

Data Validation Package

October 2016
Groundwater and Surface Water
Sampling at the
Monticello, Utah, Disposal and
Processing Sites

January 2017

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Contents

Sampling Event Summary	1
Data Assessment Summary.....	5
Water Sampling Field Activities Verification Checklist	7
Laboratory Performance Assessment	9
Sampling Quality Control Assessment	22
Certification	25
Monticello, Utah, Disposal and Processing Sites Sample Location Map.....	29

Attachment 1—Sampling and Analysis Work Order

Attachment 2—Trip Report

Attachment 3—Data Presentation

Groundwater Quality Data
Surface Water Quality Data
Static Water Level Data
Time-Concentration Graphs—Groundwater
Time-Concentration Graphs—Surface Water

Attachment 4—Assessment of Anomalous Data

Potential Outliers Report

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Sampling Event Summary

Site: Monticello, Utah, Processing Site

Sampling Period: October 10–12, 2016

This semiannual event includes sampling groundwater and surface water at the Monticello Disposal and Processing Sites. Sampling and analyses were conducted as specified in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* (LMS/PRO/S04351, continually updated) and *Program Directive MNT-2016-01*.

Samples were collected from 54 of 64 planned locations (16 of 17 former mill site wells, 15 of 18 downgradient wells, 7 of 9 downgradient permeable reactive barrier wells, 3 of 3 bedrock wells, 4 of 7 seeps and wetlands, and 9 of 10 surface water locations). Planned monitoring locations are shown in Attachment 1, Sampling and Analysis Work Order.

Locations MW00-07, PW-10, R4-M3, R6-M3, SW00-01, Seep 1, Seep 2, Seep 5, and T01-12 could not be sampled due to insufficient water availability. Location PW-17 could not be sampled because of a restriction in the well casing. A partial sample was collected at locations R6-M3, R6-M4, and T01-20 due to insufficient water. All samples from the permeable reactive barrier wells were filtered as specified in the program directive. Duplicate samples were collected from surface water location Sorenson and from monitoring wells R3-M2, T01-23, and T01-35. Water levels were measured at all sampled wells and an additional set of wells. See Attachment 2, Trip Report for additional details.

The contaminants of concern (COCs) for the Monticello sites are arsenic, manganese, molybdenum, nitrate + nitrite as nitrogen (nitrate + nitrite as N), selenium, uranium, and vanadium. Locations with COCs that exceeded remediation goals are listed in Table 1 and Table 2. Time-concentration graphs of the COCs for all groundwater and surface water locations are included in Attachment 3, Data Presentation. An assessment of anomalous data is included in Attachment 4.

Table 1. Monticello Groundwater Locations that Exceed Remediation Goal

Contaminant of Concern	Remediation Goal ^a (mg/L)	Location	Concentration (mg/L)
Arsenic	0.01	31NE93-205	0.084
Arsenic	0.01	88-85	0.014
Arsenic	0.01	92-11	0.015
Arsenic	0.01	R1-M3	0.014
Arsenic	0.01	T01-02	0.018
Arsenic	0.01	T01-04	0.015
Arsenic	0.01	T01-05	0.015
Arsenic	0.01	T01-19	0.011
Manganese	0.88	T01-25	2.8
Manganese	0.88	T01-13	3.5

Table 1 (continued). Monticello Groundwater Locations that Exceed Remediation Goal

Contaminant of Concern	Remediation Goal ^a (mg/L)	Location	Concentration (mg/L)
Manganese	0.88	T01-18	3.7
Manganese	0.88	T01-19	3.8
Manganese	0.88	T01-20	5.2
Molybdenum	0.1	None	-----
Nitrate + Nitrite as N	10	None	-----
Selenium	0.05	None	-----
Uranium	0.03	0200	0.20
Uranium	0.03	0202	0.16
Uranium	0.03	82-08	0.13
Uranium	0.03	88-85	0.17
Uranium	0.03	92-07	0.34
Uranium	0.03	92-08	0.18
Uranium	0.03	92-09	0.28
Uranium	0.03	92-11	0.13
Uranium	0.03	MW00-06	0.35
Uranium	0.03	P92-06	0.45
Uranium	0.03	PW-28	0.16
Uranium	0.03	R10-M1	0.031
Uranium	0.03	R1-M3	0.22
Uranium	0.03	R1-M4	0.25
Uranium	0.03	R3-M2	0.30
Uranium	0.03	R3-M3	0.21
Uranium	0.03	T00-01	0.040
Uranium	0.03	T00-04	0.082
Uranium	0.03	T01-01	0.041
Uranium	0.03	T01-02	0.12
Uranium	0.03	T01-04	0.12
Uranium	0.03	T01-05	0.12
Uranium	0.03	T01-07	0.11
Uranium	0.03	T01-13	0.13
Uranium	0.03	T01-18	0.33
Uranium	0.03	T01-19	0.091
Uranium	0.03	T01-20	0.18
Uranium	0.03	T01-23	0.039
Uranium	0.03	T01-35	0.092
Vanadium	0.33	88-85	0.36
Vanadium	0.33	92-11	0.38
Vanadium	0.33	R1-M3	0.37
Vanadium	0.33	T01-02	0.35

^a Remediation Goal is from Table 1-2 of the *Long-Term Surveillance and Maintenance Plan for the Monticello NPL Sites*, DOE-LM/1465-2007. Concentrations are expressed in milligrams per liter (mg/L).

Table 2. Monticello Surface Water Locations that Exceed Remediation Goal

Contaminant of Concern	Remediation Goal ^a (mg/L)	Location	Concentration (mg/L)
Arsenic	0.01	None	-----
Nitrate + Nitrite as N	4	Seep 3	35
Selenium	0.005	Seep 3	0.061
Uranium	0.044 ^b	Seep 6	3.1
Uranium	0.044 ^b	Sorenson	0.11
Uranium	0.044 ^b	SW00-04	0.052
Uranium	0.044 ^b	SW92-08	0.052
Uranium	0.044 ^b	SW92-09	0.054
Uranium	0.044 ^b	SW94-01	0.054
Uranium	0.044 ^b	W3-03	0.072

^a Remediation Goal is from Table 1-3 of the *Long-Term Surveillance and Maintenance Plan for the Monticello NPL Sites*, DOE-LM/1465-2007. Concentrations are expressed in milligrams per liter (mg/L).

^b The 30 picocurie per liter surface water standard for uranium-234/238 converts to approximately 0.044 mg/L uranium.


 Tim Bartlett, Site Hydrologist
 Navarro Research and Engineering, Inc.


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Data Assessment Summary

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Water Sampling Field Activities Verification Checklist

Project	Monticello, Utah, Disposal and Processing Sites	Date(s) of Water Sampling	October 10–12, 2016
Date(s) of Verification	December 22, 2016	Name of Verifier	Gretchen Baer

	Response (Yes, No, NA)	Comments
1. Is the SAP the primary document directing field procedures? List any Program Directives or other documents, SOPs, instructions.	Yes	Program Directive MNT-2016-01. Work Order letter dated September 8, 2016.
2. Were the sampling locations specified in the planning documents sampled?	No	MW00-07, PW-10, R4-M3, R6-M3, SW00-01, Seep 1, Seep 2, Seep 5, and T01-12 could not be sampled due to insufficient water availability. PW-17 could not be sampled because of a restriction in the well casing.
3. Were field equipment calibrations conducted as specified in the above-named documents?	Yes	Pre-trip calibrations were performed on October 6 & 7, 2016. Calibration sheets for this event had the pre calibration readings for specific conductivity recorded with the incorrect units (mS/cm instead of μ S/cm); this did not affect instrument performance or data quality.
4. Was an operational check of the field equipment conducted daily? Did the operational checks meet criteria?	Yes	An end-of-trip dissolved oxygen op check reading for sonde "G" was 0.346 mg/L, below the known value, which is acceptable.
5. Were the number and types (alkalinity, temperature, specific conductance, pH, turbidity, DO, ORP) of field measurements taken as specified?	No	Insufficient volume was available for some field parameters at R6-M3 and T01-20. Field measurements could not be collected at the locations listed in item 2, above. Dissolved oxygen was not measured at 31NE93-205, 95-01, and 95-03.
6. Were wells categorized correctly?	Yes	PRB wells do not follow low-flow sampling and are exempt from categorizing. They were sampled according to Program Directive MNT-2016-01.
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	Duplicate samples were collected from surface water location Sorenson and from groundwater locations T01-23, T01-35, and R3-M2.
10. Were equipment blanks taken at a frequency of one per 20 samples that were collected with non-dedicated equipment?	NA	All samples were collected using dedicated equipment.
11. Were trip blanks prepared and included with each shipment of VOC samples?	NA	VOC samples were not collected.
12. Were the true identities of the QC samples documented?	Yes	QC samples are recorded in the field notes and in the trip report.
13. Were samples collected in the containers specified?	Yes	
14. Were samples filtered and preserved as specified?	Yes	All PRB wells were filtered as specified in the program directive.
15. Were the number and types of samples collected as specified?	Yes	With the exception of partial samples collected at locations R6-M3, R6-M4, and T01-20 due to insufficient water.
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 95 additional wells as planned.

Laboratory Performance Assessment

General Information

Report Number (RIN): 16108078
Sample Event: October 10–12, 2016
Site(s): Monticello, Utah, Disposal and Processing Sites
Laboratory: ALS Laboratory Group, Fort Collins, Colorado
Work Order No.: 1610271
Analysis: Metals and Wet Chemistry
Validator: Gretchen Baer
Review Date: December 22, 2016

This validation was performed according to the “Standard Practice for Validation of Environmental Data” found in Appendix A of the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* (LMS/ PRO/S04351, continually updated, <http://energy.gov/lm/downloads/sampling-and-analysis-plan-us-department-energy-office-legacy-management-sites>). The procedure was applied at Level 3, Data Validation.

This validation includes the evaluation of data quality indicators (DQIs) associated with the data. DQIs are the quantitative and qualitative descriptors that are used to interpret the degree of acceptability or utility of the data. Indicators of data quality include the analysis of laboratory control samples to assess accuracy; duplicates and replicates to assess precision; and interference check samples to assess bias (see Figure 1 through Figure 3, Data Validation Worksheets). The comparability, completeness, and sensitivity of the DQIs are also evaluated in the sections to follow.

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 3.

Table 3. Analytes and Methods

Analyte	Line Item Code	Prep Method	Analytical Method
Arsenic, Molybdenum, Selenium, Uranium, Vanadium	LMM-02	SW-846 3005A	SW-846 6020A
Calcium, Iron, Magnesium, Manganese, Potassium, Sodium	LMM-01	SW-846 3005A	SW-846 6010B
Chloride, Fluoride, Sulfate (Anions)	MIS-A-045	SW-846 9056	SW-846 9056
Nitrate + Nitrite as N	WCH-A-022	EPA 353.2	EPA 353.2
Total Dissolved Solids (TDS)	WCH-A-033	EPA 160.1	EPA 160.1

Data Qualifier Summary

Analytical results were qualified as listed in Table 4. Refer to the attached validation worksheets and the sections below for an explanation of the data qualifiers applied.

Table 4. Data Qualifier Summary

Sample Number	Location	Analyte(s)	Flag	Reason
1610271-1	MW00-01	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-3	T01-02	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-4	T01-04	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-5	T01-05	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-6	T01-07	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-7	T01-35	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-25	SW01-03	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-29	SW92-08	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-31	T01-35 Dup	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-34	SW92-09	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-35	SW94-01	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-36	T01-23 Dup	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-37	93-01	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-38	T00-01	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-40	T01-20	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-41	T01-23	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-42	T01-25	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-45	95-03	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-46	T00-04	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-48	W3-03	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-49	W3-04	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-53	31NE93-205	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-54	T01-13	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-55	T01-19	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-57	Seep 3	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-58	Seep 6	Anions, Nitrate + Nitrite as N	J	Preservation temperature over range
1610271-2	T01-01	Anions, Nitrate + Nitrite as N, TDS	J	Preservation temperature over range
1610271-27	Sorenson	Anions, Nitrate + Nitrite as N, TDS	J	Preservation temperature over range
1610271-30	Sorenson Dup	Anions, Nitrate + Nitrite as N, TDS	J	Preservation temperature over range
1610271-3	T01-02	Iron	U	Less than 5 times the calibration blank
1610271-5	T01-05	Iron	U	Less than 5 times the calibration blank
1610271-6	T01-07	Iron	U	Less than 5 times the calibration blank
1610271-7	T01-35	Iron	U	Less than 5 times the calibration blank
1610271-9	88-85	Iron	U	Less than 5 times the calibration blank
1610271-10	92-07	Iron	U	Less than 5 times the calibration blank
1610271-11	92-08	Iron	U	Less than 5 times the calibration blank
1610271-13	92-11	Iron	U	Less than 5 times the calibration blank
1610271-14	0200	Iron	U	Less than 5 times the calibration blank
1610271-16	P92-06	Iron	U	Less than 5 times the calibration blank

Table 4 (continued). Data Qualifier Summary

Sample Number	Location	Analyte(s)	Flag	Reason
1610271-17	MW00-06	Iron	U	Less than 5 times the calibration blank
1610271-18	PW-28	Iron	U	Less than 5 times the calibration blank
1610271-19	R1-M3	Iron	U	Less than 5 times the calibration blank
1610271-20	R1-M4	Iron	U	Less than 5 times the calibration blank
1610271-23	R4-M6	Iron	U	Less than 5 times the calibration blank
1610271-25	SW01-03	Iron	U	Less than 5 times the calibration blank
1610271-28	SW00-04	Iron	U	Less than 5 times the calibration blank
1610271-29	SW92-08	Iron	U	Less than 5 times the calibration blank
1610271-46	T00-04	Iron	U	Less than 5 times the calibration blank
1610271-50	SW00-02	Iron	U	Less than 5 times the calibration blank
1610271-4	T01-04	Manganese	U	Less than 5 times the method blank
1610271-5	T01-05	Manganese	U	Less than 5 times the method blank
1610271-6	T01-07	Manganese	U	Less than 5 times the method blank
1610271-7	T01-35	Manganese	J	Field duplicate range > PQL
1610271-9	88-85	Manganese	U	Less than 5 times the method blank
1610271-13	92-11	Manganese	U	Less than 5 times the method blank
1610271-16	P92-06	Manganese	U	Less than 5 times the method blank
1610271-17	MW00-06	Manganese	U	Less than 5 times the method blank
1610271-18	PW-28	Manganese	U	Less than 5 times the method blank
1610271-31	T01-35 Dup	Manganese	J	Field duplicate range > PQL
1610271-31	T01-35 Dup	Manganese	U	Less than 5 times the method blank
1610271-32	R10-M1	Manganese	U	Less than 5 times the method blank

Sample Shipping/Receiving

ALS Laboratory Group in Fort Collins, Colorado, received 58 water samples on October 17 and 18, 2016, accompanied by Chain of Custody forms. The Chain of Custody forms were checked to confirm that all of the samples were listed on the forms and that signatures and dates were present indicating sample relinquishment and receipt. Copies of the air waybill labels were included with the receiving documentation. The following errors were found on the Chain of Custody:

- As described in the trip report, samples for chloride, fluoride, sulfate, and nitrate + nitrite as N were not collected at R6-M4, but the Chain of Custody erroneously listed these bottles.
- The Chain of Custody for the first shipment listed bottles for location SW92-08, but these bottles were not included in that shipment.
- One page of the Chain of Custody for the first shipment was not signed as received.

The first shipment was sent by FedEx priority overnight on October 13, 2016, but because of a FedEx delay, the shipment arrived at the laboratory 4 days later. This caused preservation violations, which are described below.

Preservation and Holding Times

The first sample shipment was received intact with the temperatures inside the iced coolers at 2.8 °C and 10.2 °C, which does not comply with requirements for one of the coolers. The shipment was received three days late due to a FedEx delay, which caused the temperature excursion for one of the coolers. The results for the affected samples are qualified with a “J” flag as estimated values.

The samples for SW92-08 were inadvertently not sent in the first shipment and were sent on October 17, 2016, in a second shipment. The second shipment was received intact with the temperature inside the iced cooler at 1.8 °C, which complies with requirements, but the sample was mistakenly left out at ambient temperature overnight before shipping. The results for the affected samples are qualified with a “J” flag as estimated values.

All samples were received in the correct container types and had been acid-preserved correctly for the requested analyses. All samples were analyzed within the applicable holding times.

Detection and Quantitation Limits

A method detection limit (MDL) is defined in 40 CFR 136 as the minimum concentration of an analyte that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDLs reported by the laboratory were compared to the required MDLs to assess the sensitivity of the analyses and were found to be in compliance with contractual requirements.

The practical quantitation limit (PQL) for an analyte, defined as 5 times the MDL, is the lowest concentration that can be quantitatively measured, and is used when evaluating laboratory method performance in the sections below.

Laboratory Instrument Calibration

Method requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for the analytes of interest. Initial Calibration Verification (ICV) demonstrates that the instrument is capable of acceptable performance at the beginning of the analytical run. Continuing Calibration Verification (CCV) demonstrates that the initial calibration is still valid by checking the performance of the instrument on a continuing basis. Initial and continuing calibration standards must be prepared from independent sources to ensure the validity of the calibration. All laboratory instrument calibrations and calibration verifications were performed correctly in accordance with the cited methods.

Method EPA 160.1

There are no initial or continuing calibration requirements associated with the determination of total dissolved solids.

Method EPA 353.2

Calibrations for nitrate + nitrite as N were performed using seven calibration standards on November 4, 2016. 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. The ICV and CCV checks were made at the required frequency. All calibration checks met the acceptance criteria.

Method SW-846 6010B

Calibrations for calcium, iron, magnesium, manganese, potassium, and sodium were performed on November 11 and 14, 2016, using three 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. The ICV and CCV checks were made at the required frequency. All calibration checks met the acceptance criteria. Reporting limit verification checks were made at the required frequency to verify the linearity of the calibration curve near the PQL and all results were within the acceptance range.

Method SW-846 6020A

Calibrations for arsenic, molybdenum, selenium, uranium, and vanadium were performed on November 16, 2016, using four calibration standards. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than or only slightly greater than 3 times the MDL. The ICV and CCV checks were made at the required frequency. All calibration checks associated with reported results met the acceptance criteria. Reporting limit verification checks were made at the required frequency to verify the linearity of the calibration curve near the PQL and all results were within the acceptance range. Mass calibration and resolution verifications were performed at the beginning of each analytical run in accordance with the analytical procedure. Internal standard recoveries associated with requested analytes were stable and within acceptable ranges.

Method SW-846 9056

Calibrations for chloride, fluoride, and sulfate were performed using six calibration standards on October 3, 2016. 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. The ICV and CCV checks were made at the required frequency. All calibration checks met the acceptance criteria.

Method and Calibration Blanks

Method blanks are analyzed to assess any contamination that may have occurred during sample preparation. Calibration blanks are analyzed to assess instrument contamination prior to and during sample analysis. All method and calibration blank results 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 are analyzed to verify the instrumental interelement and background correction factors and assess any bias due to interelement interferences. Interference check samples were analyzed at the required frequency with all results meeting the acceptance criteria.

Matrix Spike Analysis

Matrix spikes are aliquots of environmental samples to which a known concentration of an analyte has been added before analysis. Matrix spike and matrix spike duplicate (MS/MSD)

analysis is used to assess the performance of the method by measuring the effects of interferences caused by the sample matrix and reflects the bias of the method for the particular matrix in question. The MS/MSD data are not evaluated when the concentration of the unspiked sample is greater than 4 times the spike concentration. The spikes met the recovery and precision criteria for all analytes.

Laboratory Replicate Analysis

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

Laboratory Control Sample

Laboratory control samples (LCSs) were analyzed at the correct frequency to provide information on the accuracy of the analytical method and the overall laboratory performance, including sample preparation. All LCS results were acceptable for all analyses.

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 to assess bias when the concentration of the undiluted sample is greater than 50 times the MDL. All evaluated serial dilution data were acceptable.

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. All peak integrations were satisfactory.

Anion/Cation Balance

Environmental water should be electrically neutral. Expressed in milliequivalents per liter (meq/L), the sum of the anions should equal the sum of the cations. The anion/cation balance is calculated as the difference between the anions and cations, divided by the sum of the anions and cations. The anion/cation balance can be used to identify potential errors in the analytical results. Typically, a charge balance less than or equal to 10% is considered acceptable. When a charge balance is greater than 10%, the associated data are closely examined for error. If no errors are found, the results are considered to be acceptable. Table 5 shows the total anion and cation results from this event and the charge balance. Due to limited water, locations R6 M3, R6-M4, and T01-20 did not have sufficient data to allow calculation of the charge balance. All other charge balances were below 10%.

Table 5. Comparison of Major Anions and Cations

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
0200	23.5	25.6	4.3
0202	22.5	24.5	4.1
31NE93-205	6.4	6.2	1.8
82-08	21.6	24.4	5.9
83-70	6.2	6.5	2.1
88-85	21.3	22.5	2.7
92-07	18.7	18.9	0.6
92-08	15.1	15.8	2.3
92-09	26.3	29.3	5.4
92-10	14.0	15.5	5.3
92-11	22.8	23.7	1.9
93-01	8.6	8.1	3.4
95-01	6.2	6.1	0.6
95-03	17.4	18.6	3.5
95-06	18.4	20.4	5.1
95-07	27.7	26.4	2.5
MW00-01	21.7	22.9	2.7
MW00-06	18.5	19.0	1.1
P92-06	20.3	22.2	4.5
PW-28	26.5	31.3	8.2
R10-M1	12.3	12.9	2.4
R1-M3	19.6	20.2	1.4
R1-M4	19.1	19.5	1.1
R3-M2	17.9	18.3	1.0
R3-M3	17.3	18.5	3.3
R4-M6	6.8	7.2	2.5
Seep 3	42.3	47.2	5.5
Seep 6	54.3	61.9	6.6
Sorenson	18.7	19.8	2.7
SW00-02	18.8	20.3	3.7
SW00-04	14.3	14.9	1.9
SW01-01	13.4	13.9	1.8
SW01-02	22.6	24.1	3.3
SW01-03	19.7	21.4	4.1
SW92-08	14.6	15.3	2.4
SW92-09	14.6	15.4	2.7
SW94-01	14.6	15.1	1.6
T00-01	16.4	16.8	1.3
T00-04	18.1	19.0	2.4
T01-01	17.0	17.7	2.1
T01-02	20.5	21.7	2.7

Table 5 (continued). Comparison of Major Anions and Cations

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
T01-04	21.7	23.2	3.2
T01-05	22.3	23.7	2.9
T01-07	30.8	33.5	4.2
T01-13	37.3	40.1	3.7
T01-18	42.6	46.8	4.7
T01-19	21.0	22.2	2.8
T01-23	16.5	16.9	1.1
T01-25	32.3	34.9	3.9
T01-35	22.4	24.2	3.7
W3-03	27.0	28.8	3.3
W3-04	18.9	20.5	4.3

Electronic Data Deliverable (EDD) File

The EDD file arrived on December 1, 2016. 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.

SAMPLE MANAGEMENT SYSTEM

General Data Validation Report

RIN: 16108078 Lab Code: PAR Validator: Gretchen Baer Validation Date: 12/19/2016

Project: Monticello Monitoring Analysis Type: ☒ Metals ☒ General Chem ☐ Rad ☐ Organics

of Samples: 58 Matrix: WATER Requested Analysis Completed: Yes

Chain of Custody

Present: OK Signed: OK Dated: OK

Sample

Integrity: OK Preservation: OK Temperature: NO

Select Quality Parameters

☒ Holding Times

There are 0 holding time failures.

☒ Detection Limits

The reported detection limits are equal to or below contract requirements.

☐ Field/Trip Blanks

☒ Field Duplicates

There were 4 duplicates evaluated.

Figure 1. Data Validation Worksheet

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

RIN: 16108078

Lab Code: PAR

Date Due: 11/15/2016

Matrix: Water

Site Code: MNT01

Date Completed: 12/2/2016

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	11/11/2016			OK	OK	OK	103.0	95.0	101.0	2.0	101.0	1.0	101.0
Calcium	ICP/ES	11/11/2016			OK	OK	OK	103.0			0.0	97.0	1.0	104.0
Calcium	ICP/ES	11/11/2016	-0.0300	0.9990	OK	OK	OK	100.0			2.0		2.0	
Iron	ICP/ES	11/11/2016			OK	OK	OK	97.0	97.0	99.0	1.0	99.0		109.0
Iron	ICP/ES	11/11/2016			OK	OK	OK	105.0	97.0	98.0	1.0	95.0		107.0
Iron	ICP/ES	11/11/2016	0.0000	0.9998	OK	OK	OK	102.0	98.0	102.0	2.0		1.0	
Magnesium	ICP/ES	11/11/2016	0.0180	0.9992	OK	OK	OK	100.0	91.0	94.0	2.0	97.0	1.0	102.0
Magnesium	ICP/ES	11/11/2016			OK	OK	OK	102.0	93.0	91.0	1.0	94.0	3.0	104.0
Magnesium	ICP/ES	11/11/2016			OK	OK	OK	101.0	97.0	100.0	2.0		2.0	
Manganese	ICP/ES	11/11/2016			OK	OK	OK	105.0	104.0	104.0	0.0	103.0	1.0	97.0
Manganese	ICP/ES	11/11/2016			OK	OK	OK	104.0	104.0	108.0	2.0	99.0	0.0	93.0
Manganese	ICP/ES	11/11/2016	0.0000	1.0000	OK	OK	OK	105.0	101.0	103.0	2.0			
Potassium	ICP/ES	11/11/2016			OK	OK	OK	100.0	102.0	103.0	1.0		4.0	94.0
Potassium	ICP/ES	11/11/2016			OK	OK	OK	103.0	105.0	101.0	3.0			100.0
Potassium	ICP/ES	11/11/2016	-0.0160	0.9997	OK	OK	OK	101.0	101.0	101.0	0.0		4.0	
Sodium	ICP/ES	11/11/2016			OK	OK	OK	103.0	97.0	92.0	1.0		0.0	97.0
Sodium	ICP/ES	11/11/2016			OK	OK	OK	102.0	93.0	94.0	0.0		2.0	112.0

Figure 2. Metals Worksheet

SAMPLE MANAGEMENT SYSTEM

Metals Data Validation Worksheet

Page 2 of 2

RIN: 16108078

Lab Code: PAR

Date Due: 11/15/2016

Matrix: Water

Site Code: MNT01

Date Completed: 12/2/2016

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	11/14/2016	-0.0090	1.0000	OK	OK	OK							104.0
Sodium	ICP/ES	11/11/2016	-0.0170	0.9999	OK	OK	OK	100.0	97.0	99.0	1.0		0.0	
Arsenic	ICP/MS	11/16/2016			OK	OK	OK	98.0	102.0	101.0	1.0		5.0	99.0
Arsenic	ICP/MS	11/16/2016			OK	OK	OK	99.0	102.0	98.0	3.0			104.0
Arsenic	ICP/MS	11/16/2016	0.0000	1.0000	OK	OK	OK	100.0	102.0	99.0	3.0	98.0		99.0
Molybdenum	ICP/MS	11/16/2016			OK	OK	OK	95.0	98.0	99.0	1.0			99.0
Molybdenum	ICP/MS	11/16/2016			OK	OK	OK	96.0	99.0	97.0	2.0			100.0
Molybdenum	ICP/MS	11/16/2016	0.0000	1.0000	OK	OK	OK	98.0	100.0	98.0	2.0	104.0		96.0
Selenium	ICP/MS	11/16/2016			OK	OK	OK	99.0	100.0	101.0	2.0			92.0
Selenium	ICP/MS	11/16/2016			OK	OK	OK	99.0	103.0	99.0	4.0			106.0
Selenium	ICP/MS	11/16/2016	0.0000	1.0000	OK	OK	OK	102.0	101.0	100.0	1.0	99.0		96.0
Uranium	ICP/MS	11/16/2016			OK	OK	OK	104.0	98.0	99.0	0.0		3.0	100.0
Uranium	ICP/MS	11/16/2016			OK	OK	OK	101.0	106.0	105.0	0.0			110.0
Uranium	ICP/MS	11/16/2016	0.0000	1.0000	OK	OK	OK	103.0	104.0	104.0	0.0	98.0		110.0
Vanadium	ICP/MS	11/16/2016			OK	OK	OK	96.0	97.0	96.0	1.0		5.0	96.0
Vanadium	ICP/MS	11/16/2016			OK	OK	OK	95.0	94.0	95.0	1.0			92.0
Vanadium	ICP/MS	11/16/2016	0.0000	1.0000	OK	OK	OK	93.0	97.0	95.0	3.0	95.0		101.0

Figure 2 (continued). Metals Worksheet

SAMPLE MANAGEMENT SYSTEM

Wet Chemistry Data Validation Worksheet

RIN: 16108078 **Lab Code:** PAR **Date Due:** 11/15/2016
Matrix: Water **Site Code:** MNT01 **Date Completed:** 12/2/2016

Analyte	Date Analyzed	CALIBRATION				Method	LCS	MS	MSD	DUP	Serial Dil.
		Int.	R^2	CCV	CCB	Blank	%R	%R	%R	RPD	%R
CHLORIDE	10/03/2016	-0.031	1.0000								
CHLORIDE	10/24/2016			OK	OK	OK	103.00	105.0			
CHLORIDE	10/25/2016								103.0	1.00	
CHLORIDE	10/26/2016			OK	OK	OK	104.00				
CHLORIDE	10/26/2016			OK	OK	OK	103.00				
CHLORIDE	10/27/2016							105.0	100.0	3.00	
CHLORIDE	11/10/2016							101.0	100.0	0	
Fluoride	10/03/2016	0.024	1.0000								
Fluoride	10/24/2016			OK	OK	OK	91.00				
Fluoride	10/26/2016			OK	OK	OK	99.00	109.0	115.0	4.00	
Fluoride	10/26/2016			OK	OK	OK	98.00				
Fluoride	10/27/2016							100.0	103.0	1.00	
Fluoride	11/10/2016							106.0	106.0	0	
Nitrate+Nitrite as N	11/04/2016	0.002	0.9999	OK	OK	OK	101.00	110.0	104.0	6.00	
Nitrate+Nitrite as N	11/04/2016			OK	OK	OK	103.00	105.0	105.0	0	

Figure 3. Wet Chemistry Worksheet

SAMPLE MANAGEMENT SYSTEM

Wet Chemistry Data Validation Worksheet

RIN: 16108078

Lab Code: PAR

Date Due: 11/15/2016

Matrix: Water

Site Code: MNT01

Date Completed: 12/2/2016

Analyte	Date Analyzed	CALIBRATION				Method	LCS	MS	MSD	DUP	Serial Dil.
		Int.	R^2	CCV	CCB	Blank	%R	%R	%R	RPD	%R
Nitrate+Nitrite as N	11/04/2016			OK	OK	OK	101.00	104.0	99.0	5.00	
Sulfate	10/03/2016	0.148	1.0000								
SULFATE	10/24/2016			OK	OK	OK	105.00	98.0			
SULFATE	10/25/2016								95.0	1.00	
SULFATE	10/26/2016			OK	OK	OK	106.00				
SULFATE	10/26/2016			OK	OK	OK	105.00				
SULFATE	10/27/2016							107.0	108.0	1.00	
SULFATE	11/10/2016							105.0	106.0	1.00	
TOTAL DISSOLVED SOLIDS	10/20/2016					OK	101.00				

Figure 3 (continued). Wet Chemistry Worksheet

Sampling Quality Control Assessment

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

Sampling Protocol

Sample results for all wells were qualified with an “F” flag, indicating the wells were purged and sampled using the low-flow method and Category I criteria, with the following exceptions:

- Locations R1-M3, R1-M4, R3-M2, R3-M3, R4-M6, R6-M4, and R10-M1 are permeable reactive barrier (PRB) wells and were sampled according to Program Directive MNT-2016-01. The sample results for these locations were not qualified since they were not purged and sampled using the low-flow sampling method.
- Well 83-70 is a tap location and was therefore not sampled using low-flow criteria.

Wells 0202, 95-06, 95-07, MW00-07, T01-13, T01-18, T01-19, T01-20, and T01-25 were purged and sampled using Category II criteria. For these wells, the water level drawdown during the purge did not meet the Category I criterion because these wells produced water at a rate less than the minimum low-flow purging rate. Therefore, these wells were classified as Category II. The sample results for these wells were qualified with a “Q” flag.

Equipment Blank Assessment

Dedicated sampling equipment was used at all locations and an equipment blank was not required.

Field Duplicate Analysis

Field duplicate samples are collected and analyzed as an indication of overall precision of the measurement process. The precision observed includes both field and laboratory precision and has more variability than laboratory duplicates, which measure only laboratory performance. The relative percent difference (RPD) for duplicate results that are greater than 5 times the PQL should be less than 20%. The RPD is not used to evaluate results that are less than 5 times the PQL. For these results (RPD is ‘NA’ in Figure 4), the range should be no greater than the PQL. Duplicate samples were collected from surface water location Sorenson and from monitoring wells R3-M2, T01-23, and T01-35. The duplicate results met the criteria, with the exception of manganese at location T01-35. The results were flagged with a “J” as an estimated value.

SAMPLE MANAGEMENT SYSTEM

Page 1 of 2

Validation Report: Field Duplicates

RIN: 16108078 Lab Code: PAR Project: Monticello Monitoring Validation Date: 12/19/2016

Duplicate: 2477

Sample: T01-23

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Arsenic	0.00012	U		10	0.00012	U		10			MG/L
Calcium	210			1	210			1	0		MG/L
CHLORIDE	33			10	31			10	6.25		MG/L
Fluoride	0.27			1	0.27			1			MG/L
Iron	1.9			1	1.9			1	0		MG/L
Magnesium	36			1	35			1	2.82		MG/L
Manganese	0.39			1	0.39			1	0		MG/L
Molybdenum	0.00093	J		10	0.00055	J		10			MG/L
Nitrate+Nitrite as N	0.01	U		1	0.01	U		1			MG/L
Potassium	2.9			1	2.8			1	3.51		MG/L
Selenium	0.00066	U		10	0.00066	U		10			MG/L
Sodium	69			1	69			1	0		MG/L
SULFATE	390			10	390			10	0		MG/L
Uranium	0.039			10	0.038			10	2.60		MG/L
Vanadium	0.00058	U		10	0.00058	U		10			MG/L

Duplicate: 2583

Sample: Sorenson

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Arsenic	0.0013			10	0.001			10	NA		MG/L
Calcium	230			1	220			1	4.44		MG/L
CHLORIDE	41			10	40			10	2.47		MG/L
Fluoride	0.18			1	0.18			1			MG/L
Iron	0.29			1	0.27			1	7.14		MG/L
Magnesium	49			1	48			1	2.06		MG/L
Manganese	0.051			1	0.058			1	12.84		MG/L
Molybdenum	0.01			10	0.0097			10	3.05		MG/L
Nitrate+Nitrite as N	0.018			1	0.015			1			MG/L
Potassium	4.4			1	4.5			1	2.25		MG/L
Selenium	0.0037			10	0.0039			10	5.26		MG/L
Sodium	71			1	74			1	4.14		MG/L
SULFATE	660			10	660			10	0		MG/L
TOTAL DISSOLVED SOLIDS	1100			1	1100			1	0		MG/L
Uranium	0.11			10	0.1			10	9.52		MG/L
Vanadium	0.0029	J		10	0.0028	J		10			MG/L

Figure 4. Duplicates Worksheet

SAMPLE MANAGEMENT SYSTEM

Page 2 of 2

Validation Report: Field Duplicates

RIN: 16108078 Lab Code: PAR Project: Monticello Monitoring Validation Date: 12/19/2016

Duplicate: 2586

Sample: T01-35

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Arsenic	0.0095			10	0.0098			10	3.11		MG/L
Calcium	270			1	260			1	3.77		MG/L
CHLORIDE	89			10	90			10	1.12		MG/L
Fluoride	0.33			1	0.32			1			MG/L
Iron	0.046	J		1	0.044	J		1	4.44		MG/L
Magnesium	55			1	54			1	1.83		MG/L
Manganese	0.0043	J		1	0.002	J		1	>PQL		MG/L
Molybdenum	0.0044			10	0.0043			10	2.30		MG/L
Nitrate+Nitrite as N	0.9			2	0.96			2	6.45		MG/L
Potassium	3.6			1	3.7			1	2.74		MG/L
Selenium	0.0098			10	0.0089			10	9.63		MG/L
Sodium	100			1	110			1	9.52		MG/L
SULFATE	660			10	670			10	1.50		MG/L
Uranium	0.092			10	0.095			10	3.21		MG/L
Vanadium	0.16			10	0.16			10	0		MG/L

Duplicate: 2918

Sample: R3-M2

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Arsenic	0.00028	J		10	0.0002	J		10			MG/L
Calcium	200			1	190			1	5.13		MG/L
CHLORIDE	67			10	66			10	1.50		MG/L
Fluoride	0.54			1	0.55			1	1.83		MG/L
Iron	3.2			1	3.1			1	3.17		MG/L
Magnesium	44			1	43			1	2.30		MG/L
Manganese	0.12			1	0.11			1	8.70		MG/L
Molybdenum	0.085			10	0.087			10	2.33		MG/L
Nitrate+Nitrite as N	0.01	U		1	0.01	U		1			MG/L
Potassium	8.2			1	8.1			1	1.23		MG/L
Selenium	0.00066	U		10	0.00066	U		10			MG/L
Sodium	95			1	92			1	3.21		MG/L
SULFATE	500			10	490			10	2.02		MG/L
Uranium	0.3			10	0.31			10	3.28		MG/L
Vanadium	0.00058	U		10	0.00061	J		10			MG/L

Figure 4 (continued). Duplicates Worksheet

Certification

All laboratory analytical quality control criteria were met except as qualified in this report. The data qualifiers listed on the environmental 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
Stephen Donivan

1-25-2017
Date

Data Validation Lead:

Gretchen Baer
Gretchen Baer

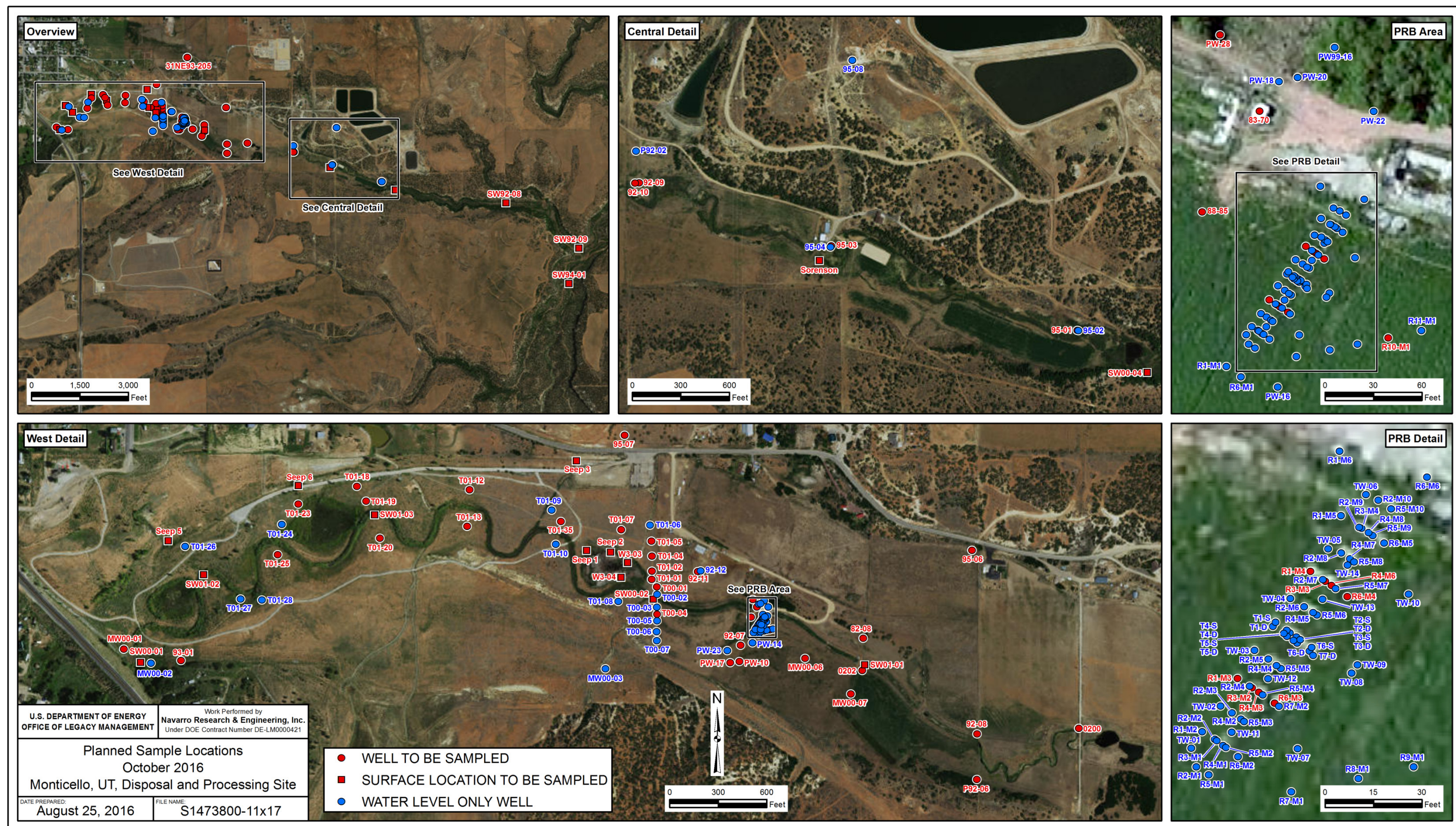
1-25-2017
Date

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Attachment 1

Sampling and Analysis Work Order

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Monticello, Utah, Disposal and Processing Sites Sample Location Map

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September 8, 2016

Task Assignment 104
Control Number 16-0926

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

SUBJECT: Contract No. DE-LM0000421, Navarro Research & Engineering, Inc. (Navarro)
Task Assignment 104 LTS&M-Nevada Off Sites and Monticello Site
Task Assignment 104 LTS&M - Nevada Offsites and Monticello
October 2016 Environmental Sampling at the Monticello, Utah, Site

REFERENCE: Task Assignment 104, 1-104-1-06-502, Monticello, Utah, Site

Dear Mr. Nguyen:

The purpose of this letter is to inform you of the upcoming Operable Unit III semi-annual sampling event at the Monticello, Utah, site. Enclosed are the map and tables specifying sample locations and analytes for monitoring at the site. Water quality data will be collected at this site as part of the routine environmental sampling currently scheduled to begin the week of October 10, 2016.

The following lists show the monitoring wells and surface locations scheduled for sampling during this event.

MONITORING WELLS

North Off-Site Wells

31NE93-205 95-07

Former Mill Site Wells

93-01	T00-04	T01-02	T01-05	T01-12	T01-18	T01-20	T01-25
MW00-01	T01-01	T01-04	T01-07	T01-13	T01-19	T01-23	T01-35
T00-01							

Downgradient Wells

82-08	92-07	92-10	95-03	0200	MW00-06	P92-06	PW-17
83-70	92-08	92-11	95-06	0202	MW00-07	PW-10	PW-28
88-85	92-09	95-01					

PRB Wells

R1-M3 R3-M2 R3-M3 R4-M3 R4-M6 R6-M3 R6-M4 R10-M1
R1-M4

SURFACE LOCATIONS

Former Millsite Seeps and Wetlands

Seep 1 Seep 2 Seep 3 Seep 5 Seep 6 W3-03 W3-04

Surface Water Locations

SW00-01 SW00-04 SW01-01 SW01-02 SW01-03 SW92-08 SW92-09 Sorensen
SW00-02 SW94-01

All samples will be collected as directed in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*. Water levels will be collected from additional wells on site as noted in the attachment. Private landowners will be notified of planned fieldwork on their property before the sampling occurs.

Please contact me at (970) 248-6182 if you have any questions.

Sincerely,



FREDERICK SMITH
(Affiliate)
2016.09.07 16:08:26 -06'00'

Fred Smith
LMS Site Lead

FS/lcg/bkb

Enclosures (3)

cc: (electronic)

Christina Pennal, DOE
Timothy Bartlett, Navarro
Beverly Cook, Navarro
Steve Donovan, Navarro
Lauren Goodknight, Navarro
Kenneth Karp, Navarro
Sam Marutzky, Navarro
Diana Osborne, Navarro
Fred Smith, Navarro
EDD Delivery
rc-grand.junction
File: MNT 400.02

**Sampling Frequencies for Locations at
Monticello, Utah**

Location ID	Quarterly	Semiannually ^a	Annually ^b	Every 5 Years	Not Sampled	Notes
North Off-Site Wells						
31NE93-205				X ^c		Water Level (WL) Semiannually; next sample in October 2016
95-07				X ^c		WL Semiannually; next sample in October 2016
Former Mill Site Wells						
93-01			X			WL Semiannually
MW00-01		X				
MW00-02					X	WL Semiannually
MW00-03					X	WL Semiannually
T00-01			X			WL Semiannually
T00-02					X	WL Semiannually
T00-03					X	WL Semiannually
T00-04			X			WL Semiannually
T00-05					X	WL Semiannually
T00-06					X	WL Semiannually
T00-07					X	WL Semiannually
T01-01		X				
T01-02		X				
T01-04		X				
T01-05		X				
T01-06					X	WL Semiannually
T01-07		X				
T01-08					X	WL Semiannually
T01-09					X	WL Semiannually
T01-10					X	WL Semiannually
T01-12		X				
T01-13			X			WL Semiannually
T01-18			X			WL Semiannually
T01-19		X				
T01-20			X			WL Semiannually
T01-23			X			WL Semiannually
T01-24					X	WL Semiannually
T01-25			X			WL Semiannually
T01-26					X	WL Semiannually
T01-27					X	WL Semiannually
T01-28					X	WL Semiannually
T01-35		X				
Downgradient Wells						
82-08		X				
83-70			X			WL Semiannually
88-85		X				Datalogger
92-07		X				
92-08		X				

**Sampling Frequencies for Locations at
Monticello, Utah**

Location ID	Quarterly	Semiannually ^a	Annually ^b	Every 5 Years	Not Sampled	Notes
Downgradient Wells						
92-09		X				
92-10			X			WL Semiannually
92-11		X				
92-12					X	WL Semiannually
95-01			X			WL Semiannually
95-02					X	WL Semiannually
95-03			X			WL Semiannually
95-04					X	WL Semiannually
95-06				X ^c		WL Semiannually; next sample in October 2016
95-08					X	WL Semiannually
0200		X				
0202		X				
MW00-06		X				
MW00-07			X			WL Semiannually
P92-02					X	WL Semiannually
P92-06		X				
PW-10		X				
PW-14					X	WL Semiannually
PW-16					X	WL Semiannually
PW99-16					X	WL Semiannually
PW-17		X				
PW-18					X	WL Semiannually
PW-20					X	WL Semiannually
PW-22					X	WL Semiannually
PW-23					X	WL Semiannually
PW-28		X				
PRB Wells						
R1-M1					X	WL Semiannually
R1-M2					X	WL Semiannually
R1-M3		X				
R1-M4		X				
R1-M5					X	WL Semiannually
R1-M6					X	WL Semiannually
R2-M1					X	WL Semiannually
R2-M2					X	WL Semiannually
R2-M3					X	WL Semiannually
R2-M4					X	WL Semiannually
R2-M5					X	WL Semiannually
R2-M6					X	WL Semiannually
R2-M7					X	WL Semiannually
R2-M8					X	WL Semiannually
R2-M9					X	WL Semiannually

**Sampling Frequencies for Locations at
Monticello, Utah**

Location ID	Quarterly	Semiannually ^a	Annually ^b	Every 5 Years	Not Sampled	Notes
PRB Wells						
R2-M10					X	WL Semiannually
R3-M1					X	WL Semiannually
R3-M2		X				
R3-M3		X				
R3-M4					X	WL Semiannually
R4-M1					X	WL Semiannually
R4-M2					X	WL Semiannually
R4-M3		X				
R4-M4					X	WL Semiannually
R4-M5					X	WL Semiannually
R4-M6		X				
R4-M7					X	WL Semiannually
R4-M8					X	WL Semiannually
R5-M1					X	WL Semiannually
R5-M2					X	WL Semiannually
R5-M3					X	WL Semiannually
R5-M4					X	WL Semiannually
R5-M5					X	WL Semiannually
R5-M6					X	WL Semiannually
R5-M7					X	WL Semiannually
R5-M8					X	WL Semiannually
R5-M9					X	WL Semiannually
R5-M10					X	WL Semiannually
R6-M1					X	WL Semiannually
R6-M2					X	WL Semiannually
R6-M3		X				
T1-D					X	WL Semiannually
T1-S					X	WL Semiannually
T2-D					X	WL Semiannually
T2-S					X	WL Semiannually
T3-D					X	WL Semiannually
T3-S					X	WL Semiannually
T4-D					X	WL Semiannually
T4-S					X	WL Semiannually
T5-D					X	WL Semiannually
T5-S					X	WL Semiannually
T6-D					X	WL Semiannually
T6-S					X	WL Semiannually
T7-D					X	WL Semiannually
TW-01					X	WL Semiannually
TW-02					X	WL Semiannually
TW-03					X	WL Semiannually
TW-04					X	WL Semiannually

**Sampling Frequencies for Locations at
Monticello, Utah**

Location ID	Quarterly	Semiannually ^a	Annually ^b	Every 5 Years	Not Sampled	Notes
PRB Wells						
TW-05					X	WL Semiannually
TW-06					X	WL Semiannually
TW-07					X	WL Semiannually
TW-08					X	WL Semiannually
TW-09					X	WL Semiannually
TW-10					X	WL Semiannually
TW-11					X	WL Semiannually
TW-12					X	WL Semiannually
TW-13					X	WL Semiannually
TW-14					X	WL Semiannually
R6-M4		X				
R6-M5					X	WL Semiannually
R6-M6					X	WL Semiannually
R7-M1					X	WL Semiannually
R7-M2					X	WL Semiannually
R8-M1					X	WL Semiannually
R9-M1					X	WL Semiannually
R10-M1		X				
R11-M1					X	WL Semiannually
Former Mill Site Seeps and Wetland (W3) Locations						
Seep 1		X				
Seep 2		X				
Seep 3		X				
Seep 5		X				
Seep 6		X				
W3-03		X				
W3-04		X				
Surface Water Locations (stream flow is measured Semiannually at each SW location)						
SW00-01		X				
SW00-02		X				
SW01-02		X				
SW01-03		X				
SW01-01		X				
Sorenson		X				
SW00-04		X				
SW02-08		X				
SW02-09		X				
SW04-01		X				

^aSemiannual sampling occurs in April and October

^bAnnual sampling occurs in October

^c5-year sample frequency next in October 2016.

Constituent Sampling Breakdown

Site	Monticello				Required Detection Limit (mg/L)	Analytical Method	Line Item Code
Analyte	Groundwater	PRB Wells	Surface Water	Seeps and Wetlands			
Approx. No. Samples/Yr	57	18	20	14			
Field Measurements							
Alkalinity	X	X	X	X			
Dissolved Oxygen	X	X	X	X			
Redox Potential	X	X	X	X			
pH	X	X	X	X			
Specific Conductance	X	X	X	X			
Turbidity	X	X	X	X			
Temperature	X	X	X	X			
Laboratory Measurements							
Aluminum							
Ammonia as N (NH3-N)							
Arsenic	X	X	X	X	0.0001	SW-846 6020	LMM-02
Calcium	X	X	X	X	5	SW-846 6010	LMM-01
Chloride	X	X	X	X	0.5	SW-846 9056	WCH-A-039
Chromium							
Fluoride	X	X	X	X	0.5	SW-846 9056	MIS-A-040
Gross Alpha							
Gross Beta							
Iron	X	X	X	X	0.05	SW-846 6020	LMM-02
Lead							
Magnesium	X	X	X	X	5	SW-846 6010	LMM-01
Manganese	X	X	X	X	0.005	SW-846 6010	LMM-01
Molybdenum	X	X	X	X	0.003	SW-846 6020	LMM-02
Nickel							
Nickel-63							
Nitrate + Nitrite as N (NO3+NO2)-N	X	X	X	X	0.05	EPA 353.1	WCH-A-022
Potassium	X	X	X	X	1	SW-846 6010	LMM-01
Radium-226							
Radium-228							
Selenium	X	X	X	X	0.0001	SW-846 6020	LMM-02
Silica							
Sodium	X	X	X	X	1	SW-846 6010	LMM-01
Strontium							
Sulfate	X	X	X	X	0.5	SW-846 9056	MIS-A-044
Sulfide							
Total Dissolved Solids	T01-01, T01-12, 88-85, 82-08, and MW00-06 only		SW01-02, SW00-02, SW01-01, and Sorenson only	Seep 2 only	10	SM2540 C	WCH-A-033
Total Organic Carbon							
Uranium	X	X	X	X	0.0001	SW-846 6020	LMM-02
Vanadium	X	X	X	X	0.0003	SW-846 6020	LMM-02
Zinc							
Total No. of Analytes	16	15	16	16			

Note: The total number of analytes does not include field parameters.

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Attachment 2

Trip Report

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To: Fred Smith, Navarro
From: Jennifer Graham, Navarro
Date: October 31, 2016
CC: Jason Nguyen, DOE
Tim Bartlett, Navarro
Steve Donivan, Navarro
David Dille, Navarro
EDD Delivery
re-grand.junction
File: MNT 0045.20(A)
Re: Sampling Trip Report

Site: Monticello, Utah, Processing and Disposal Site

Dates of Event: October 10–12, 2016

Team Members: David Atkinson, Tony Franzone, Jennifer Graham, and Alison Kuhlman, Navarro

Number of Locations Sampled: Samples were collected from 54 of the 64 locations identified on the sampling notification letter as follows:

	Locations That Were Sampled	Planned Locations
Monitoring wells	34	38
Surface water locations	11	12
PRB Wells	7	9
Seep Locations	2	5

Locations Not Sampled/Reason:

Location IDs	Comments
PW-10, Seep 1, Seep 2, Seep 5, SW00-01, and T01-12	Dry locations
MW00-07, R4-M3, and R6-M3	Location had insufficient water to collect a sample after field readings were collected
PW-17	An offset in well casing prevented bailer equipment from being lowered into well for sample collection

Location Specific Information:

Location IDs	Comments
31NE93-205, 95-01	Purge water contained red particles
R6-M3	Field reading for specific conductivity could not be collected due to limited water volume

Location IDs	Comments
R6-M4	Due to limited water volume, sample collection was prioritized according to program directive MNT-2016-01. Samples were not collected for TDS, nitrates, and anions at this location. Only a metals sample was collected.
Seep 6	Water appeared to have a film on the surface.
T01-20	Water volume was limited at this location. All sample water was collected after the minimum purge volume was met. Well went dry before water could be collected for field readings.

Quality Control Sample Cross Reference: A summary of the quality control samples collected is presented below.

Quality Control Sample Summary

False ID	Ticket Number	True ID	Sample Type	Associated Matrix
2477	OLV 214	T-01-23	Duplicate	Ground Water
2583	OLV 206	Sorenson	Duplicate	Surface Water
2586	OLV 207	T01-35	Duplicate	Ground Water
2918	OLV 210	R3-M2	Duplicate	Ground Water

Requisition Index Number (RIN) Assigned: Samples were assigned to RIN 16108078. Field data sheets can be found in <\\crow\sms\16108078\FieldData>.

Sample Shipment: Samples were shipped overnight via FedEx from Grand Junction, CO, to ALS Laboratory in Fort Collins, CO, in two shipments on October 13 and October 17, 2016.

Water Level Measurements: Water levels were measured in all sampled wells and in 95 additional wells. A water level data report for these 95 wells can be found in <\\crow\sms\FDCS\WATER LEVELS>.

Well Inspection Summary:

- Well MW00-01 needs to be relabeled
- Well PW-17 needs to have off-set in casing investigated

Sampling Method: Samples were collected according to the *Sampling and Analysis Plan for the U. S. Department of Energy Office of Legacy Management Sites* (SAP, LMS/PRO/S04351, continually updated). In addition to the SAP, the Permeable Reactive Barrier Wells (PRB) were sampled according to program directive MNT-2016-01.

Field Variance:

- Dissolved Oxygen (DO) readings were not collected at locations 95-01 or 31NE93-205. This was approved by the site lead and the well locations were not revisited. DO was collected at all other locations.
- Field readings were not collected at T01-20 due to insufficient water availability.
- A field reading for specific conductivity was not collected at R6-M3 due to insufficient water availability.

Stream Flow Measurements: Stream flow measurements were taken near 6 sampling locations along Montezuma Creek where the creek meets the requirements for readings to be collected. Stream flow measurements were collected according to the MNT-2016-02 program directive.

Weather during field readings collections was sunny and clear in the 70's with very a light breeze out of the southwest. Readings at each of the six locations were forwarded to Tim Bartlett.

Equipment: All equipment functioned properly.

Dataloggers: Dataloggers were not downloaded during this trip.

Stakeholder/Regulatory/DOE: Nothing to note

Institutional Controls:

Fences, Gates, and Locks: All gates were left as found on arrival and appeared to be in good condition.

Signs: No issues were observed.

Trespassing/Site Disturbances: None observed

Safety Issues: None

Access Issues: The road leading to locations 95-01, 95-02, and SW00-04 is becoming eroded by water runoff, but is still in fair condition. Access to location SW92-08 is becoming overgrown with woody limbs and heavy brush.

General Information: Nothing to note

Immediate Actions Taken: None

Future Actions Required or Suggested:

- High visibility flagging marking surface water locations should be replaced in the spring at SW92-08, SW92-09, and SW94-01.
- Location SW92-08 needs brush cleared. The sampling team should bring bypass loppers.

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Attachment 3

Data Presentation

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Groundwater Quality Data

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Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 0200 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	5.32	-	10.26	458		F	#		
Arsenic	mg/L	10/12/2016	N001	5.32	-	10.26	0.00037	J	F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	5.32	-	10.26	210		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	5.32	-	10.26	200		F	#	20	
Dissolved Oxygen	mg/L	10/12/2016	N001	5.32	-	10.26	6.03		F	#		
Fluoride	mg/L	10/12/2016	N001	5.32	-	10.26	0.43		F	#	0.1	
Iron	mg/L	10/12/2016	N001	5.32	-	10.26	0.035	J	UF	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	5.32	-	10.26	56		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	5.32	-	10.26	0.27		F	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	5.32	-	10.26	0.03		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	5.32	-	10.26	0.022		F	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	5.32	-	10.26	7.6		F	#		
pH	s.u.	10/12/2016	N001	5.32	-	10.26	6.57		F	#		
Potassium	mg/L	10/12/2016	N001	5.32	-	10.26	7.5		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	5.32	-	10.26	0.0011		F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	5.32	-	10.26	190		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	5.32	-	10.26	2109		F	#		
Sulfate	mg/L	10/12/2016	N001	5.32	-	10.26	520		F	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 0200 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	5.32	-	10.26	13.42		F	#		
Turbidity	NTU	10/12/2016	N001	5.32	-	10.26	1.64		F	#		
Uranium	mg/L	10/12/2016	N001	5.32	-	10.26	0.2		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	5.32	-	10.26	0.00058	U	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 0202 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	10.32	-	15.26	355		FQ	#		
Arsenic	mg/L	10/11/2016	0001	10.32	-	15.26	0.0024		FQ	#	0.00012	
Calcium	mg/L	10/11/2016	0001	10.32	-	15.26	260		FQ	#	0.024	
Chloride	mg/L	10/11/2016	0001	10.32	-	15.26	88		FQ	#	2.5	
Dissolved Oxygen	mg/L	10/11/2016	N001	10.32	-	15.26	10.14		FQ	#		
Fluoride	mg/L	10/11/2016	0001	10.32	-	15.26	0.48		FQ	#	0.1	
Iron	mg/L	10/11/2016	0001	10.32	-	15.26	0.44		FQ	#	0.0067	
Magnesium	mg/L	10/11/2016	0001	10.32	-	15.26	56		FQ	#	0.03	
Manganese	mg/L	10/11/2016	0001	10.32	-	15.26	0.084		FQ	#	0.00024	
Molybdenum	mg/L	10/11/2016	0001	10.32	-	15.26	0.026		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	0001	10.32	-	15.26	1.2		FQ	#	0.02	
Oxidation Reduction Potential	mV	10/11/2016	N001	10.32	-	15.26	104.1		FQ	#		
pH	s.u.	10/11/2016	N001	10.32	-	15.26	6.52		FQ	#		
Potassium	mg/L	10/11/2016	0001	10.32	-	15.26	6		FQ	#	0.052	
Selenium	mg/L	10/11/2016	0001	10.32	-	15.26	0.011		FQ	#	0.00066	
Sodium	mg/L	10/11/2016	0001	10.32	-	15.26	110		FQ	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	10.32	-	15.26	963		FQ	#		
Sulfate	mg/L	10/11/2016	0001	10.32	-	15.26	710		FQ	#	6.2	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 0202 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	10.32	-	15.26	16.27		FQ	#		
Turbidity	NTU	10/11/2016	N001	10.32	-	15.26	226		FQ	#		
Uranium	mg/L	10/11/2016	0001	10.32	-	15.26	0.16		FQ	#	0.000012	
Vanadium	mg/L	10/11/2016	0001	10.32	-	15.26	0.038		FQ	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 31NE93-205 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/10/2016	N001	-	149		F	#		
Arsenic	mg/L	10/10/2016	N001	-	0.084		F	#	0.00012	
Calcium	mg/L	10/10/2016	N001	-	38		F	#	0.024	
Chloride	mg/L	10/10/2016	N001	-	3.1		JF	#	0.2	
Fluoride	mg/L	10/10/2016	N001	-	0.21		JF	#	0.1	
Iron	mg/L	10/10/2016	N001	-	1.2		F	#	0.0067	
Magnesium	mg/L	10/10/2016	N001	-	11		F	#	0.03	
Manganese	mg/L	10/10/2016	N001	-	0.53		F	#	0.00024	
Molybdenum	mg/L	10/10/2016	N001	-	0.0015	J	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2016	N001	-	0.01	U	JF	#	0.01	
Oxidation Reduction Potential	mV	10/10/2016	N001	-	29.7		F	#		
pH	s.u.	10/10/2016	N001	-	6.83		F	#		
Potassium	mg/L	10/10/2016	N001	-	3.6		F	#	0.052	
Selenium	mg/L	10/10/2016	N001	-	0.00066	U	F	#	0.00066	
Sodium	mg/L	10/10/2016	N001	-	81		F	#	0.047	
Specific Conductance	umhos /cm	10/10/2016	N001	-	586		F	#		
Sulfate	mg/L	10/10/2016	N001	-	150		JF	#	5	
Temperature	C	10/10/2016	N001	-	11.49		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 31NE93-205 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Turbidity	NTU	10/10/2016	N001	-	7.59		F	#		
Uranium	mg/L	10/10/2016	N001	-	0.00023		F	#	0.000012	
Vanadium	mg/L	10/10/2016	N001	-	0.00058	U	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 82-08 WELL Original 82-08 destroyed during excavation before 1/28/1999. Replacement well installed on 2/23/1999 and also called 82-08.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	12	-	17	223		F	#		
Arsenic	mg/L	10/11/2016	N001	12	-	17	0.00048	J	F	#	0.00012	
Calcium	mg/L	10/11/2016	N001	12	-	17	230		F	#	0.024	
Chloride	mg/L	10/11/2016	N001	12	-	17	96		F	#	2.5	
Dissolved Oxygen	mg/L	10/11/2016	N001	12	-	17	6.47		F	#		
Fluoride	mg/L	10/11/2016	N001	12	-	17	1.3		F	#	0.1	
Iron	mg/L	10/11/2016	N001	12	-	17	0.12		F	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	12	-	17	64		F	#	0.03	
Manganese	mg/L	10/11/2016	N001	12	-	17	0.012		F	#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	12	-	17	0.012		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	12	-	17	1.6		F	#	0.1	
Oxidation Reduction Potential	mV	10/11/2016	N001	12	-	17	65.7		F	#		
pH	s.u.	10/11/2016	N001	12	-	17	6.15		F	#		
Potassium	mg/L	10/11/2016	N001	12	-	17	4.1		F	#	0.052	
Selenium	mg/L	10/11/2016	N001	12	-	17	0.015		F	#	0.00066	
Sodium	mg/L	10/11/2016	N001	12	-	17	110		F	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	12	-	17	2545		F	#		
Sulfate	mg/L	10/11/2016	N001	12	-	17	820		F	#	6.2	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 82-08 WELL Original 82-08 destroyed during excavation before 1/28/1999. Replacement well installed on 2/23/1999 and also called 82-08.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	12	-	17	13.72		F	#		
Total Dissolved Solids	mg/L	10/11/2016	N001	12	-	17	1400		F	#	40	
Turbidity	NTU	10/11/2016	N001	12	-	17	0.39		F	#		
Uranium	mg/L	10/11/2016	N001	12	-	17	0.13		F	#	0.000012	
Vanadium	mg/L	10/11/2016	N001	12	-	17	0.0051		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 83-70 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	50.4	-	170.4	203			#		
Arsenic	mg/L	10/12/2016	N001	50.4	-	170.4	0.00012	J		#	0.00012	
Calcium	mg/L	10/12/2016	N001	50.4	-	170.4	53			#	0.024	
Chloride	mg/L	10/12/2016	N001	50.4	-	170.4	3.6			#	0.2	
Dissolved Oxygen	mg/L	10/12/2016	N001	50.4	-	170.4	4.93			#		
Fluoride	mg/L	10/12/2016	N001	50.4	-	170.4	0.17			#	0.1	
Iron	mg/L	10/12/2016	N001	50.4	-	170.4	0.86			#	0.0067	
Magnesium	mg/L	10/12/2016	N001	50.4	-	170.4	10			#	0.03	
Manganese	mg/L	10/12/2016	N001	50.4	-	170.4	0.26			#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	50.4	-	170.4	0.001	J		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	50.4	-	170.4	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	50.4	-	170.4	-58			#		
pH	s.u.	10/12/2016	N001	50.4	-	170.4	7.22			#		
Potassium	mg/L	10/12/2016	N001	50.4	-	170.4	2.8			#	0.052	
Selenium	mg/L	10/12/2016	N001	50.4	-	170.4	0.00066	U		#	0.00066	
Sodium	mg/L	10/12/2016	N001	50.4	-	170.4	61			#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	50.4	-	170.4	593			#		
Sulfate	mg/L	10/12/2016	N001	50.4	-	170.4	110			#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 83-70 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	50.4	-	170.4	12.61			#		
Turbidity	NTU	10/12/2016	N001	50.4	-	170.4	3.66			#		
Uranium	mg/L	10/12/2016	N001	50.4	-	170.4	0.00004	J		#	0.000012	
Vanadium	mg/L	10/12/2016	N001	50.4	-	170.4	0.00058	U		#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 88-85 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/10/2016	N001	6.71	-	11.71	336		F	#		
Arsenic	mg/L	10/10/2016	N001	6.71	-	11.71	0.014		F	#	0.00012	
Calcium	mg/L	10/10/2016	N001	6.71	-	11.71	250		F	#	0.024	
Chloride	mg/L	10/10/2016	N001	6.71	-	11.71	90		F	#	2	
Dissolved Oxygen	mg/L	10/10/2016	N001	6.71	-	11.71	1.15		F	#		
Fluoride	mg/L	10/10/2016	N001	6.71	-	11.71	0.51		F	#	0.1	
Iron	mg/L	10/10/2016	N001	6.71	-	11.71	0.011	J	UF	#	0.0067	
Magnesium	mg/L	10/10/2016	N001	6.71	-	11.71	53		F	#	0.03	
Manganese	mg/L	10/10/2016	N001	6.71	-	11.71	0.00079	J	UF	#	0.00024	
Molybdenum	mg/L	10/10/2016	N001	6.71	-	11.71	0.026		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2016	N001	6.71	-	11.71	1.6		F	#	0.1	
Oxidation Reduction Potential	mV	10/10/2016	N001	6.71	-	11.71	-4.4		F	#		
pH	s.u.	10/10/2016	N001	6.71	-	11.71	6.48		F	#		
Potassium	mg/L	10/10/2016	N001	6.71	-	11.71	6.1		F	#	0.052	
Selenium	mg/L	10/10/2016	N001	6.71	-	11.71	0.018		F	#	0.00066	
Sodium	mg/L	10/10/2016	N001	6.71	-	11.71	99		F	#	0.047	
Specific Conductance	umhos /cm	10/10/2016	N001	6.71	-	11.71	1777		F	#		
Sulfate	mg/L	10/10/2016	N001	6.71	-	11.71	630		F	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 88-85 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/10/2016	N001	6.71	-	11.71	14.4		F	#		
Total Dissolved Solids	mg/L	10/10/2016	N001	6.71	-	11.71	1300		F	#	40	
Turbidity	NTU	10/10/2016	N001	6.71	-	11.71	1.21		F	#		
Uranium	mg/L	10/10/2016	N001	6.71	-	11.71	0.17		F	#	0.000012	
Vanadium	mg/L	10/10/2016	N001	6.71	-	11.71	0.36		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 92-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/10/2016	N001	15.6	-	20.6	282		F	#		
Arsenic	mg/L	10/10/2016	N001	15.6	-	20.6	0.01		F	#	0.00012	
Calcium	mg/L	10/10/2016	N001	15.6	-	20.6	220		F	#	0.024	
Chloride	mg/L	10/10/2016	N001	15.6	-	20.6	64		F	#	2	
Dissolved Oxygen	mg/L	10/10/2016	N001	15.6	-	20.6	1.77		F	#		
Fluoride	mg/L	10/10/2016	N001	15.6	-	20.6	0.62		F	#	0.1	
Iron	mg/L	10/10/2016	N001	15.6	-	20.6	0.017	J	UF	#	0.0067	
Magnesium	mg/L	10/10/2016	N001	15.6	-	20.6	45		F	#	0.03	
Manganese	mg/L	10/10/2016	N001	15.6	-	20.6	0.0041	J	F	#	0.00024	
Molybdenum	mg/L	10/10/2016	N001	15.6	-	20.6	0.055		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2016	N001	15.6	-	20.6	0.6		F	#	0.1	
Oxidation Reduction Potential	mV	10/10/2016	N001	15.6	-	20.6	103.4		F	#		
pH	s.u.	10/10/2016	N001	15.6	-	20.6	6.54		F	#		
Potassium	mg/L	10/10/2016	N001	15.6	-	20.6	9.6		F	#	0.052	
Selenium	mg/L	10/10/2016	N001	15.6	-	20.6	0.019		F	#	0.00066	
Sodium	mg/L	10/10/2016	N001	15.6	-	20.6	87		F	#	0.047	
Specific Conductance	umhos /cm	10/10/2016	N001	15.6	-	20.6	1572		F	#		
Sulfate	mg/L	10/10/2016	N001	15.6	-	20.6	550		F	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 92-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/10/2016	N001	15.6	-	20.6	13.24		F	#		
Turbidity	NTU	10/10/2016	N001	15.6	-	20.6	0.92		F	#		
Uranium	mg/L	10/10/2016	N001	15.6	-	20.6	0.34		F	#	0.000012	
Vanadium	mg/L	10/10/2016	N001	15.6	-	20.6	0.33		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 92-08 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	12.9	-	17.9	272		F	#		
Arsenic	mg/L	10/12/2016	N001	12.9	-	17.9	0.00038	J	F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	12.9	-	17.9	180		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	12.9	-	17.9	29		F	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	12.9	-	17.9	6.88		F	#		
Fluoride	mg/L	10/12/2016	N001	12.9	-	17.9	0.41		F	#	0.1	
Iron	mg/L	10/12/2016	N001	12.9	-	17.9	0.038	J	UF	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	12.9	-	17.9	39		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	12.9	-	17.9	0.39		F	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	12.9	-	17.9	0.04		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	12.9	-	17.9	0.01	U	F	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	12.9	-	17.9	99.1		F	#		
pH	s.u.	10/12/2016	N001	12.9	-	17.9	6.62		F	#		
Potassium	mg/L	10/12/2016	N001	12.9	-	17.9	6		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	12.9	-	17.9	0.0095		F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	12.9	-	17.9	64		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	12.9	-	17.9	1288		F	#		
Sulfate	mg/L	10/12/2016	N001	12.9	-	17.9	460		F	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 92-08 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	12.9	-	17.9	14.1		F	#		
Turbidity	NTU	10/12/2016	N001	12.9	-	17.9	1.3		F	#		
Uranium	mg/L	10/12/2016	N001	12.9	-	17.9	0.18		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	12.9	-	17.9	0.0016	J	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 92-09 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	10.9	-	16	382		F	#		
Arsenic	mg/L	10/12/2016	N001	10.9	-	16	0.0018		F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	10.9	-	16	270		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	10.9	-	16	110		F	#	2.5	
Dissolved Oxygen	mg/L	10/12/2016	N001	10.9	-	16	4.35		F	#		
Fluoride	mg/L	10/12/2016	N001	10.9	-	16	0.21		F	#	0.1	
Iron	mg/L	10/12/2016	N001	10.9	-	16	1.5		F	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	10.9	-	16	65		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	10.9	-	16	0.15		F	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	10.9	-	16	0.003		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	10.9	-	16	0.01	U	F	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	10.9	-	16	-5.6		F	#		
pH	s.u.	10/12/2016	N001	10.9	-	16	6.67		F	#		
Potassium	mg/L	10/12/2016	N001	10.9	-	16	2.1		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	10.9	-	16	0.00066	U	F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	10.9	-	16	170		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	10.9	-	16	2194		F	#		
Sulfate	mg/L	10/12/2016	N001	10.9	-	16	890		F	#	6.2	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 92-09 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	10.9	-	16	13.91		F	#		
Turbidity	NTU	10/12/2016	N001	10.9	-	16	1.77		F	#		
Uranium	mg/L	10/12/2016	N001	10.9	-	16	0.28		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	10.9	-	16	0.00058	U	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 92-10 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	34.4	-	64.4	221		F	#		
Arsenic	mg/L	10/12/2016	N001	34.4	-	64.4	0.00012	J	F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	34.4	-	64.4	160		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	34.4	-	64.4	69		F	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	34.4	-	64.4	4.28		F	#		
Fluoride	mg/L	10/12/2016	N001	34.4	-	64.4	0.15		F	#	0.1	
Iron	mg/L	10/12/2016	N001	34.4	-	64.4	3.2		F	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	34.4	-	64.4	28		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	34.4	-	64.4	0.8		F	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	34.4	-	64.4	0.0014	J	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	34.4	-	64.4	0.01	U	F	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	34.4	-	64.4	-46		F	#		
pH	s.u.	10/12/2016	N001	34.4	-	64.4	7		F	#		
Potassium	mg/L	10/12/2016	N001	34.4	-	64.4	4.2		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	34.4	-	64.4	0.00066	U	F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	34.4	-	64.4	82		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	34.4	-	64.4	1279		F	#		
Sulfate	mg/L	10/12/2016	N001	34.4	-	64.4	440		F	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 92-10 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	34.4	-	64.4	13.44		F	#		
Turbidity	NTU	10/12/2016	N001	34.4	-	64.4	2.01		F	#		
Uranium	mg/L	10/12/2016	N001	34.4	-	64.4	0.00008	J	F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	34.4	-	64.4	0.00058	U	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 92-11 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/10/2016	N001	9.5	-	13.9	325		F	#		
Arsenic	mg/L	10/10/2016	N001	9.5	-	13.9	0.015		F	#	0.00012	
Calcium	mg/L	10/10/2016	N001	9.5	-	13.9	260		F	#	0.024	
Chloride	mg/L	10/10/2016	N001	9.5	-	13.9	110		F	#	2	
Dissolved Oxygen	mg/L	10/10/2016	N001	9.5	-	13.9	4.14		F	#		
Fluoride	mg/L	10/10/2016	N001	9.5	-	13.9	0.42		F	#	0.1	
Iron	mg/L	10/10/2016	N001	9.5	-	13.9	0.037	J	UF	#	0.0067	
Magnesium	mg/L	10/10/2016	N001	9.5	-	13.9	54		F	#	0.03	
Manganese	mg/L	10/10/2016	N001	9.5	-	13.9	0.003	J	UF	#	0.00024	
Molybdenum	mg/L	10/10/2016	N001	9.5	-	13.9	0.015		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2016	N001	9.5	-	13.9	1.8		F	#	0.1	
Oxidation Reduction Potential	mV	10/10/2016	N001	9.5	-	13.9	130.3		F	#		
pH	s.u.	10/10/2016	N001	9.5	-	13.9	6.56		F	#		
Potassium	mg/L	10/10/2016	N001	9.5	-	13.9	6.3		F	#	0.052	
Selenium	mg/L	10/10/2016	N001	9.5	-	13.9	0.018		F	#	0.00066	
Sodium	mg/L	10/10/2016	N001	9.5	-	13.9	120		F	#	0.047	
Specific Conductance	umhos /cm	10/10/2016	N001	9.5	-	13.9	1901		F	#		
Sulfate	mg/L	10/10/2016	N001	9.5	-	13.9	670		F	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 92-11 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/10/2016	N001	9.5	-	13.9	13.77		F	#		
Turbidity	NTU	10/10/2016	N001	9.5	-	13.9	0.72		F	#		
Uranium	mg/L	10/10/2016	N001	9.5	-	13.9	0.13		F	#	0.000012	
Vanadium	mg/L	10/10/2016	N001	9.5	-	13.9	0.38		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 93-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	119	-	179	394		F	#		
Arsenic	mg/L	10/11/2016	N001	119	-	179	0.00021	J	F	#	0.00012	
Calcium	mg/L	10/11/2016	N001	119	-	179	28		F	#	0.024	
Chloride	mg/L	10/11/2016	N001	119	-	179	6		JF	#	0.2	
Dissolved Oxygen	mg/L	10/11/2016	N001	119	-	179	0.41		F	#		
Fluoride	mg/L	10/11/2016	N001	119	-	179	0.76		JF	#	0.1	
Iron	mg/L	10/11/2016	N001	119	-	179	0.084	J	F	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	119	-	179	7.6		F	#	0.03	
Manganese	mg/L	10/11/2016	N001	119	-	179	0.067		F	#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	119	-	179	0.00032	U	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	119	-	179	0.01	U	JF	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	119	-	179	-34.5		F	#		
pH	s.u.	10/11/2016	N001	119	-	179	7.34		F	#		
Potassium	mg/L	10/11/2016	N001	119	-	179	3.3		F	#	0.052	
Selenium	mg/L	10/11/2016	N001	119	-	179	0.00066	U	F	#	0.00066	
Sodium	mg/L	10/11/2016	N001	119	-	179	150		F	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	119	-	179	745		F	#		
Sulfate	mg/L	10/11/2016	N001	119	-	179	0.93		JF	#	0.5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 93-01 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	119	-	179	10.56		F	#		
Turbidity	NTU	10/11/2016	N001	119	-	179	1.02		F	#		
Uranium	mg/L	10/11/2016	N001	119	-	179	0.00011		F	#	0.000012	
Vanadium	mg/L	10/11/2016	N001	119	-	179	0.00058	U	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 95-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/10/2016	N001	3.5	-	8.5	167		F	#		
Arsenic	mg/L	10/10/2016	N001	3.5	-	8.5	0.0039		F	#	0.00012	
Calcium	mg/L	10/10/2016	N001	3.5	-	8.5	39		F	#	0.024	
Chloride	mg/L	10/10/2016	N001	3.5	-	8.5	8.4		F	#	0.2	
Fluoride	mg/L	10/10/2016	N001	3.5	-	8.5	0.3		F	#	0.1	
Iron	mg/L	10/10/2016	N001	3.5	-	8.5	1.3		F	#	0.0067	
Magnesium	mg/L	10/10/2016	N001	3.5	-	8.5	11		F	#	0.03	
Manganese	mg/L	10/10/2016	N001	3.5	-	8.5	0.31		F	#	0.00024	
Molybdenum	mg/L	10/10/2016	N001	3.5	-	8.5	0.00069	J	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2016	N001	3.5	-	8.5	0.01	U	F	#	0.01	
Oxidation Reduction Potential	mV	10/10/2016	N001	3.5	-	8.5	-4		F	#		
pH	s.u.	10/10/2016	N001	3.5	-	8.5	6.89		F	#		
Potassium	mg/L	10/10/2016	N001	3.5	-	8.5	3		F	#	0.052	
Selenium	mg/L	10/10/2016	N001	3.5	-	8.5	0.00066	U	F	#	0.00066	
Sodium	mg/L	10/10/2016	N001	3.5	-	8.5	74		F	#	0.047	
Specific Conductance	umhos /cm	10/10/2016	N001	3.5	-	8.5	622		F	#		
Sulfate	mg/L	10/10/2016	N001	3.5	-	8.5	120		F	#	5	
Temperature	C	10/10/2016	N001	3.5	-	8.5	12.9		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 95-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Turbidity	NTU	10/10/2016	N001	3.5	-	8.5	8.86		F	#		
Uranium	mg/L	10/10/2016	N001	3.5	-	8.5	0.00043		F	#	0.000012	
Vanadium	mg/L	10/10/2016	N001	3.5	-	8.5	0.00058	U	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 95-03 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/10/2016	N001	5.56	-	10.56	213		F	#		
Arsenic	mg/L	10/10/2016	N001	5.56	-	10.56	0.00012	U	F	#	0.00012	
Calcium	mg/L	10/10/2016	N001	5.56	-	10.56	160		F	#	0.024	
Chloride	mg/L	10/10/2016	N001	5.56	-	10.56	89		JF	#	2	
Fluoride	mg/L	10/10/2016	N001	5.56	-	10.56	0.23		JF	#	0.1	
Iron	mg/L	10/10/2016	N001	5.56	-	10.56	1.8		F	#	0.0067	
Magnesium	mg/L	10/10/2016	N001	5.56	-	10.56	55		F	#	0.03	
Manganese	mg/L	10/10/2016	N001	5.56	-	10.56	0.4		F	#	0.00024	
Molybdenum	mg/L	10/10/2016	N001	5.56	-	10.56	0.004		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2016	N001	5.56	-	10.56	0.01	U	JF	#	0.01	
Oxidation Reduction Potential	mV	10/10/2016	N001	5.56	-	10.56	-32.4		F	#		
pH	s.u.	10/10/2016	N001	5.56	-	10.56	6.97		F	#		
Potassium	mg/L	10/10/2016	N001	5.56	-	10.56	3.4		F	#	0.052	
Selenium	mg/L	10/10/2016	N001	5.56	-	10.56	0.00066	U	F	#	0.00066	
Sodium	mg/L	10/10/2016	N001	5.56	-	10.56	110		F	#	0.047	
Specific Conductance	umhos /cm	10/10/2016	N001	5.56	-	10.56	1564		F	#		
Sulfate	mg/L	10/10/2016	N001	5.56	-	10.56	570		JF	#	5	
Temperature	C	10/10/2016	N001	5.56	-	10.56	12.84		F	#		

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 95-03 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Turbidity	NTU	10/10/2016	N001	5.56	-	10.56	9.83		F	#		
Uranium	mg/L	10/10/2016	N001	5.56	-	10.56	0.0077		F	#	0.000012	
Vanadium	mg/L	10/10/2016	N001	5.56	-	10.56	0.00058	U	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 95-06 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	90.12	- 105.12	278		FQ	#		
Arsenic	mg/L	10/12/2016	N001	90.12	- 105.12	0.00031	J	FQ	#	0.00012	
Calcium	mg/L	10/12/2016	N001	90.12	- 105.12	150		FQ	#	0.024	
Chloride	mg/L	10/12/2016	N001	90.12	- 105.12	76		FQ	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	90.12	- 105.12	5.89		FQ	#		
Fluoride	mg/L	10/12/2016	N001	90.12	- 105.12	0.2		FQ	#	0.1	
Iron	mg/L	10/12/2016	N001	90.12	- 105.12	1.2		FQ	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	90.12	- 105.12	41		FQ	#	0.03	
Manganese	mg/L	10/12/2016	N001	90.12	- 105.12	0.31		FQ	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	90.12	- 105.12	0.0018	J	FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	90.12	- 105.12	0.01	U	FQ	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	90.12	- 105.12	-49.4		FQ	#		
pH	s.u.	10/12/2016	N001	90.12	- 105.12	6.97		FQ	#		
Potassium	mg/L	10/12/2016	N001	90.12	- 105.12	6.3		FQ	#	0.052	
Selenium	mg/L	10/12/2016	N001	90.12	- 105.12	0.00066	U	FQ	#	0.00066	
Sodium	mg/L	10/12/2016	N001	90.12	- 105.12	170		FQ	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	90.12	- 105.12	1648		FQ	#		
Sulfate	mg/L	10/12/2016	N001	90.12	- 105.12	610		FQ	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 95-06 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	90.12 - 105.12	13.35		FQ	#		
Turbidity	NTU	10/12/2016	N001	90.12 - 105.12	0.47		FQ	#		
Uranium	mg/L	10/12/2016	N001	90.12 - 105.12	0.029		FQ	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	90.12 - 105.12	0.00058	U	FQ	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 95-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	79.9	-	109.9	1276		FQ	#		
Arsenic	mg/L	10/12/2016	N001	79.9	-	109.9	0.00076	J	FQ	#	0.00012	
Calcium	mg/L	10/12/2016	N001	79.9	-	109.9	11		FQ	#	0.024	
Chloride	mg/L	10/12/2016	N001	79.9	-	109.9	29		FQ	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	79.9	-	109.9	3.36		FQ	#		
Fluoride	mg/L	10/12/2016	N001	79.9	-	109.9	3.1		FQ	#	0.1	
Iron	mg/L	10/12/2016	N001	79.9	-	109.9	0.37		FQ	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	79.9	-	109.9	5.6		FQ	#	0.03	
Manganese	mg/L	10/12/2016	N001	79.9	-	109.9	0.035		FQ	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	79.9	-	109.9	0.0054		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	79.9	-	109.9	0.01	U	FQ	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	79.9	-	109.9	-50.5		FQ	#		
pH	s.u.	10/12/2016	N001	79.9	-	109.9	7.51		FQ	#		
Potassium	mg/L	10/12/2016	N001	79.9	-	109.9	6.7		FQ	#	0.052	
Selenium	mg/L	10/12/2016	N001	79.9	-	109.9	0.00066	U	FQ	#	0.00066	
Sodium	mg/L	10/12/2016	N001	79.9	-	109.9	610		FQ	#	0.23	
Specific Conductance	umhos /cm	10/12/2016	N001	79.9	-	109.9	2227		FQ	#		
Sulfate	mg/L	10/12/2016	N001	79.9	-	109.9	1.6		FQ	#	0.5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: 95-07 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	79.9	-	109.9	12.11		FQ	#		
Turbidity	NTU	10/12/2016	N001	79.9	-	109.9	4.22		FQ	#		
Uranium	mg/L	10/12/2016	N001	79.9	-	109.9	0.001		FQ	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	79.9	-	109.9	0.00058	U	FQ	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: MW00-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	7.37	-	13.4	289		F	#		
Arsenic	mg/L	10/11/2016	N001	7.37	-	13.4	0.00024	J	F	#	0.00012	
Calcium	mg/L	10/11/2016	N001	7.37	-	13.4	320		F	#	0.024	
Chloride	mg/L	10/11/2016	N001	7.37	-	13.4	7.5		JF	#	2.5	
Dissolved Oxygen	mg/L	10/11/2016	N001	7.37	-	13.4	4.06		F	#		
Fluoride	mg/L	10/11/2016	N001	7.37	-	13.4	0.17		JF	#	0.1	
Iron	mg/L	10/11/2016	N001	7.37	-	13.4	0.071	J	F	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	7.37	-	13.4	51		F	#	0.03	
Manganese	mg/L	10/11/2016	N001	7.37	-	13.4	0.0037	J	F	#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	7.37	-	13.4	0.002	J	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	7.37	-	13.4	0.028		JF	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	7.37	-	13.4	97		F	#		
pH	s.u.	10/11/2016	N001	7.37	-	13.4	6.66		F	#		
Potassium	mg/L	10/11/2016	N001	7.37	-	13.4	2.8		F	#	0.052	
Selenium	mg/L	10/11/2016	N001	7.37	-	13.4	0.0011		F	#	0.00066	
Sodium	mg/L	10/11/2016	N001	7.37	-	13.4	33		F	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	7.37	-	13.4	1670		F	#		
Sulfate	mg/L	10/11/2016	N001	7.37	-	13.4	810		JF	#	6.2	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: MW00-01 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	7.37	-	13.4	10.59		F	#		
Turbidity	NTU	10/11/2016	N001	7.37	-	13.4	3.25		F	#		
Uranium	mg/L	10/11/2016	N001	7.37	-	13.4	0.0055		F	#	0.000012	
Vanadium	mg/L	10/11/2016	N001	7.37	-	13.4	0.00058	U	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: MW00-06 WELL Erroneously labeled as Somerville.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	14.08	-	19.11	327		F	#		
Arsenic	mg/L	10/12/2016	N001	14.08	-	19.11	0.0038		F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	14.08	-	19.11	210		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	14.08	-	19.11	62		F	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	14.08	-	19.11	10.3		F	#		
Fluoride	mg/L	10/12/2016	N001	14.08	-	19.11	0.48		F	#	0.1	
Iron	mg/L	10/12/2016	N001	14.08	-	19.11	0.029	J	UF	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	14.08	-	19.11	46		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	14.08	-	19.11	0.0015	J	UF	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	14.08	-	19.11	0.052		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	14.08	-	19.11	0.62		F	#	0.02	
Oxidation Reduction Potential	mV	10/12/2016	N001	14.08	-	19.11	100.2		F	#		
pH	s.u.	10/12/2016	N001	14.08	-	19.11	6.57		F	#		
Potassium	mg/L	10/12/2016	N001	14.08	-	19.11	9		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	14.08	-	19.11	0.022		F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	14.08	-	19.11	93		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	14.08	-	19.11	1561		F	#		
Sulfate	mg/L	10/12/2016	N001	14.08	-	19.11	510		F	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: MW00-06 WELL Erroneously labeled as Somerville.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	14.08	-	19.11	13.16		F	#		
Total Dissolved Solids	mg/L	10/12/2016	N001	14.08	-	19.11	1100		F	#	40	
Turbidity	NTU	10/12/2016	N001	14.08	-	19.11	0.87		F	#		
Uranium	mg/L	10/12/2016	N001	14.08	-	19.11	0.35		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	14.08	-	19.11	0.14		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: MW00-07 WELL Erroneously labeled as Somerville.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Dissolved Oxygen	mg/L	10/12/2016	N001	17.17	-	22.2	7.45		FQ	#		
Oxidation Reduction Potential	mV	10/12/2016	N001	17.17	-	22.2	105.1		FQ	#		
pH	s.u.	10/12/2016	N001	17.17	-	22.2	6.86		FQ	#		
Specific Conductance	umhos /cm	10/12/2016	N001	17.17	-	22.2	2143		FQ	#		
Temperature	C	10/12/2016	N001	17.17	-	22.2	15.81		FQ	#		
Turbidity	NTU	10/12/2016	N001	17.17	-	22.2	16.5		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: P92-06 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	11.7	-	14.2	328		F	#		
Arsenic	mg/L	10/12/2016	N001	11.7	-	14.2	0.00024	J	F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	11.7	-	14.2	210		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	11.7	-	14.2	72		F	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	11.7	-	14.2	10.7		F	#		
Fluoride	mg/L	10/12/2016	N001	11.7	-	14.2	0.31		F	#	0.1	
Iron	mg/L	10/12/2016	N001	11.7	-	14.2	0.016	J	UF	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	11.7	-	14.2	59		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	11.7	-	14.2	0.0017	J	UF	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	11.7	-	14.2	0.034		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	11.7	-	14.2	1.2		F	#	0.1	
Oxidation Reduction Potential	mV	10/12/2016	N001	11.7	-	14.2	33.9		F	#		
pH	s.u.	10/12/2016	N001	11.7	-	14.2	6.6		F	#		
Potassium	mg/L	10/12/2016	N001	11.7	-	14.2	6.6		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	11.7	-	14.2	0.035		F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	11.7	-	14.2	110		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	11.7	-	14.2	1719		F	#		
Sulfate	mg/L	10/12/2016	N001	11.7	-	14.2	650		F	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: P92-06 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	11.7	-	14.2	12.44		F	#		
Turbidity	NTU	10/12/2016	N001	11.7	-	14.2	0.99		F	#		
Uranium	mg/L	10/12/2016	N001	11.7	-	14.2	0.45		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	11.7	-	14.2	0.00058	U	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: PW-28 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	-	522		F	#		
Arsenic	mg/L	10/11/2016	N001	-	0.0024		F	#	0.00012	
Calcium	mg/L	10/11/2016	N001	-	290		F	#	0.024	
Chloride	mg/L	10/11/2016	N001	-	130		F	#	2.5	
Dissolved Oxygen	mg/L	10/11/2016	N001	-	5.23		F	#		
Fluoride	mg/L	10/11/2016	N001	-	0.51		F	#	0.1	
Iron	mg/L	10/11/2016	N001	-	0.055	J	UF	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	-	71		F	#	0.03	
Manganese	mg/L	10/11/2016	N001	-	0.0021	J	UF	#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	-	0.015		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	-	4.2		F	#	0.2	
Oxidation Reduction Potential	mV	10/11/2016	N001	-	110.9		F	#		
pH	s.u.	10/11/2016	N001	-	6.38		F	#		
Potassium	mg/L	10/11/2016	N001	-	5.3		F	#	0.052	
Selenium	mg/L	10/11/2016	N001	-	0.018		F	#	0.00066	
Sodium	mg/L	10/11/2016	N001	-	140		F	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	-	2171		F	#		
Sulfate	mg/L	10/11/2016	N001	-	810		F	#	6.2	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: PW-28 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	-	13.53		F	#		
Turbidity	NTU	10/11/2016	N001	-	2.44		F	#		
Uranium	mg/L	10/11/2016	N001	-	0.16		F	#	0.000012	
Vanadium	mg/L	10/11/2016	N001	-	0.19		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R1-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	0001	8.5	-	13.5	306			#		
Arsenic	mg/L	10/11/2016	0001	8.5	-	13.5	0.014			#	0.00012	
Calcium	mg/L	10/11/2016	0001	8.5	-	13.5	230			#	0.024	
Chloride	mg/L	10/11/2016	0001	8.5	-	13.5	75			#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	8.5	-	13.5	6.17			#		
Fluoride	mg/L	10/11/2016	0001	8.5	-	13.5	0.53			#	0.1	
Iron	mg/L	10/11/2016	0001	8.5	-	13.5	0.021	J	U	#	0.0067	
Magnesium	mg/L	10/11/2016	0001	8.5	-	13.5	48			#	0.03	
Manganese	mg/L	10/11/2016	0001	8.5	-	13.5	0.0096			#	0.00024	
Molybdenum	mg/L	10/11/2016	0001	8.5	-	13.5	0.034			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	0001	8.5	-	13.5	1.1			#	0.1	
Oxidation Reduction Potential	mV	10/11/2016	N001	8.5	-	13.5	38.3			#		
pH	s.u.	10/11/2016	N001	8.5	-	13.5	6.71			#		
Potassium	mg/L	10/11/2016	0001	8.5	-	13.5	7.6			#	0.052	
Selenium	mg/L	10/11/2016	0001	8.5	-	13.5	0.02			#	0.00066	
Sodium	mg/L	10/11/2016	0001	8.5	-	13.5	92			#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	8.5	-	13.5	1974			#		
Sulfate	mg/L	10/11/2016	0001	8.5	-	13.5	570			#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R1-M3 WELL Pert Wall

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	8.5	-	13.5	13.39			#		
Turbidity	NTU	10/11/2016	N001	8.5	-	13.5	36.4			#		
Uranium	mg/L	10/11/2016	0001	8.5	-	13.5	0.22			#	0.000012	
Vanadium	mg/L	10/11/2016	0001	8.5	-	13.5	0.37			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R1-M4 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	0001	8.49	-	13.49	303			#		
Arsenic	mg/L	10/11/2016	0001	8.49	-	13.49	0.0092			#	0.00012	
Calcium	mg/L	10/11/2016	0001	8.49	-	13.49	220			#	0.024	
Chloride	mg/L	10/11/2016	0001	8.49	-	13.49	69			#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	8.49	-	13.49	1.91			#		
Fluoride	mg/L	10/11/2016	0001	8.49	-	13.49	0.57			#	0.1	
Iron	mg/L	10/11/2016	0001	8.49	-	13.49	0.016	J	U	#	0.0067	
Magnesium	mg/L	10/11/2016	0001	8.49	-	13.49	46			#	0.03	
Manganese	mg/L	10/11/2016	0001	8.49	-	13.49	0.0044	J		#	0.00024	
Molybdenum	mg/L	10/11/2016	0001	8.49	-	13.49	0.044			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	0001	8.49	-	13.49	0.87			#	0.1	
Oxidation Reduction Potential	mV	10/11/2016	N001	8.49	-	13.49	65.5			#		
pH	s.u.	10/11/2016	N001	8.49	-	13.49	6.74			#		
Potassium	mg/L	10/11/2016	0001	8.49	-	13.49	8.1			#	0.052	
Selenium	mg/L	10/11/2016	0001	8.49	-	13.49	0.018			#	0.00066	
Sodium	mg/L	10/11/2016	0001	8.49	-	13.49	95			#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	8.49	-	13.49	1615			#		
Sulfate	mg/L	10/11/2016	0001	8.49	-	13.49	550			#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R1-M4 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	8.49	-	13.49	12.66			#		
Turbidity	NTU	10/11/2016	N001	8.49	-	13.49	0.93			#		
Uranium	mg/L	10/11/2016	0001	8.49	-	13.49	0.25			#	0.000012	
Vanadium	mg/L	10/11/2016	0001	8.49	-	13.49	0.29			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R10-M1 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	0001	10.25	-	15.25	175			#		
Arsenic	mg/L	10/11/2016	0001	10.25	-	15.25	0.0011			#	0.00012	
Calcium	mg/L	10/11/2016	0001	10.25	-	15.25	100			#	0.024	
Chloride	mg/L	10/11/2016	0001	10.25	-	15.25	67			#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	10.25	-	15.25	7.65			#		
Fluoride	mg/L	10/11/2016	0001	10.25	-	15.25	0.23			#	0.1	
Iron	mg/L	10/11/2016	0001	10.25	-	15.25	0.019	J		#	0.0067	
Magnesium	mg/L	10/11/2016	0001	10.25	-	15.25	37			#	0.03	
Manganese	mg/L	10/11/2016	0001	10.25	-	15.25	0.0016	J	U	#	0.00024	
Molybdenum	mg/L	10/11/2016	0001	10.25	-	15.25	0.0045			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	0001	10.25	-	15.25	0.032			#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	10.25	-	15.25	79.2			#		
pH	s.u.	10/11/2016	N001	10.25	-	15.25	6.38			#		
Potassium	mg/L	10/11/2016	0001	10.25	-	15.25	9.3			#	0.052	
Selenium	mg/L	10/11/2016	0001	10.25	-	15.25	0.0033			#	0.00066	
Sodium	mg/L	10/11/2016	0001	10.25	-	15.25	92			#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	10.25	-	15.25	1130			#		
Sulfate	mg/L	10/11/2016	0001	10.25	-	15.25	360			#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R10-M1 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	10.25	-	15.25	13.7			#		
Turbidity	NTU	10/11/2016	N001	10.25	-	15.25	7.94			#		
Uranium	mg/L	10/11/2016	0001	10.25	-	15.25	0.031			#	0.000012	
Vanadium	mg/L	10/11/2016	0001	10.25	-	15.25	0.028			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R3-M2 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	0001	9.16	-	14.16	300			#		
Arsenic	mg/L	10/11/2016	0001	9.16	-	14.16	0.00028	J		#	0.00012	
Arsenic	mg/L	10/11/2016	0002	9.16	-	14.16	0.0002	J		#	0.00012	
Calcium	mg/L	10/11/2016	0001	9.16	-	14.16	200			#	0.024	
Calcium	mg/L	10/11/2016	0002	9.16	-	14.16	190			#	0.024	
Chloride	mg/L	10/11/2016	0001	9.16	-	14.16	67			#	2	
Chloride	mg/L	10/11/2016	0002	9.16	-	14.16	66			#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	9.16	-	14.16	4.13			#		
Fluoride	mg/L	10/11/2016	0001	9.16	-	14.16	0.54			#	0.1	
Fluoride	mg/L	10/11/2016	0002	9.16	-	14.16	0.55			#	0.1	
Iron	mg/L	10/11/2016	0001	9.16	-	14.16	3.2			#	0.0067	
Iron	mg/L	10/11/2016	0002	9.16	-	14.16	3.1			#	0.0067	
Magnesium	mg/L	10/11/2016	0001	9.16	-	14.16	44			#	0.03	
Magnesium	mg/L	10/11/2016	0002	9.16	-	14.16	43			#	0.03	
Manganese	mg/L	10/11/2016	0001	9.16	-	14.16	0.12			#	0.00024	
Manganese	mg/L	10/11/2016	0002	9.16	-	14.16	0.11			#	0.00024	
Molybdenum	mg/L	10/11/2016	0001	9.16	-	14.16	0.085			#	0.00032	
Molybdenum	mg/L	10/11/2016	0002	9.16	-	14.16	0.087			#	0.00032	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R3-M2 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	0001	9.16	-	14.16	0.01	U		#	0.01	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	0002	9.16	-	14.16	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	9.16	-	14.16	-93.7			#		
pH	s.u.	10/11/2016	N001	9.16	-	14.16	7.11			#		
Potassium	mg/L	10/11/2016	0001	9.16	-	14.16	8.2			#	0.052	
Potassium	mg/L	10/11/2016	0002	9.16	-	14.16	8.1			#	0.052	
Selenium	mg/L	10/11/2016	0001	9.16	-	14.16	0.00066	U		#	0.00066	
Selenium	mg/L	10/11/2016	0002	9.16	-	14.16	0.00066	U		#	0.00066	
Sodium	mg/L	10/11/2016	0001	9.16	-	14.16	95			#	0.047	
Sodium	mg/L	10/11/2016	0002	9.16	-	14.16	92			#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	9.16	-	14.16	1503			#		
Sulfate	mg/L	10/11/2016	0001	9.16	-	14.16	500			#	5	
Sulfate	mg/L	10/11/2016	0002	9.16	-	14.16	490			#	5	
Temperature	C	10/11/2016	N001	9.16	-	14.16	13.03			#		
Turbidity	NTU	10/11/2016	N001	9.16	-	14.16	9.48			#		
Uranium	mg/L	10/11/2016	0001	9.16	-	14.16	0.3			#	0.000012	
Uranium	mg/L	10/11/2016	0002	9.16	-	14.16	0.31			#	0.000012	
Vanadium	mg/L	10/11/2016	0001	9.16	-	14.16	0.00058	U		#	0.00058	
Vanadium	mg/L	10/11/2016	0002	9.16	-	14.16	0.00061	J		#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R3-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	0001	8.43	-	13.43	300			#		
Arsenic	mg/L	10/11/2016	0001	8.43	-	13.43	0.00034	J		#	0.00012	
Calcium	mg/L	10/11/2016	0001	8.43	-	13.43	190			#	0.024	
Chloride	mg/L	10/11/2016	0001	8.43	-	13.43	66			#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	8.43	-	13.43	1.84			#		
Fluoride	mg/L	10/11/2016	0001	8.43	-	13.43	0.54			#	0.1	
Iron	mg/L	10/11/2016	0001	8.43	-	13.43	7.6			#	0.0067	
Magnesium	mg/L	10/11/2016	0001	8.43	-	13.43	44			#	0.03	
Manganese	mg/L	10/11/2016	0001	8.43	-	13.43	0.2			#	0.00024	
Molybdenum	mg/L	10/11/2016	0001	8.43	-	13.43	0.058			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	0001	8.43	-	13.43	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	8.43	-	13.43	-129.9			#		
pH	s.u.	10/11/2016	N001	8.43	-	13.43	7.15			#		
Potassium	mg/L	10/11/2016	0001	8.43	-	13.43	8.1			#	0.052	
Selenium	mg/L	10/11/2016	0001	8.43	-	13.43	0.00066	U		#	0.00066	
Sodium	mg/L	10/11/2016	0001	8.43	-	13.43	92			#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	8.43	-	13.43	1510			#		
Sulfate	mg/L	10/11/2016	0001	8.43	-	13.43	510			#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R3-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	8.43	-	13.43	13.62			#		
Turbidity	NTU	10/11/2016	N001	8.43	-	13.43	8.89			#		
Uranium	mg/L	10/11/2016	0001	8.43	-	13.43	0.21			#	0.000012	
Vanadium	mg/L	10/11/2016	0001	8.43	-	13.43	0.00058	U		#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R4-M3 WELL Pert Wall

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	9.04	-	14.04	132			#		
Dissolved Oxygen	mg/L	10/11/2016	N001	9.04	-	14.04	2.58			#		
Oxidation Reduction Potential	mV	10/11/2016	N001	9.04	-	14.04	-3.6			#		
pH	s.u.	10/11/2016	N001	9.04	-	14.04	9.19			#		
Specific Conductance	umhos /cm	10/11/2016	N001	9.04	-	14.04	541			#		
Temperature	C	10/11/2016	N001	9.04	-	14.04	14.58			#		
Turbidity	NTU	10/11/2016	N001	9.04	-	14.04	8.23			#		

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R4-M6 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	0001	8.47	-	13.47	13			#		
Arsenic	mg/L	10/11/2016	0001	8.47	-	13.47	0.00012	U		#	0.00012	
Calcium	mg/L	10/11/2016	0001	8.47	-	13.47	9			#	0.024	
Chloride	mg/L	10/11/2016	0001	8.47	-	13.47	67			#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	8.47	-	13.47	4.31			#		
Fluoride	mg/L	10/11/2016	0001	8.47	-	13.47	0.1	U		#	0.1	
Iron	mg/L	10/11/2016	0001	8.47	-	13.47	0.031	J	U	#	0.0067	
Magnesium	mg/L	10/11/2016	0001	8.47	-	13.47	26			#	0.03	
Manganese	mg/L	10/11/2016	0001	8.47	-	13.47	0.0099			#	0.00024	
Molybdenum	mg/L	10/11/2016	0001	8.47	-	13.47	0.013			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	0001	8.47	-	13.47	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	8.47	-	13.47	-18.7			#		
pH	s.u.	10/11/2016	N001	8.47	-	13.47	9.27			#		
Potassium	mg/L	10/11/2016	0001	8.47	-	13.47	8			#	0.052	
Selenium	mg/L	10/11/2016	0001	8.47	-	13.47	0.00066	U		#	0.00066	
Sodium	mg/L	10/11/2016	0001	8.47	-	13.47	92			#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	8.47	-	13.47	722			#		
Sulfate	mg/L	10/11/2016	0001	8.47	-	13.47	240			#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R4-M6 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	8.47	-	13.47	14.05			#		
Turbidity	NTU	10/11/2016	N001	8.47	-	13.47	3.97			#		
Uranium	mg/L	10/11/2016	0001	8.47	-	13.47	0.000012	U		#	0.000012	
Vanadium	mg/L	10/11/2016	0001	8.47	-	13.47	0.00058	U		#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R6-M3 WELL Pert Wall

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	7.72	-	12.72	348			#		
Dissolved Oxygen	mg/L	10/11/2016	N001	7.72	-	12.72	6.51			#		
Oxidation Reduction Potential	mV	10/11/2016	N001	7.72	-	12.72	11.6			#		
pH	s.u.	10/11/2016	N001	7.72	-	12.72	6.69			#		
Temperature	C	10/11/2016	N001	7.72	-	12.72	15.88			#		
Turbidity	NTU	10/11/2016	N001	7.72	-	12.72	114			#		

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: R6-M4 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	0001	7.96	-	12.96	123			#		
Arsenic	mg/L	10/11/2016	0001	7.96	-	12.96	0.00051	J		#	0.00012	
Calcium	mg/L	10/11/2016	0001	7.96	-	12.96	65			#	0.024	
Dissolved Oxygen	mg/L	10/11/2016	N001	7.96	-	12.96	4.29			#		
Iron	mg/L	10/11/2016	0001	7.96	-	12.96	0.18			#	0.0067	
Magnesium	mg/L	10/11/2016	0001	7.96	-	12.96	27			#	0.03	
Manganese	mg/L	10/11/2016	0001	7.96	-	12.96	0.32			#	0.00024	
Molybdenum	mg/L	10/11/2016	0001	7.96	-	12.96	0.017			#	0.00032	
Oxidation Reduction Potential	mV	10/11/2016	N001	7.96	-	12.96	-13.6			#		
pH	s.u.	10/11/2016	N001	7.96	-	12.96	6.8			#		
Potassium	mg/L	10/11/2016	0001	7.96	-	12.96	8.4			#	0.052	
Selenium	mg/L	10/11/2016	0001	7.96	-	12.96	0.00066	U		#	0.00066	
Sodium	mg/L	10/11/2016	0001	7.96	-	12.96	92			#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	7.96	-	12.96	843			#		
Temperature	C	10/11/2016	N001	7.96	-	12.96	14.56			#		
Turbidity	NTU	10/11/2016	N001	7.96	-	12.96	11.9			#		
Uranium	mg/L	10/11/2016	0001	7.96	-	12.96	0.023			#	0.000012	
Vanadium	mg/L	10/11/2016	0001	7.96	-	12.96	0.0013	J		#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T00-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	7.2	-	12.2	252		F	#		
Arsenic	mg/L	10/12/2016	N001	7.2	-	12.2	0.0055		F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	7.2	-	12.2	200		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	7.2	-	12.2	34		JF	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	7.2	-	12.2	0.58		F	#		
Fluoride	mg/L	10/12/2016	N001	7.2	-	12.2	0.27		JF	#	0.1	
Iron	mg/L	10/12/2016	N001	7.2	-	12.2	0.011	J	F	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	7.2	-	12.2	39		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	7.2	-	12.2	0.092		F	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	7.2	-	12.2	0.0089		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	7.2	-	12.2	0.01	U	JF	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	7.2	-	12.2	-31.6		F	#		
pH	s.u.	10/12/2016	N001	7.2	-	12.2	6.74		F	#		
Potassium	mg/L	10/12/2016	N001	7.2	-	12.2	6.4		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	7.2	-	12.2	0.00083	J	F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	7.2	-	12.2	70		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	7.2	-	12.2	1381		F	#		
Sulfate	mg/L	10/12/2016	N001	7.2	-	12.2	520		JF	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T00-01 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	7.2	-	12.2	15.54		F	#		
Turbidity	NTU	10/12/2016	N001	7.2	-	12.2	1.35		F	#		
Uranium	mg/L	10/12/2016	N001	7.2	-	12.2	0.04		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	7.2	-	12.2	0.1		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T00-04 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	2.7	-	7.7	286		F	#		
Arsenic	mg/L	10/11/2016	N001	2.7	-	7.7	0.0082		F	#	0.00012	
Calcium	mg/L	10/11/2016	N001	2.7	-	7.7	240		F	#	0.024	
Chloride	mg/L	10/11/2016	N001	2.7	-	7.7	19		JF	#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	2.7	-	7.7	10.79		F	#		
Fluoride	mg/L	10/11/2016	N001	2.7	-	7.7	0.29		JF	#	0.1	
Iron	mg/L	10/11/2016	N001	2.7	-	7.7	0.037	J	UF	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	2.7	-	7.7	43		F	#	0.03	
Manganese	mg/L	10/11/2016	N001	2.7	-	7.7	0.00085	J	F	#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	2.7	-	7.7	0.042		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	2.7	-	7.7	0.052		JF	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	2.7	-	7.7	188.2		F	#		
pH	s.u.	10/11/2016	N001	2.7	-	7.7	6.92		F	#		
Potassium	mg/L	10/11/2016	N001	2.7	-	7.7	3.6		F	#	0.052	
Selenium	mg/L	10/11/2016	N001	2.7	-	7.7	0.0024		F	#	0.00066	
Sodium	mg/L	10/11/2016	N001	2.7	-	7.7	57		F	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	2.7	-	7.7	1496		F	#		
Sulfate	mg/L	10/11/2016	N001	2.7	-	7.7	610		JF	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T00-04 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	2.7	-	7.7	15.3		F	#		
Turbidity	NTU	10/11/2016	N001	2.7	-	7.7	1.12		F	#		
Uranium	mg/L	10/11/2016	N001	2.7	-	7.7	0.082		F	#	0.000012	
Vanadium	mg/L	10/11/2016	N001	2.7	-	7.7	0.16		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	5.01	-	10.01	252		F	#		
Arsenic	mg/L	10/12/2016	N001	5.01	-	10.01	0.0068		F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	5.01	-	10.01	210		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	5.01	-	10.01	37		JF	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	5.01	-	10.01	0.24		F	#		
Fluoride	mg/L	10/12/2016	N001	5.01	-	10.01	0.24		JF	#	0.1	
Iron	mg/L	10/12/2016	N001	5.01	-	10.01	0.17		F	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	5.01	-	10.01	41		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	5.01	-	10.01	0.48		F	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	5.01	-	10.01	0.006		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	5.01	-	10.01	0.01	U	JF	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	5.01	-	10.01	116.2		F	#		
pH	s.u.	10/12/2016	N001	5.01	-	10.01	6.83		F	#		
Potassium	mg/L	10/12/2016	N001	5.01	-	10.01	6		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	5.01	-	10.01	0.00066	U	F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	5.01	-	10.01	69		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	5.01	-	10.01	1419		F	#		
Sulfate	mg/L	10/12/2016	N001	5.01	-	10.01	560		JF	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-01 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	5.01	-	10.01	14.48		F	#		
Total Dissolved Solids	mg/L	10/12/2016	N001	5.01	-	10.01	1000		JF	#	40	
Turbidity	NTU	10/12/2016	N001	5.01	-	10.01	1.26		F	#		
Uranium	mg/L	10/12/2016	N001	5.01	-	10.01	0.041		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	5.01	-	10.01	0.059		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-02 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	6.43	-	11.43	390		F	#		
Arsenic	mg/L	10/12/2016	N001	6.43	-	11.43	0.018		F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	6.43	-	11.43	240		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	6.43	-	11.43	63		JF	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	6.43	-	11.43	2.23		F	#		
Fluoride	mg/L	10/12/2016	N001	6.43	-	11.43	0.44		JF	#	0.1	
Iron	mg/L	10/12/2016	N001	6.43	-	11.43	0.049	J	UF	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	6.43	-	11.43	49		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	6.43	-	11.43	0.0098		F	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	6.43	-	11.43	0.019		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	6.43	-	11.43	0.11		JF	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	6.43	-	11.43	35		F	#		
pH	s.u.	10/12/2016	N001	6.43	-	11.43	6.91		F	#		
Potassium	mg/L	10/12/2016	N001	6.43	-	11.43	7.3		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	6.43	-	11.43	0.012		F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	6.43	-	11.43	100		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	6.43	-	11.43	1715		F	#		
Sulfate	mg/L	10/12/2016	N001	6.43	-	11.43	580		JF	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-02 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	6.43	-	11.43	15.32		F	#		
Turbidity	NTU	10/12/2016	N001	6.43	-	11.43	5.2		F	#		
Uranium	mg/L	10/12/2016	N001	6.43	-	11.43	0.12		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	6.43	-	11.43	0.35		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-04 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	11.72	-	16.72	378		F	#		
Arsenic	mg/L	10/12/2016	N001	11.72	-	16.72	0.015		F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	11.72	-	16.72	260		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	11.72	-	16.72	86		JF	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	11.72	-	16.72	4.91		F	#		
Fluoride	mg/L	10/12/2016	N001	11.72	-	16.72	0.4		JF	#	0.1	
Iron	mg/L	10/12/2016	N001	11.72	-	16.72	0.066	J	F	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	11.72	-	16.72	52		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	11.72	-	16.72	0.0025	J	UF	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	11.72	-	16.72	0.013		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	11.72	-	16.72	0.98		JF	#	0.1	
Oxidation Reduction Potential	mV	10/12/2016	N001	11.72	-	16.72	140.2		F	#		
pH	s.u.	10/12/2016	N001	11.72	-	16.72	6.95		F	#		
Potassium	mg/L	10/12/2016	N001	11.72	-	16.72	5.4		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	11.72	-	16.72	0.016		F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	11.72	-	16.72	100		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	11.72	-	16.72	1832		F	#		
Sulfate	mg/L	10/12/2016	N001	11.72	-	16.72	630		JF	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-04 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	11.72	-	16.72	15.54		F	#		
Turbidity	NTU	10/12/2016	N001	11.72	-	16.72	7.31		F	#		
Uranium	mg/L	10/12/2016	N001	11.72	-	16.72	0.12		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	11.72	-	16.72	0.32		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-05 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	18.56	-	23.56	377		F	#		
Arsenic	mg/L	10/12/2016	N001	18.56	-	23.56	0.015		F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	18.56	-	23.56	270		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	18.56	-	23.56	89		JF	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	18.56	-	23.56	4.91		F	#		
Fluoride	mg/L	10/12/2016	N001	18.56	-	23.56	0.4		JF	#	0.1	
Iron	mg/L	10/12/2016	N001	18.56	-	23.56	0.033	J	UF	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	18.56	-	23.56	53		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	18.56	-	23.56	0.001	J	UF	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	18.56	-	23.56	0.01		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	18.56	-	23.56	1		JF	#	0.1	
Oxidation Reduction Potential	mV	10/12/2016	N001	18.56	-	23.56	130		F	#		
pH	s.u.	10/12/2016	N001	18.56	-	23.56	6.89		F	#		
Potassium	mg/L	10/12/2016	N001	18.56	-	23.56	5.1		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	18.56	-	23.56	0.012		F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	18.56	-	23.56	100		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	18.56	-	23.56	1853		F	#		
Sulfate	mg/L	10/12/2016	N001	18.56	-	23.56	650		JF	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-05 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	18.56	-	23.56	14.38		F	#		
Turbidity	NTU	10/12/2016	N001	18.56	-	23.56	1.57		F	#		
Uranium	mg/L	10/12/2016	N001	18.56	-	23.56	0.12		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	18.56	-	23.56	0.28		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	17.25	-	22.2	400		F	#		
Arsenic	mg/L	10/12/2016	N001	17.25	-	22.2	0.0043		F	#	0.00012	
Calcium	mg/L	10/12/2016	N001	17.25	-	22.2	320		F	#	0.024	
Chloride	mg/L	10/12/2016	N001	17.25	-	22.2	150		JF	#	4	
Dissolved Oxygen	mg/L	10/12/2016	N001	17.25	-	22.2	3.27		F	#		
Fluoride	mg/L	10/12/2016	N001	17.25	-	22.2	0.43		JF	#	0.1	
Iron	mg/L	10/12/2016	N001	17.25	-	22.2	0.011	J	UF	#	0.0067	
Magnesium	mg/L	10/12/2016	N001	17.25	-	22.2	89		F	#	0.03	
Manganese	mg/L	10/12/2016	N001	17.25	-	22.2	0.0012	J	UF	#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	17.25	-	22.2	0.005		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	17.25	-	22.2	5.8		JF	#	0.2	
Oxidation Reduction Potential	mV	10/12/2016	N001	17.25	-	22.2	122.5		F	#		
pH	s.u.	10/12/2016	N001	17.25	-	22.2	6.61		F	#		
Potassium	mg/L	10/12/2016	N001	17.25	-	22.2	4.3		F	#	0.052	
Selenium	mg/L	10/12/2016	N001	17.25	-	22.2	0.017		F	#	0.00066	
Sodium	mg/L	10/12/2016	N001	17.25	-	22.2	170		F	#	0.047	
Specific Conductance	umhos /cm	10/12/2016	N001	17.25	-	22.2	2549		F	#		
Sulfate	mg/L	10/12/2016	N001	17.25	-	22.2	1000		JF	#	10	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	17.25	-	22.2	15.17		F	#		
Turbidity	NTU	10/12/2016	N001	17.25	-	22.2	1.24		F	#		
Uranium	mg/L	10/12/2016	N001	17.25	-	22.2	0.11		F	#	0.000012	
Vanadium	mg/L	10/12/2016	N001	17.25	-	22.2	0.088		F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-13 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	6.05	-	10.95	432		FQ	#		
Arsenic	mg/L	10/11/2016	N001	6.05	-	10.95	0.0021		FQ	#	0.00012	
Calcium	mg/L	10/11/2016	N001	6.05	-	10.95	390		FQ	#	0.024	
Chloride	mg/L	10/11/2016	N001	6.05	-	10.95	230		JFQ	#	20	
Dissolved Oxygen	mg/L	10/11/2016	N001	6.05	-	10.95	2.85		FQ	#		
Fluoride	mg/L	10/11/2016	N001	6.05	-	10.95	0.21		JFQ	#	0.1	
Iron	mg/L	10/11/2016	N001	6.05	-	10.95	0.71		FQ	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	6.05	-	10.95	60		FQ	#	0.03	
Manganese	mg/L	10/11/2016	N001	6.05	-	10.95	3.5		FQ	#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	6.05	-	10.95	0.012		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	6.05	-	10.95	0.01	U	JFQ	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	6.05	-	10.95	-3.7		FQ	#		
pH	s.u.	10/11/2016	N001	6.05	-	10.95	6.96		FQ	#		
Potassium	mg/L	10/11/2016	N001	6.05	-	10.95	11		FQ	#	0.052	
Selenium	mg/L	10/11/2016	N001	6.05	-	10.95	0.00066	U	FQ	#	0.00066	
Sodium	mg/L	10/11/2016	N001	6.05	-	10.95	290		FQ	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	6.05	-	10.95	3172		FQ	#		
Sulfate	mg/L	10/11/2016	N001	6.05	-	10.95	1200		JFQ	#	50	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-13 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	6.05	-	10.95	17.26		FQ	#		
Turbidity	NTU	10/11/2016	N001	6.05	-	10.95	4.53		FQ	#		
Uranium	mg/L	10/11/2016	N001	6.05	-	10.95	0.13		FQ	#	0.000012	
Vanadium	mg/L	10/11/2016	N001	6.05	-	10.95	0.0062		FQ	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-18 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	16.3	-	21.2	569		FQ	#		
Arsenic	mg/L	10/11/2016	0001	16.3	-	21.2	0.0029		FQ	#	0.00012	
Calcium	mg/L	10/11/2016	0001	16.3	-	21.2	480		FQ	#	0.024	
Chloride	mg/L	10/11/2016	0001	16.3	-	21.2	370		FQ	#	20	
Dissolved Oxygen	mg/L	10/11/2016	N001	16.3	-	21.2	4.15		FQ	#		
Fluoride	mg/L	10/11/2016	0001	16.3	-	21.2	0.26		FQ	#	0.1	
Iron	mg/L	10/11/2016	0001	16.3	-	21.2	1.3		FQ	#	0.0067	
Magnesium	mg/L	10/11/2016	0001	16.3	-	21.2	99		FQ	#	0.03	
Manganese	mg/L	10/11/2016	0001	16.3	-	21.2	3.7		FQ	#	0.00024	
Molybdenum	mg/L	10/11/2016	0001	16.3	-	21.2	0.0024		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	0001	16.3	-	21.2	0.026		FQ	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	16.3	-	21.2	-43.2		FQ	#		
pH	s.u.	10/11/2016	N001	16.3	-	21.2	7.01		FQ	#		
Potassium	mg/L	10/11/2016	0001	16.3	-	21.2	4.2		FQ	#	0.052	
Selenium	mg/L	10/11/2016	0001	16.3	-	21.2	0.00066	U	FQ	#	0.00066	
Sodium	mg/L	10/11/2016	0001	16.3	-	21.2	240		FQ	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	16.3	-	21.2	3377		FQ	#		
Sulfate	mg/L	10/11/2016	0001	16.3	-	21.2	1200		FQ	#	50	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-18 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	16.3	-	21.2	14.03		FQ	#		
Turbidity	NTU	10/11/2016	N001	16.3	-	21.2	44.3		FQ	#		
Uranium	mg/L	10/11/2016	0001	16.3	-	21.2	0.33		FQ	#	0.000012	
Vanadium	mg/L	10/11/2016	0001	16.3	-	21.2	0.00058	U	FQ	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-19 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	0001	7	-	11.9	416		FQ	#		
Arsenic	mg/L	10/11/2016	0001	7	-	11.9	0.011		FQ	#	0.00012	
Calcium	mg/L	10/11/2016	0001	7	-	11.9	240		FQ	#	0.024	
Chloride	mg/L	10/11/2016	0001	7	-	11.9	130		JFQ	#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	7	-	11.9	4.02		FQ	#		
Fluoride	mg/L	10/11/2016	0001	7	-	11.9	0.3		JFQ	#	0.1	
Iron	mg/L	10/11/2016	0001	7	-	11.9	2		FQ	#	0.0067	
Magnesium	mg/L	10/11/2016	0001	7	-	11.9	45		FQ	#	0.03	
Manganese	mg/L	10/11/2016	0001	7	-	11.9	3.8		FQ	#	0.00024	
Molybdenum	mg/L	10/11/2016	0001	7	-	11.9	0.0043		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	0001	7	-	11.9	0.044		JFQ	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	7	-	11.9	5.4		FQ	#		
pH	s.u.	10/11/2016	N001	7	-	11.9	7.21		FQ	#		
Potassium	mg/L	10/11/2016	0001	7	-	11.9	3.8		FQ	#	0.052	
Selenium	mg/L	10/11/2016	0001	7	-	11.9	0.00066	U	FQ	#	0.00066	
Sodium	mg/L	10/11/2016	0001	7	-	11.9	120		FQ	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	7	-	11.9	1881		FQ	#		
Sulfate	mg/L	10/11/2016	0001	7	-	11.9	490		JFQ	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-19 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	7	-	11.9	14.86		FQ	#		
Turbidity	NTU	10/11/2016	N001	7	-	11.9	18.3		FQ	#		
Uranium	mg/L	10/11/2016	0001	7	-	11.9	0.091		FQ	#	0.000012	
Vanadium	mg/L	10/11/2016	0001	7	-	11.9	0.00088	J	FQ	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-20 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Arsenic	mg/L	10/11/2016	N001	10.85	-	15.75	0.0023		FQ	#	0.00012	
Calcium	mg/L	10/11/2016	N001	10.85	-	15.75	200		FQ	#	0.024	
Chloride	mg/L	10/11/2016	N001	10.85	-	15.75	130		JFQ	#	2	
Fluoride	mg/L	10/11/2016	N001	10.85	-	15.75	0.21		JFQ	#	0.1	
Iron	mg/L	10/11/2016	N001	10.85	-	15.75	1		FQ	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	10.85	-	15.75	36		FQ	#	0.03	
Manganese	mg/L	10/11/2016	N001	10.85	-	15.75	5.2		FQ	#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	10.85	-	15.75	0.021		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	10.85	-	15.75	0.01	U	JFQ	#	0.01	
Potassium	mg/L	10/11/2016	N001	10.85	-	15.75	9.3		FQ	#	0.052	
Selenium	mg/L	10/11/2016	N001	10.85	-	15.75	0.00066	U	FQ	#	0.00066	
Sodium	mg/L	10/11/2016	N001	10.85	-	15.75	350		FQ	#	0.047	
Sulfate	mg/L	10/11/2016	N001	10.85	-	15.75	920		JFQ	#	5	
Turbidity	NTU	10/11/2016	N001	10.85	-	15.75	5.63		FQ	#		
Uranium	mg/L	10/11/2016	N001	10.85	-	15.75	0.18		FQ	#	0.000012	
Vanadium	mg/L	10/11/2016	N001	10.85	-	15.75	0.00058	U	FQ	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-23 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	8.4	-	13.3	391		F	#		
Arsenic	mg/L	10/11/2016	N001	8.4	-	13.3	0.00012	U	F	#	0.00012	
Arsenic	mg/L	10/11/2016	N002	8.4	-	13.3	0.00012	U	F	#	0.00012	
Calcium	mg/L	10/11/2016	N001	8.4	-	13.3	210		F	#	0.024	
Calcium	mg/L	10/11/2016	N002	8.4	-	13.3	210		F	#	0.024	
Chloride	mg/L	10/11/2016	N001	8.4	-	13.3	33		JF	#	2	
Chloride	mg/L	10/11/2016	N002	8.4	-	13.3	31		JF	#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	8.4	-	13.3	0.83		F	#		
Fluoride	mg/L	10/11/2016	N001	8.4	-	13.3	0.27		JF	#	0.1	
Fluoride	mg/L	10/11/2016	N002	8.4	-	13.3	0.27		JF	#	0.1	
Iron	mg/L	10/11/2016	N001	8.4	-	13.3	1.9		F	#	0.0067	
Iron	mg/L	10/11/2016	N002	8.4	-	13.3	1.9		F	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	8.4	-	13.3	36		F	#	0.03	
Magnesium	mg/L	10/11/2016	N002	8.4	-	13.3	35		F	#	0.03	
Manganese	mg/L	10/11/2016	N001	8.4	-	13.3	0.39		F	#	0.00024	
Manganese	mg/L	10/11/2016	N002	8.4	-	13.3	0.39		F	#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	8.4	-	13.3	0.00093	J	F	#	0.00032	
Molybdenum	mg/L	10/11/2016	N002	8.4	-	13.3	0.00055	J	F	#	0.00032	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-23 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	8.4	-	13.3	0.01	U	JF	#	0.01	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N002	8.4	-	13.3	0.01	U	JF	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	8.4	-	13.3	-49.6		F	#		
pH	s.u.	10/11/2016	N001	8.4	-	13.3	6.76		F	#		
Potassium	mg/L	10/11/2016	N001	8.4	-	13.3	2.9		F	#	0.052	
Potassium	mg/L	10/11/2016	N002	8.4	-	13.3	2.8		F	#	0.052	
Selenium	mg/L	10/11/2016	N001	8.4	-	13.3	0.00066	U	F	#	0.00066	
Selenium	mg/L	10/11/2016	N002	8.4	-	13.3	0.00066	U	F	#	0.00066	
Sodium	mg/L	10/11/2016	N001	8.4	-	13.3	69		F	#	0.047	
Sodium	mg/L	10/11/2016	N002	8.4	-	13.3	69		F	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	8.4	-	13.3	1400		F	#		
Sulfate	mg/L	10/11/2016	N001	8.4	-	13.3	390		JF	#	5	
Sulfate	mg/L	10/11/2016	N002	8.4	-	13.3	390		JF	#	5	
Temperature	C	10/11/2016	N001	8.4	-	13.3	11.54		F	#		
Turbidity	NTU	10/11/2016	N001	8.4	-	13.3	1.82		F	#		
Uranium	mg/L	10/11/2016	N001	8.4	-	13.3	0.039		F	#	0.000012	
Uranium	mg/L	10/11/2016	N002	8.4	-	13.3	0.038		F	#	0.000012	
Vanadium	mg/L	10/11/2016	N001	8.4	-	13.3	0.00058	U	F	#	0.00058	
Vanadium	mg/L	10/11/2016	N002	8.4	-	13.3	0.00058	U	F	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-25 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	8.75	-	13.65	563		FQ	#		
Arsenic	mg/L	10/11/2016	N001	8.75	-	13.65	0.0096		FQ	#	0.00012	
Calcium	mg/L	10/11/2016	N001	8.75	-	13.65	360		FQ	#	0.024	
Chloride	mg/L	10/11/2016	N001	8.75	-	13.65	130		JFQ	#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	8.75	-	13.65	2.81		FQ	#		
Fluoride	mg/L	10/11/2016	N001	8.75	-	13.65	0.21		JFQ	#	0.1	
Iron	mg/L	10/11/2016	N001	8.75	-	13.65	23		FQ	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	8.75	-	13.65	81		FQ	#	0.03	
Manganese	mg/L	10/11/2016	N001	8.75	-	13.65	2.8		FQ	#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	8.75	-	13.65	0.0032		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	8.75	-	13.65	0.07		JFQ	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	8.75	-	13.65	-41.8		FQ	#		
pH	s.u.	10/11/2016	N001	8.75	-	13.65	6.55		FQ	#		
Potassium	mg/L	10/11/2016	N001	8.75	-	13.65	11		FQ	#	0.052	
Selenium	mg/L	10/11/2016	N001	8.75	-	13.65	0.00066	U	FQ	#	0.00066	
Sodium	mg/L	10/11/2016	N001	8.75	-	13.65	170		FQ	#	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	8.75	-	13.65	2914		FQ	#		
Sulfate	mg/L	10/11/2016	N001	8.75	-	13.65	960		JFQ	#	5	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-25 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	8.75	-	13.65	14.39		FQ	#		
Turbidity	NTU	10/11/2016	N001	8.75	-	13.65	5.66		FQ	#		
Uranium	mg/L	10/11/2016	N001	8.75	-	13.65	0.026		FQ	#	0.000012	
Vanadium	mg/L	10/11/2016	N001	8.75	-	13.65	0.00058	U	FQ	#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-35 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	-	393		F	#		
Arsenic	mg/L	10/11/2016	N001	-	0.0095		F	#	0.00012	
Arsenic	mg/L	10/11/2016	N002	-	0.0098		F	#	0.00012	
Calcium	mg/L	10/11/2016	N001	-	270		F	#	0.024	
Calcium	mg/L	10/11/2016	N002	-	260		F	#	0.024	
Chloride	mg/L	10/11/2016	N001	-	89		JF	#	2	
Chloride	mg/L	10/11/2016	N002	-	90		JF	#	2	
Dissolved Oxygen	mg/L	10/11/2016	N001	-	6.29		F	#		
Fluoride	mg/L	10/11/2016	N001	-	0.33		JF	#	0.1	
Fluoride	mg/L	10/11/2016	N002	-	0.32		JF	#	0.1	
Iron	mg/L	10/11/2016	N001	-	0.046	J	UF	#	0.0067	
Iron	mg/L	10/11/2016	N002	-	0.044	J	F	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	-	55		F	#	0.03	
Magnesium	mg/L	10/11/2016	N002	-	54		F	#	0.03	
Manganese	mg/L	10/11/2016	N001	-	0.0043	J	JF	#	0.00024	
Manganese	mg/L	10/11/2016	N002	-	0.002	J	UJF	#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	-	0.0044		F	#	0.00032	
Molybdenum	mg/L	10/11/2016	N002	-	0.0043		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	-	0.9		JF	#	0.02	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N002	-	0.96		JF	#	0.01	

Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: T01-35 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Data QA	Detection Limit	Uncertainty
Oxidation Reduction Potential	mV	10/11/2016	N001	-	210.4		F #		
pH	s.u.	10/11/2016	N001	-	6.78		F #		
Potassium	mg/L	10/11/2016	N001	-	3.6		F #	0.052	
Potassium	mg/L	10/11/2016	N002	-	3.7		F #	0.052	
Selenium	mg/L	10/11/2016	N001	-	0.0098		F #	0.00066	
Selenium	mg/L	10/11/2016	N002	-	0.0089		F #	0.00066	
Sodium	mg/L	10/11/2016	N001	-	100		F #	0.047	
Sodium	mg/L	10/11/2016	N002	-	110		F #	0.047	
Specific Conductance	umhos /cm	10/11/2016	N001	-	1881		F #		
Sulfate	mg/L	10/11/2016	N001	-	660		JF #	5	
Sulfate	mg/L	10/11/2016	N002	-	670		JF #	5	
Temperature	C	10/11/2016	N001	-	12.65		F #		
Turbidity	NTU	10/11/2016	N001	-	4.22		F #		
Uranium	mg/L	10/11/2016	N001	-	0.092		F #	0.000012	
Uranium	mg/L	10/11/2016	N002	-	0.095		F #	0.000012	
Vanadium	mg/L	10/11/2016	N001	-	0.16		F #	0.00058	
Vanadium	mg/L	10/11/2016	N002	-	0.16		F #	0.00058	

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.

Surface Water Quality Data

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Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW00-02 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	292			#		
Arsenic	mg/L	10/11/2016	N001	0.00073	J		#	0.00012	
Calcium	mg/L	10/11/2016	N001	250			#	0.024	
Chloride	mg/L	10/11/2016	N001	17			#	0.2	
Dissolved Oxygen	mg/L	10/11/2016	N001	10.51			#		
Fluoride	mg/L	10/11/2016	N001	0.16			#	0.1	
Iron	mg/L	10/11/2016	N001	0.09	J	U	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	47			#	0.03	
Manganese	mg/L	10/11/2016	N001	0.084			#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	0.0017	J		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	152.2			#		
pH	s.u.	10/11/2016	N001	7.99			#		
Potassium	mg/L	10/11/2016	N001	3.1			#	0.052	
Selenium	mg/L	10/11/2016	N001	0.00066	U		#	0.00066	
Sodium	mg/L	10/11/2016	N001	55			#	0.047	
Specific Conductance	umhos/cm	10/11/2016	N001	1580			#		
Sulfate	mg/L	10/11/2016	N001	670			#	5	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW00-02 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	14.84			#		
Total Dissolved Solids	mg/L	10/11/2016	N001	1200			#	40	
Turbidity	NTU	10/11/2016	N001	3.18			#		
Uranium	mg/L	10/11/2016	N001	0.014			#	0.000012	
Vanadium	mg/L	10/11/2016	N001	0.00058	U		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW00-04 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/10/2016	N001	205			#		
Arsenic	mg/L	10/10/2016	0001	0.007			#	0.00012	
Calcium	mg/L	10/10/2016	0001	110			#	0.024	
Chloride	mg/L	10/10/2016	0001	160			#	2	
Dissolved Oxygen	mg/L	10/10/2016	N001	8.89			#		
Fluoride	mg/L	10/10/2016	0001	0.23			#	0.1	
Iron	mg/L	10/10/2016	0001	0.056	J	U	#	0.0067	
Magnesium	mg/L	10/10/2016	0001	29			#	0.03	
Manganese	mg/L	10/10/2016	0001	0.37			#	0.00024	
Molybdenum	mg/L	10/10/2016	0001	0.0063			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2016	0001	0.03			#	0.01	
Oxidation Reduction Potential	mV	10/10/2016	N001	64.7			#		
pH	s.u.	10/10/2016	N001	8.85			#		
Potassium	mg/L	10/10/2016	0001	14			#	0.052	
Selenium	mg/L	10/10/2016	0001	0.0015			#	0.00066	
Sodium	mg/L	10/10/2016	0001	140			#	0.047	
Specific Conductance	umhos/cm	10/10/2016	N001	1570			#		
Sulfate	mg/L	10/10/2016	0001	300			#	5	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW00-04 SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers		Detection Limit	Uncertainty
		Date	ID		Lab	Data QA		
Temperature	C	10/10/2016	N001	13.63		#		
Turbidity	NTU	10/10/2016	N001	14.7		#		
Uranium	mg/L	10/10/2016	0001	0.052		#	0.000012	
Vanadium	mg/L	10/10/2016	0001	0.0066		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW01-01 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	222			#		
Arsenic	mg/L	10/12/2016	N001	0.00099	J		#	0.00012	
Calcium	mg/L	10/12/2016	N001	180			#	0.024	
Chloride	mg/L	10/12/2016	N001	11			#	0.2	
Dissolved Oxygen	mg/L	10/12/2016	N001	11.71			#		
Fluoride	mg/L	10/12/2016	N001	0.17			#	0.1	
Iron	mg/L	10/12/2016	N001	0.17			#	0.0067	
Magnesium	mg/L	10/12/2016	N001	33			#	0.03	
Manganese	mg/L	10/12/2016	N001	0.031			#	0.00024	
Molybdenum	mg/L	10/12/2016	N001	0.0024			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	N001	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	104.7			#		
pH	s.u.	10/12/2016	N001	7.67			#		
Potassium	mg/L	10/12/2016	N001	2.6			#	0.052	
Selenium	mg/L	10/12/2016	N001	0.00066	U		#	0.00066	
Sodium	mg/L	10/12/2016	N001	38			#	0.047	
Specific Conductance	umhos/cm	10/12/2016	N001	1204			#		
Sulfate	mg/L	10/12/2016	N001	440			#	5	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW01-01 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/12/2016	N001	13.42			#		
Total Dissolved Solids	mg/L	10/12/2016	N001	770			#	40	
Turbidity	NTU	10/12/2016	N001	4.82			#		
Uranium	mg/L	10/12/2016	N001	0.0091			#	0.000012	
Vanadium	mg/L	10/12/2016	N001	0.0011	J		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW01-02 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers Lab	Data QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	306		#		
Arsenic	mg/L	10/11/2016	N001	0.0006	J	#	0.00012	
Calcium	mg/L	10/11/2016	N001	320		#	0.024	
Chloride	mg/L	10/11/2016	N001	11		#	0.2	
Dissolved Oxygen	mg/L	10/11/2016	N001	9.33		#		
Fluoride	mg/L	10/11/2016	N001	0.16		#	0.1	
Iron	mg/L	10/11/2016	N001	0.19		#	0.0067	
Magnesium	mg/L	10/11/2016	N001	54		#	0.03	
Manganese	mg/L	10/11/2016	N001	0.069		#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	0.0018	J	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	0.01	U	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	89.7		#		
pH	s.u.	10/11/2016	N001	7.75		#		
Potassium	mg/L	10/11/2016	N001	2.9		#	0.052	
Selenium	mg/L	10/11/2016	N001	0.00081	J	#	0.00066	
Sodium	mg/L	10/11/2016	N001	48		#	0.047	
Specific Conductance	umhos/cm	10/11/2016	N001	1765		#		
Sulfate	mg/L	10/11/2016	N001	850		#	5	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW01-02 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	10.69			#		
Total Dissolved Solids	mg/L	10/11/2016	N001	1400			#	40	
Turbidity	NTU	10/11/2016	N001	6.09			#		
Uranium	mg/L	10/11/2016	N001	0.0076			#	0.000012	
Vanadium	mg/L	10/11/2016	N001	0.00058	U		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW01-03 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	305			#		
Arsenic	mg/L	10/11/2016	N001	0.0005	J		#	0.00012	
Calcium	mg/L	10/11/2016	N001	270			#	0.024	
Chloride	mg/L	10/11/2016	N001	17		J	#	0.2	
Dissolved Oxygen	mg/L	10/11/2016	N001	7.69			#		
Fluoride	mg/L	10/11/2016	N001	0.17		J	#	0.1	
Iron	mg/L	10/11/2016	N001	0.0067	J	U	#	0.0067	
Magnesium	mg/L	10/11/2016	N001	46			#	0.03	
Manganese	mg/L	10/11/2016	N001	0.16			#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	0.0015	J		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	0.01	U	J	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	44.9			#		
pH	s.u.	10/11/2016	N001	7.7			#		
Potassium	mg/L	10/11/2016	N001	2.9			#	0.052	
Selenium	mg/L	10/11/2016	N001	0.00066	U		#	0.00066	
Sodium	mg/L	10/11/2016	N001	54			#	0.047	
Specific Conductance	umhos/cm	10/11/2016	N001	1608			#		
Sulfate	mg/L	10/11/2016	N001	710		J	#	5	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW01-03 SURFACE LOCATION

Parameter	Units	Sample		Result	Lab	Qualifiers		Detection Limit	Uncertainty
		Date	ID			Data	QA		
Temperature	C	10/11/2016	N001	9.82			#		
Turbidity	NTU	10/11/2016	N001	2.79			#		
Uranium	mg/L	10/11/2016	N001	0.013			#	0.000012	
Vanadium	mg/L	10/11/2016	N001	0.00058	U		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW92-08 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	221			#		
Arsenic	mg/L	10/12/2016	0001	0.005			#	0.00012	
Calcium	mg/L	10/12/2016	0001	120			#	0.024	
Chloride	mg/L	10/12/2016	0001	150		J	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	9.07			#		
Fluoride	mg/L	10/12/2016	0001	0.22		J	#	0.1	
Iron	mg/L	10/12/2016	0001	0.063	J	U	#	0.0067	
Magnesium	mg/L	10/12/2016	0001	32			#	0.03	
Manganese	mg/L	10/12/2016	0001	0.19			#	0.00024	
Molybdenum	mg/L	10/12/2016	0001	0.007			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	0001	0.01	U	J	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	190.4			#		
pH	s.u.	10/12/2016	N001	7.77			#		
Potassium	mg/L	10/12/2016	0001	13			#	0.052	
Selenium	mg/L	10/12/2016	0001	0.0017			#	0.00066	
Sodium	mg/L	10/12/2016	0001	130			#	0.047	
Specific Conductance	umhos/cm	10/12/2016	N001	1392			#		
Sulfate	mg/L	10/12/2016	0001	320		J	#	5	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW92-08 SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers		Detection Limit	Uncertainty
		Date	ID		Lab	Data QA		
Temperature	C	10/12/2016	N001	8.7		#		
Turbidity	NTU	10/12/2016	N001	36		#		
Uranium	mg/L	10/12/2016	0001	0.052		#	0.000012	
Vanadium	mg/L	10/12/2016	0001	0.0052		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW92-09 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	229			#		
Arsenic	mg/L	10/12/2016	0001	0.005			#	0.00012	
Calcium	mg/L	10/12/2016	0001	120			#	0.024	
Chloride	mg/L	10/12/2016	0001	140		J	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	9.4			#		
Fluoride	mg/L	10/12/2016	0001	0.26		J	#	0.1	
Iron	mg/L	10/12/2016	0001	0.082	J		#	0.0067	
Magnesium	mg/L	10/12/2016	0001	32			#	0.03	
Manganese	mg/L	10/12/2016	0001	0.11			#	0.00024	
Molybdenum	mg/L	10/12/2016	0001	0.0071			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	0001	0.01	U	J	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	152.6			#		
pH	s.u.	10/12/2016	N001	8.27			#		
Potassium	mg/L	10/12/2016	0001	13			#	0.052	
Selenium	mg/L	10/12/2016	0001	0.002			#	0.00066	
Sodium	mg/L	10/12/2016	0001	130			#	0.047	
Specific Conductance	umhos/cm	10/12/2016	N001	1388			#		
Sulfate	mg/L	10/12/2016	0001	330		J	#	5	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW92-09 SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers		Detection Limit	Uncertainty
		Date	ID		Lab	Data QA		
Temperature	C	10/12/2016	N001	9.71		#		
Turbidity	NTU	10/12/2016	N001	26.9		#		
Uranium	mg/L	10/12/2016	0001	0.054		#	0.000012	
Vanadium	mg/L	10/12/2016	0001	0.0046		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW94-01 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	222			#		
Arsenic	mg/L	10/12/2016	0001	0.0049			#	0.00012	
Calcium	mg/L	10/12/2016	0001	120			#	0.024	
Chloride	mg/L	10/12/2016	0001	140		J	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	9.29			#		
Fluoride	mg/L	10/12/2016	0001	0.25		J	#	0.1	
Iron	mg/L	10/12/2016	0001	0.095	J		#	0.0067	
Magnesium	mg/L	10/12/2016	0001	32			#	0.03	
Manganese	mg/L	10/12/2016	0001	0.073			#	0.00024	
Molybdenum	mg/L	10/12/2016	0001	0.0072			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	0001	0.01	U	J	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	145.2			#		
pH	s.u.	10/12/2016	N001	8.14			#		
Potassium	mg/L	10/12/2016	0001	12			#	0.052	
Selenium	mg/L	10/12/2016	0001	0.0014			#	0.00066	
Sodium	mg/L	10/12/2016	0001	130			#	0.047	
Specific Conductance	umhos/cm	10/12/2016	N001	1398			#		
Sulfate	mg/L	10/12/2016	0001	320		J	#	5	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: SW94-01 SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers		Detection Limit	Uncertainty
		Date	ID		Lab	Data QA		
Temperature	C	10/12/2016	N001	10.65		#		
Turbidity	NTU	10/12/2016	N001	17.7		#		
Uranium	mg/L	10/12/2016	0001	0.054		#	0.000012	
Vanadium	mg/L	10/12/2016	0001	0.0047		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: Seep 3 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	369			#		
Arsenic	mg/L	10/11/2016	N001	0.00042	J		#	0.00012	
Calcium	mg/L	10/11/2016	N001	410			#	0.024	
Chloride	mg/L	10/11/2016	N001	290		J	#	20	
Dissolved Oxygen	mg/L	10/11/2016	N001	7.92			#		
Fluoride	mg/L	10/11/2016	N001	0.46		J	#	0.1	
Iron	mg/L	10/11/2016	N001	0.48			#	0.0067	
Magnesium	mg/L	10/11/2016	N001	120			#	0.03	
Manganese	mg/L	10/11/2016	N001	0.067			#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	0.0014	J		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	35		J	#	1	
Oxidation Reduction Potential	mV	10/11/2016	N001	213.1			#		
pH	s.u.	10/11/2016	N001	6.88			#		
Potassium	mg/L	10/11/2016	N001	8.9			#	0.052	
Selenium	mg/L	10/11/2016	N001	0.061			#	0.00066	
Sodium	mg/L	10/11/2016	N001	270			#	0.047	
Specific Conductance	umhos/cm	10/11/2016	N001	3567			#		
Sulfate	mg/L	10/11/2016	N001	1400		J	#	50	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: Seep 3 SURFACE LOCATION

Parameter	Units	Sample		Result	Lab	Qualifiers		Detection Limit	Uncertainty
		Date	ID			Data	QA		
Temperature	C	10/11/2016	N001	9.08			#		
Turbidity	NTU	10/11/2016	N001	4.56			#		
Uranium	mg/L	10/11/2016	N001	0.037			#	0.000012	
Vanadium	mg/L	10/11/2016	N001	0.0012	J		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: Seep 6 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	408			#		
Arsenic	mg/L	10/11/2016	N001	0.0015			#	0.00012	
Calcium	mg/L	10/11/2016	N001	480			#	0.024	
Chloride	mg/L	10/11/2016	N001	430		J	#	20	
Dissolved Oxygen	mg/L	10/11/2016	N001	6.44			#		
Fluoride	mg/L	10/11/2016	N001	0.49		J	#	0.1	
Iron	mg/L	10/11/2016	N001	0.84			#	0.0067	
Magnesium	mg/L	10/11/2016	N001	150			#	0.03	
Manganese	mg/L	10/11/2016	N001	0.56			#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	0.013			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	0.015		J	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	11.5			#		
pH	s.u.	10/11/2016	N001	7.42			#		
Potassium	mg/L	10/11/2016	N001	6.7			#	0.052	
Selenium	mg/L	10/11/2016	N001	0.0016			#	0.00066	
Sodium	mg/L	10/11/2016	N001	410			#	0.047	
Specific Conductance	umhos/cm	10/11/2016	N001	4510			#		
Sulfate	mg/L	10/11/2016	N001	2000		J	#	50	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: Seep 6 SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID		Lab	Data	QA		
Temperature	C	10/11/2016	N001	11.26			#		
Turbidity	NTU	10/11/2016	N001	7.08			#		
Uranium	mg/L	10/11/2016	N001	3.1			#	0.000012	
Vanadium	mg/L	10/11/2016	N001	0.011			#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: Sorenson SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/10/2016	N001	243			#		
Arsenic	mg/L	10/10/2016	N001	0.0013			#	0.00012	
Arsenic	mg/L	10/10/2016	N002	0.001			#	0.00012	
Calcium	mg/L	10/10/2016	N001	230			#	0.024	
Calcium	mg/L	10/10/2016	N002	220			#	0.024	
Chloride	mg/L	10/10/2016	N001	41		J	#	2	
Chloride	mg/L	10/10/2016	N002	40		J	#	2	
Dissolved Oxygen	mg/L	10/10/2016	N001	8.1			#		
Fluoride	mg/L	10/10/2016	N001	0.18		J	#	0.1	
Fluoride	mg/L	10/10/2016	N002	0.18		J	#	0.1	
Iron	mg/L	10/10/2016	N001	0.29			#	0.0067	
Iron	mg/L	10/10/2016	N002	0.27			#	0.0067	
Magnesium	mg/L	10/10/2016	N001	49			#	0.03	
Magnesium	mg/L	10/10/2016	N002	48			#	0.03	
Manganese	mg/L	10/10/2016	N001	0.051			#	0.00024	
Manganese	mg/L	10/10/2016	N002	0.058			#	0.00024	
Molybdenum	mg/L	10/10/2016	N001	0.01			#	0.00032	
Molybdenum	mg/L	10/10/2016	N002	0.0097			#	0.00032	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: Sorenson SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2016	N001	0.018		J	#	0.01	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2016	N002	0.015		J	#	0.01	
Oxidation Reduction Potential	mV	10/10/2016	N001	40.7			#		
pH	s.u.	10/10/2016	N001	8.05			#		
Potassium	mg/L	10/10/2016	N001	4.4			#	0.052	
Potassium	mg/L	10/10/2016	N002	4.5			#	0.052	
Selenium	mg/L	10/10/2016	N001	0.0037			#	0.00066	
Selenium	mg/L	10/10/2016	N002	0.0039			#	0.00066	
Sodium	mg/L	10/10/2016	N001	71			#	0.047	
Sodium	mg/L	10/10/2016	N002	74			#	0.047	
Specific Conductance	umhos/cm	10/10/2016	N001	1532			#		
Sulfate	mg/L	10/10/2016	N001	660		J	#	5	
Sulfate	mg/L	10/10/2016	N002	660		J	#	5	
Temperature	C	10/10/2016	N001	14.36			#		
Total Dissolved Solids	mg/L	10/10/2016	N001	1100		J	#	40	
Total Dissolved Solids	mg/L	10/10/2016	N002	1100		J	#	40	
Turbidity	NTU	10/10/2016	N001	7.34			#		
Uranium	mg/L	10/10/2016	N001	0.11			#	0.000012	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: Sorenson SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID		Lab	Data	QA		
Uranium	mg/L	10/10/2016	N002	0.1			#	0.000012	
Vanadium	mg/L	10/10/2016	N001	0.0029	J		#	0.00058	
Vanadium	mg/L	10/10/2016	N002	0.0028	J		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: W3-03 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/12/2016	N001	483			#		
Arsenic	mg/L	10/12/2016	0001	0.0086			#	0.00012	
Calcium	mg/L	10/12/2016	0001	290			#	0.024	
Chloride	mg/L	10/12/2016	0001	110		J	#	2	
Dissolved Oxygen	mg/L	10/12/2016	N001	3.69			#		
Fluoride	mg/L	10/12/2016	0001	0.23		J	#	0.1	
Iron	mg/L	10/12/2016	0001	3.9			#	0.0067	
Magnesium	mg/L	10/12/2016	0001	74			#	0.03	
Manganese	mg/L	10/12/2016	0001	4.5			#	0.00024	
Molybdenum	mg/L	10/12/2016	0001	0.0032			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2016	0001	0.01	U	J	#	0.01	
Oxidation Reduction Potential	mV	10/12/2016	N001	-75.6			#		
pH	s.u.	10/12/2016	N001	7.31			#		
Potassium	mg/L	10/12/2016	0001	12			#	0.052	
Selenium	mg/L	10/12/2016	0001	0.00066	U		#	0.00066	
Sodium	mg/L	10/12/2016	0001	140			#	0.047	
Specific Conductance	umhos/cm	10/12/2016	N001	2261			#		
Sulfate	mg/L	10/12/2016	0001	770		J	#	5	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: W3-03 SURFACE LOCATION

Parameter	Units	Sample		Result	Lab	Qualifiers		Detection Limit	Uncertainty
		Date	ID			Data	QA		
Temperature	C	10/12/2016	N001	12.16			#		
Turbidity	NTU	10/12/2016	N001	168			#		
Uranium	mg/L	10/12/2016	0001	0.072			#	0.000012	
Vanadium	mg/L	10/12/2016	0001	0.0013	J		#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: W3-04 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	10/11/2016	N001	293			#		
Arsenic	mg/L	10/11/2016	N001	0.0006	J		#	0.00012	
Calcium	mg/L	10/11/2016	N001	250			#	0.024	
Chloride	mg/L	10/11/2016	N001	18		J	#	0.2	
Dissolved Oxygen	mg/L	10/11/2016	N001	8.35			#		
Fluoride	mg/L	10/11/2016	N001	0.17		J	#	0.1	
Iron	mg/L	10/11/2016	N001	0.11			#	0.0067	
Magnesium	mg/L	10/11/2016	N001	47			#	0.03	
Manganese	mg/L	10/11/2016	N001	0.12			#	0.00024	
Molybdenum	mg/L	10/11/2016	N001	0.0018	J		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2016	N001	0.01	U	J	#	0.01	
Oxidation Reduction Potential	mV	10/11/2016	N001	186.9			#		
pH	s.u.	10/11/2016	N001	7.98			#		
Potassium	mg/L	10/11/2016	N001	3.1			#	0.052	
Selenium	mg/L	10/11/2016	N001	0.00066	U		#	0.00066	
Sodium	mg/L	10/11/2016	N001	56			#	0.047	
Specific Conductance	umhos/cm	10/11/2016	N001	1592			#		
Sulfate	mg/L	10/11/2016	N001	680		J	#	5	

Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites

REPORT DATE: 1/4/2017

Location: W3-04 SURFACE LOCATION

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	10/11/2016	N001	16.71			#		
Turbidity	NTU	10/11/2016	N001	2.82			#		
Uranium	mg/L	10/11/2016	N001	0.014			#	0.000012	
Vanadium	mg/L	10/11/2016	N001	0.00058	U		#	0.00058	

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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Static Water Level Data

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STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites
REPORT DATE: 1/4/2017

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
0200	D	6762.69	10/12/2016	11:05:05	7.73	6754.96	
0202	D	6785.81	10/11/2016	17:15:23	15.92	6769.89	
31NE93-205	C	6940.62	10/10/2016	17:50:06	182.09	6758.53	
82-08	D	6787.4	10/11/2016	16:55:17	13.25	6774.15	
88-85	D	6797.09	10/10/2016	15:25:15	5.17	6791.92	
92-07	D	6804.02	10/10/2016	16:05:03	17.18	6786.84	
92-08	D	6775.68	10/12/2016	13:30:32	13.85	6761.83	
92-09	D	6733.29	10/12/2016	15:00:07	11.33	6721.96	
92-10	D	6733.8	10/12/2016	15:25:19	13.22	6720.58	
92-11	D	6813.73	10/10/2016	16:55:34	19.32	6794.41	
92-12	D	6815.05	10/10/2016	16:03:00	55.10	6759.95	
93-01	O	6889.98	10/11/2016	13:45:00	111.79	6778.19	
95-01	D	6675.83	10/10/2016	15:40:14	4.54	6671.29	
95-02	D	6678.99	10/10/2016	13:42:00	3.16	6675.83	
95-03	D	6704.78	10/10/2016	16:20:45	2.79	6701.99	
95-04	D	6706.24	10/10/2016	16:24:00	3.45	6702.79	
95-06	D	6824.91	10/12/2016	10:25:14	73.52	6751.39	
95-07	C	6883.34	10/12/2016	09:45:01	70.52	6812.82	
95-08	D	6841.51	10/10/2016	13:41:00	128.72	6712.79	
MW00-01	U	6882.77	10/11/2016	13:00:54	10.94	6871.83	
MW00-02	U	6883.26	10/11/2016	13:24:00	8.04	6875.22	
MW00-03	O	6853.15	10/11/2016	15:31:00			D
MW00-06	D	6793.14	10/12/2016	14:30:16	16.16	6776.98	
MW00-07	D	6790.85	10/12/2016	12:22:00	21.05	6769.80	
P92-02	D	6737.02	10/11/2016	16:23:00	13.28	6723.74	
P92-06	D	6774.73	10/12/2016	14:00:30	13.36	6761.37	
PW-10	D	6813.94	10/12/2016	08:36:00			D
PW-14	D	6800.44	10/11/2016	13:00:00	18.55	6781.89	
PW-16	D	6796.72	10/11/2016	13:08:00	13.35	6783.37	

STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites
REPORT DATE: 1/4/2017

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
PW-17	D	6817.35	10/12/2016	08:50:00	32.90	6784.45	B
PW-18	D	6799.73	10/11/2016	15:31:00	8.75	6790.98	
PW-20	D	6799.57	10/11/2016	15:56:00	12.79	6786.78	
PW-22	D	6797.45	10/11/2016	16:21:00	11.08	6786.37	
PW-23	D	6809.15	10/11/2016	13:07:00	23.75	6785.40	
PW-28	D	6799.93	10/11/2016	16:05:37	9.26	6790.67	
PW99-16	D	6799.76	10/11/2016	15:57:00	13.14	6786.62	
R1-M1	D	6797.77	10/11/2016	13:14:00	6.09	6791.68	
R1-M2	D	6796.6	10/11/2016	13:28:00	4.84	6791.76	
R1-M3	D	6795.91	10/11/2016	10:30:50	4.12	6791.79	
R1-M4	D	6795.85	10/11/2016	09:15:18	4.18	6791.67	
R1-M5	D	6795.61	10/11/2016	14:34:00	4.13	6791.48	
R1-M6	D	6798.16	10/11/2016	16:22:00	6.50	6791.66	
R10-M1	D	6795.11	10/11/2016	12:45:24	13.68	6781.43	
R11-M1	D	6794.79	10/11/2016	15:25:00	13.35	6781.44	
R2-M1	D	6796.94	10/11/2016	13:15:00	5.24	6791.70	
R2-M10	D	6795.56	10/12/2016	14:46:00	1.07	6794.49	
R2-M2	D	6796.43	10/11/2016	13:26:00	4.70	6791.73	
R2-M3	D	6796.03	10/11/2016	13:32:00	4.33	6791.7	
R2-M4	D	6795.84	10/11/2016	13:42:00	4.13	6791.71	
R2-M5	D	6795.71	10/11/2016	13:46:00	4.02	6791.69	
R2-M6	D	6795.71	10/11/2016	14:20:00	4.05	6791.66	
R2-M7	D	6795.8	10/11/2016	14:27:00	4.17	6791.63	
R2-M8	D	6795.76	10/11/2016	14:32:00	4.19	6791.57	
R2-M9	D	6795.58	10/11/2016	14:36:00	3.94	6791.64	
R3-M1	D	6796.42	10/11/2016	13:25:00	4.70	6791.72	
R3-M2	D	6795.8	10/11/2016	10:40:54	4.15	6791.65	
R3-M3	D	6795.76	10/11/2016	09:25:11	4.13	6791.63	
R3-M4	D	6795.55	10/11/2016	14:37:00	3.93	6791.62	

STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites
REPORT DATE: 1/4/2017

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
R4-M1	D	6796.41	10/11/2016	13:23:00	9.51	6786.90	
R4-M2	D	6795.97	10/11/2016	13:33:00	9.07	6786.90	
R4-M3	D	6795.76	10/11/2016	10:46:00	8.50	6787.26	
R4-M4	D	6795.66	10/11/2016	13:47:00	8.67	6786.99	
R4-M5	D	6795.72	10/11/2016	14:21:00	8.78	6786.94	
R4-M6	D	6795.71	10/11/2016	09:40:34	8.88	6786.83	
R4-M7	D	6795.58	10/11/2016	14:31:00	8.68	6786.90	
R4-M8	D	6795.67	10/11/2016	14:37:00	8.77	6786.90	
R5-M1	D	6796.84	10/11/2016	13:18:00	9.93	6786.91	
R5-M10	D	6795.63	10/11/2016	14:46:00	8.70	6786.93	
R5-M2	D	6796.39	10/11/2016	13:21:00	9.48	6786.91	
R5-M3	D	6795.98	10/11/2016	13:35:00	9.07	6786.91	
R5-M4	D	6795.76	10/11/2016	13:41:00	8.81	6786.95	
R5-M5	D	6795.63	10/11/2016	13:48:00	8.69	6786.94	
R5-M6	D	6795.7	10/11/2016	14:22:00	8.81	6786.89	
R5-M7	D	6795.7	10/11/2016	14:25:00	8.79	6786.91	
R5-M8	D	6795.52	10/11/2016	14:29:00	8.58	6786.94	
R5-M9	D	6795.66	10/11/2016	14:39:00	8.78	6786.88	
R6-M1	D	6797.41	10/11/2016	13:11:00	13.88	6783.53	
R6-M2	D	6796.18	10/11/2016	13:20:00	8.97	6787.21	
R6-M3	D	6795.71	10/11/2016	11:05:00	10.37	6785.34	
R6-M4	D	6795.53	10/11/2016	10:00:36	9.68	6785.85	
R6-M5	D	6795.54	10/11/2016	14:39:00	10.12	6785.42	
R6-M6	D	6797.22	10/11/2016	14:41:00			D
R7-M1	D	6796	10/11/2016	15:16:00	12.61	6783.39	
R7-M2	D	6795.78	10/11/2016	13:39:00	12.19	6783.59	
R8-M1	D	6795.6	10/11/2016	13:36:00	13.22	6782.38	
R9-M1	D	6795.21	10/11/2016	13:38:00	13.53	6781.68	
T00-01	O	6806.52	10/12/2016	15:15:32	9.31	6797.21	

STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites
REPORT DATE: 1/4/2017

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
T00-02	O	6806.77	10/11/2016	17:42:00	9.68	6797.09	
T00-03	O	6805.27	10/11/2016	15:51:00	7.55	6797.72	
T00-04	O	6804.31	10/11/2016	16:25:27	6.82	6797.49	
T00-05	O	6809.45	10/11/2016	15:50:00	12.22	6797.23	
T00-06	O	6820.77	10/11/2016	15:48:00			D
T00-07	O	6823.09	10/11/2016	15:45:00			D
T01-01	O	6806.09	10/12/2016	13:30:37	8.37	6797.72	
T01-02	O	6807.66	10/12/2016	13:50:55	9.34	6798.32	
T01-04	O	6814.15	10/12/2016	14:20:19	14.61	6799.54	
T01-05	O	6822.21	10/12/2016	14:50:23	21.00	6801.21	
T01-06	O	6828.41	10/13/2016	07:41:00			D
T01-07	O	6823.29	10/12/2016	15:40:23	19.83	6803.46	
T01-08	O	6808.11	10/11/2016	15:39:00	7.56	6800.55	
T01-09	O	6832.8	10/11/2016	15:57:00			D
T01-10	O	6817.45	10/11/2016	14:00:00	8.59	6808.86	
T01-12	O	6844.34	10/11/2016	08:58:00			D
T01-13	O	6829.67	10/11/2016	15:15:46	7.47	6822.20	
T01-18	O	6860.49	10/11/2016	09:35:07	17.12	6843.37	
T01-19	O	6848.64	10/11/2016	09:50:32	6.52	6842.12	
T01-20	O	6845.4	10/11/2016	14:45:26	11.36	6834.04	
T01-23	O	6858.89	10/11/2016	10:45:53	6.41	6852.48	
T01-24	O	6858.83	10/11/2016	11:00:00	4.95	6853.88	
T01-25	O	6856.33	10/11/2016	14:15:39	7.51	6848.82	
T01-26	O	6878.24	10/11/2016	10:59:00	14.74	6863.50	
T01-27	O	6864.71	10/11/2016	13:57:00	0.90	6863.81	
T01-28	O	6869.2	10/11/2016	13:25:00	4.05	6865.15	
T01-35	O	6824.26	10/11/2016	17:50:05	12.43	6811.83	
T1-D	D	6795.82	10/11/2016	14:16:00	4.12	6791.70	
T1-S	D	6795.84	10/11/2016	14:17:00	4.13	6791.71	

STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites
REPORT DATE: 1/4/2017

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
T2-D	D	6795.75	10/11/2016	14:14:00	4.08	6791.67	
T2-S	D	6795.71	10/11/2016	14:15:00	4.04	6791.67	
T3-D	D	6795.73	10/11/2016	14:11:00	4.03	6791.70	
T3-S	D	6795.77	10/11/2016	14:13:00	4.10	6791.67	
T4-D	D	6795.73	10/11/2016	14:08:00	8.80	6786.93	
T4-S	D	6795.57	10/11/2016	14:10:00	8.60	6786.97	
T5-D	D	6795.71	10/11/2016	14:02:00	8.78	6786.93	
T5-S	D	6795.7	10/11/2016	14:07:00	8.59	6787.11	
T6-D	D	6795.66	10/11/2016	13:58:00			D
T6-S	D	6795.64	10/11/2016	14:00:00			D
T7-D	D	6795.73	10/11/2016	13:55:00	11.90	6783.83	
TW-01	D	6796.54	10/11/2016	13:29:00	4.86	6791.68	
TW-02	D	6795.82	10/11/2016	13:30:00	4.12	6791.70	
TW-03	D	6795.61	10/11/2016	13:44:00	3.93	6791.68	
TW-04	D	6795.53	10/11/2016	14:19:00	3.76	6791.77	
TW-05	D	6795.29	10/11/2016	14:33:00	3.68	6791.61	
TW-06	D	6795.45	10/11/2016	14:47:00	3.60	6791.85	
TW-07	D	6795.46	10/11/2016	15:07:00	12.01	6783.45	
TW-08	D	6795.2	10/11/2016	13:49:00	11.62	6783.58	
TW-09	D	6795.24	10/11/2016	13:54:00	8.00	6787.24	
TW-10	D	6794.94	10/11/2016	14:40:00	10.71	6784.23	
TW-11	D	6796.2	10/11/2016	15:09:00			D
TW-12	D	6795.68	10/11/2016	15:04:00	8.18	6787.50	
TW-13	D	6795.61	10/11/2016	14:24:00	7.69	6787.92	
TW-14	D	6795.5	10/11/2016	14:28:00	8.60	6786.90	

FLOW CODES: B BACKGROUND C CROSS GRADIENT D DOWNGRADIENT F OFFSITE
N UNKNOWN O ONSITE U UPGRADIENT

WATER LEVEL FLAGS: D Dry F Flowing B Below top of pump

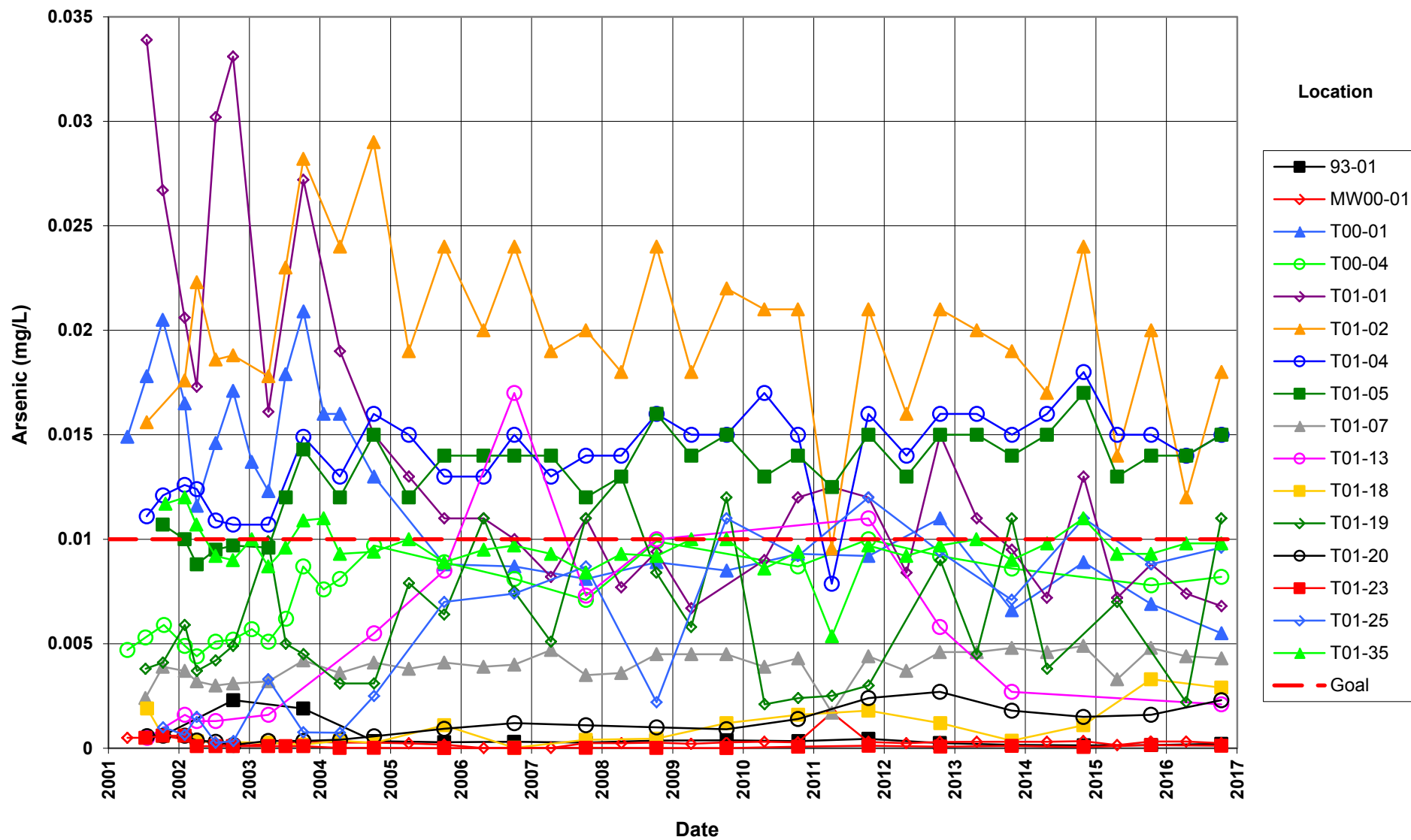
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Time-Concentration Graphs

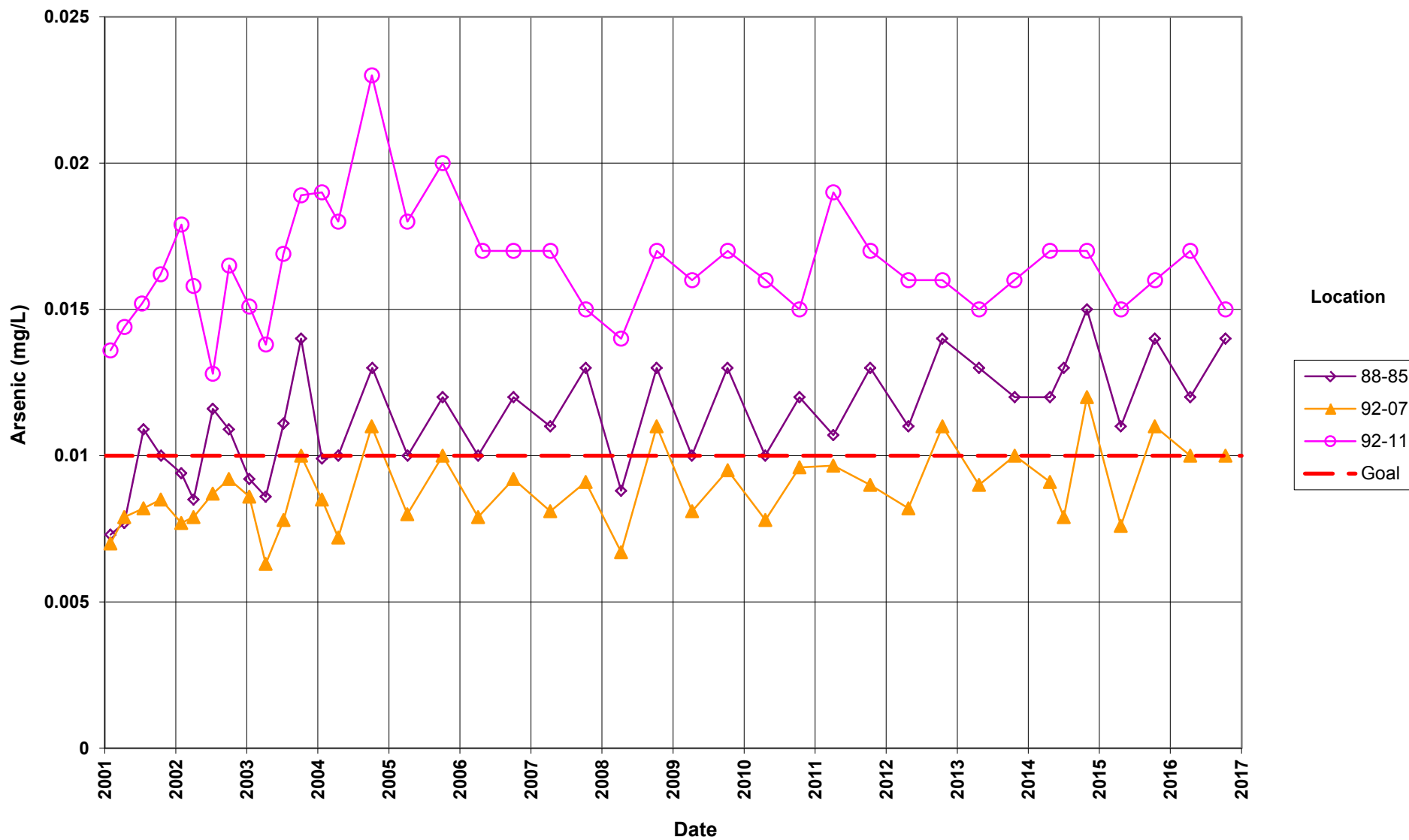
Groundwater

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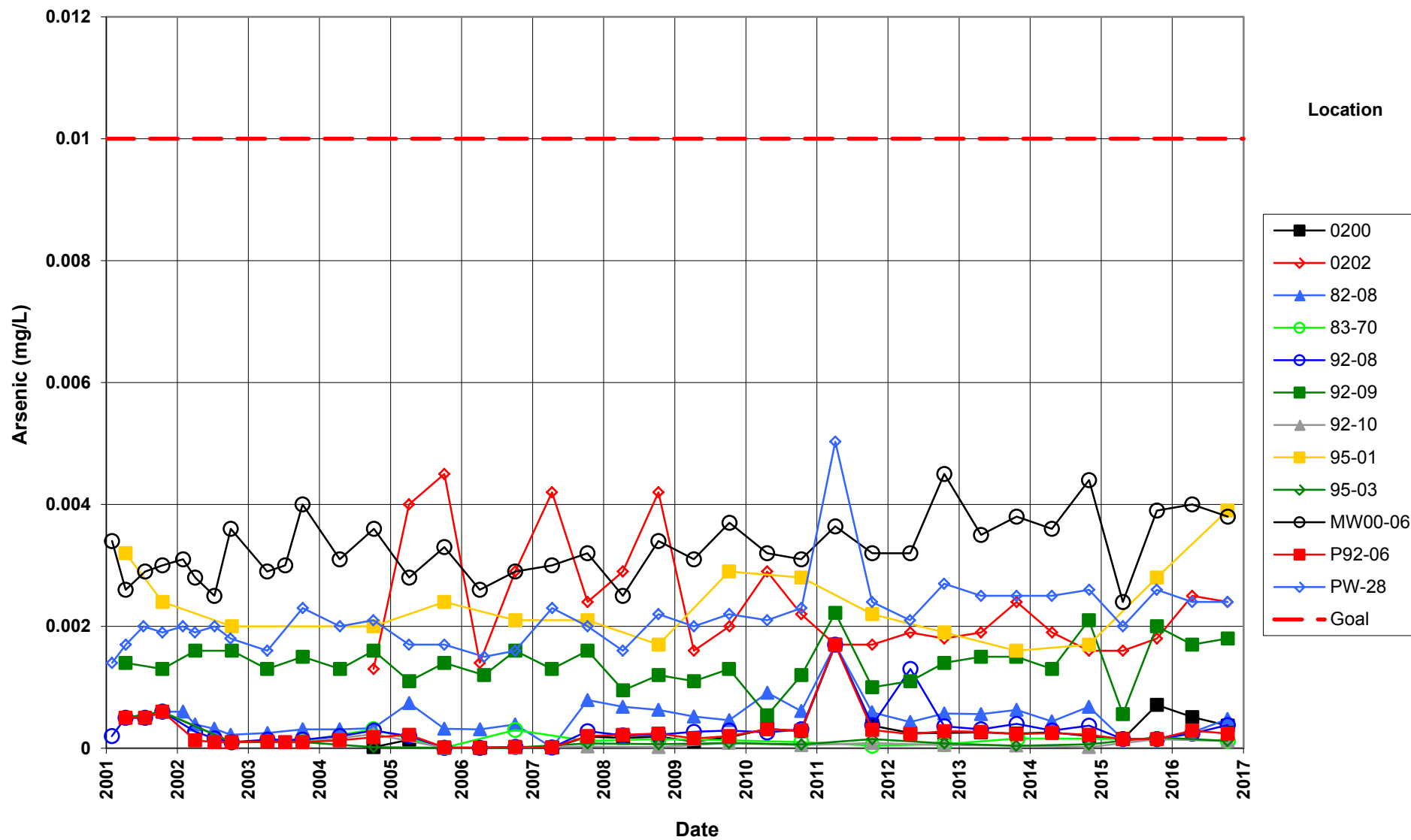
Monticello Disposal & Process Sites
Former Mill Site Wells
Arsenic Concentration
Remediation Goal = 0.01 mg/L



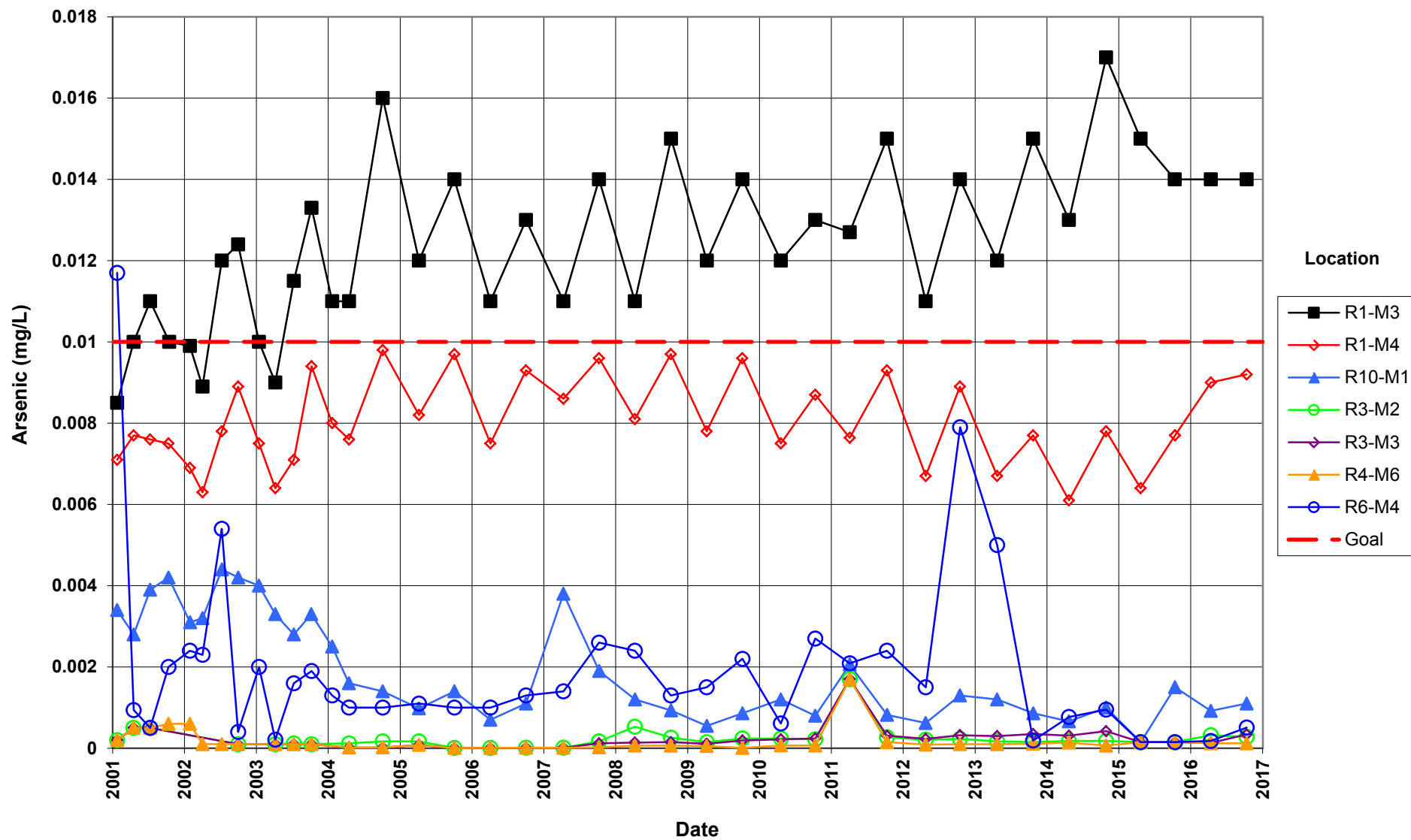
Monticello Disposal & Process Sites
Downgradient Wells
Arsenic Concentration
Remediation Goal = 0.01 mg/L



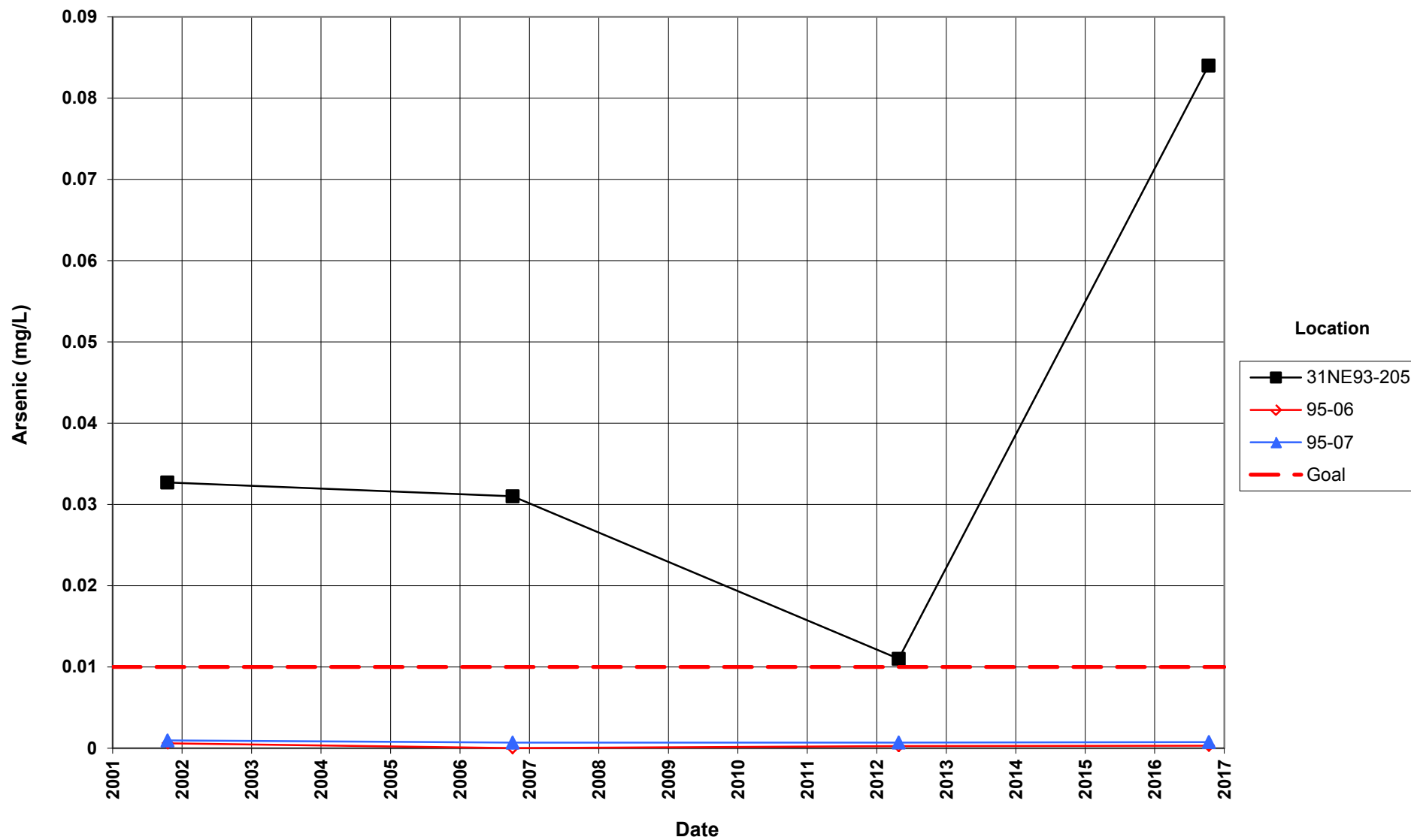
Monticello Disposal & Process Sites
Downgradient Wells
Arsenic Concentration
Remediation Goal = 0.01 mg/L



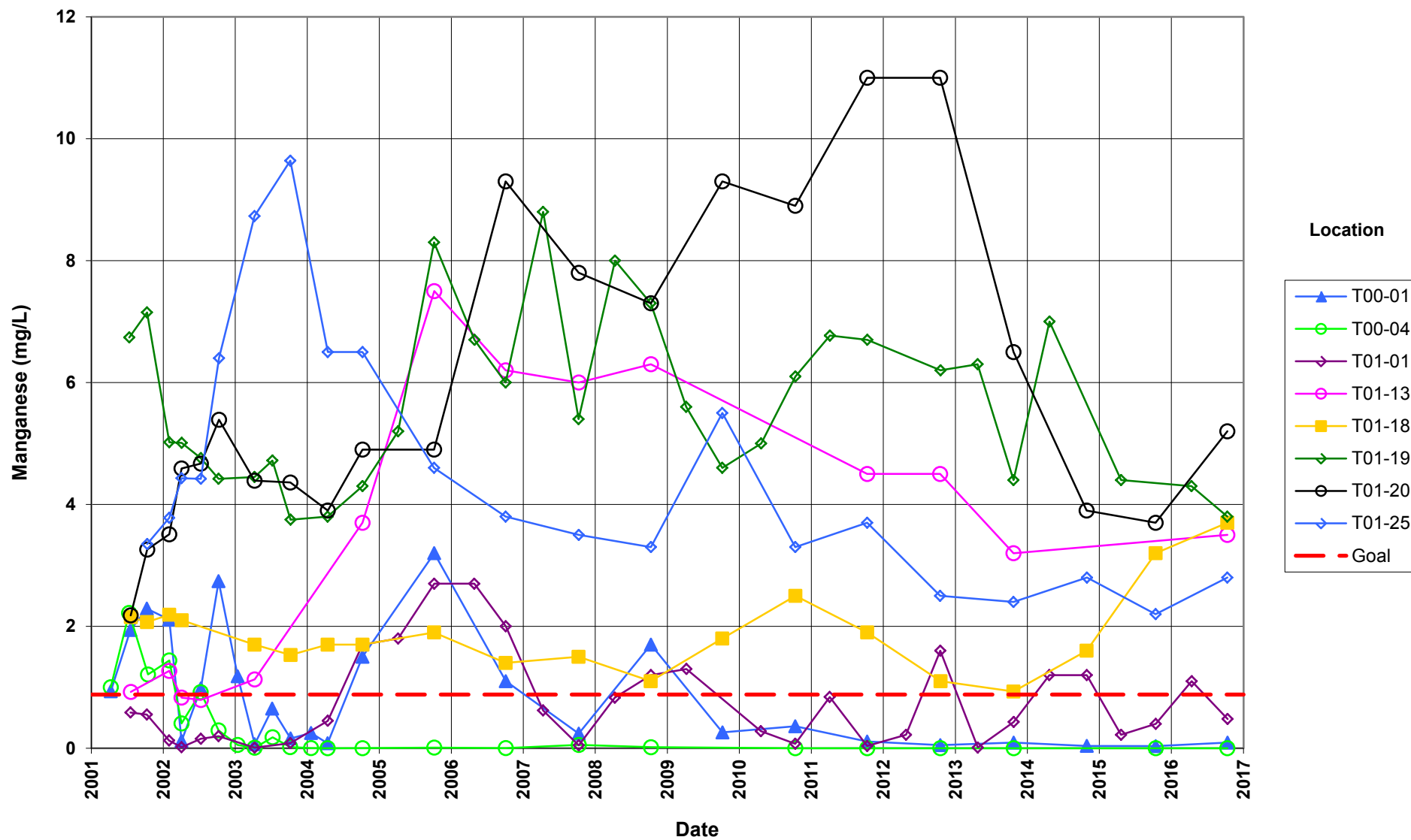
Monticello Disposal & Process Sites
Downgradient PRB Wells
Arsenic Concentration
Remediation Goal = 0.01 mg/L



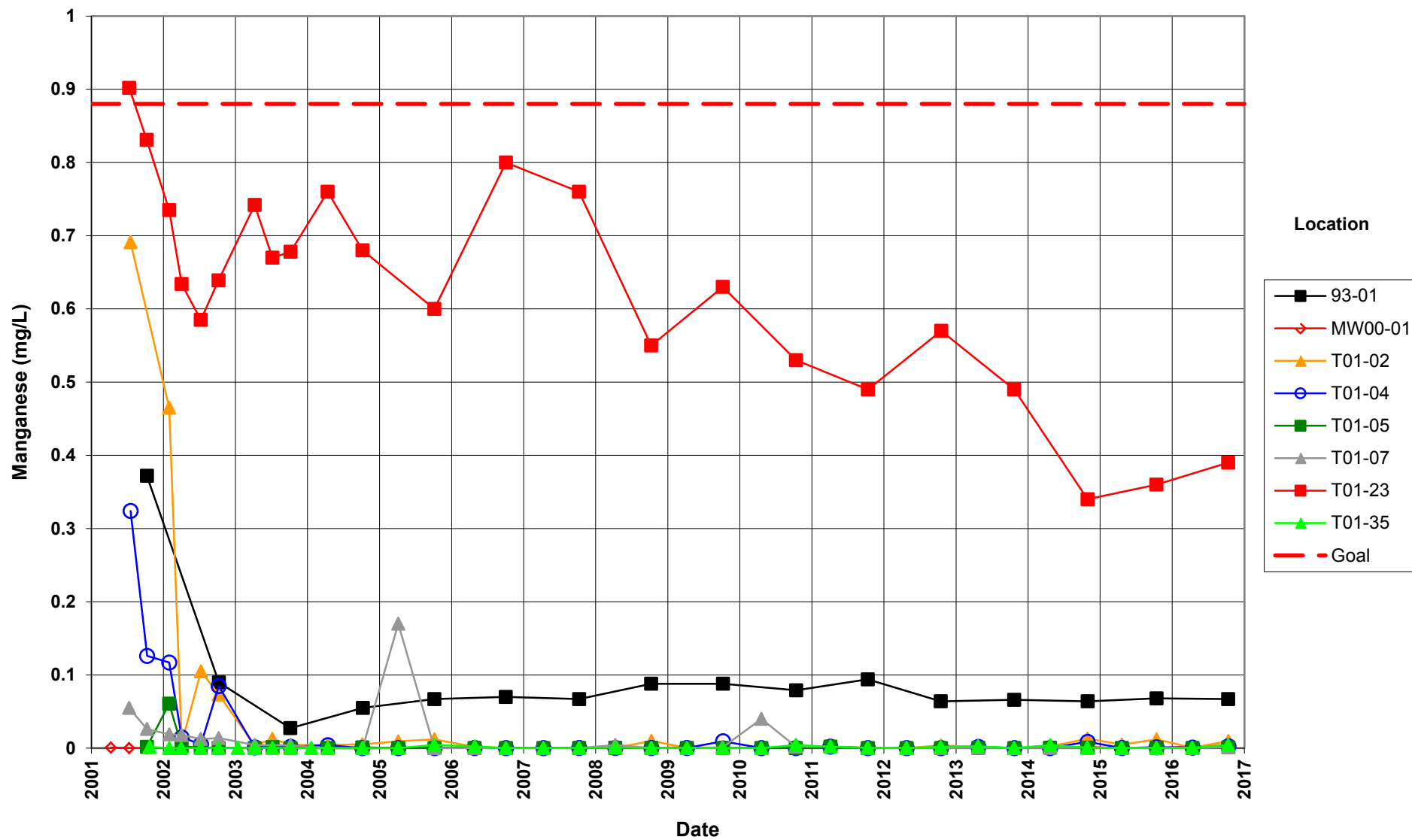
Monticello Disposal & Process Sites
Bedrock Wells
Arsenic Concentration
Remediation Goal = 0.01 mg/L



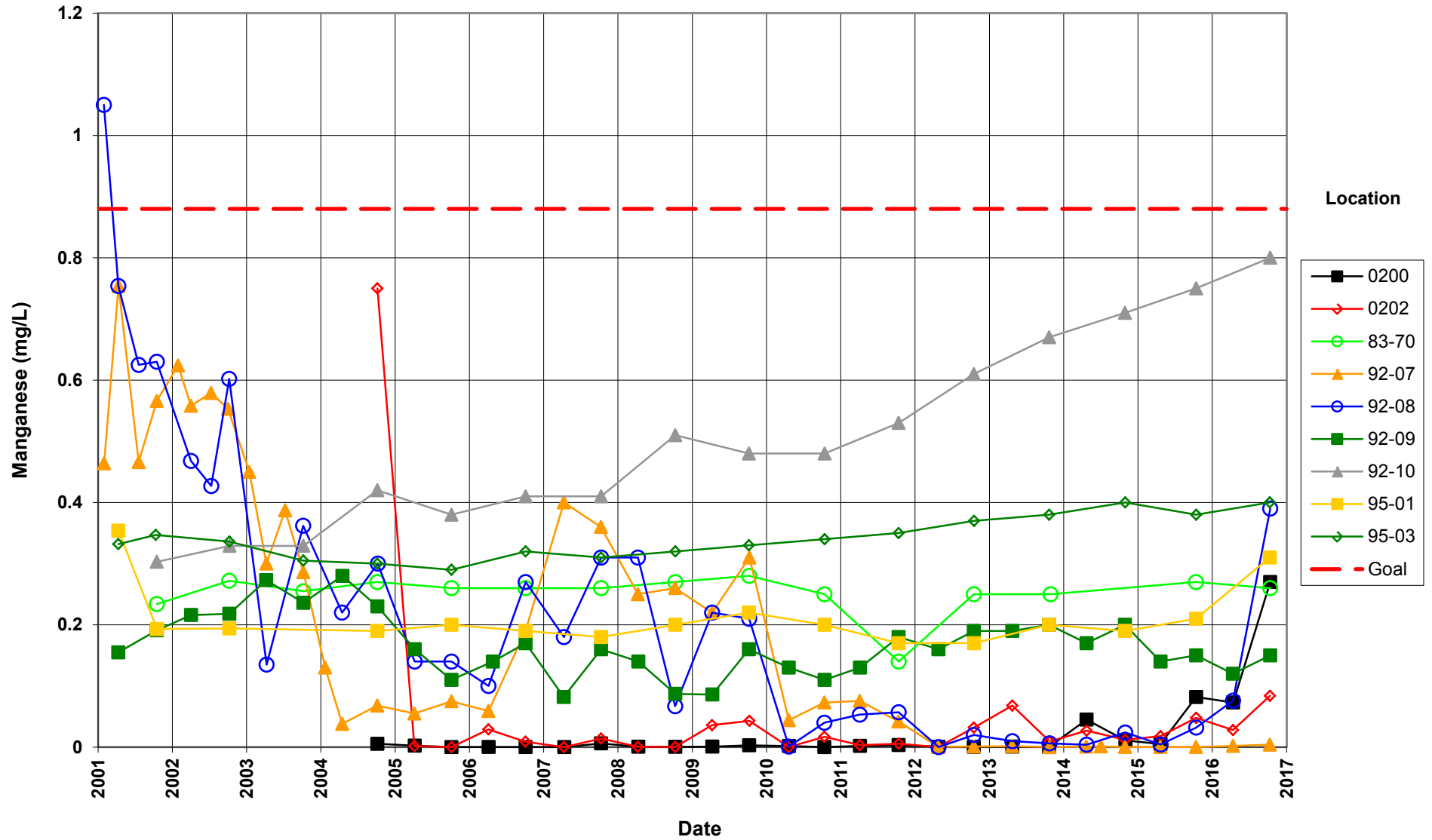
Monticello Disposal & Process Sites
Former Mill Site Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



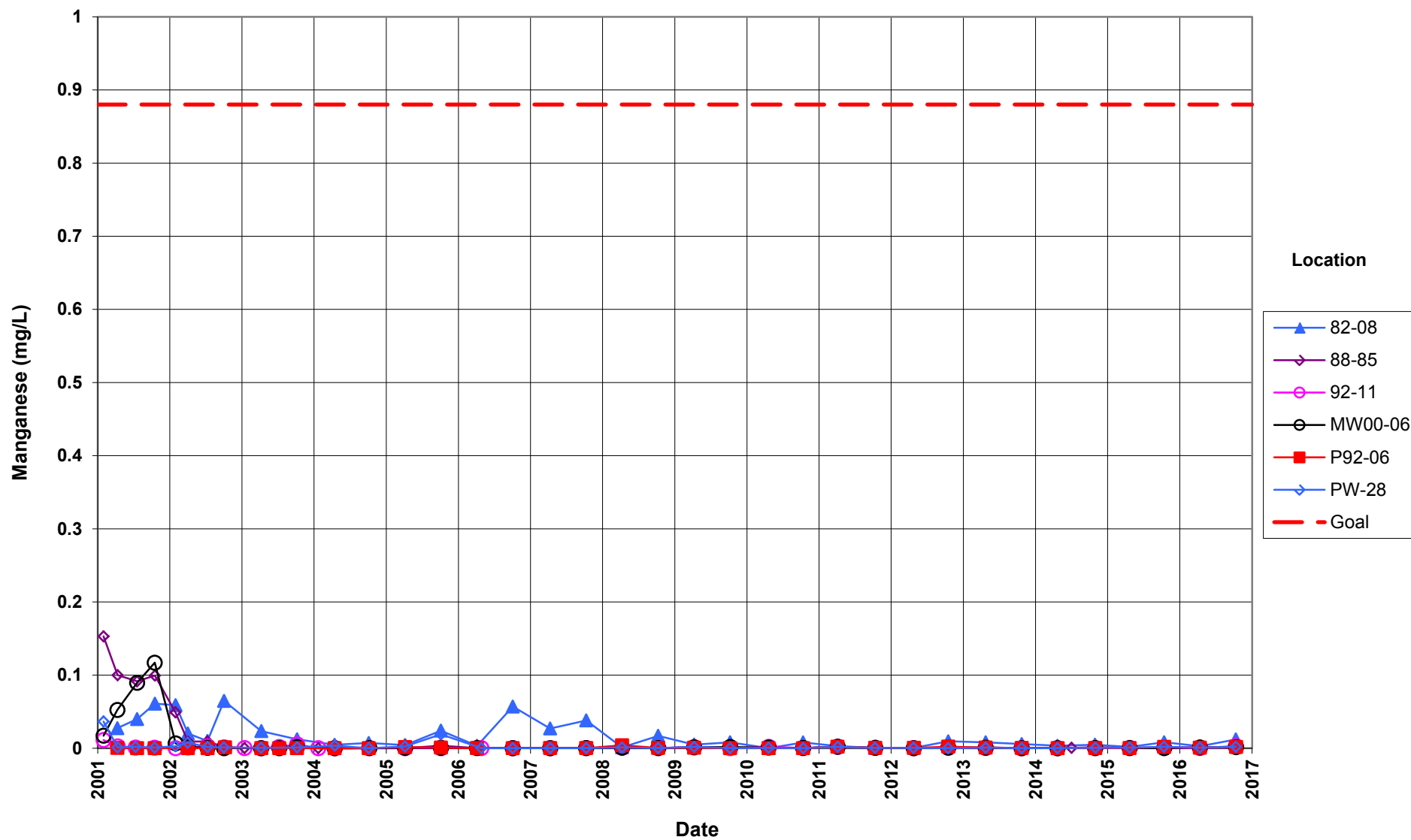
Monticello Disposal & Process Sites
Former Mill Site Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



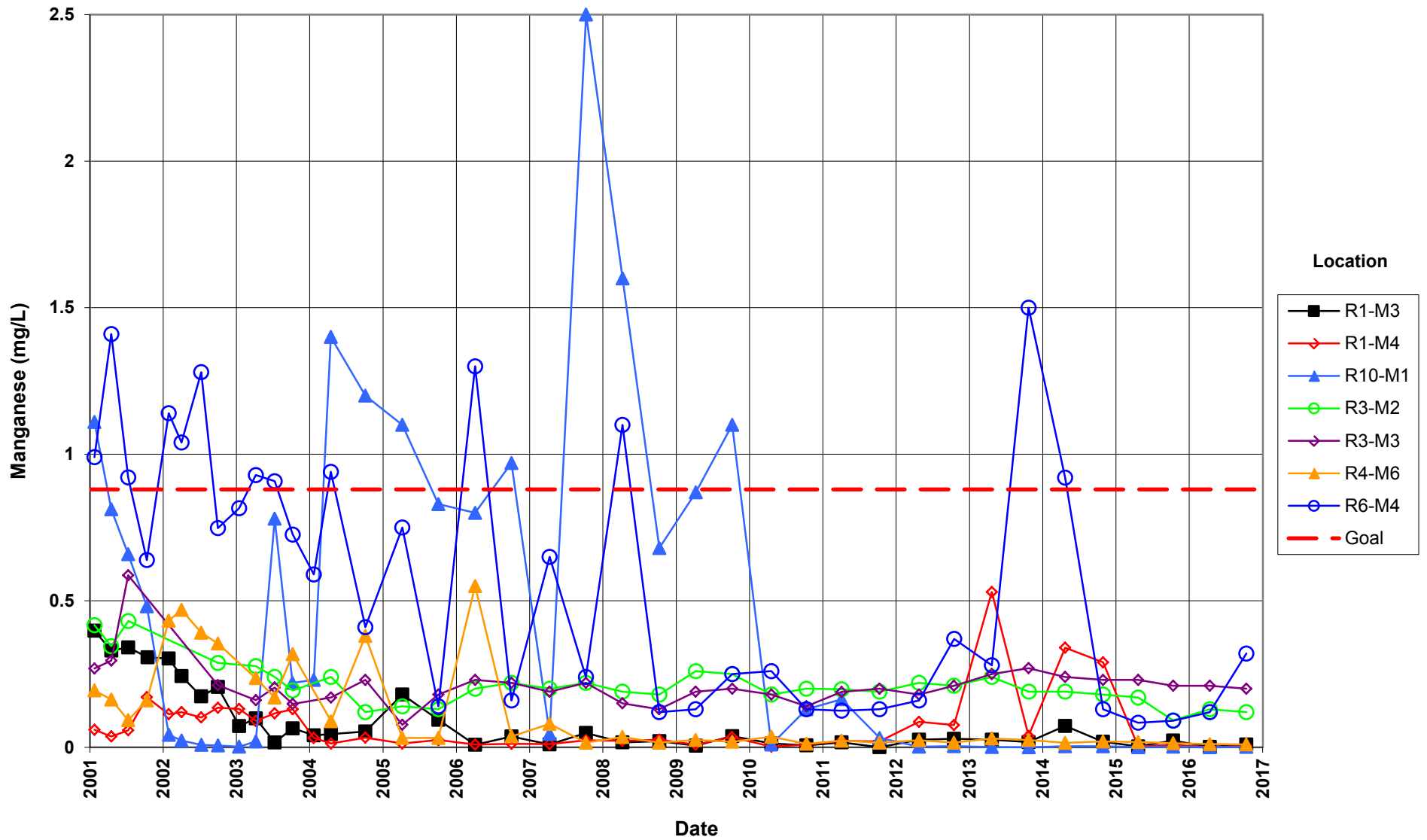
Monticello Disposal & Process Sites
Downgradient Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



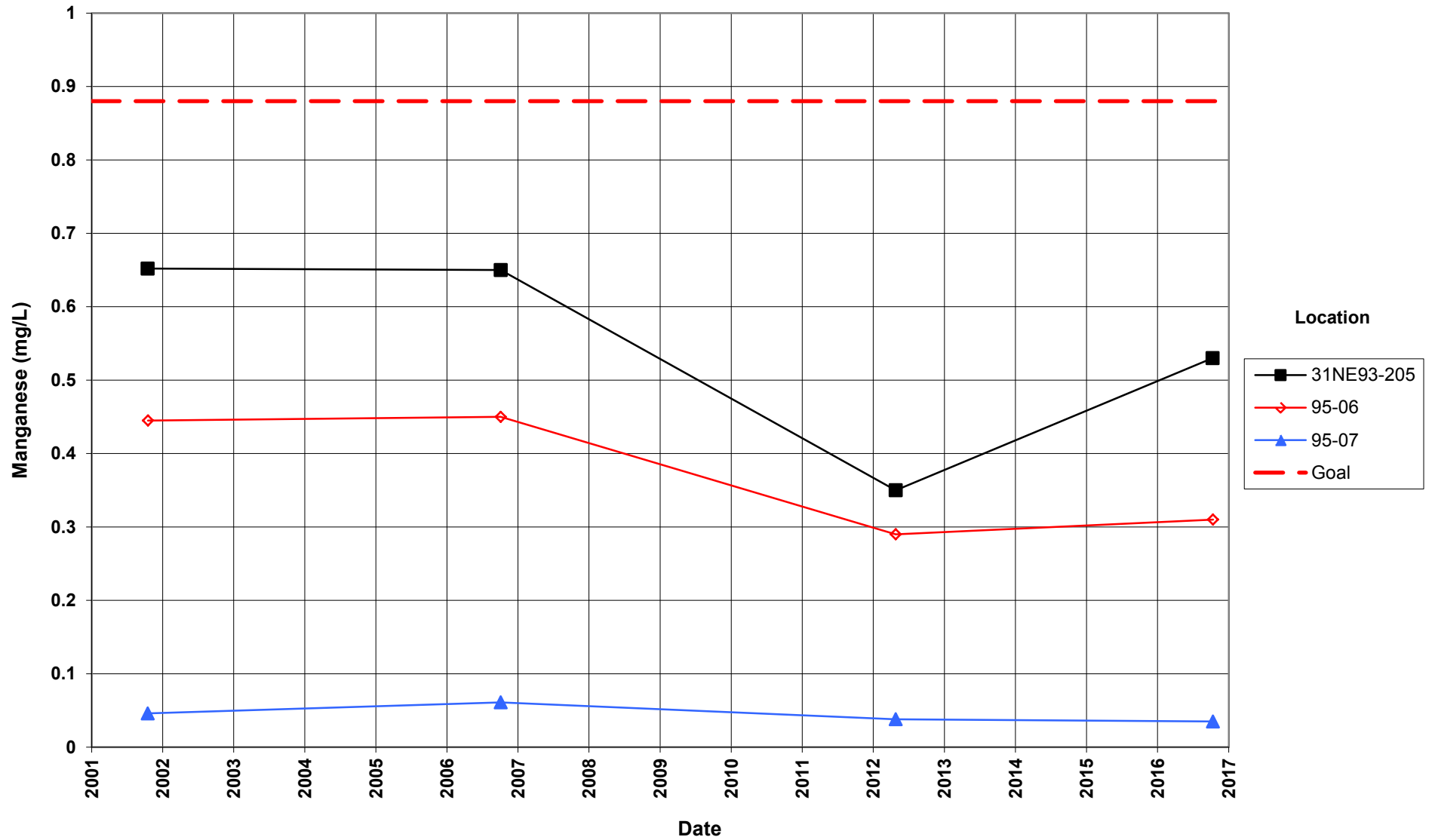
Monticello Disposal & Process Sites
Downgradient Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



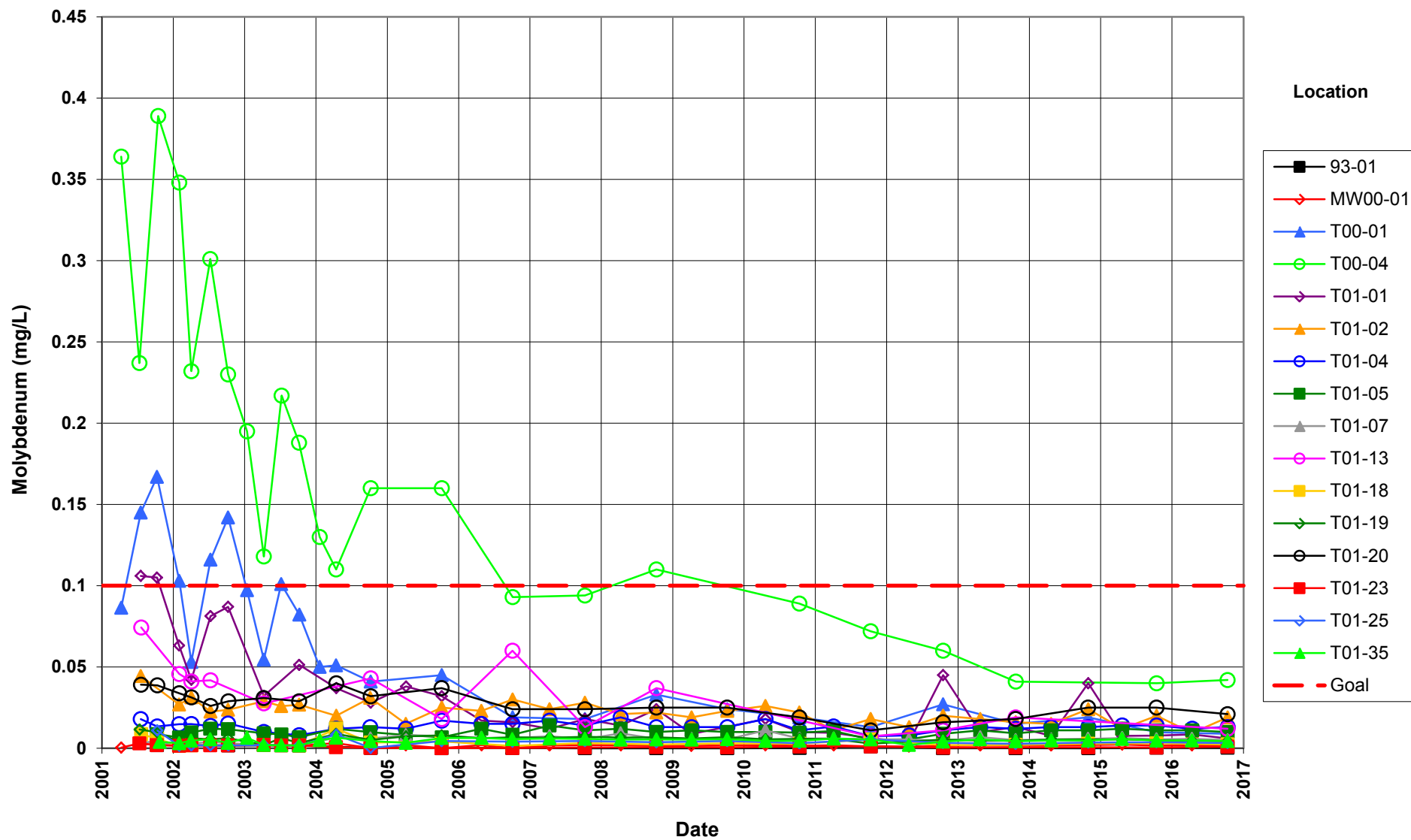
Monticello Disposal & Process Sites
Downgradient PRB Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



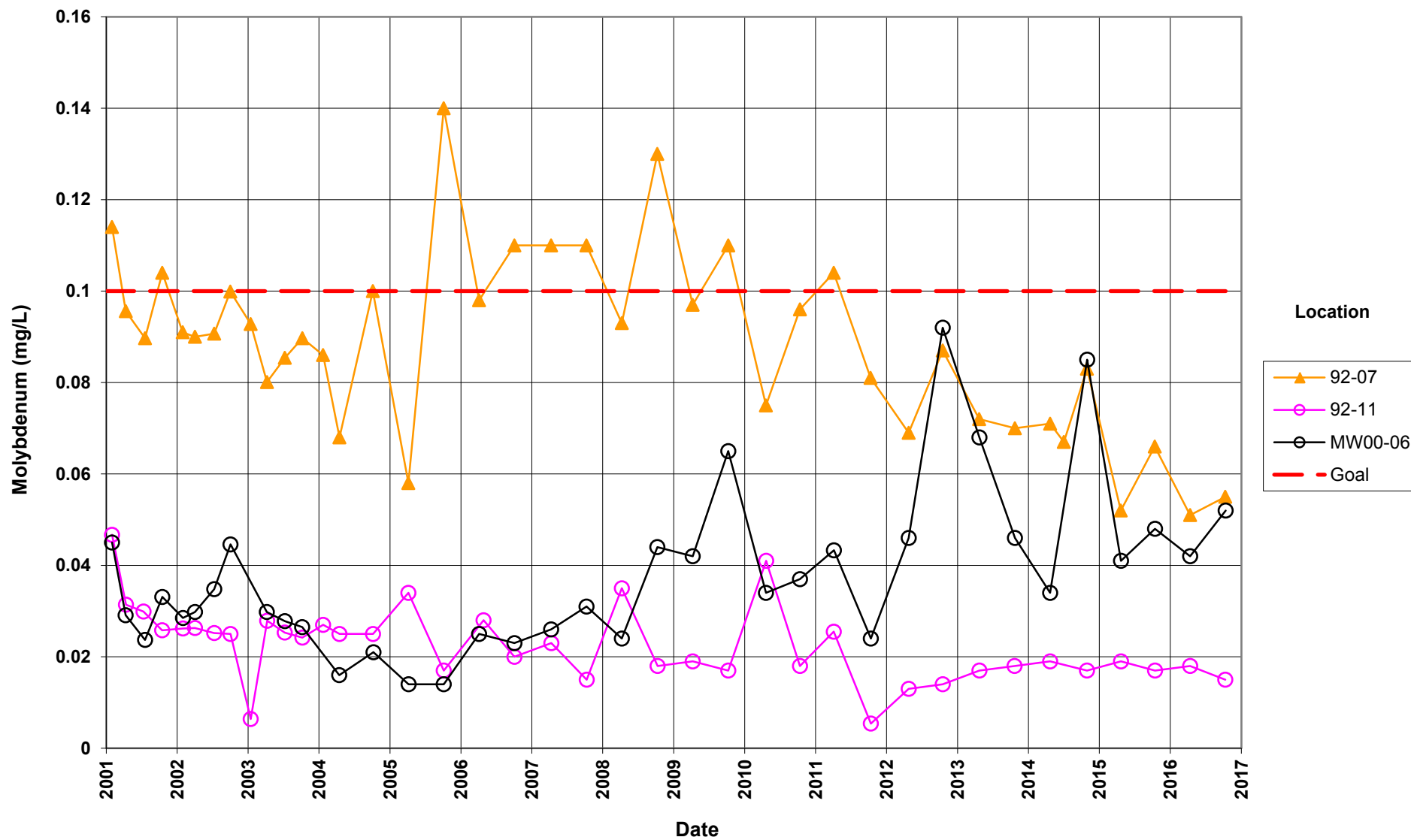
Monticello Disposal & Process Sites
Bedrock Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



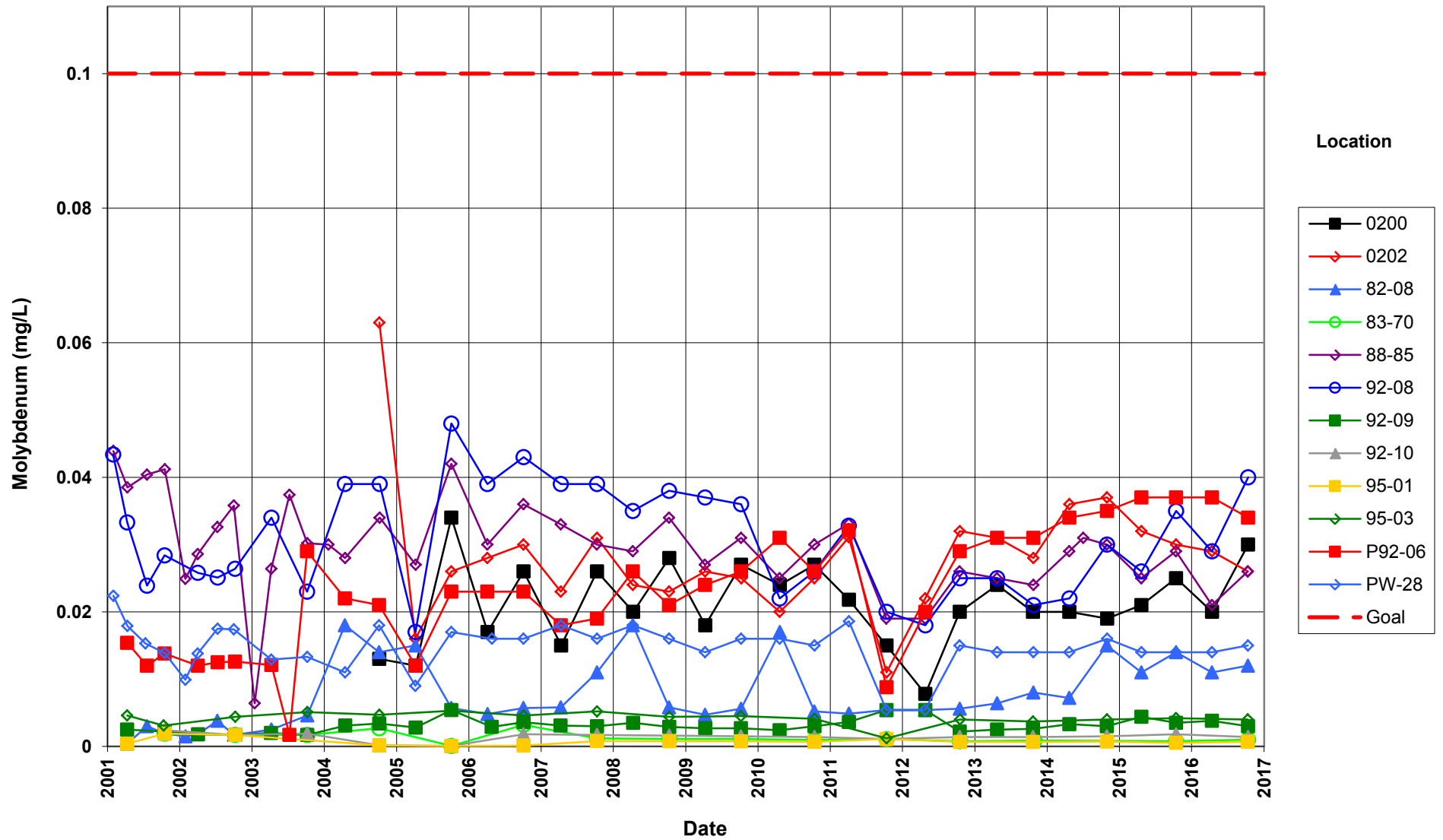
Monticello Disposal & Process Sites
Former Mill Site Wells
Molybdenum Concentration
Remediation Goal = 0.1 mg/L



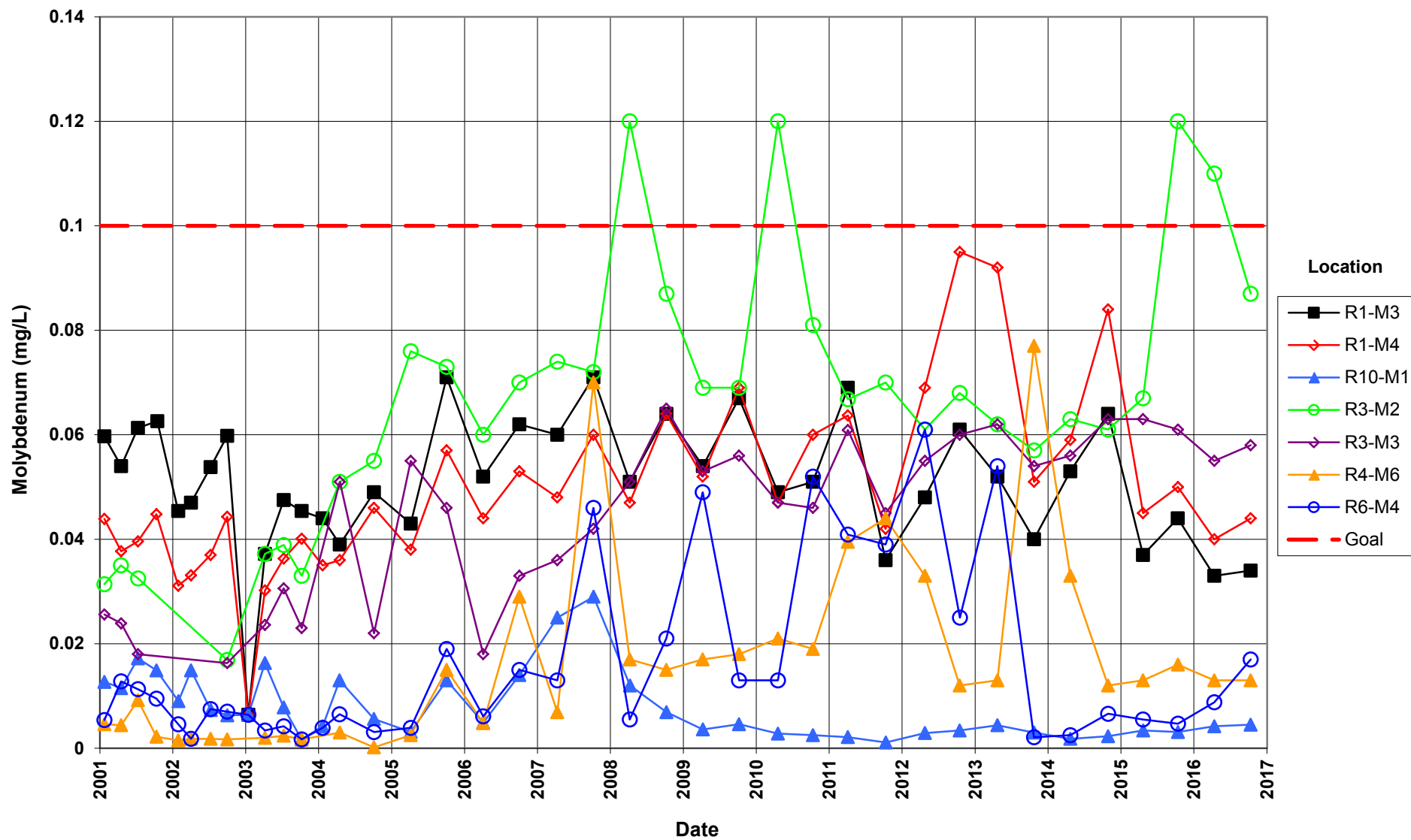
Monticello Disposal & Process Sites
Downgradient Wells
Molybdenum Concentration
Remediation Goal = 0.1 mg/L



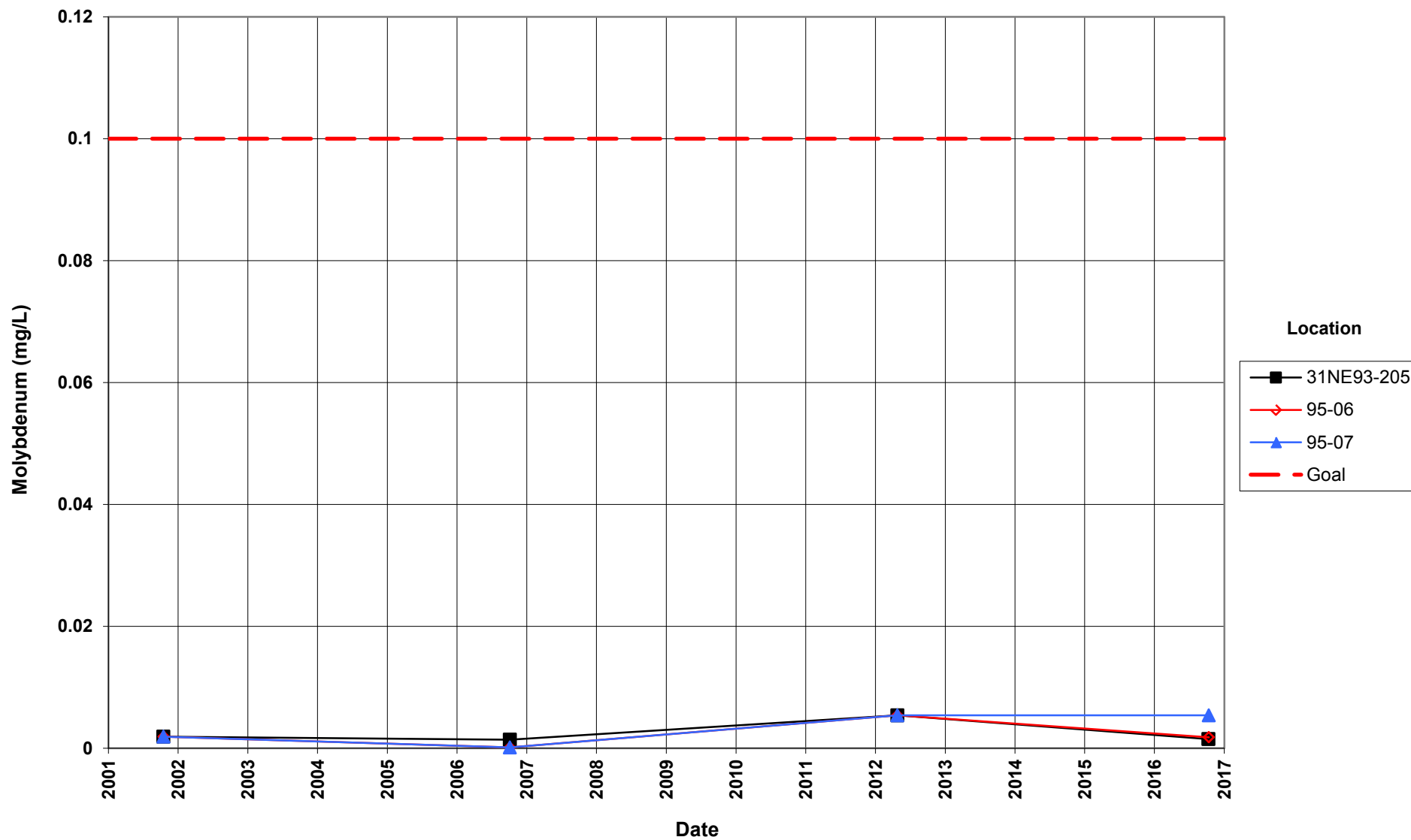
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Downgradient Wells
Molybdenum Concentration
Remediation Goal = 0.1 mg/L



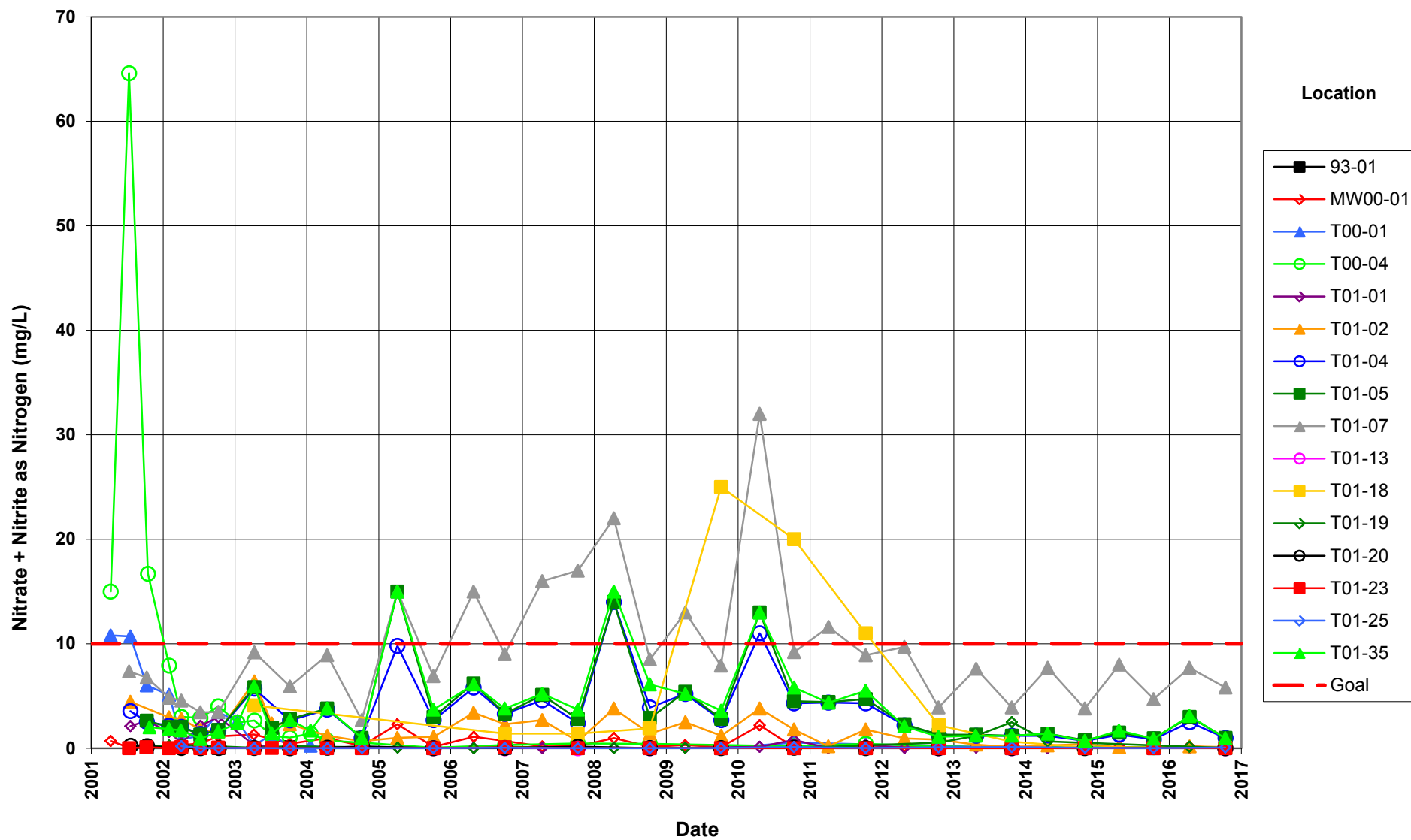
Monticello Disposal & Process Sites
Downgradient PRB Wells
Molybdenum Concentration
Remediation Goal = 0.1 mg/L



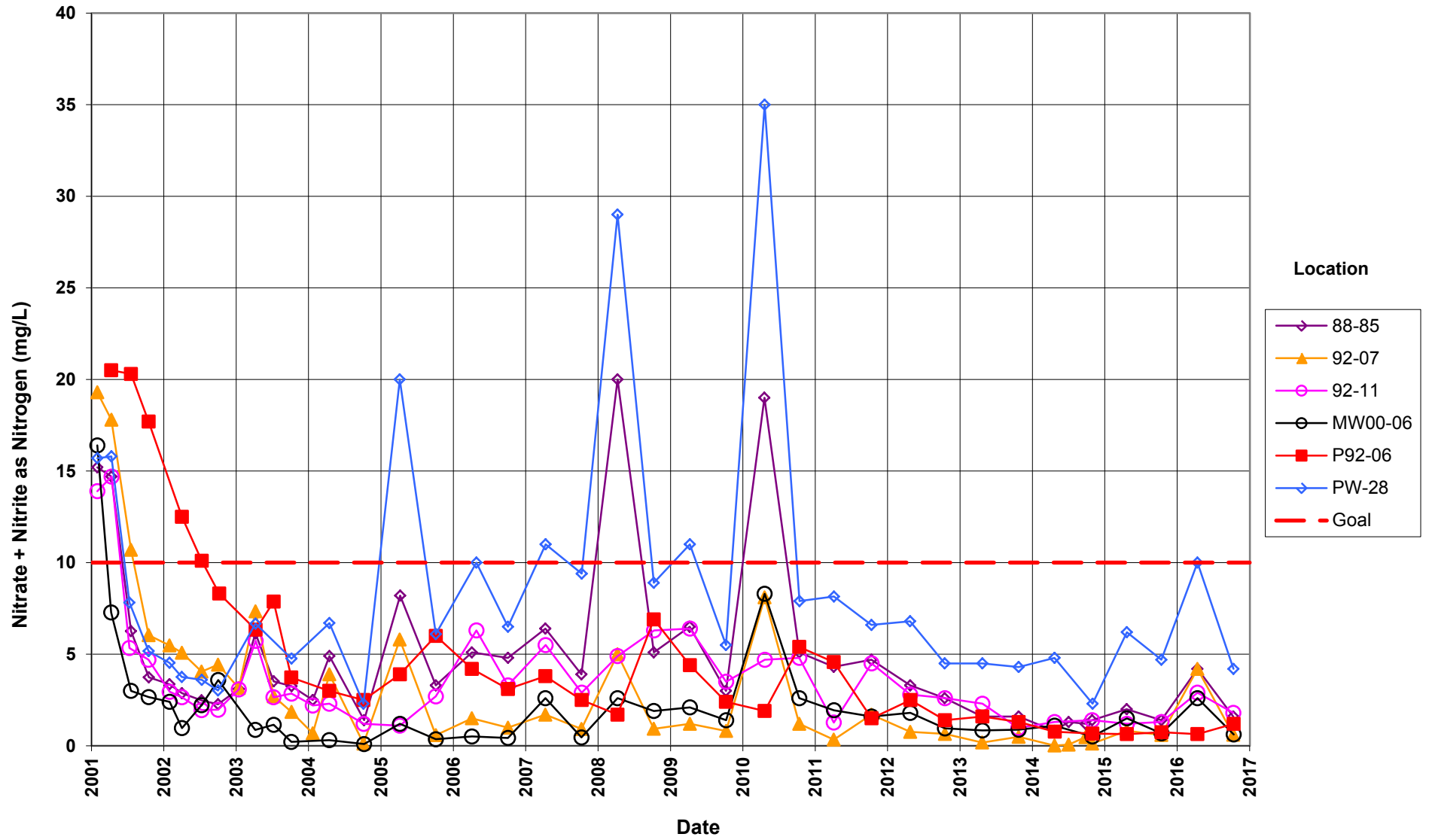
Monticello Disposal & Process Sites
Bedrock Wells
Molybdenum Concentration
Remediation Goal = 0.1 mg/L



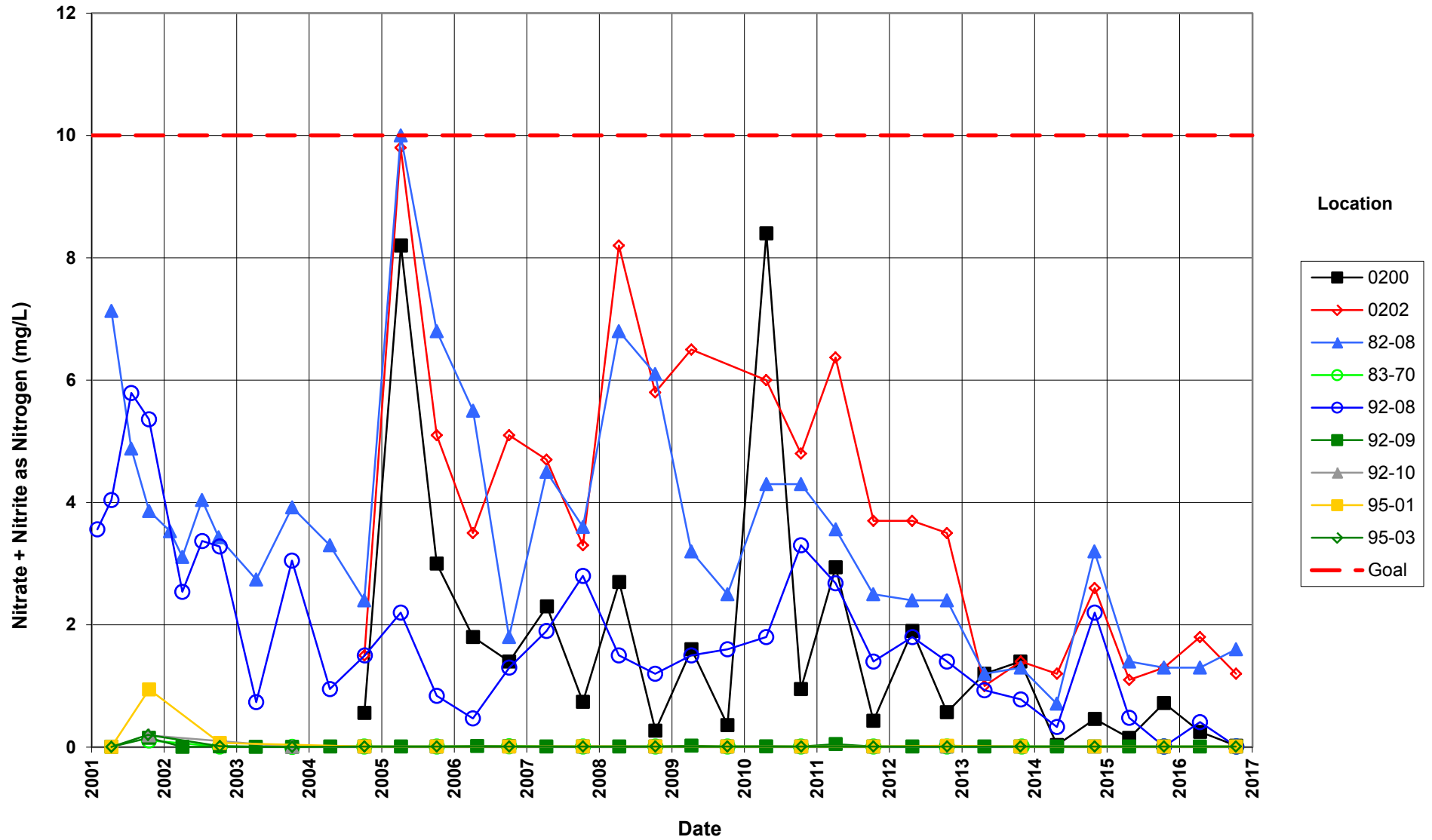
Monticello Disposal & Process Sites
Former Mill Site Wells
Nitrate + Nitrite as N Concentration
Remediation Goal = 10 mg/L



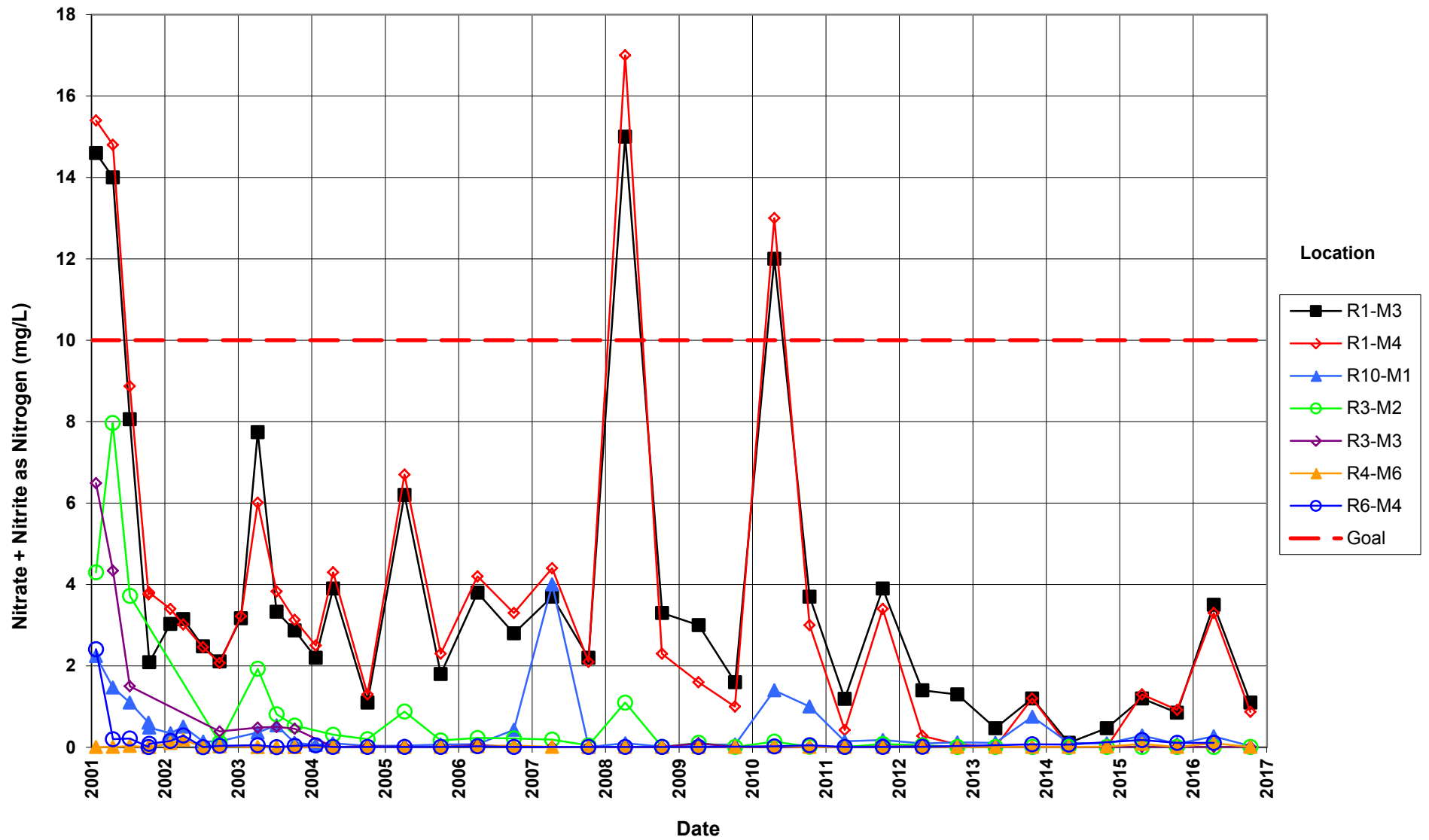
Monticello Disposal & Process Sites
Downgradient Wells
Nitrate + Nitrite as N Concentration
Remediation Goal = 10 mg/L



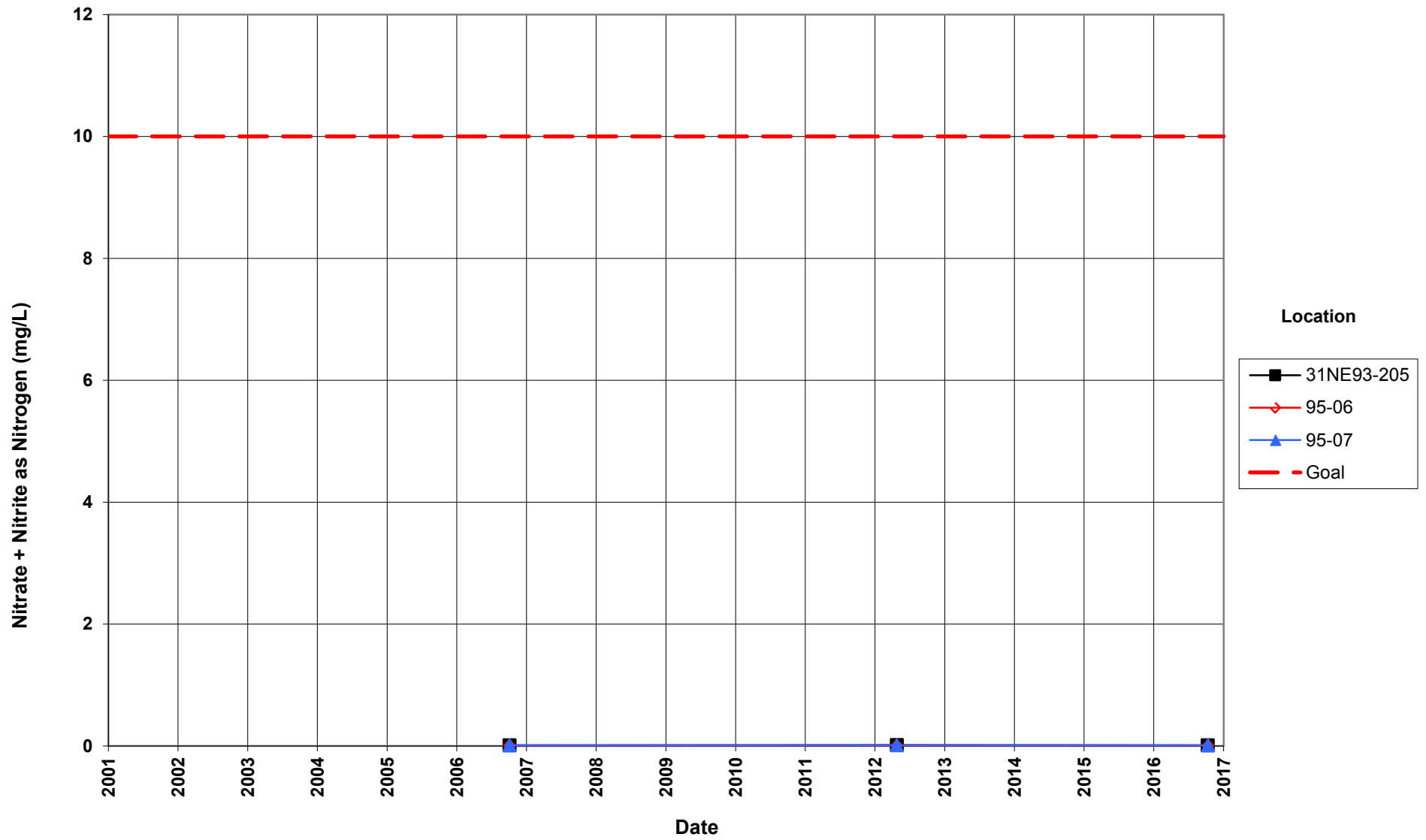
Monticello Disposal & Process Sites
Downgradient Wells
Nitrate + Nitrite as N Concentration
Remediation Goal = 10 mg/L



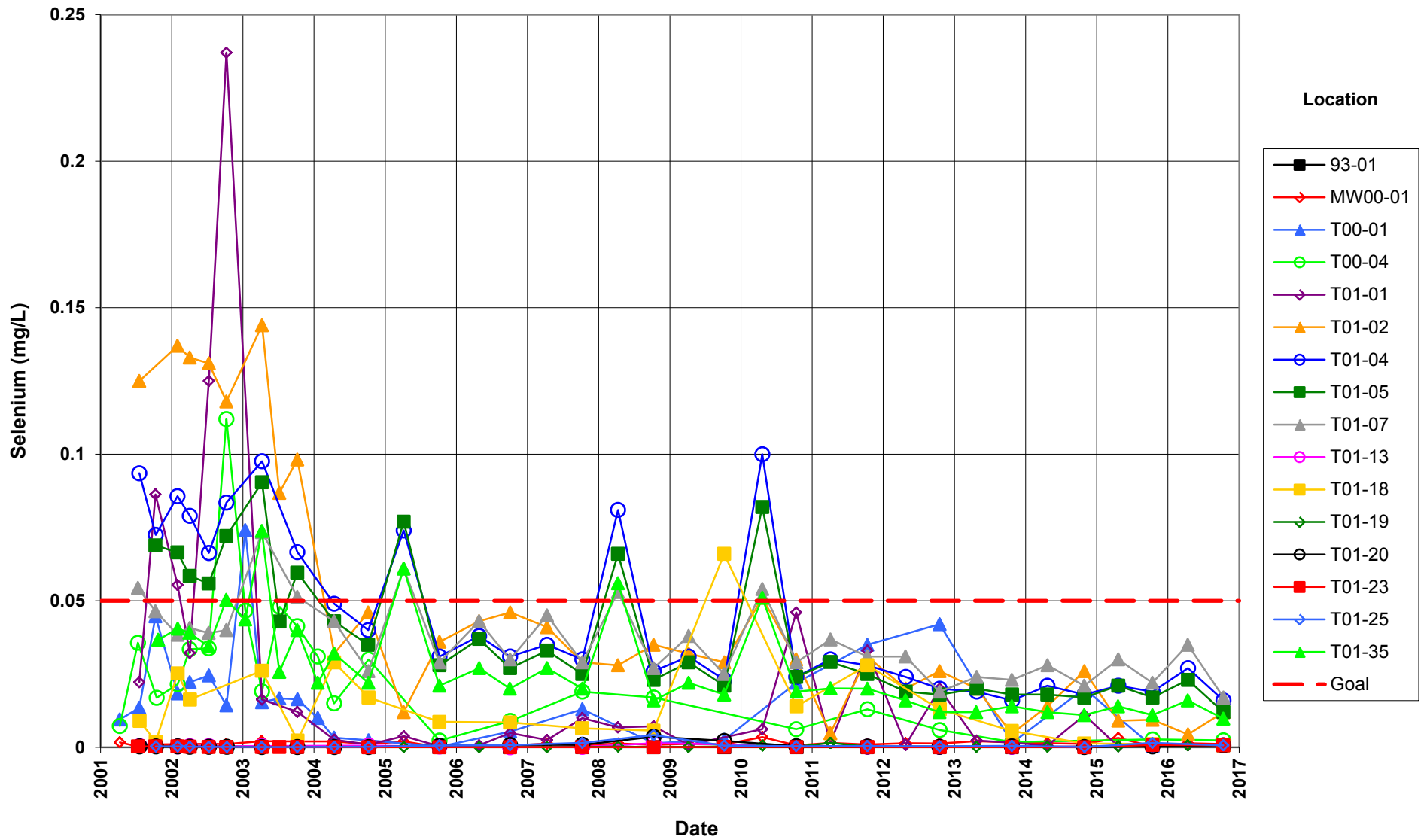
Monticello Disposal & Process Sites
Downgradient PRB Wells
Nitrate + Nitrite as N Concentration
Remediation Goal = 10 mg/L



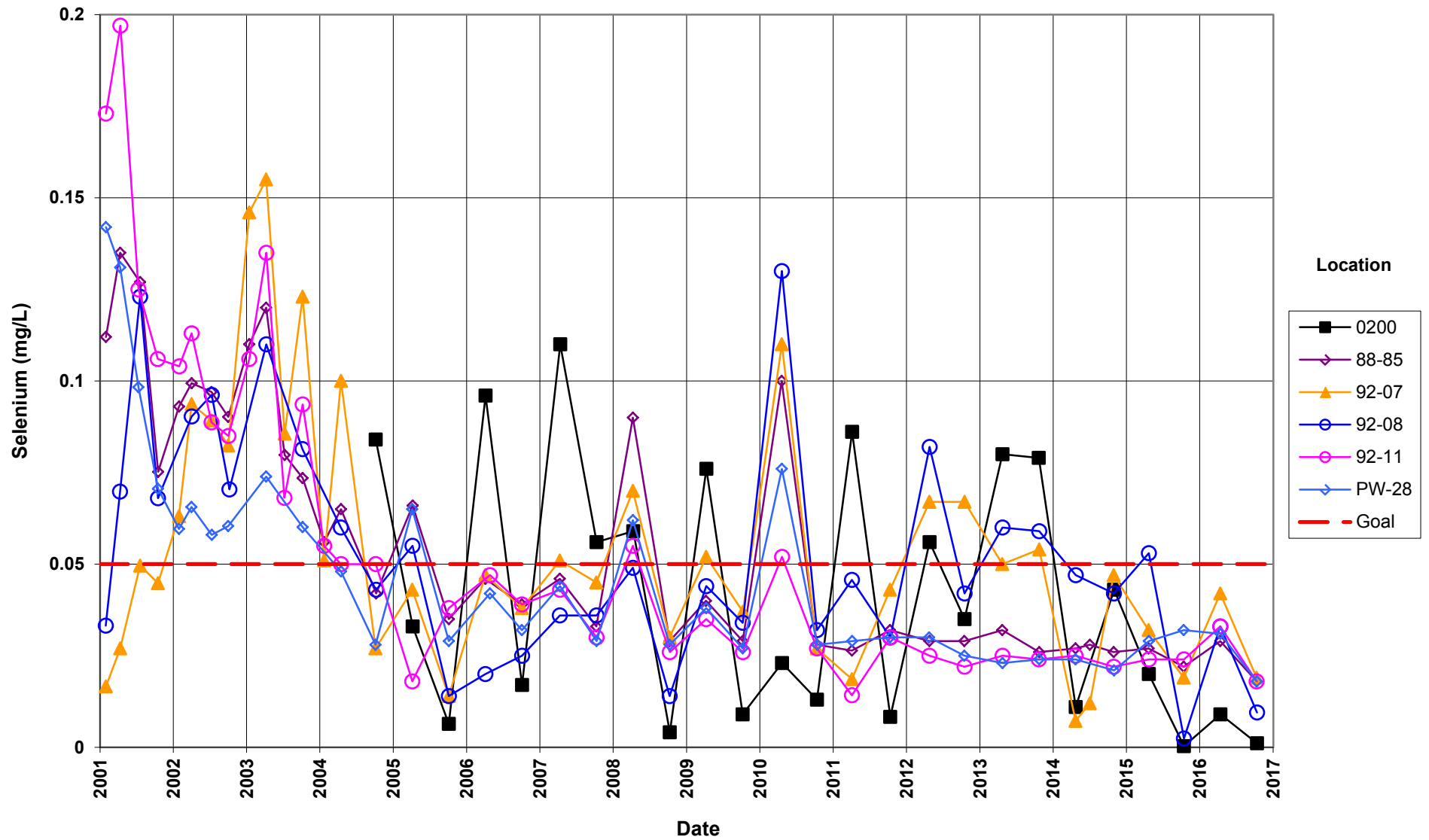
Monticello Disposal & Process Sites
Bedrock Wells
Nitrate + Nitrite as N Concentration
Remediation Goal = 10 mg/L



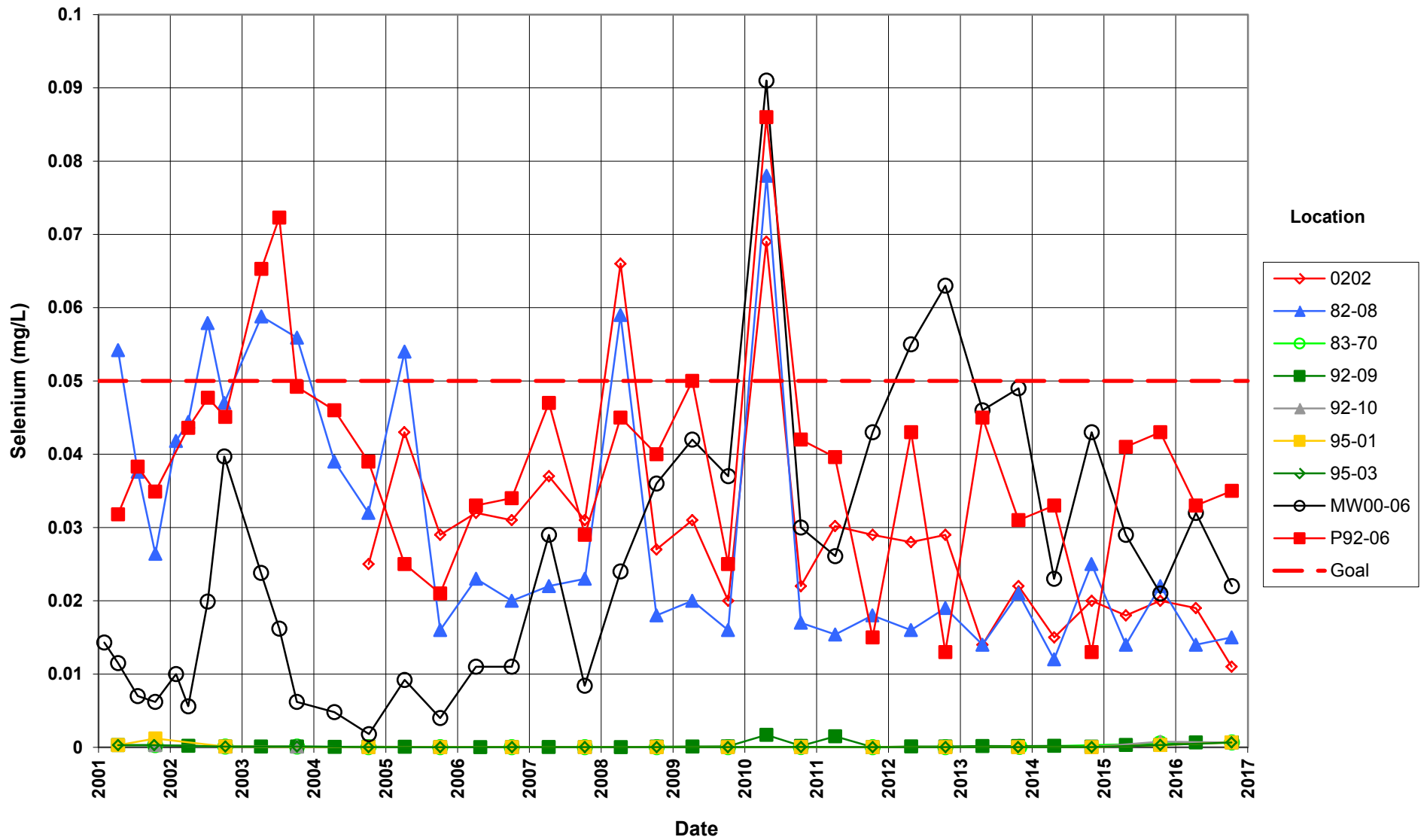
Monticello Disposal & Process Sites
Former Mill Site Wells
Selenium Concentration
Remediation Goal = 0.05 mg/L



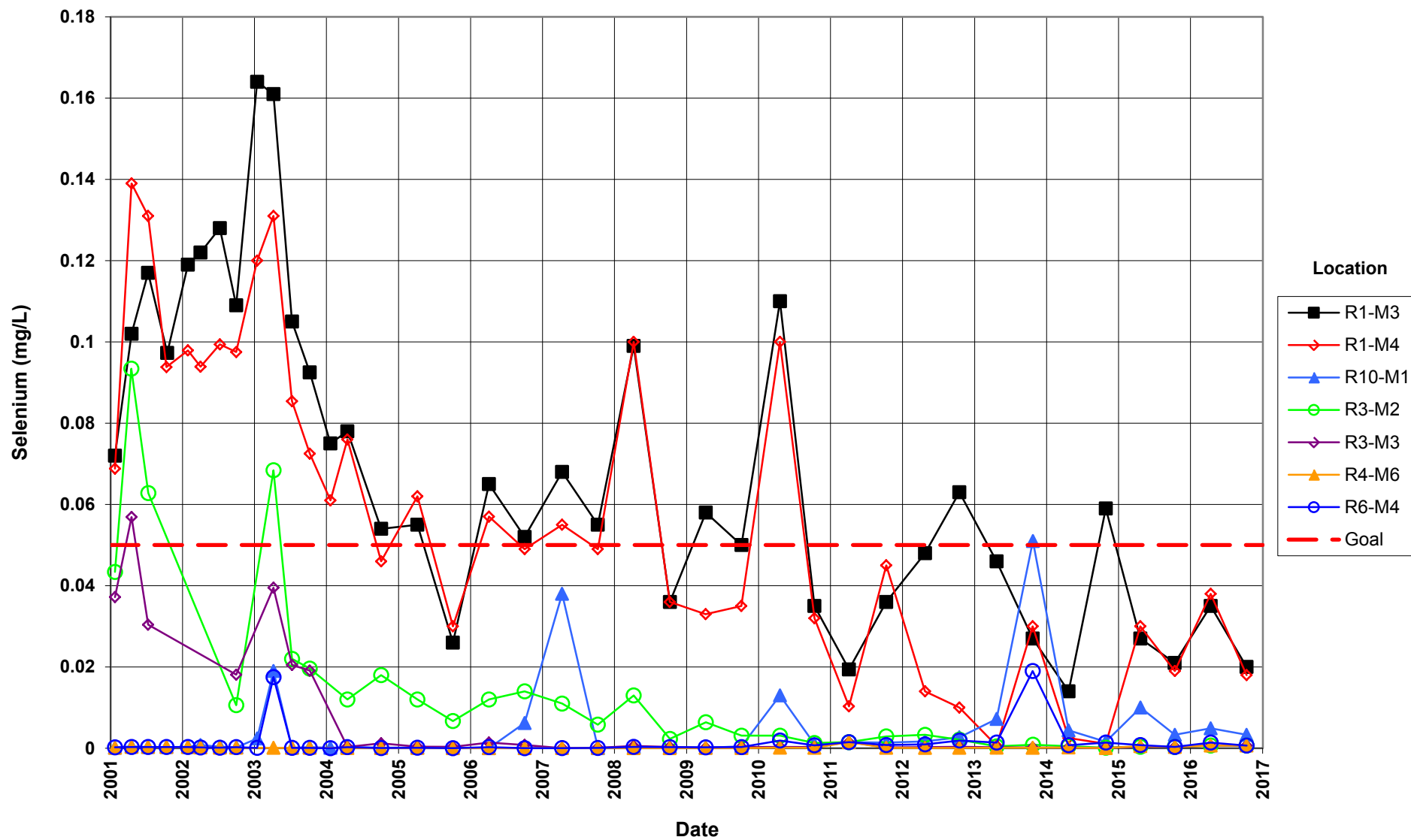
Monticello Disposal & Process Sites
Downgradient Wells
Selenium Concentration
Remediation Goal = 0.05 mg/L



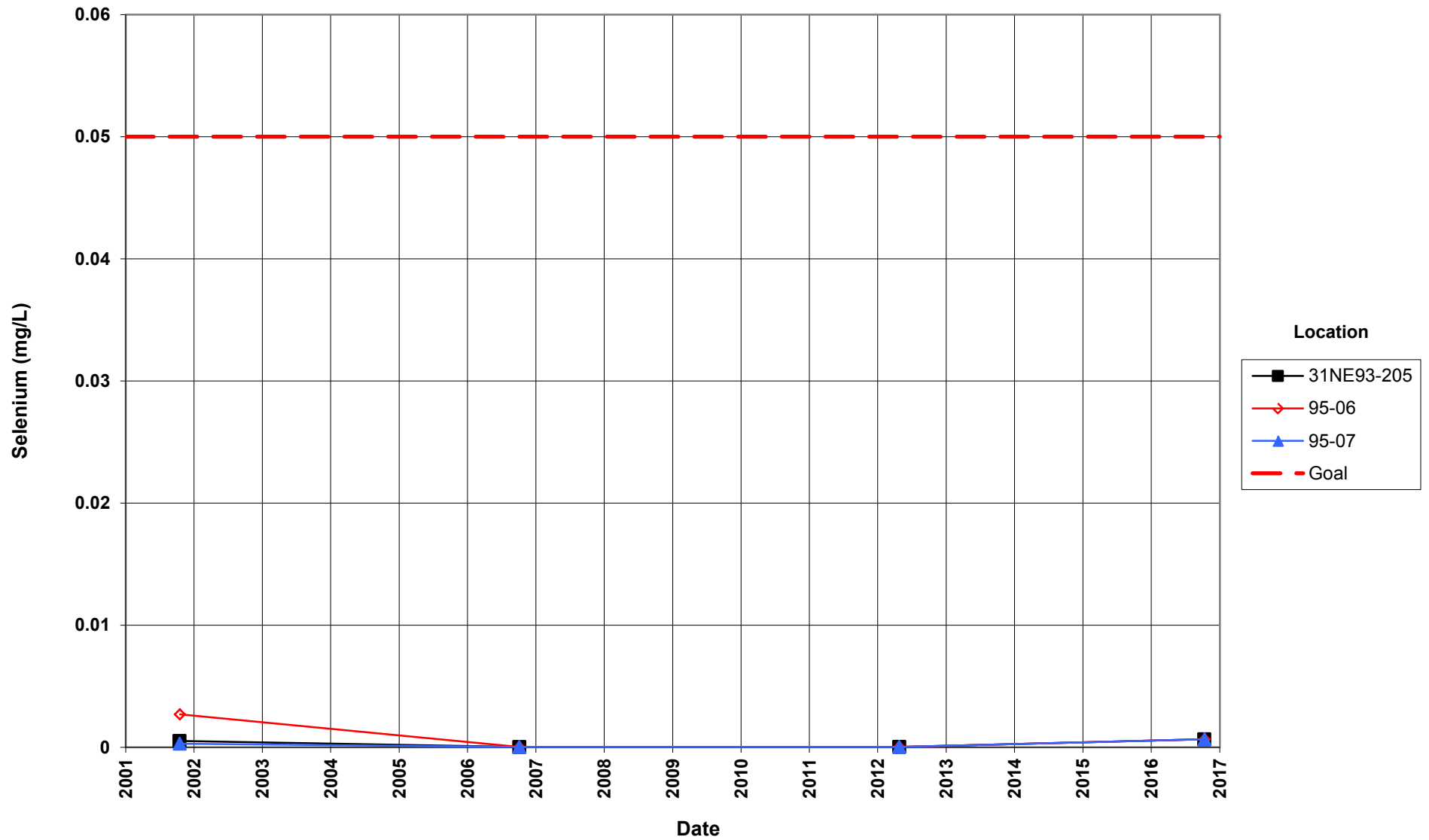
Monticello Disposal & Process Sites
Downgradient Wells
Selenium Concentration
Remediation Goal = 0.05 mg/L



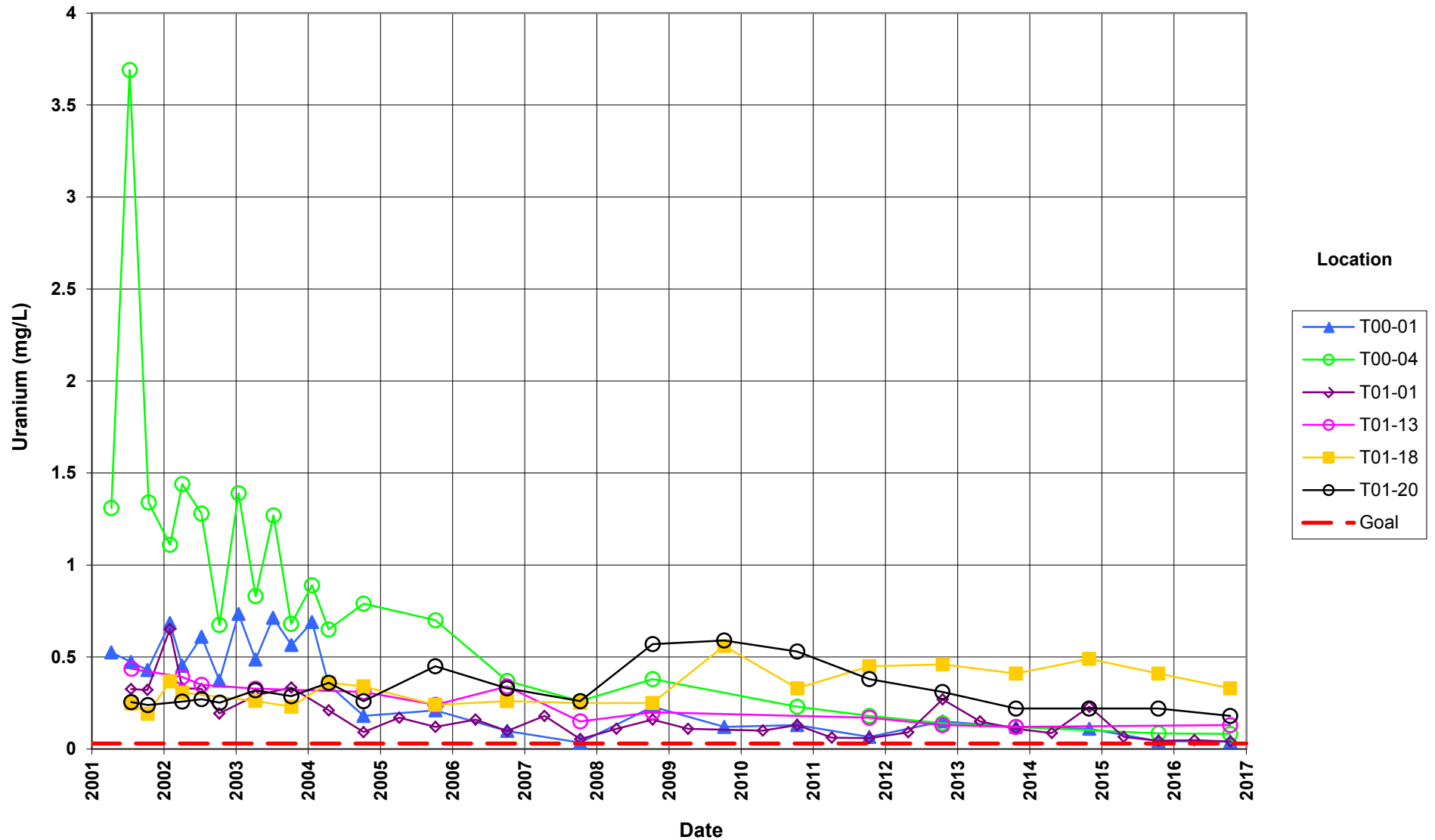
Monticello Disposal & Process Sites
Downgradient PRB Wells
Selenium Concentration
Remediation Goal = 0.05 mg/L



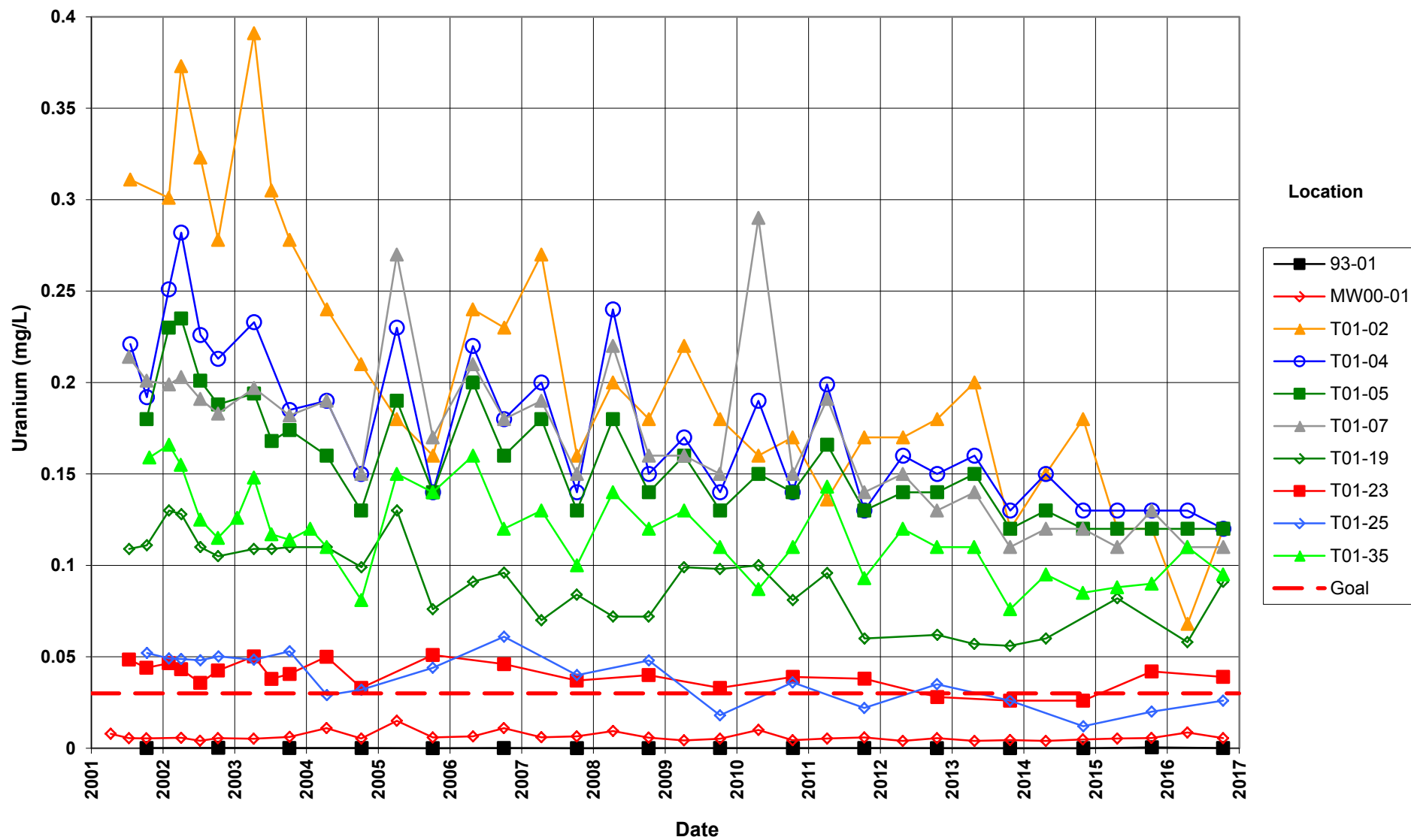
Monticello Disposal & Process Sites
Bedrock Wells
Selenium Concentration
Remediation Goal = 0.05 mg/L



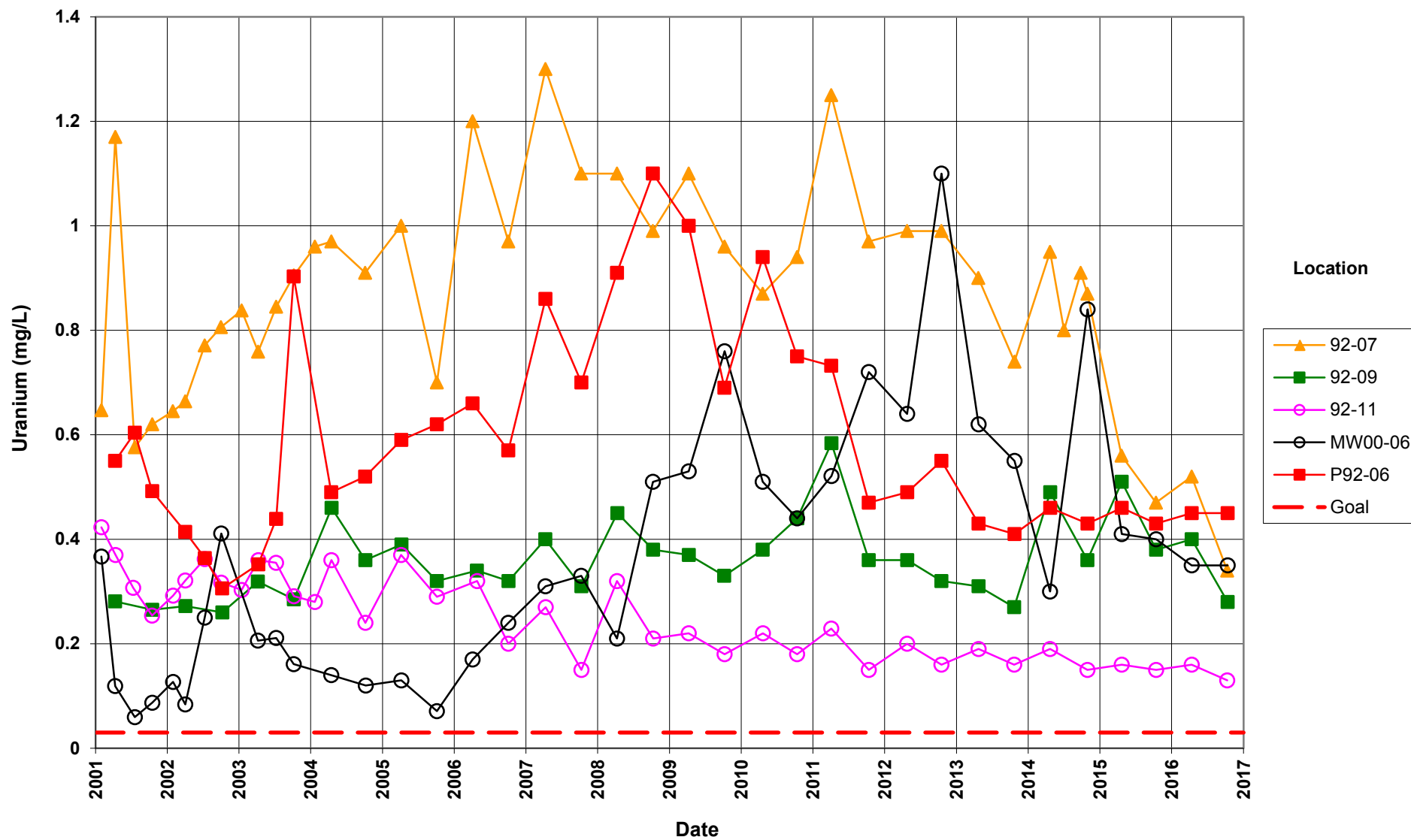
Monticello Disposal & Process Sites
Former Mill Site Wells
Uranium Concentration
Remediation Goal = 0.03 mg/L



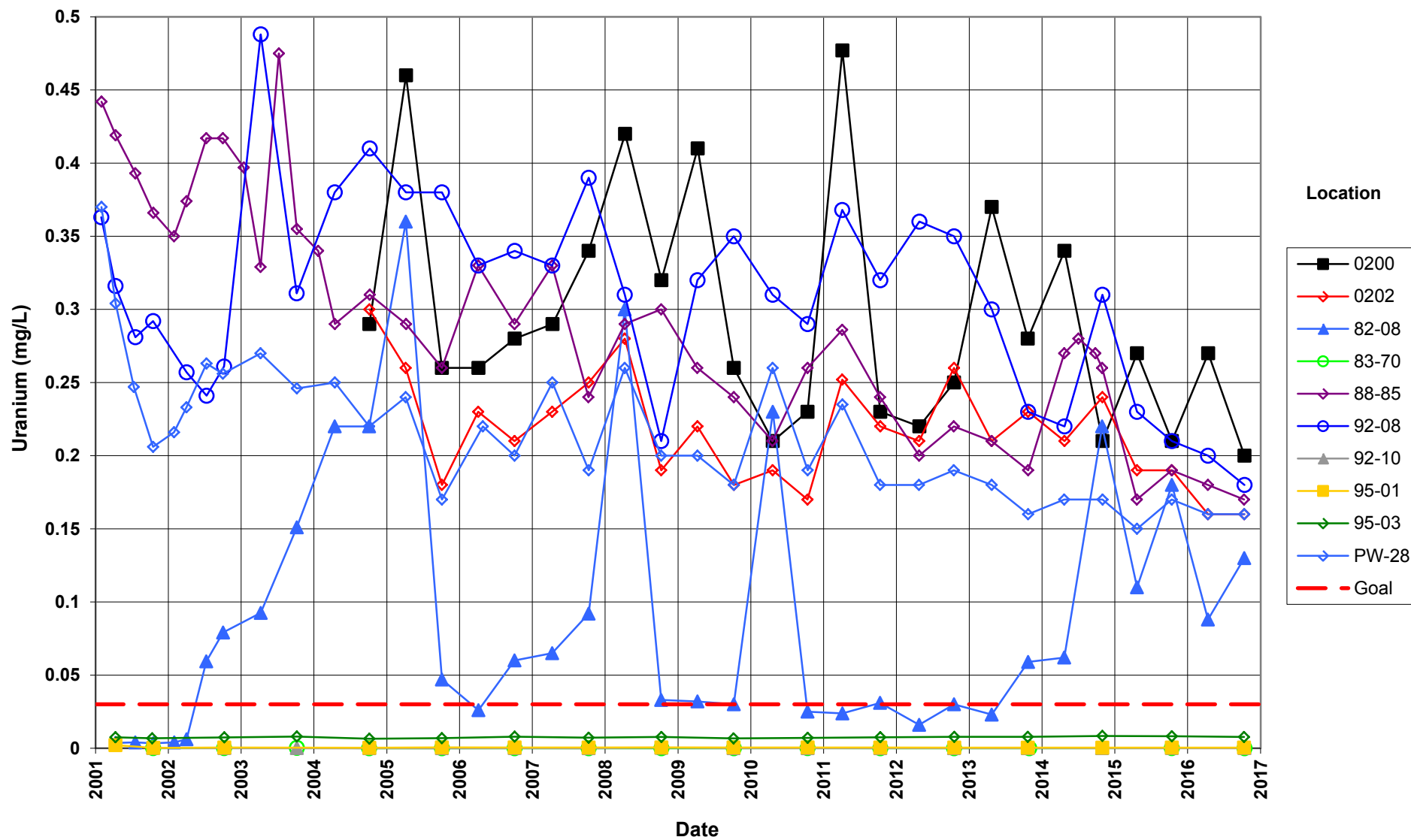
Monticello Disposal & Process Sites
Former Mill Site Wells
Uranium Concentration
Remediation Goal = 0.03 mg/L



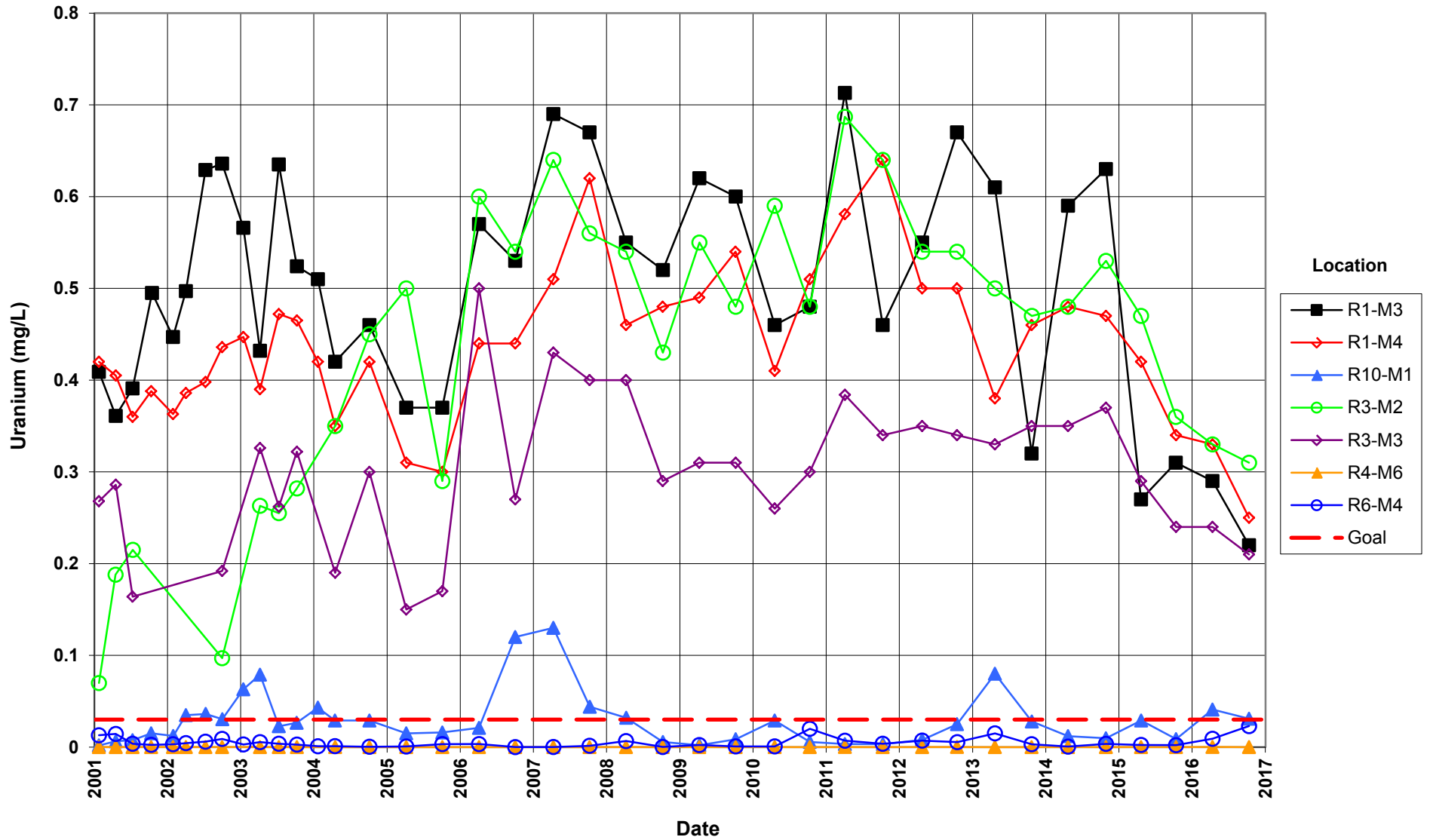
Monticello Disposal & Process Sites
Downgradient Wells
Uranium Concentration
Remediation Goal = 0.03 mg



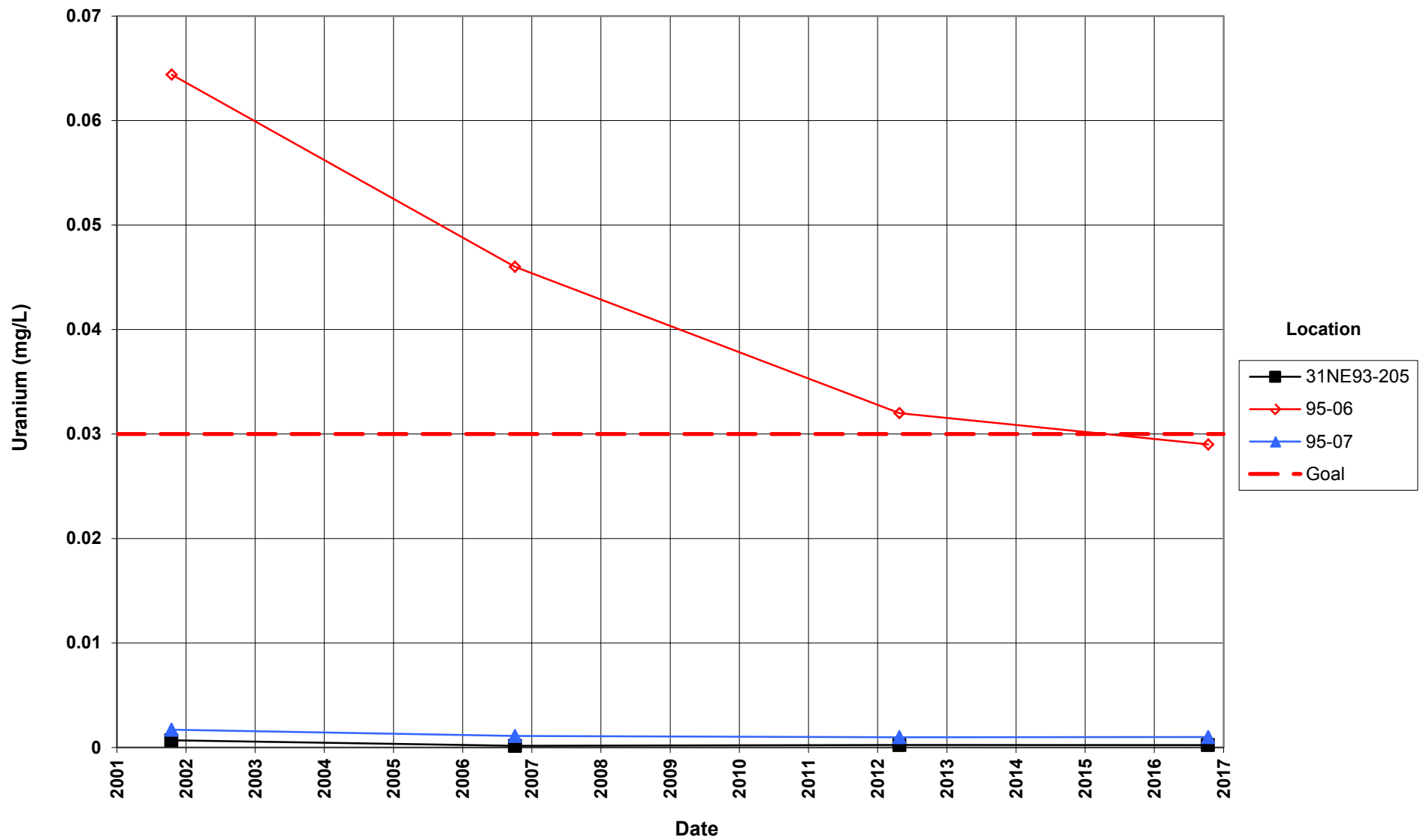
Monticello Disposal & Process Sites
Downgradient Wells
Uranium Concentration
Remediation Goal = 0.03 mg/L



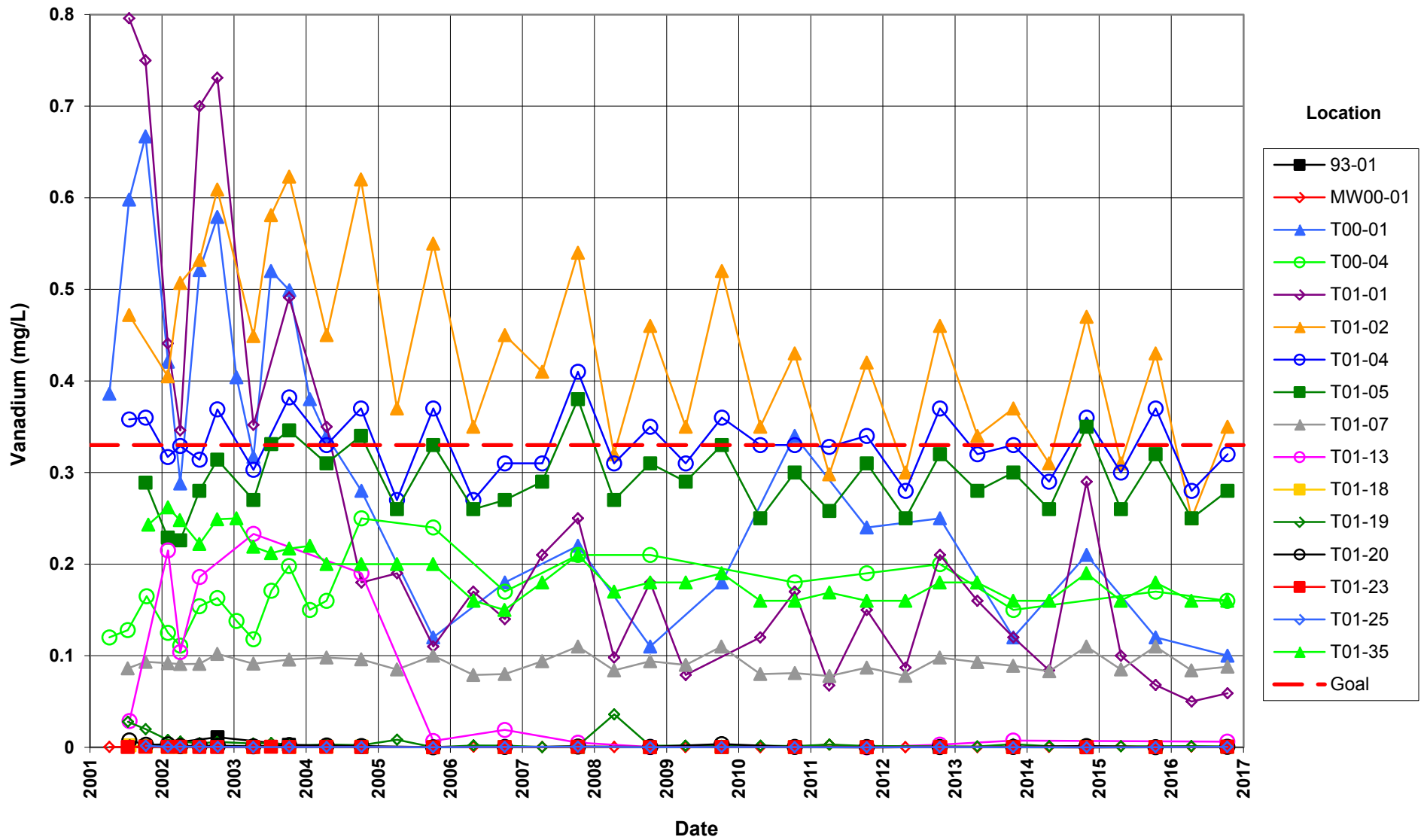
Monticello Disposal & Process Sites
Downgradient PRB Wells
Uranium Concentration
Remediation Goal = 0.03 mg/L



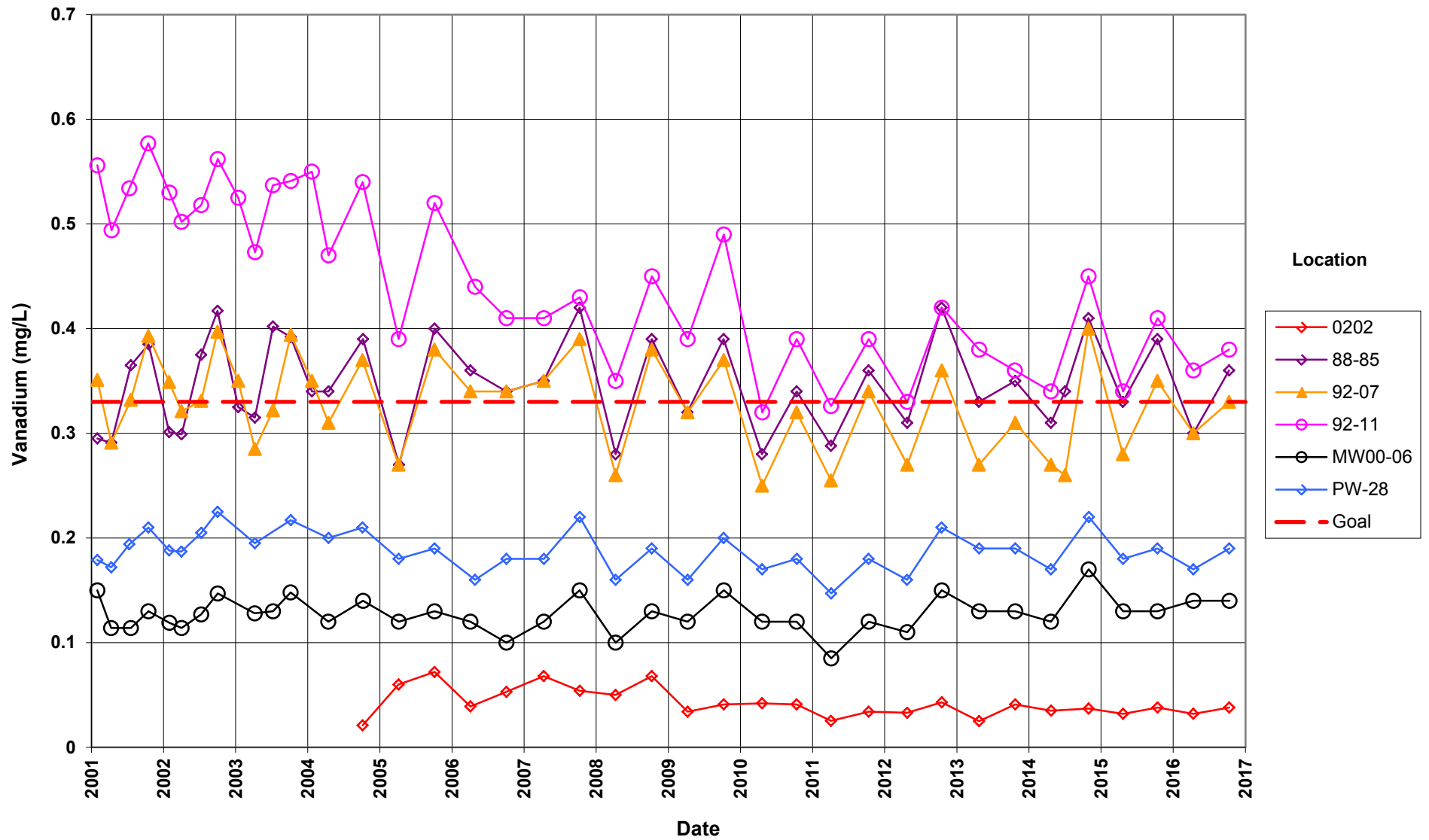
Monticello Disposal & Process Sites
Bedrock Wells
Uranium Concentration
Remediation Goal = 0.03 mg/L



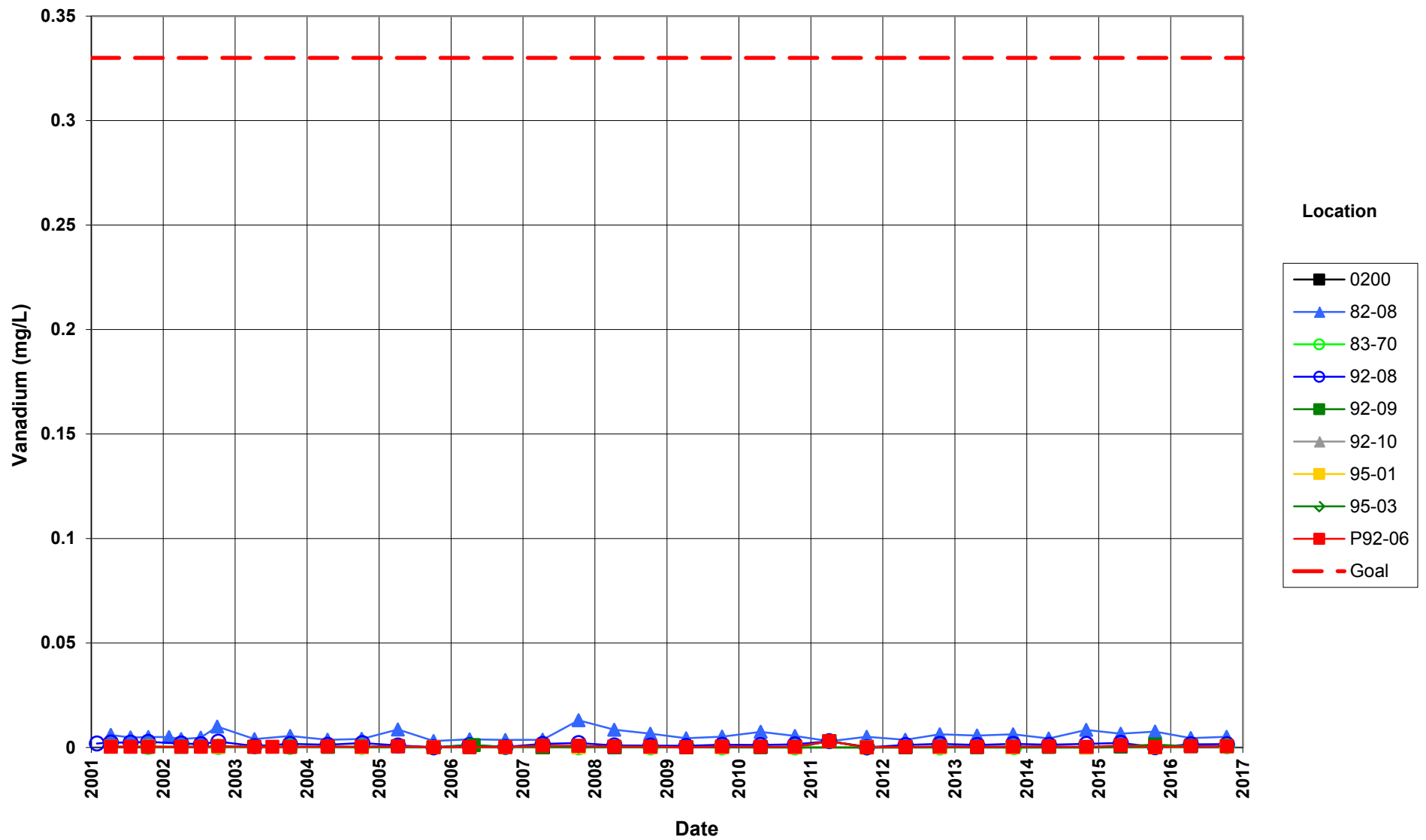
Monticello Disposal & Process Sites
Former Mill Site Wells
Vanadium Concentration
Remediation Goal = 0.33 mg/L



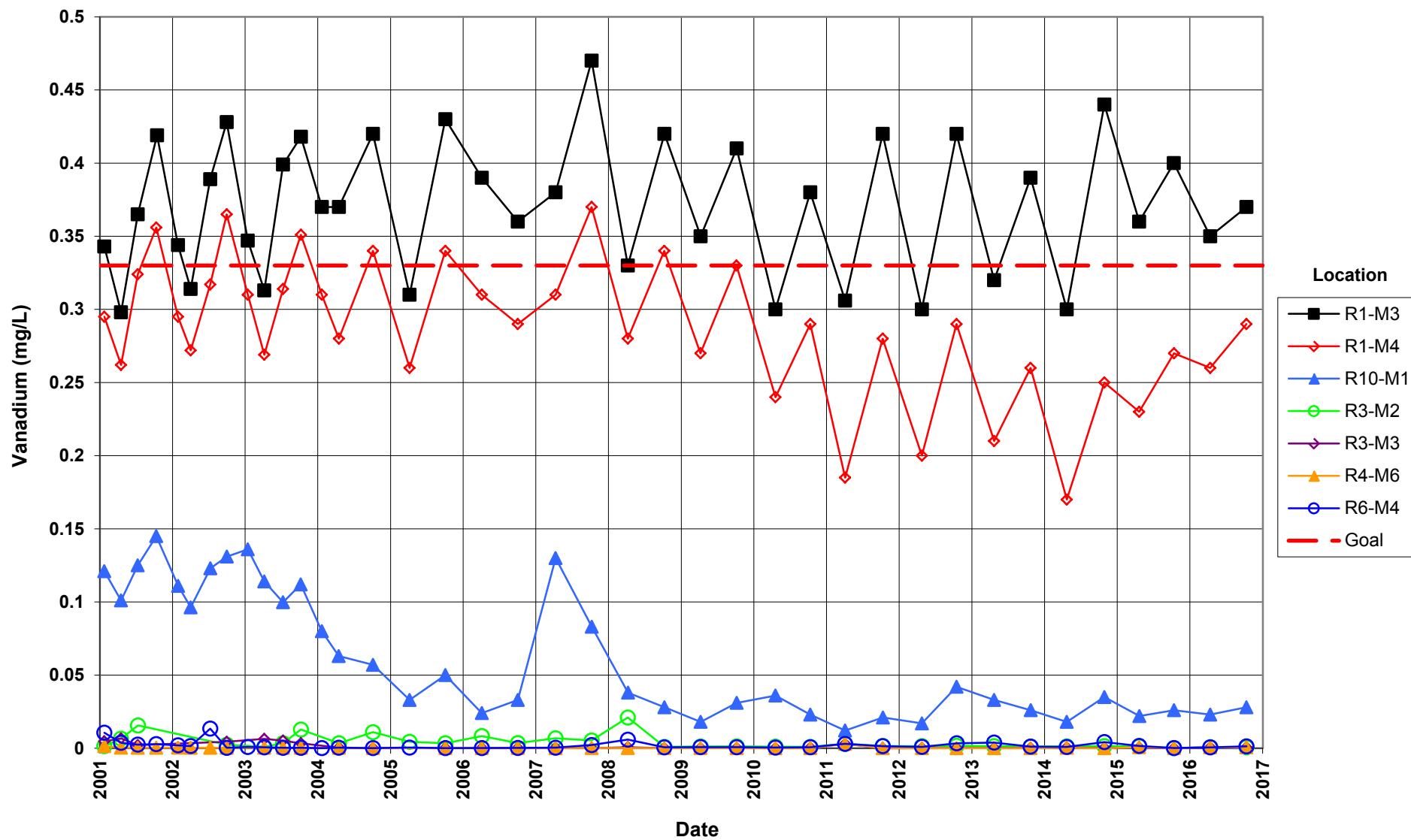
Monticello Disposal & Process Sites
Downgradient Wells
Vanadium Concentration
Remediation Goal = 0.33 mg/L



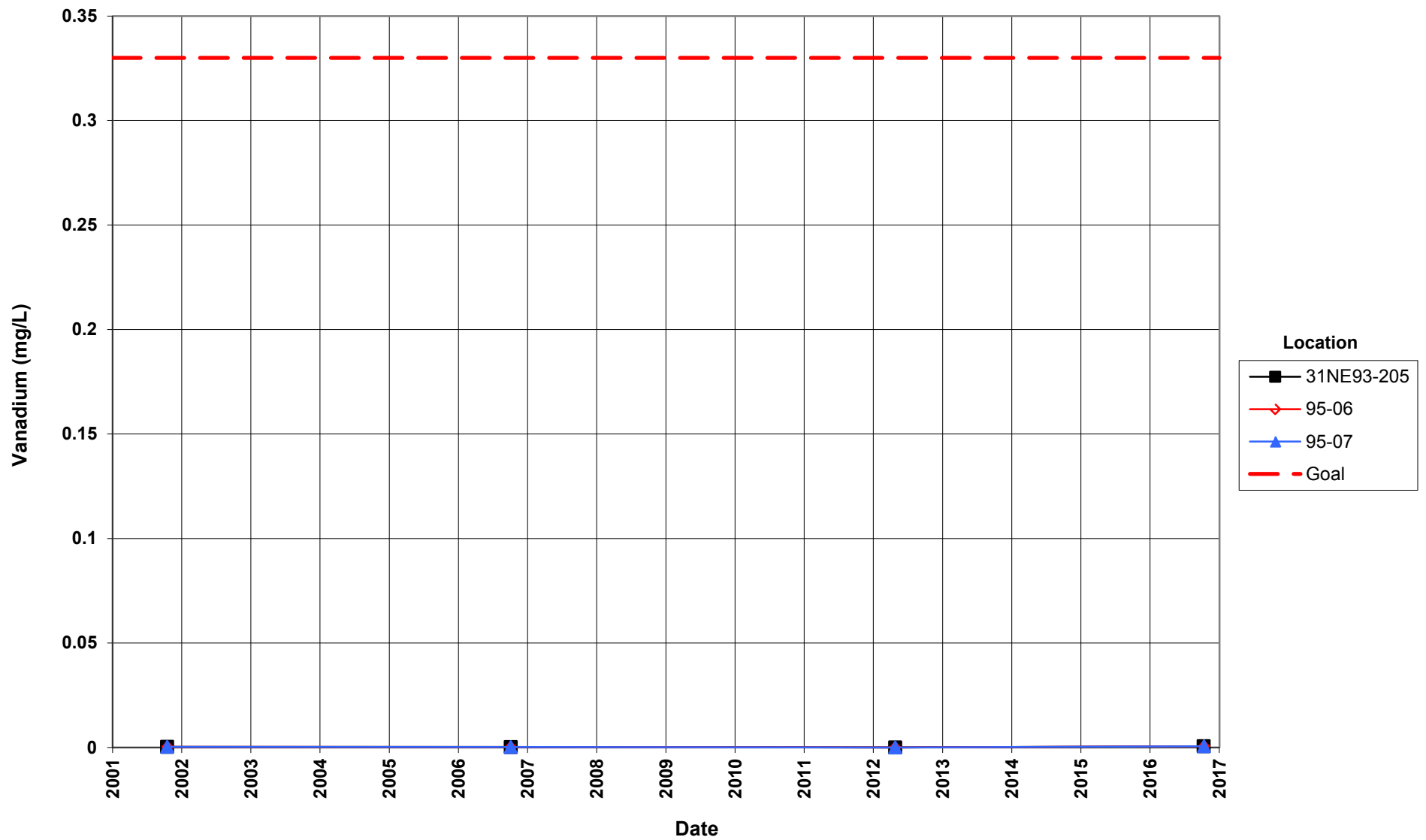
Monticello Disposal & Process Sites
Downgradient Wells
Vanadium Concentration
Remediation Goal = 0.33 mg/L



Monticello Disposal & Process Sites
Downgradient PRB Wells
Vanadium Concentration
Remediation Goal = 0.33 mg/L



Monticello Disposal & Process Sites
Bedrock Wells
Vanadium Concentration
Remediation Goal = 0.33 mg/L



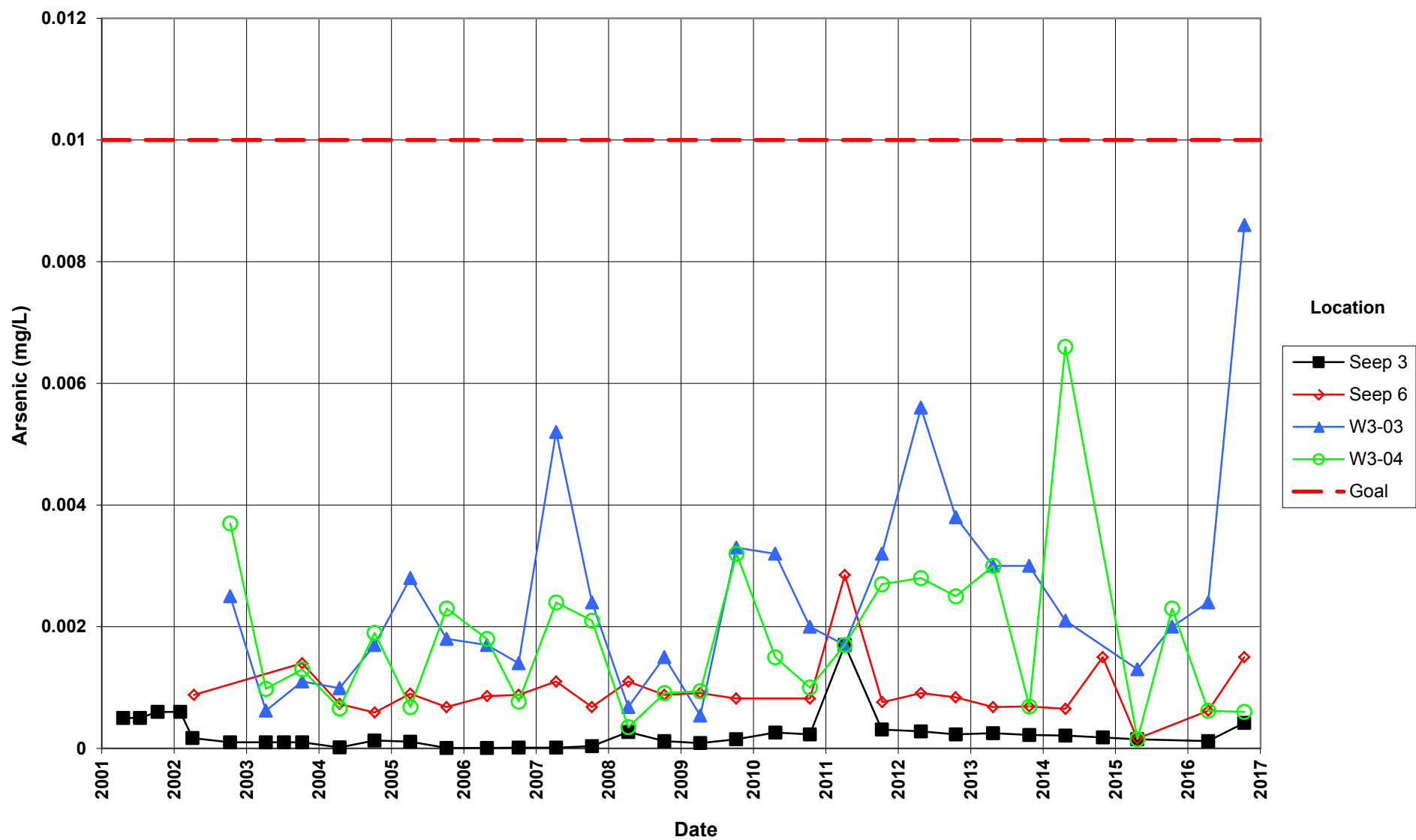
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Time-Concentration Graphs

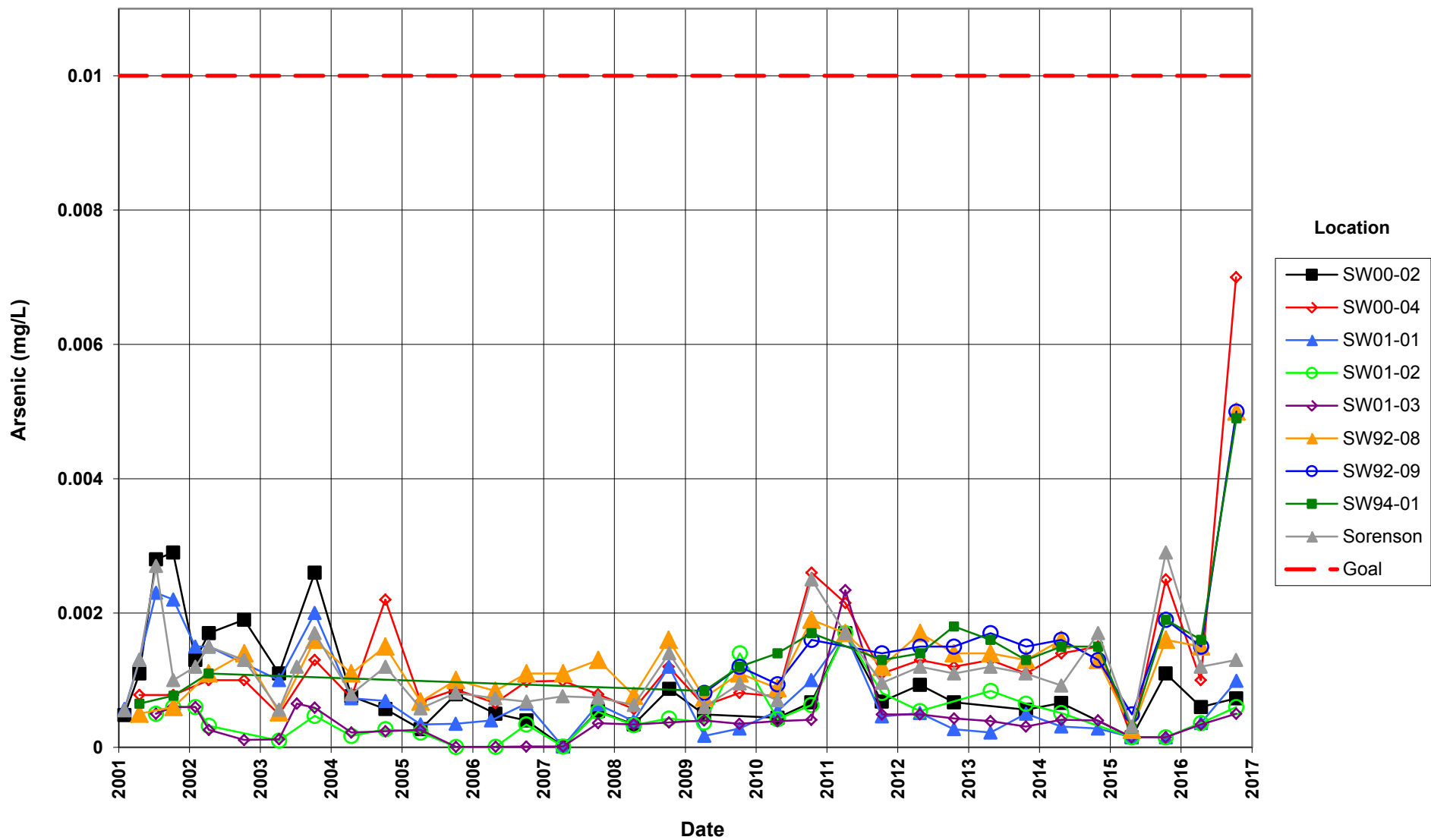
Surface Water

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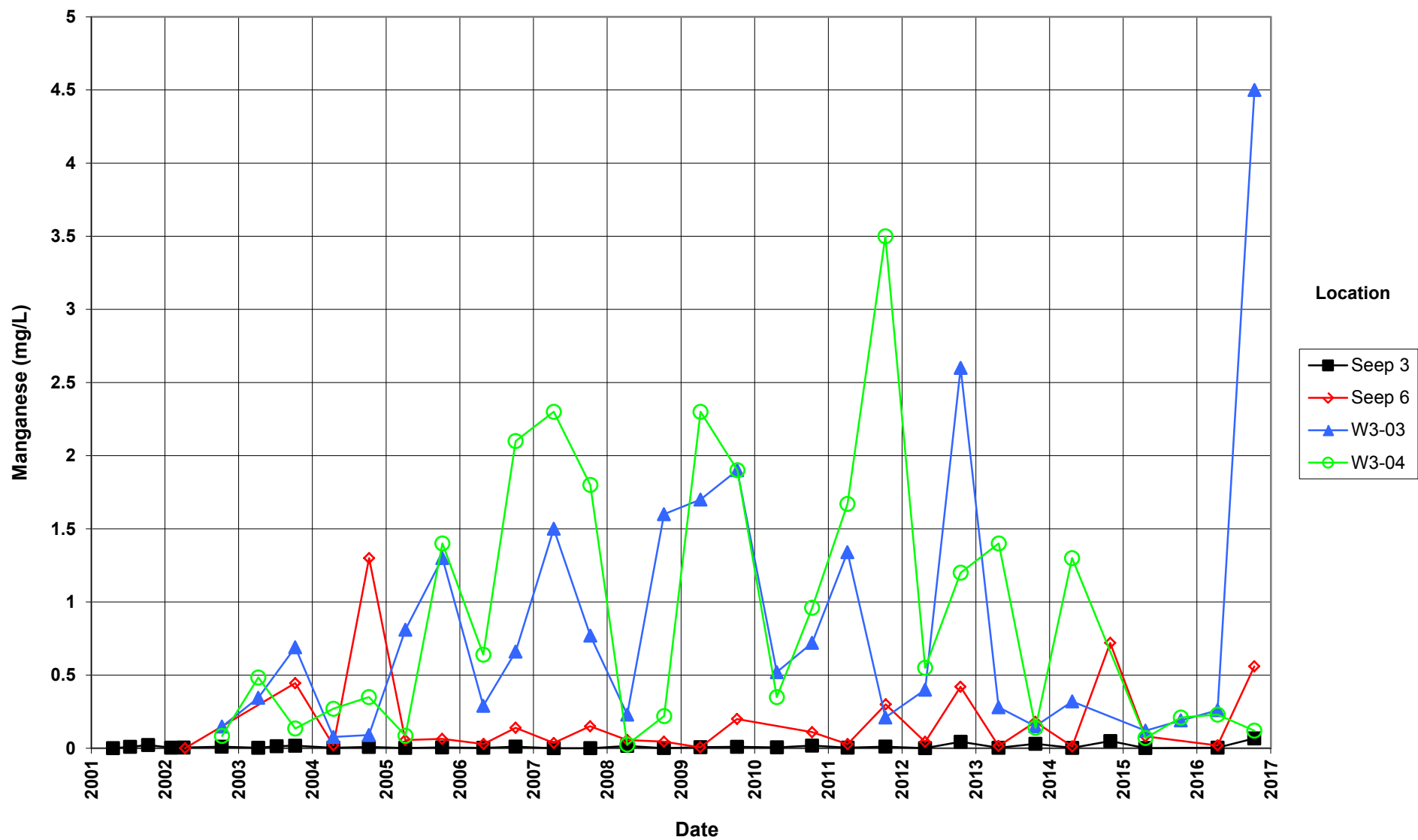
Monticello Disposal & Process Sites
Former Mill Site Seeps and Wetlands
Arsenic Concentration
Remediation Goal = 0.01 mg/L



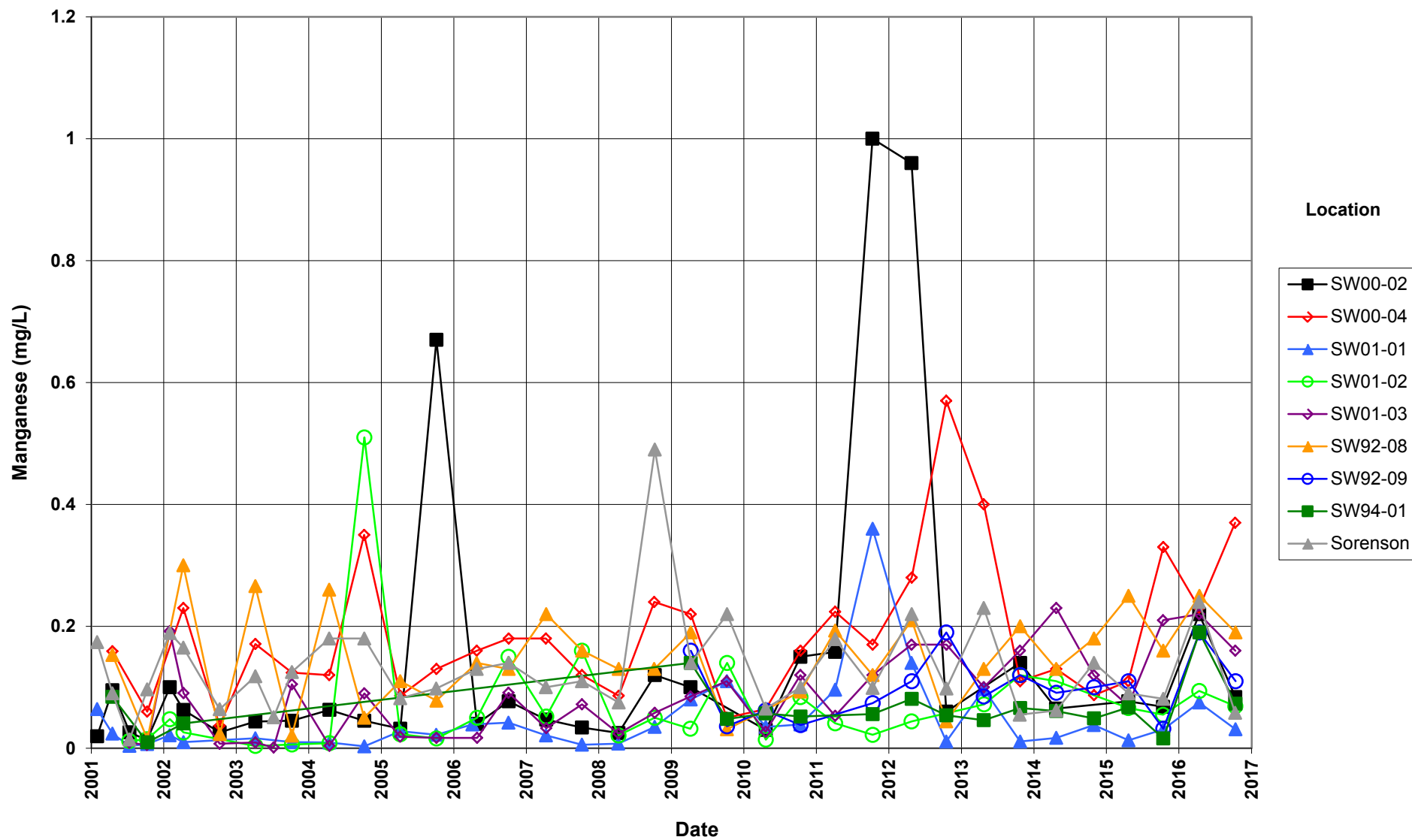
Monticello Disposal & Process Sites
Montezuma Creek Locations
Arsenic Concentration
Remediation Goal = 0.01 mg/L



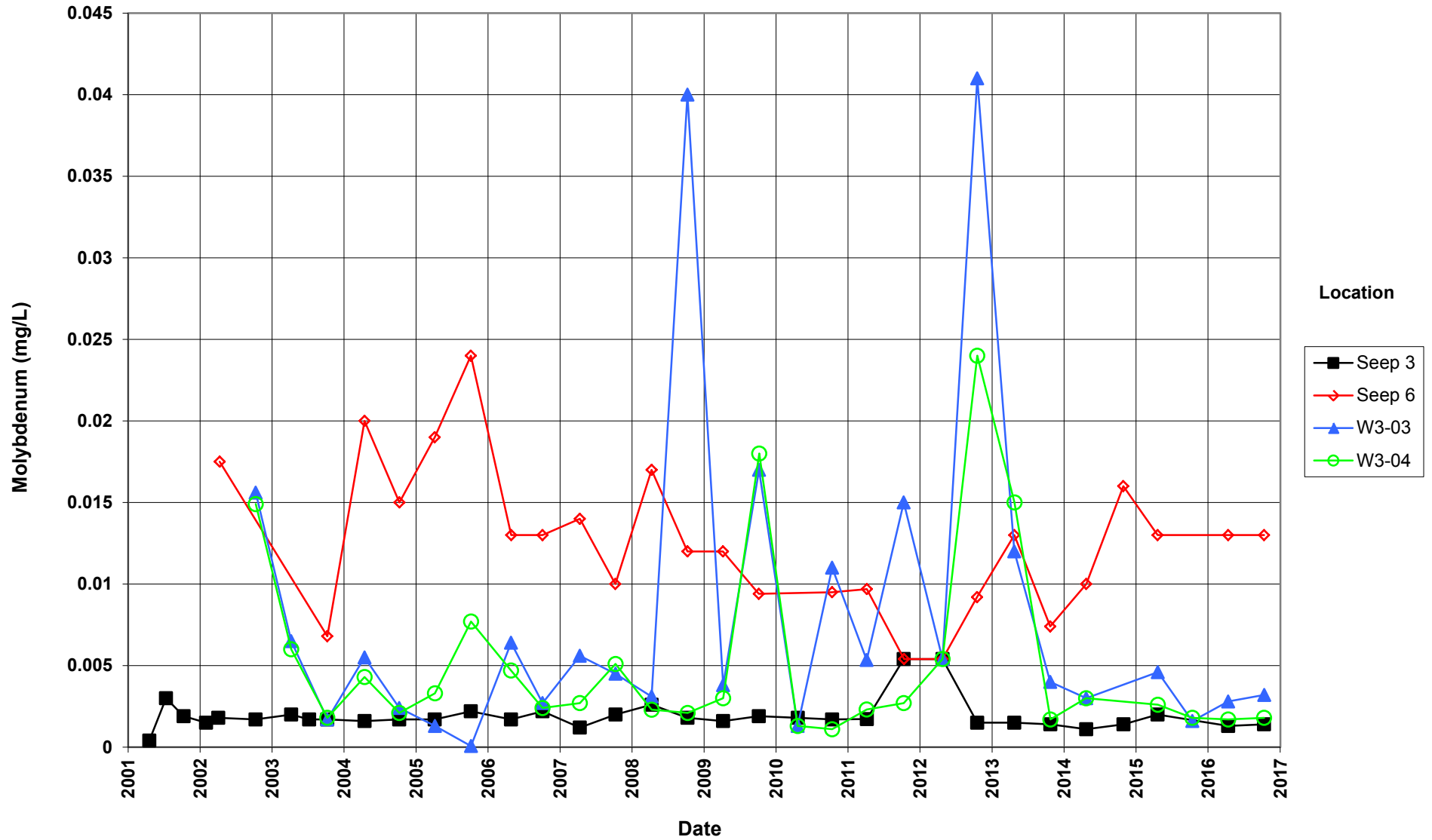
Monticello Disposal & Process Sites
Former Mill Site Seeps and Wetlands
Manganese Concentration



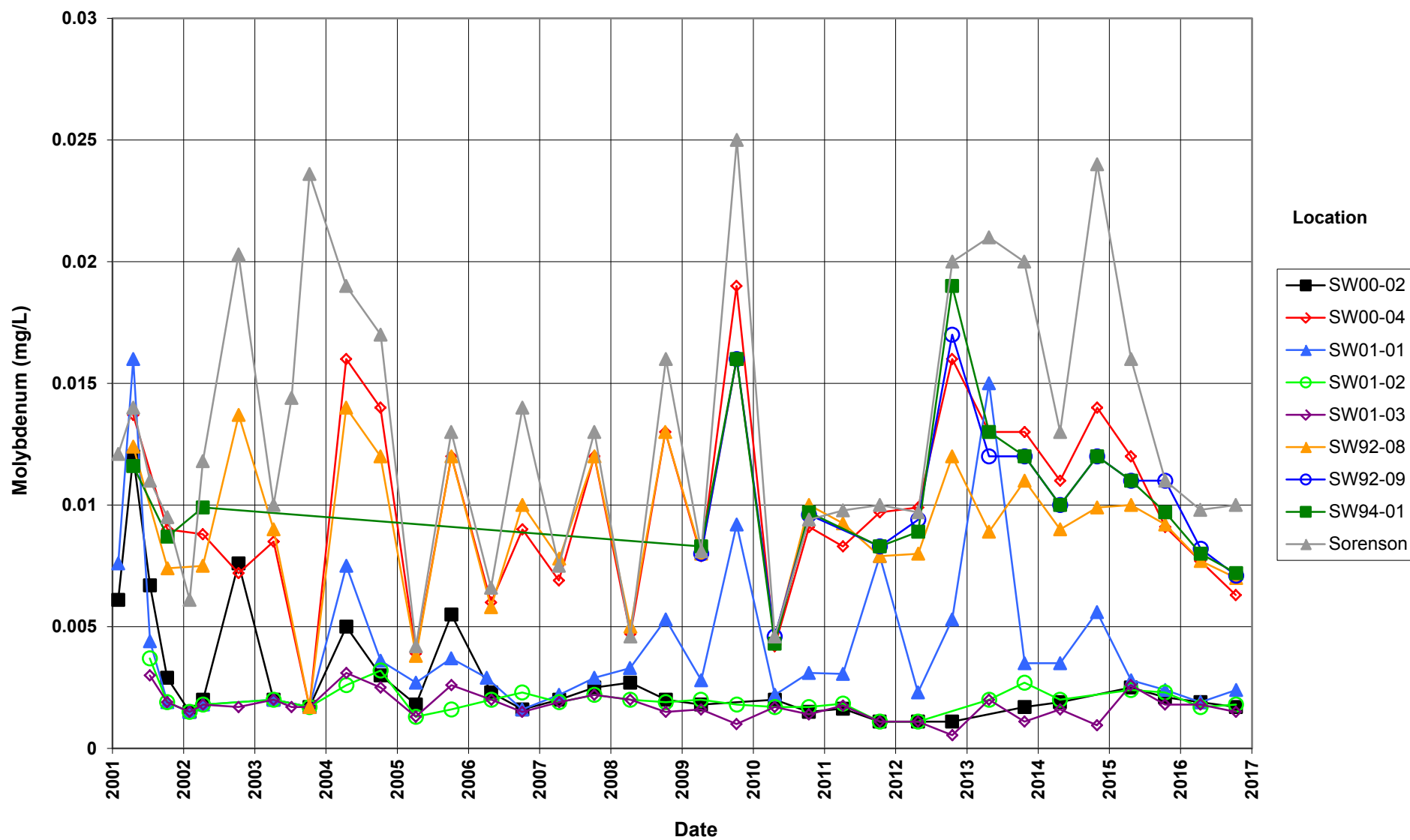
Monticello Disposal & Process Sites
Montezuma Creek Locations
Manganese Concentration



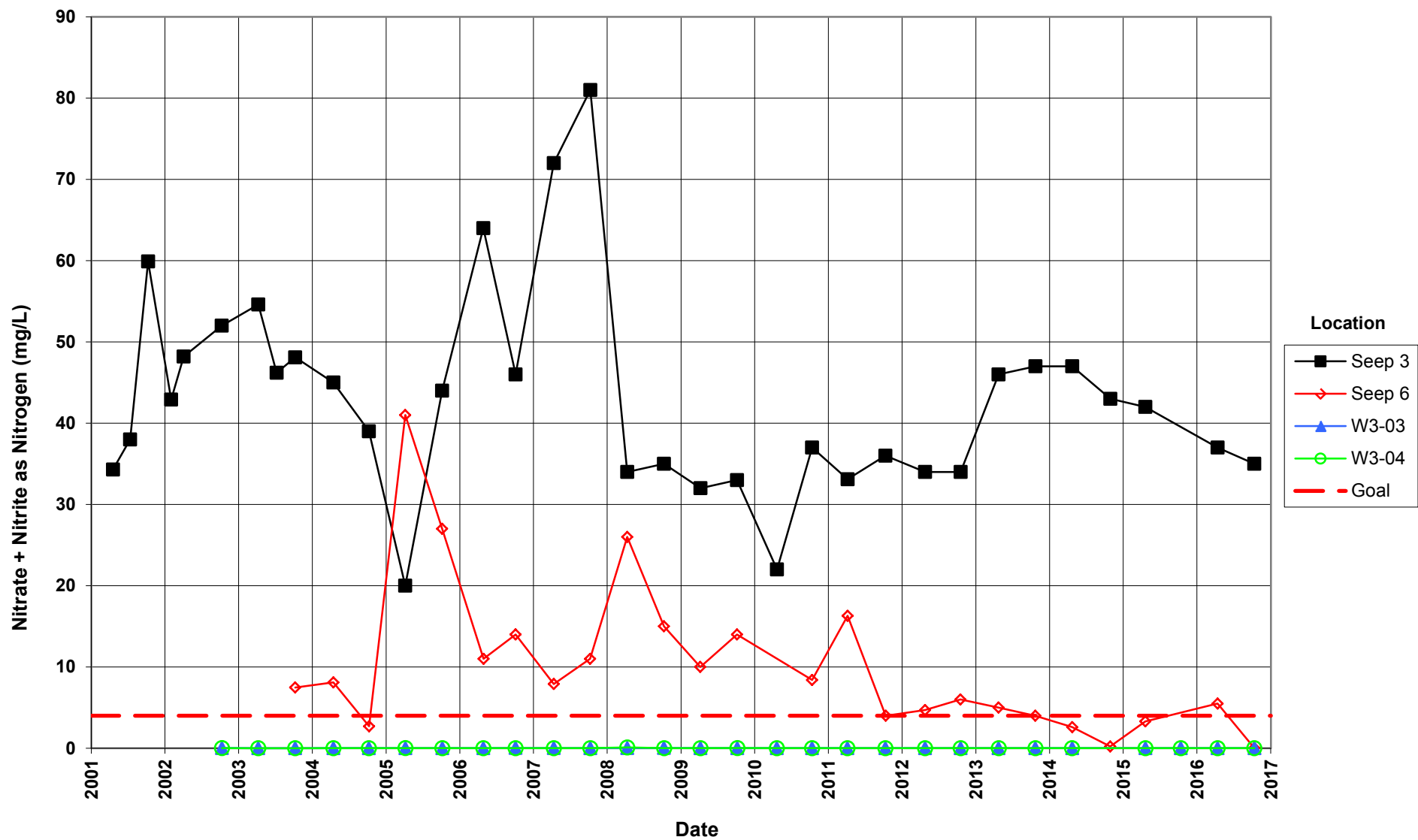
Monticello Disposal & Process Sites
Former Mill Site Seeps and Wetlands
Molybdenum Concentration



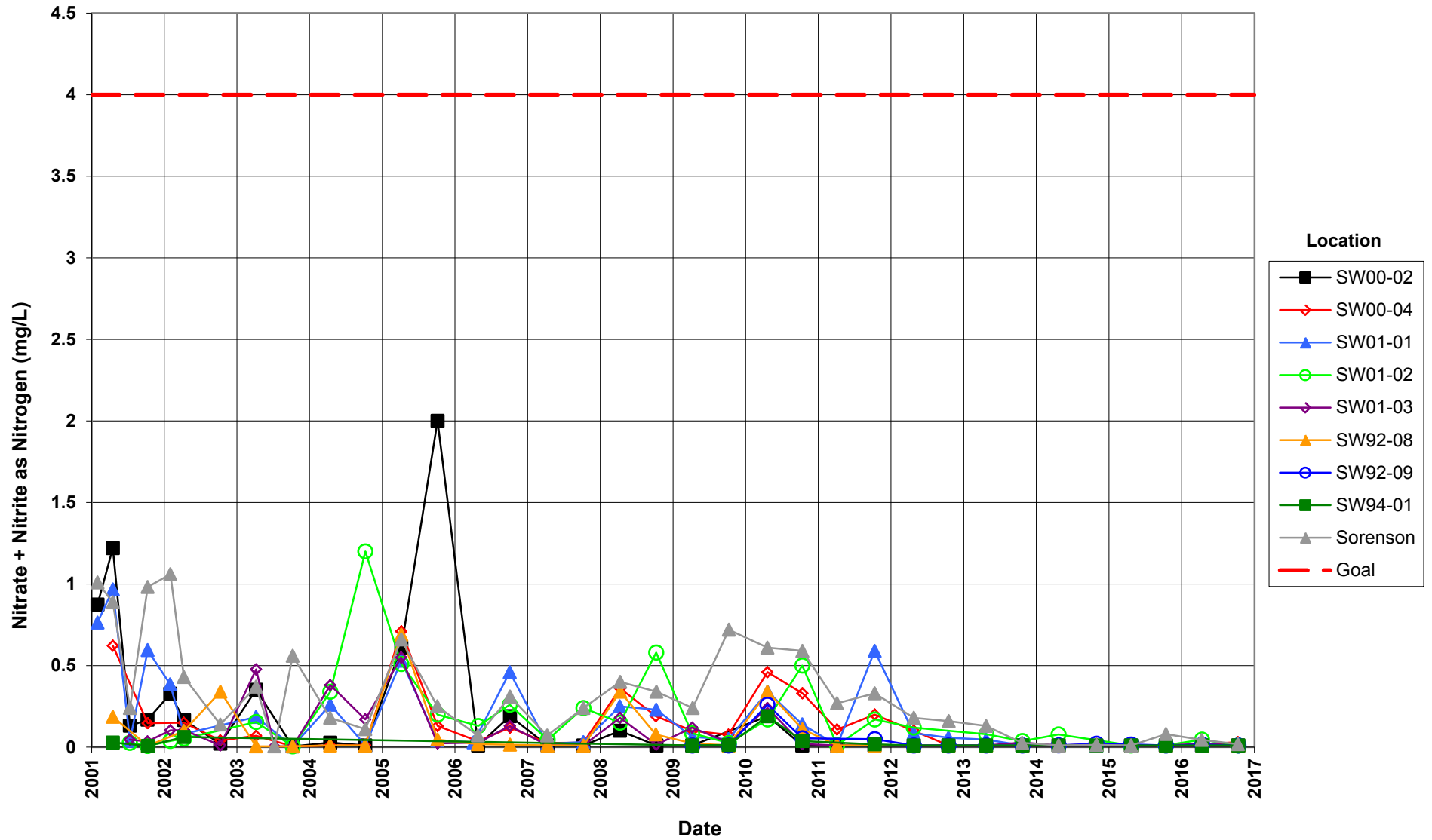
Monticello Disposal & Process Sites
Montezuma Creek Locations
Molybdenum Concentration



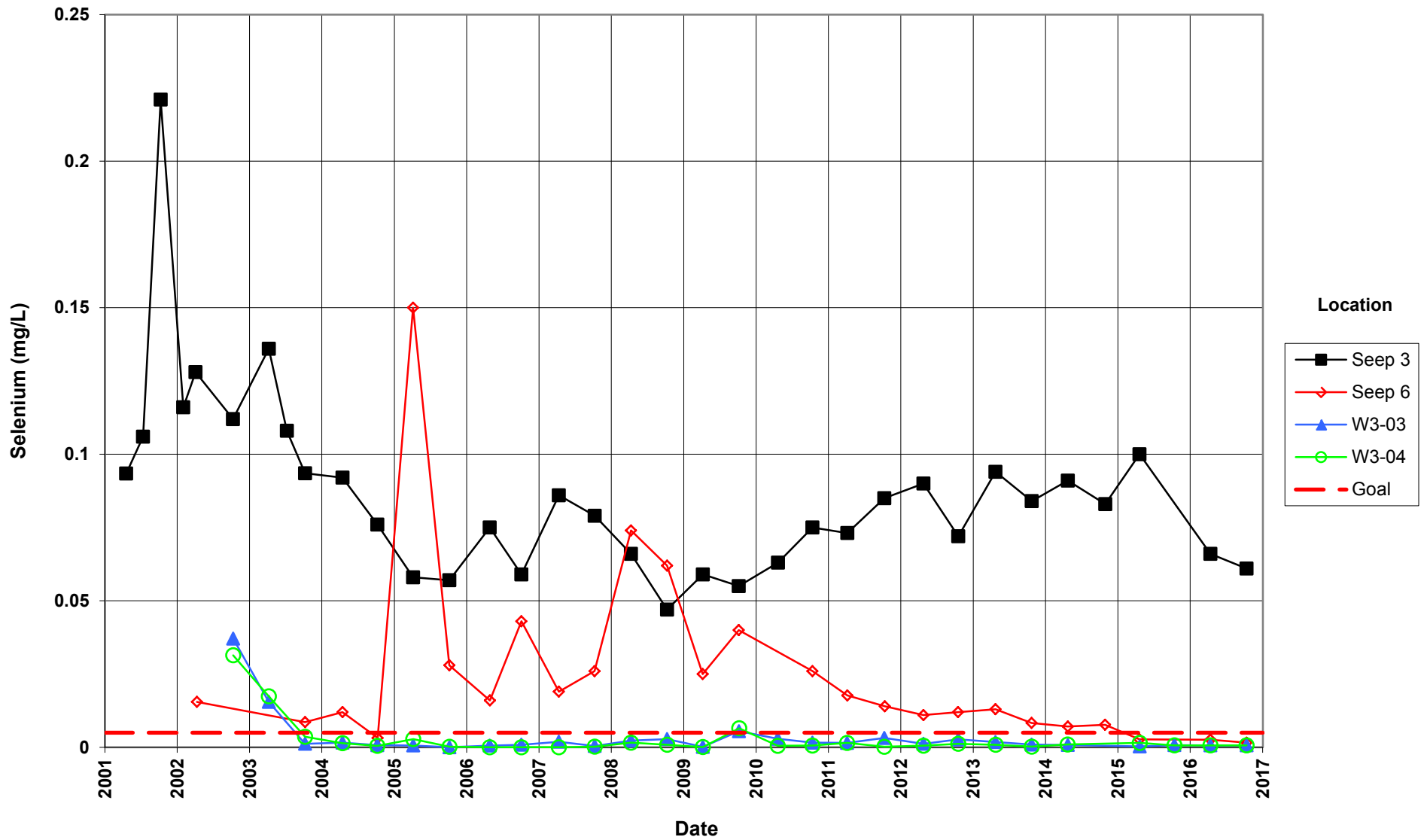
Monticello Disposal & Process Sites
Former Mill Site Seeps and Wetlands
Nitrate + Nitrite as N Concentration
Remediation Goal = 4 mg/L



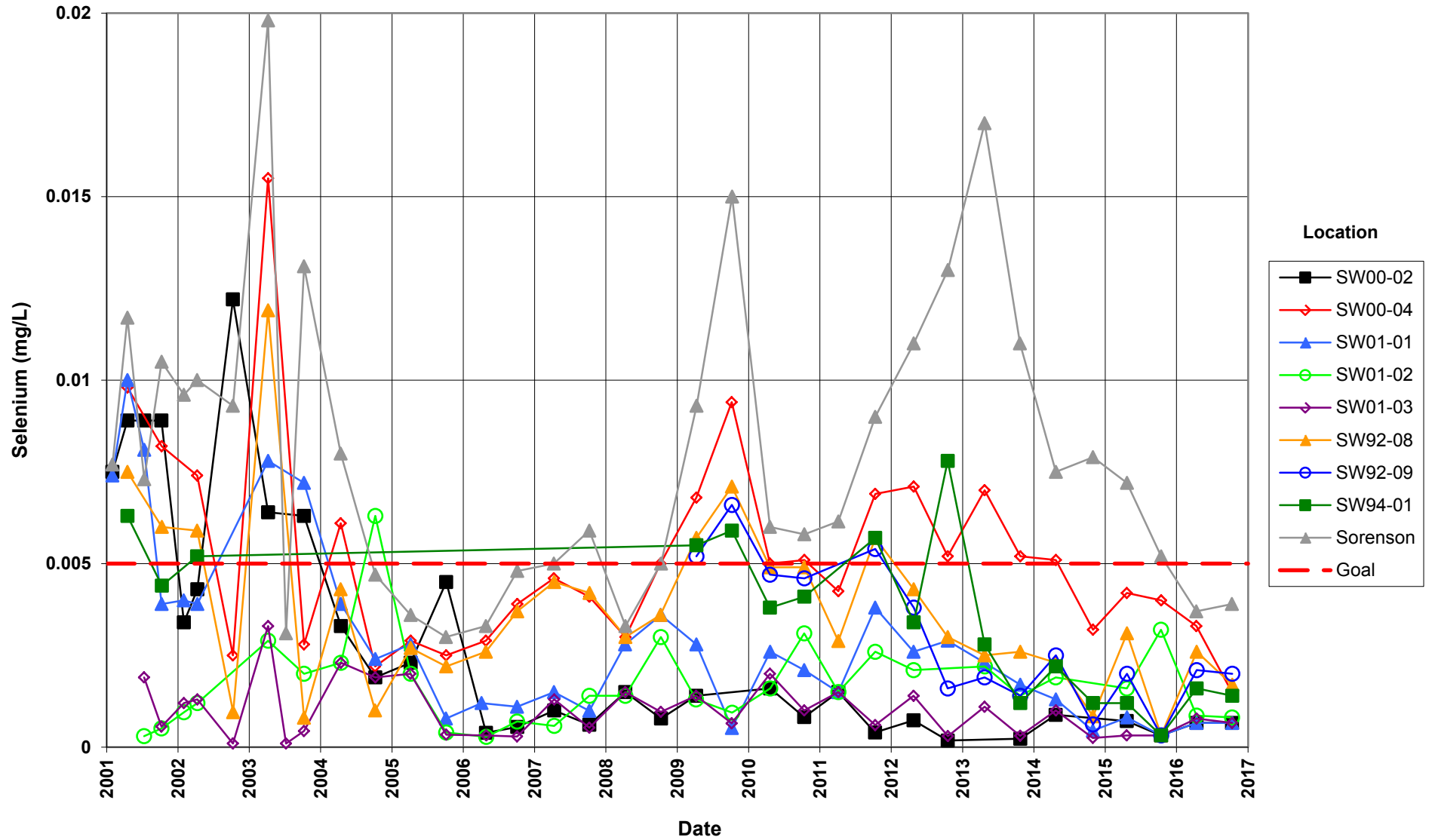
Monticello Disposal & Process Sites
Montezuma Creek Locations
Nitrate + Nitrite as N Concentration
Remediation Goal = 4 mg/L



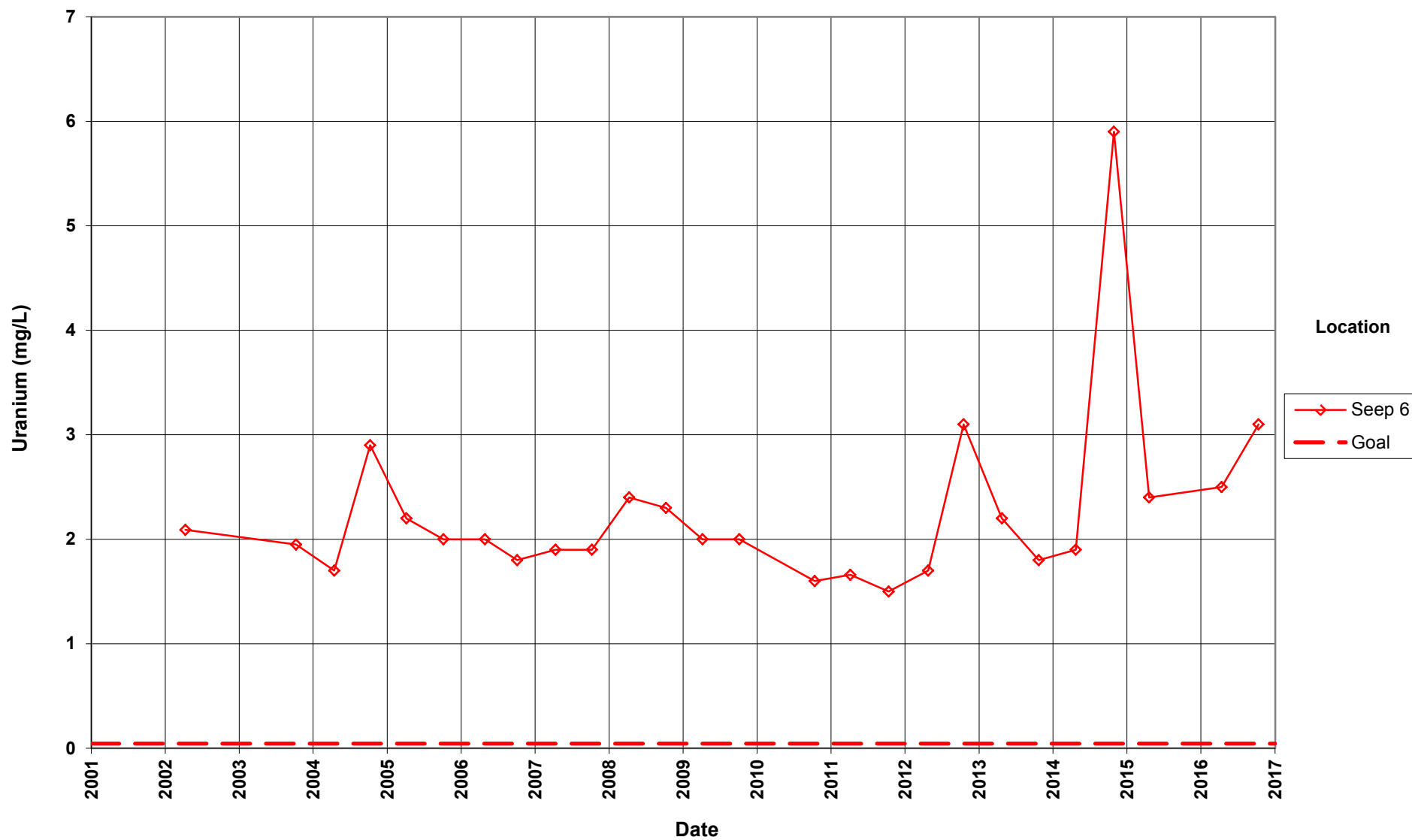
Monticello Disposal & Process Sites
Former Mill Site Seeps and Wetlands
Selenium Concentration
Remediation Goal = 0.005 mg/L



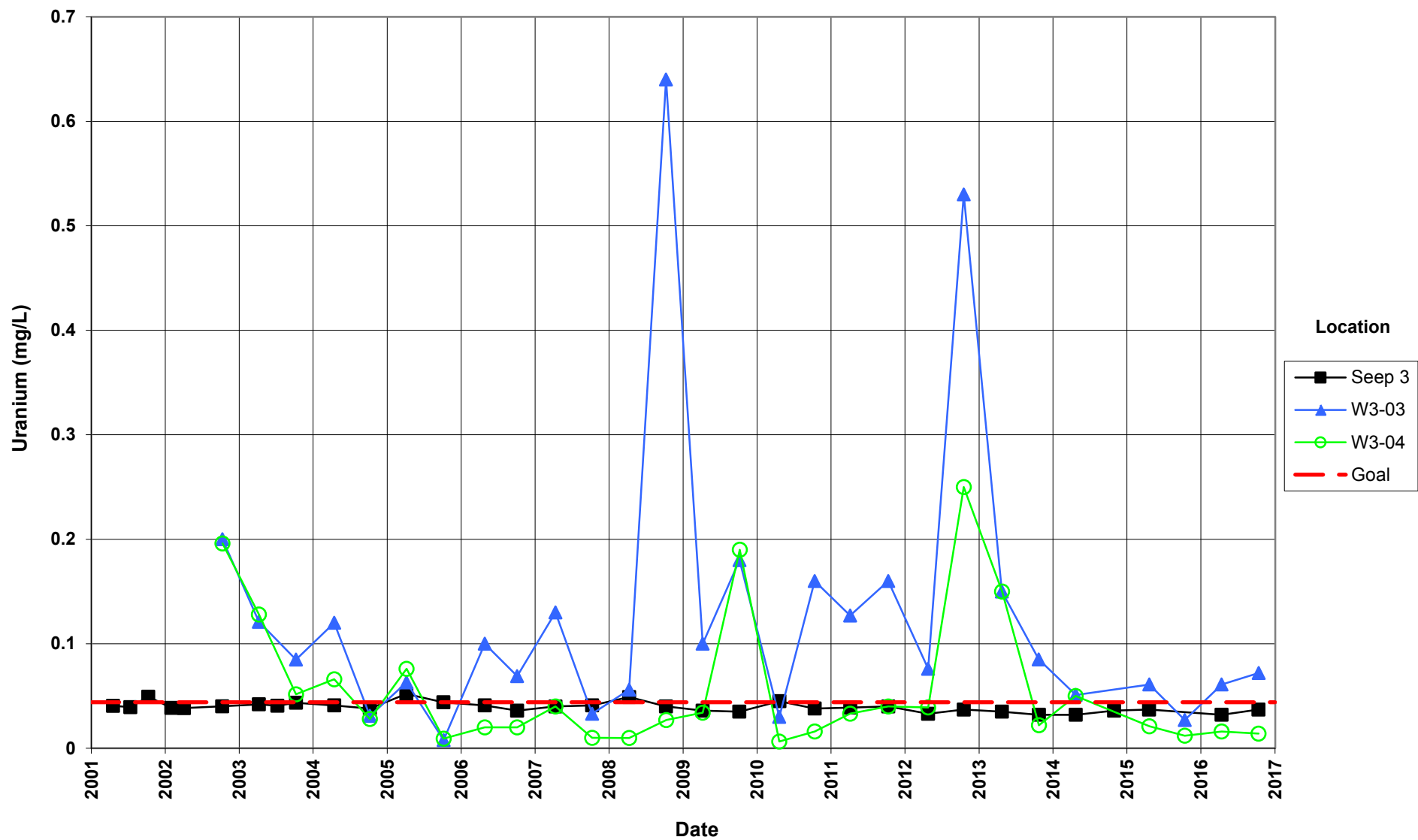
Monticello Disposal & Process Sites
Montezuma Creek Locations
Selenium Concentration
Remediation Goal = 0.005 mg/L



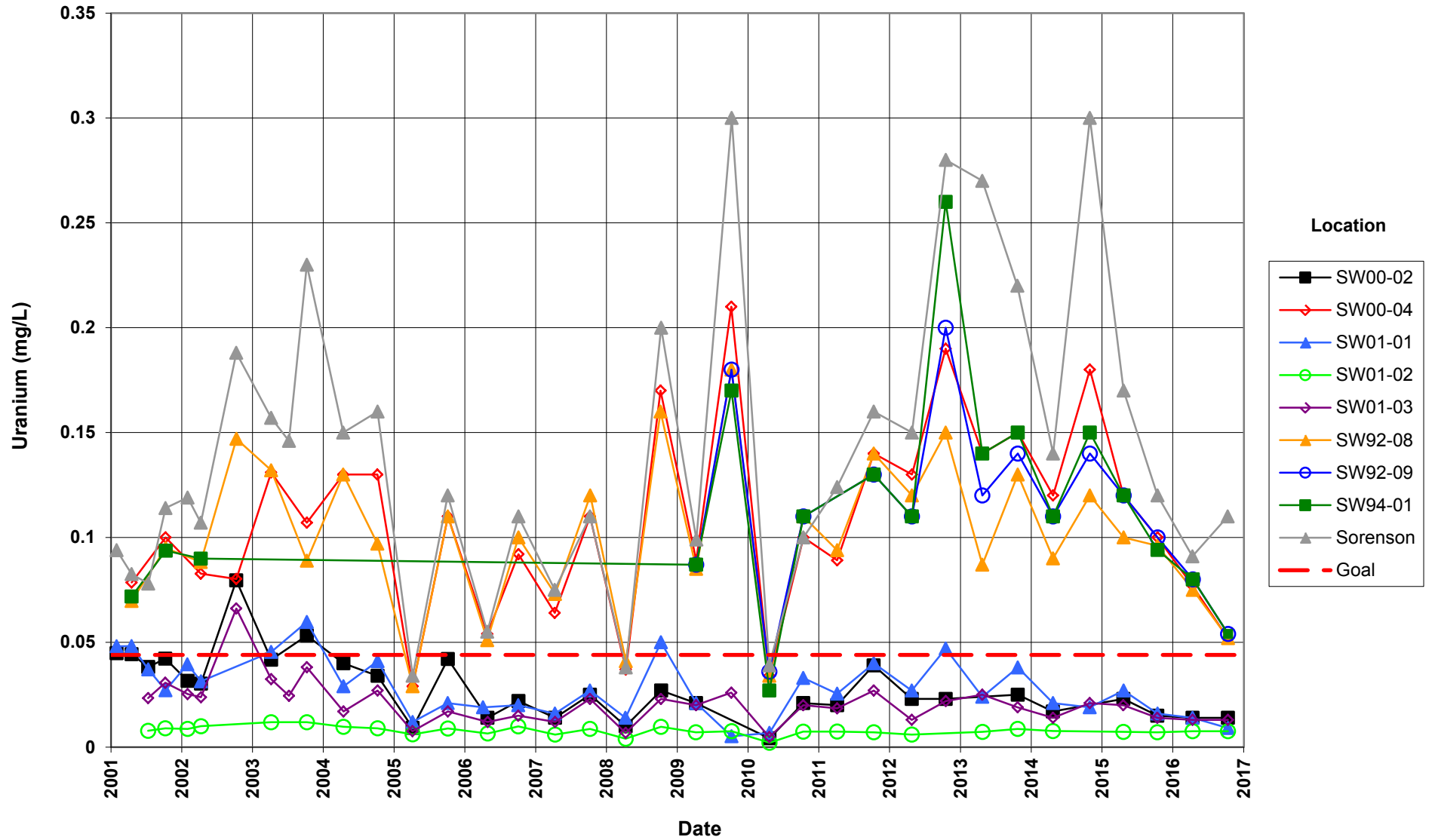
Monticello Disposal & Process Sites
Former Mill Site Seeps and Wetlands
Uranium Concentration
Remediation Goal = 0.044 mg/L



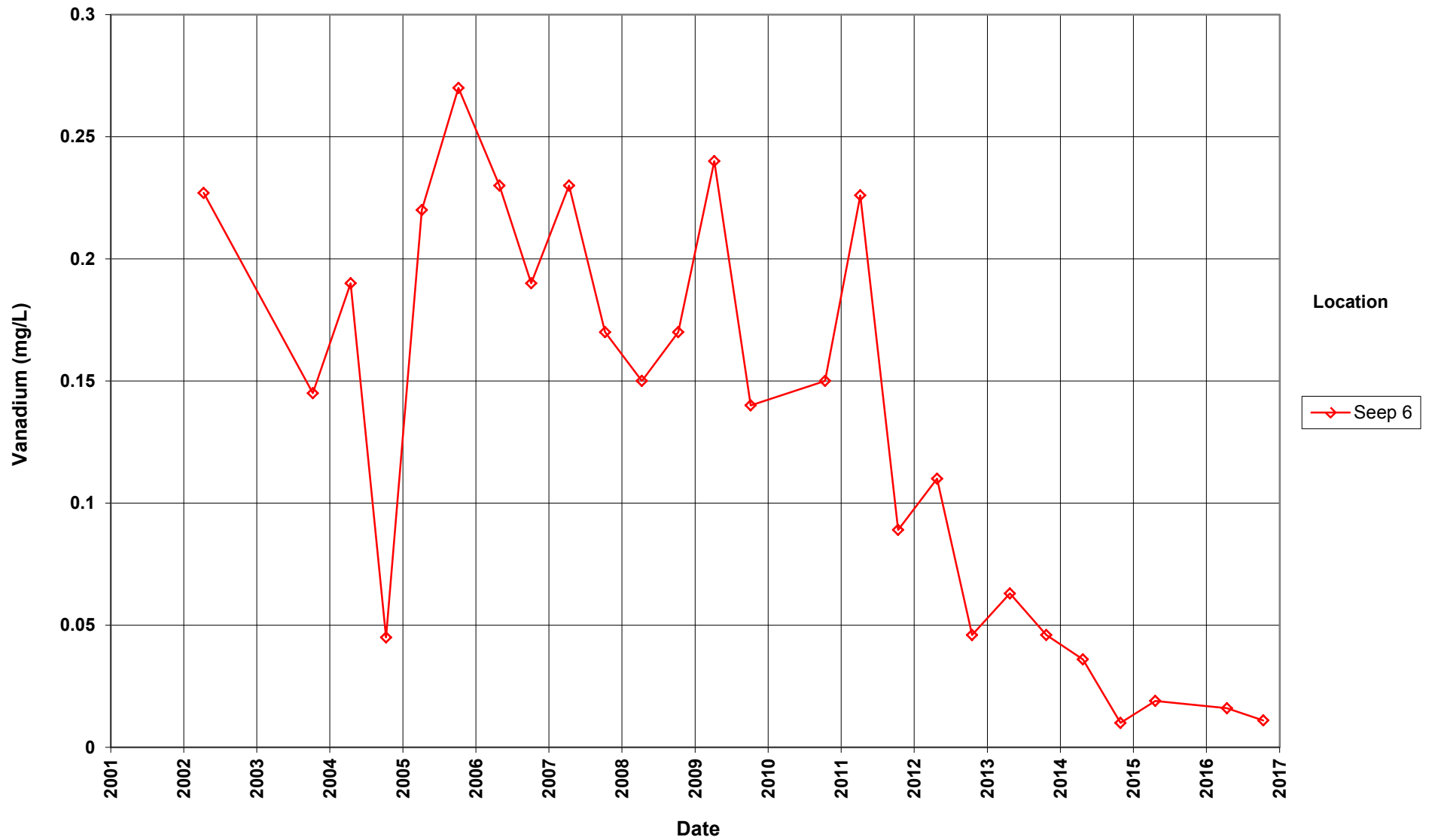
Monticello Disposal & Process Sites
Former Mill Site Seeps and Wetlands
Uranium Concentration
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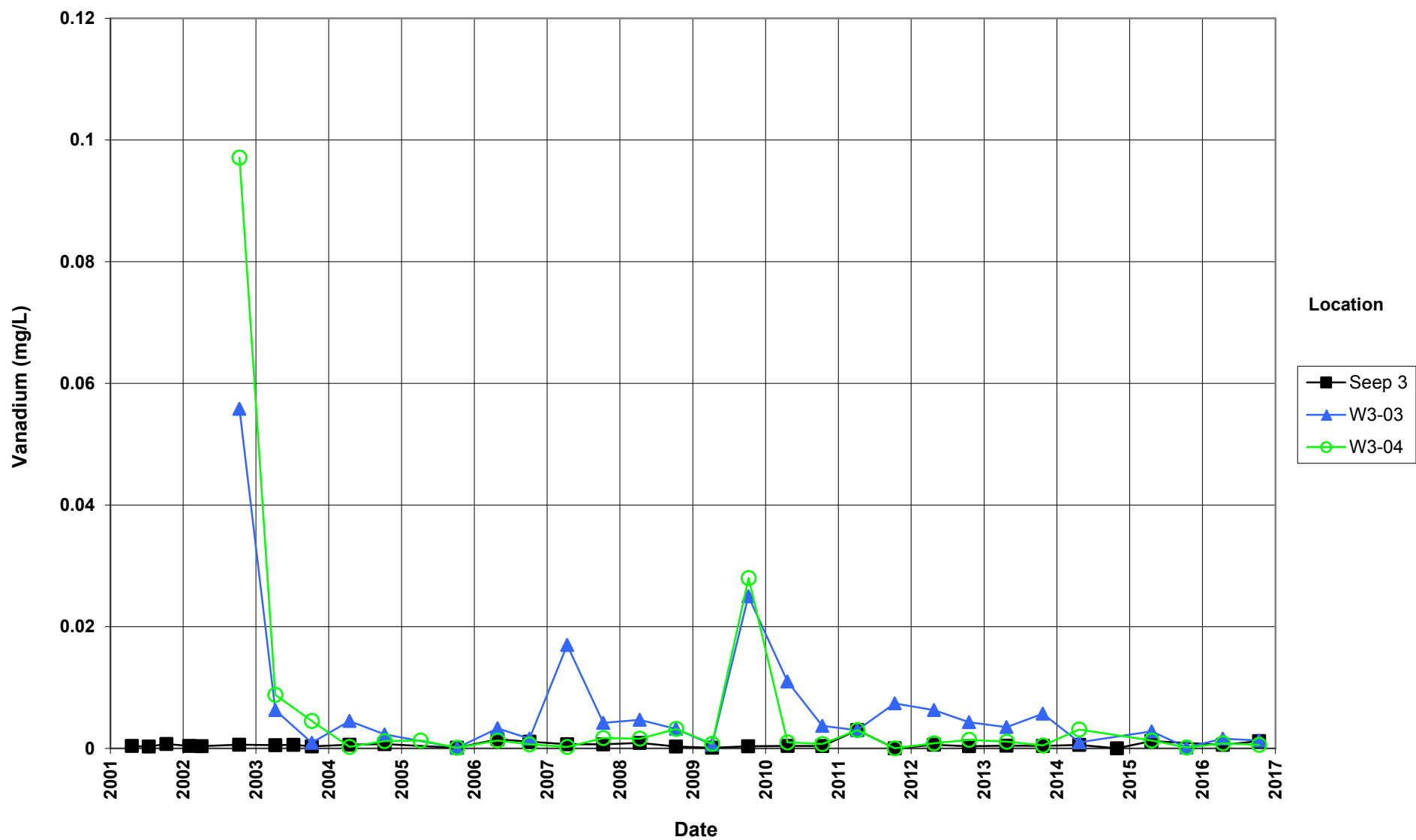
Monticello Disposal & Process Sites
Montezuma Creek Locations
Uranium Concentration
Remediation Goal = 0.044 mg/L



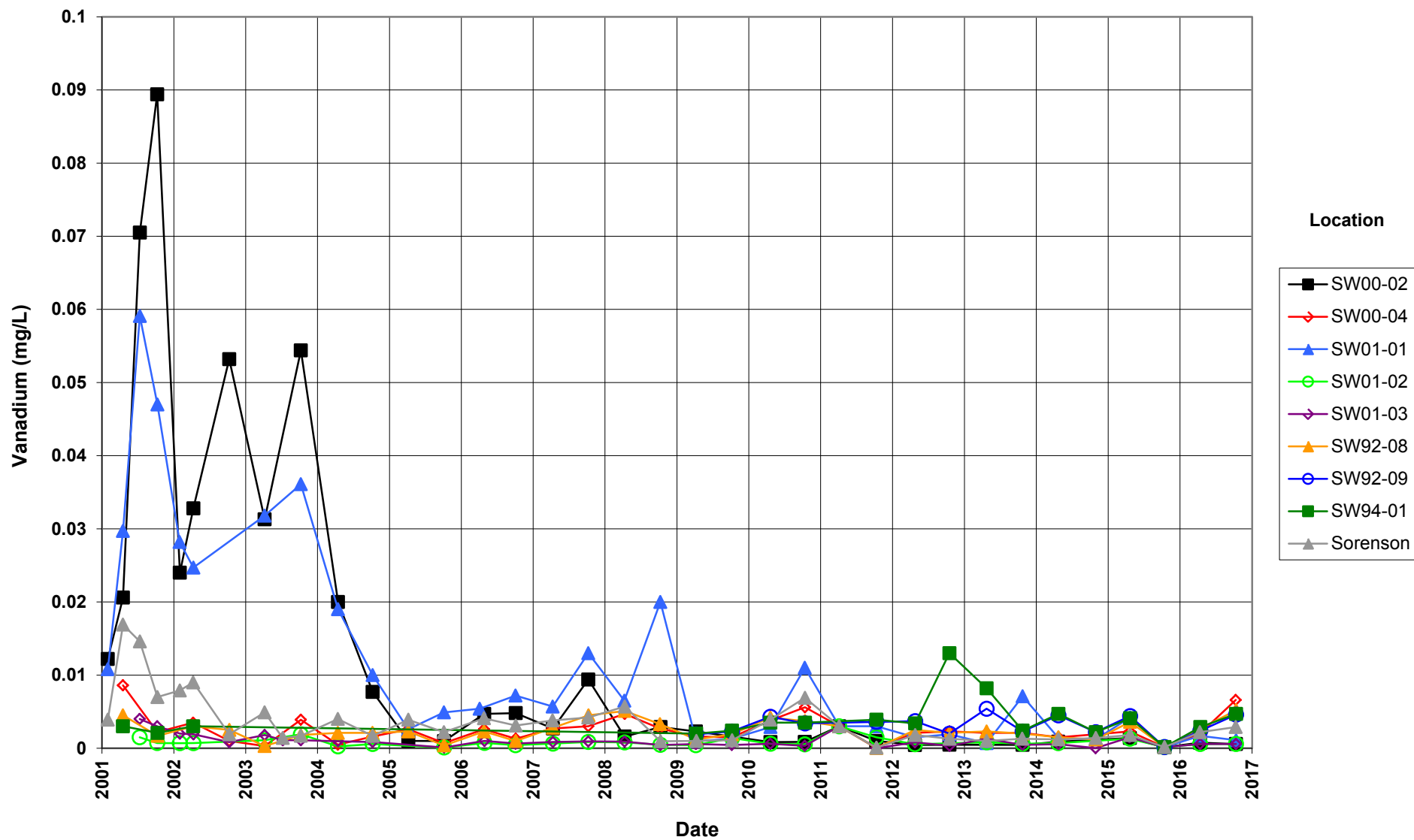
Monticello Disposal & Process Sites
Former Mill Site Seeps and Wetlands
Vanadium Concentration



Monticello Disposal & Process Sites
Former Mill Site Seeps and Wetlands
Vanadium Concentration



Monticello Disposal & Process Sites
Montezuma Creek Locations
Vanadium Concentration



Attachment 4

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 can result from transcription errors, data-coding errors, or measurement system problems. However, outliers can also represent true extreme values of a distribution and can 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.** Do this 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 as to whether the data are normally distributed using the Shapiro-Wilk Test.
2. **Apply the appropriate statistical test.** Dixon's Test for extreme values 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.

Table 6 shows the outlier report that was generated using historical data. Two vanadium results were identified as potentially anomalous due to sample dilution causing a higher reported detection limit and both samples were reported as not detected. Thirteen more laboratory results were identified as potentially anomalous because of the low variability of the historical data or because of downward or upward trending in the data. The data associated with these results were further reviewed. There were no errors noted and the data for this RIN are acceptable as qualified.

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Table 6. Data Validation Outliers Report

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 1/1/2006

Laboratory: ALS Laboratory Group

RIN: 16108078

Report Date: 1/4/2017

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current	Qualifiers		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	0200	N001	10/12/2016	Manganese	0.270		F	0.0820			0.000097	B	UF	24	12	No
MNT01	0200	N001	10/12/2016	Molybdenum	0.0300		F	0.0280		F	0.00780	B	J	24	0	No
MNT01	0200	N001	10/12/2016	Nitrate + Nitrite as Nitrogen	0.0220		F	8.40			0.0350			24	0	Yes
MNT01	0200	N001	10/12/2016	Uranium	0.200		F	0.477	E	J	0.210			24	0	No
MNT01	0202	0001	10/11/2016	Manganese	0.0840		FQ	0.0680			0.000084	B	UF	21	3	No
MNT01	0202	0001	10/11/2016	Selenium	0.0110		FQ	0.0690			0.0140			21	0	No
MNT01	82-08	N001	10/11/2016	Iron	0.120		F	0.113			0.00140	B	UF	24	18	No
MNT01	82-08	N001	10/11/2016	Sodium	110		F	340			120		F	24	0	NA
MNT01	82-08	N001	10/11/2016	Total Dissolved Solids	1400		F	3700		F	1500		F	23	0	No
MNT01	88-85	N001	10/10/2016	Potassium	6.10		F	14.0		F	6.30		F	31	0	No
MNT01	88-85	N001	10/10/2016	Selenium	0.0180		F	0.1000			0.0220			30	0	NA
MNT01	88-85	N001	10/10/2016	Sodium	99.0		F	150			100.0			31	0	No
MNT01	92-07	N001	10/10/2016	Potassium	9.60		F	27.0		F	9.80		F	25	0	No
MNT01	92-07	N001	10/10/2016	Uranium	0.340		F	1.30		F	0.470			25	0	No
MNT01	92-08	N001	10/12/2016	Chloride	29.0		F	92.0			40.0		F	23	0	No
MNT01	92-08	N001	10/12/2016	Manganese	0.390		F	0.310		F	0.00011	U	J	23	1	NA
MNT01	92-08	N001	10/12/2016	Potassium	6.00		F	16.0		F	6.10		F	23	0	No
MNT01	92-08	N001	10/12/2016	Uranium	0.180		F	0.390		F	0.200		F	23	0	No
MNT01	92-09	N001	10/12/2016	Calcium	270		F	460		J	280			23	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 1/1/2006

Laboratory: ALS Laboratory Group

RIN: 16108078

Report Date: 1/4/2017

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current	Qualifiers		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	92-09	N001	10/12/2016	Magnesium	65.0		F	110		F	66.0			23	0	No
MNT01	92-09	N001	10/12/2016	Sodium	170		F	290		F	180		F	23	0	No
MNT01	92-10	N001	10/12/2016	Calcium	160		F	150			92.0		F	11	0	No
MNT01	92-10	N001	10/12/2016	Iron	3.20		F	1.000			0.00310	U	FQ	11	1	Yes
MNT01	92-10	N001	10/12/2016	Magnesium	28.0		F	26.0			16.0		F	11	0	No
MNT01	92-10	N001	10/12/2016	Manganese	0.800		F	0.750			0.410		F	11	0	No
MNT01	92-10	N001	10/12/2016	Sodium	82.0		F	79.0			52.0		J	11	0	No
MNT01	92-10	N001	10/12/2016	Sulfate	440		F	410			180		F	11	0	No
MNT01	92-10	N001	10/12/2016	Vanadium	0.00058	U	F	0.00026	B	FQ	0.000015	B	J	11	8	Yes
MNT01	92-11	N001	10/10/2016	Uranium	0.130		F	0.320		F	0.150		F	22	0	NA
MNT01	93-01	N001	10/11/2016	Fluoride	0.760		JF	0.740			0.530			10	0	No
MNT01	95-01	N001	10/10/2016	Arsenic	0.00390		F	0.00290			0.00160			10	0	Yes
MNT01	95-01	N001	10/10/2016	Iron	1.30		F	0.900			0.220	E	F	10	0	Yes
MNT01	95-01	N001	10/10/2016	Manganese	0.310		F	0.220			0.170			10	0	Yes
MNT01	95-01	N001	10/10/2016	Potassium	3.00		F	4.30	N	F	3.10		J	10	0	No
MNT01	95-03	N001	10/10/2016	Iron	1.80		F	1.50			0.260		F	10	0	NA
MNT01	95-03	N001	10/10/2016	Selenium	0.00066	U	F	0.00032	J	U	0.000025	B	F	10	8	NA
MNT01	95-03	N001	10/10/2016	Vanadium	0.00058	U	F	0.00021	U	F	0.000015	B	J	10	7	Yes
MNT01	MW00-01	N001	10/11/2016	Iron	0.0710	J	F	0.0670	J	F	0.00140	B	UF	22	18	No
MNT01	MW00-01	N001	10/11/2016	Manganese	0.00370	J	F	0.00210	J	F	0.000097	B	UF	22	17	NA

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 1/1/2006

Laboratory: ALS Laboratory Group

RIN: 16108078

Report Date: 1/4/2017

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current	Qualifiers		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	MW00-01	N001	10/11/2016	Nitrate + Nitrite as Nitrogen	0.0280		JF	2.20			0.0680			22	0	NA
MNT01	MW00-06	N001	10/12/2016	Sulfate	510		F	890			520			22	0	No
MNT01	P92-06	N001	10/12/2016	Magnesium	59.0		F	130			61.0		F	23	0	No
MNT01	PW-28	N001	10/11/2016	Selenium	0.0180		F	0.0760			0.0210			22	0	NA
MNT01	R1-M3	0001	10/11/2016	Uranium	0.220			0.713	E		0.270			23	0	No
MNT01	R1-M4	0001	10/11/2016	Potassium	8.10			18.0			8.50			21	0	No
MNT01	R1-M4	0001	10/11/2016	Uranium	0.250			0.640			0.330			21	0	No
MNT01	R3-M2	0002	10/11/2016	Potassium	8.10			22.0			8.50			22	0	No
MNT01	R3-M2	0001	10/11/2016	Potassium	8.20			22.0			8.50			22	0	No
MNT01	R3-M2	0001	10/11/2016	Uranium	0.300			0.687	E		0.330			22	0	No
MNT01	R3-M2	0002	10/11/2016	Uranium	0.310			0.687	E		0.330			22	0	No
MNT01	R3-M3	0001	10/11/2016	Potassium	8.10			20.0			8.80			21	0	No
MNT01	R3-M3	0001	10/11/2016	Sodium	92.0			130			93.0			21	0	No
MNT01	R3-M3	0001	10/11/2016	Uranium	0.210			0.500			0.240			21	0	No
MNT01	R4-M6	0001	10/11/2016	Manganese	0.00990			0.550			0.0110			21	0	NA
MNT01	R4-M6	0001	10/11/2016	Potassium	8.00			23.0			9.10			21	0	No
MNT01	R6-M4	0001	10/11/2016	Uranium	0.0230			0.0200			0.00012			21	0	No
MNT01	Seep 3	N001	10/11/2016	Iron	0.480			0.170			0.00130	U	J	22	19	No
MNT01	Seep 3	N001	10/11/2016	Manganese	0.0670			0.0490			0.00017	B	U	22	6	No
MNT01	Seep 6	N001	10/11/2016	Fluoride	0.490		J	1.30			0.500	U		19	6	NA

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 1/1/2006

Laboratory: ALS Laboratory Group

RIN: 16108078

Report Date: 1/4/2017

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current	Qualifiers		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	Seep 6	N001	10/11/2016	Iron	0.840			0.560			0.00130	U	J	19	15	No
MNT01	Seep 6	N001	10/11/2016	Nitrate + Nitrite as Nitrogen	0.0150		J	26.0			0.220			19	0	No
MNT01	Seep 6	N001	10/11/2016	Selenium	0.00160			0.0740			0.00260			19	0	No
MNT01	SW00-04	0001	10/10/2016	Arsenic	0.00700			0.00260			0.00015	U		21	1	Yes
MNT01	SW00-04	0001	10/10/2016	Chloride	160			120			26.0			21	0	No
MNT01	SW00-04	0001	10/10/2016	Selenium	0.00150			0.00940			0.00290			21	0	No
MNT01	SW00-04	0001	10/10/2016	Vanadium	0.00660			0.00560			0.000076		U	21	3	No
MNT01	SW01-01	N001	10/12/2016	Chloride	11.0			100.0			15.0			23	0	No
MNT01	SW92-08	0001	10/12/2016	Arsenic	0.00500			0.00190			0.00026	J		21	1	Yes
MNT01	SW92-08	0001	10/12/2016	Chloride	150		J	110			26.0			21	0	Yes
MNT01	SW92-08	0001	10/12/2016	Vanadium	0.00520			0.00510			0.00003		U	21	3	No
MNT01	SW92-09	0001	10/12/2016	Arsenic	0.00500			0.00190		J	0.00049	J		14	0	Yes
MNT01	SW92-09	0001	10/12/2016	Chloride	140		J	110			29.0			14	0	No
MNT01	SW92-09	0001	10/12/2016	Iron	0.0820	J		0.0290	B		0.00160	B	U	14	10	No
MNT01	SW92-09	0001	10/12/2016	Potassium	13.0			9.70		J	2.80		J	14	0	Yes
MNT01	SW94-01	0001	10/12/2016	Arsenic	0.00490			0.00190		J	0.00028	J		15	0	Yes
MNT01	SW94-01	0001	10/12/2016	Iron	0.0950	J		0.0530	J		0.00160	B	U	15	12	NA
MNT01	SW94-01	0001	10/12/2016	Potassium	12.0			10.00			3.40		J	15	0	No
MNT01	T00-01	N001	10/12/2016	Arsenic	0.00550		F	0.0110			0.00640			11	0	No
MNT01	T00-01	N001	10/12/2016	Iron	0.0110	J	F	0.00670	J	U	0.00160	U		11	11	No

Data Validation Outliers Report - No Field Parameters

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Laboratory: ALS Laboratory Group

RIN: 16108078

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Site Code	Location Code	Sample ID	Sample Date	Analyte	Current	Qualifiers		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	T00-01	N001	10/12/2016	Molybdenum	0.00890		F	0.0330		F	0.00980			11	0	No
MNT01	T00-01	N001	10/12/2016	Vanadium	0.1000		F	0.340			0.110		F	11	0	No
MNT01	T00-04	N001	10/11/2016	Chloride	19.0		JF	37.0		F	24.0		F	8	0	NA
MNT01	T00-04	N001	10/11/2016	Fluoride	0.290		JF	0.780		F	0.300			8	1	No
MNT01	T00-04	N001	10/11/2016	Nitrate + Nitrite as Nitrogen	0.0520		JF	0.460		F	0.0970			8	0	No
MNT01	T00-04	N001	10/11/2016	Potassium	3.60		F	12.0		F	3.70			8	0	No
MNT01	T00-04	N001	10/11/2016	Sodium	57.0		F	100.0		F	62.0			8	0	No
MNT01	T00-04	N001	10/11/2016	Uranium	0.0820		F	0.380		F	0.0850			8	0	No
MNT01	T01-01	N001	10/12/2016	Uranium	0.0410		F	0.270			0.0450			26	0	No
MNT01	T01-04	N001	10/12/2016	Iron	0.0660	J	F	0.0300	U		0.00130	U	J	24	24	NA
MNT01	T01-05	N001	10/12/2016	Selenium	0.0120		F	0.0820			0.0170			21	0	NA
MNT01	T01-07	N001	10/12/2016	Selenium	0.0170		F	0.0540			0.0190			24	0	No
MNT01	T01-13	N001	10/11/2016	Arsenic	0.00210		FQ	0.0170			0.00270			6	0	No
MNT01	T01-13	N001	10/11/2016	Potassium	11.0		FQ	20.0		FQ	12.0			6	0	No
MNT01	T01-18	0001	10/11/2016	Chloride	370		FQ	290			220		FQ	8	0	No
MNT01	T01-18	0001	10/11/2016	Iron	1.30		FQ	1.10			0.00490	U		10	2	No
MNT01	T01-18	0001	10/11/2016	Manganese	3.70		FQ	3.20			0.930			10	0	No
MNT01	T01-18	0001	10/11/2016	Nitrate + Nitrite as Nitrogen	0.0260		FQ	25.0			0.0810			9	0	No
MNT01	T01-18	0001	10/11/2016	Selenium	0.00066	U	FQ	0.0660			0.00110		J	10	0	No
MNT01	T01-19	0001	10/11/2016	Manganese	3.80		FQ	8.80		FQ	4.30		QF	18	0	No

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Site Code	Location Code	Sample ID	Sample Date	Analyte	Current	Qualifiers		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	T01-20	N001	10/11/2016	Chloride	130		JFQ	270			140			8	0	No
MNT01	T01-20	N001	10/11/2016	Fluoride	0.210		JFQ	0.900		FQ	0.500	U	FQ	8	6	NA
MNT01	T01-20	N001	10/11/2016	Sulfate	920		JFQ	2000			1000			8	0	No
MNT01	T01-20	N001	10/11/2016	Uranium	0.180		FQ	0.590			0.220			10	0	No
MNT01	T01-25	N001	10/11/2016	Calcium	360		FQ	500		FQ	370			10	0	No
MNT01	T01-25	N001	10/11/2016	Iron	23.0		FQ	20.0			1.70		FQ	10	0	No
MNT01	T01-25	N001	10/11/2016	Magnesium	81.0		FQ	110			84.0			10	0	No
MNT01	T01-35	N001	10/11/2016	Selenium	0.00980		F	0.0560		F	0.0110			22	0	NA
MNT01	T01-35	N002	10/11/2016	Selenium	0.00890		F	0.0560		F	0.0110			22	0	NA
MNT01	W3-03	0001	10/12/2016	Arsenic	0.00860			0.00560			0.00054			20	1	Yes
MNT01	W3-03	0001	10/12/2016	Iron	3.90			0.582			0.00670	J	U	20	3	Yes
MNT01	W3-03	0001	10/12/2016	Manganese	4.50			2.60			0.120			20	0	No

STATISTICAL TESTS:

The distribution of the data is tested for normality or lognormality using the Shapiro-Wilk Test

Outliers are identified using Dixon's Test when there are 25 or fewer data points.

Outliers are identified using Rosner's Test when there are 26 or more data points.

See Data Quality Assessment: Statistical Methods for Practitioners, EPA QC/G-9S, February 2006.

NA: Data are not normally or lognormally distributed.