxidation Reduction Potential	mV	08/29/2013	N001	90.52	-	245.5	43			#		
pH	s.u.	08/29/2013	N001	90.52	-	245.5	6.64			#		
Potassium	mg/L	08/29/2013	N001	90.52	-	245.5	6.6			#	0.11	
Selenium	mg/L	08/29/2013	N001	90.52	-	245.5	0.011			#	0.00016	
Silica	mg/L	08/29/2013	N001	90.52	-	245.5	14			#	0.0095	
Silicon	mg/L	08/29/2013	N001	90.52	-	245.5	6.4			#	0.0044	
Sodium	mg/L	08/29/2013	N001	90.52	-	245.5	110			#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	90.52	-	245.5	2605			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1115 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	90.52	-	245.5	890			#	10	
Temperature	C	08/29/2013	N001	90.52	-	245.5	20.01			#		
Total Dissolved Solids	mg/L	08/29/2013	N001	90.52	-	245.5	2200			#	40	
Turbidity	NTU	08/29/2013	N001	90.52	-	245.5	9.32			#		
Uranium	mg/L	08/29/2013	N001	90.52	-	245.5	0.092			#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	92.37	-	195.5	166			#		
Ammonia Total as N	mg/L	08/27/2013	N001	92.37	-	195.5	0.1	U		#	0.1	
Ammonia Total as N	mg/L	08/27/2013	N002	92.37	-	195.5	0.1	U		#	0.1	
Arsenic	mg/L	08/27/2013	N001	92.37	-	195.5	0.0013			#	0.000015	
Arsenic	mg/L	08/27/2013	N002	92.37	-	195.5	0.0014			#	0.000015	
Calcium	mg/L	08/27/2013	N001	92.37	-	195.5	160			#	0.012	
Calcium	mg/L	08/27/2013	N002	92.37	-	195.5	170			#	0.012	
Chloride	mg/L	08/27/2013	N001	92.37	-	195.5	27			#	1	
Chloride	mg/L	08/27/2013	N002	92.37	-	195.5	25			#	1	
Iron	mg/L	08/27/2013	N001	92.37	-	195.5	0.0049	U		#	0.0049	
Iron	mg/L	08/27/2013	N002	92.37	-	195.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	92.37	-	195.5	36			#	0.013	
Magnesium	mg/L	08/27/2013	N002	92.37	-	195.5	36			#	0.013	
Manganese	mg/L	08/27/2013	N001	92.37	-	195.5	0.00012	B		#	0.00011	
Manganese	mg/L	08/27/2013	N002	92.37	-	195.5	0.00011	U		#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	92.37	-	195.5	0.00015			#	0.000032	
Molybdenum	mg/L	08/27/2013	N002	92.37	-	195.5	0.00015			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	92.37	-	195.5	39			#	0.5	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1116 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N002	92.37 - 195.5	40			#	1	
Oxidation Reduction Potential	mV	08/27/2013	N001	92.37 - 195.5	60.7			#		
pH	s.u.	08/27/2013	N001	92.37 - 195.5	7.04			#		
Potassium	mg/L	08/27/2013	N001	92.37 - 195.5	3			#	0.11	
Potassium	mg/L	08/27/2013	N002	92.37 - 195.5	3.1			#	0.11	
Selenium	mg/L	08/27/2013	N001	92.37 - 195.5	0.0031		J	#	0.000032	
Selenium	mg/L	08/27/2013	N002	92.37 - 195.5	0.0034	E	J	#	0.000032	
Silica	mg/L	08/27/2013	N001	92.37 - 195.5	13			#	0.0095	
Silica	mg/L	08/27/2013	N002	92.37 - 195.5	13			#	0.0095	
Silicon	mg/L	08/27/2013	N001	92.37 - 195.5	6.1			#	0.0044	
Silicon	mg/L	08/27/2013	N002	92.37 - 195.5	6.2			#	0.0044	
Sodium	mg/L	08/27/2013	N001	92.37 - 195.5	25			#	0.0066	
Sodium	mg/L	08/27/2013	N002	92.37 - 195.5	26			#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	92.37 - 195.5	1139			#		
Sulfate	mg/L	08/27/2013	N001	92.37 - 195.5	270			#	2.5	
Sulfate	mg/L	08/27/2013	N002	92.37 - 195.5	250			#	2.5	
Temperature	C	08/27/2013	N001	92.37 - 195.5	17.63			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	92.37 - 195.5	840			#	20	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1116 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Total Dissolved Solids	mg/L	08/27/2013	N002	92.37	-	195.5	840			#	20	
Turbidity	NTU	08/27/2013	N001	92.37	-	195.5	1.58			#		
Uranium	mg/L	08/27/2013	N001	92.37	-	195.5	0.013			#	0.0000029	
Uranium	mg/L	08/27/2013	N002	92.37	-	195.5	0.013			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	92.3	-	195.5	354			#		
Ammonia Total as N	mg/L	08/27/2013	N001	92.3	-	195.5	0.1	U		#	0.1	
Arsenic	mg/L	08/27/2013	N001	92.3	-	195.5	0.0026			#	0.000015	
Calcium	mg/L	08/27/2013	N001	92.3	-	195.5	440			#	0.012	
Chloride	mg/L	08/27/2013	N001	92.3	-	195.5	50			#	4	
Iron	mg/L	08/27/2013	N001	92.3	-	195.5	0.72			#	0.0049	
Magnesium	mg/L	08/27/2013	N001	92.3	-	195.5	150			#	0.013	
Manganese	mg/L	08/27/2013	N001	92.3	-	195.5	0.052			#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	92.3	-	195.5	0.00011			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	92.3	-	195.5	120			#	1	
Oxidation Reduction Potential	mV	08/27/2013	N001	92.3	-	195.5	42.1			#		
pH	s.u.	08/27/2013	N001	92.3	-	195.5	6.8			#		
Potassium	mg/L	08/27/2013	N001	92.3	-	195.5	7.5			#	0.11	
Selenium	mg/L	08/27/2013	N001	92.3	-	195.5	0.013			#	0.000032	
Silica	mg/L	08/27/2013	N001	92.3	-	195.5	15			#	0.0095	
Silicon	mg/L	08/27/2013	N001	92.3	-	195.5	7.1			#	0.0044	
Sodium	mg/L	08/27/2013	N001	92.3	-	195.5	110			#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	92.3	-	195.5	3018			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1117 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	92.3	-	195.5	920			#	10	
Temperature	C	08/27/2013	N001	92.3	-	195.5	18.28			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	92.3	-	195.5	2600			#	40	
Turbidity	NTU	08/27/2013	N001	92.3	-	195.5	7.46			#		
Uranium	mg/L	08/27/2013	N001	92.3	-	195.5	0.039			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	N001	89.93 - 195.5	362			#		
Ammonia Total as N	mg/L	08/29/2013	N001	89.93 - 195.5	0.1	U		#	0.1	
Arsenic	mg/L	08/29/2013	N001	89.93 - 195.5	0.0012			#	0.000015	
Calcium	mg/L	08/29/2013	N001	89.93 - 195.5	480			#	0.6	
Chloride	mg/L	08/29/2013	N001	89.93 - 195.5	91			#	4	
Iron	mg/L	08/29/2013	N001	89.93 - 195.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/29/2013	N001	89.93 - 195.5	92			#	0.013	
Manganese	mg/L	08/29/2013	N001	89.93 - 195.5	0.0026	B	U	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	89.93 - 195.5	0.000067	B		#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	89.93 - 195.5	190			#	2	
Oxidation Reduction Potential	mV	08/29/2013	N001	89.93 - 195.5	65.2			#		
pH	s.u.	08/29/2013	N001	89.93 - 195.5	6.46			#		
Potassium	mg/L	08/29/2013	N001	89.93 - 195.5	6.2			#	0.11	
Selenium	mg/L	08/29/2013	N001	89.93 - 195.5	0.0067			#	0.000032	
Silica	mg/L	08/29/2013	N001	89.93 - 195.5	16			#	0.0095	
Silicon	mg/L	08/29/2013	N001	89.93 - 195.5	7.3			#	0.0044	
Sodium	mg/L	08/29/2013	N001	89.93 - 195.5	74			#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	89.93 - 195.5	3029			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1118 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	89.93	-	195.5	580			#	10	
Temperature	C	08/29/2013	N001	89.93	-	195.5	17.73			#		
Total Dissolved Solids	mg/L	08/29/2013	N001	89.93	-	195.5	3000			#	80	
Turbidity	NTU	08/29/2013	N001	89.93	-	195.5	2.12			#		
Uranium	mg/L	08/29/2013	N001	89.93	-	195.5	0.049			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	95.33 - 245.33	508			#		
Ammonia Total as N	mg/L	08/26/2013	N001	95.33 - 245.33	25			#	1	
Arsenic	mg/L	08/26/2013	N001	95.33 - 245.33	0.0012			#	0.00015	
Calcium	mg/L	08/26/2013	N001	95.33 - 245.33	620			#	0.12	
Chloride	mg/L	08/26/2013	N001	95.33 - 245.33	110			#	10	
Iron	mg/L	08/26/2013	N001	95.33 - 245.33	0.0049	U		#	0.0049	
Magnesium	mg/L	08/26/2013	N001	95.33 - 245.33	260			#	0.013	
Manganese	mg/L	08/26/2013	N001	95.33 - 245.33	6.1			#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	95.33 - 245.33	0.0091			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	95.33 - 245.33	150			#	1	
Oxidation Reduction Potential	mV	08/26/2013	N001	95.33 - 245.33	95.2			#		
pH	s.u.	08/26/2013	N001	95.33 - 245.33	6.56			#		
Potassium	mg/L	08/26/2013	N001	95.33 - 245.33	21			#	0.11	
Selenium	mg/L	08/26/2013	N001	95.33 - 245.33	0.033			#	0.00032	
Silica	mg/L	08/26/2013	N001	95.33 - 245.33	17			#	0.0095	
Silicon	mg/L	08/26/2013	N001	95.33 - 245.33	8.1			#	0.0044	
Sodium	mg/L	08/26/2013	N001	95.33 - 245.33	370			#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	95.33 - 245.33	5098			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1119 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	95.33	-	245.33	2200			#	25	
Temperature	C	08/26/2013	N001	95.33	-	245.33	17.47			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	95.33	-	245.33	4600			#	80	
Turbidity	NTU	08/26/2013	N001	95.33	-	245.33	1.45			#		
Uranium	mg/L	08/26/2013	N001	95.33	-	245.33	0.35			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	95.5 - 245.5	152			#		
Ammonia Total as N	mg/L	08/26/2013	N001	95.5 - 245.5	17			#	2	
Arsenic	mg/L	08/26/2013	N001	95.5 - 245.5	0.0015			#	0.00015	
Calcium	mg/L	08/26/2013	N001	95.5 - 245.5	360			#	0.012	
Chloride	mg/L	08/26/2013	N001	95.5 - 245.5	38			#	4	
Iron	mg/L	08/26/2013	N001	95.5 - 245.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/26/2013	N001	95.5 - 245.5	120			#	0.013	
Manganese	mg/L	08/26/2013	N001	95.5 - 245.5	29			#	0.0011	
Molybdenum	mg/L	08/26/2013	N001	95.5 - 245.5	0.024			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	95.5 - 245.5	30			#	0.5	
Oxidation Reduction Potential	mV	08/26/2013	N001	95.5 - 245.5	94.2			#		
pH	s.u.	08/26/2013	N001	95.5 - 245.5	6.61			#		
Potassium	mg/L	08/26/2013	N001	95.5 - 245.5	10			#	0.11	
Selenium	mg/L	08/26/2013	N001	95.5 - 245.5	0.01			#	0.00032	
Silica	mg/L	08/26/2013	N001	95.5 - 245.5	17			#	0.0095	
Silicon	mg/L	08/26/2013	N001	95.5 - 245.5	8.2			#	0.0044	
Sodium	mg/L	08/26/2013	N001	95.5 - 245.5	160			#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	95.5 - 245.5	2796			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1120 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	95.5	-	245.5	1500			#	10	
Temperature	C	08/26/2013	N001	95.5	-	245.5	17.31			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	95.5	-	245.5	2500			#	40	
Turbidity	NTU	08/26/2013	N001	95.5	-	245.5	1.17			#		
Uranium	mg/L	08/26/2013	N001	95.5	-	245.5	0.11			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1121 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	08/26/2013	N001	97.5	-	247.5	41			#		
Ammonia Total as N	mg/L	08/26/2013	N001	97.5	-	247.5	11			#	1	
Arsenic	mg/L	08/26/2013	N001	97.5	-	247.5	0.0014			#	0.000015	
Calcium	mg/L	08/26/2013	N001	97.5	-	247.5	240			#	0.012	
Chloride	mg/L	08/26/2013	N001	97.5	-	247.5	18			#	2	
Iron	mg/L	08/26/2013	N001	97.5	-	247.5	0.014	B	U	#	0.0049	
Magnesium	mg/L	08/26/2013	N001	97.5	-	247.5	55			#	0.013	
Manganese	mg/L	08/26/2013	N001	97.5	-	247.5	21			#	0.0011	
Molybdenum	mg/L	08/26/2013	N001	97.5	-	247.5	0.012			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	97.5	-	247.5	11			#	0.5	
Oxidation Reduction Potential	mV	08/26/2013	N001	97.5	-	247.5	95.9			#		
pH	s.u.	08/26/2013	N001	97.5	-	247.5	6.72			#		
Potassium	mg/L	08/26/2013	N001	97.5	-	247.5	5.5			#	0.11	
Selenium	mg/L	08/26/2013	N001	97.5	-	247.5	0.0046			#	0.000032	
Silica	mg/L	08/26/2013	N001	97.5	-	247.5	14			#	0.0095	
Silicon	mg/L	08/26/2013	N001	97.5	-	247.5	6.7			#	0.0044	
Sodium	mg/L	08/26/2013	N001	97.5	-	247.5	76			#	0.0066	
Specific Conductance	umhos /cm	08/26/2013	N001	97.5	-	247.5	1800			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1121 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	97.5	-	247.5	850			#	5	
Temperature	C	08/26/2013	N001	97.5	-	247.5	17.98			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	97.5	-	247.5	1400			#	40	
Turbidity	NTU	08/26/2013	N001	97.5	-	247.5	0.99			#		
Uranium	mg/L	08/26/2013	N001	97.5	-	247.5	0.045			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	96.94 - 251.1	120			#		
Ammonia Total as N	mg/L	08/26/2013	N001	96.94 - 251.1	12			#	1	
Arsenic	mg/L	08/26/2013	N001	96.94 - 251.1	0.0018			#	0.00015	
Calcium	mg/L	08/26/2013	N001	96.94 - 251.1	380			#	0.012	
Chloride	mg/L	08/26/2013	N001	96.94 - 251.1	86			#	5	
Iron	mg/L	08/26/2013	N001	96.94 - 251.1	0.0049	U		#	0.0049	
Magnesium	mg/L	08/26/2013	N001	96.94 - 251.1	150			#	0.013	
Manganese	mg/L	08/26/2013	N001	96.94 - 251.1	7.9			#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	96.94 - 251.1	0.0014			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	96.94 - 251.1	31			#	0.5	
Oxidation Reduction Potential	mV	08/26/2013	N001	96.94 - 251.1	168.1			#		
pH	s.u.	08/26/2013	N001	96.94 - 251.1	6.17			#		
Potassium	mg/L	08/26/2013	N001	96.94 - 251.1	14			#	0.11	
Selenium	mg/L	08/26/2013	N001	96.94 - 251.1	0.018			#	0.00032	
Silica	mg/L	08/26/2013	N001	96.94 - 251.1	17			#	0.0095	
Silicon	mg/L	08/26/2013	N001	96.94 - 251.1	7.8			#	0.0044	
Sodium	mg/L	08/26/2013	N001	96.94 - 251.1	250			#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	96.94 - 251.1	2037			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1122 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	96.94	-	251.1	1700			#	12	
Temperature	C	08/26/2013	N001	96.94	-	251.1	18.29			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	96.94	-	251.1	3000			#	80	
Turbidity	NTU	08/26/2013	N001	96.94	-	251.1	7.5			#		
Uranium	mg/L	08/26/2013	N001	96.94	-	251.1	0.16			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	91	-	245	310			#		
Ammonia Total as N	mg/L	08/26/2013	N001	91	-	245	23			#	2	
Arsenic	mg/L	08/26/2013	N001	91	-	245	0.0016			#	0.00015	
Calcium	mg/L	08/26/2013	N001	91	-	245	430			#	0.012	
Chloride	mg/L	08/26/2013	N001	91	-	245	110			#	5	
Iron	mg/L	08/26/2013	N001	91	-	245	0.0049	U		#	0.0049	
Magnesium	mg/L	08/26/2013	N001	91	-	245	200			#	0.013	
Manganese	mg/L	08/26/2013	N001	91	-	245	0.85			#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	91	-	245	0.00032	U		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	91	-	245	18			#	0.2	
Oxidation Reduction Potential	mV	08/26/2013	N001	91	-	245	119.2			#		
pH	s.u.	08/26/2013	N001	91	-	245	6.76			#		
Potassium	mg/L	08/26/2013	N001	91	-	245	19			#	0.11	
Selenium	mg/L	08/26/2013	N001	91	-	245	0.011			#	0.00032	
Silica	mg/L	08/26/2013	N001	91	-	245	17			#	0.0095	
Silicon	mg/L	08/26/2013	N001	91	-	245	8			#	0.0044	
Sodium	mg/L	08/26/2013	N001	91	-	245	230			#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	91	-	245	3587			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1123 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	91	-	245	1900			#	12	
Temperature	C	08/26/2013	N001	91	-	245	17.94			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	91	-	245	3300			#	80	
Turbidity	NTU	08/26/2013	N001	91	-	245	0.9			#		
Uranium	mg/L	08/26/2013	N001	91	-	245	0.13			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	87.9	-	245.5	270			#		
Ammonia Total as N	mg/L	08/26/2013	N001	87.9	-	245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/26/2013	N001	87.9	-	245.5	0.0017			#	0.00015	
Calcium	mg/L	08/26/2013	N001	87.9	-	245.5	600			#	0.12	
Chloride	mg/L	08/26/2013	N001	87.9	-	245.5	120			#	5	
Iron	mg/L	08/26/2013	N001	87.9	-	245.5	0.077	B		#	0.0049	
Magnesium	mg/L	08/26/2013	N001	87.9	-	245.5	110			#	0.013	
Manganese	mg/L	08/26/2013	N001	87.9	-	245.5	0.0029	B		#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	87.9	-	245.5	0.00032	U		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	87.9	-	245.5	99			#	1	
Oxidation Reduction Potential	mV	08/26/2013	N001	87.9	-	245.5	116.4			#		
pH	s.u.	08/26/2013	N001	87.9	-	245.5	6.66			#		
Potassium	mg/L	08/26/2013	N001	87.9	-	245.5	8.7			#	0.11	
Selenium	mg/L	08/26/2013	N001	87.9	-	245.5	0.028			#	0.00032	
Silica	mg/L	08/26/2013	N001	87.9	-	245.5	16			#	0.0095	
Silicon	mg/L	08/26/2013	N001	87.9	-	245.5	7.5			#	0.0044	
Sodium	mg/L	08/26/2013	N001	87.9	-	245.5	290			#	0.066	
Specific Conductance	umhos /cm	08/26/2013	N001	87.9	-	245.5	3979			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1124 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	87.9	-	245.5	1700			#	12	
Temperature	C	08/26/2013	N001	87.9	-	245.5	18.35			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	87.9	-	245.5	3600			#	80	
Turbidity	NTU	08/26/2013	N001	87.9	-	245.5	1.02			#		
Uranium	mg/L	08/26/2013	N001	87.9	-	245.5	0.24			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/26/2013	N001	95.5 - 245.5	50			#		
Ammonia Total as N	mg/L	08/26/2013	N001	95.5 - 245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/26/2013	N001	95.5 - 245.5	0.0022			#	0.000015	
Calcium	mg/L	08/26/2013	N001	95.5 - 245.5	85			#	0.012	
Chloride	mg/L	08/26/2013	N001	95.5 - 245.5	19			#	0.2	
Iron	mg/L	08/26/2013	N001	95.5 - 245.5	0.025	B		#	0.0049	
Magnesium	mg/L	08/26/2013	N001	95.5 - 245.5	16			#	0.013	
Manganese	mg/L	08/26/2013	N001	95.5 - 245.5	0.00011	U		#	0.00011	
Molybdenum	mg/L	08/26/2013	N001	95.5 - 245.5	0.00032			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/26/2013	N001	95.5 - 245.5	18			#	0.2	
Oxidation Reduction Potential	mV	08/26/2013	N001	95.5 - 245.5	126.8			#		
pH	s.u.	08/26/2013	N001	95.5 - 245.5	7.24			#		
Potassium	mg/L	08/26/2013	N001	95.5 - 245.5	2.1			#	0.11	
Selenium	mg/L	08/26/2013	N001	95.5 - 245.5	0.0026			#	0.000032	
Silica	mg/L	08/26/2013	N001	95.5 - 245.5	12			#	0.0095	
Silicon	mg/L	08/26/2013	N001	95.5 - 245.5	5.8			#	0.0044	
Sodium	mg/L	08/26/2013	N001	95.5 - 245.5	19			#	0.0066	
Specific Conductance	umhos /cm	08/26/2013	N001	95.5 - 245.5	736			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1125 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/26/2013	N001	95.5	-	245.5	110			#	2.5	
Temperature	C	08/26/2013	N001	95.5	-	245.5	18.18			#		
Total Dissolved Solids	mg/L	08/26/2013	N001	95.5	-	245.5	440			#	20	
Turbidity	NTU	08/26/2013	N001	95.5	-	245.5	3.44			#		
Uranium	mg/L	08/26/2013	N001	95.5	-	245.5	0.02			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1126 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	08/28/2013	N001	60 - 100	880			#		
Ammonia Total as N	mg/L	08/28/2013	N001	60 - 100	2.4			#	0.1	
Arsenic	mg/L	08/28/2013	N001	60 - 100	0.0029			#	0.000074	
Calcium	mg/L	08/28/2013	N001	60 - 100	560			#	0.6	
Chloride	mg/L	08/28/2013	N001	60 - 100	93			#	10	
Iron	mg/L	08/28/2013	N001	60 - 100	0.046	B		#	0.0049	
Magnesium	mg/L	08/28/2013	N001	60 - 100	600			#	0.65	
Manganese	mg/L	08/28/2013	N001	60 - 100	0.022			#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	60 - 100	0.0006			#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	60 - 100	280			#	5	
Oxidation Reduction Potential	mV	08/28/2013	N001	60 - 100	-3.7			#		
pH	s.u.	08/28/2013	N001	60 - 100	6.49			#		
Potassium	mg/L	08/28/2013	N001	60 - 100	27			#	0.11	
Selenium	mg/L	08/28/2013	N001	60 - 100	0.015			#	0.00016	
Silica	mg/L	08/28/2013	N001	60 - 100	23			#	0.0095	
Silicon	mg/L	08/28/2013	N001	60 - 100	11			#	0.0044	
Sodium	mg/L	08/28/2013	N001	60 - 100	430			#	0.33	
Specific Conductance	umhos /cm	08/28/2013	N001	60 - 100	6724			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1126 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	60	-	100	3200			#	25	
Temperature	C	08/28/2013	N001	60	-	100	20.43			#		
Total Dissolved Solids	mg/L	08/28/2013	N001	60	-	100	7200			#	200	
Turbidity	NTU	08/28/2013	N001	60	-	100	6.54			#		
Uranium	mg/L	08/28/2013	N001	60	-	100	0.047			#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1127 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	08/29/2013	0001	72.7	-	112.7	120			#		
Ammonia Total as N	mg/L	08/29/2013	0001	72.7	-	112.7	0.1	UN	J	#	0.1	
Arsenic	mg/L	08/29/2013	0001	72.7	-	112.7	0.00013			#	0.000015	
Calcium	mg/L	08/29/2013	0001	72.7	-	112.7	190			#	0.012	
Chloride	mg/L	08/29/2013	0001	72.7	-	112.7	77			#	1	
Iron	mg/L	08/29/2013	0001	72.7	-	112.7	0.0049	U		#	0.0049	
Magnesium	mg/L	08/29/2013	0001	72.7	-	112.7	35			#	0.013	
Manganese	mg/L	08/29/2013	0001	72.7	-	112.7	0.00047	B	U	#	0.00011	
Molybdenum	mg/L	08/29/2013	0001	72.7	-	112.7	0.00091			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	0001	72.7	-	112.7	50			#	0.5	
Oxidation Reduction Potential	mV	08/29/2013	N001	72.7	-	112.7	144.4			#		
pH	s.u.	08/29/2013	N001	72.7	-	112.7	7.37			#		
Potassium	mg/L	08/29/2013	0001	72.7	-	112.7	2.9			#	0.11	
Selenium	mg/L	08/29/2013	0001	72.7	-	112.7	0.0045			#	0.000032	
Silica	mg/L	08/29/2013	0001	72.7	-	112.7	15			#	0.0095	
Silicon	mg/L	08/29/2013	0001	72.7	-	112.7	7.1			#	0.0044	
Sodium	mg/L	08/29/2013	0001	72.7	-	112.7	21			#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	72.7	-	112.7	1291			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1127 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	0001	72.7	-	112.7	260			#	2.5	
Temperature	C	08/29/2013	N001	72.7	-	112.7	18.76			#		
Total Dissolved Solids	mg/L	08/29/2013	0001	72.7	-	112.7	1000			#	40	
Turbidity	NTU	08/29/2013	N001	72.7	-	112.7	15			#		
Uranium	mg/L	08/29/2013	0001	72.7	-	112.7	0.007			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1128 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	08/27/2013	N001	72.7	-	112.7	244			#		
Ammonia Total as N	mg/L	08/27/2013	N001	72.7	-	112.7	0.1	U		#	0.1	
Arsenic	mg/L	08/27/2013	N001	72.7	-	112.7	0.0012			#	0.000015	
Calcium	mg/L	08/27/2013	N001	72.7	-	112.7	460			#	0.12	
Chloride	mg/L	08/27/2013	N001	72.7	-	112.7	83			#	4	
Iron	mg/L	08/27/2013	N001	72.7	-	112.7	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	72.7	-	112.7	84			#	0.013	
Manganese	mg/L	08/27/2013	N001	72.7	-	112.7	0.00064	B		#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	72.7	-	112.7	0.00046			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	72.7	-	112.7	150			#	5	
Oxidation Reduction Potential	mV	08/27/2013	N001	72.7	-	112.7	115.9			#		
pH	s.u.	08/27/2013	N001	72.7	-	112.7	7.4			#		
Potassium	mg/L	08/27/2013	N001	72.7	-	112.7	6			#	0.11	
Selenium	mg/L	08/27/2013	N001	72.7	-	112.7	0.021			#	0.000032	
Silica	mg/L	08/27/2013	N001	72.7	-	112.7	15			#	0.0095	
Silicon	mg/L	08/27/2013	N001	72.7	-	112.7	7.1			#	0.0044	
Sodium	mg/L	08/27/2013	N001	72.7	-	112.7	84			#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	72.7	-	112.7	2872			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1128 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	72.7	-	112.7	790			#	10	
Temperature	C	08/27/2013	N001	72.7	-	112.7	20.25			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	72.7	-	112.7	2700			#	40	
Turbidity	NTU	08/27/2013	N001	72.7	-	112.7	6.94			#		
Uranium	mg/L	08/27/2013	N001	72.7	-	112.7	0.058			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1129 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	08/27/2013	N001	68.2	-	98.2	226			#		
Ammonia Total as N	mg/L	08/27/2013	N001	68.2	-	98.2	0.1	U		#	0.1	
Arsenic	mg/L	08/27/2013	N001	68.2	-	98.2	0.0013		J	#	0.000074	
Calcium	mg/L	08/27/2013	N001	68.2	-	98.2	490			#	0.012	
Chloride	mg/L	08/27/2013	N001	68.2	-	98.2	55			#	4	
Iron	mg/L	08/27/2013	N001	68.2	-	98.2	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	68.2	-	98.2	94			#	0.013	
Manganese	mg/L	08/27/2013	N001	68.2	-	98.2	0.00011	U		#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	68.2	-	98.2	0.48			#	0.0016	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	68.2	-	98.2	120			#	1	
Oxidation Reduction Potential	mV	08/27/2013	N001	68.2	-	98.2	107.6			#		
pH	s.u.	08/27/2013	N001	68.2	-	98.2	7.59			#		
Potassium	mg/L	08/27/2013	N001	68.2	-	98.2	6.1			#	0.11	
Selenium	mg/L	08/27/2013	N001	68.2	-	98.2	0.049			#	0.00016	
Silica	mg/L	08/27/2013	N001	68.2	-	98.2	15			#	0.0095	
Silicon	mg/L	08/27/2013	N001	68.2	-	98.2	7.1			#	0.0044	
Sodium	mg/L	08/27/2013	N001	68.2	-	98.2	100			#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	68.2	-	98.2	2892			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1129 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	68.2	-	98.2	970			#	10	
Temperature	C	08/27/2013	N001	68.2	-	98.2	22.77			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	68.2	-	98.2	2500			#	40	
Turbidity	NTU	08/27/2013	N001	68.2	-	98.2	1.36			#		
Uranium	mg/L	08/27/2013	N001	68.2	-	98.2	0.49			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	71.7	-	121.7	593			#		
Ammonia Total as N	mg/L	08/27/2013	N001	71.7	-	121.7	56			#	5	
Arsenic	mg/L	08/27/2013	N001	71.7	-	121.7	0.0017		J	#	0.000074	
Calcium	mg/L	08/27/2013	N001	71.7	-	121.7	680			#	0.12	
Chloride	mg/L	08/27/2013	N001	71.7	-	121.7	160			#	10	
Iron	mg/L	08/27/2013	N001	71.7	-	121.7	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	71.7	-	121.7	360			#	0.013	
Manganese	mg/L	08/27/2013	N001	71.7	-	121.7	0.79			#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	71.7	-	121.7	0.056			#	0.0016	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	71.7	-	121.7	260			#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	71.7	-	121.7	177.6			#		
pH	s.u.	08/27/2013	N001	71.7	-	121.7	6.43			#		
Potassium	mg/L	08/27/2013	N001	71.7	-	121.7	28			#	0.11	
Selenium	mg/L	08/27/2013	N001	71.7	-	121.7	0.05			#	0.00016	
Silica	mg/L	08/27/2013	N001	71.7	-	121.7	15			#	0.0095	
Silicon	mg/L	08/27/2013	N001	71.7	-	121.7	7			#	0.0044	
Sodium	mg/L	08/27/2013	N001	71.7	-	121.7	450			#	0.066	
Specific Conductance	umhos /cm	08/27/2013	N001	71.7	-	121.7	6341			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1130 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	71.7	-	121.7	2500			#	25	
Temperature	C	08/27/2013	N001	71.7	-	121.7	25.07			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	71.7	-	121.7	5700			#	200	
Turbidity	NTU	08/27/2013	N001	71.7	-	121.7	0.82			#		
Uranium	mg/L	08/27/2013	N001	71.7	-	121.7	0.65			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	49.7	-	99.7	472			#		
Ammonia Total as N	mg/L	08/27/2013	N001	49.7	-	99.7	0.1	U		#	0.1	
Arsenic	mg/L	08/27/2013	N001	49.7	-	99.7	0.0018		J	#	0.000074	
Calcium	mg/L	08/27/2013	N001	49.7	-	99.7	840			#	0.12	
Chloride	mg/L	08/27/2013	N001	49.7	-	99.7	120			#	10	
Iron	mg/L	08/27/2013	N001	49.7	-	99.7	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	49.7	-	99.7	180			#	0.013	
Manganese	mg/L	08/27/2013	N001	49.7	-	99.7	0.0019	B		#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	49.7	-	99.7	2			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	49.7	-	99.7	220			#	2	
Oxidation Reduction Potential	mV	08/27/2013	N001	49.7	-	99.7	131.2			#		
pH	s.u.	08/27/2013	N001	49.7	-	99.7	6.64			#		
Potassium	mg/L	08/27/2013	N001	49.7	-	99.7	11			#	0.11	
Selenium	mg/L	08/27/2013	N001	49.7	-	99.7	0.14			#	0.00016	
Silica	mg/L	08/27/2013	N001	49.7	-	99.7	16			#	0.0095	
Silicon	mg/L	08/27/2013	N001	49.7	-	99.7	7.7			#	0.0044	
Sodium	mg/L	08/27/2013	N001	49.7	-	99.7	320			#	0.066	
Specific Conductance	umhos /cm	08/27/2013	N001	49.7	-	99.7	5128			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1132 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	49.7	-	99.7	2000			#	25	
Temperature	C	08/27/2013	N001	49.7	-	99.7	19.57			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	49.7	-	99.7	5100			#	80	
Turbidity	NTU	08/27/2013	N001	49.7	-	99.7	1.2			#		
Uranium	mg/L	08/27/2013	N001	49.7	-	99.7	2.1			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	N001	59.7	-	99.7	196			#		
Ammonia Total as N	mg/L	08/27/2013	N001	59.7	-	99.7	0.1	U		#	0.1	
Arsenic	mg/L	08/27/2013	N001	59.7	-	99.7	0.0018			#	0.000074	
Calcium	mg/L	08/27/2013	N001	59.7	-	99.7	190			#	0.012	
Chloride	mg/L	08/27/2013	N001	59.7	-	99.7	35			#	1	
Iron	mg/L	08/27/2013	N001	59.7	-	99.7	0.0049	U		#	0.0049	
Magnesium	mg/L	08/27/2013	N001	59.7	-	99.7	34			#	0.013	
Manganese	mg/L	08/27/2013	N001	59.7	-	99.7	0.00011	U		#	0.00011	
Molybdenum	mg/L	08/27/2013	N001	59.7	-	99.7	0.022			#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	N001	59.7	-	99.7	49			#	0.5	
Oxidation Reduction Potential	mV	08/27/2013	N001	59.7	-	99.7	143.3			#		
pH	s.u.	08/27/2013	N001	59.7	-	99.7	7.66			#		
Potassium	mg/L	08/27/2013	N001	59.7	-	99.7	3.1			#	0.11	
Selenium	mg/L	08/27/2013	N001	59.7	-	99.7	0.024			#	0.00016	
Silica	mg/L	08/27/2013	N001	59.7	-	99.7	13			#	0.0095	
Silicon	mg/L	08/27/2013	N001	59.7	-	99.7	6.2			#	0.0044	
Sodium	mg/L	08/27/2013	N001	59.7	-	99.7	29			#	0.0066	
Specific Conductance	umhos /cm	08/27/2013	N001	59.7	-	99.7	1258			#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1133 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/27/2013	N001	59.7	-	99.7	240			#	2.5	
Temperature	C	08/27/2013	N001	59.7	-	99.7	23.42			#		
Total Dissolved Solids	mg/L	08/27/2013	N001	59.7	-	99.7	970			#	20	
Turbidity	NTU	08/27/2013	N001	59.7	-	99.7	1.99			#		
Uranium	mg/L	08/27/2013	N001	59.7	-	99.7	0.13			#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-1A WELL NAVAJO MONITORING WELL NMW-1A; Owned by NNEPA

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	08/29/2013	N001	167.5 - 187.5	94		F	#		
Ammonia Total as N	mg/L	08/29/2013	N001	167.5 - 187.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/29/2013	N001	167.5 - 187.5	0.0022		F	#	0.000015	
Calcium	mg/L	08/29/2013	N001	167.5 - 187.5	33		F	#	0.012	
Chloride	mg/L	08/29/2013	N001	167.5 - 187.5	10		F	#	0.2	
Iron	mg/L	08/29/2013	N001	167.5 - 187.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	167.5 - 187.5	6.3		F	#	0.013	
Manganese	mg/L	08/29/2013	N001	167.5 - 187.5	0.0075		F	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	167.5 - 187.5	0.00039		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	167.5 - 187.5	3.4		F	#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	167.5 - 187.5	178.2		F	#		
pH	s.u.	08/29/2013	N001	167.5 - 187.5	7.58		F	#		
Potassium	mg/L	08/29/2013	N001	167.5 - 187.5	1.3		F	#	0.11	
Selenium	mg/L	08/29/2013	N001	167.5 - 187.5	0.0013		F	#	0.000032	
Silica	mg/L	08/29/2013	N001	167.5 - 187.5	11		F	#	0.0095	
Silicon	mg/L	08/29/2013	N001	167.5 - 187.5	5		F	#	0.0044	
Sodium	mg/L	08/29/2013	N001	167.5 - 187.5	8.9		F	#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	167.5 - 187.5	263		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-1A WELL NAVAJO MONITORING WELL NMW-1A; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	167.5	-	187.5	13		F	#	0.5	
Temperature	C	08/29/2013	N001	167.5	-	187.5	17.94		F	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	167.5	-	187.5	160		F	#	20	
Turbidity	NTU	08/29/2013	N001	167.5	-	187.5	0.62		F	#		
Uranium	mg/L	08/29/2013	N001	167.5	-	187.5	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-2A WELL NAVAJO MONITORING WELL NMW-2A; Owned by NNEPA

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	08/28/2013	N001	140.46	-	160.46	78		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	140.46	-	160.46	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	140.46	-	160.46	0.002		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	140.46	-	160.46	32		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	140.46	-	160.46	9.5		F	#	0.2	
Iron	mg/L	08/28/2013	N001	140.46	-	160.46	0.053	B	UF	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	140.46	-	160.46	5.6		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	140.46	-	160.46	0.0019	B	UF	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	140.46	-	160.46	0.00042		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	140.46	-	160.46	3.3		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	140.46	-	160.46	152.6		F	#		
pH	s.u.	08/28/2013	N001	140.46	-	160.46	7.64		F	#		
Potassium	mg/L	08/28/2013	N001	140.46	-	160.46	1.2		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	140.46	-	160.46	0.0012		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	140.46	-	160.46	11		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	140.46	-	160.46	5.1		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	140.46	-	160.46	9.8		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	140.46	-	160.46	264		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-2A WELL NAVAJO MONITORING WELL NMW-2A; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	140.46	-	160.46	12		F	#	0.5	
Temperature	C	08/28/2013	N001	140.46	-	160.46	21.22		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	140.46	-	160.46	160		F	#	20	
Turbidity	NTU	08/28/2013	N001	140.46	-	160.46	1.23		F	#		
Uranium	mg/L	08/28/2013	N001	140.46	-	160.46	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-3A WELL NAVAJO MONITORING WELL NMW-3A; Owned by NNEPA

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	08/28/2013	N001	190.62 - 210.62	106		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	190.62 - 210.62	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	190.62 - 210.62	0.002		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	190.62 - 210.62	33		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	190.62 - 210.62	9.1		F	#	0.2	
Iron	mg/L	08/28/2013	N001	190.62 - 210.62	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	190.62 - 210.62	6.1		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	190.62 - 210.62	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	190.62 - 210.62	0.00034		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	190.62 - 210.62	3.3		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	190.62 - 210.62	163.3		F	#		
pH	s.u.	08/28/2013	N001	190.62 - 210.62	7.62		F	#		
Potassium	mg/L	08/28/2013	N001	190.62 - 210.62	1.2		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	190.62 - 210.62	0.0014		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	190.62 - 210.62	11		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	190.62 - 210.62	5.3		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	190.62 - 210.62	8.4		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	190.62 - 210.62	257		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-3A WELL NAVAJO MONITORING WELL NMW-3A; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	190.62 - 210.62	12		F	#	0.5	
Temperature	C	08/28/2013	N001	190.62 - 210.62	17.76		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	190.62 - 210.62	150		F	#	20	
Turbidity	NTU	08/28/2013	N001	190.62 - 210.62	0.75		F	#		
Uranium	mg/L	08/28/2013	N001	190.62 - 210.62	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-4A WELL NAVAJO MONITORING WELL NMW-4A; Owned by NNEPA

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	08/28/2013	N001	170.46 - 190.46	97		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	170.46 - 190.46	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	170.46 - 190.46	0.0021		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	170.46 - 190.46	33		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	170.46 - 190.46	9.8		F	#	0.2	
Iron	mg/L	08/28/2013	N001	170.46 - 190.46	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	170.46 - 190.46	5.5		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	170.46 - 190.46	0.00027	B	UF	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	170.46 - 190.46	0.00027		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	170.46 - 190.46	3.7		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	170.46 - 190.46	158.2		F	#		
pH	s.u.	08/28/2013	N001	170.46 - 190.46	7.63		F	#		
Potassium	mg/L	08/28/2013	N001	170.46 - 190.46	1.4		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	170.46 - 190.46	0.0013		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	170.46 - 190.46	10		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	170.46 - 190.46	4.8		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	170.46 - 190.46	8.3		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	170.46 - 190.46	258		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-4A WELL NAVAJO MONITORING WELL NMW-4A; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	170.46	-	190.46	13		F	#	0.5	
Temperature	C	08/28/2013	N001	170.46	-	190.46	17.83		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	170.46	-	190.46	160		F	#	20	
Turbidity	NTU	08/28/2013	N001	170.46	-	190.46	1.54		F	#		
Uranium	mg/L	08/28/2013	N001	170.46	-	190.46	0.0011		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-5 WELL NAVAJO MONITORING WELL NMW-5; NMW-5 Herbert Chief; Owned by NNEPA

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	08/28/2013	N001	34.95	-	54.95	95		F	#		
Ammonia Total as N	mg/L	08/28/2013	N001	34.95	-	54.95	0.1	U	F	#	0.1	
Arsenic	mg/L	08/28/2013	N001	34.95	-	54.95	0.0029		F	#	0.000015	
Calcium	mg/L	08/28/2013	N001	34.95	-	54.95	38		F	#	0.012	
Chloride	mg/L	08/28/2013	N001	34.95	-	54.95	20		F	#	0.2	
Iron	mg/L	08/28/2013	N001	34.95	-	54.95	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/28/2013	N001	34.95	-	54.95	8.8		F	#	0.013	
Manganese	mg/L	08/28/2013	N001	34.95	-	54.95	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/28/2013	N001	34.95	-	54.95	0.001		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N001	34.95	-	54.95	2.7		F	#	0.05	
Oxidation Reduction Potential	mV	08/28/2013	N001	34.95	-	54.95	158.8		F	#		
pH	s.u.	08/28/2013	N001	34.95	-	54.95	7.47		F	#		
Potassium	mg/L	08/28/2013	N001	34.95	-	54.95	1.6		F	#	0.11	
Selenium	mg/L	08/28/2013	N001	34.95	-	54.95	0.0026		F	#	0.000032	
Silica	mg/L	08/28/2013	N001	34.95	-	54.95	9.8		F	#	0.0095	
Silicon	mg/L	08/28/2013	N001	34.95	-	54.95	4.6		F	#	0.0044	
Sodium	mg/L	08/28/2013	N001	34.95	-	54.95	18		F	#	0.0066	
Specific Conductance	umhos /cm	08/28/2013	N001	34.95	-	54.95	369		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-5 WELL NAVAJO MONITORING WELL NMW-5; NMW-5 Herbert Chief; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/28/2013	N001	34.95	-	54.95	55		F	#	0.5	
Temperature	C	08/28/2013	N001	34.95	-	54.95	20.1		F	#		
Total Dissolved Solids	mg/L	08/28/2013	N001	34.95	-	54.95	220		F	#	20	
Turbidity	NTU	08/28/2013	N001	34.95	-	54.95	0.57		F	#		
Uranium	mg/L	08/28/2013	N001	34.95	-	54.95	0.0044		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-6S WELL NAVAJO MONITORING WELL NMW-6S; Owned by NNEPA

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	08/29/2013	N001	167.62 - 187.62	74		F	#		
Ammonia Total as N	mg/L	08/29/2013	N001	167.62 - 187.62	0.1	U	F	#	0.1	
Arsenic	mg/L	08/29/2013	N001	167.62 - 187.62	0.0015		F	#	0.000015	
Calcium	mg/L	08/29/2013	N001	167.62 - 187.62	36		F	#	0.012	
Chloride	mg/L	08/29/2013	N001	167.62 - 187.62	11		F	#	0.2	
Iron	mg/L	08/29/2013	N001	167.62 - 187.62	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	167.62 - 187.62	6.2		F	#	0.013	
Manganese	mg/L	08/29/2013	N001	167.62 - 187.62	0.00094	B	UF	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	167.62 - 187.62	0.00037		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	167.62 - 187.62	3.7		F	#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	167.62 - 187.62	178.7		F	#		
pH	s.u.	08/29/2013	N001	167.62 - 187.62	7.49		F	#		
Potassium	mg/L	08/29/2013	N001	167.62 - 187.62	1.3		F	#	0.11	
Selenium	mg/L	08/29/2013	N001	167.62 - 187.62	0.0018		F	#	0.000032	
Silica	mg/L	08/29/2013	N001	167.62 - 187.62	11		F	#	0.0095	
Silicon	mg/L	08/29/2013	N001	167.62 - 187.62	5.3		F	#	0.0044	
Sodium	mg/L	08/29/2013	N001	167.62 - 187.62	8.2		F	#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	167.62 - 187.62	276		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-6S WELL NAVAJO MONITORING WELL NMW-6S; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	167.62 - 187.62	15		F	#	0.5	
Temperature	C	08/29/2013	N001	167.62 - 187.62	17.78		F	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	167.62 - 187.62	170		F	#	20	
Turbidity	NTU	08/29/2013	N001	167.62 - 187.62	1.18		F	#		
Uranium	mg/L	08/29/2013	N001	167.62 - 187.62	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-7D WELL NAVAJO MONITORING WELL NMW-7D; Owned by NNEPA

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	08/29/2013	N001	278.19 - 283.19	68		FQ	#		
Ammonia Total as N	mg/L	08/29/2013	N001	278.19 - 283.19	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/29/2013	N001	278.19 - 283.19	0.0023		FQ	#	0.000015	
Calcium	mg/L	08/29/2013	N001	278.19 - 283.19	27		FQ	#	0.012	
Chloride	mg/L	08/29/2013	N001	278.19 - 283.19	6.9		FQ	#	0.2	
Iron	mg/L	08/29/2013	N001	278.19 - 283.19	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	278.19 - 283.19	5.2		FQ	#	0.013	
Manganese	mg/L	08/29/2013	N001	278.19 - 283.19	0.00087	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	278.19 - 283.19	0.00017		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	278.19 - 283.19	3.2		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	278.19 - 283.19	180.6		FQ	#		
pH	s.u.	08/29/2013	N001	278.19 - 283.19	7.3		FQ	#		
Potassium	mg/L	08/29/2013	N001	278.19 - 283.19	1.4		FQ	#	0.11	
Selenium	mg/L	08/29/2013	N001	278.19 - 283.19	0.00094		FQ	#	0.000032	
Silica	mg/L	08/29/2013	N001	278.19 - 283.19	12		FQ	#	0.0095	
Silicon	mg/L	08/29/2013	N001	278.19 - 283.19	5.6		FQ	#	0.0044	
Sodium	mg/L	08/29/2013	N001	278.19 - 283.19	4.8		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	278.19 - 283.19	211		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-7D WELL NAVAJO MONITORING WELL NMW-7D; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	278.19 - 283.19	9.2		FQ	#	0.5	
Temperature	C	08/29/2013	N001	278.19 - 283.19	20.11		FQ	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	278.19 - 283.19	130		FQ	#	20	
Turbidity	NTU	08/29/2013	N001	278.19 - 283.19	1.17		FQ	#		
Uranium	mg/L	08/29/2013	N001	278.19 - 283.19	0.00084		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-8S WELL NAVAJO MONITORING WELL NMW_8S; Owned by NNEPA

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	08/29/2013	N001	149.43 - 169.43	75		F	#		
Ammonia Total as N	mg/L	08/29/2013	N001	149.43 - 169.43	0.1	U	F	#	0.1	
Arsenic	mg/L	08/29/2013	N001	149.43 - 169.43	0.0024		F	#	0.000015	
Calcium	mg/L	08/29/2013	N001	149.43 - 169.43	34		F	#	0.012	
Chloride	mg/L	08/29/2013	N001	149.43 - 169.43	10		F	#	0.2	
Iron	mg/L	08/29/2013	N001	149.43 - 169.43	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	149.43 - 169.43	5.5		F	#	0.013	
Manganese	mg/L	08/29/2013	N001	149.43 - 169.43	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	149.43 - 169.43	0.00031		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	149.43 - 169.43	3.7		F	#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	149.43 - 169.43	162.6		F	#		
pH	s.u.	08/29/2013	N001	149.43 - 169.43	7.68		F	#		
Potassium	mg/L	08/29/2013	N001	149.43 - 169.43	1.5		F	#	0.11	
Selenium	mg/L	08/29/2013	N001	149.43 - 169.43	0.0011		F	#	0.000032	
Silica	mg/L	08/29/2013	N001	149.43 - 169.43	11		F	#	0.0095	
Silicon	mg/L	08/29/2013	N001	149.43 - 169.43	4.9		F	#	0.0044	
Sodium	mg/L	08/29/2013	N001	149.43 - 169.43	9.3		F	#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	149.43 - 169.43	261		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-8S WELL NAVAJO MONITORING WELL NMW_8S; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	149.43	-	169.43	13		F	#	0.5	
Temperature	C	08/29/2013	N001	149.43	-	169.43	19.36		F	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	149.43	-	169.43	160		F	#	20	
Turbidity	NTU	08/29/2013	N001	149.43	-	169.43	0.57		F	#		
Uranium	mg/L	08/29/2013	N001	149.43	-	169.43	0.0013		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-9D WELL NAVAJO MONITORING WELL NMW-9D; Owned by NNEPA

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	08/29/2013	N001	265.52 - 270.52	90		FQ	#		
Ammonia Total as N	mg/L	08/29/2013	N001	265.52 - 270.52	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/29/2013	N001	265.52 - 270.52	0.0011		FQ	#	0.000015	
Calcium	mg/L	08/29/2013	N001	265.52 - 270.52	34		FQ	#	0.012	
Chloride	mg/L	08/29/2013	N001	265.52 - 270.52	11		FQ	#	0.2	
Iron	mg/L	08/29/2013	N001	265.52 - 270.52	0.0062	B	UFQ	#	0.0049	
Magnesium	mg/L	08/29/2013	N001	265.52 - 270.52	6.7		FQ	#	0.013	
Manganese	mg/L	08/29/2013	N001	265.52 - 270.52	0.061		FQ	#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	265.52 - 270.52	0.0033		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	265.52 - 270.52	2.8		FQ	#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	265.52 - 270.52	152.9		FQ	#		
pH	s.u.	08/29/2013	N001	265.52 - 270.52	7.12		FQ	#		
Potassium	mg/L	08/29/2013	N001	265.52 - 270.52	1.6		FQ	#	0.11	
Selenium	mg/L	08/29/2013	N001	265.52 - 270.52	0.0014		FQ	#	0.000032	
Silica	mg/L	08/29/2013	N001	265.52 - 270.52	12		FQ	#	0.0095	
Silicon	mg/L	08/29/2013	N001	265.52 - 270.52	5.7		FQ	#	0.0044	
Sodium	mg/L	08/29/2013	N001	265.52 - 270.52	15		FQ	#	0.0066	
Specific Conductance	umhos /cm	08/29/2013	N001	265.52 - 270.52	304		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: NMW-9D WELL NAVAJO MONITORING WELL NMW-9D; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Sulfate	mg/L	08/29/2013	N001	265.52 - 270.52	28		FQ	#	0.5	
Temperature	C	08/29/2013	N001	265.52 - 270.52	19.39		FQ	#		
Total Dissolved Solids	mg/L	08/29/2013	N001	265.52 - 270.52	200		FQ	#	20	
Turbidity	NTU	08/29/2013	N001	265.52 - 270.52	1.76		FQ	#		
Uranium	mg/L	08/29/2013	N001	265.52 - 270.52	0.0013		FQ	#	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.
- L Less than 3 bore volumes purged prior to sampling.
- U Parameter analyzed for but was not detected.
- G Possible grout contamination, pH > 9.
- Q Qualitative result due to sampling technique.
- X Location is undefined.
- J Estimated value.
- R Unusable result.

QA QUALIFIER:
- # Validated according to quality assurance guidelines.

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Surface Water and Treatment System Quality Data

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Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 0759 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	08/29/2013	0001	92			#		
Arsenic	mg/L	08/29/2013	0001	0.00055			#	0.000015	
Calcium	mg/L	08/29/2013	0001	220			#	0.012	
Chloride	mg/L	08/29/2013	0001	10			#	2	
Iron	mg/L	08/29/2013	0001	0.091	B		#	0.0049	
Magnesium	mg/L	08/29/2013	0001	41			#	0.013	
Manganese	mg/L	08/29/2013	0001	0.014			#	0.00011	
Molybdenum	mg/L	08/29/2013	0001	0.0027			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	0001	1.9			#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	25			#		
pH	s.u.	08/29/2013	N001	7.67			#		
Potassium	mg/L	08/29/2013	0001	11			#	0.11	
Selenium	mg/L	08/29/2013	0001	0.0018			#	0.000032	
Sodium	mg/L	08/29/2013	0001	82			#	0.0066	
Specific Conductance	umhos/cm	08/29/2013	N001	1480			#		
Sulfate	mg/L	08/29/2013	0001	770			#	5	
Temperature	C	08/29/2013	N001	22.05			#		
Total Dissolved Solids	mg/L	08/29/2013	0001	1300			#	40	
Uranium	mg/L	08/29/2013	0001	0.0031			#	0.0000029	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	0001	93			#		
Arsenic	mg/L	08/29/2013	0001	0.00053			#	0.000015	
Calcium	mg/L	08/29/2013	0001	230			#	0.012	
Chloride	mg/L	08/29/2013	0001	11			#	2	
Iron	mg/L	08/29/2013	0001	0.0077	B	U	#	0.0049	
Magnesium	mg/L	08/29/2013	0001	42			#	0.013	
Manganese	mg/L	08/29/2013	0001	0.013			#	0.00011	
Molybdenum	mg/L	08/29/2013	0001	0.0028			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	0001	2.1			#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	2			#		
pH	s.u.	08/29/2013	N001	7.68			#		
Potassium	mg/L	08/29/2013	0001	11			#	0.11	
Selenium	mg/L	08/29/2013	0001	0.0018			#	0.000032	
Sodium	mg/L	08/29/2013	0001	80			#	0.0066	
Specific Conductance	umhos/cm	08/29/2013	N001	1424			#		
Sulfate	mg/L	08/29/2013	0001	770			#	5	
Temperature	C	08/29/2013	N001	26			#		
Total Dissolved Solids	mg/L	08/29/2013	0001	1300			#	40	
Uranium	mg/L	08/29/2013	0001	0.0033			#	0.0000029	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	0001	94			#		
Arsenic	mg/L	08/29/2013	0001	0.00053			#	0.000015	
Calcium	mg/L	08/29/2013	0001	240			#	0.012	
Chloride	mg/L	08/29/2013	0001	11			#	2	
Iron	mg/L	08/29/2013	0001	0.0049	U		#	0.0049	
Magnesium	mg/L	08/29/2013	0001	43			#	0.013	
Manganese	mg/L	08/29/2013	0001	0.0011	B		#	0.00011	
Molybdenum	mg/L	08/29/2013	0001	0.0029			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	0001	2.1			#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	2			#		
pH	s.u.	08/29/2013	N001	7.66			#		
Potassium	mg/L	08/29/2013	0001	12			#	0.11	
Selenium	mg/L	08/29/2013	0001	0.0016			#	0.000032	
Sodium	mg/L	08/29/2013	0001	83			#	0.0066	
Specific Conductance	umhos/cm	08/29/2013	N001	1394			#		
Sulfate	mg/L	08/29/2013	0001	760			#	5	
Temperature	C	08/29/2013	N001	28.12			#		
Total Dissolved Solids	mg/L	08/29/2013	0001	1300			#	40	
Uranium	mg/L	08/29/2013	0001	0.0035			#	0.0000029	

General Water Quality Data by Location (USEE105) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1202 TREATMENT SYSTEM Soft Water Feed Tank

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	08/28/2013	N002	0	-	0	281			#		
Ammonia Total as N	mg/L	08/28/2013	N001	0	-	0	12			0	1	
Ammonia Total as N	mg/L	08/28/2013	N002	0	-	0	12			#	1	
Calcium	mg/L	08/28/2013	N001	0	-	0	379			0	0.01	
Calcium	mg/L	08/28/2013	N002	0	-	0	430			#	0.012	
Chloride	mg/L	08/28/2013	N002	0	-	0	70			#	4	
Chlorine	mg/L	08/28/2013	N001	0	-	0	66.9			0	0.5	
Molybdenum	mg/L	08/28/2013	N001	0	-	0	0.0473			0	0.005	
Molybdenum	mg/L	08/28/2013	N002	0	-	0	0.046			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N002	0	-	0	87			#	1	
Nitrate as Nitrogen	mg/L	08/28/2013	N001	0	-	0	111			0	0.1	
Oxidation Reduction Potential	mV	08/28/2013	N002	0	-	0	162			#		
pH	s.u.	08/28/2013	N002	0	-	0	6.56			#		
Selenium	mg/L	08/28/2013	N001	0	-	0	0.018			0	0.01	
Selenium	mg/L	08/28/2013	N002	0	-	0	0.019			#	0.00032	
Specific Conductance	umhos /cm	08/28/2013	N002	0	-	0	3133			#		
Sulfate	mg/L	08/28/2013	N001	0	-	0	1210			0	0.5	
Sulfate	mg/L	08/28/2013	N002	0	-	0	1300			#	10	

General Water Quality Data by Location (USEE105) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1202 TREATMENT SYSTEM Soft Water Feed Tank

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Temperature	C	08/28/2013	N002	0	-	0	23			#		
Total Dissolved Solids	mg/L	08/28/2013	N001	0	-	0	2840			0	10	
Total Dissolved Solids	mg/L	08/28/2013	N002	0	-	0	2800	*		#	80	
Uranium	mg/L	08/28/2013	N001	0	-	0	0.2909			0	0.0002	
Uranium	mg/L	08/28/2013	N002	0	-	0	0.26			#	0.000029	

General Water Quality Data by Location (USEE105) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1205 TREATMENT SYSTEM Distillate from Evaporator

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	08/28/2013	N002	0	-	0	5			#		
Ammonia Total as N	mg/L	08/28/2013	N001	0	-	0	0.2			0	1	
Ammonia Total as N	mg/L	08/28/2013	N002	0	-	0	0.19			#	0.1	
Calcium	mg/L	08/28/2013	N001	0	-	0	0.03			0	0.01	
Calcium	mg/L	08/28/2013	N002	0	-	0	0.097	B	U	#	0.012	
Chloride	mg/L	08/28/2013	N002	0	-	0	0.78			#	0.2	
Chlorine	mg/L	08/28/2013	N001	0	-	0	0.7			0	0.5	
Molybdenum	mg/L	08/28/2013	N001	0	-	0	0.005	U		0	0.005	
Molybdenum	mg/L	08/28/2013	N002	0	-	0	0.00022			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N002	0	-	0	0.61			#	0.01	
Nitrate as Nitrogen	mg/L	08/28/2013	N001	0	-	0	0.8			0	0.1	
Oxidation Reduction Potential	mV	08/28/2013	N002	0	-	0	95			#		
pH	s.u.	08/28/2013	N002	0	-	0	5.82			#		
Selenium	mg/L	08/28/2013	N001	0	-	0	0.001	U		0	0.01	
Selenium	mg/L	08/28/2013	N002	0	-	0	0.00016			#	0.000032	
Specific Conductance	umhos /cm	08/28/2013	N002	0	-	0	629			#		
Sulfate	mg/L	08/28/2013	N001	0	-	0	9.4			0	0.5	
Sulfate	mg/L	08/28/2013	N002	0	-	0	10			#	0.5	

General Water Quality Data by Location (USEE105) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1205 TREATMENT SYSTEM Distillate from Evaporator

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Temperature	C	08/28/2013	N002	0	-	0	26			#		
Total Dissolved Solids	mg/L	08/28/2013	N001	0	-	0	40			0	10	
Total Dissolved Solids	mg/L	08/28/2013	N002	0	-	0	39			#	20	
Uranium	mg/L	08/28/2013	N001	0	-	0	0.0016			0	0.0002	
Uranium	mg/L	08/28/2013	N002	0	-	0	0.0016			#	0.0000029	

General Water Quality Data by Location (USEE105) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1206 TREATMENT SYSTEM Brine from Evaporator

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	08/28/2013	N002	0	-	0	240			#		
Ammonia Total as N	mg/L	08/28/2013	N001	0	-	0	1	U		0	1	
Ammonia Total as N	mg/L	08/28/2013	N002	0	-	0	0.1	U		#	0.1	
Calcium	mg/L	08/28/2013	N001	0	-	0	19.5			0	0.01	
Calcium	mg/L	08/28/2013	N002	0	-	0	13			#	0.012	
Chloride	mg/L	08/28/2013	N002	0	-	0	1600			#	100	
Chlorine	mg/L	08/28/2013	N001	0	-	0	1660			0	0.5	
Molybdenum	mg/L	08/28/2013	N001	0	-	0	0.572			0	0.005	
Molybdenum	mg/L	08/28/2013	N002	0	-	0	0.64			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/28/2013	N002	0	-	0	1200			#	10	
Nitrate as Nitrogen	mg/L	08/28/2013	N001	0	-	0	1535			0	0.1	
Oxidation Reduction Potential	mV	08/28/2013	N002	0	-	0	146			#		
pH	s.u.	08/28/2013	N002	0	-	0	8.92			#		
Selenium	mg/L	08/28/2013	N001	0	-	0	0.24			0	0.01	
Selenium	mg/L	08/28/2013	N002	0	-	0	0.28			#	0.0065	
Specific Conductance	umhos /cm	08/28/2013	N002	0	-	0	38800			#		
Sulfate	mg/L	08/28/2013	N001	0	-	0	20700			0	0.5	
Sulfate	mg/L	08/28/2013	N002	0	-	0	22000			#	250	

General Water Quality Data by Location (USEE105) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1206 TREATMENT SYSTEM Brine from Evaporator

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Temperature	C	08/28/2013	N002	0	-	0	26			#		
Total Dissolved Solids	mg/L	08/28/2013	N001	0	-	0	40560			0	10	
Total Dissolved Solids	mg/L	08/28/2013	N002	0	-	0	41000			#	1000	
Uranium	mg/L	08/28/2013	N001	0	-	0	3.111			0	0.0002	
Uranium	mg/L	08/28/2013	N002	0	-	0	3.2			#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	0001	110			#		
Arsenic	mg/L	08/27/2013	0001	0.074			#	0.003	
Calcium	mg/L	08/27/2013	0001	4100			#	0.12	
Chloride	mg/L	08/27/2013	0001	73000			#	1000	
Iron	mg/L	08/27/2013	0001	0.049	U		#	0.049	
Magnesium	mg/L	08/27/2013	0001	4000			#	0.13	
Manganese	mg/L	08/27/2013	0001	150			#	0.057	
Molybdenum	mg/L	08/27/2013	0001	0.18			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	0001	2900			#	50	
Oxidation Reduction Potential	mV	08/27/2013	N001	301			#		
pH	s.u.	08/27/2013	N001	6.21			#		
Potassium	mg/L	08/27/2013	0001	610			#	1.1	
Selenium	mg/L	08/27/2013	0001	0.36			#	0.0065	
Sodium	mg/L	08/27/2013	0001	38000			#	3.3	
Specific Conductance	umhos/cm	08/27/2013	N001	159850			#		
Sulfate	mg/L	08/27/2013	0001	3300			#	500	
Temperature	C	08/27/2013	N001	17.88			#		
Total Dissolved Solids	mg/L	08/27/2013	0001	150000			#	4000	
Uranium	mg/L	08/27/2013	0001	2.3			#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/27/2013	0001	0			#		
Arsenic	mg/L	08/27/2013	0001	0.068			#	0.003	
Calcium	mg/L	08/27/2013	0001	510			#	0.6	
Chloride	mg/L	08/27/2013	0001	150000			#	2000	
Iron	mg/L	08/27/2013	0001	2.6	B		#	0.25	
Magnesium	mg/L	08/27/2013	0001	9900			#	0.65	
Manganese	mg/L	08/27/2013	0001	200			#	0.0057	
Molybdenum	mg/L	08/27/2013	0001	0.15			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/27/2013	0001	8000			#	50	
Oxidation Reduction Potential	mV	08/27/2013	N001	521			#		
pH	s.u.	08/27/2013	N001	2.78			#		
Potassium	mg/L	08/27/2013	0001	1300			#	5.4	
Selenium	mg/L	08/27/2013	0001	1.6			#	0.0065	
Sodium	mg/L	08/27/2013	0001	74000			#	3.3	
Specific Conductance	umhos/cm	08/27/2013	N001	195800			#		
Sulfate	mg/L	08/27/2013	0001	19000			#	1000	
Temperature	C	08/27/2013	N001	20.7			#		
Total Dissolved Solids	mg/L	08/27/2013	0001	320000			#	4000	
Uranium	mg/L	08/27/2013	0001	8.8			#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
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	08/29/2013	N001	131			#		
Arsenic	mg/L	08/29/2013	0001	0.0028			#	0.000015	
Calcium	mg/L	08/29/2013	0001	34			#	0.012	
Chloride	mg/L	08/29/2013	0001	42			#	1	
Iron	mg/L	08/29/2013	0001	0.018	B		#	0.0049	
Magnesium	mg/L	08/29/2013	0001	9.3			#	0.013	
Manganese	mg/L	08/29/2013	0001	0.025			#	0.00011	
Molybdenum	mg/L	08/29/2013	0001	0.0041			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	0001	2.1			#	0.05	
Oxidation Reduction Potential	mV	08/29/2013	N001	2			#		
pH	s.u.	08/29/2013	N001	8.89			#		
Potassium	mg/L	08/29/2013	0001	3.8			#	0.11	
Selenium	mg/L	08/29/2013	0001	0.0046			#	0.000032	
Sodium	mg/L	08/29/2013	0001	48			#	0.0066	
Specific Conductance	umhos/cm	08/29/2013	N001	597			#		
Sulfate	mg/L	08/29/2013	0001	87			#	2.5	
Temperature	C	08/29/2013	N001	23.8			#		
Total Dissolved Solids	mg/L	08/29/2013	0001	390			#	20	
Turbidity	NTU	08/29/2013	N001	55			#		
Uranium	mg/L	08/29/2013	0001	0.0044			#	0.0000029	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013
Location: 1573 SURFACE LOCATION Shonto Well West Pipe

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers Lab	Qualifiers Data	Qualifiers QA	Detection Limit	Uncertainty
Alkalinity, Total (as $CaCO_3$)	mg/L	08/29/2013	N001	166			#		
Arsenic	mg/L	08/29/2013	N001	0.0056			#	0.000015	
Calcium	mg/L	08/29/2013	N001	15			#	0.012	
Chloride	mg/L	08/29/2013	N001	30			#	1	
Iron	mg/L	08/29/2013	N001	0.084	B		#	0.0049	
Magnesium	mg/L	08/29/2013	N001	3.8			#	0.013	
Manganese	mg/L	08/29/2013	N001	0.0012	B		#	0.00011	
Molybdenum	mg/L	08/29/2013	N001	0.0013			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/29/2013	N001	1.1			#	0.01	
Oxidation Reduction Potential	mV	08/29/2013	N001	37			#		
pH	s.u.	08/29/2013	N001	8.29			#		
Potassium	mg/L	08/29/2013	N001	2.3			#	0.11	
Selenium	mg/L	08/29/2013	N001	0.0031			#	0.000032	
Sodium	mg/L	08/29/2013	N001	65			#	0.0066	
Specific Conductance	umhos/cm	08/29/2013	N001	493			#		
Sulfate	mg/L	08/29/2013	N001	34			#	0.5	
Temperature	C	08/29/2013	N001	23.62			#		
Total Dissolved Solids	mg/L	08/29/2013	N001	280			#	20	
Turbidity	NTU	08/29/2013	N001	1.43			#		
Uranium	mg/L	08/29/2013	N001	0.0023			#	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: 13085553
Report Date: 11/16/2013

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	08/29/2013	N001	mg/L	0.1	U		0.1		E
Arsenic	TUB01	0999	08/29/2013	N001	mg/L	0.000026	B	J	0.000015		E
Calcium	TUB01	0999	08/29/2013	N001	mg/L	0.32	B	U	0.012		E
Chloride	TUB01	0999	08/29/2013	N001	mg/L	0.2	U		0.2		E
Iron	TUB01	0999	08/29/2013	N001	mg/L	0.0071	B	U	0.0049		E
Magnesium	TUB01	0999	08/29/2013	N001	mg/L	0.048	B	U	0.013		E
Manganese	TUB01	0999	08/29/2013	N001	mg/L	0.0027	B	U	0.00011		E
Molybdenum	TUB01	0999	08/29/2013	N001	mg/L	0.000032	U		0.000032		E
Nitrate + Nitrite as Nitrogen	TUB01	0999	08/29/2013	N001	mg/L	0.01	U		0.01		E
Potassium	TUB01	0999	08/29/2013	N001	mg/L	0.11	U		0.11		E
Selenium	TUB01	0999	08/29/2013	N001	mg/L	0.000046	B	J	0.000032		E
Silica	TUB01	0999	08/29/2013	N001	mg/L	0.064	B		0.0095		E
Silicon	TUB01	0999	08/29/2013	N001	mg/L	0.03	B		0.0044		E
Sodium	TUB01	0999	08/29/2013	N001	mg/L	0.1	B	U	0.0066		E
Sulfate	TUB01	0999	08/29/2013	N001	mg/L	0.5	U		0.5		E
Total Dissolved Solids	TUB01	0999	08/29/2013	N001	mg/L	20	U		20		E
Uranium	TUB01	0999	08/29/2013	N001	mg/L	0.000005	B		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: 11/16/2013

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	08/26/2013	18:30:50	99.92	4961.33	
0252		5061.3	08/26/2013	18:10:42	74.46	4986.84	
0258		5055.56	08/26/2013	19:20:35	97.86	4957.7	
0261		5069.69	08/26/2013	17:15:13	128.85	4940.84	
0262		5061.99	08/26/2013	18:50:45	51.12	5010.87	
0263		5063.1	08/27/2013	15:50:37	54.62	5008.48	
0264		5062.19	08/27/2013	16:30:02	93.2	4968.99	
0265		5053.88	08/28/2013	17:20:54	81.12	4972.76	
0266		5053.32	08/29/2013	17:15:39	105.3	4948.02	
0267		5053.4	08/28/2013	16:55:04	61.65	4991.75	
0268		5067.24	08/28/2013	09:30:23	106.51	4960.73	
0271		5046.72	08/29/2013	17:45:29	55.16	4991.56	
0272		5064.24	08/28/2013	10:35:02	103.35	4960.89	
0273		5064.74	08/28/2013	10:05:18	109.8	4954.94	
0274		5064.42	08/27/2013	11:25:16	100.7	4963.72	
0275		5062.64	08/28/2013	08:55:37	80.45	4982.19	
0276		5067.55	08/28/2013	08:20:23	101.05	4966.5	
0277		4982.35	08/28/2013	14:55:22	39.83	4942.52	
0278		4956.09	08/28/2013	10:50:07	24.59	4931.5	
0279		4951.04	08/28/2013	10:15:58	25.52	4925.52	
0280		4951.52	08/27/2013	17:25:10	27.54	4923.98	
0281		5051	08/28/2013	17:15:52	71.19	4979.81	
0282		5060.04	08/28/2013	16:25:08	84.49	4975.55	
0283		5057.97	08/28/2013	16:04:00			D
0284		5098.72	08/28/2013	09:30:00	29.39	5069.33	
0285		5096.47	08/27/2013	09:30:00			D
0286		5063.99	08/28/2013	12:25:26	78.4	4985.59	
0287		5065.65	08/27/2013	14:15:52	62.97	5002.68	

STATIC WATER LEVELS (USEE700) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013

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
0288		5072.54	08/28/2013	11:30:58	57.92	5014.62	
0289		5070.82	08/28/2013	11:10:36	59.08	5011.74	
0290		5068.91	08/27/2013	13:30:05	94.34	4974.57	
0683		5070.64	08/27/2013	13:50:38	98.72	4971.92	
0684		5070.05	08/27/2013	12:10:21	77.28	4992.77	
0685		5072.44	08/27/2013	17:00:43	52.1	5020.34	
0686		5107.97	08/27/2013	10:15:57	68.91	5039.06	
0687		5109.82	08/27/2013	09:40:56	54.06	5055.76	
0688		5106.98	08/27/2013	09:15:39	65.03	5041.95	
0689		4981.63	08/28/2013	13:55:20	40.63	4941	
0690		4950.87	08/28/2013	09:55:16	25.77	4925.1	
0691		4979.41	08/27/2013	14:50:51	42.38	4937.03	
0692		4953.31	08/27/2013	17:10:25	27.07	4926.24	
0695		4976.83	08/27/2013	14:20:27	50.49	4926.34	
0901	U	5105.46	08/29/2013	17:30:57	47.75	5057.71	
0902	N	4737.42	08/29/2013	09:15:00	30.27	4707.15	
0903	D	4983.33	08/28/2013	15:25:16	33.05	4950.28	
0904	N	4904.11	08/29/2013	14:20:03	23.2	4880.91	
0906	O	5062.1	08/28/2013	12:55:56	51.3	5010.8	
0908	D	5058.14	08/27/2013	17:15:07	58.85	4999.29	
0909	D	5057.17	08/28/2013	15:42:00			D
0910	U	5106.7	08/29/2013	18:05:00	51.31	5055.39	
0911	U	5106.96	08/28/2013	18:05:56	47.56	5059.4	
0912	D	5059.97	08/28/2013	13:30:07	65.48	4994.49	
0913	D	5060.16	08/28/2013	14:05:42	69.22	4990.94	
0914	D	5070.1	08/26/2013	15:45:39	112.55	4957.55	
0915	D	5070.84	08/26/2013	16:40:37	109.75	4961.09	
0916	D	5070	08/26/2013	16:15:08	121.19	4948.81	

STATIC WATER LEVELS (USEE700) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013

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
0917	D	5048.02	08/28/2013	11:45:00	69.69	4978.33	
0918	D	5049.63	08/28/2013	11:50:00			D
0919	D	5048.56	08/28/2013	11:40:00	146.42	4902.14	
0920	D	4982.97	08/28/2013	14:40:03	40.63	4942.34	
0921	D	4979.08	08/28/2013	16:10:09	41.39	4937.69	
0929	D	5060.82	08/28/2013	11:15:39	61.26	4999.56	
0930	D	4954.96	08/28/2013	10:35:43	21.04	4933.92	
0932	D	5057.32	08/28/2013	15:35:32	106.5	4950.82	
0934	D	5059.73	08/28/2013	10:35:02	78.28	4981.45	
0940	D	5064.77	08/29/2013	15:00:01	65.04	4999.73	
0941	D	5065.97	08/27/2013	14:30:41	60.42	5005.55	
0943	U	5098.05	08/28/2013	18:15:27	54.94	5043.11	
0945	U	5140.49	08/27/2013	11:20:54	92.49	5048	
0946	C	5100.5	08/28/2013	09:05:16	51.44	5049.06	
0947	U	5097.01	08/27/2013	11:45:31	69.22	5027.79	
0948	U	5117.8	08/27/2013	11:30:00	104.09	5013.71	
1003		4976.58	08/27/2013	15:15:40	39.76	4936.82	
1004		4961.55	08/27/2013	16:45:37	25.16	4936.39	
1005		4947.83	08/28/2013	09:50:00	22.14	4925.69	
1006		4947.08	08/28/2013	16:40:07	18.13	4928.95	
1007		4958.56	08/28/2013	13:30:21	23.3	4935.26	
1008		4980.52	08/28/2013	14:00:00	38.92	4941.6	
1118		5055.11	08/29/2013	09:50:21	85.41	4969.7	
1126			08/28/2013	18:25:13	63.05		
1127			08/29/2013	09:05:55	94.25		
1131			08/29/2013	16:35:00			B
NMW-1A		5150.95	08/29/2013	09:25:12	114.82	5036.13	
NMW-2A		5121.69	08/28/2013	16:00:14	70.2	5051.49	

STATIC WATER LEVELS (USEE700) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/16/2013

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
NMW-3A		5168.51	08/28/2013	14:35:26	113.15	5055.36	
NMW-4A		5137.44	08/28/2013	15:10:41	80.38	5057.06	
NMW-5		4985.85	08/28/2013	13:30:34	16.78	4969.07	
NMW-6S		5145.93	08/29/2013	10:05:15	108.17	5037.76	
NMW-7D		5147.13	08/29/2013	10:50:30	118.16	5028.97	
NMW-8S		5114.87	08/29/2013	16:35:29	88.8	5026.07	
NMW-9D		5115.92	08/29/2013	16:05:27	90.46	5025.46	

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 B Below top of pump

Time-Concentration Graphs

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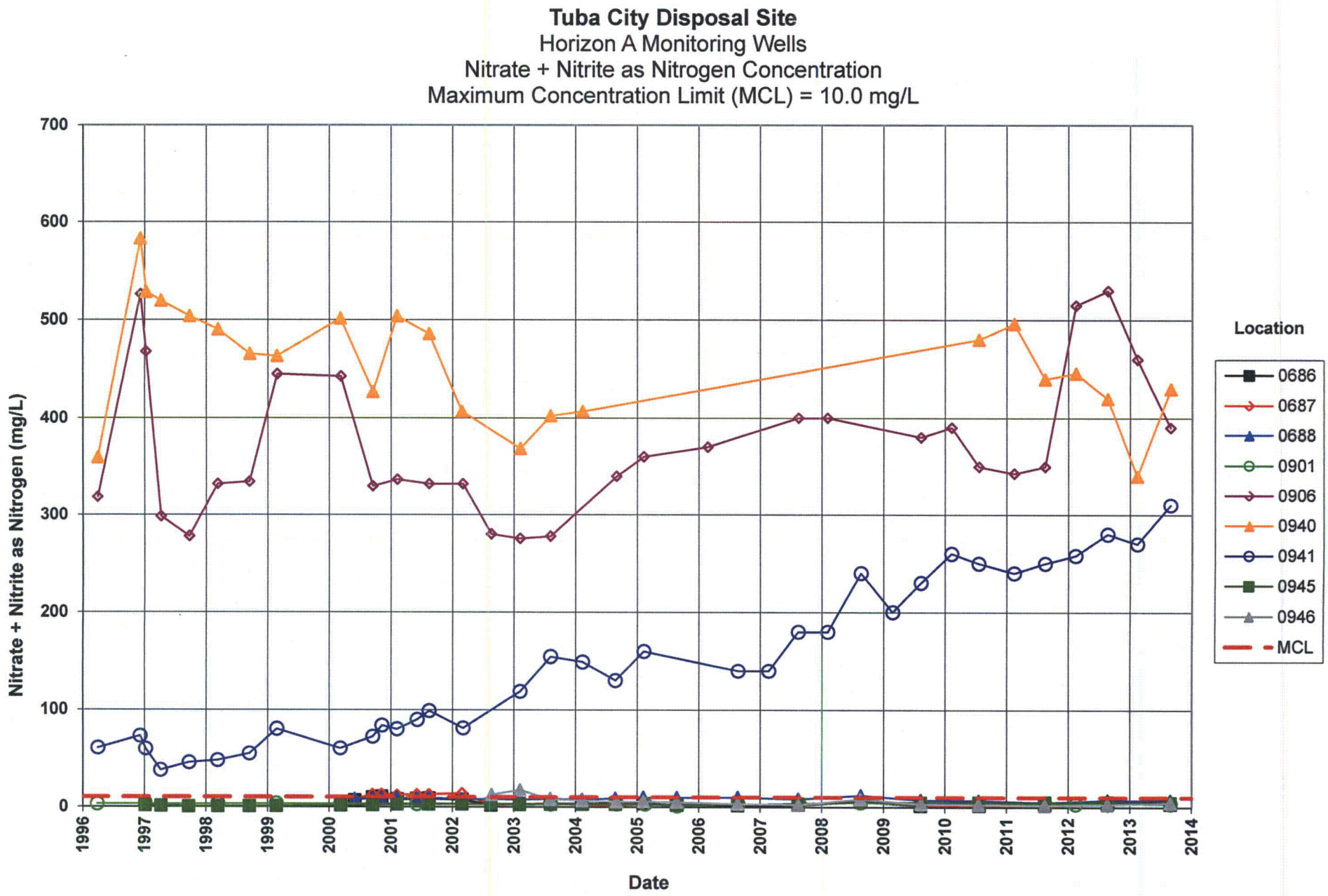
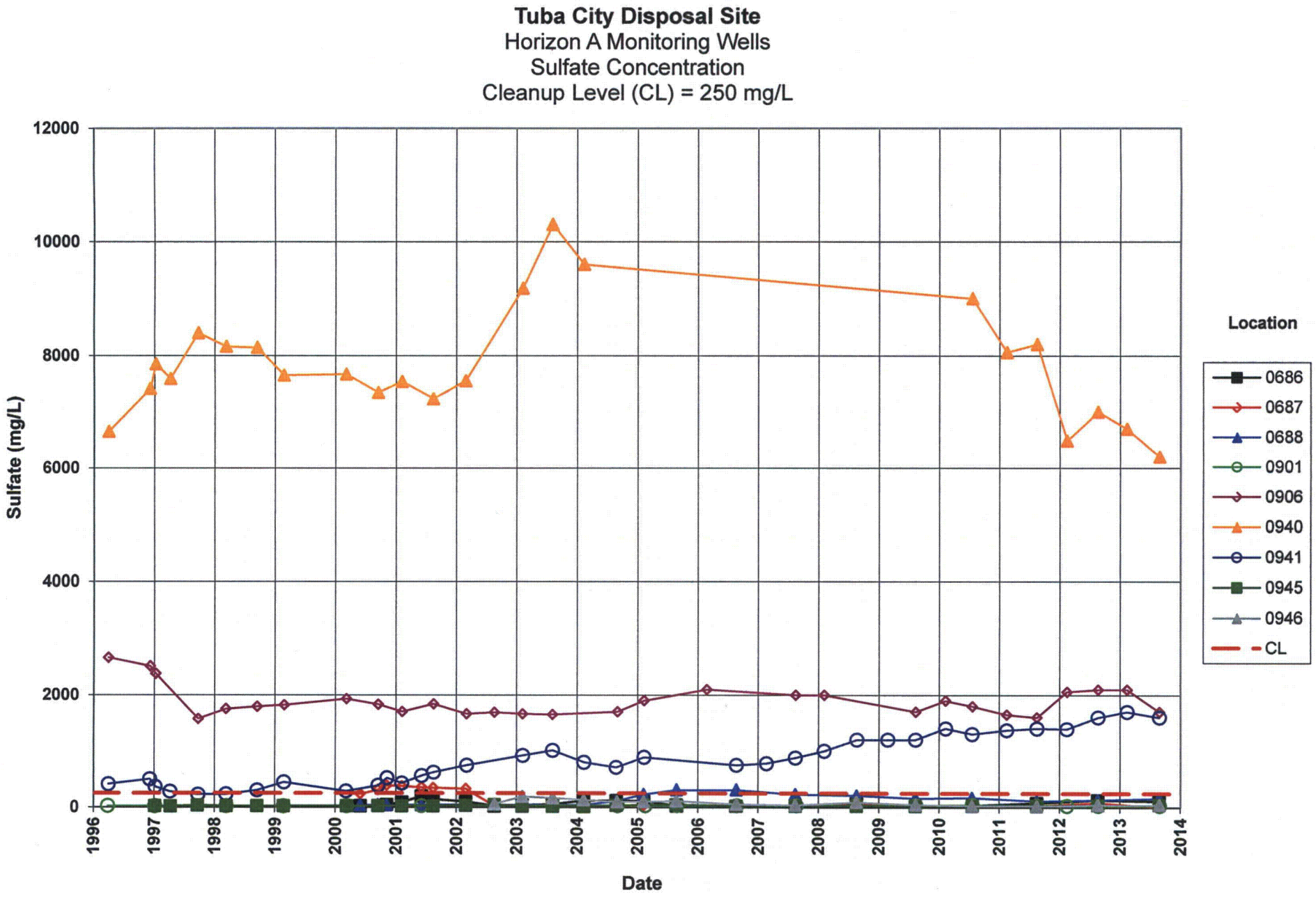
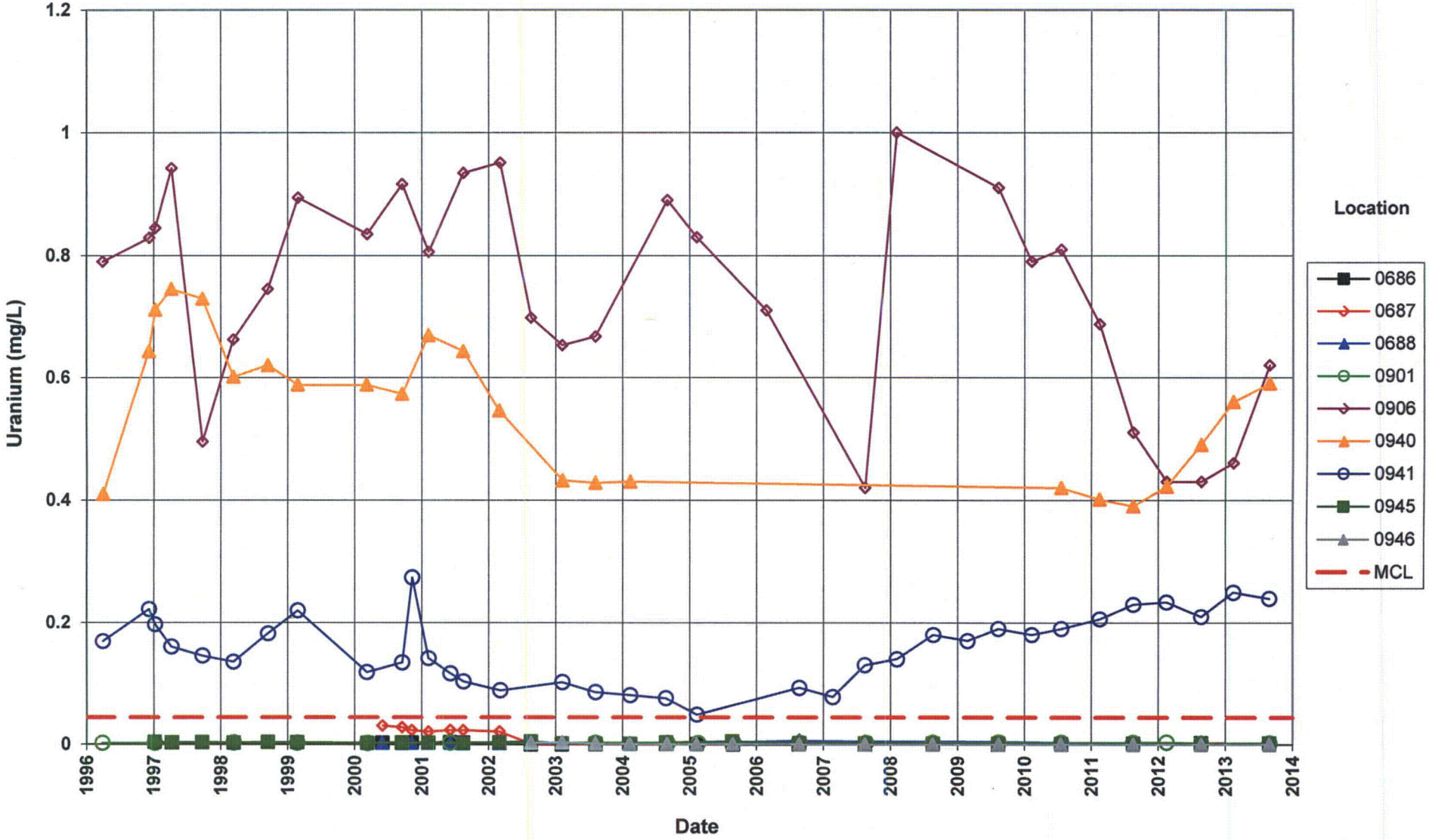
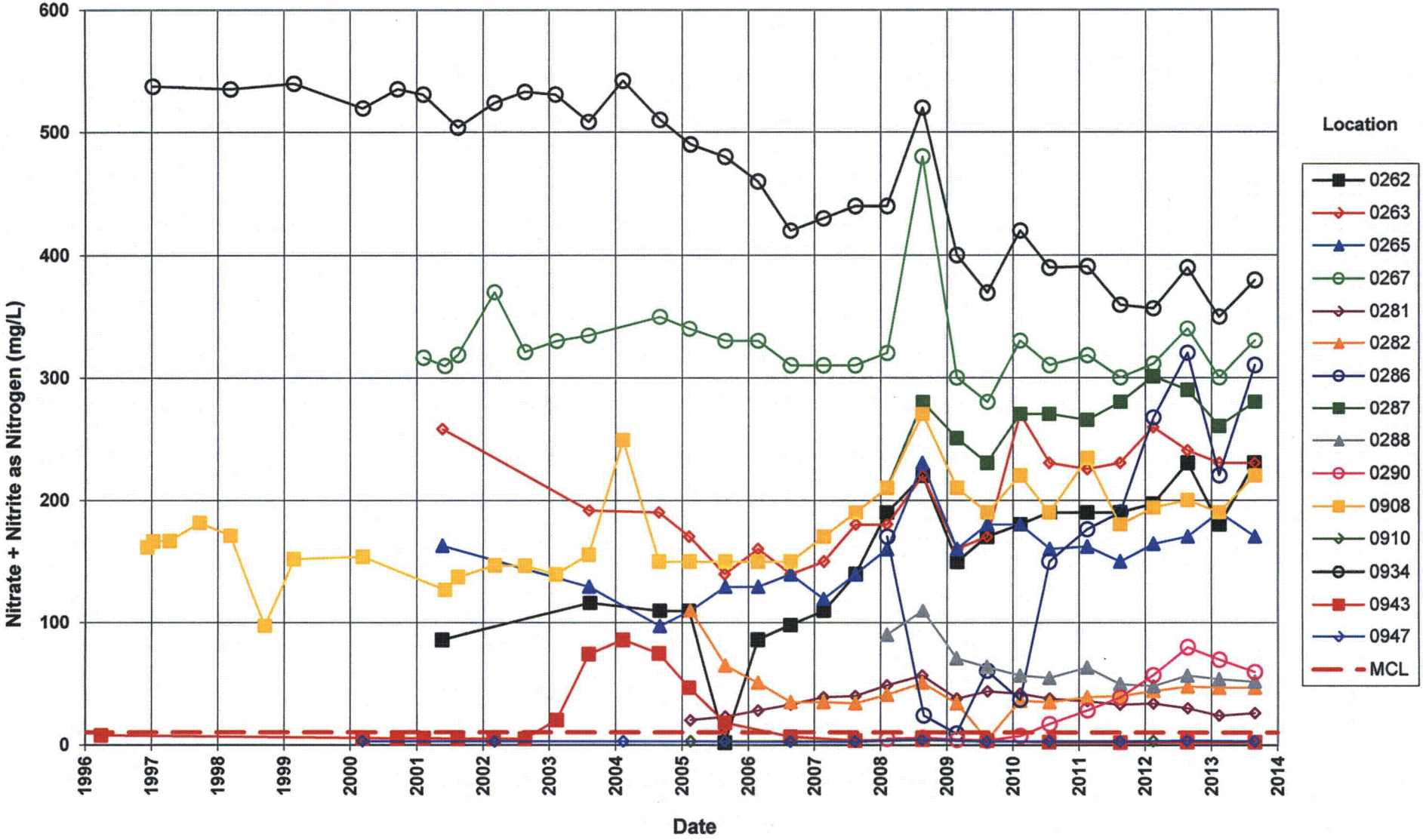

Tuba City Disposal Site
Horizon A Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
700
600
500
400
300
200
100
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
0686
0687
0688
0901
0906
0940
0941
0945
0946
MCL

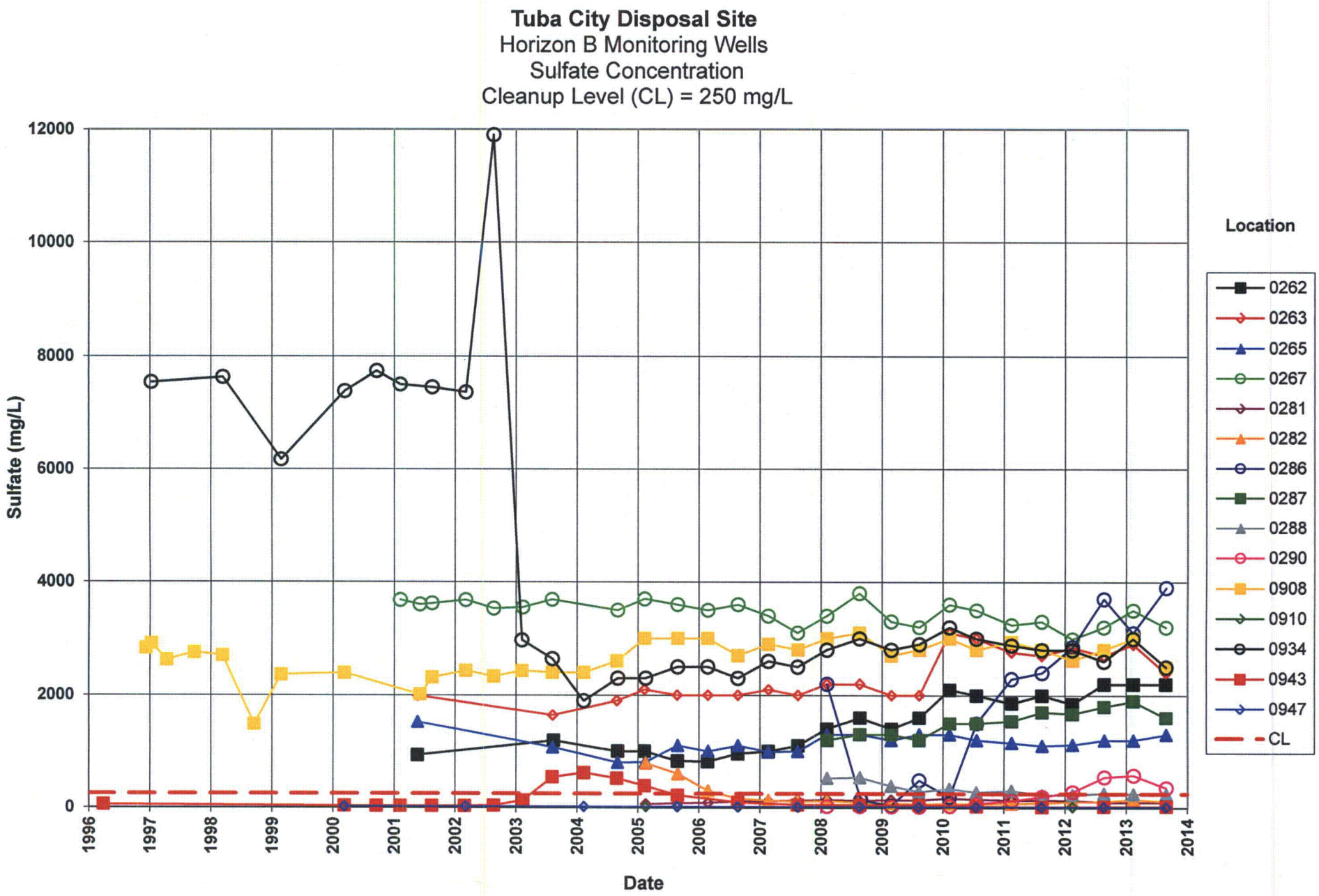

Tuba City Disposal Site
Horizon A Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
12000
10000
8000
6000
4000
2000
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
0686
0687
0688
0901
0906
0940
0941
0945
0946
CL

Tuba City Disposal Site
Horizon A Monitoring Wells
Uranium Concentration
Maximum Concentration Limit (MCL) = 0.044 mg/L

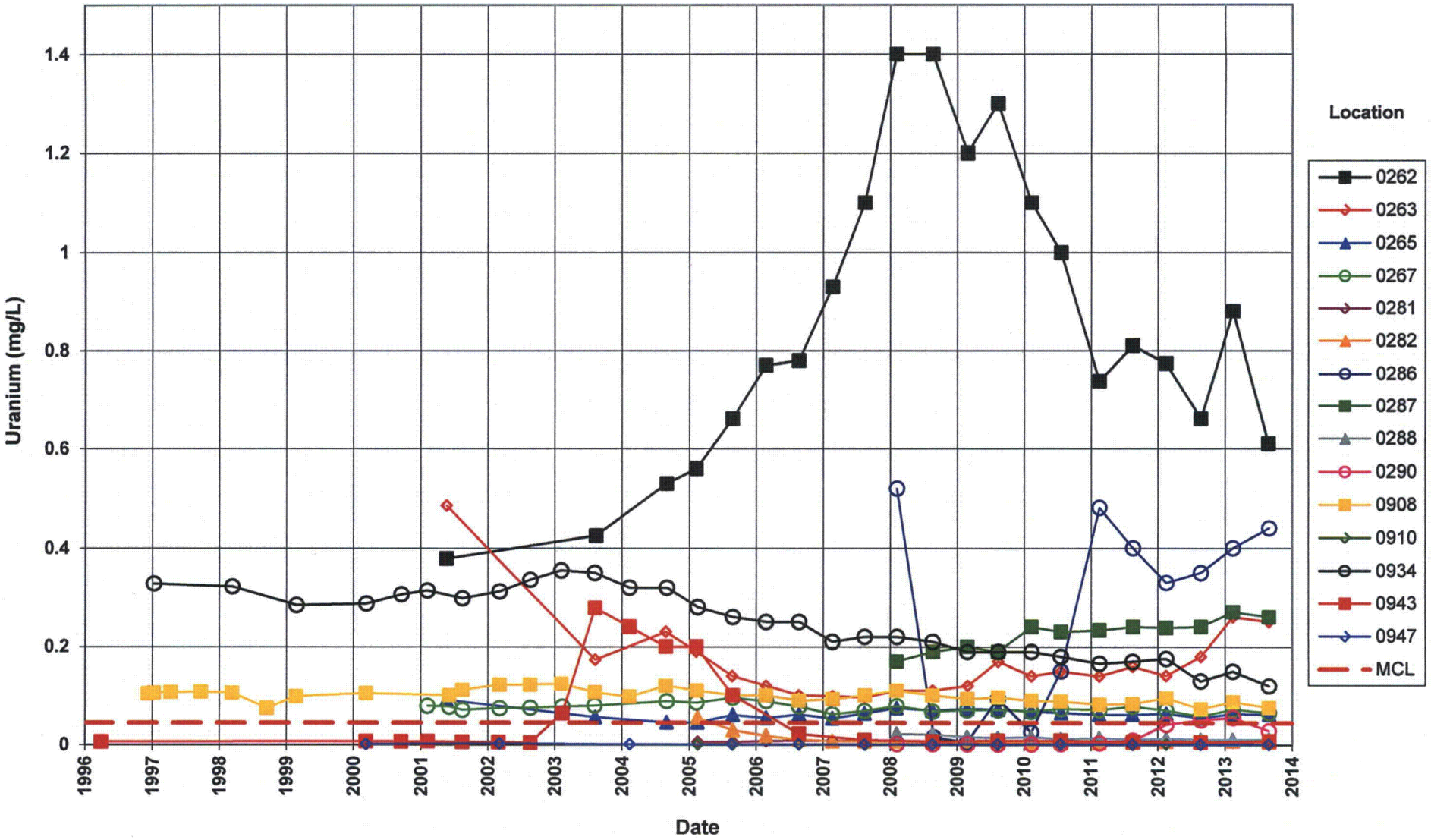


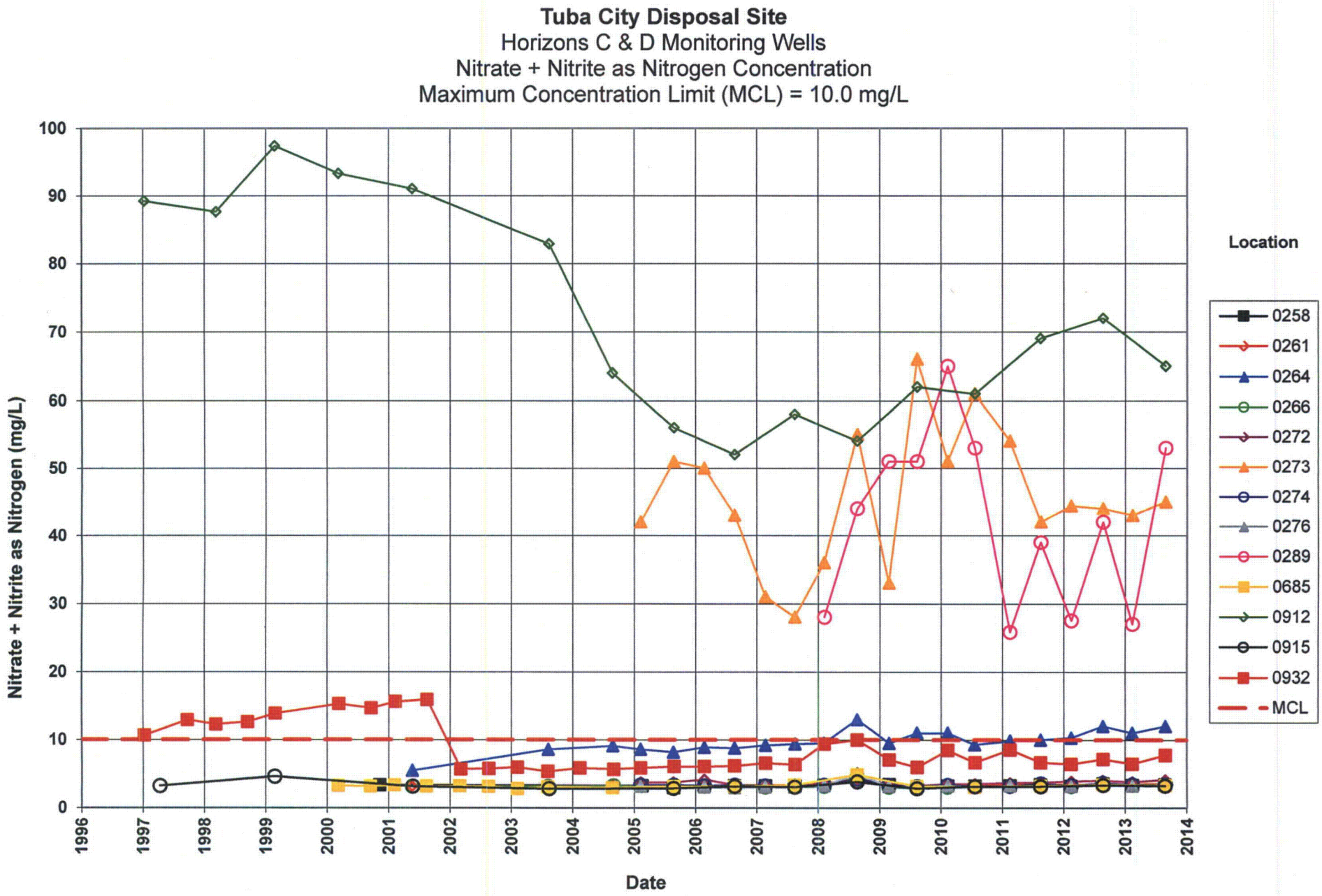
Tuba City Disposal Site
Horizon B Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L



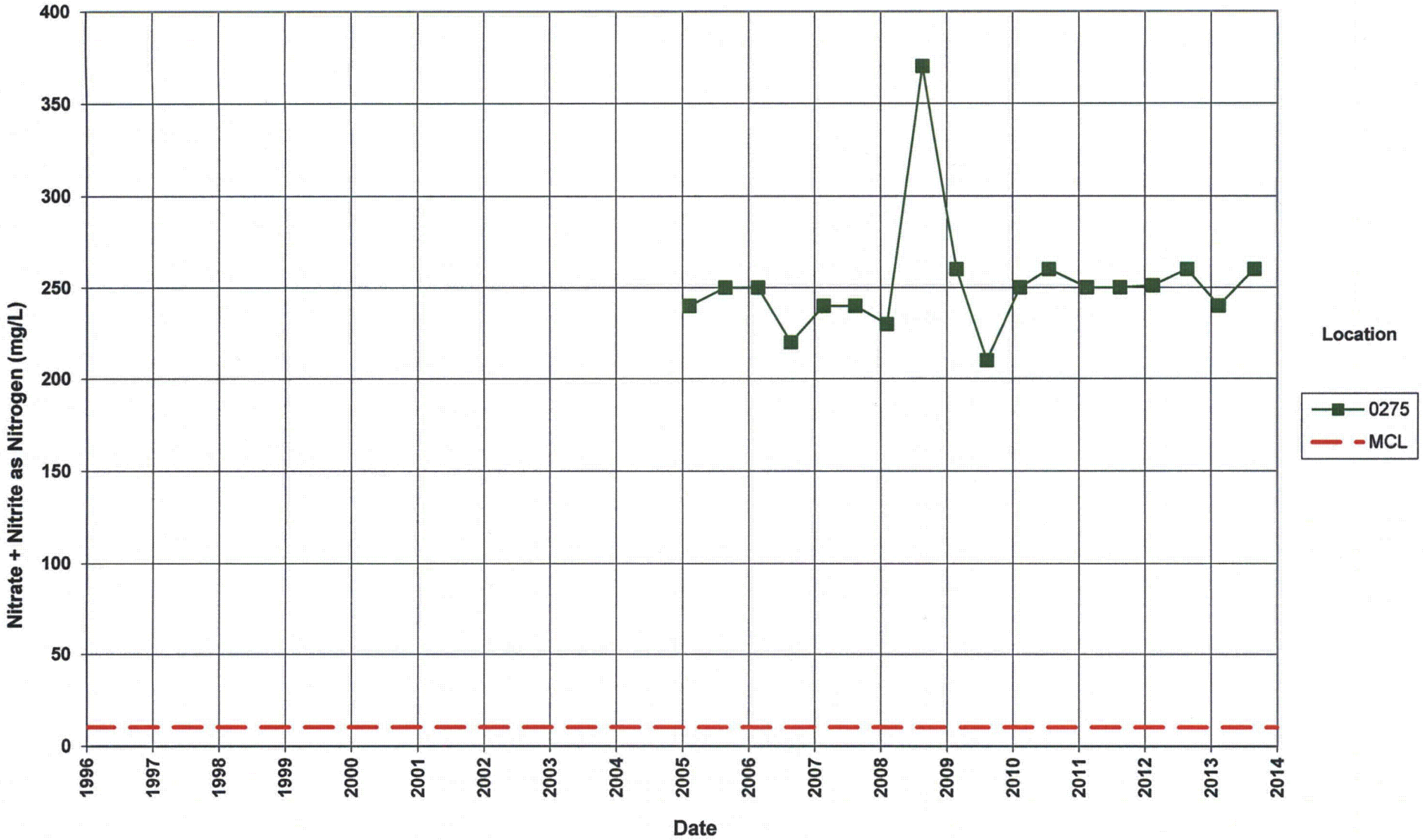

Tuba City Disposal Site
Horizon B Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
12000
10000
8000
6000
4000
2000
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
0262
0263
0265
0267
0281
0282
0286
0287
0288
0290
0908
0910
0934
0943
0947
CL

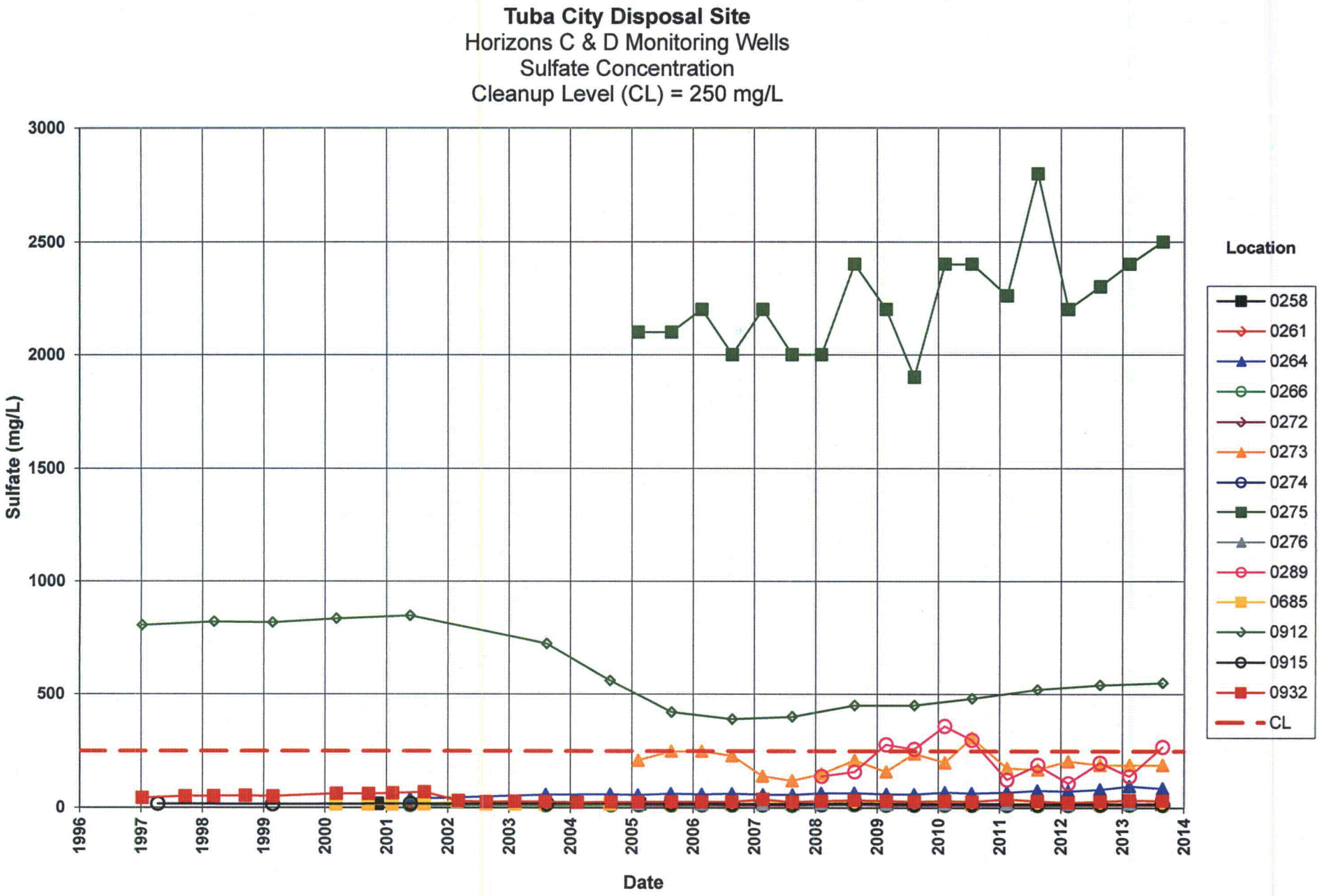
Tuba City Disposal Site
Horizon B Monitoring Wells
Uranium Concentration
Maximum Concentration Limit (MCL) = 0.044 mg/L



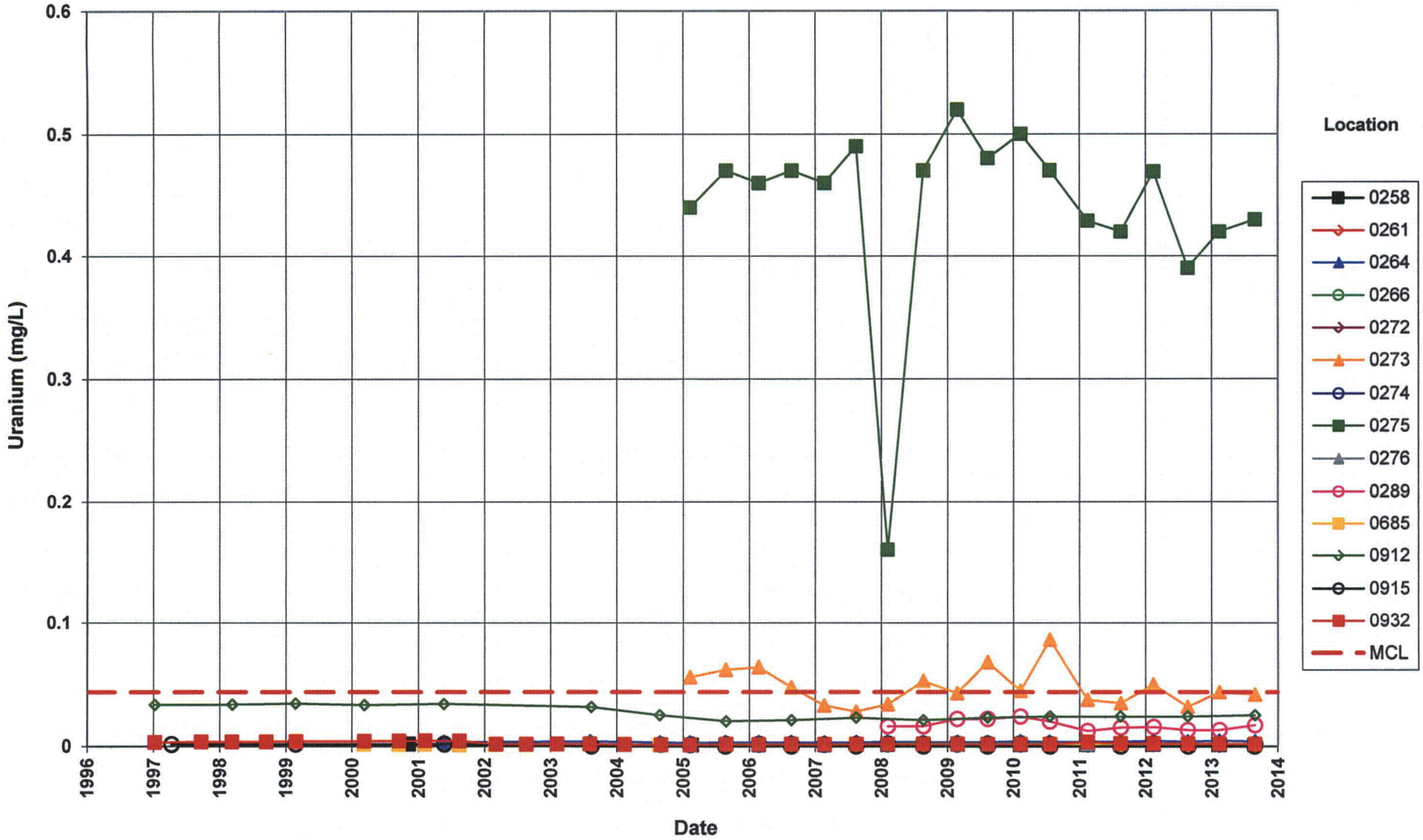

Tuba City Disposal Site
Horizons C & D Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
100
90
80
70
60
50
40
30
20
10
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
0258
0261
0264
0266
0272
0273
0274
0276
0289
0685
0912
0915
0932
MCL

Tuba City Disposal Site
Horizons C & D Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L

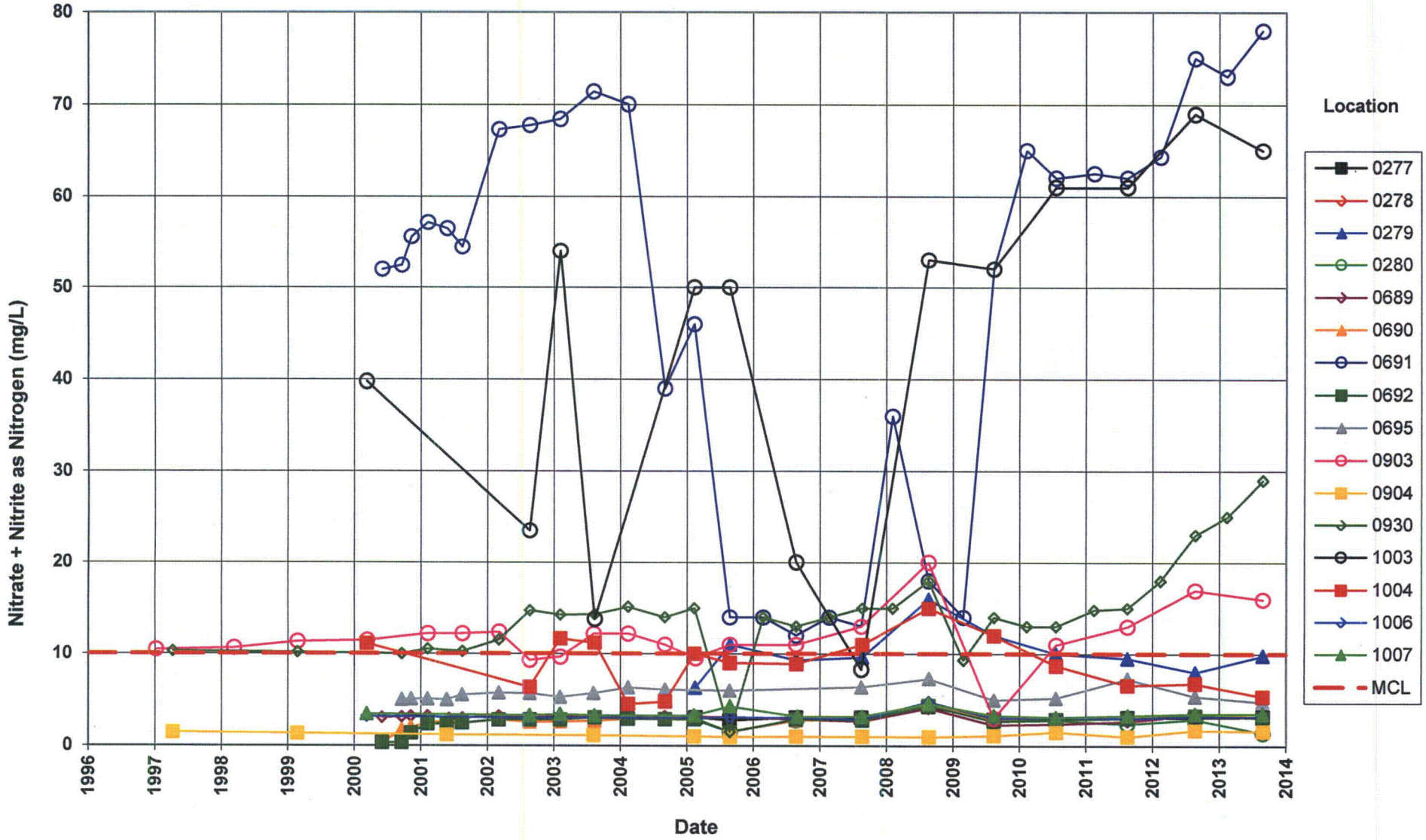


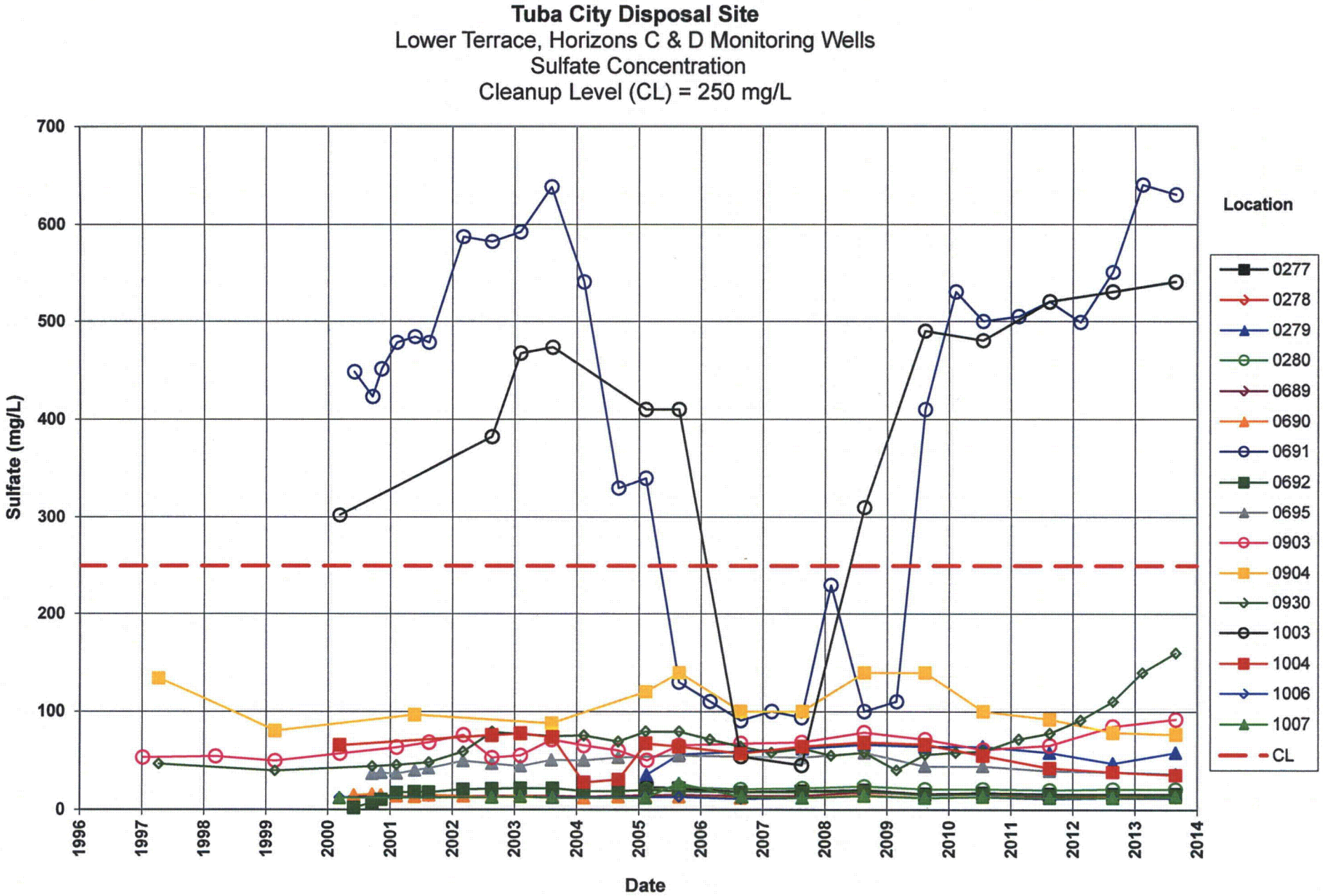

Tuba City Disposal Site
Horizons C & D Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
3000
2500
2000
1500
1000
500
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
0258
0261
0264
0266
0272
0273
0274
0275
0276
0289
0685
0912
0915
0932
CL

Tuba City Disposal Site
Horizons C & D Monitoring Wells
Uranium Concentration
Maximum Concentration Limit (MCL) = 0.044 mg/L

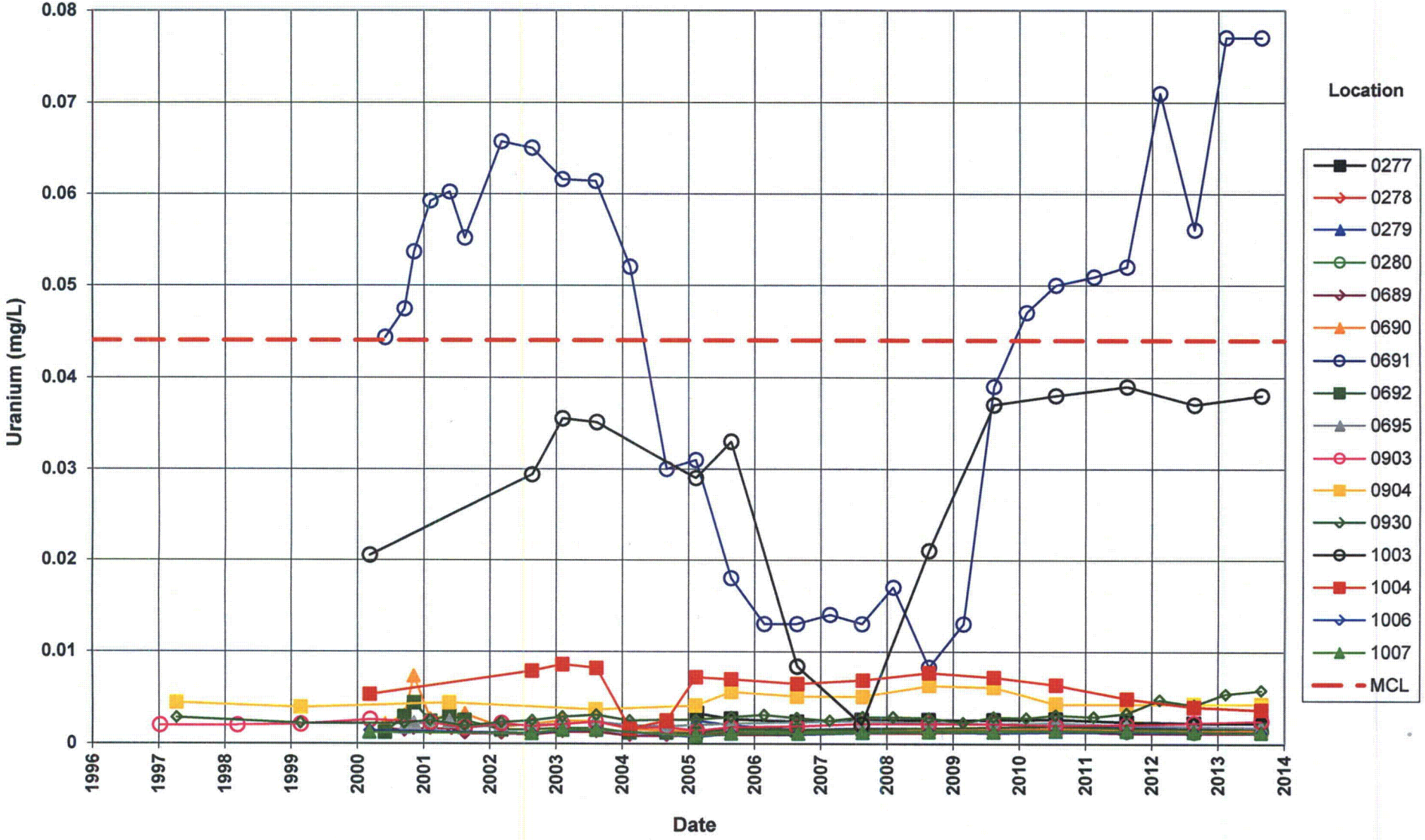


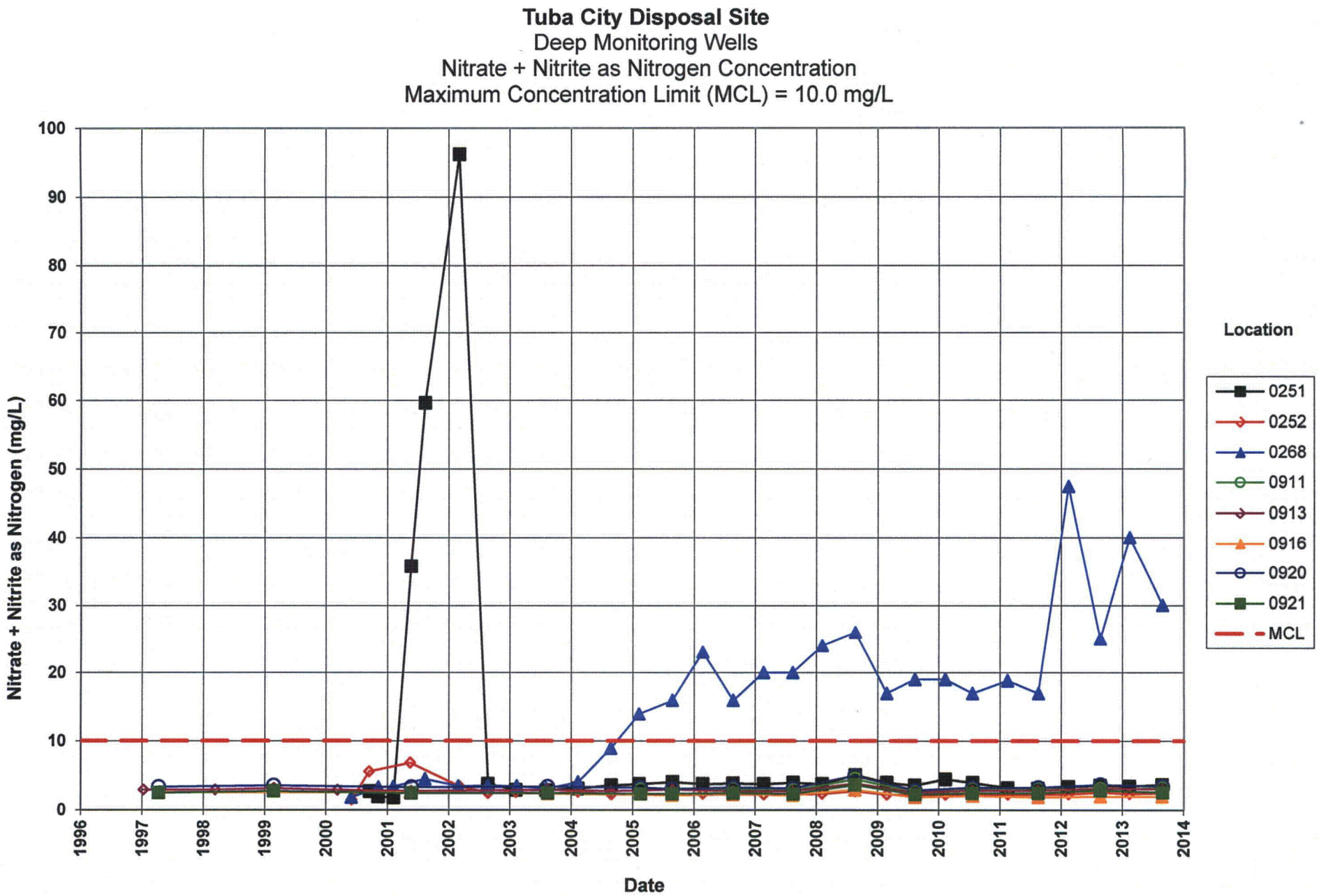
Tuba City Disposal Site
Lower Terrace, Horizons C & D Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L

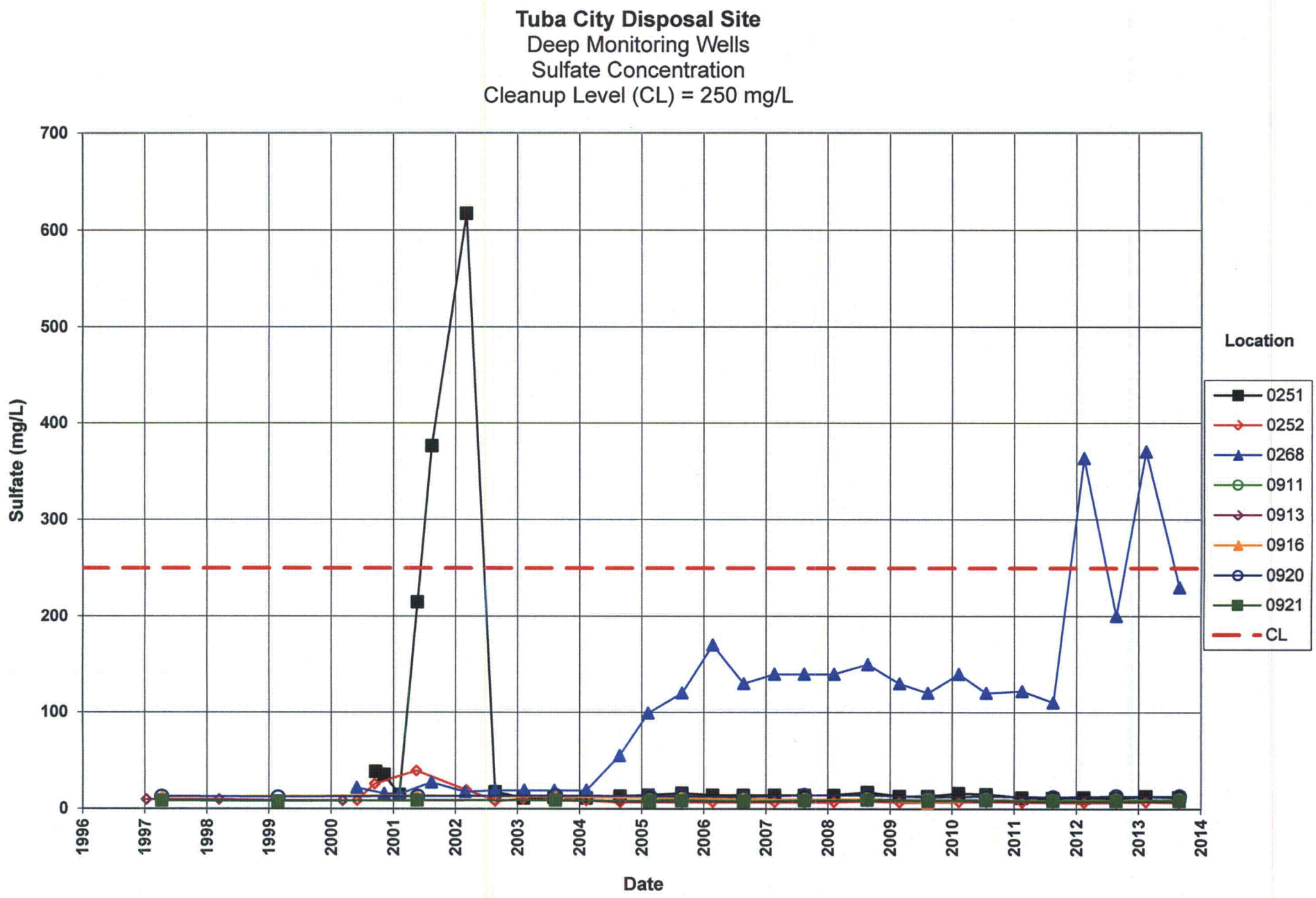



Tuba City Disposal Site
Lower Terrace, Horizons C & D Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
700
600
500
400
300
200
100
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
0277
0278
0279
0280
0689
0690
0691
0692
0695
0903
0904
0930
1003
1004
1006
1007
CL

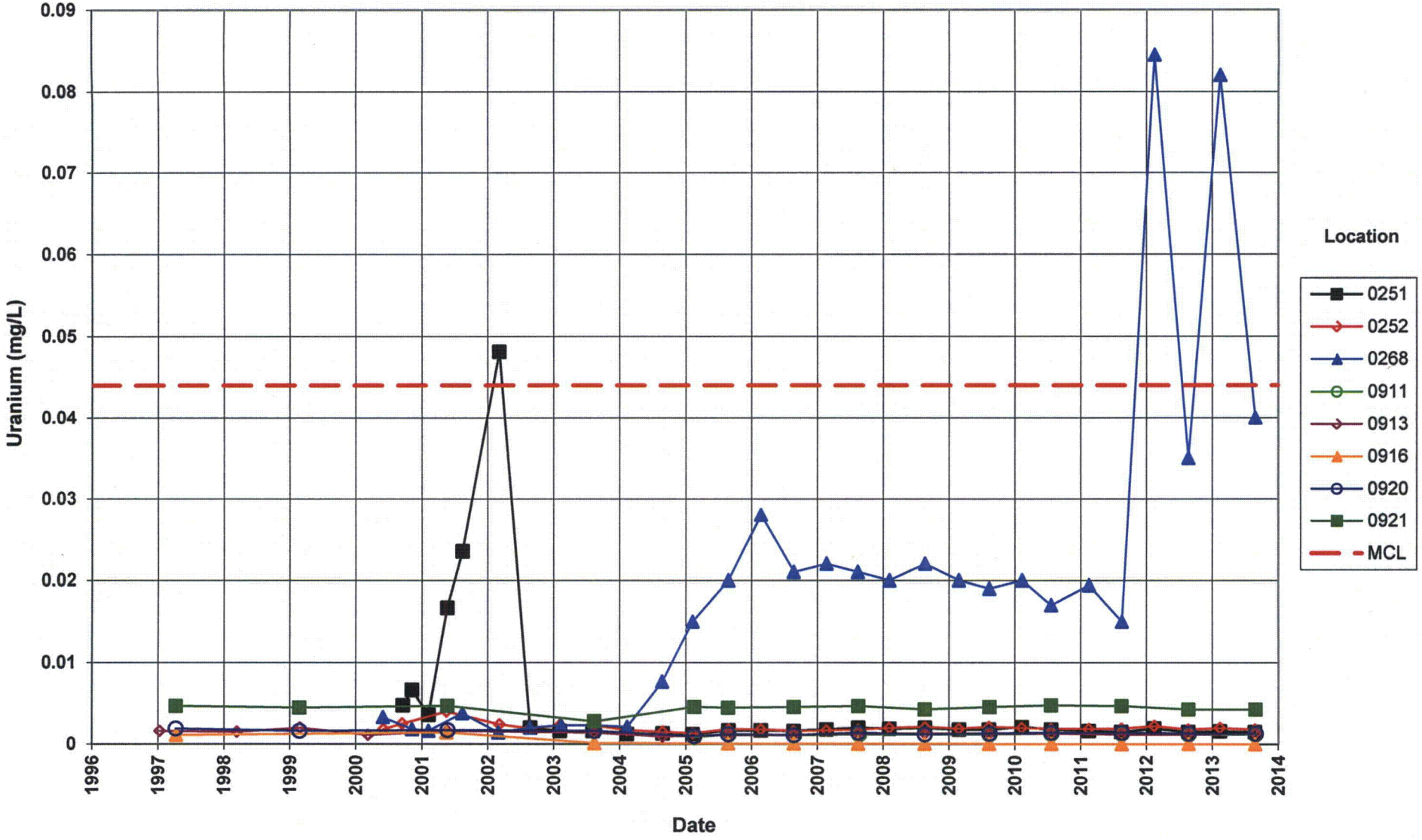
Tuba City Disposal Site
Lower Terrace, Horizons C & D Monitoring Wells
Uranium Concentration
Maximum Concentration Limit (MCL) = 0.044 mg/L

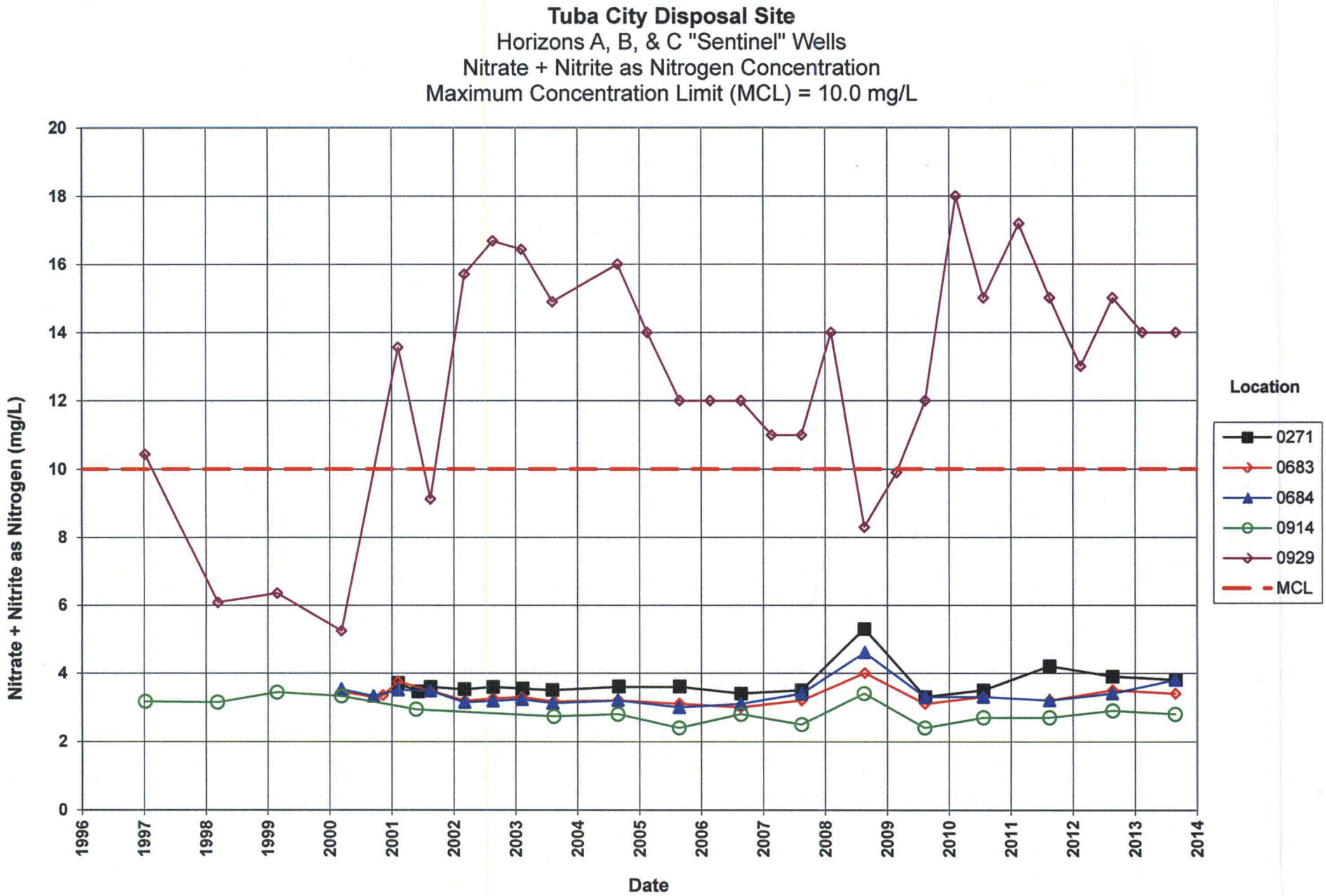



Tuba City Disposal Site
Deep Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
100
90
80
70
60
50
40
30
20
10
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
0251
0252
0268
0911
0913
0916
0920
0921
MCL

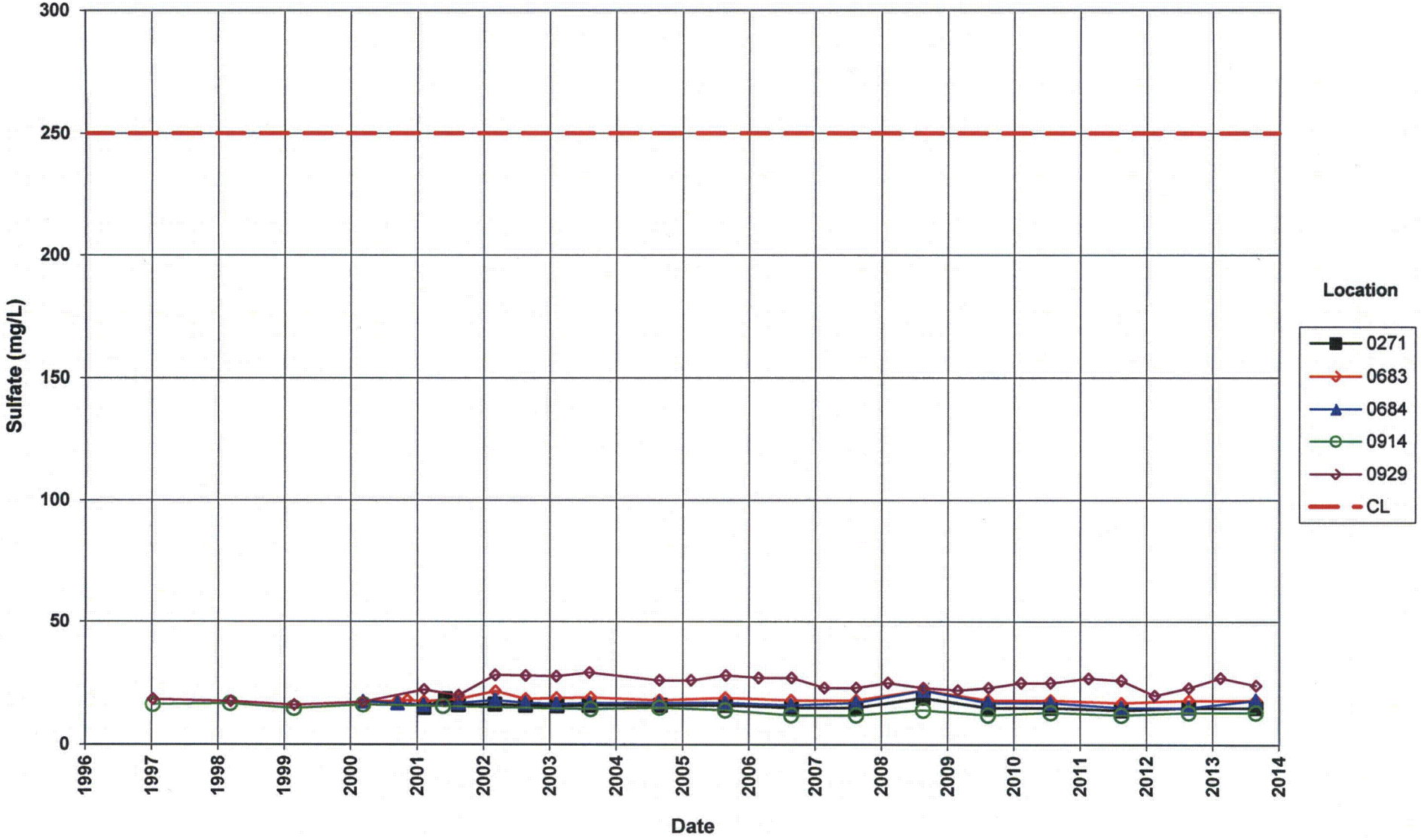

Tuba City Disposal Site
Deep Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
700
600
500
400
300
200
100
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
0251
0252
0268
0911
0913
0916
0920
0921
CL

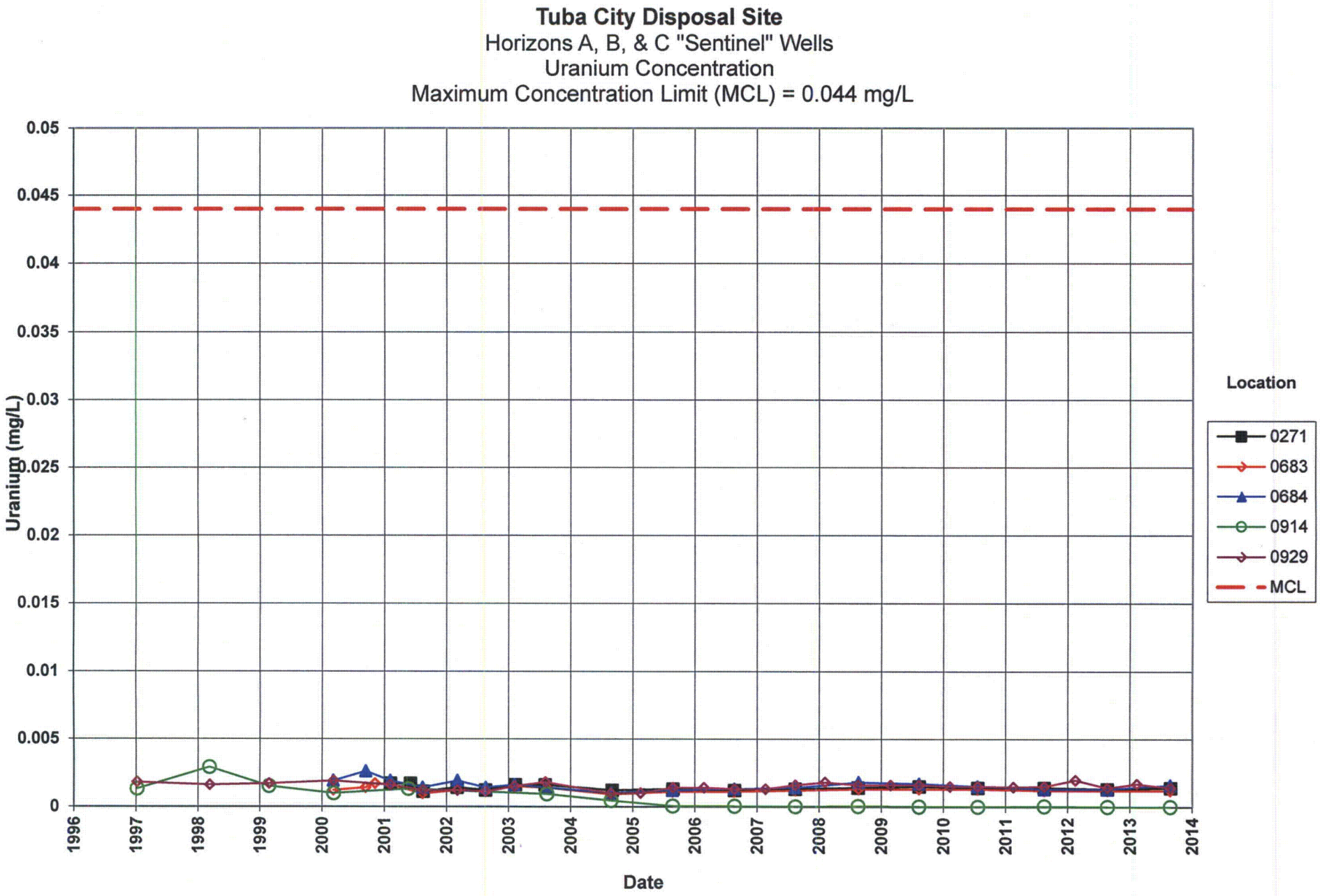
Tuba City Disposal Site
Deep Monitoring Wells
Uranium Concentration
Maximum Concentration Limit (MCL) = 0.044 mg/L



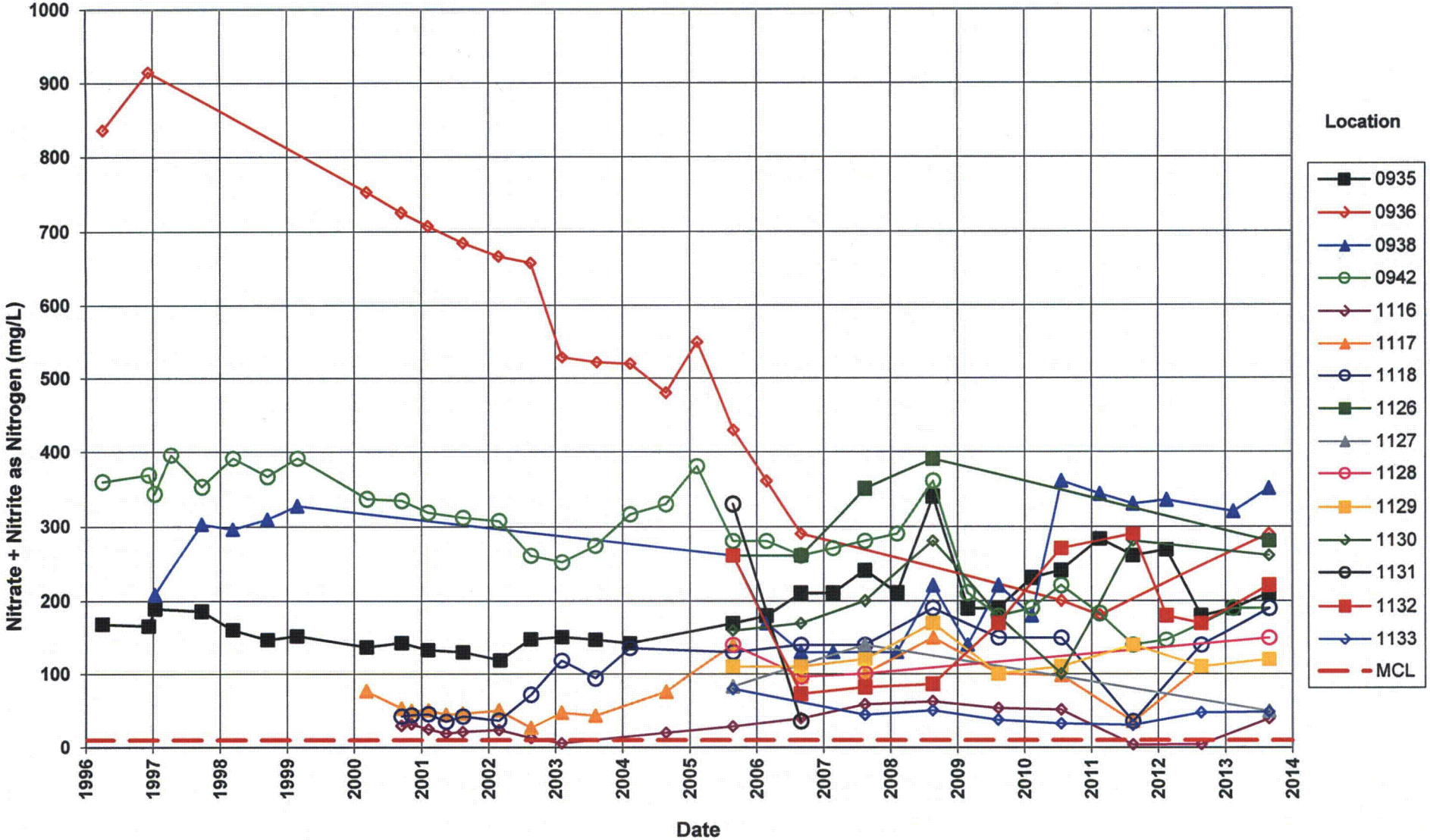

Tuba City Disposal Site
Horizons A, B, & C "Sentinel" Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
0
2
4
6
8
10
12
14
16
18
20
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
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

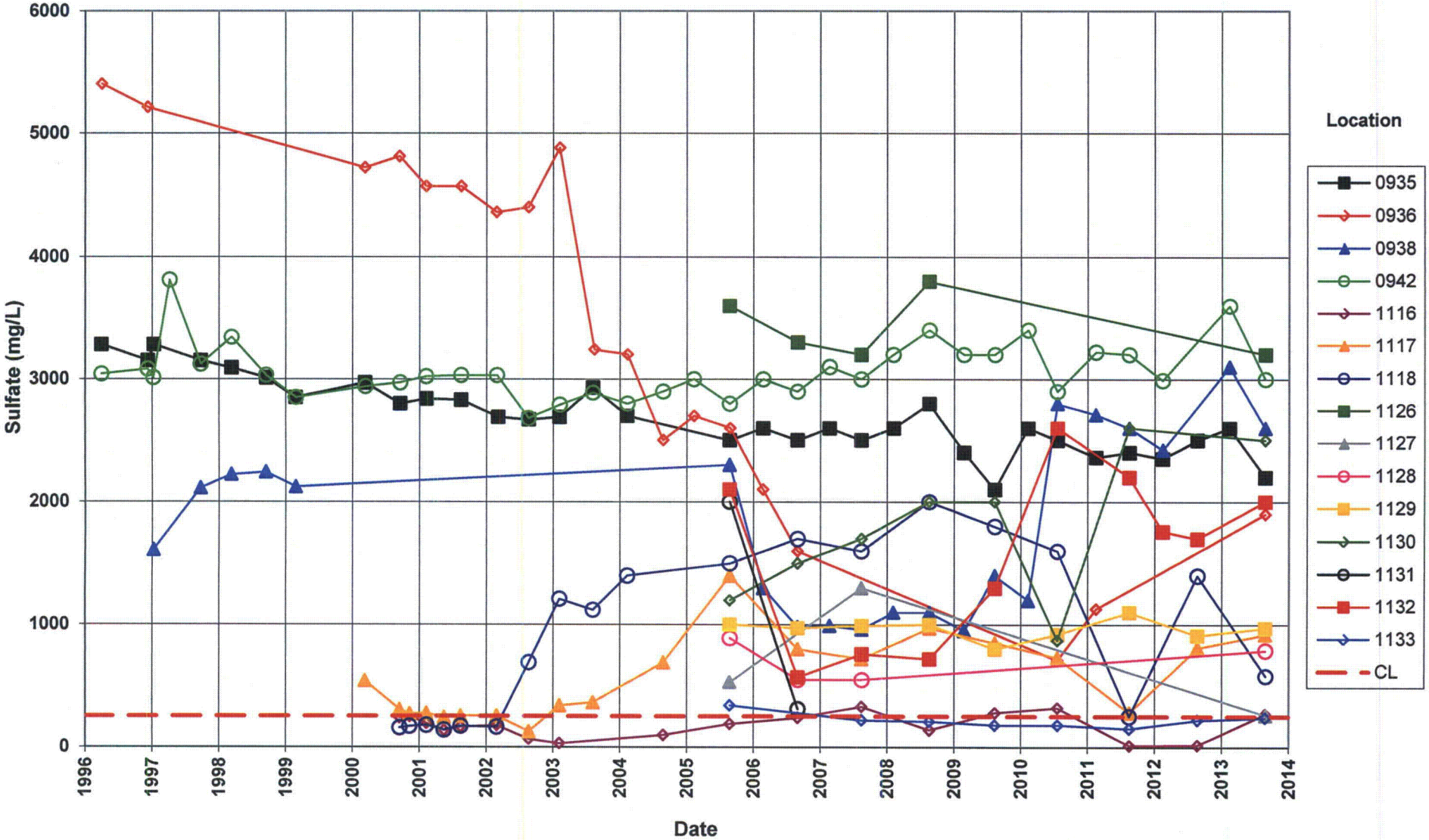



Tuba City Disposal Site
Horizons A, B, & C "Sentinel" Wells
Uranium Concentration
Maximum Concentration Limit (MCL) = 0.044 mg/L
Uranium (mg/L)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
0271
0683
0684
0914
0929
MCL

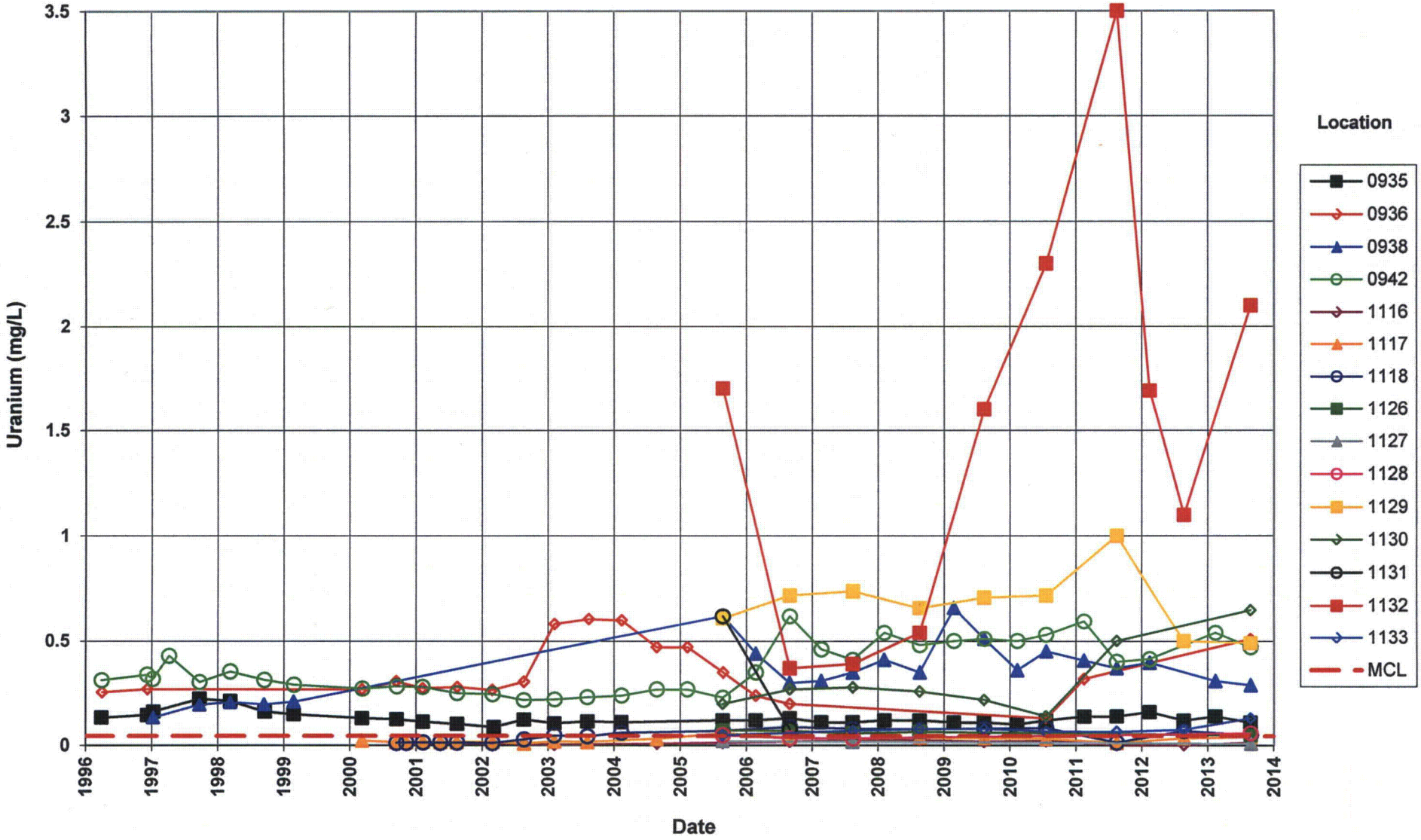
Tuba City Disposal Site
Horizons B & C Extraction Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L



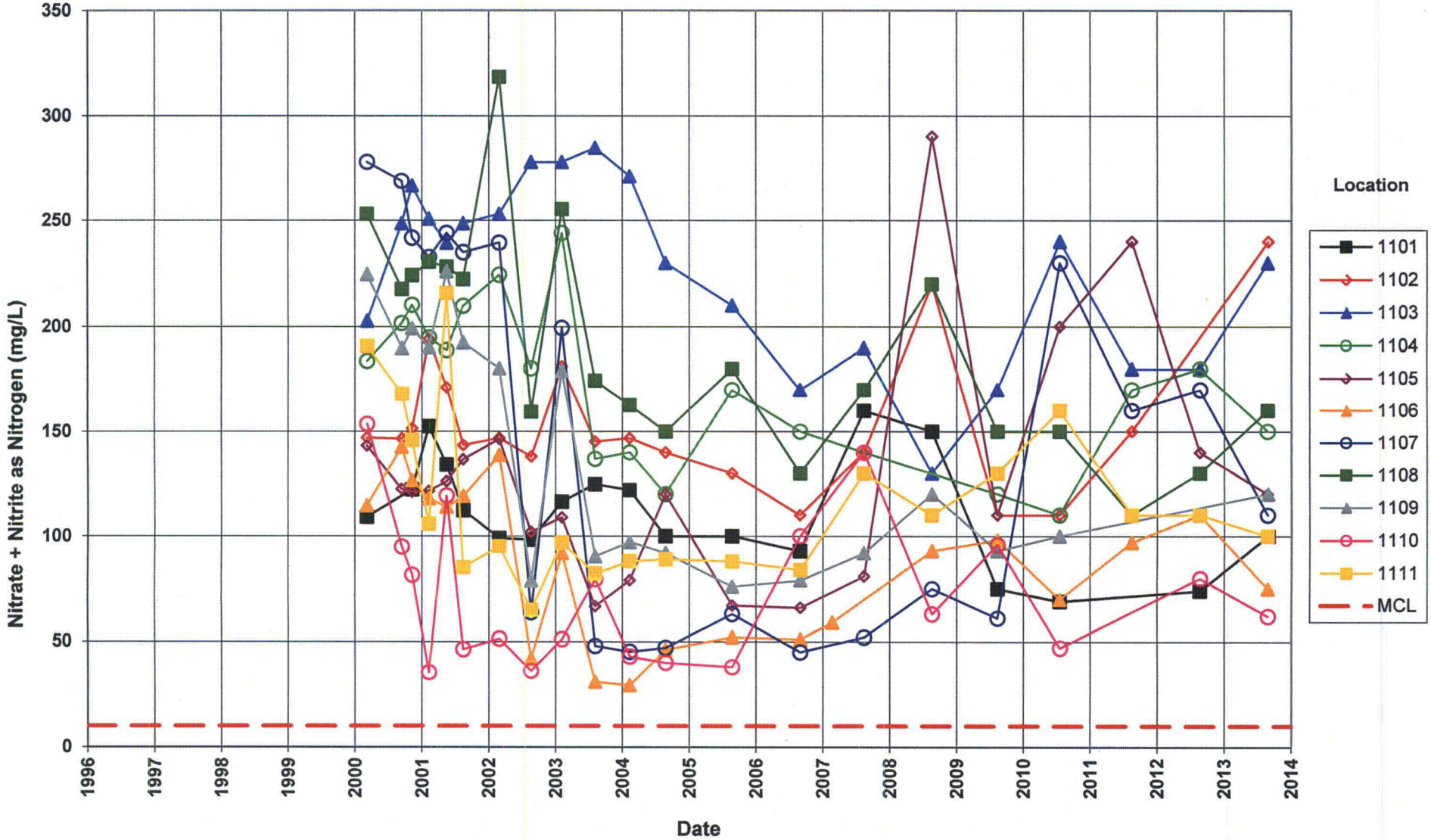
Tuba City Disposal Site
Horizons B & C Extraction Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L

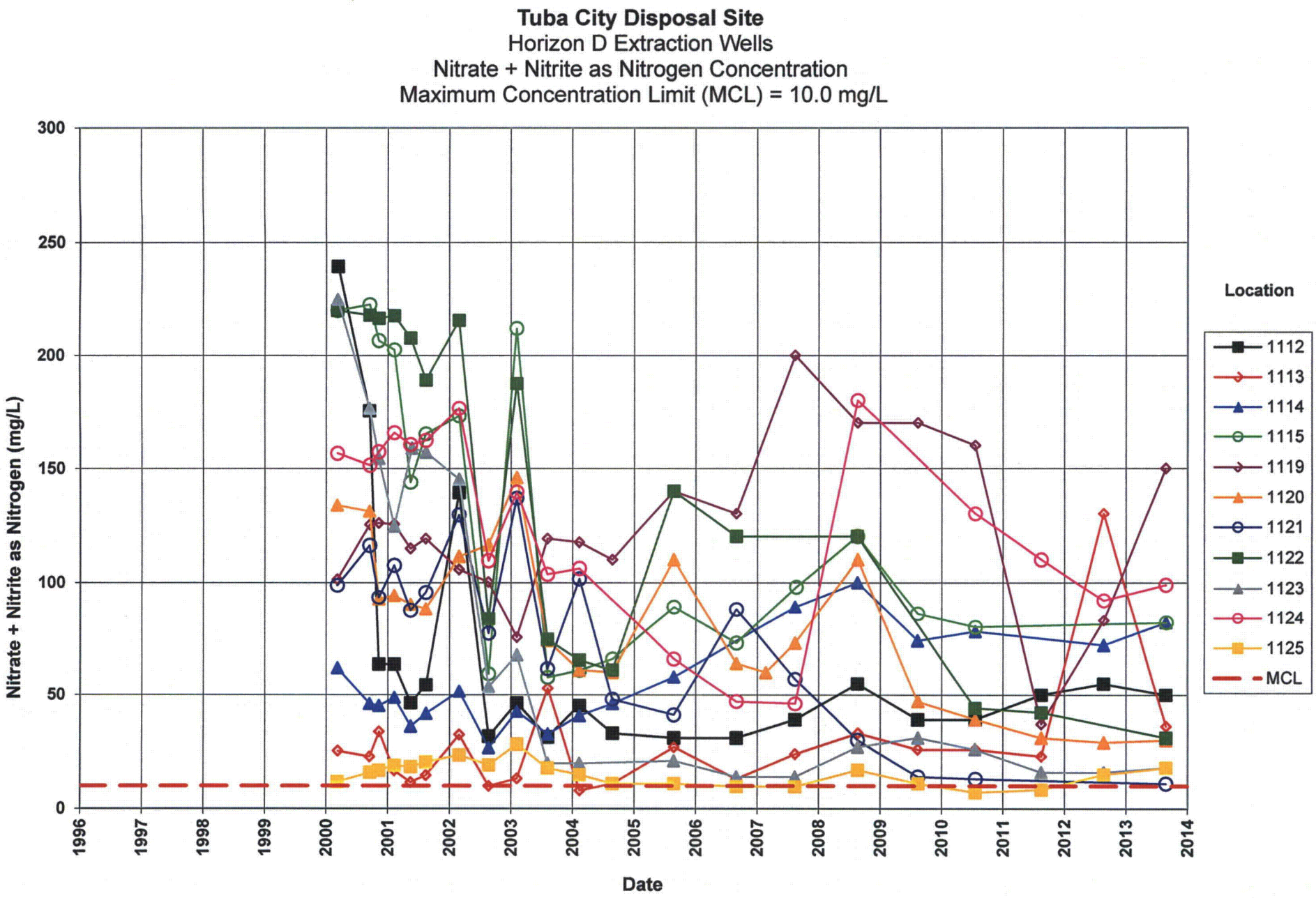


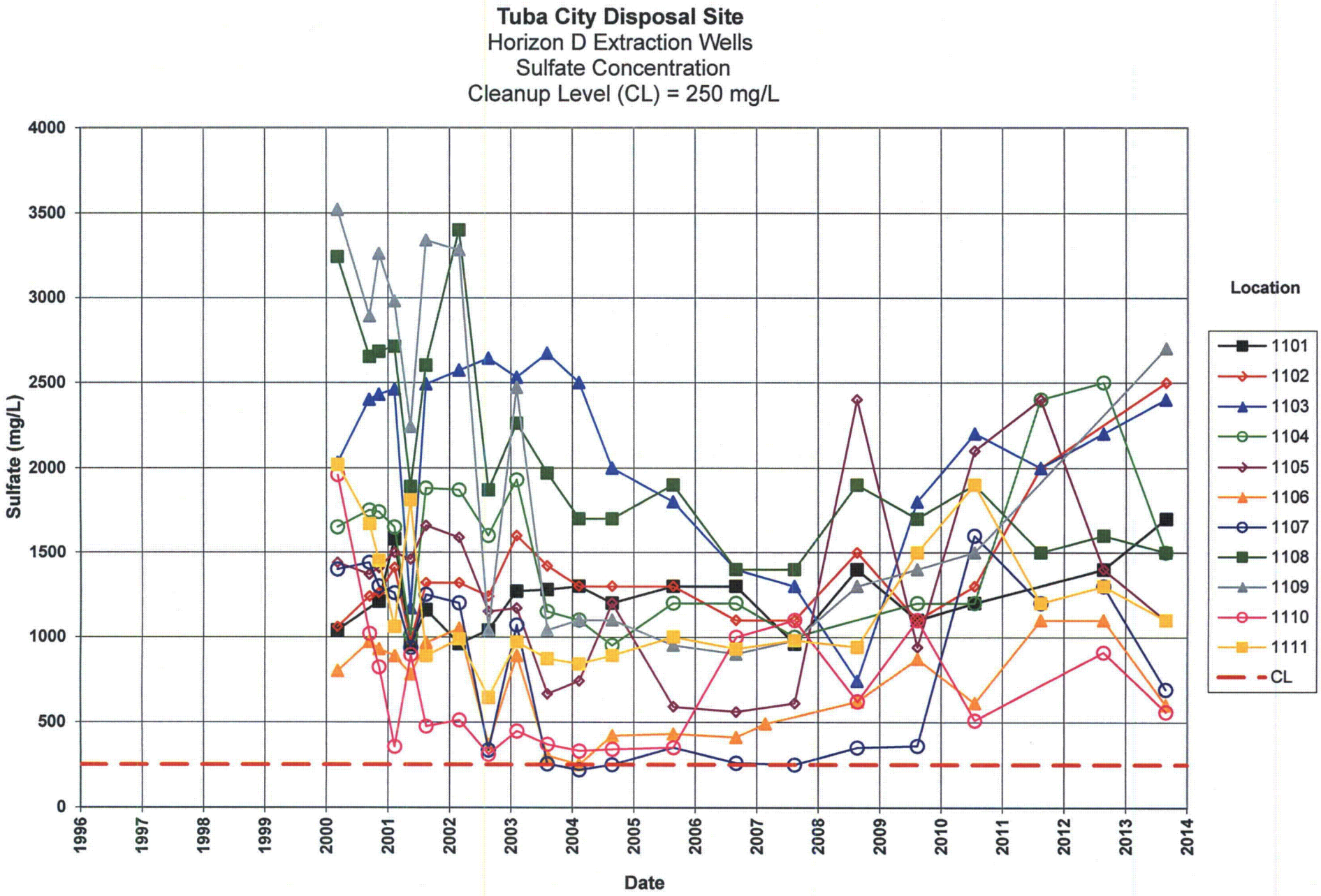
Tuba City Disposal Site
Horizons B & C Extraction Wells
Uranium Concentration
Maximum Concentration Limit (MCL) = 0.044 mg/L



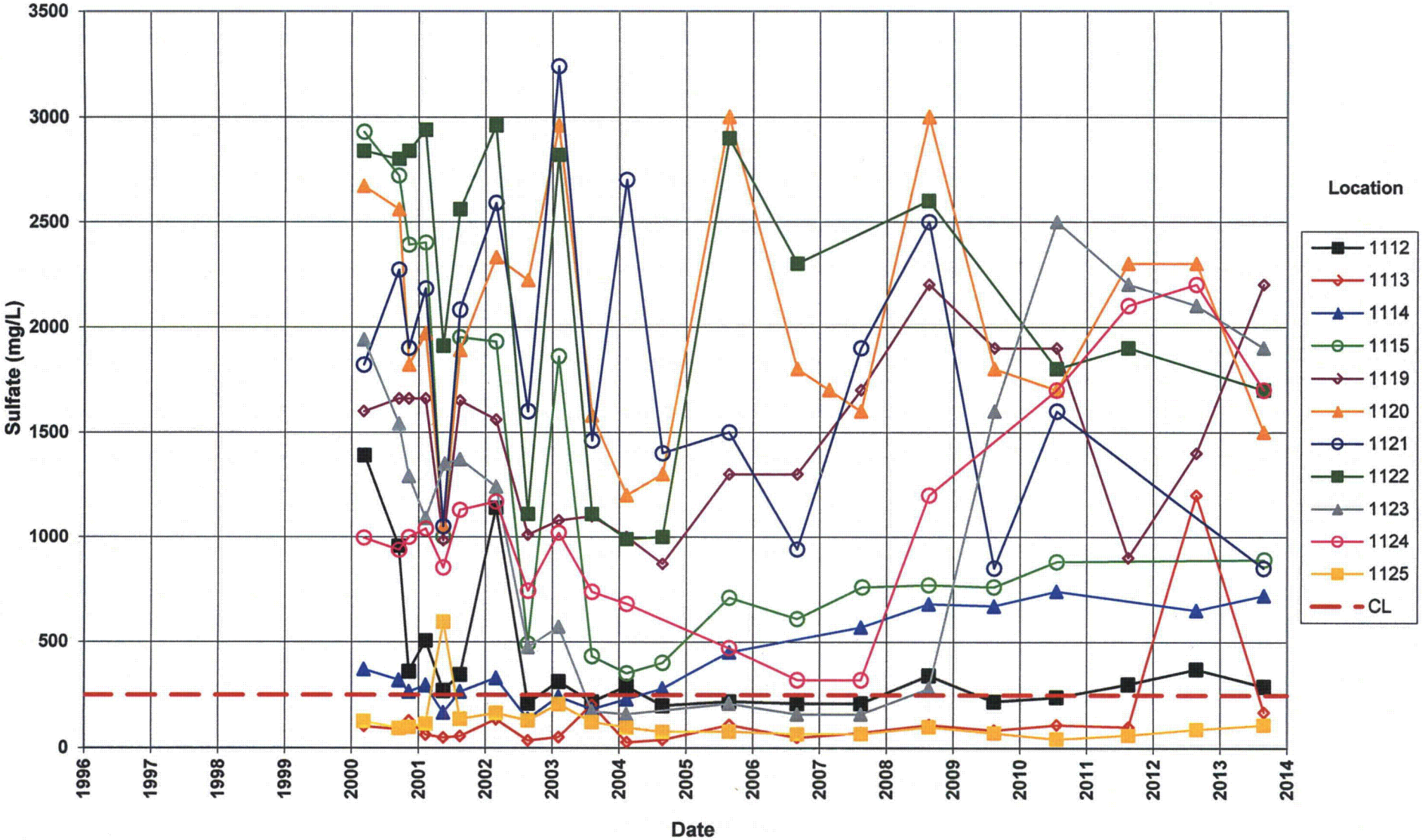
Tuba City Disposal Site
Horizon D Extraction Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L

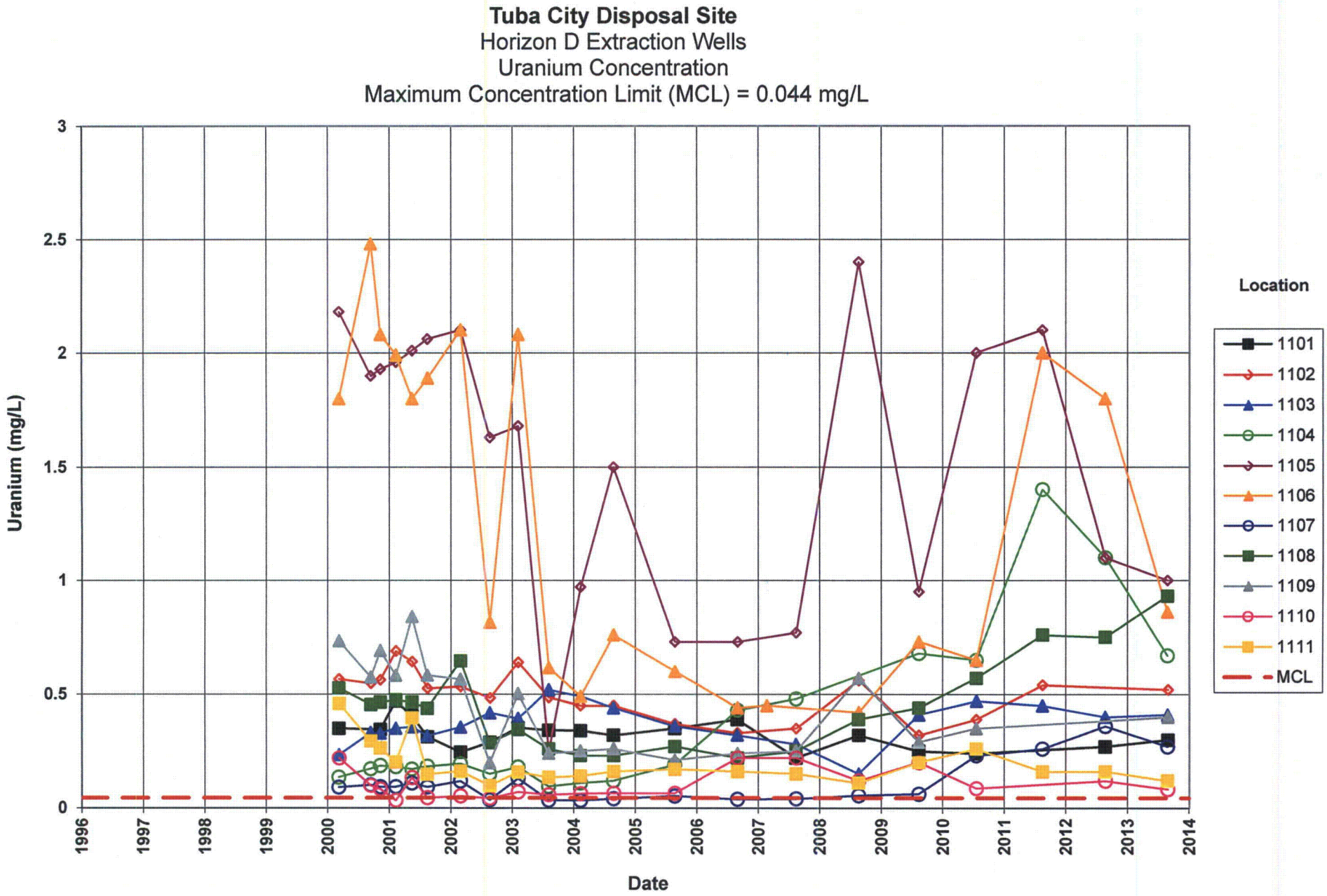



Tuba City Disposal Site
Horizon D Extraction Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L
Nitrate + Nitrite as Nitrogen (mg/L)
300
250
200
150
100
50
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
1112
1113
1114
1115
1119
1120
1121
1122
1123
1124
1125
MCL

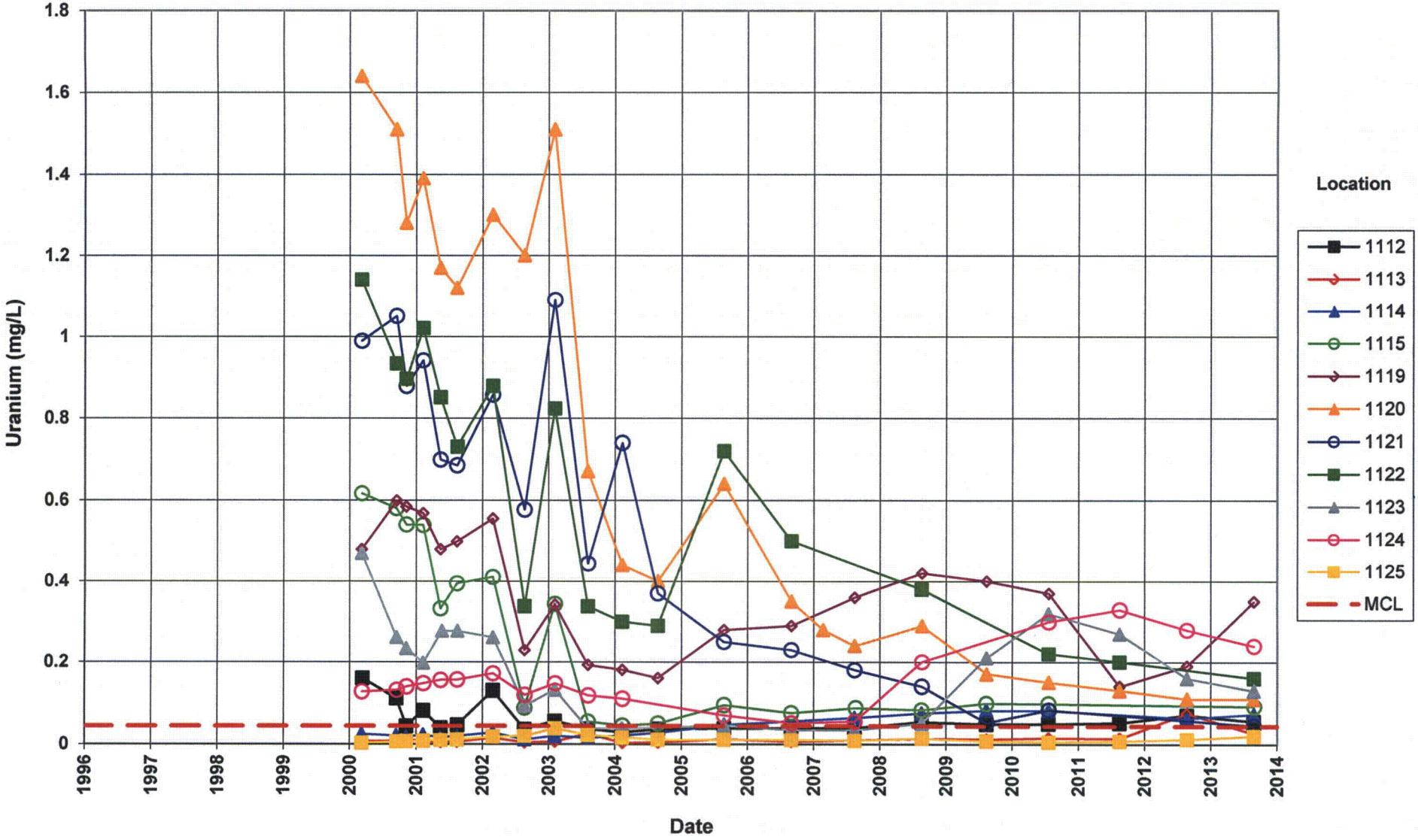

Tuba City Disposal Site
Horizon D Extraction Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
4000
3500
3000
2500
2000
1500
1000
500
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
1101
1102
1103
1104
1105
1106
1107
1108
1109
1110
1111
CL

Tuba City Disposal Site
Horizon D Extraction Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L

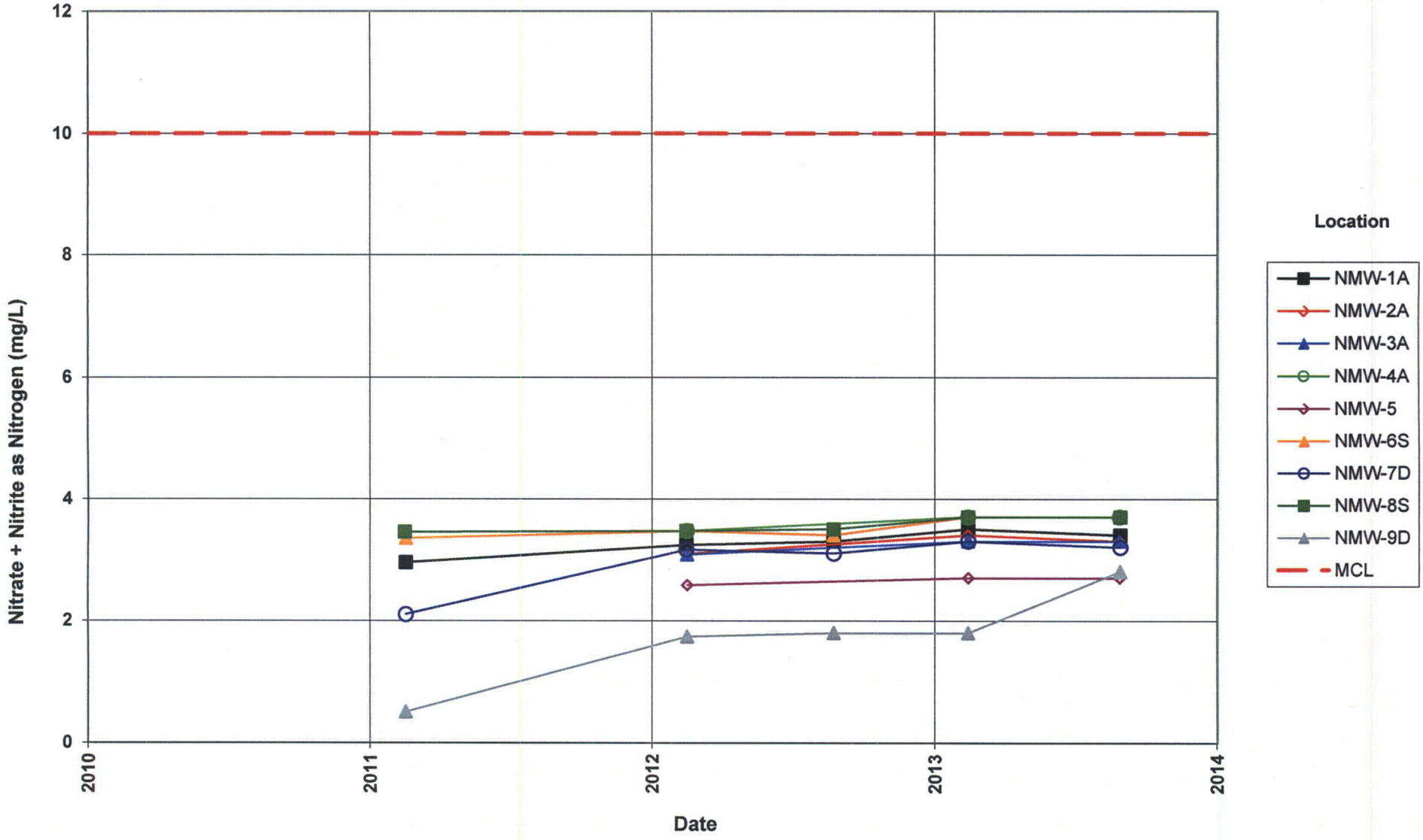


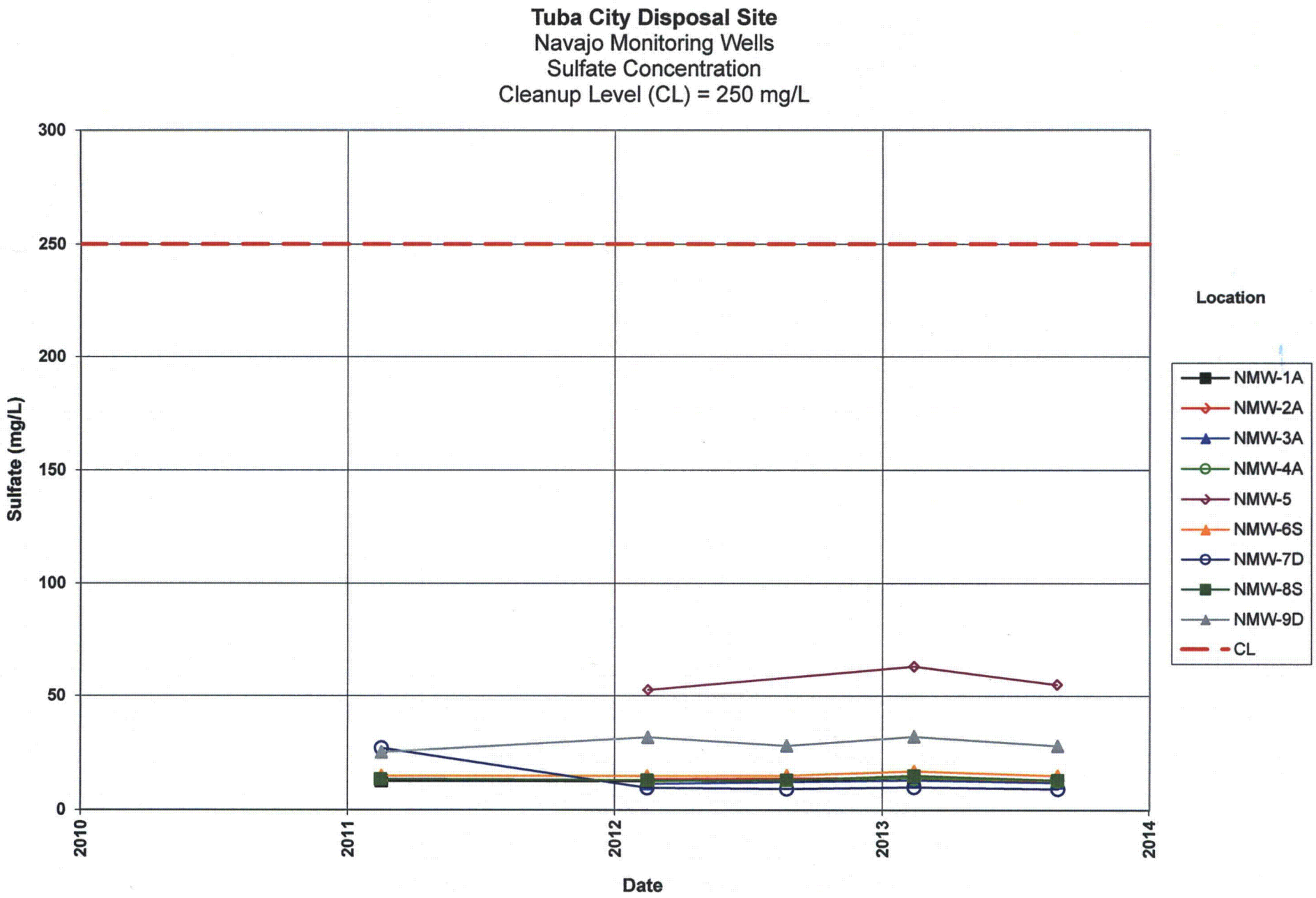

Tuba City Disposal Site
Horizon D Extraction Wells
Uranium Concentration
Maximum Concentration Limit (MCL) = 0.044 mg/L
Uranium (mg/L)
3
2.5
2
1.5
1
0.5
0
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Date
Location
1101
1102
1103
1104
1105
1106
1107
1108
1109
1110
1111
MCL

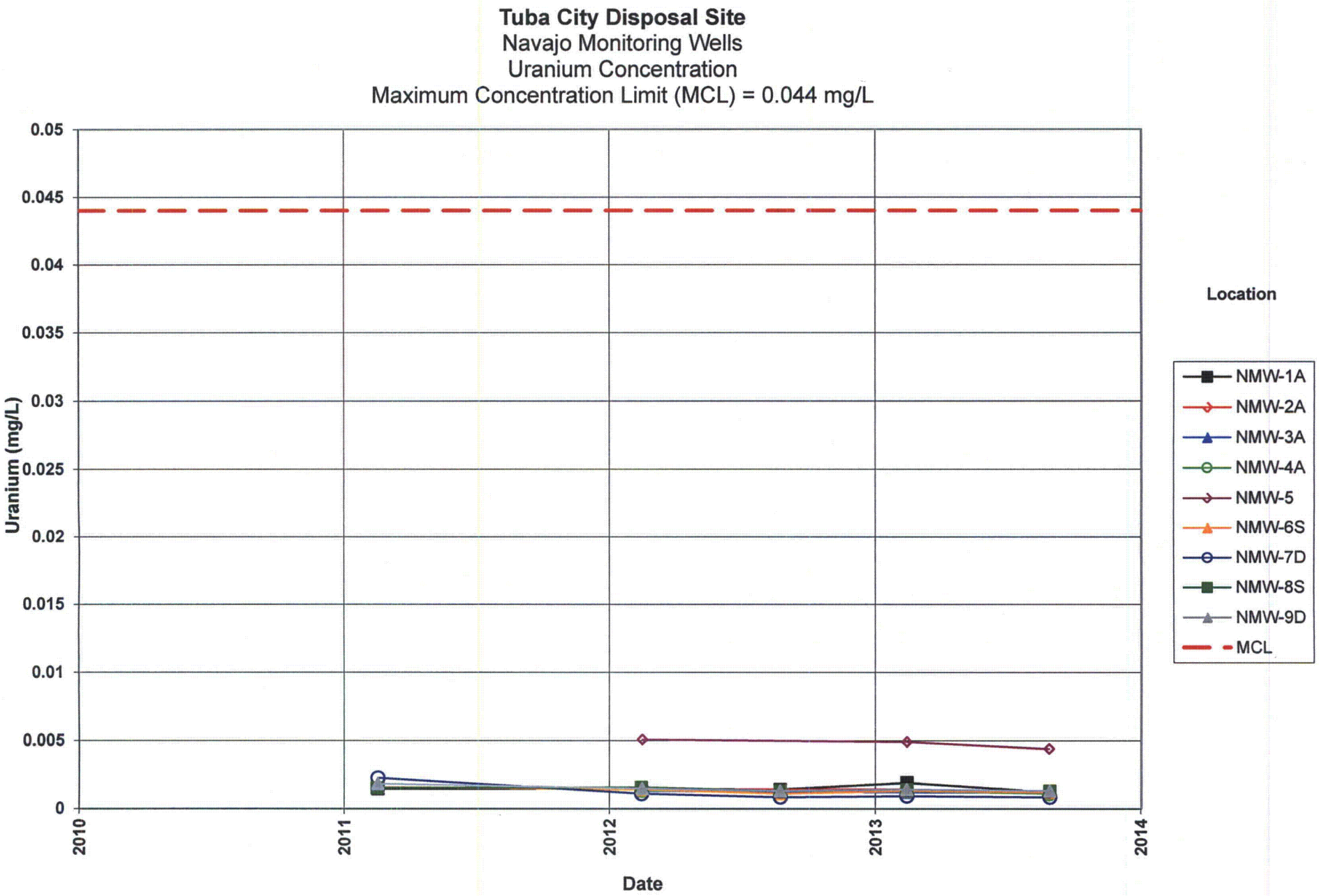
Tuba City Disposal Site
Horizon D Extraction Wells
Uranium Concentration
Maximum Concentration Limit (MCL) = 0.044 mg/L



Tuba City Disposal Site
Navajo Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Concentration Limit (MCL) = 10.0 mg/L




Tuba City Disposal Site
Navajo Monitoring Wells
Sulfate Concentration
Cleanup Level (CL) = 250 mg/L
Sulfate (mg/L)
300
250
200
150
100
50
0
2010
2011
2012
2013
2014
Date
Location
NMW-1A
NMW-2A
NMW-3A
NMW-4A
NMW-5
NMW-6S
NMW-7D
NMW-8S
NMW-9D
CL


Tuba City Disposal Site
Navajo Monitoring Wells
Uranium Concentration
Maximum Concentration Limit (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
2010
2011
2012
2013
2014
Date
Location
NMW-1A
NMW-2A
NMW-3A
NMW-4A
NMW-5
NMW-6S
NMW-7D
NMW-8S
NMW-9D
MCL

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Attachment 3
Sampling and Analysis Work Order

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Stoller

established 1959

Task Order LM-501
Control Number 13-0711

July 15, 2013

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 2013 Environmental Sampling at Tuba City, Arizona, Disposal Site

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

Dear Mr. Bush:

The purpose of this letter is to inform you of the upcoming sampling event at Tuba City, Arizona. Enclosed are the maps and tables specifying sample locations and analytes for monitoring at the Tuba City 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 26, 2013.

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	NMW-1A Ss	NMW-2A Ss	NMW-3A Ss	NMW-4A Ss	NMW-5 Al	NMW-6S Ss
NMW-7D Ss	NMW-8S Ss	NMW-9D Ss				

*NOTE: Al = alluvium; Na = Navajo sandstone; Ss = sandstone

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

Surface locations

759	778	965	1569	1570	1571	1573

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) 248-6378 if you have any questions.

Sincerely,

Mark Plessinger
Site Lead

MP/lcg/lb

Enclosures (3)

cc: (electronic)
Christina Pennal, DOE
Steve Donivan, Stoller
Lauren Goodknight, Stoller
Mark Plessinger, Stoller
EDD Delivery
rc-grand.junction
File: TUB410.02 (A)

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					
Gross Alpha					
Gross Beta					
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					
Nickel-63					
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

Sampling Frequencies for Locations at Tuba City, Arizona

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Monitoring Wells						
901			X			August
902					X	Water level only
903			X			August
904			X			August
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

Sampling Frequencies for Locations at Tuba City, Arizona

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Monitoring Wells						
1103			X			August
1104			X			August
1105			X			August
1106			X			August
1107			X			August
1108			X			August
1109			X			August
1110			X			August
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
NMW-1A		X				
NMW-2A		X				
NMW-3A		X				
NMW-4A		X				
NMW-5		X				
NMW-6S		X				
NMW-7D		X				
NMW-8S		X				
NMW-9D		X				

Sampling Frequencies for Locations at Tuba City, Arizona

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Surface Locations						
759			X			August; Moenkopi wash-downgradient
778			X			August; Moenkopi wash-at Jimmy Spring
965			X			August; Moenkopi wash-far upgradient
1569		X				Evap pond - North
1570		X				Evap pond - South
1571			X			Jimmy Spr West - August
1573			X			West pipe Shonto Well - August
Treatment System Locations						
1202		X				
1205		X				Treatment system distillate; verify location with system operators
1206		X				

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

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Attachment 4
Trip Report

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Stoller

established 1959

Memorandum

DATE: September 17, 2013

TO: Mark Plessinger

FROM: Jeff Price

SUBJECT: Trip Report

Site: Tuba City, Arizona

Dates of Sampling Event: August 26-30, 2013

Team Members: Gretchen Baer, Dan Sellers, Sam Campbell, Joe Trevino, and Jeff Price

Number of Locations Sampled: 122 locations were identified on the sampling notification letter; the 3 treatment system locations were added after the letter was sent. A total of 122 locations were sampled as follow:

	Planned Locations	Sampled Locations
Monitoring wells	78	76
Extraction wells	37	36
Surface locations	7	7
Treatment System locations	3	3

Locations Not Sampled/Reason: A total of 3 locations were not sampled.

- Monitoring wells 0283 and 0909 were dry.
- Extraction well 1131 was dry.

Location Specific Information: Treatment system samples were split for analyses by the ESL and ALS Laboratory Group, and were collected according to the *Tuba City Sampling and Analysis Plan*. A treatment system operator assisted with the sample collection, including operation of the sample port valves.

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	0261	LJU 311	Duplicate	Groundwater
2386	1111	LJU 324	Duplicate	Groundwater
2532	1114	LJU 298	Duplicate	Groundwater
2987	1113	LJU 291	Duplicate	Groundwater
2988	1112	LJU 292	Duplicate	Groundwater

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False ID	True ID	Ticket Number	Sample Type	Associated Matrix
2989	1116	LJU 293	Duplicate	Groundwater
2990	0940	LJU 294	Duplicate	Groundwater
2515	N/A	LJU 513	Equipment Blank	Taken from hose reel

Report Identification Numbers (RINs) Assigned: Samples were assigned to RIN 13085553 (ALS Fort Collins) and 13085564 (ESL). Field data sheets can be found in Crow\sms\13085553 in the FieldData folder.

Sample Shipment: Samples were shipped overnight via FedEx to ALS Laboratory Group, Fort Collins, Colorado, from Tuba City, Arizona, on August 28 & 30, 2013. Samples for the ESL were hand delivered on August 30, 2013.

Water Level Measurements: Water levels were measured in all sampled wells and in nine additional wells.

Well Inspection Summary: All wells were in good condition.

Field Variance: Because the dedicated submersible pumps were inoperable at wells 1118, 1126, and 1127, a portable bladder pump was used to collect samples. The *Sampling and Analysis Plan for the U. S. Department of Energy Office of Legacy Management Sites* specifies that samples not be collected until four hours after the portable pump has been installed. This requirement was not satisfied. All other samples were collected according to the aforementioned plan.

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. Dedicated tubing was used at pond locations 1569 and 1570, and was left in place. Water filters used during collection of the evaporation pond samples were given to the treatment plant operators for proper storage. The Field Data Collection System was used to collect data; sample times are in the mountain daylight time zone.

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. Seven Troll 300 transducers were installed at the following locations: 0263, 0286, 0287, 0908, 0928, 0934, and 0943. These transducers replaced the old Troll 4000 transducers.

Institutional Controls:

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

Site Issues: Cell phone service (Verizon) was weak and was not available at all areas of the site.

Disposal Cell/Drainage Structure Integrity: No issues observed
Vegetation/Noxious Weed Concerns: None observed
Maintenance Requirements: None observed
Safety Issues: None
Access Issues: Usual soft sand

Corrective Action Required/Taken: None

(JP/lcg)

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

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