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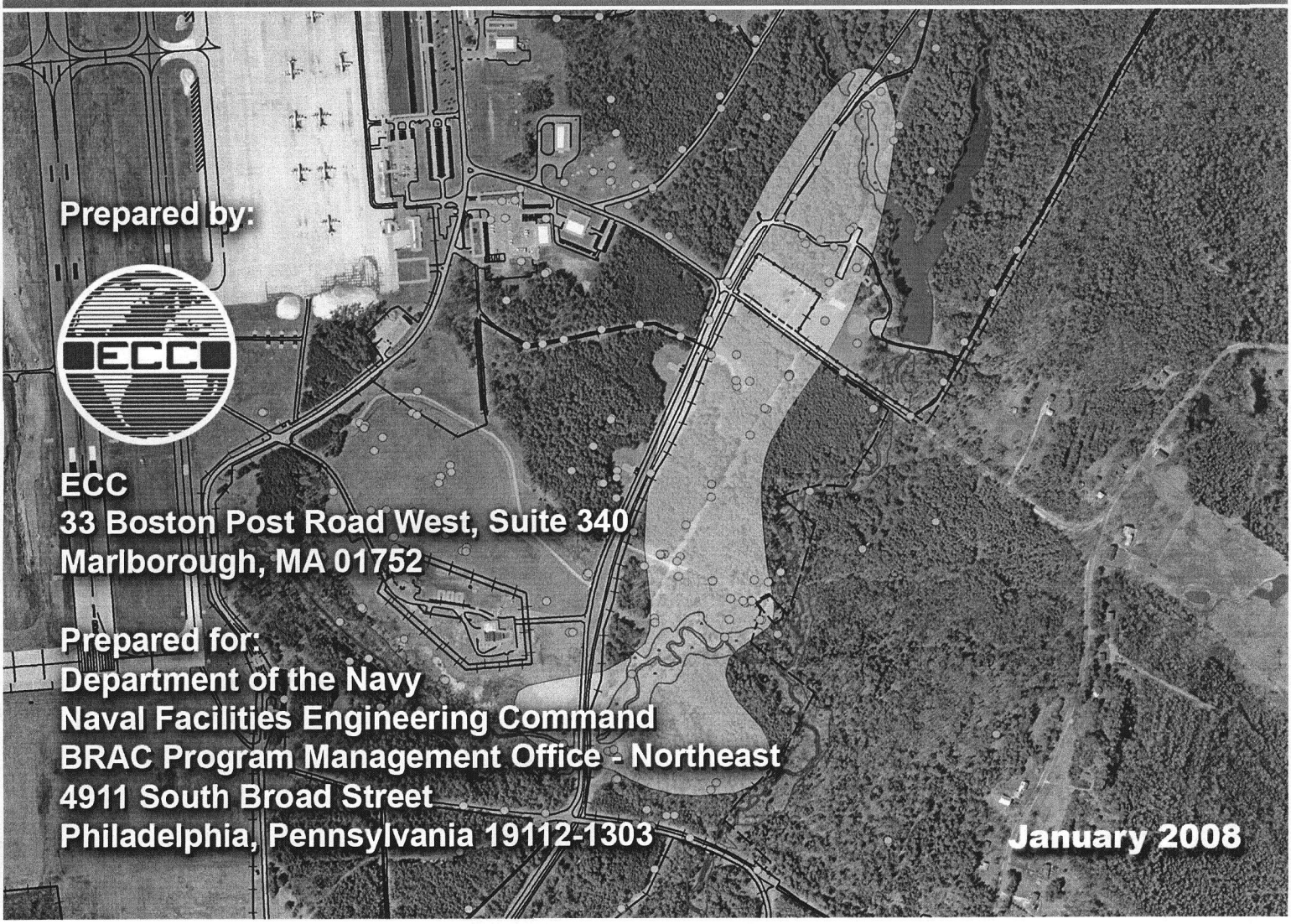
BRUNSWICK MAINE

Final
Sites 1,3 & Eastern Plume Monitoring Event 27 Report September 2005

Contract No. N62472-02-D-0810
Contract Task Order No. 007

Naval Air Station Brunswick, Maine



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January 2008

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SITES 1 AND 3 AND EASTERN PLUME MONITORING EVENT 27 REPORT SEPTEMBER 2005

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QUALITY REVIEW STATEMENT

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Description of Final Report/Deliverable:

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ECC CTO Senior Project Manager: Alexander C. Easterday, P.G.

As per State of Maine Department of Professional and Financial Regulations, Title 32 Chapter 73, Law, the sections of this document related to geology and geologic data interpretation have been reviewed for its technical content by the undersigned State of Maine Certified Geologist.

This document has been reviewed by the undersigned for their geological interpretive content. This statement is based upon the review of the undersigned conducted during the preparation of this report, as dated below.

State of Maine Geologist Reviewer:

Gina M. Calderone, P.G., C.P.G. Date
State of Maine Certified Geologist (No. GE442)
ECC Project Manager/Hydrogeologist

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LIST OF ABBREVIATIONS AND ACRONYMS

4,4'-DDD	dichlorodiphenyldichloroethane
4,4'-DDT	dichlorodiphenyltrichloroethane
BTEX	benzene, toluene, ethylbenzene, and xylenes
°C	degrees Celsius
DCE	dichloroethane
EFANE	Engineering Field Activity Northeast
EPA	U.S. Environmental Protection Agency
EW	extraction wells
GWETS	groundwater extraction and treatment system
LTMP	Long-Term Monitoring Plan
MCL	maximum contaminant levels
MEDEP	Maine Department of Environmental Protection
MEG	maximum exposure guideline
µg/L	micrograms per liter
µmhos/cm	micromhos per centimeter
mg/kg	milligram per kilogram
mg/L	milligrams per liter
MNA	monitored natural attenuation
mV	millivolt
MW	monitoring well
NAS	Naval Air Station
NTU	nephelometric turbidity units
NWQC	National Recommended Water Quality Criteria
P	piezometers
PCE	tetrachloroethene
QAPP	Quality Assurance Project Plan
ROD	record of decision
SDWR	Secondary Drinking Water Regulations
SM	Standard Method
SWQC	Statewide Water Quality Criteria
1,1,1-TCA	1,1,1-trichloroethane
TCE	trichlorethene
VOC	volatile organic compounds
YSI	Yellow Springs Instruments

1.0 INTRODUCTION

Naval Facilities Engineering Command (NAVFAC) contracted with ECC to perform long-term monitoring at Sites 1 and 3 and Eastern Plume, Naval Air Station (NAS), Brunswick, Maine under Contract Number N62472-02-D-0810, Contract Task Order No. 007. NAS Brunswick is located south of the Androscoggin River between Brunswick and Cooks Corner, Maine. The locations of Sites 1 and 3 and the Eastern Plume are provided on Figure 1-1.

At Sites 1 and 3 and Eastern Plume (Figure 1-2), the Navy is currently performing long-term monitoring, maintenance, and corrective measures as part of the long-term remedial actions required by the: (1) *Record of Decision (ROD) for a Remedial Action for Sites 1 and 3* (ABB-ES 1992); and (2) *ROD for No Further Action at Sites 4, 11, and 13 and Remedial Action for the Eastern Plume* (ABB-ES 1998). In 1994, a Long-Term Monitoring Plan (LTMP) was established for Sites 1 and 3 and Eastern Plume (ABB-ES 1994). A draft revision to the 1994 LTMP (Sites 1 & 3 and Eastern Plume only) was issued Draft in October 1998 (EA 1998); the Final LTMP for Sites 1 and 3 and Eastern Plume was completed in February 2000 (EA 2000a). The Draft, Revision 1, Long-Term Monitoring Plan was issued in March 2004 (EA 2004a). In October 2004, the Navy initiated a proposal for optimizing the groundwater long-term monitoring and sampling program at NAS Brunswick. The intent of this proposal was to offer a formal proposal based on stakeholder discussions held as part of the October 2004 Technical Meeting. As a result of this meeting, and regulator comment and collaboration, the Draft Revision 1, Long-Term Monitoring Plan (EA 2004a) proposed Optiminization Plan (October 2004) was revised and re-issued on November 4th, 2004 (EA 2004b) as the Revised Proposed Optiminization Plan for Groundwater Samples Collected as Part of Long-Term Monitoring, NAS Brunswick. This Monitoring Event (ME 27) was conducted following the October 2004 Proposed Optiminization Plan. For detailed history of the Installation Restoration Program Site, please refer to the 2nd Five-Year Review for NAS Brunswick (ECC/EA 2005).

Remedial actions at Sites 1 and 3 included construction of a low permeability slurry wall upgradient and surrounding two disposal trenches to a depth of approximately 90 feet, construction of a low permeability cap atop the landfill, and placement of two groundwater extraction wells (EW-6 and EW-7) within the landfill limits. Extraction wells within the landfill limits were deactivated on 19 November 1997 due to continually decreasing yields and stabilized water levels within the confines of the slurry wall. The source of the Eastern Plume has been identified as Sites 4, 11, and 13 (ABB-ES 1998). Ground water in the Eastern Plume is being remediated by a treatment system consisting of four groundwater extraction wells designed to provide hydraulic control of the aquifer, and a treatment plant to remove volatile organic compounds (VOCs) from the ground water prior to discharge. The extraction system has been operational since April 1995 and at the present time consists of the following wells:

- **Extraction Well EW-01** located at the southern end of the Eastern Plume north of MW-229B provides VOC removal and hydraulic control in this area

- **Extraction Well EW-02A** located within the Eastern Plume in the vicinity of monitoring well MW-311, was activated on 12 June 1998 to provide additional VOC removal and

hydraulic control in this area. On 27 September 2000, extraction well EW-02 was removed from service and decommissioned.

- **Extraction Well EW-03** is no longer operational and was removed from service in December 1998 and decommissioned 27 September 2000.

- **Extraction Well EW-04** located within the Eastern Plume northwest of piezometer P-111 provides additional VOC removal and hydraulic control in this area.

- **Extraction Well EW-05A** is a replacement extraction well installed during September 2000 and brought online 10 January 2001. EW-5 was removed from service and decommissioned 5 January 2001.

On 11 September 2001, at 1119 hours, the extraction well network and treatment plant were ordered shut down by the Commanding Officer of NAS Brunswick. During the 1 October 2001 project conference call between the Navy, Maine Department of Environmental Protection (MEDEP), and U.S. Environmental Protection Agency (EPA) remedial project managers, it was agreed that the extraction well network and treatment plant would remain off-line until completion of the Fall 2001 Long-Term Monitoring Program. The extraction well network and treatment plant were placed back in service on 13 November 2001. The extraction well network and treatment plant had been offline for a total of 63 days.

Monthly groundwater extraction and treatment system operations reports were provided to the Brunswick Sewer District summarize additional details related to treatment plant operations and maintenance. However, after the GWETS Infiltration Gallery went on-line in February 2002, monthly reports were no longer provided to the Brunswick Sewer District. Monthly reports are still generated and are provided to the MEDEP and EPA on a monthly basis.

A pilot study has been conducted at select monitoring wells sampled and analyzed for Target Compound List VOCs to assess whether aqueous diffusion samplers can be used effectively as an alternative to the low-flow sampling method at Sites 1 and 3 and Eastern Plume. On 12 March 2003, the draft Diffusion Sampler Proposal (EA 2003a) was submitted to stakeholders. This document states that aqueous diffusion samplers can be used effectively as an alternative to the low-flow sampling method. Aqueous diffusion samplers are to be deployed in specific monitoring wells at Sites 1 and 3 and Eastern Plume. Low-flow sampling will be no longer required for the collection of VOCs at these monitoring wells. This proposal contained specific information on the location and placement of each aqueous diffusion sampler in individual monitoring wells as discussed and agreed upon by stakeholders in the October 2002 Technical Meeting.

On 28 August 2003, samplers were placed in 26 monitoring wells at specific depths across the length of the well screen (as specified in the 12 March 2003 draft Diffusion Sampler Proposal [EA 2003a]). Twenty-four of 26 wells had one sampler placed at the mid or deep interval of its well screen. Two samplers were installed within monitoring wells MW-207AR and MW-311 at the mid- and deep intervals. The diffusion samplers were retrieved between 2 to 15 October

2003 after being allowed to equilibrate in each well for at least 33 days. Low-flow groundwater sampling for VOCs were not collected at these 26 monitoring wells. Low-flow samples were collected for VOCs where aqueous diffusion samplers are not deployed (MW-323, P-106, and P-111) as specified in the current LTMP.

On 29 August 2003, in correspondence to the Navy (EA 2003b), Monitored Natural Attenuation (MNA) parameters were recommended for specific monitoring well locations in the Eastern Plume. The sampling locations and analyte list were discussed and agreed upon by stakeholders in the 9 October 2003 Technical Meeting. MNA parameters were collected via low-flow sampling at 21 monitoring wells during the October 2003 monitoring event as specified in the 29 August 2003 correspondence to the Navy (EA 2003b). Monitored Natural Attenuation parameters were collected and analyzed in this Monitoring Event 27 sampling round.

1.1 Long-Term Monitoring Program

The LTMP document, which is comprised of a Long-Term Monitoring Program; Quality Assurance Project Plan (EA 2000b); Safety, Health, and Emergency Response Plan; and remedial construction technical specifications, establishes the monitoring/sampling requirements for Sites 1 and 3 and Eastern Plume. The Final LTMP (EA 2000a) was revised based on review of the long-term monitoring data previously collected and has been revised to the Draft, Revision 1, LTMP (EA 2004a); Draft LTMP (EA 2006a); and Draft Final LTMP (EA 2006b) which remains in progress for finalization. The Draft Final LTMP (EA 2006b) incorporated the November 2004 Optiminization Plan (EA 2004c) for sampling at Sites 1 and 3 and Eastern Plume. ites 1 and 3 and Eastern Plume. However, the Draft Final Long-Term Monitoring Report has not been finalized and should be finalized prior to the Fall 2007 Monitoring Event.

The objective of the Long-Term Monitoring Program is to obtain data necessary to assess the long-term effectiveness of the remedial actions conducted at Sites 1 and 3 and Eastern Plume. The remedial action objectives for Sites 1 and 3 as stated in the 1992 Record of Decision for a Remedial Action at Sites 1 and 3 are:

- To reduce the generation and migration of contaminated groundwater.
- To reduce the potential risk associated with ingestion of contaminated groundwater.
- To minimize future negative impacts to Mere Brook and the sediment in the leachate seeps resulting from the discharge of contaminated groundwater and leachate.
- To reduce the concentrations of metals (iron and zinc) discharge to Mere Brook.

The remedial action objectives for the Eastern Plume as stated in the 1998 Record of Decision for No Future Action at Sites 4, 11, and 13 and a Remedial Action for the Eastern Plume are:

- To minimize further migration of the Eastern Plume

- To minimize any further negative impact to surface water resulting from discharge of contaminated groundwater.

- To reduce the potential risk associated with ingestion of contaminated groundwater to acceptable levels.

- To restore the aquifer.

Monitoring and sampling data collected during the performance of long-term monitoring in accordance with the Records of Decisions are being used to:

- Assess the ambient water quality conditions (groundwater and surface water) by collecting samples to monitor trends and assess effectiveness of remedial actions.

- Evaluate the effectiveness of the groundwater extraction system by assessing trends in the concentration of VOCs in groundwater within the boundaries of the Eastern Plume, and provide recommendations to improve system effectiveness.

- Evaluate the effectiveness of the landfill cap and slurry wall by evaluating trends in VOCs and Target Analyte List metals in surface water, groundwater, sediment, and leachate station seep samples within and adjacent to Sites 1 and 3.

- Analyze the effective capture zone of the groundwater extraction system at Sites 1 and 3 and Eastern Plume to determine the degree of hydraulic control achieved through remedial pumping.

This report includes the previous annual report format (annual reports are no longer prepared). Each monitoring event report presents and discusses trend data, and provides recommendations and conclusions. This change was discussed and agreed upon by the Navy, and state and federal regulators.

This report provides results for Monitoring Event 27 that was conducted in September 2005. Section 1 describes the activities completed during this monitoring event and an overview of the Long-Term Monitoring Program is summarized in this section. Temporal trends and other observations based on data collected during bi-annual monitoring are presented in Section 2. Conclusions and recommendations are provided in Section 3. Appendix A provides completed response to comments from MEDEP and EPA on the draft report (to be provided with the final version). Appendix B contains the laboratory analytical data summary. Appendix C provides graphical summaries of the Long-Term Monitoring Program and trend graphs of the chemical data. Appendix D provides an analytical data quality review. Appendix E provides field monitoring and sampling forms. Appendix F provides the engineering inspection report. Appendix G provides water elevations within the Sites 1 and 3 landfill for shallow and deep wells. Appendix H provides complete analytical report Form I laboratory data tables.

1.2 Measurement of Water Level Elevations

Water level measurements were obtained on 14 September 2005 at the monitoring wells, piezometers, and surface water gauging locations (Table 1-3, Figure 1-4 [shallow] and Table 1-4, Figure 1-5 [deep]). These gauging locations were used to interpret the groundwater potentiometic surface elevations for the site.

Pumping rates for each extraction well for the period May 2005 through September 2005 (which may affect groundwater potentiometric surface elevations) are provided in Table 1-5. The groundwater extraction and treatment system (GWETS) was operational for 99.55 percent of available hours. Details on operational interruptions and a statement of the corrective actions taken are provided in the GWETS monthly operations reports.

1.3 Groundwater Monitoring, Sampling, and Analysis

At Sites 1 and 3 landfill, a groundwater sample was collected from one monitoring well, via low-flow sampling techniques. At the Eastern Plume, groundwater samples were collected from 21 monitoring wells utilizing the aqueous diffusion samplers as described in previous phases of the *Brunswick Pilot Study* (EA 2000b). Additionally, groundwater samples were collected and analyzed for non-LTMP monitored natural attenuation (MNA) parameters from 13 monitoring wells and two piezometers(Table 1-6) using low-flow sampling techniques, as required by the *MNA Technical Letter* (EA 2004). The groundwater sampling program was performed on the 14th, 15th, 16th, 19th and 22nd of September 2005. Preserved samples were delivered by laboratory sample courier to Northeast Laboratory Services (located in Winslow, Maine). LTMP groundwater samples collected from Sites 1 and 3 and Eastern Plume were submitted for the following analysis:

- LTMP Target Compound List Volatile Organic Compounds (VOCs) by EPA Method 8260B including analysis for 1,4-dioxane by EPA Region I 1,4-Dioxane Method (first reported during Monitoring Event 24); and
- LTMP Target Analyte List elements (Sites 1 and 3 landfill), including:
  - Metals by inductively coupled plasma/atomic emission spectroscopy (EPA Method 6010B), and
  - Mercury by cold-vapor atomic absorption (EPA Method 7470A/7471A).

Natural attenuation samples were analyzed by Northeast Laboratory Services. MNA groundwater samples collected from the Eastern Plume were submitted for the following analysis:

- Dissolved gas (methane, ethane, and ethene) – analyzed using EPA Region 1 methane, ethane, and ethene standard operating procedure;
- Total selected metals (arsenic, iron, and manganese) – analyzed using SW-846 EPA Method 6020A; and
- General Chemistry – analyzed for alkalinity (EPA Method 310.1), chloride (EPA Method 325.3), nitrate plus nitrite (EPA Method 353.2),

nitrite (EPA Method 354.1), sulfate (EPA Method 375.4),
Ferrous iron (SM 3500 Fe D), and total organic carbon (EPA Method 415.1).

Water quality indicator parameters, including pH, specific conductance, temperature, dissolved oxygen, oxidation-reduction potential, and turbidity, were monitored and recorded to ensure stabilization of water quality prior to sample collection (Tables1-7 through 1-13).

Appendix B, Tables B-1 through B-22 provides a summary of analytical results for groundwater samples collected at Sites 1&3 and the Eastern Plume. The data obtained during the September 2005 sampling event were determined to be of sufficient quality to be used to evaluate groundwater quality as described in Section 1.5.

1.4 Surface Water, Leachate Seep, and Leachate Sediment Sampling and Analysis

Samples were collected in accordance with the general methodologies with the exception of the collection, preservation, and analysis of sediment samples using EPA Method 5035.

The following types of samples were collected at Sites 1 and 3 in September 2005:

- Surface water;
- Leachate seep; and
- Leachate sediment.

The following types of samples were collected at the Eastern Plume on September 2005:

- Surface water;
- Leachate seep and
- Leachate sediment.

Samples were analyzed by Northeast Laboratory Services for the following analysis:

- LTMP Target Compound List VOCs by EPA Method 8260B;
- LTMP Target Analyte List metals by EPA Method 6010B/7000; and
- Pesticides by EPA Method 8081A.

1.5 Quality Assurance and Quality Control

A rigorous quality assurance/quality control program is required to meet the data quality objectives of the groundwater sampling program, as outlined in the Quality Assurance Project Plan (QAPP). Quality control samples, field duplicates, matrix spike, rinsate blank, and trip blank samples were collected at the frequency prescribed in the LTMP. Method specific laboratory quality control samples were analyzed by the laboratory at the method prescribed frequency. Appendix D summarizes laboratory and field quality control sample results.

1.6 Analytical Data Quality Review

As required by the Quality Assurance Project Plan, a review of laboratory data was performed on selected quality control parameters to evaluate precision, accuracy, representativeness, completeness, and comparability and data quality objective requirements. A summary of the analytical data quality review for chemical data is provided in Appendix D. The following is a summary table of the findings for the data quality review performed and discussed in detail in this appendix:

Data Quality Review		Holding Time	Field/Method Blank Contamination	Precision		Accuracy			Completeness	
				Laboratory	Field	Surro-gate	MS/MSD	LCS	Analytical	Field
Aqueous Matrix	VOC	J/UJ	B	J	J	J	J/UJ	J/UJ	100%	100%
	Metals	✓	B	J	J/UJ	NA	J/UJ/R	J/UJ	99.7%	100%
	1,4 Dioxane	✓	✓	J	✓	✓	✓	✓	100%	100%
	Methane, ethene, & ethane	✓	✓	✓	J	NA	✓	✓	100%	100%
	MNA Parameters	✓	✓	✓	✓	NA	✓	J	100%	100%
	Pesticides	✓	✓	✓	✓	✓	✓	✓	100%	100%
Sediment Matrix	VOC	✓	✓	✓	J	✓	J/UJ	✓	80.6%*	100%
	Metals	✓	✓	J	J	NA	J/UJ/R	J/UJ	99.1	100%
	Pesticides	✓	✓	UJ	✓	✓	UJ	✓	100%	100%

NOTE:
VOC = Volatile organic compound.
✓ = The data are usable as reported based on the data quality review of this quality measurement.
B = The data have been affected by field blank/laboratory contamination; false-positives may exist.
UJ = The analyte was not detected above the sample reporting limit, and the reporting limit is approximate
J = The data are usable;, however, some analyte concentrations should be considered estimates of the true concentrations.
NA = The quality measurement does not apply to this matrix or analytical methodology.
R = Some of the analytes are considered unusable due to quality control criteria.
* = VOC for select compounds have unacceptably low bias (R) and for all VOCs due to low IS recoveries.

With consideration of the data qualifiers and notes provided in Appendix D, the data represented in this report were found to meet specified acceptance criteria, and therefore represent data in compliance with the Quality Assurance Project Plan (EA 2005). Method detection limits for sediment and aqueous media are included in Appendix D.

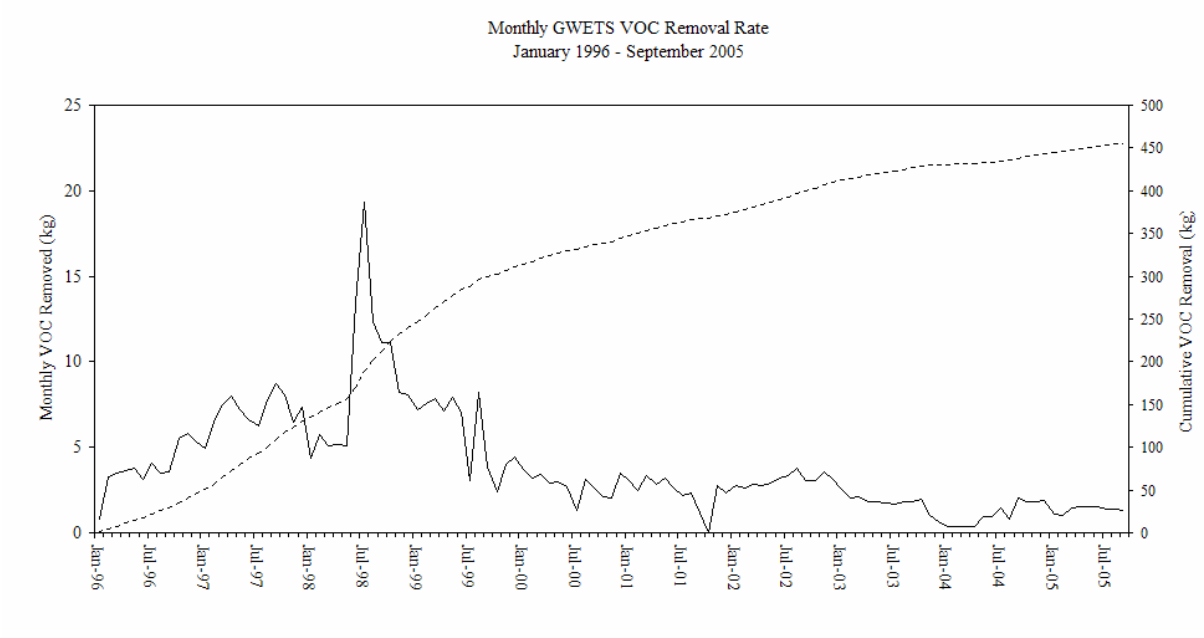
2.0 TEMPORAL TRENDS AND OBSERVATIONS

This section describes observations and trends in site water-level gauging results, field monitoring results, and laboratory analytical results.

2.1 Groundwater Extraction and Treatment System Performance Summary

The GWETS was operational for 99.55 percent of available hours. Table 1-5 summarizes the monthly flow rates for the four extraction wells (EW-01, EW-02A, EW-04, and EW-05A).

The chart below summarizes VOC removal rates achieved by the extraction wells in the Eastern Plume during the period January 1996 – September 2005. The dotted line represents the cumulative VOC removal since January 1996.



The monthly VOC removal rates for September 2004 through September 2005 ranged from approximately 1.00 to 2.02 kilograms per month with an average removal rate of 1.51 kilogram per month. The cumulative VOC mass removed from the Eastern Plume since the extraction system began operation is approximately 460.01 kilograms. Data from the effluent samples collected between 30 April 2005 and 30 September 2005 indicated no violations of permit discharge limits established by the Brunswick Sewer District.

2.2 Water Level Gauging Program

Water level measurements from the wells and piezometers were obtained during the September 2005 monitoring event at the locations indicated in Tables 1-1 and 1-2 for Sites 1 and 3 and the Eastern Plume. Figures 1-2 and 1-3 provides the locations of monitoring/gauging

points that comprise the long-term monitoring network at Sites 1 and 3 and Eastern Plume, respectively. A summary of water elevations is presented in Tables 1-3 and 1-4.

Project stakeholders agreed during the 9 October 2003 Technical Meeting to establish trigger elevations for each of the monitoring wells in the quarterly groundwater gauging program for the Sites 1 and 3 landfill:

Monitoring Location	Trigger Elevation (Feet above MSL)
EP-17	35
EP-18	35
EP-19	35
EP-20	35
EW-06	39
EW-07	35
MW-234R	33

During the period 30 April 2005 through 30 September 2005, no trigger elevations were reached. The trigger elevations were established to prevent groundwater from infiltrating the landfill cap. In the event the trigger event is exceeded the project stakeholders would be notified and any necessary action would be performed on-site.

2.3 Groundwater Monitoring and Sampling Program

This section provides a summary of groundwater sampling results and trends for Sites 1 and 3 and Eastern Plume. This summary focuses on the results for the groundwater sampling and analysis program based on the following criteria:

- Monitoring wells that exhibited increasing analyte concentrations over recent sampling events
- Monitoring wells that exhibited decreasing analyte concentrations over recent sampling events
- Monitoring wells that had analyte concentrations that previously exceeded State Maximum Exposure Guidelines (MEGs) and Federal Maximum Contaminant Levels (MCLs) and currently do not have exceedances
- Monitoring wells that had analyte concentrations that previously did not exceed State MEGs and Federal MCLs yet currently do exceed the limits.

The September 2005 monitoring event result tables presented in Sections 2.4 and 2.5 below show total VOC and metal results. Monitoring wells are only shown in the tables in this section if an exceedance of a State Maximum Exposure Guideline (MEG) or Federal Maximum Contaminant Level (MCL) occurred during this monitoring event (27) otherwise the data can be reviewed in Appendix B and Appendix C. In the event that a State MEG or Federal MCL was exceeded the analytical trends are depicted as bar-graphs, showing the overall analytical trends over the last

ten monitoring events. The bar graphs are colored in red if an exceedance occurred. The tables in this section provide a summary of the total VOCs, or specific metals concentrations, for selected monitoring wells, leachate seeps, seeps, piezometer, extraction well or the combined influent sample results. A high-low range is also presented for 27 monitoring events and for the earlier monitoring events. For the earlier sampling events, a low-flow sample procedure was used instead of the diffusion sampling procedure, which is now employed at some monitoring well locations. A concentration trend for the analyte of concern is presented as a bar-graph with the ordinate (y-axis) scale in monitoring events (18 through 27), and the abscissa scale (x-axis) in the relative analyte concentration based upon the analyte's historical high-low range. (Note: some analytes were not measured for all monitoring events and a small line (_) serves as a place holder). For each analyte listed in the following trend graphs the corresponding figure in Appendix C is referenced. In addition, the MEG and MCL for each analyte is are listed for each compound or metal.

2.4 Sites 1 and 3 – Volatile Organic Compounds and Metals

2.4.1 Monitoring Wells

The tables below summarize the analytical results for the groundwater samples collected at the groundwater wells at Sites 1 and 3. Laboratory Form I tables are provided in Appendix H. The data summarized in these tables show a comparison to the previous monitoring event in April 2005, the overall concentration trends, and provides a trend graph of chemical data from the last 10 monitoring events. The reported total VOC concentrations and interpreted groundwater contours for wells screened within the deep interval at Sites 1 and 3 are shown on Figure1-5.

Monitoring Well MW-217B

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	5.02 µg/L	1.93 µg/L	Stable, decreasing	1.93 – 587.4	
Vinyl Chloride (0.15, 2)	ND	ND	Decreasing	ND – 100	
Metals					
Aluminum (200, 1,430)	200 U µg/L	100,000 J µg/L	Spike	14.5 – 100,000	
Arsenic (10, –)	10 U µg/L	680 µg/L	Spike	4.2 - 680	
Chromium (100, 100)	10 U µg/L	1,600 µg/L	Spike	3.2 – 1,600	
Lead (15, –)	3 U µg/L	52 µg/L	Spike	1.5 - 52	
Manganese (200, 50)	1,300 µg/L	5,500 µg/L	Stable	1,300 – 18,100	
Nickel (100, 100)	40 U µg/L	1,000 µg/L	Spike	11.3 – 1,000	
Iron (--, 300)	1,700 J µg/L	720,000 J µg/L	Spike	19.6 – 720,000	
Zinc (5,000, –)	40 µg/L	14,000 µg/L	Spike	12 – 14,000	

Monitoring Well MW-217B had been purged dry during Monitoring Events 24 and 25. During this monitoring event the well again ran out of water and needed to be recharged for sampling. These samples had a high turbidity and the sample was "cloudy with particles." Elevated concentrations of metals during these past sampling events are associated, at least in part, with the high turbidity and these results are not a reliable indicator of a trend for increasing metals (Note: Manganese was not sampled for Monitoring Events 17, 18, 20, and 22). Monitoring wells, MW202A, MW-203, and MW-218 are sampled annually in April and MW-204, MW-219, and MW-240 are sampled every two years in April.

2.4.2 Surface Water

Surface water samples, SW-04, SW-07, SW-08, and SW-09, had no detections of VOCs. Using the *Risk-Based Ecological Screening Values for Surface Water, Seep Water, and Sediment* (EA 2006) the four surface water sites above and including SW-15 and SW-16 had detections above the screening values for manganese (all six sites), aluminum at SW-07, and barium at SW-16 (Tables B-7 and B-8). It was noted that the dissolved oxygen level in SW-04 was significantly lower for this monitoring event then the other three surface water sample locations. Past data has shown that the four sites generally have similar dissolved oxygen values during a monitoring event. In this monitoring event SW-07, SW-08, and SW-09 had values averaging 9 mg/L. It should be noted that during Monitoring Event 25, the dissolved oxygen value for SW-07 was about 6 mg/L lower than the other three sample locations. Proper calibration of the probe during monitoring events will be monitored to ensure consistent readings.

2.4.3 Leachate Seeps

The tables below summarize the analytical results for the leachate seep samples collected at Sites 1 and 3 and Eastern Plume. The seep samples are now collected using shallow piezometers. In April 2005 shallow piezometers where installed at each of the Eastern Plume seep sampling locations in order to reduce sample turbidity. Previously, the seep samples were collected as unfiltered grab samples from the ground surface. The piezometers were installed to a shallow depth below the ground surface (2 ft bsg) with a 1 ft screen interval at each of the seep locations. The seep samples are collected from the piezometers using a peristaltic pump and dedicated tubing. The water quality parameters are collected during the sampling using a YSI Water Quality Meter and recorded in the field sampling forms. The data summarized in these tables show a comparison to the previous monitoring event in April 2005, the overall concentration trends, and provides a trend graph of chemical data from the last 10 monitoring events. Laboratory Form I tables are provided in Appendix H. The chemical trend graphs are provided in Appendix C.

Leachate Seep SEEP-01

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	Range (µg/L)	Trend
VOCs*	ND	ND	Stable	ND – 102	
Metals*					
Manganese (120)	150 µg/L	230 µg/L	Stable	118 – 82,500	
Iron (1,000)	1,700 µg/L	1,700 J µg/L	Decreasing	1,700 – 1,460,000	

*Revised Screening Values for Surface Water, Seep Water, and Sediment, Naval Air Station, Brunswick, Maine, January 2006 (EA 20006)

Leachate Seep SEEP-03

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	Range (µg/L)	Trend
VOCs*	22.15 µg/L	2.03 µg/L	Spike	ND – 108	
Metals*					
Aluminum (87)	7,900 µg/L	8,000 µg/L	Increasing	15.4 – 18,100	
Barium (3.9)	200 U µg/L	460 µg/L	Stable	40.2 – 3,490	
Chromium (11)	420 µg/L	30 µg/L	Spike	0.6 - 420	
Iron (1,000)	81,000 µg/L	160,000 J µg/L	Stable	9,210 – 5,150,000	
Lead (0.41)	19 µg/L	50 µg/L	Increasing	0.91 - 150	
Manganese (120)	8,700 µg/L	42,000 µg/L	Stable	1,020 – 189,000	
Pesticides					
Gamma-BHC (Lindane)	0.27 µg/L	0.59 µg/L		ND – 0.59	3rd Sample Point

*Revised Screening Values for Surface Water, Seep Water, and Sediment, Naval Air Station, Brunswick, Maine, January 2006 (EA 20006)

Leachate Seep SEEP-04

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	Range (µg/L)	Trend
VOCs*	3.5 µg/L	0 µg/L	Decreasing	3 – 114.6	
Metals*					
Aluminum (87)	550 J µg/L	50,000 J µg/L	Spike	8.2 – 50,000	
Beryllium (0.66)	5 J µg/L	5 J µg/L	Detection Limit	0.11 - 5	
Chromium (11)	430 µg/L	430 µg/L	Spike	0.57 - 430	
Cobalt (23)	50 U µg/L	390 J µg/L	Spike	2.8 - 390	
Copper (2.36)	25 U µg/L	30 µg/L	Increasing	0.84 - 600	
Iron (1,000)	1,200 µg/L	150,000 µg/L	Stable	1,200 – 6,630,000	
Lead (0.41)	3 U µg/L	39 µg/L	Spike	1.4 - 90	
Manganese (120)	48 µg/L	2,600 µg/L	Stable	48 – 10,600	
Nickel (13.4)	40 U µg/L	790 µg/L	Spike	2.6 - 102	
Vanadium (20)	50 U µg/L	70 µg/L	Increasing	0.36 - 153	

*Revised Screening Values for Surface Water, Seep Water, and Sediment, Naval Air Station, Brunswick, Maine, January 2006 (EA 20006)

Leachate Seep SEEP-05

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	Range (µg/L)	Trend
VOCs*	0 µg/L	0 µg/L	Stable	0 - 137.2	
Metals*					
Iron (1,000)	140,000 J µg/L	23,000 J µg/L	Stable	4,600 – 8,080,000	
Manganese (120)	7,100 µg/L	3,500 µg/L	Stable	875 – 58,100	

*Revised Screening Values for Surface Water, Seep Water, and Sediment, Naval Air Station, Brunswick, Maine, January 2006 (EA 20006)

Leachate Seep SEEP-09

Analyte	April 2005 (ME26)	September 2005 (ME26)	Trend Assessment	Range (µg/L)	Trend
VOCs*	0 µg/L	6.7 µg/L	Stable	ND - 36	
Metals*					
Iron (1,000)	12,000 µg/L	29,000 J µg/L	Stable	755 – 2,560,000	
Manganese (120)	560 µg/L	1,600 µg/L	Stable	100 – 10,400	

*Revised Screening Values for Surface Water, Seep Water, and Sediment, Naval Air Station, Brunswick, Maine, January 2006 (EA 20006)

2.4.4 Leachate Seep Sediment

Values for total VOC and metal concentrations are found in Tables B-14 and B-15.

Leachate Sediment LT-01

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	Range (mg/kg)	Trend
Metals*					
Barium (0.7)	30 mg/kg	12 mg/kg	Stable	12 - 626	

*Revised Screening Values for Surface Water, Seep Water, and Sediment, Naval Air Station, Brunswick, Maine, January 2006 (EA 20006)

Leachate Sediment LT-03

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	Range (mg/kg)	Trend
Metals*					
Aluminum (26,000)	6,300 mg/kg	53,000 J mg/kg	Spike	1,040 – 53,000	
Arsenic (9.8)	16 mg/kg	11 mg/kg	Stable	1.9 – 36.2	
Barium (0.7)	100 mg/kg	130 mg/kg	Stable	18.5 – 572	
Iron (10,000)	78,000 J mg/kg	64,000 J mg/kg	Decreasing	83,000 – 337,000	
Manganese (0.18)	2,900 mg/kg	3,000 mg/kg	Stable	3.7 – 64,000	
Mercury (0.18)	0.48 mg/kg	1.3 mg/kg	Seasonal	0.017 – 1.4	

*Revised Screening Values for Surface Water, Seep Water, and Sediment, Naval Air Station, Brunswick, Maine, January 2006 (EA 20006)

Leachate Sediment LT-04

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	Range (µg/L)	Trend
Metals*					
Arsenic (9.8)	4.8 mg/kg	44 J mg/kg	Stable	2.3 – 89.2	
Barium (0.7)	5.5 mg/kg	51 J mg/kg	Stable	5.5 - 751	
Cobalt (10)	6.2 mg/kg	54 J mg/kg	Stable	1.62 – 62.7	
Iron (10,000)	1,700 mg/kg	26,000 J mg/kg	Stable	1,700 – 56,100	
Lead (35.8)	1.1 mg/kg	130 J mg/kg	Spike	1.1 - 130	
Manganese (0.18)	9.7 mg/kg	3.7 J mg/kg	Stable	3.7 – 39,000	
Mercury (0.18)	0.037 mg/kg	3.7 J mg/kg	Spike	0.037 – 3.6	
Nickel (13.4)	19 mg/kg	170 J mg/kg	Spike	2 – 76.1	
Vanadium (20)	3.8 U mg/kg	64 J mg/kg	Spike	1.2 - 64	

*Revised Screening Values for Surface Water, Seep Water, and Sediment, Naval Air Station, Brunswick, Maine, January 2006 (EA 20006)

Leachate Sediment LT-05

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	Range (µg/L)	Trend
Metals*					
Arsenic (9.8)	190 mg/kg	140 J mg/kg	Stable	3.4 – 4,900	
Barium (0.7)	24 J mg/kg	78 J mg/kg	Stable	10.6 - 171	
Cobalt (10)	32 J mg/kg	63 J mg/kg	Increasing	8.8 - 151	
Iron (10,000)	35,000 J mg/kg	260,000 J mg/kg	Stable	13,200 – 826,000	
Manganese (0.18)	1,000 J mg/kg	2,000 J mg/kg	Stable	120 – 4,560	
Nickel (13.4)	53 J mg/kg	31 J mg/kg	Stable	4.1 – 45.8	

*Revised Screening Values for Surface Water, Seep Water, and Sediment, Naval Air Station, Brunswick, Maine, January 2006 (EA 20006)

Leachate Sediment LT-09

Analyte	April 2005 (ME26)	September 2005 (ME26)	Trend Assessment	Range (µg/L)	Trend
Metals*					
Arsenic (9.8)	7.3 mg/kg	100 J mg/kg	Stable	4 – 1,360	
Barium (0.7)	55 mg/kg	53 J mg/kg	Stable	10.7 – 75.8	
Cobalt (10)	16 mg/kg	64 J mg/kg	Spike	1.7 – 81.7	
Iron (10,000)	19,000 J mg/kg	85,000 J mg/kg	Stable	13,400 – 480,000	
Manganese (0.18)	280 mg/kg	1,300 J mg/kg	Spike	97.1 – 7,270	

*Revised Screening Values for Surface Water, Seep Water, and Sediment, Naval Air Station, Brunswick, Maine, January 2006 (EA 20006)

2.4.5 Sediment

Sediment samples are collected annually. Of the six sediment samples collected (SED-09, SED-15, SED-16, SED-17, SED-18, and SED-19) only barium exceeded the Risk-Based Ecological Screening Values for Surface Water, Seep Water, and Sediment (EA 2006). In additionally SED-17 exceeded manganese for this sampling round. No trending is shown since sampling is taken annually.

2.5 Eastern Plume - Volatile Organic Compounds

2.5.1 Monitoring Wells – Shallow Interval Wells

The tables below summarize the analytical results for the groundwater samples collected at the shallow groundwater wells at the Eastern Plume. Laboratory Form I tables are provided in Appendix H. The data summarized in these tables show a comparison to the previous monitoring event in April 2005, the overall concentration trends, and provides a trend graph of

chemical data from the last 10 monitoring events. The reported total VOC concentrations and interpreted groundwater contours for wells screened within the shallow interval at the Eastern Plume are shown on Figure 1-4. Figure 2-1 provides a map of the VOC concentration in the shallow wells. Of the five shallow monitoring wells only two were sampled and only MW-332 had VOCs detected (Table B-3).

Monitoring Well MW-332

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	182.6 µg/L	40.99 µg/L	Seasonal, stable	2.8 – 296.7	
Trichloroethene (5, 5)	45 J µg/L	8.6 µg/L	Increasing	2 – 65	
1,1-Dichloroethene (7, 7)	15 J µg/L	2.3 µg/L	Spike	0.8 – 19	

2.5.2 Monitoring Wells - Deep

The tables below summarize the analytical results for the groundwater samples collected at the deep groundwater wells at the Eastern Plume. Laboratory Form I tables are provided in Appendix H. The data summarized in these tables show a comparison to the previous monitoring event in April 2005, the overall concentration trends, and provides a trend graph of chemical data from the last 10 monitoring events. The reported total VOC concentrations and interpreted groundwater contours for wells screened within the deep interval at the Eastern Plume are shown on Figure1-5. Figure 2-2 provides a map of the VOC concentration in the deep wells. Of the 18 wells sampled, 7 wells had VOC detects above the regulatory limits.

Monitoring Well MW-205

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	36.64 µg/L	45.1 µg/L	Decreasing	36.31 – 706.1	
Trichloroethene (5, 5)	16 J µg/L	19 J µg/L	Decreasing	16 – 280	
Tetrachloroethene (5, 3)	1.8 J µg/L	3.4 J µg/L	Stable	1.8 - 150	

Monitoring Well MW-311

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
Mid Depth Interval (Not Sampled during Monitoring Events 18 – 21)					
VOCs	120.5 µg/L	117.7 µg/L	Decreasing, Stable	71 – 18,990	
Tetrachloroethene (3, 5)	5.3 J µg/L	4.1 µg/L	Decreasing	4.1 – 200	
Trichloroethene (5, 5)	58 J µg/L	57 µg/L	Increasing	16 – 3,400	
1,1-Dichloroethene (7, 7)	32 J µg/L	32 µg/L	Increasing	16.6 – 1,400	
Deep Depth Interval					
VOCs	75.28 µg/L	38.81 µg/L	Decreasing	38.81 – 18,990	
Tetrachloroethene (3, 5)	5.6 J µg/L	7 µg/L	Decreasing	4 – 200	
Trichloroethene (5, 5)	17 J µg/L	6.7 µg/L	Stable	6.7 – 3,400	
1,1-Dichloroethene (7, 7)	9.4 J µg/L	4.4 µg/L	Stable	4.4 – 1,400	

Monitoring Well MW-319

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	44.12 µg/L	38.94 µg/L	Decreasing, Stable	36.8 – 109.9	
Tetrachloroethene (3, 5)	34 J µg/L	33 µg/L	Decreasing	12 – 59	
Trichloroethene (5, 5)	6.5 J µg/L	4 µg/L	Increasing	5 – 33	

Monitoring Well MW-331

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	869.95 µg/L	740.57 µg/L	Decreasing, Stable	721.7 – 1,540.9	
Tetrachloroethene (3, 5)	7 J µg/L	4 µg/L	Decreasing	4 – 16	
Trichloroethene (5, 5)	180 J µg/L	160 µg/L	Decreasing	82 – 370	
1,1,1-Trichloroethane (200, 200)	360 J µg/L	320 µg/L	Decreasing	260 – 1,000	
1,2-Dichloroethene, total (70, 70)	190 J µg/L	190 µg/L	Decreasing	4 – 350	
1,1-Dichloroethene (7, 7)	75 J µg/L	33 µg/L	Stable	33 – 120	

Monitoring Well MW-333

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	10.05 µg/L	14.67 µg/L	Decreasing	0.9 – 40	
1,1-Dichloroethene (7, 7)	9.4 µg/L	7.4 µg/L	Stable	0.8 – 15	

Monitoring Well MW-NASB-212

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	8.4 µg/L	9.0 µg/L	Decreasing	3 – 46.65	
Trichloroethene (5, 5)	7.1 J µg/L	7.8 µg/L	Decreasing	5.5 – 34	

Piezometer P-106

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	814.88 µg/L	688.39 µg/L	Stable	688.4 – 6,426	
Tetrachloroethene (3, 5)	4.8 J µg/L	5.6 µg/L	Decreasing	4.8 – 22	
Trichloroethene (5, 5)	240 J µg/L	220 J µg/L	Decreasing, Stable	170 – 1,300	
1,1,1-Trichloroethane (200, 200)	450 J µg/L	360 J µg/L	Decreasing, Stable	430 – 4,500	
1,1-Dichloroethene (7, 7)	80 J µg/L	64 J µg/L	Decreasing, Stable	75.4 – 500	

2.5.3 Extraction Wells

The tables below summarize the analytical results for the groundwater samples collected at the the extraction wells located at the Eastern Plume. Laboratory Form I tables are provided in Appendix H. The data summarized in these tables show a comparison to the previous monitoring event in April 2005, the overall concentration trends, and provides a trend graph of chemical data from the last 10 monitoring events. The location of the extraction wells sampled as part of the LTMP are shown on Figure 1-3.

Extraction Well EW-01

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	41.8 µg/L	48.3 µg/L	Decreasing, Stable	41.3 – 189	
Tetrachloroethene (3, 5)	3.2 J µg/L	3.4 J µg/L	Decreasing, Stable	3.1 – 26	
Trichloroethene (5, 5)	18 J µg/L	19 J µg/L	Decreasing, Stable	17.5 – 46	

Extraction Well EW-02A

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	203.58 µg/L	160.49 µg/L	Stable	160.5 – 2,083	
Tetrachloroethene (3, 5)	4.1 J µg/L	7.8 µg/L	Decreasing	4 – 18	
Trichloroethene (5, 5)	48 J µg/L	40 µg/L	Stable	40 – 680	
1,1-Dichloroethene (7, 7)	21 J µg/L	16 µg/L	Stable	16 – 200	

Extraction Well EW-04

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	175.7 µg/L	Not Sampled	Decreasing	174.1 – 1,448	
Trichloroethene (5, 5)	39 J µg/L	Not Sampled	Decreasing	39 – 340	
1,1-Dichloroethene (7, 7)	12 J µg/L	Not Sampled	Decreasing	12 – 56	

Extraction Well EW-05A

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	29.9 µg/L	32.0 µg/L	Decreasing	28 – 195.2	
Trichloroethene (5, 5)	8.6 J µg/L	9.9 µg/L	Decreasing	8.6 – 49	

Eastern Plume Combined Influent

Analyte	April 2005 (ME26)	September 2005 (ME27)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	129.8 µg/L	132.69µg/L	Decreasing	129.8 – 858.8	
Trichloroethene (5, 5)	34 µg/L	35 µg/L	Decreasing	34 – 170	
1,1-Dichloroethene (7, 7)	7.6 µg/L	11 µg/L	Decreasing	7.6 – 52	

2.5.4 Surface Water

Surface samples, SW-10, SW-11, SW-12, SW-13, and SW-14 had no detections of VOCs concentrations above the Risk-Based Ecological Screening Values for Surface Water, Seep Water, and Sediment (EA 2006) (Table B-9).

2.5.5 Leachate Seep

Leachate Seep (SEEP-10) was dry and no sample was collected. Leachate Seep (SEEP-11) had no detections of VOCs concentrations above the Risk-Based Ecological Screening Values for Surface Water, Seep Water, and Sediment (EA 2006) (Table B-13).

2.5.6 Leachate Sediment

The tables below summarize the analytical results for the leachate sediment samples collected at the Eastern Plume. Laboratory Form I tables are provided in Appendix H. The data summarized in these tables show a comparison to the previous monitoring event in April 2005, the overall concentration trends, and provides a trend graph of chemical data from the last 10 monitoring events. The location of the leachate sediment sampled as part of the LTMP are shown on Figure 1-3.

Leachate Sediment SED-11

Analyte	April 2005 (ME26)	September 2005 (ME26)	Trend Assessment	Range (mg/kg)	Trend
Metals*					
Barium (0.7)	33 mg/kg	56 J mg/kg	Stable	33 – 46.9	4th Sample
Iron (10,000)	14,000 mg/kg	43,000 J mg/kg	Spike	14,000 – 43,000	4th Sample
Manganese (0.18)	170 mg/kg	780 J mg/kg	Spike	170 - 874	4th Sample

2.6 Monitored Natural Attenuation Sampling Program

MNA is the use of naturally occurring, contaminant degrading and dispersing processes combined with environmental monitoring to remediate contaminated ground water. Natural

attenuation processes occur in all ground-water systems, but their effectiveness varies considerably from site to site and among different kinds of contaminants. Natural attenuation processes; which include biodegradation, dispersion, dilution, sorption, volatilization, and abiotic degradation, act to decrease concentrations of dissolved petroleum hydrocarbons and chlorinated solvent contaminants as they are transported by flowing ground water. Of all of the natural attenuation processes, biodegradation mechanisms are the most critical to establishing natural attenuation as an appropriate component of a remedial strategy. When rates of contaminant biodegradation are fast relative to the rates of ground-water transport, contaminant migration will be highly restricted and the efficiency of natural attenuation will be relatively high.

Because subsurface conditions that affect biodegradation of chlorinated solvents are well known, it is possible to assess the efficiency of natural attenuation with a high degree of confidence. The efficiency of natural attenuation can be measured by particular hydrologic, geochemical, and biological characteristics of the ground-water system into which the contaminants have been introduced. When microorganisms degrade organic contaminants in the subsurface, they can cause measurable changes in ground-water chemistry. These changes make it possible to assess the efficiency of natural attenuation using standardized hydrologic, geochemical, and biological parameters. Parameters and guidelines which are used to assess the efficiency of natural attenuation at the Naval Air Station Brunswick in are documented in the following documents:

- Technical Protocol for Evaluation of Natural Attenuation of Chlorinated Solvents in Ground Water (U.S. EPA 1998)

- Technical Guidelines for Evaluating Monitored Natural Attenuation of Petroleum Hydrocarbons and Chlorinated Solvents in Ground Water at Naval and Marine Corps Facilities (Parsons Engineering and U.S. Geological Survey 1998); and

- Overview of the Technical Protocol for Natural Attenuation of Chlorinated Aliphatic Hydrocarbons in Ground Water under Development for the U.S. Air Force Center for Environmental Excellence (Wiedemeier et al. 1996).

Dissolved chlorinated volatile organic compounds compose the majority of organic contaminants affecting the ground-water quality at the Eastern Plume. An initial reduction in oxygen concentration by aerobic respiration would eventually create anoxic conditions, a more suitable subsurface environment for the potential degradation of chlorinated hydrocarbons via reductive dechlorination. Once degradation has commenced via reductive dechlorination, reduced daughter products, such as dichloroethene (DCE) and vinyl chloride can be transported along ground-water flow paths to distal plume locations. Because DCE and vinyl chloride are readily metabolized by direct oxidation, these contaminants are typically degraded at downgradient plume locations, where the concentration of dissolved oxygen is elevated relative to proximal plume locations.

Monitored Natural Attenuation parameter sampling was conducted as part of Monitoring Event 27 at selected monitoring located at the Eastern Plume. The results of the monitored natural attenuation sampling are summarized in this section.

2.6.1 Eastern Plume

A subset of monitoring wells at the Eastern Plume was selected and sampled during the September 2005 monitoring event for natural attenuation parameter analysis. One shallow well and 14 deep wells were sampled in order to provide information on the occurrence of natural attenuation within the Eastern Plume in accordance with the MNA technical letter (EA 2004).

The follow groundwater wells were sampled for MNA assessment:

- ***Shallow Well*** – MW-224

- ***Deep Wells*** – MW-313, MW-315A, MW-331, MW-333, MW-334, MW-335, MW-336, MW-337, MW-338A, MW-338B, MW-338C, MW-339, P-111, and P-106.

Between 14 and 22 September 2005, ECC field team sampled the monitoring wells listed above for selected natural attenuation parameters. The samples were sent to Northeast Laboratory Services of Winslow, Maine for the following analysis to determine the efficiency of chlorinated volatile organic compound natural attenuation. Other MNA indicators analyzed included VOC analysis using EPA Method 8260B, which is part of the Long-Term Monitoring sampling at the Eastern Plume, indicates the occurrence of parent compounds and/or daughter products within the Plume.

- Dissolved Gas (methane, ethane and ethene) - Analyzed using RSKSOP – 147/175

- Total Selected Metals (arsenic, iron and manganese) – Digested using SW-846 Method 3010A and analyzed using SW-846 Method 6020.

- General Chemistry - Analyzed for alkalinity (EPA Method 310.1), chloride (EPA Method 325.3), and nitrate (EPA Method 353.2), nitrate plus nitrite (EPA Method 353.2), nitrite (EPA Method 354.1), sulfate (EPA Method 375.4) and Total Organic Carbon (EPA Method 415.1).

- Field Parameters – Collected during the time of sampling at the selected well locations – Included temperature, pH, conductivity, dissolved oxygen, ORP (Eh), turbidity and color. The field forms for the MNA sampling are provided in Appendix E.

Ferrous iron (Fe II) was analyzed in the field using Hach Ferrous Iron Test Kit 1, 10 Phenanthroline Iron Reagent Method. In addition, temperature, pH, conductivity, dissolved oxygen, turbidity and oxidation-reduction potential are recorded using field instrumentation at the time of sampling.

The natural attenuation results for the September 2005 sampling event are summarized in Appendix B-5. A MNA Summary Report (EA 2006) was completed which summarized and evaluated the MNA groundwater data collected to date at the Eastern Plume. The results of the MNA study indicated that the conditions are not conducive for biodegradation and that dechlorination is limited. Therefore, continued sampling for MNA parameters at the Eastern Plume is not recommended to be continued at this time.

To determine the efficacy of biodegradation, a groundwater sample from a well (MW-1104) within the saturated zone of the former western portion of the Eastern Plume was selected as a background comparison to those locations within the Eastern Plume, per the MNA Technical Letter (EA 2004). MW-1104 is close to and downgradient of a major source area (Site 11 Fire Training Pit) for the Eastern Plume. VOCs have not been detected in MW-1104 for several years; however, stakeholders have expressed concern about the potential for residual contamination in fine-grained soil lenses influencing the subsurface environment. For purposes of evaluating biodegradation using the Wiedemeier et al. criteria only, chloride and alkalinity plume levels are compared to corresponding levels obtained from the background MW-1104. All other MNA parameters are primarily evaluated against numerical criteria established by Wiedemeier based upon MNA parameter data observed at research sites.

2.6.2 Natural Attenuation Monitoring Results and Screening Process

In Wiedemeier et al. (1996), a quantitative screening process to determine the biodegradation potential for chlorinated solvents was presented. A weighted score was established for individual groundwater sampling locations for the September 2005 sampling data at the Eastern Plume. The results of the screening evaluation are listed in Table 2-2.

Weighted scores of the screening process indicate that there is evidence of conditions conducive for limited chlorinated VOC biodegradation in 12 monitoring wells and inadequate evidence of biodegradation in 3 monitoring wells sampled for monitored natural attenuation parameters. Sample locations with the higher weighted scores are MW-331 (12), MW-333 (10), MW-337 (10), and MW-313 (12) are along the southern distal end of the mapped Plume, but all of these locations are proximal to natural organic carbon sources (i.e. with Mere Brook and Merriconeag Stream).

The graphical representations of the arsenic and manganese concentrations are shown in comparison to the recorded ORP values in Figures 2-5. The reported concentrations of arsenic range from 0 ppb to 60 ppb, which is above the MCL and MEG of 10 ppb. Manganese concentrations are also elevated in the southern boundary of the Eastern Plume ranging in concentrations between 7 and 1,000 ppb which is above the MEG of 500 ppb. As also determined during the Final Monitored Natural Attenuation Assessment of the Eastern Plume, Naval Air Station Brunswick, Maine, dated October 2006 (ECC/EA 2006), the groundwater environment is slightly reducing in this portion of the southern boundary of the Eastern Plume. Reducing conditions (as shown by the low Redox Potential values dropping below 0 mV) increase the availability of manganese and arsenic in solution. The reported arsenic and manganese concentrations shown in Figure 2-5 were collected as part of the monitored natural

attenuation study conducted at the Eastern Plume for Monitoring Events 23 through 26 (i.e., for the Fall 2003 through Spring 2005monitoring events) and is summarized in the MNA Summary Report ECC/EA 2006. The Navy is in the process of conducting a background study which will address metal concentrations in groundwater which can be used to further evaluate the metal concentration reported in the Eastern Plume.

Weighted scores for groundwater locations assessed were isocontoured to evaluate spatial trends and possible correlations with other findings that favorably indicated the potential for chlorinated VOC reductive dechlorination (Figures 2-3 and 2-4). Isocontoured natural attenuation scores, reflecting the adequacy of evidence for chlorinated VOC degradation, are illustrated on Figure 2-6.

2.6.3 Natural Attenuation Monitoring Summary and Conclusion

During Monitoring Event 27, four monitoring wells MW-331, MW-333, MW-337, and, MW-313 identified in the quantitative screening possess the most favorable conditions to complete reductive dechlorination (although presently this accepted alternative lacks supporting evidence at the Eastern Plume). These four wells had the properties favorable for natural attenuation (limited methane production, depleted oxygen, low levels of competing electron acceptors, and low Eh); however, no complete reductive dechlorination or intermediate PCE/TCE daughter products (vinyl chloride or ethene) nor 1,1,1-TCA daughter products or intermediates (chloroethane or ethane) were detected. Only primary stage daughter products consisting of 1,1-DCA and 1,1-DCE were detected along the southern leading edge of the plume. The absence of ethene and ethane may be due to complete conversion to methane in these regions. At the distal region of the plume the incident VOCs concentrations are relatively low compared to upgradient concentrations and any intermediate daughter products concentrations may be transient and below detection limits. Alternatively, methane detections may not be closely associated with centers of methanogenesis due to groundwater migration or forced advection due to extraction well influences.

Reductive dechlorination of chlorinated ethenes and chlorinated ethanes in the plume interior near monitoring well MW-331 and piezometer P-106 appears to be stopping at intermediate daughter products 1,2-DCE and 1,1-DCA respectively; as vinyl chloride, chloroethane, ethene, and ethane were not detected. Further, in these regions there are no carbon substrate sources (i.e. anthropogenic BTEX or significant natural organic carbon detected) to achieve methanogenesis conditions. Vinyl chloride and 1,2-DCE oxidation is possible under aerobic or iron(II) reducing conditions, but the iron(II) levels and dissolved oxygen levels per the Wiedemeier MNA scoring table do not indicate the likelihood of conditions conducive to oxidation. Therefore, the MNA parameter monitoring at the Eastern Plume indicates that the overall conditions are not conducive to promote reductive dechlorination processes and the monitoring has concluded is not considered an effective means for achieving the site's remedial goals at this time.

3.0 LONG-TERM MONITORING CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis of the data collected at Sites 1 and 3 and Eastern Plume as part of the Long-Term Monitoring Program, the following general conclusions and recommendations are provided:

3.1 Conclusions and Recommendations

- **Conclusion** – Concentration trends from monitoring wells located within the body of the Eastern Plume appear to be relatively stable, suggesting limited migration of the inferred plume area above the MCLs (Figures 1-4 and 1-5). These concentrations have remained relatively stable compared to the Monitoring Event 24 inferred plume area.

  Recommendation – One extraction well location has been agreed to and the groundwater model will determine a second extraction well's location. Previous extraction well installations (EW-5A and EW-2A) have resulted in improved VOC removal at hot-spot locations and a similar approach is recommended to remediate areas of elevated VOCs. Additional groundwater and geology data should be collected prior to installation of new extraction wells to optimize locations and to maximize the efficiency of the new wells. Once the new extraction well is installed in the Eastern Plume the effectiveness of the new system can be re-evaluated as well as optimizing the screen interval of the existing wells. Although exact locations have not been determined, areas around P-106 and MW-331 should be considered, as these locations have the highest concentrations of VOCs in the Eastern Plume.

- **Conclusion** – Data collected for natural attenuation parameters indicate that a few localities within the deep zone of the Eastern Plume associated with natural organic carbon appear to have conditions which are favorable for complete reductive dechlorination.

  Recommendation – This limited fourth round of MNA data concurs with the results of the previous MNA sampling event, that the southern region of the plume has the greatest potential for biodegradation of chlorinated VOCs. Monitoring for MNA parameters at locations outside of the southern region and in select southern monitoring wells continue to show limited potential for biodegradation.

  An accepted line of evidence to prove biodegradation is microbial characterization. As the current and past MNA sample data have not shown clear-cut definitive proof of biodegradation, the Navy recommends deploying Bio-Trap™ samplers during the next monitoring event. Bio-Trap™ microbial characterization data will determine the quantity or the absence of microbes known to biodegrade chlorinated ethanes and chlorinated ethenes. This recommendation for the initial Bio-Trap™ study was executed by ECC in April 2005 (ECC and EA 2006) and the results of the Bio-Trap™ investigation were provided as part of the MNA Summary Report (EA 2006).

- **Conclusion** – Three years ago data suggested that the Eastern Plume was slowly migrating to the south into the vicinity of New Gurnet Road. Surface water sample SW-12 noted that the first (and only) TCE for the first time in May 2003, which coincided with increase total VOC concentrations at nearby well MW-313. However; no VOCs were detected at SW-12 during the April 2005 or September 2005 monitoring events. An EPA investigation in 2000 did not indicate that chlorinated VOCs were present at this location. This location appears to be only recently affected by chlorinated VOCs in deep groundwater, although data from Monitoring Event 23, 24, 25, 26, and 27 did not show continued surface water impacts. ECC performed a one-time collection of three additional surface water samples downstream of SW-12 to assess surface water quality at increasing distances from upstream and downstream of MW-313/SW-12 along Mere Brook of the Eastern Plume. No chlorinated VOCs were detected in these three additional surface water samples. The table below indicates every detection at SW-12 since sampling begun in 1998.

Station Name	Samp.Date	Parameter	Value	Validation Code	Units
SW-012	15-Nov-98	Ethylbenzene	0.9	J	ug/l
SW-012	15-Nov-98	Tetrachloroethene	0.6	J	ug/l
SW-012	15-Nov-98	Xylenes, Total	5		ug/l
SW-012	17-Apr-00	Acetone	3	J	ug/l
SW-012	04-May-01	Methyl ethyl ketone	3	J	ug/l
SW-012	11-Apr-02	Methyl ethyl ketone	12		ug/l
SW-012	08-May-03	Trichloroethene	4		ug/l
SW-012	10-Apr-04	Acetone	10.8		ug/l
SW-012	10-Sep-04	Acetone	12.2		ug/l
SW-012	05-Apr-05	1,1,2,2-Tetrachloroethane	1	R	ug/l
SW-012	05-Apr-05	Acetone	37	J	ug/l
SW-012	05-Apr-05	Bromoform	1	R	ug/l
SW-012	16-Sep-05	Acetone	19	J	ug/l
SW-012	21-Apr-06	1,1,2,2-Tetrachloroethane	1	R	ug/l
SW-012	21-Apr-06	Acetone	2.2	J	ug/l

Recommendation – Perform a pore water sampling event at Mere Brook to quantify VOC concentrations near SW-12. ECC, in conjunction with the MEDEP and EPA, will develop a letter work plan outlining this sampling and the sampling will take place during Monitoring Event 27 (September 2005). This work plan will outline pore water sampling along Mere Brook forming the eastern boundary of NAS Brunswick to determine if VOCs are present in the stream from the upwelling groundwater plume (subsequent pore water sampling has determined that VOCs are present in the streams). The Navy will conduct a follow-up investigation to determine the nature and extent of the contamination. This work is tentatively scheduled for Spring 2007.

- **Conclusion** – Sample results from groundwater, surface water, and leachate at Sites 1 and 3 generally show stable or decreasing trends for VOCs and inorganics. No increases are noted at sampling points which would indicate additional groundwater or surface water is infiltrating the low-permeable cap or slurry wall. Based on the limited data collected during this monitoring event, the remedial measures completed at Sites 1 and 3 appear to be effective although incomplete sampling prevents a complete conclusion. In addition, inorganic concentrations in seeps and groundwater downgradient of the landfill remain elevated.

  Recommendation – Continue monitoring media at Sites 1 and 3 as specified in the LTMP. Consider discussing possible reduction of sampling frequency or sample points for surface water and leachate stations during future long-term monitoring optimization. Based on discussions with EPA and MEDEP, the Navy installed shallow point piezometers in the immediate vicinity of the leachate seeps at Sites 1 & 3 in April 2005. The shallow piezometers will allow a more representative assessment of leachate conditions by reducing the oxidized suspended solids present in the leachate seeps.

Based on the data collected during the LTMP, the following conclusions and recommendations are provided for the Navy's consideration:

- **Conclusion** – The extraction well network appears to have nearly complete effectiveness at maintaining hydraulic control of the Eastern Plume and has been effective at reducing VOC concentrations specific areas of the Plume although there is evidence of plume migration into the area south of the Mere Brook confluence.

  Recommendation – In order to achieve a totally effective treatment system, consideration should be given to modifying the remedial approach for the Eastern Plume to include hot spot removal, with an emphasis on natural attenuation for lower concentration areas such as the plume margins. Pump-and-treat activities have been useful for reducing hot spots of VOCs, and the use of the existing pump-and-treat system is effective for removal of VOC mass. Specifically, consideration should be given to increasing pumping effectiveness at areas with relatively high VOC concentrations (i.e., MW-331 and P-106). Also, consideration should be given to reducing pumping where concentrations are lower, and installing new extraction wells (as discussed above).

  Secondly, it is recommended that the results of the groundwater model for the Eastern Plume and the Mere Brook Investigation be used to further define the hydraulic conditions and contaminant migration in specific areas where the Plume may be discharging to surface water.

- **Conclusion –** Extraction Well 1 (EW-1) is screened from the shallow to the lower aquifer region, and located between monitoring wells MW-229B and MW-105B. The MNA parameter data from these two monitoring wells suggests that EW-1 generated flow may be inducing aerobic conditions in the locale of EW-1. This suggests that EW-1 is

drawing in shallow waters, which at MW-229B and MW-105B have been non-detect for VOCs.

Recommendation – Consider re-installation of EW-1 with screens in the lower aquifer.

- **Conclusion –** The MNA background monitoring well (MW-1104) is a shallow monitoring well that may be compromised by the waters from the infiltration gallery. The MNA parameters collected from this location (depressed dissolved oxygen and elevated methane) suggests that this is not an appropriate monitored natural attenuation background location.

  Recommendation – Consider installation of a temporary background monitoring well or re-development of an upgradient monitoring well to replace MW-1104.

3.2 Long-Term Monitoring Objectives

The following describes some of the uses for the data collected during the Long-Term Monitoring Program, specified in the LTMP, and provide conclusions on the degree of success in achieving these objectives:

- ***LTMP Goal*** *– Assess the ambient water quality conditions (groundwater and surface water) by collecting samples to monitor trends and assess effectiveness of remedial actions.*

  Sufficient data are being collected to assess contaminant trends in surface water and groundwater at Sites 1 and 3 and Eastern Plume. Areas where additional data collection should be considered include the area near SW-12 that may not be adequately monitored at this time.

- ***LTMP Goal*** *– Evaluate the effectiveness of the groundwater extraction system by assessing trends in the concentration of VOCs in groundwater within the boundaries of the Eastern Plume, and provide recommendations to improve system effectiveness.*

  The effectiveness of the groundwater extraction system can be evaluated with the data currently being collected under the Long-Term Monitoring Program.

- ***LTMP Goal*** *– Evaluate the effectiveness of the landfill cap and slurry wall by evaluating trends in VOCs and Target Analyte List metals in surface water, groundwater, sediment, and leachate station seep samples within and adjacent to Sites 1 and 3.*

  The effectiveness of the landfill cap and slurry wall can be evaluated with the data currently being collected under the Long-Term Monitoring Program.

- ***LTMP Goal*** *– Analyze the effective capture zone of the groundwater extraction system at Sites 1 and 3 and Eastern Plume to determine the degree of hydraulic control achieved through remedial pumping.*

The effective capture zone of the groundwater extraction system and the degree of hydraulic control can be assessed by data currently being collected. Recommendations for system improvements are provided in Section 3.1.

4.0 REFERENCES

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TABLES

TABLE 1-1
SUMMARY OF LONG-TERM MONITORING PROGRAM AT SITES 1 AND 3

Sample Type/Location	Monitoring Frequency	Slurry Wall	Sample Parameters			Monitoring Event 27	
			TCL VOC	TAL Elements	Field Parameters[a]	Gauged	Sampled
Shallow Monitoring Wells							
MW-201R	Bi-Annual	Outside	NR	NR	NR	X	NR
MW-202A	Annual[b]	Outside	NR	NR	NR	NR	NR
MW-203	Annual[b]	Outside	NR	NR	NR	NR	NR
MW-204	Annual[c]	Outside	NR	NR	NR	NR	NR
MW-210B	Bi-Annual	Outside	NR	NR	NR	X	NR
MW-211B	Bi-Annual	Inside	NR	NR	NR	X	NR
MW-215R	Bi-Annual	Inside	NR	NR	NR	X	NR
MW-217B	Bi-Annual	Inside	X[d]	X	X	X	X
MW-234R	Bi-Annual	Inside	NR	NR	NR	X	NR
MW-240	Annual[c]	Outside	NR	NR	NR	NR	NR
MW-2101	Annual[c]	Outside	NR	NR	NR	NR	NR
Deep Monitoring Wells							
MW-216A	Bi-Annual	Inside	NR	NR	NR	X	NR
MW-217A	Bi-Annual	Inside	NR	NR	NR	X	NR
MW-218	Annual[b]	Outside	NR	NR	NR	NR	NR
MW-219	Annual[c]	Outside	NR	NR	NR	NR	NR
MW-220	Bi-Annual	Outside	NR	NR	NR	X	NR
MW-232A	Bi-Annual	Inside	NR	NR	NR	X	NR
MW-233R	Bi-Annual	Inside	NR	NR	NR	X	NR
Bedrock Wells							
MW-210A	Bi-Annual	Outside	NR	NR	NR	X	NR
MW-210R	Bi-Annual	Inside	NR	NR	NR	X	NR
MW-211A	Bi-Annual	Inside	NR	NR	NR	X	NR
Extraction Wells							
EW-06	Bi-Annual	Inside	NR	NR	NR	X	NR
EW-07	Bi-Annual	Inside	NR	NR	NR	X	NR
Shallow EP-Series Piezometers							
EP-16	Bi-Annual	Inside	NR	NR	NR	X	NR
EP-17	Bi-Annual	Inside	NR	NR	NR	X	NR
EP-18	Bi-Annual	Inside	NR	NR	NR	X	NR
EP-19	Bi-Annual	Inside	NR	NR	NR	X	NR
EP-20	Bi-Annual	Inside	NR	NR	NR	X	NR

Sampling Note: According to the February 2000 Long-Term Monitoring Plan the following Monitoring Wells were required to be sampled: MW-202A, MW-203, MW-204, MW-217B, MW-240, MW-2101, MW-218, and MW-219. The optimization plan that was followed for this sampling only sampled MW-217B.

TABLE 1-1 (continued)
SUMMARY OF LONG-TERM MONITORING PROGRAM AT SITES 1 AND 3

Sample Type/Location	Monitoring Frequency	Sample Parameters			Monitoring Event 27	
		TCL VOC	TAL Elements	Field Parameters[a]	Gauged	Sampled
Leachate Station Seep						
SEEP-1	Bi-Annual	X	X	X	NR	X[e]
SEEP-3	Bi-Annual	X	X	X	NR	X[e]
SEEP-4	Bi-Annual	X	X	X	NR	X[e]
SEEP-5	Bi-Annual	X	X	X	NR	X[e]
SEEP-9	Bi-Annual	X	X	X	NR	X
Leachate Station Sediment						
LT-1	Bi-Annual	X	X	NR	NR	X
LT-3	Bi-Annual	X	X	NR	NR	X
LT-4	Bi-Annual	X	X	NR	NR	X
LT-5	Bi-Annual	X	X	NR	NR	X
LT-9	Bi-Annual	X	X	NR	NR	X
Surface Water						
SW-4	Bi-Annual	X	X	X	NR	X
SW-7	Bi-Annual	X	X	X	NR	X
SW-8	Bi-Annual	X	X	X	NR	X
SW-9	Bi-Annual	X	X	X	NR	X
SW-15	Annual[f]	X	X	X	X	X
SW-16	Annual[f]	X	X	X	X	X
Sediment						
SED-9	Annual[f]	NR	NR	NR	NR	X
SED-15	Annual[f]	NR	NR	NR	NR	NR
SED-16	Annual[f]	NR	NR	NR	NR	X
SED-17	Annual[f]	NR	NR	NR	NR	X
SED-18	Annual[f]	NR	NR	NR	NR	X
SED-19	Annual[f]	NR	NR	NR	NR	X

(a) Determination of field parameters in accordance with U.S. Environmental Protection Agency 600/4-79/020 using the following methods: pH (Method 150.1), temperature (Method 170.1), specific conductance (Method 120.1), and turbidity (Method 180.1). Optional field parameters, including dissolved oxygen (Method 360.1) and Eh, were also recorded. The field parameters also include observation and recording of the water level measurement.
(b) Annual sampling is performed in April (LTMP revision August 2006).
(c) Sampling every two years in April (LTMP revision August 2006).
(d) Groundwater sample collected by low-flow and diffusion sampler method.
(e) Samples were analyzed for pesticides by EPA Method 8081A, grain size and total organic carbon by Lloyd Kahn.
(f) Annual samples collected in September.

NOTE: TCL = Target Compound List.
VOC = volatile organic compound (U.S. Environmental Protection Agency SW-846).
TAL = Target Analyte List.
NR = not required.

TABLE 1-2
SUMMARY OF LONG-TERM MONITORING PROGRAM AT EASTERN PLUME

Sample Type/Location	Monitoring Frequency	Well Location	Sample Parameters		Monitoring Event 27	
			TCL VOC	Field Parameters[a]	Gauged	Sampled
Shallow Monitoring Wells						
MW-105B	Bi-Annual	Perimeter	NR	NR	X	NR
MW-106	Bi-Annual	NA	NR	NR	X	NR
MW-206B	Bi-Annual	NA	NR	NR	X	NR
MW-207B	Bi-Annual	NA	NR	NR	X	NR
MW-209	Bi-Annual	NA	NR	NR	X	NR
MW-222	Bi-Annual	NA	NR	NR	X	NR
MW-223	Bi-Annual	NA	NR	NR	X	NR
MW-224	Bi-Annual	Perimeter	X[b]	X	X	X
MW-225B	Bi-Annual	NA	NR	NR	X	NR
MW-229B	Bi-Annual	NA	NR	NR	X	NR
MW-231B	Annual[c]	Sentinel	NR	NR	NR	NR
MW-307	Bi-Annual	NA	NR	NR	X	NR
MW-318	Annual[c]	Sentinel	NR	NR	NR	NR
MW-332	Bi-Annual	Interior Plume	X[b]	X	X	X
MW-1104	Annual[c]	Perimeter	NR	NR	NR	NR
Deep Monitoring Wells						
MW-105A	Annual[c]	Perimeter	NR	NR	NR	NR
MW-205	Bi-Annual	Interior Plume	X[c]	NR	X	NR
MW-206A	Bi-Annual	NA	NR	NR	X	NR
MW-207A	Bi-Annual	Interior Plume	Destroyed and replaced with MW-207AR			
MW-207AR(M,D)	Annual[d]	Interior Plume	NR	NR	NR	NR
MW-208	Bi-Annual	NA	NR	NR	X	NR
MW-225A	Annual[d]	Interior Plume	NR	NR	NR	NR
MW-229A	Annual[d]	Interior Plume	NR	NR	NR	NR
MW-230A	Bi-Annual	Sentinel	X[b]	X	X	X
MW-230B	Bi-Annual	Sentinel	NR	NR	X	NR
MW-231A	Annual[d]	Sentinel	NR	NR	NR	NR
MW-303	Annual[d]	Sentinel	NR	NR	NR	NR
MW-306	Annual[d]	Perimeter	NR	NR	NR	NR
MW-310	Bi-Annual	NA	NR	NR	X	NR
MW-311(M,D)	Bi-Annual	Interior Plume	X[b]	X	X	X
MW-312	Bi-Annual	NA	NR	NR	X	NR

Sampling Note: According to the February 2000 Long-Term Monitoring Plan the following Monitoring Wells were required to be sampled and were not sampled because the optimization plan was used: MW-105A, MW-207AR, MW-225A, MW-229A, MW-231B, MW-303, MW-305, MW-306, MW-308, MW-309B, MW-318, MW-323, MW-330, MW-1104, P-132, and EW-04.

(a) Determination of field parameters in accordance with U.S. Environmental Protection Agency 600/4-79/020 using the following methods: pH (Method 150.1), temperature (Method 170.1), specific conductance (Method 120.1), and turbidity (Method 180.1). Optional field parameters, including dissolved oxygen (Method 360.1) and Eh, were also recorded. The field parameters also include observation and recording of the water level measurement.

(b) The groundwater sample was collected utilizing the diffusion sampler method.

(c) Sampling every two years in April (LTMP revision August 2006).

(d) Annual sampling is performed in April (LTMP revision August 2006).

(c) The groundwater sample was collected utilizing the low-flow sampling method.

NOTE:
- TCL = Target Compound List.
- VOC = Volatile organic compound.
- NR = Sampling is not required as per the draft final Long-Term Monitoring Plan (EA 2000a).
- NA = Not applicable. Well is not sampled, therefore, location is not indicated.
- Perimeter = Located at the edge of the plume to monitor concentrations of plume boundary.
- Sentinel = Outside area of known contamination to be used to warn of plume migration.
- Interior Plume = Within area of known contamination to monitor plume migration.

TABLE 1-2 (continued)
SUMMARY OF LONG-TERM MONITORING PROGRAM AT EASTERN PLUME

Sample Type/Location	Monitoring Frequency	Well Location	Sample Parameters		Monitoring Event 27	
			TCL VOC	Field Parameters[a]	Gauged	Sampled
Deep Monitoring Wells (continued)						
MW-313	Bi-Annual	Sentinel	X[b]	X	X	X
MW-315A	Bi-Annual	Sentinel	X[b]	X	X	X
MW-319	Bi-Annual	Interior Plume	X[b]	X	X	X
MW-330	Annual[c]	Perimeter	NR	NR	NR	NR
MW-331	Bi-Annual	Interior Plume	X[b]	X	X	X
MW-333	Bi-Annual	Interior Plume	X[b]	X	X	X
MW-334	Bi-Annual	Sentinel	X[b]	X	X	X
MW-335	Bi-Annual	Sentinel	X[b]	X	X	X
MW-336	Bi-Annual	Sentinel	X[b]	X	X	X
MW-337	Bi-Annual	Sentinel	X[b]	X	X	X
MW-338A	Bi-Annua	Sentinel	X[b]	X	X	X
MW-338B	Bi-Annual	Sentinel	X[b]	X	X	X
MW-338C	Bi-Annual	Sentinel	X[b]	X	X	X
MW-339	Bi-Annual	Sentinel	X[b]	X	X	X
MW-NASB-212	Bi-Annual	Perimeter	X[b]	X	X	X
Bedrock Monitoring Wells						
MW-308	Annual[d]	Sentinel	NR	NR	NR	NR
MW-309A	Bi-Annual	NA	NR	NR	X	NR
MW-309B	Annual[d]	Sentinel	NR	NR	NR	NR
MW-316A	Bi-Annual	NA	NR	NR	X	NR
MW-316B	Bi-Annual	NA	NR	NR	X	NR
MW-317A	Bi-Annual	NA	NR	NR	X	NR
MW-317B	Bi-Annual	NA	NR	NR	X	NR
MW-323	Annual[c]	NA	NR	NR	NR	NR
Shallow P-Series Piezometers						
P-103	Bi-Annual	NA	NR	NR	X	NR
P-111	Bi-Annual	Perimeter	X[c]	X	X	X
P-121	Bi-Annual	NA	NR	NR	X	NR
P-132	Annual[c]	Sentinel	NR	NR	NR	NR
Deep P-Series Piezometers						
PZ-1	Bi-Annual	NA	NR	NR	X	NR
PZ-2	Bi-Annual	NA	NR	NR	X	NR
PZ-6	Bi-Annual	NA	NR	NR	X	NR
PZ-11	Bi-Annual	NA	NR	NR	X	NR
P-105	Bi-Annual	NA	NR	NR	X	NR
P-106	Bi-Annual	Interior Plume	X[c]	X	X	X
P-123	Bi-Annual	NA	NR	NR	X	NR
Extraction Wells						
EW-01	Bi-Annual	Interior Plume	X	X	X	X
EW-02A	Bi-Annual	Interior Plume	X	X	X	X
EW-04	Bi-Annual	Interior Plume	X	X	NS	NS
EW-05A	Bi-Annual	Interior Plume	X	X	X	X
Deep EP-Series Piezometers						
EP-01	Bi-Annual	NA	NR	NR	X	NR
EP-02	Bi-Annual	NA	NR	NR	X	NR
EP-03	Bi-Annual	NA	NR	NR	X	NR
EP-04	Bi-Annual	NA	NR	NR	X	NR
EP-05	Bi-Annual	NA	NR	NR	X	NR
EP-06	Bi-Annual	NA	NR	NR	X	NR
EP-07	Bi-Annual	NA	NR	NR	X	NR

TABLE 1-2 (continued)
SUMMARY OF LONG-TERM MONITORING PROGRAM AT EASTERN PLUME

Sample Type/Location	Monitoring Frequency	Well Location	Sample Parameters		Monitoring Event 27	
			TCL VOC	Field Parameters[a]	Gauged	Sampled
Deep EP-Series Piezometers (continued)						
EP-09	Bi-Annual	NA	NR	NR	X	NR
EP-10	Bi-Annual	NA	NR	NR	X	NR
EP-11	Bi-Annual	NA	NR	NR	X	NR
EP-12	Bi-Annual	NA	NR	NR	X	NR
EP-13	Bi-Annual	NA	NR	NR	X	NR
EP-14	Bi-Annual	NA	NR	NR	X	NR
EP-15	Bi-Annual	NA	NR	NR	X	NR
Surface Water						
SW-10	Bi-Annual	NA	X	X	NR	X
SW-11	Bi-Annual	NA	X	X	NR	X
SW-12	Bi-Annual	NA	X	X	NR	X
SW-13	Bi-Annual	NA	X	X	NR	X
SW-14	Bi-Annual	NA	X	X	NR	X
GP-1A	Bi-Annual	NA	NR	NR	X	NR
GP-2A	Bi-Annual	NA	NR	NR	X	NR
GP-3B	Bi-Annual	NA	NR	NR	X	NR
GP-4A	Bi-Annual	NA	NR	NR	X	NR
GP-5B	Bi-Annual	NA	NR	NR	X	NR
GP-6A	Bi-Annual	NA	No Reading – Gauge Stick Fell Over			
Seep						
SEEP-10	Bi-Annual	NA	X	X	NR	NS - Dry
SEEP-11	Bi-Annual	NA	X	X	NR	X
Sediment						
SED-11	Bi-Annual	NA	X[d]	NR	NR	X
Other						
TPE	Bi-Annual	NA	X[d]	NR	NR	X
Raw Influent	Bi-Annual	NA	X[d]	NR	NR	X

(d) Sediment samples to be analyzed for Target Analyte List elements, organochlorine pesticides by U.S. Environmental Protection Agency Method 8081, total organic carbon, and grain size.

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TABLE 1-3
MONITORING WELL GAUGING SUMMARY FOR SEPTEMBER 2005
AT SITES 1 AND 3

Well Designation	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of well riser)	Slurry Wall	Depth to Water (ft below top of well riser)	Groundwater Elevation (ft MSL)
Shallow Monitoring Wells					
MW-201R	58.88	49.68	Outside	12.64	46.24
MW-202A	52.40	31.09	Outside	22.69	29.71
MW-203	52.75	42.04	Outside	31.06	21.69
MW-204	50.50	37.18	Outside	29.48	21.02
MW-210B	54.72	40.85	Outside	27.92	26.80
MW-211B	65.44	35.87	Inside	33.92	31.52
MW-215R	62.26	59.00	Inside	31.61	30.65
MW-217B	61.25	32.90	Inside	29.88	31.37
MW-234R	68.55	59.10	Inside	37.65	30.90
MW-240	52.21	42.60	Outside	30.30	21.91
MW-2101	61.05	30.00	Outside	11.95	49.10
Deep Monitoring Wells					
MW-216A	71.17	47.75	Inside	39.65	31.53
MW-217A	61.78	10.39	Inside	31.39	30.39
MW-218	54.16	53.54	Outside	33.71	16.92
MW-219	51.87	71.82	Outside	29.42	22.45
MW-220	47.20	51.43	Outside	25.05	22.15
MW-232A	71.18	34.78	Inside	30.05	41.13
MW-233R	63.94	38.72	Inside	33.08	30.86
Bedrock Monitoring Wells					
MW-210A	52.17	106.32	Outside	17.47	34.70
MW-210R	55.90	112.35	Inside	20.41	35.49
MW-211A	65.59	142.76	Inside	24.50	41.09
Extraction Wells					
EW-06	57.74	59.93	Inside	23.07	34.67
EW-07	51.13	48.90	Inside	24.53	26.60
Shallow EP Series Piezometers					
EP-16	58.92	59.52	Inside	31.91	27.01
EP-17	69.73	42.70	Inside	38.37	31.36
EP-18	68.58	38.93	Inside	37.24	31.34
EP-19	68.22	46.59	Inside	37.11	31.11
EP-20	69.55	47.25	Inside	38.21	31.34

NOTE: MSL = Mean sea level.

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TABLE 1-4
MONITORING WELL GAUGING SUMMARY FOR SEPTEMBER 2005
EASTERN PLUME

Well Designation	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of well riser)	Depth to Water (ft below top of well riser)	Groundwater Elevation (ft MSL)
Shallow Monitoring Wells				
MW-105B	24.55	21.91	8.66	15.89
MW-106	51.26	37.27	19.25	32.01
MW-206B	42.77	27.17	16.90	25.87
MW-207B	22.90	9.21	7.39	15.51
MW-209	54.84	32.38	21.76	33.08
MW-222	57.43	45.34	23.42	34.01
MW-223	53.71	42.61	21.14	32.57
MW-224	57.63	46.01	22.60	35.03
MW-225B	46.25	42.00	17.50	28.75
MW-229B	30.08	33.14	15.62	14.46
MW-231B	46.31	37.99	23.72	22.59
MW-307	62.70	22.21	15.51	47.19
MW-318	24.28	25.14	6.68	17.60
MW-332	25.33	21.03	4.37	20.96
MW-1104	60.09	27.55	8.92	51.17
Deep Monitoring Wells				
MW-105A	24.19	47.75	0.68	23.51
MW-205	45.99	79.00	22.22	23.77
MW-206A	43.02	74.36	16.43	26.59
MW-207A	Destroyed and replaced with MW-207AR			
MW-207AR(a)	23.42	(a)	Artesian well	Artesian well
MW-208	49.40	102.80	17.14	32.56
MW-225A	45.95	76.03	15.94	30.01
MW-229A	33.83	64.97	11.99	21.84
MW-230A	36.32	81.49	13.85	22.47
MW-231A	45.41	61.19	19.78	25.63
MW-303	44.28	72.75	11.51	32.77
MW-305	43.09	53.51	13.29	29.80
MW-306	52.12	56.98	14.90	37.22
MW-310	53.39	73.25	25.40	27.99
MW-311	21.48	56.25	3.53	17.95
MW-312	35.97	71.15	11.50	24.47
MW-313	21.39	37.47	8.58	12.81
MW-315A	22.86	64.50	1.22	21.64
MW-319	40.16	72.60	9.48	30.68
MW-330B	35.71	36.36	3.67	32.04
MW-331	30.54	56.23	(b)	(b)
MW-333	27.25	42.85	10.13	17.12
MW-334	30.93	47.80	10.20	20.73
MW-335	40.91	86.00	Not Gauged	--

(a) MW-207AR was completed in 2002 and has not been sounded for total depth.
(b) MW-331 has an obstruction approximately one foot into the well due possibly from frost damage
NOTE: MSL = Mean sea level.

TABLE 1-4 (continued)
MONITORING WELL GAUGING SUMMARY FOR SEPTEMBER 2005
EASTERN PLUME

Well Designation	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of well riser)	Depth to Water (ft below top of well riser)	Groundwater Elevation (ft MSL)
Deep Monitoring Wells (continued)				
MW-336	29.62	26.00	11.76	17.86
MW-337	37.19	85.00	14.63	22.56
MW-338A	21.37	91.00	0.65	20.72
MW-338B	21.48	70.00	1.17	20.31
MW-338C	21.65	52.00	2.94	18.71
MW-339	22.54	72.00	2.25	20.29
MW-NASB-212	41.64	64.29	8.33	33.31
Bedrock Monitoring Wells				
MW-308	37.70	73.25	3.56	34.14
MW-309A	22.84	72.71	Artesian well	Artesian well
MW-309B	22.32	59.25	Artesian well	Artesian well
MW-316A	53.71	103.10	22.18	31.53
MW-316B	54.40	57.85	12.96	41.44
MW-317A	71.35	120.79	15.97	55.38
MW-317B	70.10	96.95	14.72	55.38
MW-323	55.90	39.00	14.26	41.64
Shallow P-Series Piezometers				
P-103	60.35	28.75	21.19	39.16
P-111	31.48	9.98	6.07	25.41
P-121	50.78	17.35	15.67	35.11
P-132	42.95	32.46	18.48	24.47
Deep P-Series Piezometers				
PZ-1	47.88	58.00	24.26	23.62
PZ-2	39.66	55.50	18.10	21.56
PZ-6	33.14	55.60	13.73	19.41
PZ-11	53.66	41.10	23.00	30.66
P-105	42.08	70.35	7.20	35.48
P-106	38.83	72.40	7.15	31.68
P-123	Ice Damage to PVC Riser, Cannot Gauge			
Extraction Wells				
EW-01	25.34	99.66	7.56	17.78
EW-02A	22.27	66.00	37.46	-15.19
EW-04	37.13	69.37	13.12	24.01
EW-05A	37.63	82.00	Not Gauged	--

TABLE 1-4 (continued)
MONITORING WELL GAUGING SUMMARY FOR SEPTEMBER 2005
EASTERN PLUME

Well Designation	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of well riser)	Depth to Water (ft below top of well riser)	Groundwater Elevation (ft MSL)
Deep EP-Series Piezometers				
EP-01	31.67	101.22	7.73	23.94
EP-02	29.74	99.00	5.95	23.79
EP-03	27.91	89.21	3.98	23.93
EP-04	32.59	91.11	3.72	28.87
EP-05	34.61	79.85	4.23	30.38
EP-06	40.14	83.51	10.18	29.96
EP-07	48.49	70.20	15.89	32.6
EP-08	47.31	80.38	14.51	32.8
EP-09	37.84	62.46	4.78	33.06
EP-10	37.78	57.73	4.53	33.25
EP-11	41.59	65.03	6.89	34.7
EP-12	49.38	69.61	14.24	35.14
EP-13	38.96	70.93	2.96	36
EP-14	43.46	80.05	7.55	35.91
EP-15	45.37	82.68	9.68	35.69

Surface Water Gauging Stations			
Well Designation	Gauging Point Elevation (ft MSL)	Depth to Water (ft below gauging point)	Surface Water Elevation (ft MSL)
GP-1A	25.39	2.76	28.15
GP-2A	23.92	1.62	25.54
GP-3B	31.15	Dry	31.15
GP-4A	17.68	1.34	19.02
GP-5B	12.09	2.7	14.79
GP-6A	7.46	1.48	8.94

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TABLE 1-5
GROUNDWATER EXTRACTION AND TREATMENT SYSTEM (BUILDING 50)

Date	EW-1					EW-2A				
	Days Operated Days	Ave Flow rate GPM	Total Run Time Hours	Percent Operation	Water Treated Gallons	Days Operated Days	Ave Flow rate GPM	Total Run Time Hours	Percent Operation	Water Treated Gallons
Apr-05	30	7.0	720.0	100.0%	302,400	30	15.0	720.0	100.0%	648,000
May-05	31	7.0	738.1	99.21%	309,994	31	15.0	738.1	99.21%	664,272
Jun-05	30	6.1	716.9	99.57%	260,971	30	14.9	716.9	99.57%	642,348
Jul-05	31	6.0	736.3	98.97%	265,064	31	14.0	736.3	98.97%	618,484
Aug-05	31	6.0	742.5	99.80%	267,286	31	14.0	742.5	99.80%	623,666
Sep-05	30	6.1	718.1	99.74%	261,378	30	14.0	718.1	99.74%	603,162
Totals	183	6.4	4,371.9	99.55%	1,667,093	183	8.3	4,371.9	99.55%	3,157,584

Date	EW-4					EW-5A				
	Days Operated Days	Ave Flow rate GPM	Total Run Time Hours	Percent Operation	Water Treated Gallons	Days Operated Days	Ave Flow rate GPM	Total Run Time Hours	Percent Operation	Water Treated Gallons
Apr-05	30	24.7	720.0	100.0%	1,068,480	30	7.0	720.0	100.0%	302,400
May-05	31	25.0	738.1	99.21%	1,107,120	31	7.0	738.1	99.21%	309,994
Jun-05	30	25.0	716.9	99.57%	1,075,380	30	7.0	716.9	99.57%	301,106
Jul-05	31	25.0	736.3	98.97%	1,104,435	31	7.0	736.3	98.97%	309,242
Aug-05	31	25.0	742.5	99.80%	1,113,690	31	7.0	742.5	99.80%	311,833
Sep-05	30	25.0	718.1	99.74%	1,077,075	30	6.3	718.1	99.74%	270,018
Totals	183	23.7	4,371.9	99.55%	6,546,180	183	6.7	4,371.9	99.55%	1,493,072

	Total Days Available	Total Hours	Total Run Time (Hours)	Percent Operation	Water Treated (Gallons)
Totals	732	17,568	17,487.6	99.55%	12,863,929

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TABLE 1-6
SUMMARY OF NATURAL ATTENUATION SAMPLING LOCATIONS AT EASTERN PLUME

Sample Type/Location[c]	Well Location	Sample Parameters		Monitoring Event 27	
		Monitored Natural Attenuation Paramters[a]	Field Parameters[b]	Gauge d	Sampled
Shallow Monitoring Wells					
MW-224	Perimeter	X	X	X	X
Deep Monitoring Wells					
MW-313	Sentinel	X	X	X	X
MW-315A	Sentinel	X	X	X	X
MW-331	Interior Plume	X	X	X	X
MW-333	Sentinel	X	X	X	X
MW-334	Sentinel	X	X	X	X
MW-335	Sentinel	X	X	X	X
MW-336	Sentinel	X	X	X	X
MW-337	Sentinel	X	X	X	X
MW-338A	Sentinel	X	X	X	X
MW-338B	Sentinel	X	X	X	X
MW-338C	Sentinel	X	X	X	X
MW-339	Sentinel	X	X	X	X
P-111	Sentinel	X	X	X	X
P-106	Interior Plume	X	X	X	X

(a) Monitored natural attenuation parameters include: chloride, dissolved oxygen, ferric iron, methane, nitrate, Eh, and sulfate.

(b) Determination of field parameters in accordance with U.S. Environmental Protection Agency 600/4-79/020 using the following methods: pH (Method 150.1), temperature (Method 170.1), specific conductance (Method 120.1), and turbidity (Method 180.1). Optional field parameters, including dissolved oxygen (Method 360.1) and Eh, were also recorded. The field parameters also include the collection of the water level measurement.

(c) Sample locations and parameters per the MNA technical letter (EA 2004) and MNA Summary Report (EA 2006)

NOTE: NA

Perimeter = Located at the edge of the plume to monitor concentrations of plume boundary.

Sentinel = Outside area of known contamination to be used to warn of plume migration.

Interior Plume = Within area of known contamination to monitor plume migration.

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TABLE 1-7
SUMMARY OF WATER QUALITY INDICATOR PARAMETERS MEASURED IN LOW-FLOW GROUNDWATER SAMPLES COLLECTED IN SEPTEMBER 2005 AT SITES 1 AND 3

Well Designation	Location Relative to Slurry Wall	pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)
Shallow Monitoring Wells							
MW-217B[(a)]	Inside	6.38	16.90	824	1.19	120	-98.7

(a) MW 217B was sampled by low-flow and a passive aqueous diffusion bag.

NOTE: °C = degrees Celsius
µmhos/cm = microhms per centimeter
mg/L = milligram per liter
mV = millivolt
NTU = Nephelometric turbidity unit.

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TABLE 1-8
SUMMARY OF WATER QUALITY INDICATOR PARAMETERS MEASURED IN LOW-FLOW GROUNDWATER SAMPLES COLLECTED IN SEPTEMBER 2005 AT EASTERN PLUME

Well Designation	pH	Temperature (°C)	Conductivity (µmhos/-cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)
Shallow P-Series Piezometers						
P-111	6.42	15.46	135	2.39	5	48.2
Deep P-Series Piezometers						
P-106	6.92	9.78	127	7.46	5	264

NOTE: °C = degrees Celsius
µmhos/cm = microhms per centimeter
mg/L = milligram per liter
mV = millivolt
NTU = Nephelometric turbidity unit.

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TABLE 1-9
SUMMARY OF WATER QUALITY INDICATOR PARAMETERS MEASURED IN AQUEOUS DIFFUSION GROUNDWATER SAMPLES COLLECTED IN SEPTEMBER 2005 AT EASTERN PLUME

Well Designation	pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)
Shallow Monitoring Wells						
MW-224	5.96	8.45	67	11.13	---	129
MW-332	5.82	9.86	134	6.73	---	130.3
Deep Monitoring Wells						
MW-205	7.57	8.45	198	3.69	---	-53
MW-230A	7.39	8.24	139	0.99	---	-78.5
MW-311 [(a)]	6.63	8.02	513	0.24	---	-69.2
MW-313	7.87	12.20	246	0.23	19.3	-178.9
MW-315A	7.81	13.05	148	0.65	---	-122
MW-319	6.22	8.23	361	0.02	---	198.7
MW-331 [(b)]	6.29	8.68	391	0.73	0	94
MW-333	7.75	12.03	224	0.35	13	-164.6
MW-334	8.17	13.10	180	0.40	8	-181.6
MW-335	7.50	10.49	298	0.21	---	-75
MW-336	5.96	8.99	40	10.15	---	255
MW-337	7.54	11.53	155	0.27	---	-140.6
MW-338A	8.51	8.33	910	0.13	---	-176
MW-338B	8.16	10.56	99	0.20	---	-160.7
MW-338C	7.86	10.56	55	7.86	---	255
MW-339	7.97	8.23	106	0.26	---	-101
MW-NASB-212	6.89	8.38	348	0.09	---	-30

(a) Water quality parameters taken from the deep interval.
(b) Well obstructed unable to take measurements.

NOTE: °C = degrees Celsius
µmhos/cm = microhms per centimeter
mg/L = milligram per liter
mV = millivolt
NTU = Nephelometric turbidity unit.
Dashes (---) indicate data not collected from diffusion samplers as deionized water is used to construct sampling apparatus.

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TABLE 1-10
SUMMARY OF WATER QUALITY INDICATOR PARAMETERS MEASURED IN WATER SAMPLES COLLECTED FROM EXTRACTION WELLS AND THE TREATMENT PLANT IN SEPTEMBER 2005 AT EASTERN PLUME

Well Designation	pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)
Extraction Wells						
EW-01	6.63	9.08	95	8.21	-	196.7
EW-02A	7.53	8.22	101	3.54	-	49.8
EW-04	Not Sampled					
EW-05A	6.79	8.94	145	8.79	-	230.9
Groundwater Treatment Plant						
Eastern Plume Raw Influent	6.57	11.41	197	8.40	1.9	207.7
Combined Effluent	7.38	13.35	197	10.64	0.2	221.6

NOTE: °C = degrees Celsius
µmhos/cm = microhms per centimeter
mg/L = milligram per liter
mV = millivolt
NTU = Nephelometric turbidity unit

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TABLE 1-11
SUMMARY OF WATER QUALITY INDICATOR PARAMETERS MEASURED IN SURFACE WATER AND SEEP SAMPLES COLLECTED IN SEPTEMBER 2005 AT SITES 1 AND 3

Sample Designation	pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)
Surface Water						
SW-4	6.75	16.65	221	0.59	6	-17.6
SW-7	6.83	16.63	70	8.98	3.5	47.1
SW-8	6.91	17.12	74	9.08	4.6	33.2
SW-9	6.90	17.37	69	9.10	2.8	-10.2
SW-15	6.78	16.32	176	9.67	3.59	54.1
SW-16	6.86	16.79	171	9.94	3	53.6
Seep						
SEEP-1	6.34	13.29	548	3.15	6	61
SEEP-3	6.64	15.55	706	0.49	128	706
SEEP-4	6.46	14.46	777	7.74	100	67
SEEP-5	6.29	12.50	520	1.95	16	-58.9
SEEP-9	6.41	13.22	241	4.66	26	-69.4

NOTE: °C = degrees Celsius
µmhos/cm = microhms per centimeter
mg/L = milligram per liter
mV = millivolt
NTU = Nephelometric turbidity unit.
NC = Not collected; no reason provided on field form.

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TABLE 1-12
SUMMARY OF WATER QUALITY INDICATOR PARAMETERS MEASURED IN SURFACE WATER SAMPLES COLLECTED IN SEPTEMBER 2005 AT EASTERN PLUME

Sample Designation	pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)
Surface Water						
SW-10	6.77	17.07	231	8.54	4.6	76.7
SW-11	6.98	17.28	199	9.67	4.6	96.5
SW-12	7.13	17.96	199	9.61	1.4	127.6
SW-13	7.08	19.16	175	8.14	1.4	106.5
SW-14	6.93	19.05	120	8.41	1.4	162.1
Seep						
SEEP-10	Dry					
SEEP-11	6.01	11.07	183	4.56	60	203.3

NOTE: °C = degrees Celsius
µmhos/cm = microhms per centimeter
mg/L = milligram per liter
mV = millivolt
NTU = Nephelometric turbidity unit.

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TABLE 2-1
SUMMARY OF AQUEOUS DIFFUSION SAMPLERS RESULTS – SEPTEMBER 2005

Monitoring Well (Well Depth)	Monitoring Event 27 Groundwater Total VOC Concentration[(a)]	Well Type	Summary of Monitoring Event 27 Diffusion Sampler Study Results
Sampling Group 1			
MW-205 (Deep)	Moderate	Interior Plume	Moderate VOCs reported in sample (45.10 µg/L)
MW-NASB-212 (Deep)	Moderate	Perimeter	Moderate VOCs reported in sample (11.76 µg/L)
MW-224 (Shallow)	Low	Perimeter	No VOCs detected
MW-311 (Deep)	Moderate	Interior Plume	Moderate VOCs reported in sample (38.81µg/L)
MW-319 (Deep)	Moderate	Interior Plume	Moderate VOCs reported in sample (38.94 µg/L)
MW-331 (Deep)	High	Interior Plume	High VOCs reported in sample (740.57 µg/L)
MW-332 (Shallow)	Moderate	Interior Plume	Moderate VOCs reported in sample (40.99 µg/L)
Sampling Group 2			
MW-230A (Deep)	Low	Sentinel	Moderate VOCs reported in sample (2.86 µg/L)
MW-333 (Deep)	Moderate	Sentinel	Moderate VOCs reported in samples (10.05 µg/L)
MW-313 (Shallow)	Moderate	Sentinel	Low VOCs reported in samples (14.67 µg/L)

(a) High concentration = >greater than 400 µg/L; moderate contamination from 400 µg/L to 5 µg/L; low contamination = less than <5 µg/L.
(b) MW-207AR and MW-217B were not included in original Pilot Test Group No. 2.

NOTE: VOC = Volatile organic compound.
ug/L = microgram per liter

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TABLE 2-2
RESULTS OF NATURAL ATTENUATION PARAMETER SCREENING APRIL 2005 GROUNDWATER DATA

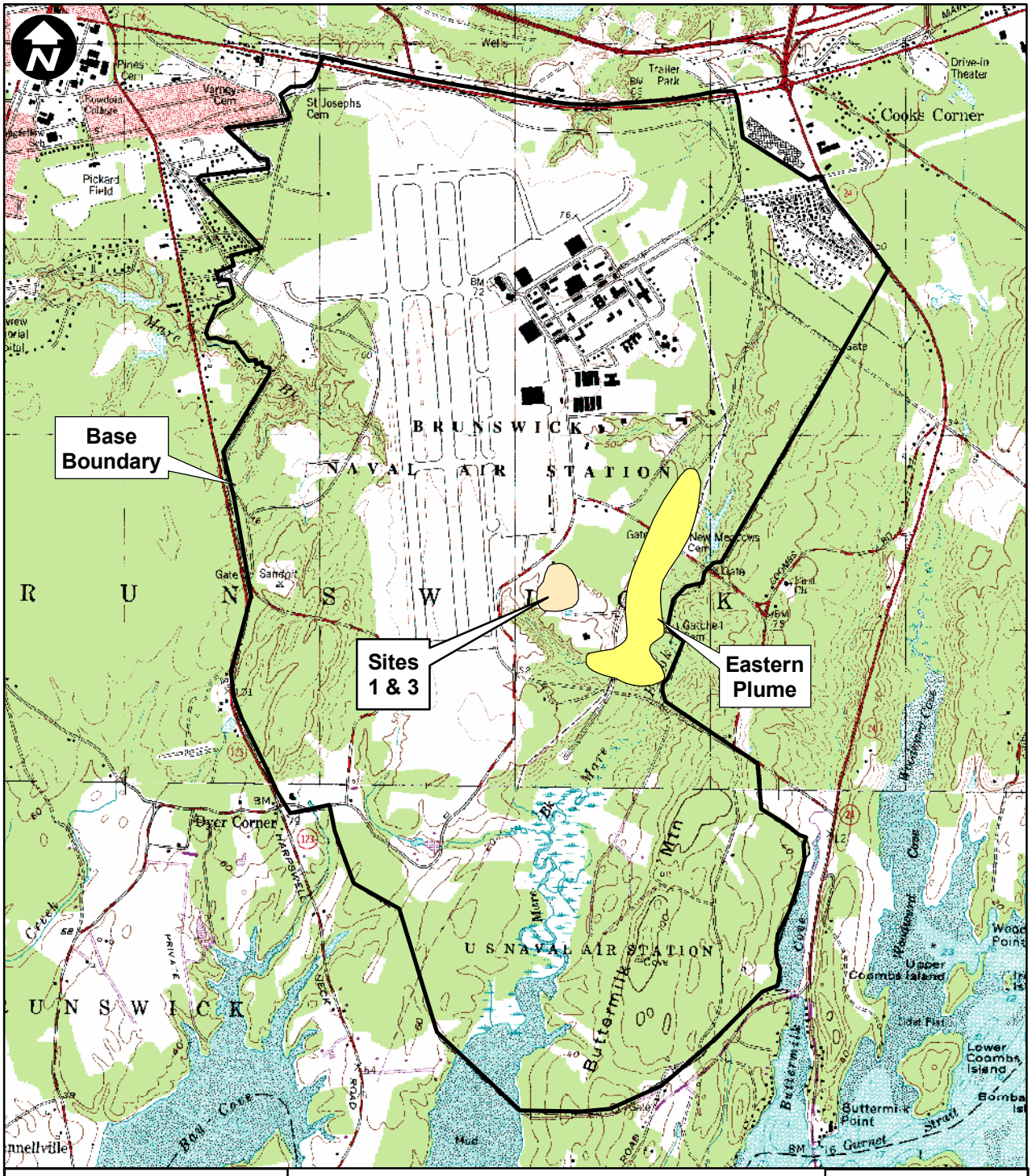
			MW-224		MW-313		MW-315A		MW-331	
			Value	Score	Value	Score	Value	Score	Value	Score
Total Score	Evaluation Criteria	Score		**3**		**12**		**6**		**12**
Dissolved Oxygen (mg/L)	<0.5; 0.5 - 5; >5	3; 0; -3	11.13	-3	0.23	3	0.65	0	0.73	0
Eh (mV)	<-100; -100 - 50; >50	2; 1; 0	129	0	-178.9	2	-122	2	94	0
Temperature (Deg C)	>20	1	8.45	0	12.2	0	13.05	0	8.68	0
Alkanlinity, Total as CaCO3 (mg/L)	>58.2 (2X Background)	1	7.7	0	77	1	44	0	35	0
Chloride (mg/L)	>38.2 (2X Background)	2	27	0	23	0	13	0	95	2
Ethane (mg/L)	>0.01; >0.1	2; 3	ND	0	ND	0	ND	0	ND	0
Ethene (mg/L)	>0.01; >0.1	2; 3	ND	0	ND	0	ND	0	ND	0
Hydrogen (nM)	>1 nM	1	NC	0	NC	0	NC	0	ND	0
Iron, Ferrous (mg/L)	>1	3	ND	0	0.42	0	0.15	0	ND	0
Methane (mg/L)	>0.5	3	ND	0	0.052	0	0.015	0	ND	0
Nitrogen, Nitrate (mg/L)	<1	2	1.3	0	ND	0	ND	0	0.29	2
Sulfate (mg/L)	<20	2	8.8	2	3.6	2	3	2	7.9	2
Sulfide (mg/L)	>1	3	NC	0	NC	0	NC	0	NC	0
Total Organic Carbon (mg/L)	>20	2	ND	0	1	0	1.1	0	ND	0
1,1,1-Trichloroethane (ug/L)	Assume Released	0	ND	0	1.2	0	ND	0	320	0
1,1,2-Trichloroethane (ug/L)	Assume Released	0	ND	0	ND	0	ND	0	ND	0
1,1-Dichloroethane (ug/L)	Present	2	ND	0	14	2	0.55	2	33	2
Carbon Tetrachloride (ug/L)	Assume Released	0	ND	0	ND	0	ND	0	ND	0
Chloroethane (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0
Chloroform (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0
Dichloroethene, Total (ug/L)	Present	2	1.1	2	ND	0	ND	0	190	2
Tetrachloroethene (ug/L)	Assume Released	0	ND	0	ND	0	ND	0	4	0
Total BTEX (ug/L)	>100	2	ND	0	ND	0	ND	0	ND	0
Trichloroethene (ug/L)	Present	2	0.76	2	0.74	2	ND	0	160	2
Vinyl Chloride (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0

			MW-333		MW-334		MW-335		MW-336	
			Value	Score	Value	Score	Value	Score	Value	Score
Total Score	Evaluation Criteria	Score		**10**		**7**		**7**		**-1**
Dissolved Oxygen (mg/L)	<0.5; 0.5 - 5; >5	3; 0; -3	0.35	3	0.4	3	0.21	3	10.15	-3
Eh (mV)	<-100; -100 - 50; >50	2; 1; 0	-164.6	2	-181.6	2	-75	1	255	0
Temperature (Deg C)	>20	1	1203	0	13.1	0	10.49	0	8.99	0
Alkanlinity, Total as CaCO3 (mg/L)	>58.2 (2X Background)	1	66	1	52	0	75	1	6.9	0
Chloride (mg/L)	>38.2 (2X Background)	2	20	0	17	0	37	0	4.8	0
Ethane (mg/L)	>0.01; >0.1	2; 3	ND	0	ND	0	ND	0	ND	0
Ethene (mg/L)	>0.01; >0.1	2; 3	ND	0	ND	0	ND	0	ND	0
Hydrogen (nM)	>1 nM	1	NC	0	NC	0	NC	0	NC	0
Iron, Ferrous (mg/L)	>1	3	0.64	0	NC	0	0.32	0	ND	0
Methane (mg/L)	>0.5	3	0.013	0	ND	0	0.044	0	ND	0
Nitrogen, Nitrate (mg/L)	<1	2	ND	0	ND	0	ND	0	ND	0
Sulfate (mg/L)	<20	2	4	2	3.2	2	3.5	2	3.2	2
Sulfide (mg/L)	>1	3	NC	0	NC	0	NC	0	NC	0
Total Organic Carbon (mg/L)	>20	2	1.5	0	ND	0	ND	0	ND	0
1,1,1-Trichloroethane (ug/L)	Assume Released	0	ND	0	NC	0	ND	0	ND	0
1,1,2-Trichloroethane (ug/L)	Assume Released	0	ND	0	NC	0	ND	0	ND	0
1,1-Dichloroethane (ug/L)	Present	2	6.6	2	NC	0	ND	0	ND	0
Carbon Tetrachloride (ug/L)	Assume Released	0	ND	0	NC	0	ND	0	ND	0
Chloroethane (ug/L)	Present	2	ND	0	NC	0	ND	0	ND	0
Chloroform (ug/L)	Present	2	ND	0	NC	0	ND	0	ND	0
Dichloroethene, Total (ug/L)	Present	2	ND	0	NC	0	ND	0	ND	0
Tetrachloroethene (ug/L)	Assume Released	0	ND	0	NC	0	ND	0	ND	0
Total BTEX (ug/L)	>100	2	ND	0	NC	0	ND	0	ND	0
Trichloroethene (ug/L)	Present	2	ND	0	NC	0	ND	0	ND	0
Vinyl Chloride (ug/L)	Present	2	ND	0	NC	0	ND	0	ND	0

			MW-337		MW-338A		MW-338B		MW-338C	
			Value	Score	Value	Score	Value	Score	Value	Score
Total Score	Evaluation Criteria	Score		**10**		**10**		**7**		**-1**
Dissolved Oxygen (mg/L)	<0.5; 0.5 - 5; >5	3; 0; -3	0.27	3	0.39	3	0.20	3	7.86	-3
Eh (mV)	<-100; -100 - 50; >50	2; 1; 0	-140.6	2	-169.8	2	-160.7	2	255	0
Temperature (Deg C)	>20	1	11.53	0	11.75	0	10.56	0	10.56	0
Alkanlinity, Total as CaCO3 (mg/L)	>58.2 (2X Background)	1	47	0	290	1	34	0	20	0
Chloride (mg/L)	>38.2 (2X Background)	2	11	0	124	2	8	0	3.9	0
Ethane (mg/L)	>0.01; >0.1	2; 3	ND	0	ND	0	ND	0	ND	0
Ethene (mg/L)	>0.01; >0.1	2; 3	ND	0	ND	0	ND	0	ND	0
Hydrogen (nM)	>1 nM	1	NC	0	NC	0	NC	0	NC	0
Iron, Ferrous (mg/L)	>1	3	1.06	3	0.01	0	0.09	0	0.02	0
Methane (mg/L)	>0.5	3	ND	0	0.33	0	ND	0	ND	0
Nitrogen, Nitrate (mg/L)	<1	2	ND	0	ND	0	ND	0	ND	0
Sulfate (mg/L)	<20	2	4.2	2	1	2	4.9	2	3.3	2
Sulfide (mg/L)	>1	3	NC	0	NC	0	NC	0	NC	0
Total Organic Carbon (mg/L)	>20	2	ND	0	3	0	ND	0	1	0
1,1,1-Trichloroethane (ug/L)	Assume Released	0	ND	0	ND	0	ND	0	ND	0
1,1,2-Trichloroethane (ug/L)	Assume Released	0	ND	0	ND	0	ND	0	ND	0
1,1-Dichloroethane (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0
Carbon Tetrachloride (ug/L)	Assume Released	0	ND	0	ND	0	ND	0	ND	0
Chloroethane (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0
Chloroform (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0
Dichloroethene, Total (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0
Tetrachloroethene (ug/L)	Assume Released	0	ND	0	ND	0	ND	0	ND	0
Total BTEX (ug/L)	>100	2	ND	0	ND	0	ND	0	ND	0
Trichloroethene (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0
Vinyl Chloride (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0

			MW-339		P-106		P-111	
			Value	Score	Value	Score	Value	Score
Total Score	Evaluation Criteria	Score		**7**		**9**		**3**
Dissolved Oxygen (mg/L)	<0.5; 0.5 - 5; >5	3; 0; -3	0.18	3	7.46	-3	2.39	0
Eh (mV)	<-100; -100 - 50; >50	2; 1; 0	-142	2	264	0	48.2	1
Temperature (Deg C)	>20	1	10.35	0	9.78	0	15.46	0
Alkanlinity, Total as CaCO3 (mg/L)	>58.2 (2X Background)	1	33	0	34	0	36	0
Chloride (mg/L)	>38.2 (2X Background)	2	7.3	0	11	0	5.5	0
Ethane (mg/L)	>0.01; >0.1	2; 3	ND	0	ND	0	ND	0
Ethene (mg/L)	>0.01; >0.1	2; 3	ND	0	ND	0	ND	0
Hydrogen (nM)	>1 nM	1	NC	0	NC	0	NC	0
Iron, Ferrous (mg/L)	>1	3	0.13	0	0.16	0	0.72	0
Methane (mg/L)	>0.5	3	ND	0	ND	0	ND	0
Nitrogen, Nitrate (mg/L)	<1	2	ND	0	0.15	2	ND	0
Sulfate (mg/L)	<20	2	3.6	2	5.5	2	12	2
Sulfide (mg/L)	>1	3	NC	0	NC	0	NC	0
Total Organic Carbon (mg/L)	>20	2	ND	0	1.1	0	1.6	0
1,1,1-Trichloroethane (ug/L)	Assume Released	0	ND	0	360	0	ND	0
1,1,2-Trichloroethane (ug/L)	Assume Released	0	ND	0	0.65	0	ND	0
1,1-Dichloroethane (ug/L)	Present	2	ND	0	23	2	ND	0
Carbon Tetrachloride (ug/L)	Assume Released	0	ND	0	ND	0	ND	0
Chloroethane (ug/L)	Present	2	ND	0	ND	0	ND	0
Chloroform (ug/L)	Present	2	ND	0	0.35	2	ND	0
Dichloroethene, Total (ug/L)	Present	2	ND	0	14	2	ND	0
Tetrachloroethene (ug/L)	Assume Released	0	ND	0	5.6	0	ND	0
Total BTEX (ug/L)	>100	2	ND	0	ND	0	ND	0
Trichloroethene (ug/L)	Present	2	ND	0	220	2	ND	0
Vinyl Chloride (ug/L)	Present	2	ND	0	ND	0	ND	0

FIGURES



33 Boston Post Road West
Suite 340
Marlborough, MA

FIGURE 1
SITE LOCATION MAP

SITES 1 & 3 & EASTERN PLUME
NAVAL AIR STATION
BRUNSWICK, MAINE

2,000 1,000 0 2,000 Feet

DATE LAST MODIFIED:
16-JAN-2007

LAST MODIFIED BY:
CG

SCALE AS SHOWN

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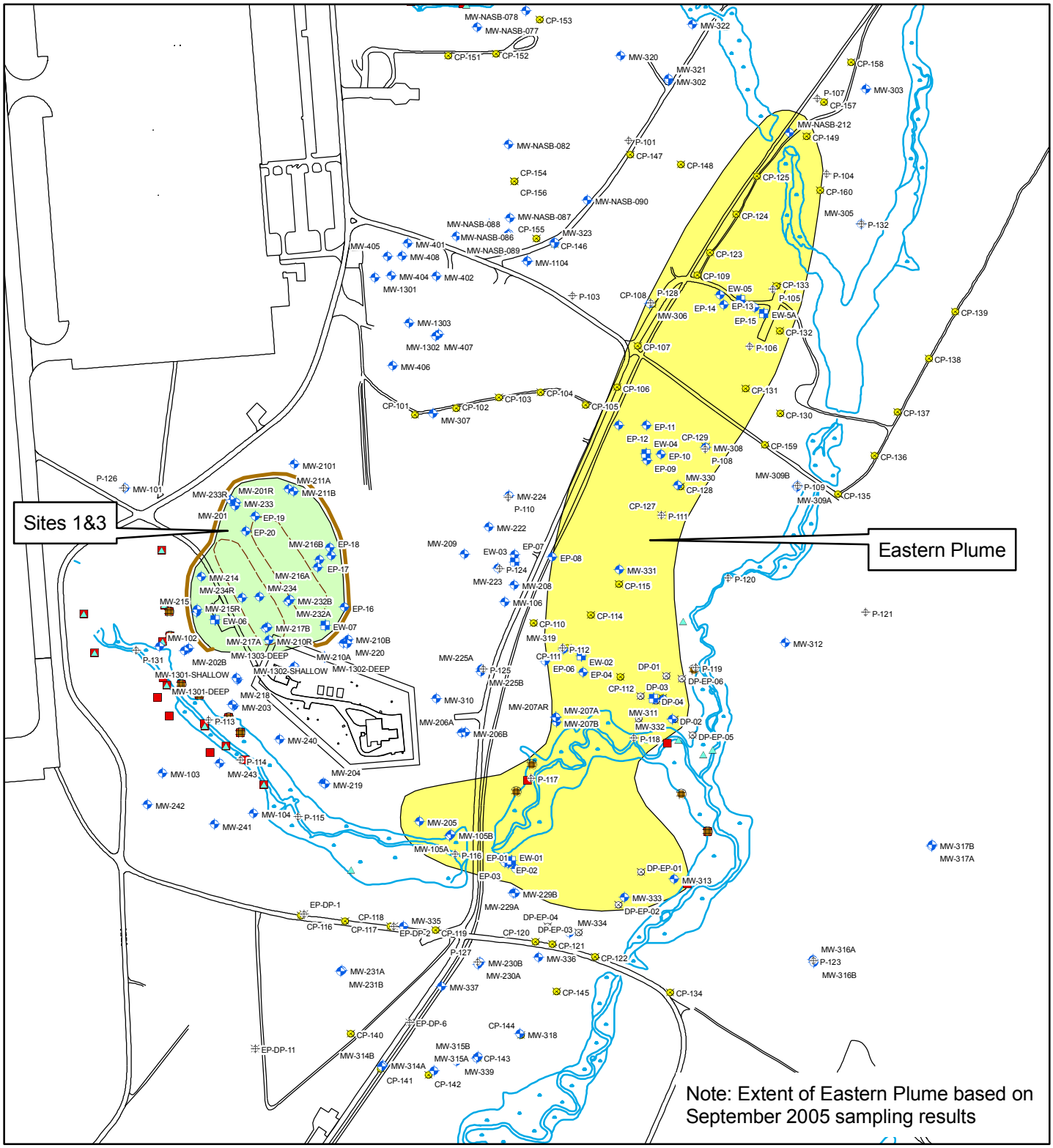
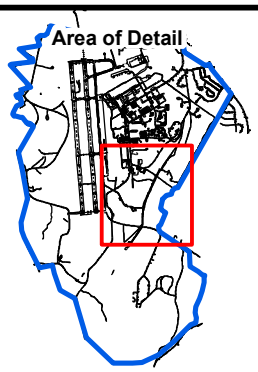


Contract No.	5700.007
Description	NASB Brunswick, ME
Coordinate system	NAD 1983, UTM, Zone 19N
Sources	Naval Base Boundary provided by Navy.

Date	23-JAN-2007	Rev.	Date	App. By
DB	C. Guido			
CB	A. Easterday			
AB				



Legend

- Cone Penetrometer
- Direct Push
- Extraction Well
- Monitoring Well
- Piezometer
- Seep Location
- Surface Water Location
- Sediment/Leachate Location

Figure 1-2

Title:

Site Plan
Sites 1 and 3,
Eastern Plume
Naval Air Station
Brunswick, ME

Naval Facilities Engineering Command
Naval Air Station
Brunswick, ME

ECC Marlborough, MA
C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\EP_Sept05\EP_Sept05Fig1-2.mxd

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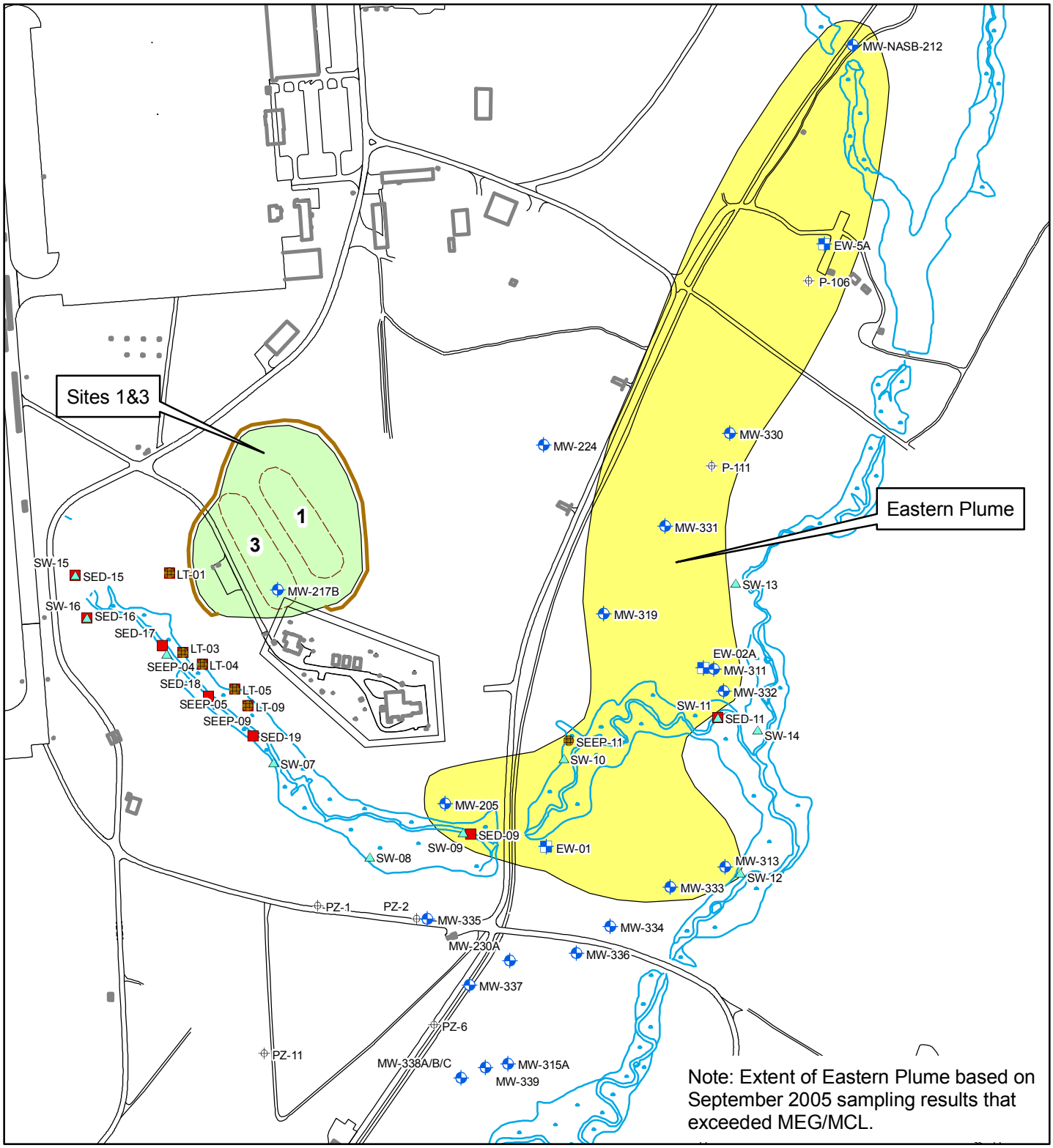

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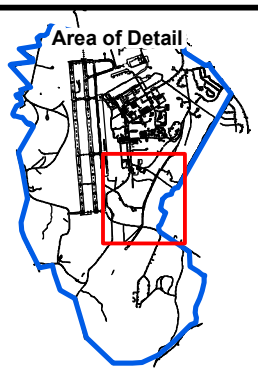
AB				



Legend

- Extraction Well
- Piezometer
- Sediment/Leachate Location
- Piezometer
- Monitoring Well
- Seep Location
- Surface Water Location
- Slurrywall
- Landfills 1 & 3

Figure 1-3

Title:

Long-Term Monitoring Sample Locations Naval Air Station Brunswick, ME

Naval Facilities Engineering Command
Naval Air Station
Brunswick, ME

ECC Marlborough, MA
C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\EP_Sept05\EP_Sept05Fig1-3.mxd

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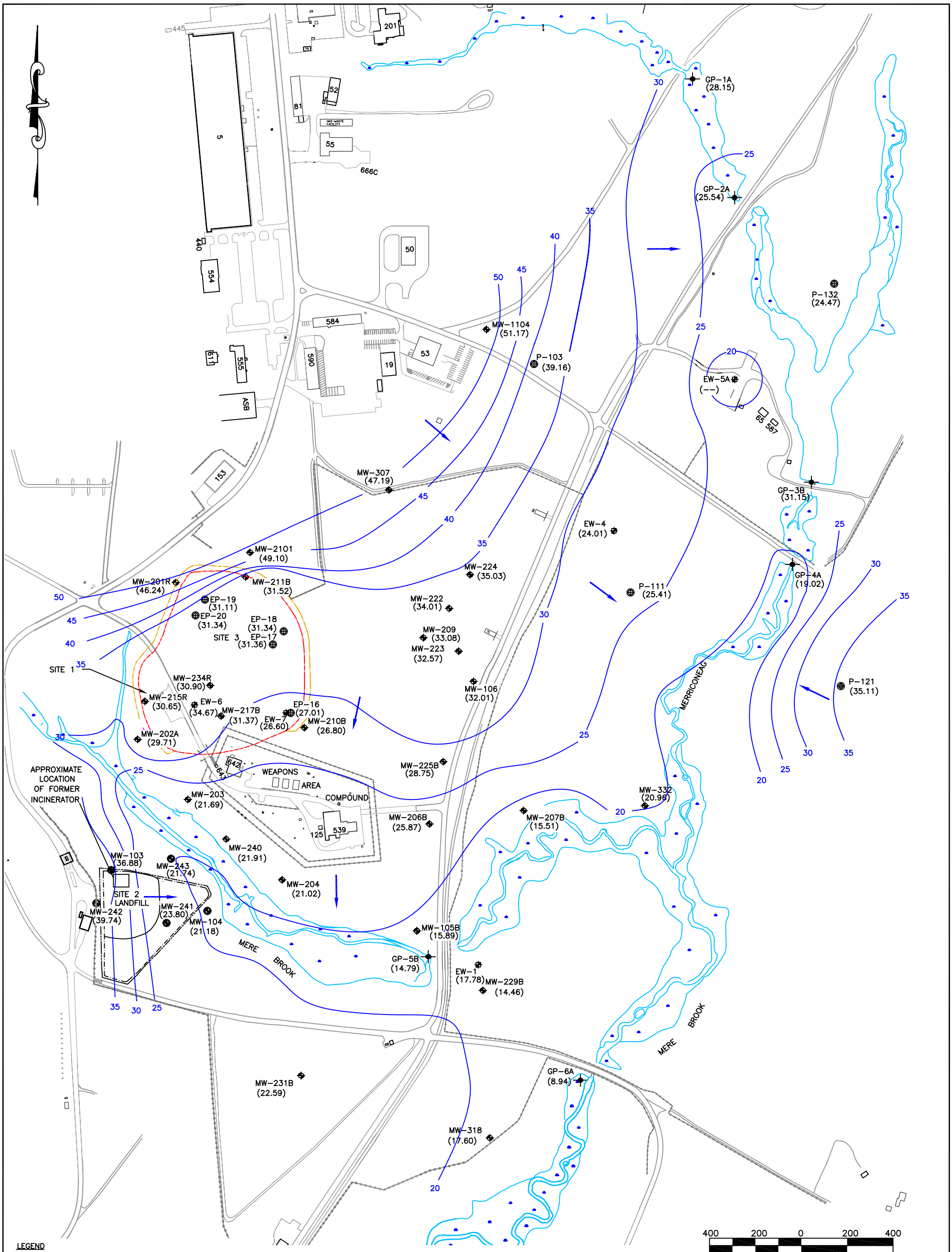


LEGEND

- MW-231B (20.84) SHALLOW MONITORING WELL (POTENTIOMETRIC SURFACE ELEVATION, FT MSL)
- EW-1 (19.43) EXTRACTION WELL (POTENTIOMETRIC SURFACE ELEVATION, FT MSL)
- EP-16 (25.32) SHALLOW PIEZOMETER (POTENTIOMETRIC SURFACE ELEVATION, FT MSL)
- GP-6 (34.22) SHALLOW PIEZOMETER (SURFACE WATER ELEVATION, FT MSL)
- FENCE
- APPROXIMATE LIMITS OF SLURRY WALL
- APPROXIMATE LIMITS OF SITES 1 & 3
- 27 GROUNDWATER CONTOUR (FT MSL) (DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION

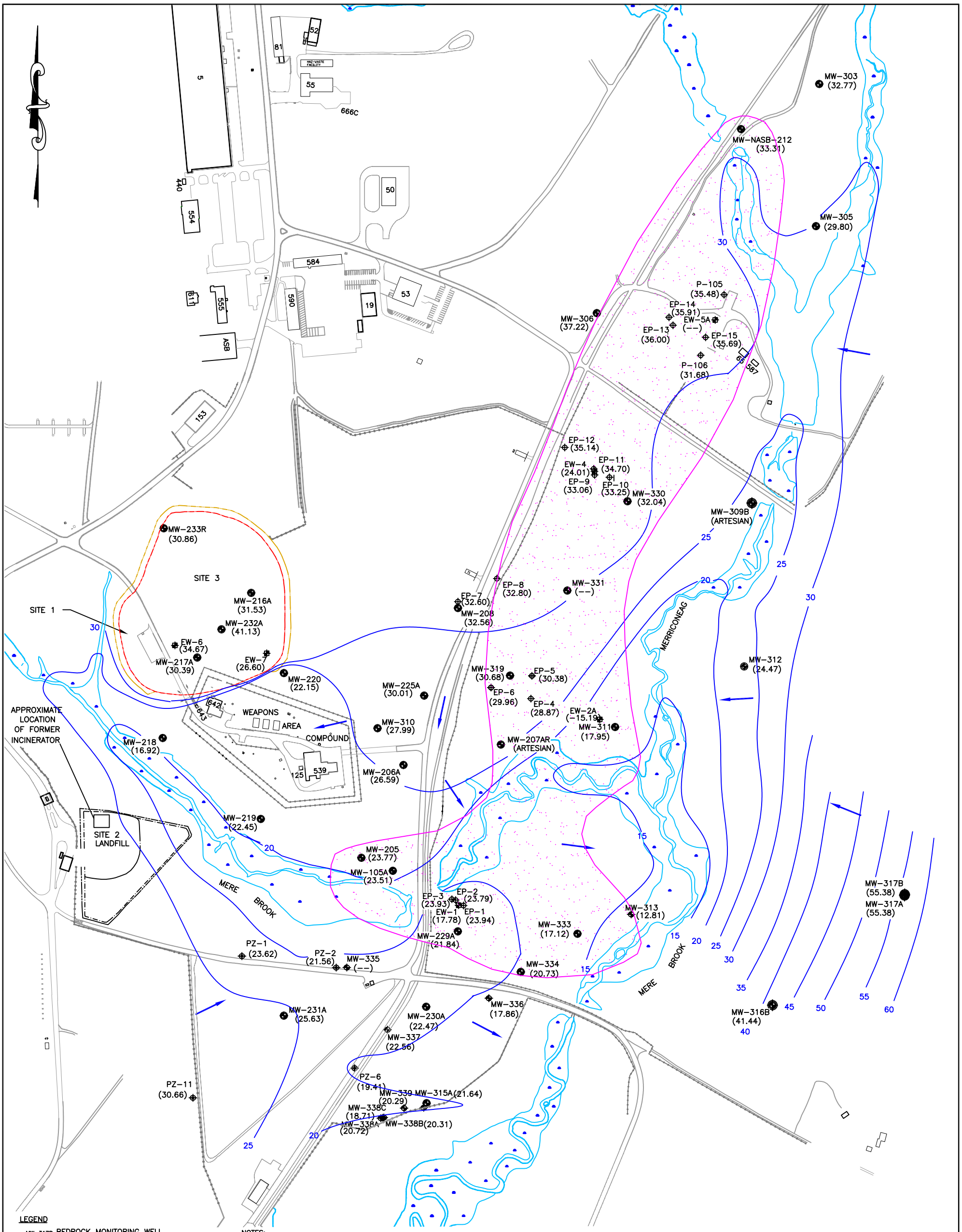
NOTE:

1. CONTOUR INTERVAL = 5 FT.
2. SITE PLAN TAKEN FROM THE INTERGRAPH VERSION 5 BASE-WIDE PLAN PROVIDED BY NAS BRUNSWICK PUBLIC WORKS DEPARTMENT ON 13 OCTOBER 1995. SITE PLAN UPDATED BASED ON BASE-WIDE PLAN PROVIDED BY NAS BRUNSWICK PUBLIC WORKS DEPARTMENT ON 13 JANUARY 2004.
3. CONTOURS REPRESENT EVALUATION OF PROBABLE CONDITIONS BASED ON PRESENTLY AVAILABLE DATA. SOME VARIATION FROM THESE CONDITIONS MUST BE EXPECTED.

FIGURE 1-4
INTERPRETED SHALLOW GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR MAP, SEPTEMBER 2005

SITES 1 AND 3 AND EASTERN PLUME
NAVAL AIR STATION, BRUNSWICK, MAINE

DATE AUGUST 2005		PROJECT NUMBER 5700.007
DESIGNED BY EA Inc.		SCALE 1"=400'
UPDATED BY NTW		FILE NAME SITES1-3-EP.DWG
CHECKED BY DG		DRAWING NUMBER –
PROJECT MANAGER DG		SHEET NUMBER –



LEGEND

- MW-317B (56.71) BEDROCK MONITORING WELL (POTENTIOMETRIC SURFACE ELEVATION, FT MSL)
- MW-231A (24.01) DEEP MONITORING WELL (POTENTIOMETRIC SURFACE ELEVATION, FT MSL)
- EW-1 (19.43) EXTRACTION WELL (POTENTIOMETRIC SURFACE ELEVATION, FT MSL)
- EP-11 (30.22) DEEP PIEZOMETER (POTENTIOMETRIC SURFACE ELEVATION, FT MSL)
- PZ-11 (28.72) NEW PIEZOMETERS INSTALLED 29 JUNE 2001 (POTENTIOMETRIC SURFACE ELEVATION, FT MSL)
- FENCE
- APPROXIMATE LIMITS OF SLURRY WALL
- APPROXIMATE LIMITS OF SITES 1 & 3
- 27 GROUNDWATER CONTOUR (FT MSL) (DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION

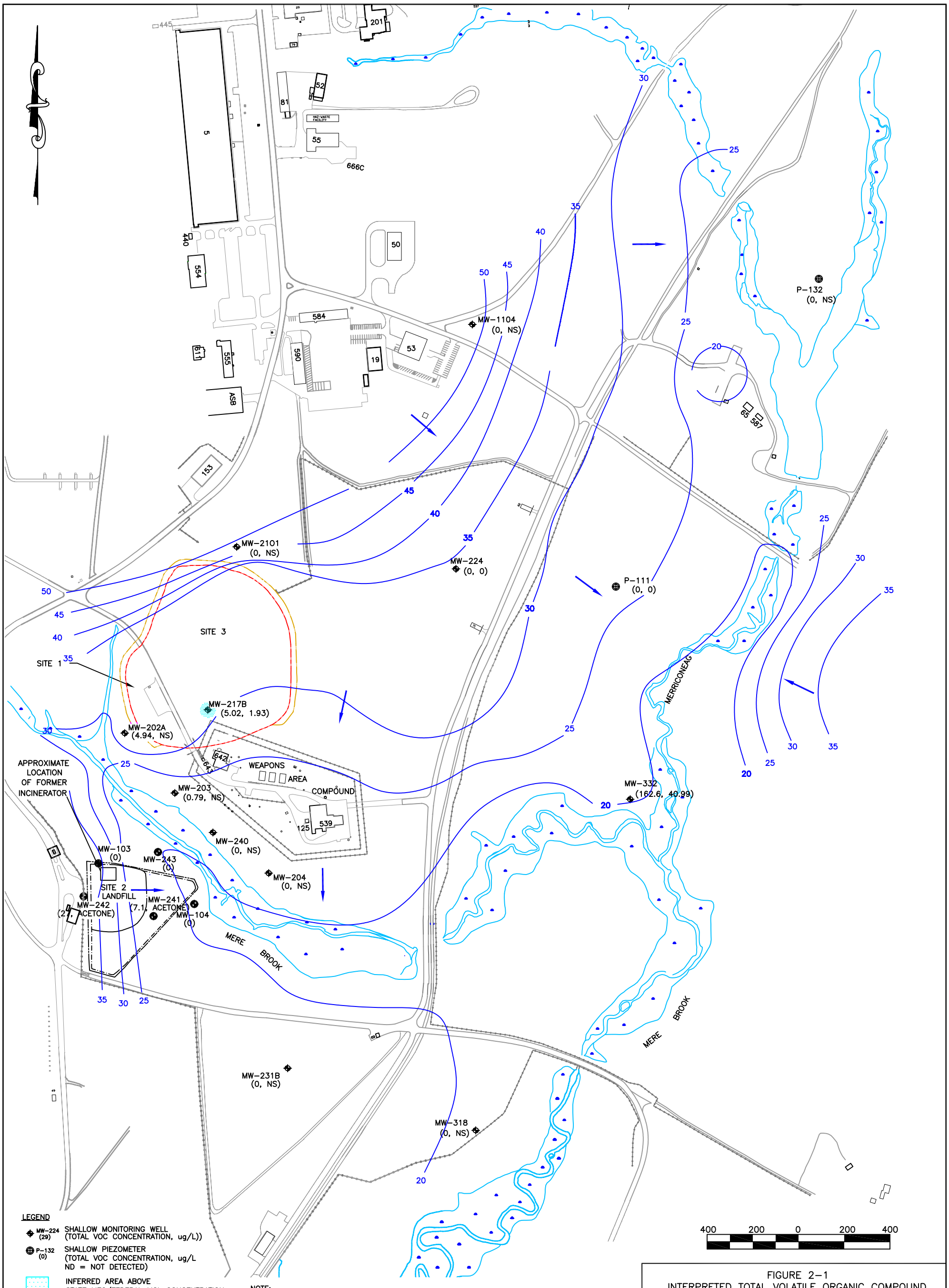
NOTES:

1. WATER LEVEL DATA COLLECTED APRIL 2005.
2. CONTOUR INTERVAL = 5 FT.
3. SITE PLAN TAKEN FROM THE INTERGRAPH VERSION 5 BASE-WIDE PLAN PROVIDED BY NAS BRUNSWICK PUBLIC WORKS DEPARTMENT ON 13 OCTOBER 1995. SITE PLAN UPDATED BASED ON BASE-WIDE PLAN PROVIDED BY NAS BRUNSWICK PUBLIC WORKS DEPARTMENT ON 13 JANUARY 2004.
4. CONTOURS REPRESENT EVALUATION OF PROBABLE CONDITIONS BASED ON PRESENTLY AVAILABLE DATA. SOME VARIATION FROM THESE CONDITIONS MUST BE EXPECTED.

FIGURE 1-5

INTERPRETED DEEP GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR MAP, SEPTEMBER 2005
SITES 1 AND 3 AND EASTERN PLUME
NAVAL AIR STATION, BRUNSWICK, MAINE

DATE AUGUST 2005		PROJECT NUMBER 5700.007
DESIGNED BY EA Inc.		SCALE 1"=400'
UPDATED BY NTW		FILE NAME SITES1-3-EP.DWG
CHECKED BY DG		DRAWING NUMBER –
PROJECT MANAGER DG		SHEET NUMBER –



LEGEND

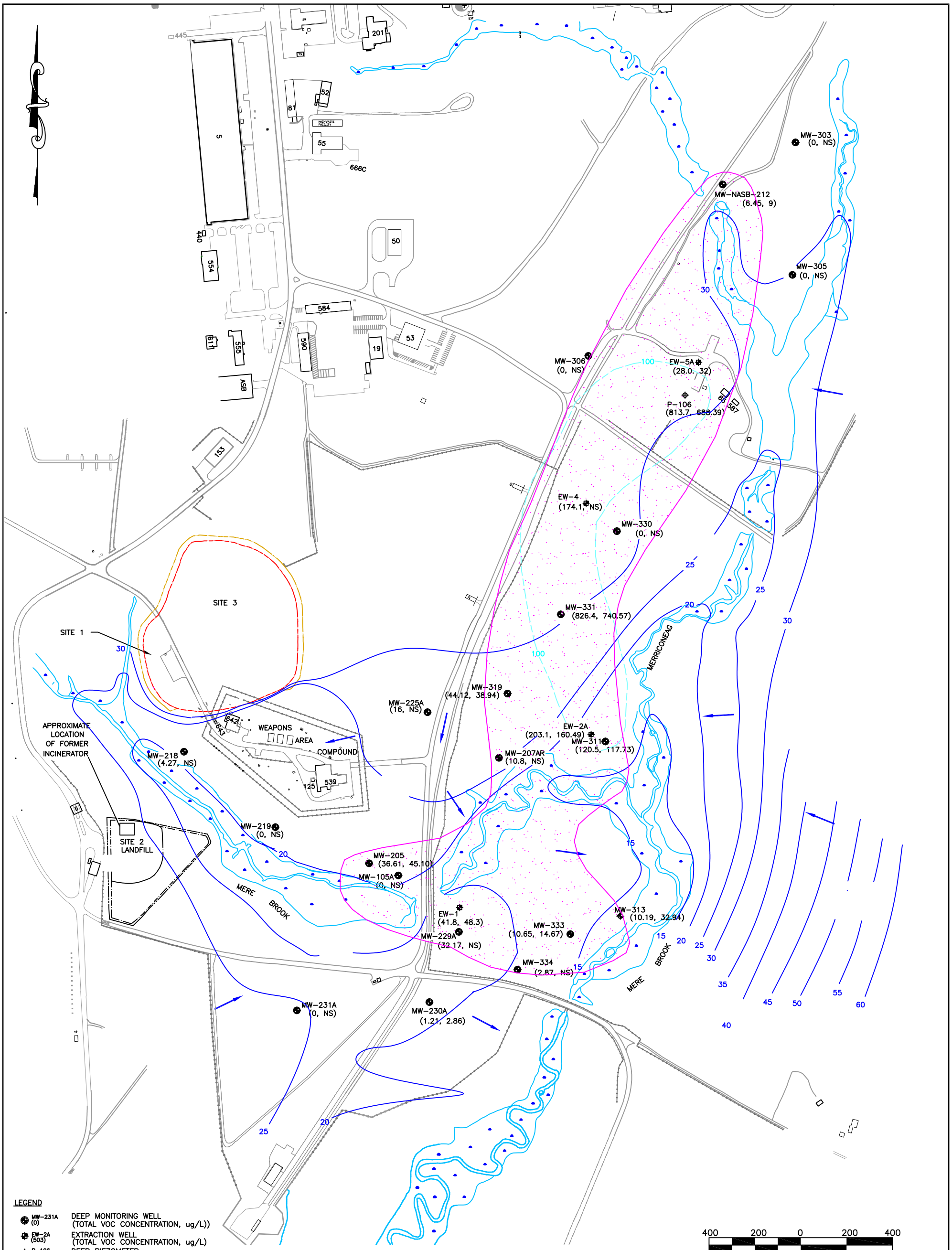
- MW-224 (29) — SHALLOW MONITORING WELL (TOTAL VOC CONCENTRATION, ug/L))
- P-132 (0) — SHALLOW PIEZOMETER (TOTAL VOC CONCENTRATION, ug/L ND = NOT DETECTED)
- INFERRED AREA ABOVE STATE MEG/FEDERAL MCL CONCENTRATION
- 100 — 100 ug/L TOTAL VOC CONTOUR (DASHED WHERE INFERRED)
- FENCE
- APPROXIMATE LIMITS OF SLURRY WALL
- APPROXIMATE LIMITS OF SITES 1 & 3
- 25 — GROUNDWATER CONTOUR (FT MSL) FOR SEPTEMBER 2005 FROM FIGURE 1-4 (DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION

NOTE:

1. SITE PLAN TAKEN FROM THE INTERGRAPH VERSION 5 BASE-WIDE PLAN PROVIDED BY NAS BRUNSWICK PUBLIC WORKS DEPARTMENT ON 13 OCTOBER 1995. SITE PLAN UPDATED BASED ON BASE-WIDE PLAN PROVIDED BY NAS BRUNSWICK PUBLIC WORKS DEPARTMENT ON 13 JANUARY 2004.
2. CONTOURS REPRESENT EVALUATION OF PROBABLE CONDITIONS BASED ON PRESENTLY AVAILABLE DATA. SOME VARIATION FROM THESE CONDITIONS MUST BE EXPECTED.
3. SITE 2, TOTAL VOC CONCENTRATIONS ARE PROVIDED IN THE MONITORING EVENT 12 REPORT FOR SITE 2, SEPTEMBER 2005

FIGURE 2-1
INTERPRETED TOTAL VOLATILE ORGANIC COMPOUND CONCENTRATION CONTOUR MAP
SHALLOW WELLS, MONITORING EVENT 27
SITES 1 AND 3 AND EASTERN PLUME
NAVAL AIR STATION, BRUNSWICK, MAINE

DATE SEPTEMBER 2005		PROJECT NUMBER 5700.007
DESIGNED BY EA Inc.		SCALE 1"=400'
UPDATED BY NTW		FILE NAME SITES1-3-EP.DWG
CHECKED BY DG		DRAWING NUMBER –
PROJECT MANAGER DG		SHEET NUMBER –



LEGEND

- MW-231A (0) — DEEP MONITORING WELL (TOTAL VOC CONCENTRATION, ug/L))
- EW-2A (503) — EXTRACTION WELL (TOTAL VOC CONCENTRATION, ug/L)
- P-106 (1,268) — DEEP PIEZOMETER (TOTAL VOC CONCENTRATION, ug/L)
- FENCE
- APPROXIMATE LIMITS OF SLURRY WALL
- APPROXIMATE LIMITS OF SITES 1 & 3
- INFERRED AREA ABOVE STATE MEG/FEDERAL MCL CONCENTRATION
- 100 — 100 ug/L TOTAL VOC CONTOUR (DASHED WHERE INFERRED)
- NS — NOT SAMPLED
- 25 — GROUNDWATER CONTOUR (FT MSL) FOR SEPTEMBER 2005 FROM FIGURE 1-5 (DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION

NOTE:

1. SITE PLAN TAKEN FROM THE INTERGRAPH VERSION 5 BASE-WIDE PLAN PROVIDED BY NAS BRUNSWICK PUBLIC WORKS DEPARTMENT ON 13 OCTOBER 1995. SITE PLAN UPDATED BASED ON BASE-WIDE PLAN PROVIDED BY NAS BRUNSWICK PUBLIC WORKS DEPARTMENT ON 13 JANUARY 2004.
2. CONTOURS REPRESENT EVALUATION OF PROBABLE CONDITIONS BASED ON PRESENTLY AVAILABLE DATA. SOME VARIATION FROM THESE CONDITIONS MUST BE EXPECTED.
3. HIGHEST VALUE SHOWN AT DUPLICATE SAMPLE LOCATIONS.

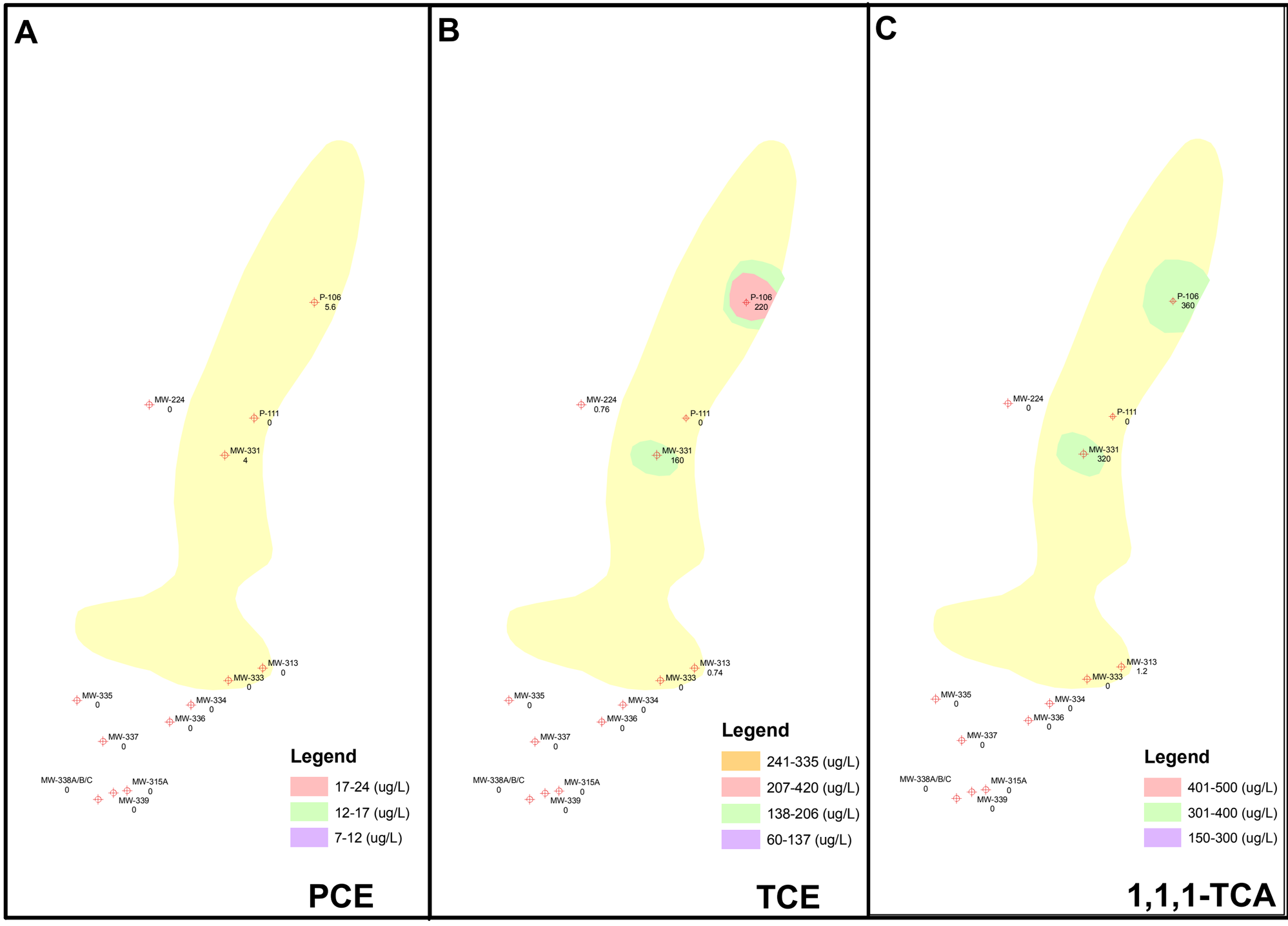
FIGURE 2-2

INTERPRETED TOTAL VOLATILE ORGANIC COMPOUND CONCENTRATION CONTOUR MAP
DEEP WELLS, MONITORING EVENT 27

SITES 1 AND 3 AND EASTERN PLUME

NAVAL AIR STATION, BRUNSWICK, MAINE

DATE SEPTEMBER 2005		PROJECT NUMBER 5700.007
DESIGNED BY EA Inc.		SCALE 1"=400'
UPDATED BY NTW		FILE NAME SITES1-3-EP.DWG
CHECKED BY DG		DRAWING NUMBER –
PROJECT MANAGER DG		SHEET NUMBER –



Project No.	5700.007
Description	NAS Brunswick, ME
Coordinate System	NAD 1983, UTM, Zone 19N
Sources	Naval Base Boundary provided by Navy.

Date	16-JAN-07	Rev.	Date	Approved
Drawn	C. Guido			
Checked	N. Williams			
Approved				

Legend

Sample Location

Eastern Plume, Sept 2005

0 360 720 1,440 Feet

ECC Marlborough, MA
C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\EP_Sept05Fig2-3.mxd

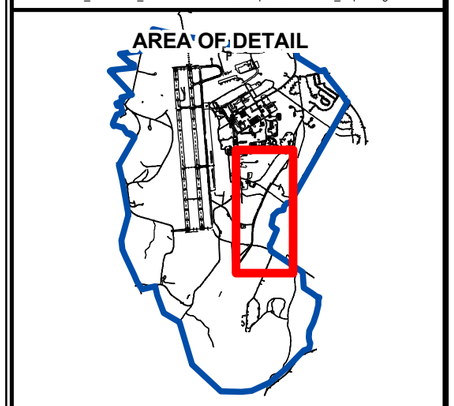
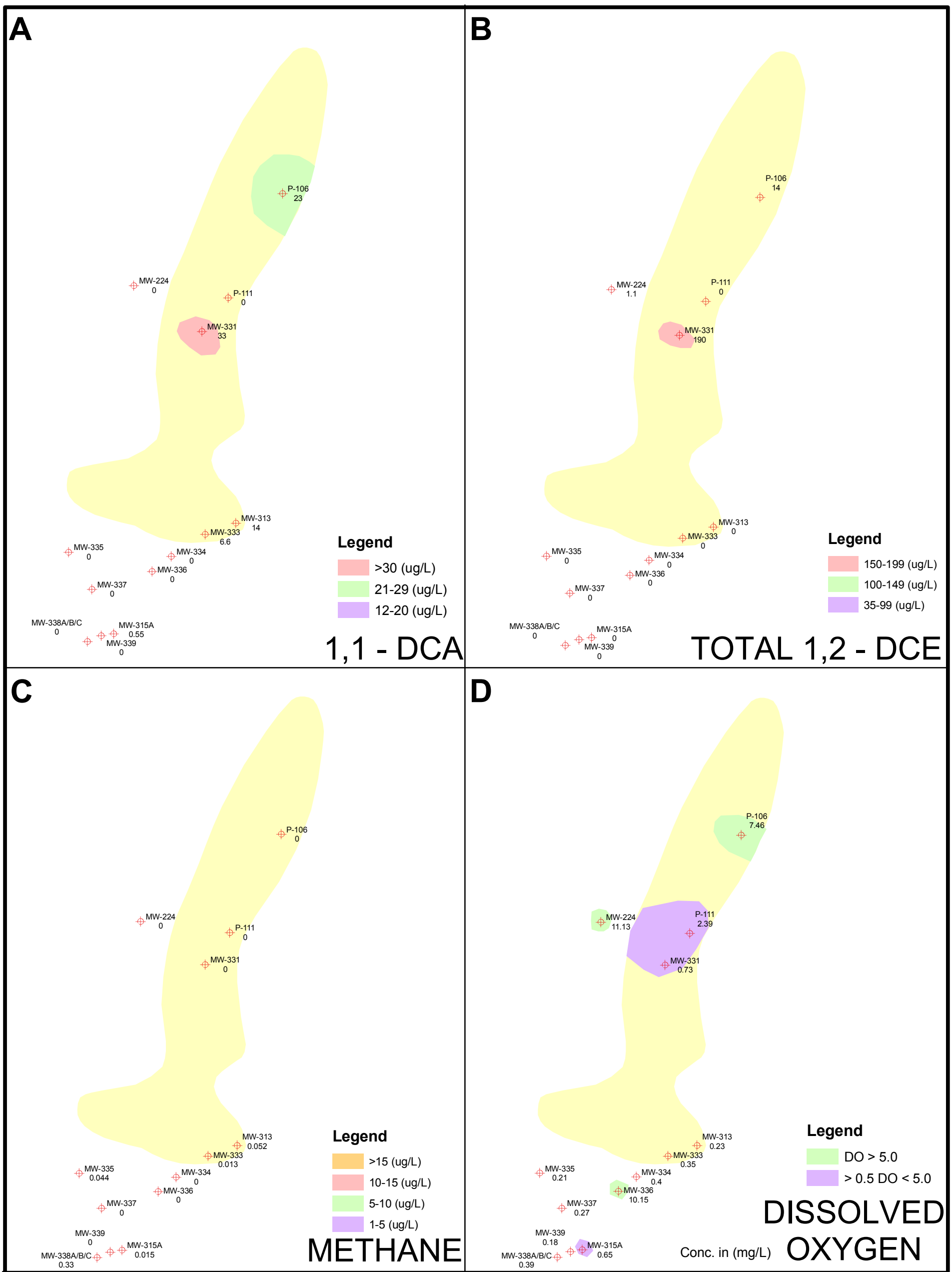


Figure 2-3

PCE, TCE and 1,1,1-TCA Concentration Isocontours

Based on September 2005 Sampling Event

Naval Facilities Engineering Command
Naval Air Station
Brunswick, ME



Project No.	5700.007
Description	NASB Brunswick, ME
Coordinate system	NAD 1983, UTM, Zone 19N
Note	
Sources	Naval Base Boundary provided by Navy.

Date	22-JAN-2007	Rev.	Date	App. By
DB	C. Guido			
CB				
AB				

Area of Detail

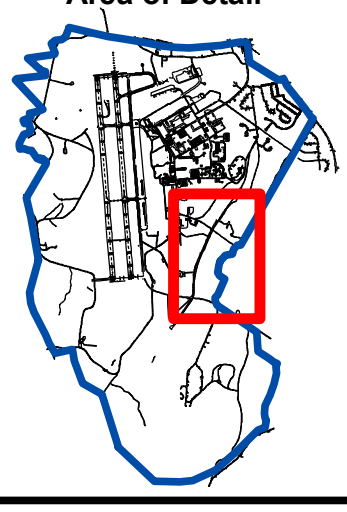


Figure 2-4

1,1-DCA, 1,2-DCE, Methane, & Dissolved Oxygen Concentraion Isocontours

Based on September 2005 Sampling Event

Legend

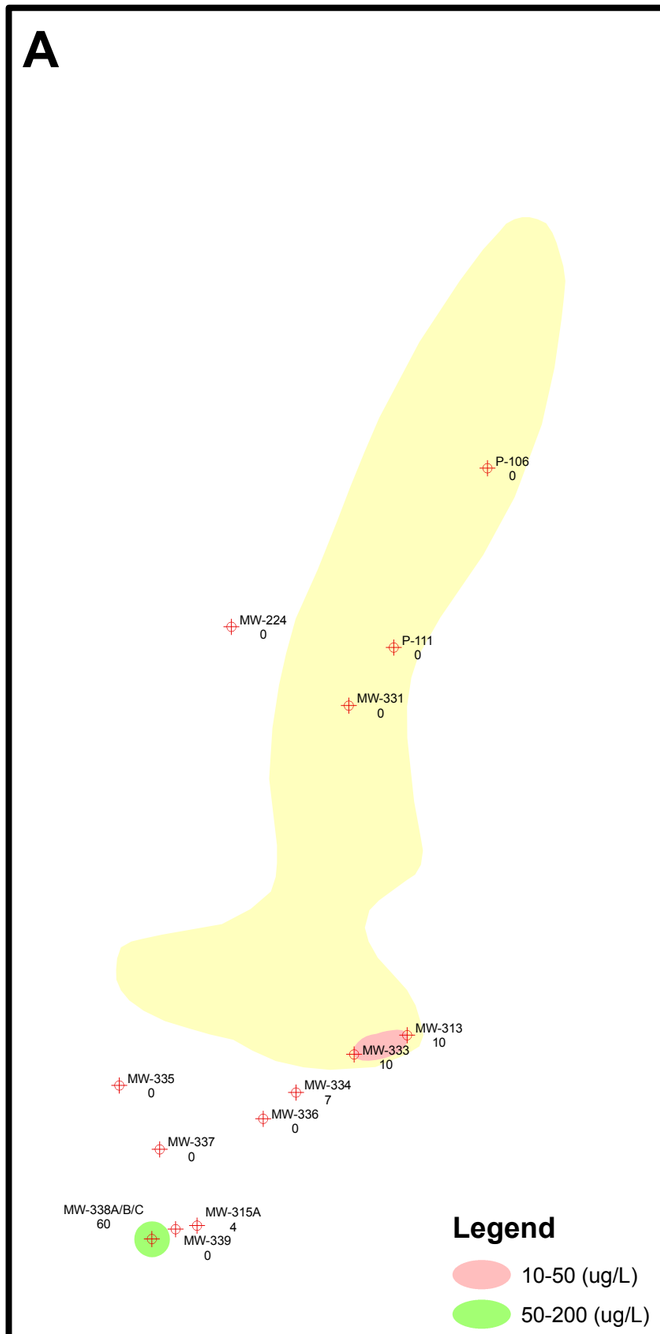
- Sample Location
- Eastern Plume, Sept 2005

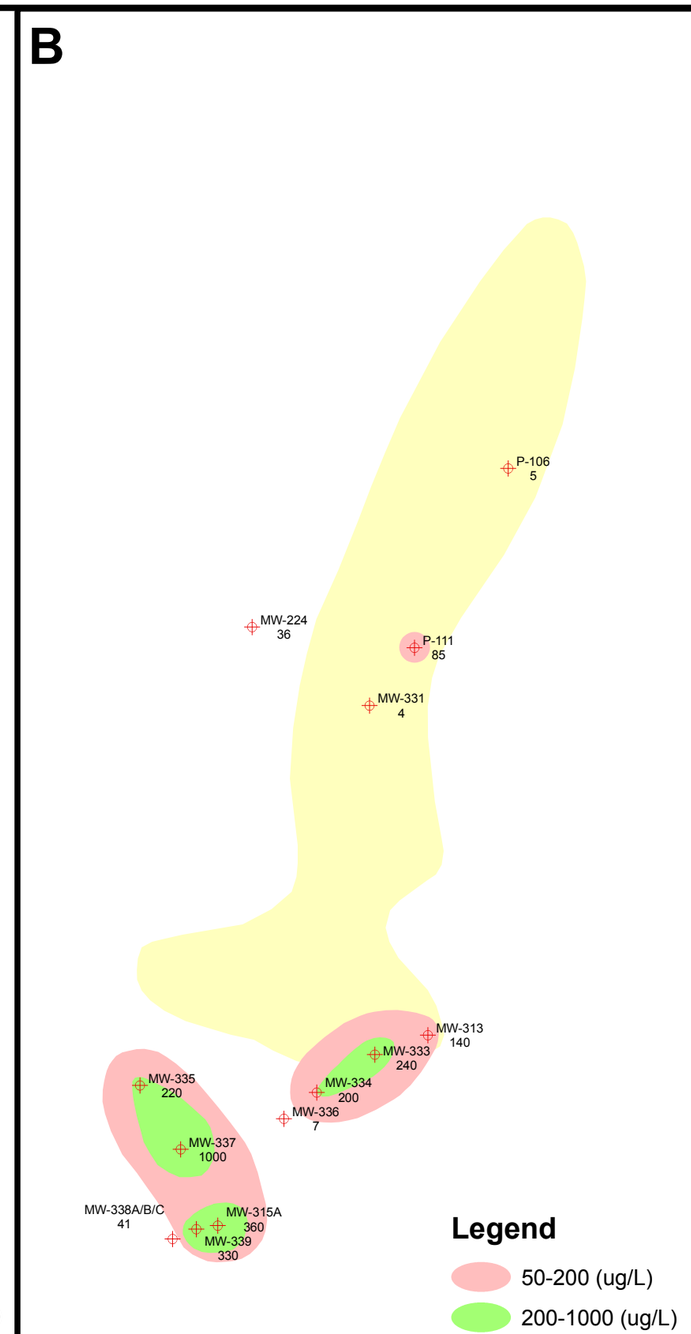
Naval Facilities Engineering Command

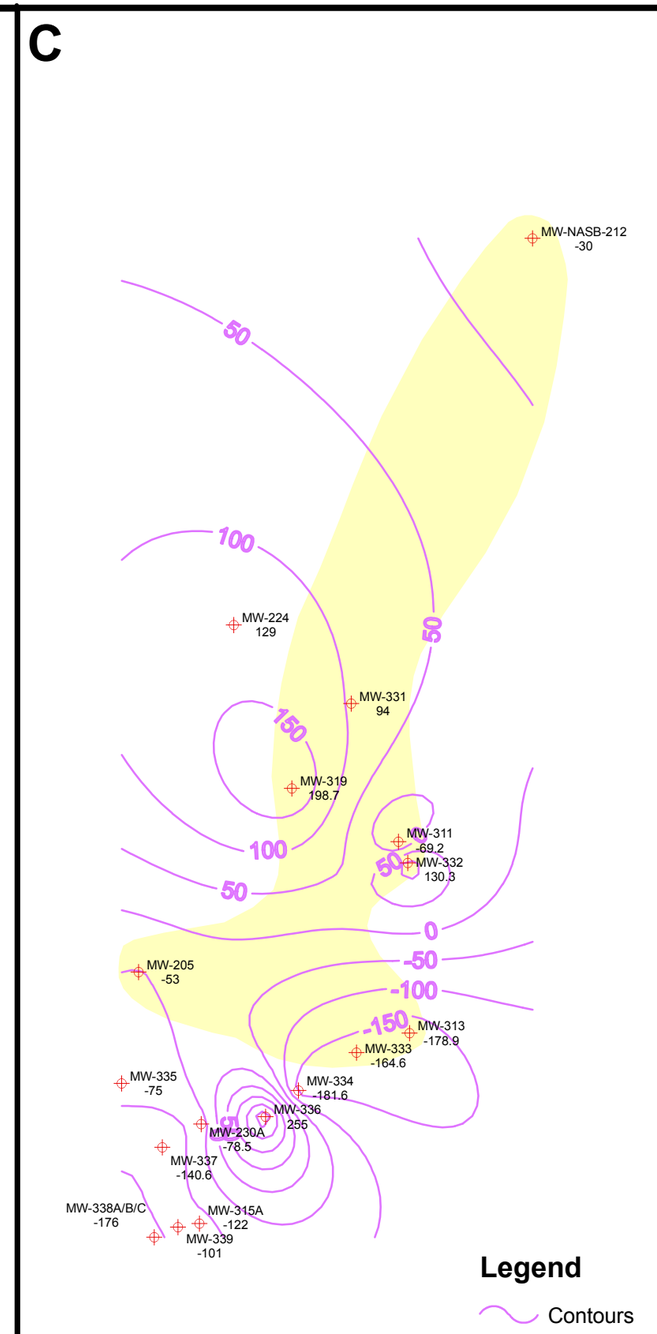
Naval Air Station
Brunswick, ME

ECC Marlborough, MA
C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\EP_Sept05\EP_Sept05Fig2-4.mxd

0 5,500 11,000 Feet







Project No.	5700.007
Description	NAS Brunswick, ME
Coordinate System	NAD 1983, UTM, Zone 19N
Note	Inferred extent of Eastern Plume above state MEG/federal MCL.

Date	5-DEC-07	Rev.	Date	Approved
Drawn	J. Kim			
Checked	N. Williams			
Approved				

Legend

Sample Location

Eastern Plume, Sept 2005

0 350 700 1,400 Feet

ECC GIS Server
C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\
EP_Sept05Fig2-6_AsMnORP.mxd

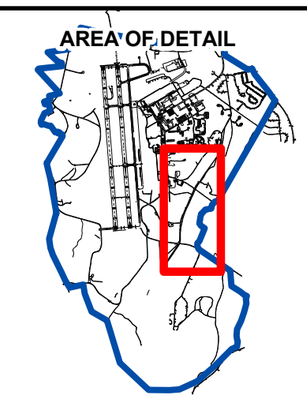
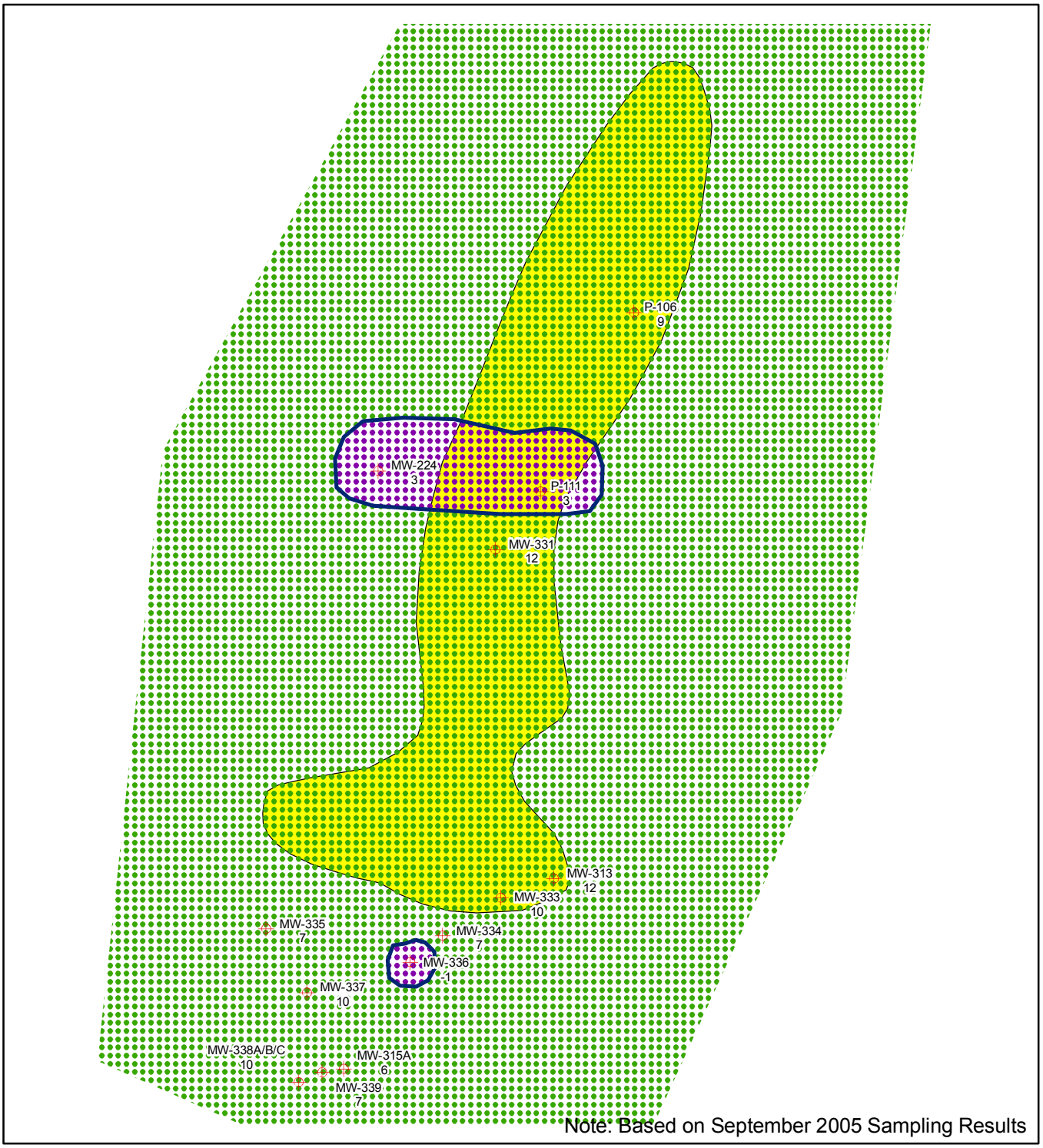


Figure 2-5

Arsenic, Manganese and ORP Concentration Isocontours

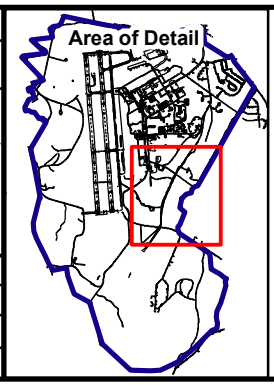
Based on September 2005 Sampling Event

Naval Facilities Engineering Command
Naval Air Station
Brunswick, ME



Project No.	2960047
Description	NASB Brunswick, ME
Coordinate system	NAD 1983, UTM, Zone 19N
Sources	Naval Base Boundary provided by Navy.

Date	23-JAN-2007	Rev.	Date	App. By
DB	C. Guido			
CB	N. Williams			
AB				



Legend

- Sample Location
- <6, Inadequate Evidence of Biodegradation
- 6-14, Limited Evidence of Biodegradation
- Eastern Plume, September 2005

Figure 2-6

Isocontours of Monitored Natural Attenuation Scoring

Naval Facilities Engineering Command
Naval Air Station Brunswick, ME

ECC Marlborough, MA
C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\EP_Sept05Fig2-5.mxd

0 215 430 860 Feet

APPENDIX A

Response to Comments from the Regulators on the Draft Report

NAVY RESPONSES TO REGULATOR COMMENTS

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Responses to Comments Provided by the State of Maine Environmental Protection Agency on the Sites 1&3 Eastern Plume Monitoring Event 27 (September 2005) Report, March 2007 Naval Air Station, Brunswick, Maine

Reviewer: Ms. Claudia Sait, MEDEP Project Manager
Date: May 31, 2007 (Additional Comments, October 31, 2007)
Respondent: ECC
Date: August 17, 2007 (Additional Responses, November 15, 2007)

Comment #	Location	Comment	Response
1	General	MEDEP agrees with EPA's comments and attempted not to repeat them except to emphasis a point.	**Noted.**
2	General	The Navy is out of compliance with the Federal Facility Agreement (FFA) by not following the final Long Term Monitoring Plan (LTMP) (EA 2000) as required by the Record of Decision. The reduction in sampling prevents the Navy from making any conclusions on meeting the objectives of the Long Term Monitoring Plan or findings or conclusions on the plume or protectiveness of the remedies. MEDEP anticipates handling this unauthorized reduction of the LTMP with EPA and the Navy through dispute resolution for failure to comply with the FFA, therefore it will not be noted except where the omissions affect specific conclusions in the report.	Please see the Navy's letter dated July 2, 2007 to the EPA for a full explanation of how we determined which wells to sample and at what frequency. In short, the Navy conducted the sampling at Sites 1&3 and Eastern Plume for Monitoring Event 27 according to the October 2004 revised optimization proposal agreed to by the stakeholders. The final Sites 1&3 and Eastern Plume LTMP should have included this revised November proposal. This oversight will be corrected in the revised Sites 1&3 and Eastern Plume LTMP, which **was** finalized prior to (or during) the Fall 2007 monitoring event.
3	General	The figure number references in the data summary tables do not appear to match the page numbers in the appendix CD pdf files. Please revise as necessary.	**Concur.** Figure numbers will be updated to match the page numbers in the appendix.
4	General	The report must clearly state that the LTMP (EA 2000) was not followed and list the wells not included in the monitoring program for Sites 1 and 3 and for the Eastern Plume.	Please see response to Comment #2.
5	General	MEDEP has two suggestions for future reports to improve the ability of the reader to access information more readily. The first is to include a cover sheet with a table of contents for the appendices that include multiple parts, such as Appendix B, so that it is easier to determine where information is located. This information could alternatively be included as an expanded list in the main Table of Contents in the report. The second is to provide a brief discussion in the text of any issues from the Data Validation report, with reference to appropriate sections. This would help particularly if there are systematic errors that result in a large	A cover sheet listing out the contents of the Appendices section parts will be included in the Table of Contents and also as the last page of the report, before the CD, to assist in the accessibility of information. **Noted.** A brief discussion of any data validation issues will be added to the text.

Comment #	Location	Comment	Response
		number of qualified values for a particular analysis.	
6	General	The term stable and steady are used in the trend tables presented in Section 2.4 and 2.5. The same term should be used or define the terms if they mean different things.	**Concur.** The term "stable" will be used.
7	General	The trend assessment seems very subjective. MEDEP suggests discussing the value of the trend tables as presented. In the mean time, the criteria for determining the trend assessment should be defined in the text.	**Concur.** A brief discussion will be provided to explain the terms used in the trend assessments.
8	General	It should be noted in the text and on the appropriate tables that the seep water is being collected from shallow piezometers and the date or note the first monitoring event round that the new technique was implemented.	Text will be added indicating that seep water is collected from shallow piezometers and the date of the first monitoring event round that this sampling began for the seep water using this technique.
9	Section 1.0, Paragraph 2	"The current version of the LTMP, issued in draft before this monitoring event (EA 2005) establishes the monitoring and sampling requirements for Sites 1 and 3 and Eastern Plume." MEDEP is unfamiliar with this draft LTMP, however as part of the remedy a draft LTMP cannot be implemented for monitoring or sampling without review and approval of the regulatory agencies. See comment 1 above. If this is an accurate statement please qualify it or if it is inaccurate please delete it and state what document(s) were followed and that the documents were not approved by MEDEP or EPA.	The ME 27 was conducted in accordance with Final LTMP dated 2000 with modifications from the Revised Optimization Proposal dated October 2004. The statement in paragraph 2 Section 2 will be revised as stated above.
10	Section 1.1	In the last paragraph of this section, please state what document(s) were followed and that the change was not approved by MEDEP and EPA.	Please see response to Comment #2.
11	Section 1.3	"At Sites 1 and 3, a groundwater sample was collected from one monitoring wells via low-flow sampling techniques specified in the current draft LTMP (EA 2005). At the Eastern Plume groundwater samples were collected from 21 monitoring wells…" Please correct the grammar in the first sentence and qualify these statements and include any departure from the 2000 LTMP. See comment 1 above.	"At Sites 1 and 3 landfill, a groundwater sample was collected from one monitoring well, via low-flow sampling techniques. At the Eastern Plume groundwater samples were collected from 21 monitoring wells…". The reference to following the 2000 LTMP will be removed from this sentence as it is incorrect.
12	Section 1.4	Please qualify the 1st sentence and include any departure from the 2000 LTMP.	See response number 11.
13	Section 1.5	Please qualify the 1st sentence and include any departure from the 2000 LTMP	See response number 11.
14	Section 1.6	Please qualify the first sentence and include any departure from the 2000 LTMP	See response number 11.
15	Section 2.4.1, MW-217B	MEDEP agrees with the USEPA comments related to turbidity and measured ORP. MEDEP also notes that based on data for past MEs	**Noted.**

Comment #	Location	Comment	Response
		where turbidity has been elevated, the trend plots indicate that only aluminum has a strong correlation with turbidity, while the other metals show less of a relationship. This also suggests that turbidity is not the only factor causing the spike in metals concentrations. The new wells downgradient of the slurry wall opening will help assess whether the concentrations measured at MW-217B are strongly affected by turbidity or are indicative of dissolved constituents migrating in the groundwater.	
16		The trend table for iron indicates the April 2005 concentration was 1,700 µg/L and September 2005 was 720,000 (J) µg/L, yet the trend assessment is spike, decreasing; nor is this spike shown in the trend graph. Please correct.	This spike will be added to the trend graphs in the Final Report for iron and the trend assessment in the report text will be corrected.
17	LT-04, Appendix C, Figures 8, 9, 73, & 74, Sections 2.4.3 and 2.4.4	The concentrations of several metals in seep water and sediment samples at LT-04 increased dramatically in the Fall 2005 round, with Lead, Nickel, and Vanadium in sediment at historic highs. The seep samples were also elevated over previous rounds. These increases suggest a shift in discharge conditions and if they are sustained in subsequent rounds, Navy should explain the increases. Based on the low percent solids reported in Appendix G, there may be an extraction or analysis issue with the sediment data, although the seep water also shows a spike this round. The seep water was also sampled from a shallow piezometer this round, though additional rounds are needed to evaluate whether shifts in the data are related to the new collection method **Additional Comment**: It appears that the Navy is suggesting to drop the percent solids criteria from validation. MEDEP cannot agree that percent solids should be eliminated from the Base-Wide QAPP. Percent solids is very important for determining analytical concentrations of the solids, even if it results in all the sediment data being qualified. It just needs to be clear how the qualifiers are applied, and the percent solids/percent moisture data provided somewhere in the appendices for reference.	Please note that sediment low percent solids is neither an extraction nor analysis issue. The sediment matrix, as sampled, has naturally low percent solids. EPA Region I data validation criteria has an unique requirement to qualify solid samples containing less than 30% solids. This data validation requirement is based upon the potential for elevated method reporting limits (due to percent moisture adjustment) greater than project action levels. The project data has been validated per the EPA Region I criteria, In order to ensure comparability between current and past sampling event, which were not validated to EPA Region I data validation criteria for percent solids, sample results with low percent solids has only been qualified J for detects and UJ for non-detects. The Basewide QAPP has percent solids validation incorporated into it by reference. Recommend revising the Basewide QAPP to remove from data validation the percent solids evaluation criteria. **Noted.** The recommendation to remove percent solids evaluation criteria from data validation will not be incorporated in the Basewide QAPP. Samples with low percent solids below the validation criteria will be qualified as "UJ" for non-detects, and "J" for detects, as documented in the data validation reports in order to continue data comparability with past sample results. The Basewide QAPP was updated with a sediment sampling SOP based upon EPA Region 1 sediment sampling guidance. Implementation of this SOP will address the low percent solids.

Comment #	Location	Comment	Response
			The percent solids is recorded on the Form I's and in the data spreadsheets.
18		The plots in Appendix C do not match the data summaries in Section 2.4.3 and 2.4.4 for all compounds. The seep plots appear to have April 2005 non-detect data plotted as mg/L rather than ug/L concentrations for Antimony, Berylium, and Chromium. The September 2005 detection of Nickel is plotted as 170 mg/kg but listed in Section 2.4.4 at 120 mg/kg (Appendix B Table B-15 lists the value as 170). MEDEP did not check all plots/tables for these types of errors but is concerned they may lead to incorrect interpretation of trends. Please correct these errors and check the plots for consistency with the data.	**Concur.** Appendix C plots and the data summary trend assessments will be reviewed to ensure consistency.
19	Table 1-4, MW-207AR and MW-331	Why has the bottom depth of MW-207AR not been measured in the time since installation? MW-331 has the highest total VOC concentration of any well in the Eastern Plume, and is one of the few gauging points in the central portion of the plume. Navy must correct the obstruction so gauging can be completed, or evaluate alternate water level meters with a smaller diameter probe so that this data point can be collected in future events. Has this obstruction been removed and if not, please provide the schedule to have it removed.	The bottom record of the bottom depth of this well during time of installation is not available, but will be researched. Regarding MW-331 – there is an obstruction in the well, but is still gauge and sampled. MW331 was sampled and gauged in our April 2007 event. The well is artesian so water is continuously flowing out when the cap is removed. The obstruction is due to the flow of water getting in between the riser and casing then freezing during the winter and early spring months. ECC has been pumping that water out to prevent this from occurring, as documented on our low-flow field sampling forms.
20	Table B-3, Appendix C	MW-230A, MW-311, MW-313, MW-224 and possibly other locations did not have trend plots updated through September 2005. Please update the plots to include the latest data.	**Noted**. Trend plots will be updated throughout Appendix C.
21	Table B-3, Appendix B	The total VOC is listed as 4.2 ug/l, but there are no detections listed, please correct.	**Concur.** Total VOC will be corrected.
22	Table B-3, Appendix B, ME-333	Overall VOCs have exhibited an increasing trend at this location, including for 1,4 Dioxane, further evidence for migration of the plume into the area below the confluence of Mere Brook and Mericonneag Stream. The trend plots for this well also need to be updated.	**Noted**. Trend plots will be updated throughout Appendix C.
23	Section 2.6.1 and 2.6.3	MEDEP agrees that the MNA assessment did not indicate a high potential for biodegradation within the plume. If this process is re-evaluated in the future MEDEP supports the identification of a new background well for comparison, however based on the 2006 report conclusions, the need for a new location appears to be overtaken by events.	**Noted.**
24	Section 3.1	• Bullet 1 – If the central portion of the plume is targeted for the next extraction well, MEDEP would support completion of a geophysical survey to extend the mapping of the clay surface south of where the	**Noted.**

Comment #	Location	Comment	Response
		previous Hager-Richter data was collected. This approach will depend upon the data collected from the upcoming extraction well to the north and the ongoing Mere Brook investigation. • Bullet 2 – When the data from the Bio-Trap™ study is evaluated it should be included in the next draft monitoring report. • Bullet 3 – *"Surface water sample SW-12 noted decreasing…"* Please revise the text to reflect that the 2003 detection was the first (and only) detection of chlorinated VOCs at that location. Also please confirm that the total VOC detections in the NASB database on April 2005, May 2003, April 2002, May 2001 and November 1998 were not chlorinated VOCs, or were rejected data. Based on the spreadsheet supplied by ECC for the 2005 and 2006 data, there were two 1 ppb detections qualified as rejected in the April 2005 round. • Bullet 4 – MEDEP cannot concur with the conclusions on the groundwater due to the reduction in the LTMP sampling. Please revise the conclusion to reflect the limited groundwater monitoring. • Bullet 5 – MEDEP does not agree that the extraction system has "nearly complete hydraulic control" based upon the evidence for plume migration into the area south of the Mere Brook confluence. MEDEP does agree the system has been effective at reducing concentrations in targeted areas of the plume. Please revise. • Bullet 6 – MEDEP supports evaluating installation of a new well with a shorter screen at the EW-1 location. • Bullet 7 – *see previous comment on this well* **Additional Comment:** By not responding to the individual items within this comment the Navy risks MEDEP not accepting the document as final.	**Concur.** **Noted.** The suggested text will be revised as noted in comment. **Concur.** The conclusion will be revised to reflect the limited groundwater monitoring. **Noted.** This bullet will be qualified to state that there is evidence of plume migration into the area south of the Mere Brook confluence. **Noted.** **Noted.**
25	Section 3.2	• Bullet 1 – Limitations on drawing conclusions this round, particularly at Landfills 1 & 3, have been noted elsewhere. In general, the data for ME27 were consistent with the previous round other than where noted above. The suggestion to focus on the SW-12 vicinity is ongoing and supported by MEDEP. • Bullets 2 & 3 – Each well provides specific information needed for the Long Term Monitoring Program. Eliminating certain wells diminishes the effectiveness of the LTMP. Please delete the 2nd paragraphs or heavily qualify them. • Bullet 4 – The chemical data indicate some degree of hydraulic control on the plume, and the revised groundwater model will also improve the assessment of the system's effectiveness. A detailed assessment of the effective capture zone would require more data than is collected in a typical monitoring event.	**Noted.** The suggested text will be revised as noted in comment.

Comment #	Location	Comment	Response
26	Tables 1-1 and 1-2	Please revise the tables to reflect which wells were sampled and which were not based on the 2000 LTMP. Add whatever footnotes are necessary. (Please correct the spelling of table on table 1-1.	**Concur.** Tables will be updated to reflect which wells were samples and which were not based on the 2000 LTMP
27	Figures 2-1 and 2-2	Please define in the notes or legend what the two concentration values are that are listed beside each well.	**Noted.** Definitions will be provided in the notes section of the figures.
28	Appendix F	This appendix is referenced as the Engineering Inspection Report in the Table of Contents, but the information is missing. Please revise and add it to the appendix	**Concur.** Appendix F will be provided.
END OF COMMENTS			

Responses to Comments Provided by the United States Environmental Protection Agency New England – Region 1 on the Sites 1&3 Eastern Plume Monitoring Event 27 (September 2005) Report, March 2007 Naval Air Station, Brunswick, Maine

Reviewer: Ms. Christine Williams, EPA Project Manager
Date: May 4, 2007 (Additional Comments, June 19, 2007 and October 4, 2007)
Respondent: ECC
Date: August 17, 2007 (Additional Responses, November 15, 2007)

Comment #	Location	Comment	Response
1	General	This monitoring event did not include samples from various wells. The wells to be sampled are listed in the LTMP (EA 2000). A LTMP is required by the ROD. Therefore, the Navy is out of compliance with the RODs for these sites. EPA cannot agree with the Navy's conclusion that the objectives of the LTMPs were met without all of the expected data. EPA cannot agree with the Navy's conclusion that the concentration trends at the landfill or the plume are stable without all of the expected data.	Please see response to MEDEP Comment#2.
2	General	Please provide the rationale for neglecting to sample existing wells in the agreed to finalized LTMP (EA 2000).	Please see response to MEDEP Comment#2.
3	General	The Navy is not treating 1,4-dioxane even though the plume and/or the effluent is above EPA risk levels (6 ppb) and State ARARs (32 ppb). The Navy is not treating the groundwater for arsenic even though the plume is above MCLs (10ppb). The Navy is not treating the groundwater for manganese even though the plume is above EPA risk levels (300 ppb). How is the Navy's groundwater extraction and treatment system restoring the aquifer if the Navy is not treating the extracted groundwater for various contaminants above risk levels or ARARs? The Navy is also out of compliance with the ROD in this respect. **Additional Comment:** The original Comments note that the current remedy does not address exceedances for 1,4-dioxane, arsenic, or manganese. The Responses state that Navy will address 1,4-dioxane in a separate memo and that As and Mn will be addressed following the current basewide background study. It is recommended that the GWETS influent and effluent be sampled and analyzed for As, Mn, and Fe at the earliest opportunity in order to provide critical data to support discussion at a technical meeting of the inorganics issues. These data will indicate the concentrations of As and Mn that are being removed from the aquifer overall, and whether or not the treatment process is effective in lowering	The Navy will address the 1,4 dioxane issue separately. The GWET system, developed in conjunction with the MEDEP and EPA, was established primarily to remove chlorinated VOCs from the groundwater. The Navy will soon be implementing a base-wide background study. Once the background study has been completed, more information will be available to assess whether the arsenic and manganese levels in groundwater are attributed to background or not. Note that As, Mn, and Fe samples have been collected at the Eastern Plume in order to support the MNA study conducted at the Plume; these parameters were, however, never formally part of the LTMP for the Eastern Plume. As part of the GWETS reporting, arsenic is sampled for in the effluent and the results are provided in the routine reports. Currently, metals concentrations (As, Cr, Ni, Pb, and Zn) at the GWETs are analyzed and reported for the effluent. The GWETs effluent analyte reporting will be expanded to

Comment #	Location	Comment	Response
		them. Iron is of interest because the redox chemistry of iron often controls the fate of As and Mn. **Additional comment received from EPA (Mike Daly) via email on 15 January 2008:** The Navy response states that As, Mn, & Fe are sampled at monitoring wells as part of MNA evaluations and As, Cr, Ni, Pb, & Zn are monitored at the GWETS effluent....the Navy is willing to add Mn & Fe to the effluent metals list based on EPA's comment. This response doesn't completely address the comment. EPA was recommending to the Navy that it take a closer look at influent and effluent conditions (not at individual wells) that may provide a greater understanding of the GWETS's capacity to remove As & Mn even though it is not specifically designed to remove them. Doing so would demonstrate that the GWETS is potentially having a greater positive effect on ground water conditions post-treatment. EPA specifically recommended that pH, DO, ORP and turbidity as well as As, Fe, & Mn be sampled at the influent and effluent. This effort would require minimal additional field effort and analytical costs while potentially providing the Navy a good opportunity to demonstrate that the GWETS is providing a greater environmental benefit. The Navy's proposal in its current form does not provide the level of information needed to demonstrate what EPA suspects may be occurring. EPA respectfully requests that the Navy reconsider EPA's proposal.	include manganese and iron, and these metals will be reported when sampled in the GWETs reports. **Additional Response issued to Mike Daly (EPA) 16 January 2008, as per emailed correspondence:** ECC already performed the quarterly metals sampling at the GWETS in early January, as there were no additional comments at the time of the scheduled sampling. An expanded metals list for the effluent was to be reported per the comment response. However due to EPA's proposal, this effluent metal sample analysis has been cancelled at the laboratory, because a temporally concurrent set of influent and effluent samples will be collected. In order to evaluate the incidental effectiveness of the GWETS in treating metals, per EPA's proposal, two additional metals samples will be collected by the end of January. One influent sample and one effluent metal sample will be collected for select metals analysis (As, Mn, Fe, Cr, Ni, Pb, and Zn) and field analysis using a YSI for DO, pH, ORP, conductivity, and turbidity. Currently the Navy samples the effluent only; however, the GWETS quarterly sampling will be modified to include influent and effluent metals analysis and field analysis for DO, pH, ORP, conductivity, and turbidity.
4	General	The Navy has notified EPA that they are upgrading the equipment in the treatment plant to treat the 1,4-dioxane. Provide a schedule for completion of the upgrades and beginning of treatment for 1,4-dioxane within 30 days of this letter.	The Navy will address the 1,4 dioxane issue separately.
5	General	The Navy has not evaluated the plume for arsenic and manganese; these inorganics are only sampled for in conjunction with the MNA evaluation. Provide an evaluation of the nature and extent of arsenic and manganese contaminants throughout the eastern plume within 30 days of this letter.	Please see the response to General Comment #3, above, regarding arsenic and manganese.
6	General	Results from available data in Event 27 are generally consistent with recent trends (see, e.g., Appendix C), particularly for VOCs. Notable exceptions include: • Metals at MW-217B: A large increase in concentrations of metals was observed in ME 27. This appears to be an anomaly	**Noted.**

Comment #	Location	Comment	Response
		associated with turbidity (120 NTU), although it is noted that ORP was recorded at -99 mV, indicating reducing conditions that lead to dissolution of hydrous ferric oxides within the overburden aquifer and release of sorbed trace metals. Iron was detected at 720 mg/L. • Metals at SEEP-04: Metals results at the seeps are erratic over the ten rounds of monitoring shown in the bar graphs. Concentrations were relatively high at SEEP-04 in ME 27, again associated with high turbidity (100 NTU). • TCE at MW-311: TCE has increased significantly over the past ten rounds at MW-311, in the key area approaching the confluence of Merriconeag Stream and Mere Brook. Results from ME 27 are consistent.	
7	General	Appendix E Field Monitoring and Sampling Forms did not contain any information on when and how the field instruments (e.g., dissolved oxygen, ORP, etc.) were calibrated or if the field instrument data were reviewed. The report uses this information in determining if natural attenuation is occurring. This information needs to be added to the report.	**Concur.** All field calibrations have been added to Appendix E.
8	General	Appendix B Laboratory Analytical Data Summary Tables list acetone concentration results for the monitoring wells that used passive diffusion bags (PDBs). PDBs are not designed to collect samples for acetone analysis and therefore, the acetone data needs to be qualified as rejected (R) or not reported.	**Noted.** Acetone data will be qualified
9	Page 1-1, Section 1.0	The list of extraction wells provided is inconsistent, in that it describes some inactive wells, but not all active wells. Please add an entry for EW-1, which presumably was operative at the time of ME27. If EW-3 is to be discussed, then perhaps a separate list of inactive wells should be provided, so that the distinction is clear. For added clarity, it is suggested that the preceding sentence be modified to, "… and *at the present time* consists of the following wells:"	**Concur.** The list of extraction wells will be made current with a concise description of inactive extraction wells. The preceding sentence in Section 1.0 will be modified to read, "… and *at the present time* consists of the following wells:"
10	Page 1-4, Section 1.2, and Figures 1-4 and 1-5	The contouring of the shallow and deep piezometric surfaces is incorrect in the vicinity of the slurry wall around Sites 1 and 3. As drawn for the shallow groundwater, for example, the equipotentials indicate flow through the northern portion of the wall. Assuming that the slurry wall is indeed an impermeable barrier, and is keyed into the underlying clay, it is expected that the potential surface is discontinuous across the wall, with a "step" drop from outside on the upgradient side to inside. Equipotentials	**Concur.** The contouring in the vicinity of the slurry wall around Sites 1 and 3 will be re-drawn.

Comment #	Location	Comment	Response
		(both inside and outside) should approach the wall perpendicular to the wall, so that flow lines diverge around the wall on the outside. Please see attached sketches for more realistic interpretations of the water levels that account for the presence of the slurry wall.	
11	Page 1-6, Section 1.4	The Section states "samples were collected in accordance with the general methodologies established in the current draft LTMP (EA 2005) with the exception of the collection, preservation, and analysis of sediment samples using EPA Method 5035". The Navy should be using the finalized LTMP (EA 2000). When will the Navy update the LTMP to be reflective of agreements made during the October 2004 technical meeting, and the April 2007 sampling round agreements? According to Appendix G Data Validation Memorandum (March 27, 2007) Monitoring Event 27 Sites 1 and 3 the sediment samples (metals) had less than 30 percent solids (data were qualified) and the Memorandum indicated that past samples had the same problem. There is no discussion of the low solids issue in the main body of the report. Will modifications be made to the existing sample collection procedure to increase the amount of solids in the sample for future sampling events? Note, the Memorandum did not indicate any solids problems with the VOC samples. In addition, EPA has requested a summarization of the Validation Memos concerning the site COCs in the body of the text. The Navy must determine if the data is usable and state that in the text with reference to the appropriate appendix.	The Draft Final LTMP is currently in the process of being revised and is expected to be Final prior to the Fall 2007 monitoring event. The sample collection procedures were comparable to those used in past sampling events. If soil drying (not for VOC samples) is used, then there may be comparability issues with past data. High water content doesn't impact instrumental performance nor add to matrix interference. This criteria is evaluated according to EPA Region I data validation guidance. EPA Region 1 Tier II data validation criteria requires or not. A percent solid greater than 30% is the EPA Region I definition of a solid. This criteria is only in place because of any issues with elevated reporting limits due to high percentage moisture. Please note that other EPA regions do not have the percent solids criteria, and the data are evaluated against the elevated reporting limits. Data validation results are summarized in the Appendix G. A brief statement providing an overall assessment of the data quality for each matrix and analytical parameter will be added along with a reference to Appendix G for more specific details. This overall assessment will state whether or not the analytical method was in control and if there are any instrumental bias or matrix interferences that may bias the data. Explanations of how qualifiers are assigned during data validation will be summarized in Appendix G for precision and accuracy and in the data validation memorandums.
		Additional Comment: Part of the Comment states the following: *"Will modifications be made to the existing sample collection procedures to increase the amount of solids in the sample for future sampling events?"*.	Concur. The sediment sampling SOP has been approved by stakeholders, and it is now part of the Basewide QAPP. The sediment sampling SOP prescribes methods for increasing the amount of solids provided to the laboratory in order to avoid false negatives. After the first round of implementation of this SOP (Fall 2007), its effectiveness will be evaluated and further recommendations provided to increase the amount of solids.
		The comment has not been addressed. This is a field issue not a laboratory issue. Can the existing sampling procedure be modified so that the sampler can remove as much as possible water from the sediment	Concur. See above response.

Comment #	Location	Comment	Response
		sample before the sediment sample is placed in the sample container? By having the sampler remove excess water in the sample, this will help in increasing the solids content of the sample. If the sampling procedure is modified, then the EPA will need to review the modified sampling procedure.	
12	Page 2-2, Section 2.2, and Table 1-3	Please consider providing the trigger elevations for water levels within the slurry wall for direct comparison to the elevations actually measured. A column could be added to Table 1-3 with this information.	**Concur.** A table will be added to Section 2.2 to include the trigger elevations.
13	Page 2-3, Section 2.4.1	It is agreed that the apparent spike in metals at MW-217B is likely due to the elevated turbidity (120 NTU), which, in turn, is difficult to avoid when the well purges dry. It is also noted, however, that the ORP measured in this round (-99 mV) is optimal to mobilize hydrous ferric oxides and associated trace metals. (Note that total Fe was analyzed at 720 mg/L.) Therefore, elevated metals might be expected, even without the turbidity.	**Noted.**
14	Page 2-3, Section 2.4.2	According to Table 1-11, SW-4 has a very low oxygen concentration (0.59 mg/L) compared to the down stream sampling locations (SW-7, SW-8, and SW-9; the oxygen concentrations at these locations were greater than 8 mg/L). Section 2.4.2 offers no explanation for the low oxygen concentration. How does the data compare to the past data? Please explain.	**Noted.** Section 2.4.2 has been updated to include a brief outline of oxygen concentrations in these surface water samples.
15	Page 2-4, Section 2.4.3, and Table 1-11	The ORP reported for SEEP-03 is +706 mV, which seems improbable. Please check the field records and instrument calibration records to verify this value.	See Appendix E that contains the calibration records.
16	Page 2-5, Section 2.4.3	The bar charts for the leachate seep samples show some rather erratic analytical results. A notable example is SEEP-04, which in ME27 shows some very high metals (e.g., Fe at 150 mg/L). This highlights the difficulty of obtaining quality water samples from the seeps; turbidity likely exerts a significant influence on these results. It is later stated (p. 3-2, sec. 3.1) that shallow piezometers were installed at the seeps in April 2005. Please add text to sec. 2.4.3 to explain the sampling method used, and when the change in method was implemented, in order to provide some perspective on the changes in analytical results over the last few sampling rounds.	**Noted.** Section 2.4.3 now contains a brief history of sampling procedures used at the SEEP locations.
17	Page 2-16, Section 2.6.3	The text states, "These four wells had the properties (limited methane production …) … ." It is suggested that this be expanded to read something like, "These four wells had properties *favorable for natural*	**Concur.** The sentence will now read, "These four wells had properties *favorable for natural attenuation* (limited methane production …)

Comment #	Location	Comment	Response
		attenuation (limited methane production …) … ."	
18	Page 2-16, Section 2.6.3	Please also include a discussion of the wells with higher than 300 ppb manganese and higher than 10 ppb arsenic. The EPA risk level for manganese is 300 ppb and the MCL for arsenic is 10 ppb.	A brief discussion of arsenic and manganese sample collected as part of the MNA sampling will be discussed. The text discussion and figure will be based upon the MEGs for manganese (500 ppb) and MCL/MEG for arsenic (10 ppb). A figure showing arsenic and manganese detections in the Eastern Plume will be provided. A corresponding figure showing ORP, DO, methane, will be provided with a conclusion about each location being a reducing environment capable of mobilizing arsenic and manganese released from reduced ferric substrate. A conclusion will be provided based upon the evaluation of the arsenic and manganese discussion and presented in the conclusions section.
19	Page 3-1, Section 3.1	The bullet regarding MNA mentions Bio-Trap sampling initiated in April 2005. This is not mentioned elsewhere in the ME27 report. Please explain the status of the Bio-Trap investigation at the time of ME27. Was the work still in progress in September 2005? How will results be reported?	The results of the Bio-Trap investigation were provided as part of the MNA Summary Report issued in the MNA Summary Report (EA 2006 Oct) The Bio-Trap samplers were retrieved in August 2005.
20	Page 3-2, Section 3.1	The first Recommendation on this page states, "… sampling will take place during Monitoring Event 27 (September 2005). … This work is tentatively scheduled for Spring 2007." Please edit for consistency.	**Concur.** The recommendation has been updated to be consistent. Sampling was performed in the Spring 2007.
21	Page 3-3, Section 3.1	The last Recommendation discusses replacement of MW-1104 as a background well for the MNA assessment. This seems to be somewhat at odds with the conclusion that MNA is not promising as a means of achieving cleanup goals (p. 2-16, sec. 2.6.3). Having reached this conclusion, and completed a Summary Report (EA, 2006), is the replacement background well still under consideration?	The replacement MNA background well is no longer under consideration due to the conclusions in the MNA Summary Report. The summary report was produced after this report so for consistency the report still contains the recommendation.
22	Page 3-4, Section 3.2	Please include a discussion on the RAO of aquifer restoration. The Navy is not treating 1,4-dioxane even though the effluent is above EPA risk levels and State ARARs. The Navy is not treating the groundwater for arsenic even though the plume is above MCLs. The Navy is not treating the groundwater for manganese even thought the plume is above EPA risk levels. How is the Navy's groundwater extraction and treatment	The Navy will address the 1,4 dioxane issue separately. Please see the response to General Comment #3, above, regarding arsenic and manganese.

Comment #	Location	Comment	Response
		system meeting the RAO if the Navy is not treating the extracted groundwater for various contaminants above risk levels or ARARs?	
23		EPA offered a number of comments to the effect that the remedy does not address arsenic and manganese, which are found above their respective water-quality standards in the Eastern Plume. The Navy's Response states that an evaluation of this issue must await the completion of a base-wide background study. This is reasonable as it has not been established that elevated As and Mn are a consequence of the organic contamination. Nonetheless, the Navy may be treating for As and Mn, even if not by design. Specifically, the current treatment process entails an air stripper and granular activated carbon polish. These processes may well oxidize the iron and manganese in the influent, and, in the process, remove arsenic through sorption. The metals are likely ending up in the carbon filter. If this possibility is to be investigated further, EPA recommends that the first step should be to analyze the treatment plant influent and effluent for at least As, Fe, and Mn, and to collect field parameters (especially pH, DO, ORP, and turbidity) for these samples. This would support an assessment of whether or not As and Mn concentrations in influent are of concern, and whether or not the present treatment process is effective in removing them.	**Noted.** Most likely As and Mn are mobilized by naturally occurring conditions, as occurrences of these metals is associated with regions of the plume identified as having potential for reductive-dechlorination (i.e reducing environments). The GWETs effluent analyte reporting will be expanded to include manganese and iron, and these metals will be reported when sampled in the GWETs reports. In-plant turbidity and pH are currently reported in the GWETs reports. To determine if there is incidental treatment of metals in the GWETs DO, ORP, turbidity, and pH will be determined for influent and effluent samples during the next GWETs sampling event, and an influent metal sample will be collected.
END OF COMMENTS			

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FOLLOW-UP COMMENTS AND/OR CONCURRENCE LETTERS

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January 15, 2008

Mr. Orlando Monaco
Department of Navy
Base Realignment and Closure
Program Management Office-Northeast
4911 South Broad Street
Philadelphia, PA 19112-1303

Re: Sites 1, 3 & Eastern Plume Monitoring Event 27-Follow-Up Responses
Naval Air Station, Brunswick, Maine

Dear Mr. Monaco:

MEDEP has reviewed the Navy's responses dated August 17, 2007 and follow up response dated November 30, 2007, to the Maine Department of Environmental Protection (MEDEP) comments, dated Nay 31, 2007 and follow up comments dated October 31, 2007, for Sites 1, 3 & Eastern Plume, Monitoring Event Report 27 (March 2007). Based on those reviews MEDEP has no further comments provided that the proposed revisions and additions are incorporated into the final report along with regulator comments, responses and this letter.

Please contact me at (207) 287-7713 or claudia.b.sait@maine.gov, if you have any questions or comments.

Respectfully,

Claudia Sait
Project Manager-Federal Facilities
Bureau of Remediation & Waste Management

Cf: File
Dale Mosher-BNAS
Carolyn Lepage-Lepage Environmental
Ed Benedikt
Carol Warren-(email only)
Gina Calderone-ECC (email only)
Jackson Kiker-ECC (email only)
Chris Evans-MEDEP
Mike Daly-EPA
Al Easterday–ECC
Jeff Donovan-ECC (email only)
Helen Cavanagh-ECC (email only)
David Chipman (email only)

Follow- Up on Second Round of RTCs on ME 27 From EPA which was addressed via email correspondence.

>>> <Daly.Mike@epamail.epa.gov> 1/15/2008 11:21 AM >>>

Hi Gina,

Thanks for the nudge!...I looked at the Navy's response to a comment I provided in a 10/4/07 letter. Here's my take on the response:

The Navy response states that As, Mn, & Fe are sampled at monitoring wells as part of MNA evaluations and As, Cr, Ni, Pb, & Zn are monitored at the GWETS effluent....the Navy is willing to add Mn & Fe to the effluent metals list based on EPA's comment.

This response doesn't completely address the comment. EPA was recommending to the Navy that it take a closer look at influent and effluent conditions (not at individual wells) that may provide a greater understanding of the GWETS's capacity to remove As & Mn eventhough it is not specifically designed to remove them. Doing so would demonstrate that the GWETS is potentially having a greater positive effect on ground water conditions post-treatment. EPA specifically recommended that pH, DO, ORP and turbidity as well as As, Fe, & Mn be sampled at the influent and effluent. This effort would require minimal additional field effort and analytical costs while potentially providing the Navy a good opportunity to demonstrate that the GWETS is providing a greater environmental benefit. The Navy's proposal in its current form does not provide the level of information needed to demonstrate what EPA suspects may be occurring. EPA respectfully requests that the Navy reconsider EPA's proposal. Please give me a call if you have any questions or would like to discuss this further.

Thanks,

Mike Daly
EPA Region I

01/15/2008 10:16 AM Re: BNAS-1,3 &EP ME-27 RTC

Thank you Claudia. Mike, we are awaiting your concurrence on the second round of comments for ME27 Sites 1 and 3 , Eastern Plume. Then we will issue the final report.

thanks.

APPENDIX B

Laboratory Analytical Data Summary Tables

Table B-1
Summary of Groundwater Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

			Station ID:	MW-217B	MW-217B			
			Field Sample ID*:	MW217BS	MW-XD10			
			Lab Sample ID:	AH10826	AH10827			
			Sample Date:	9/14/2005	9/14/2005			
			Lab Name:	NEL-ME	NEL-ME			
			Field QC:	Original data	Field duplicates			
			Sampling Information:	Deep Diffusion	Deep Diffusion			
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
1,1,1-Trichloroethane	ug/l	200	200	1 U	1 U	-	-	-
1,1,2,2-Tetrachloroethane	ug/l	NA	NA	1 U	1 U	-	-	-
1,1,2-Trichloroethane	ug/l	5	3	1 U	1 U	-	-	-
1,1-Dichloroethane	ug/l	NA	70	1 U	1 U	-	-	-
1,1-Dichloroethene	ug/l	7	7	1 U	1 U	-	-	-
1,2-Dichloroethane	ug/l	5	5	1 U	1 U	-	-	-
1,2-Dichloroethene, total	ug/l	70	70	1 U	1 U	-	-	-
1,2-Dichloropropane	ug/l	NA	NA	1 U	1 U	-	-	-
2-Hexanone	ug/l	NA	NA	5 U	5 U	-	-	-
4-Methyl-2-pentanone	ug/l	NA	NA	5 U	5 U	-	-	-
Acetone	ug/l	NA	NA	5 U	5 U	-	-	-
Benzene	ug/l	5	5	.33 J	1 U	-	-	-
Bromodichloromethane	ug/l	NA	NA	1 U	1 U	-	-	-
Bromoform	ug/l	NA	NA	1 U	1 U	-	-	-
Bromomethane	ug/l	NA	NA	1 U	1 U	-	-	-
Carbon disulfide	ug/l	NA	NA	1 UJ	1 U	-	-	-
Carbon tetrachloride	ug/l	NA	NA	1 U	1 U	-	-	-
Chlorobenzene	ug/l	100	47	1.6 J	1.7	-	-	-
Chloroethane	ug/l	NA	NA	1 U	1 U	-	-	-
Chloroform	ug/l	NA	NA	1 U	1 U	-	-	-

Table B-1
Summary of Groundwater Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

			Station ID:	MW-217B	MW-217B			
			Field Sample ID*:	MW217BS	MW-XD10			
			Lab Sample ID:	AH10826	AH10827			
			Sample Date:	9/14/2005	9/14/2005			
			Lab Name:	NEL-ME	NEL-ME			
			Field QC:	Original data	Field duplicates			
			Sampling Information:	Deep Diffusion	Deep Diffusion			
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
Chloromethane	ug/l	NA	NA	1 UJ	1 UJ	-	-	-
cis-1,3-Dichloropropene	ug/l	NA	NA	1 U	1 U	-	-	-
Dibromochloromethane	ug/l	NA	NA	1 U	1 U	-	-	-
Ethylbenzene	ug/l	700	700	1 U	1 U	-	-	-
Methyl ethyl ketone	ug/l	NA	NA	5 UJ	5 UJ	-	-	-
Methylene chloride	ug/l	5	NA	1 U	1 U	-	-	-
Styrene	ug/l	NA	NA	1 U	1 U	-	-	-
Tetrachloroethene	ug/l	5	3	1 UJ	1 UJ	-	-	-
Toluene	ug/l	1000	1400	1 U	1 U	-	-	-
trans-1,3-Dichloropropene	ug/l	NA	NA	1 U	1 U	-	-	-
Trichloroethene	ug/l	5	5	1 U	1 U	-	-	-
Vinyl Chloride	ug/l	2	0.15	1 UJ	1 UJ	-	-	-
Xylenes, Total	ug/l	10000	600	1 U	1 U	-	-	-
Total VOC	ug/l	NA	NA	1.93	1.7	-	-	-

Table B-1

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-2
Summary of Groundwater Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

Station ID:	MW-217B
Field Sample ID*:	MW217B
Lab Sample ID:	AH10828
Sample Date:	9/14/2005
Lab Name:	NEL-ME
Field QC:	Original data
Sampling Information:	Deep Diffusion

	Units	Federal MCL	Maine MEG					
Metals								
Aluminum	ug/l	200	1430	100,000 J	-	-	-	-
Antimony, Furnace-GW	ug/l	NA	NA	15	-	-	-	-
Arsenic	ug/l	10	NA	680	-	-	-	-
Barium	ug/l	2000	1500	370	-	-	-	-
Beryllium	ug/l	4	NA	5 U	-	-	-	-
Cadmium	ug/l	5	5	5	-	-	-	-
Calcium	ug/l	NA	NA	90,000	-	-	-	-
Chromium	ug/l	100	100	**1,600**	-	-	-	-
Cobalt	ug/l	NA	NA	240	-	-	-	-
Copper	ug/l	NA	NA	130	-	-	-	-
Iron	ug/l	300	NA	720,000 J	-	-	-	-
Lead	ug/l	15	NA	52	-	-	-	-
Magnesium	ug/l	NA	NA	55,000	-	-	-	-
Manganese	ug/l	50	200	**5,500**	-	-	-	-
Mercury by Cold Vapor GW	ug/l	NA	NA	.2	-	-	-	-
Nickel	ug/l	100	100	**1,000**	-	-	-	-
Potassium	ug/l	NA	NA	50,000 U	-	-	-	-
Selenium Furnace GW	ug/l	NA	NA	5 U	-	-	-	-
Silver	ug/l	100	50	10 UJ	-	-	-	-
Sodium	ug/l	NA	NA	140,000	-	-	-	-
Thallium, Furnace, Groundwater	ug/l	NA	NA	12	-	-	-	-
Vanadium	ug/l	NA	NA	160	-	-	-	-
Zinc	ug/l	5000	NA	14,000	-	-	-	-

Table B-2

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

			Station ID:	MW-205	MW-212	MW-212	MW-224	MW-224
			Field Sample ID*:	MW205	MW212S	XD5	MW224	MW224M
			Lab Sample ID:	AH10822	AH10943	AH10954	AH10896	AH10897
			Sample Date:	9/14/2005	9/16/2005	9/16/2005	9/15/2005	9/15/2005
			Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
			Field QC:	Original data	Original data	Field duplicates	Original data	Original data
			Sampling Information:	Low Flow	Shallow Diffusion	Shallow Diffusion	Low Flow	Mid Diffusion
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
1,1,1-Trichloroethane	ug/l	200	200	13	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/l	5	3	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/l	NA	70	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/l	7	7	1.7	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/l	5	5	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene, total	ug/l	70	70	8	1.2	1.6	1.1	1 U
1,2-Dichloropropane	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/l	NA	NA	-	-	-	-	-
2-Hexanone	ug/l	NA	NA	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/l	NA	NA	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	NA	NA	5 U	4 J	5.7 J	5 U	5 U
Benzene	ug/l	5	5	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/l	100	47	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

			Station ID:	MW-205	MW-212	MW-212	MW-224	MW-224
			Field Sample ID*:	MW205	MW212S	XD5	MW224	MW224M
			Lab Sample ID:	AH10822	AH10943	AH10954	AH10896	AH10897
			Sample Date:	9/14/2005	9/16/2005	9/16/2005	9/15/2005	9/15/2005
			Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
			Field QC:	Original data	Original data	Field duplicates	Original data	Original data
			Sampling Information:	Low Flow	Shallow Diffusion	Shallow Diffusion	Low Flow	Mid Diffusion
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
Chloroform	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/l	700	700	1 U	1 U	1 U	1 U	1 U
Methyl ethyl ketone	ug/l	NA	NA	5 UJ	5 U	5 U	5 UJ	5 UJ
Methylene chloride	ug/l	5	NA	1 U	1 U	1 UJ	1 U	1 U
Styrene	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/l	5	3	3.4 J	1 U	.34 J	1 UJ	1 UJ
Toluene	ug/l	1000	1400	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/l	NA	NA	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/l	5	5	**19 J**	**7.8**	**10 J**	.76 J	1 U
Vinyl Chloride	ug/l	2	0.15	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	ug/l	10000	600	1 U	1 U	1 U	1 U	1 U
Total VOC	ug/l	NA	NA	45.1	9	11.94	0.76	0

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-230A	MW-230A	MW-311	MW-311	MW-313	MW-313	MW-313
Field Sample ID*:		MW230A	MWXD3	MW311M	MW311D	MW313	XD4	MW313
Lab Sample ID:		AH10823	AH10824	AH10937	AH10938	AH10899	AH10900	AH10901
Sample Date:		9/14/2005	9/14/2005	9/16/2005	9/16/2005	9/15/2005	9/15/2005	9/15/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Field duplicates	Original data	Original data	Original data	Field duplicates	Original data
Sampling Information:		Low Flow	Low Flow	Mid Diffusion	Deep Diffusion	Low Flow	Low Flow	Low Flow
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 U	1 U	2.8	18	-	-	1.2
1,1,2,2-Tetrachloroethane	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
1,1,2-Trichloroethane	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
1,1-Dichloroethane	ug/l	1 U	.51 J	17	2.2	-	-	14
1,1-Dichloroethene	ug/l	1 U	1 U	**32**	4.4	-	-	**17**
1,2-Dichloroethane	ug/l	.66 J	.93 J	1.1	1 U	-	-	1 U
1,2-Dichloroethene, total	ug/l	1 U	1 U	3.4	.51 J	-	-	1 U
1,2-Dichloropropane	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
1,4-Dioxane	ug/l	-	-	-	-	94	99	-
2-Hexanone	ug/l	5 U	5 U	5 U	5 U	-	-	5 U
4-Methyl-2-pentanone	ug/l	5 U	5 U	5 U	5 U	-	-	5 U
Acetone	ug/l	5 U	3.3 J	5 U	5 UJ	-	-	6
Benzene	ug/l	1 U	1 U	.33 J	1 U	-	-	1 U
Bromodichloromethane	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Bromoform	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Bromomethane	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Carbon disulfide	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Carbon tetrachloride	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Chlorobenzene	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Chloroethane	ug/l	1 U	1 U	1 U	1 U	-	-	1 U

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-230A	MW-230A	MW-311	MW-311	MW-313	MW-313	MW-313
Field Sample ID*:		MW230A	MWXD3	MW311M	MW311D	MW313	XD4	MW313
Lab Sample ID:		AH10823	AH10824	AH10937	AH10938	AH10899	AH10900	AH10901
Sample Date:		9/14/2005	9/14/2005	9/16/2005	9/16/2005	9/15/2005	9/15/2005	9/15/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Field duplicates	Original data	Original data	Original data	Field duplicates	Original data
Sampling Information:		Low Flow	Low Flow	Mid Diffusion	Deep Diffusion	Low Flow	Low Flow	Low Flow
	Units							
VOCs								
Chloroform	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Chloromethane	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
cis-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Dibromochloromethane	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Ethylbenzene	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Methyl ethyl ketone	ug/l	5 UJ	5 UJ	5 U	5 U	-	-	5 U
Methylene chloride	ug/l	1 U	1 U	1 UJ	1 U	-	-	1 UJ
Styrene	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Tetrachloroethene	ug/l	1 UJ	1 UJ	4.1	**7**	-	-	1 U
Toluene	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
trans-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Trichloroethene	ug/l	2.2 J	1.9 J	**57**	**6.7**	-	-	.74 J
Vinyl Chloride	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Xylenes, Total	ug/l	1 U	1 U	1 U	1 U	-	-	1 U
Total VOC	ug/l	2.86	3.34	117.73	38.81	-		32.94

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-315A	MW-315A	MW-315A	MW-319	MW-331	MW-331	MW-332
Field Sample ID*:		MW315AS	MW315AM	MW315AD	MW319D	MW331M	MW331	MW332M
Lab Sample ID:		AH10727	AH10728	AH10729	AH10931	AH10934	AH10935	AH10936
Sample Date:		9/13/2005	9/13/2005	9/13/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Original data	Original data	Original data	Original data	Original data	Original data
Sampling Information:		Shallow Diffusion	Mid Diffusion	Deep Diffusion	Deep Diffusion	Mid Diffusion	Low Flow	Mid Diffusion
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 U	1 U	1 U	.34 J	**320**	-	20
1,1,2,2-Tetrachloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
1,1,2-Trichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
1,1-Dichloroethane	ug/l	1 U	1 U	1 U	1 U	33	-	1.7
1,1-Dichloroethene	ug/l	1 U	1 U	1 U	1 U	**33**	-	2.3
1,2-Dichloroethane	ug/l	.55 J	.53 J	.5 J	1 U	.57 J	-	1 U
1,2-Dichloroethene, total	ug/l	1 U	1 U	1 U	1.6	**190**	-	5
1,2-Dichloropropane	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
1,4-Dioxane	ug/l	-	-	-	-	-	22	-
2-Hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	-	5 U
4-Methyl-2-pentanone	ug/l	5 U	5 U	5 U	5 U	5 U	-	5 U
Acetone	ug/l	5 U	5 U	5 U	3 J	5 U	-	3.3 J
Benzene	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Bromodichloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Bromoform	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Bromomethane	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Carbon disulfide	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Carbon tetrachloride	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Chlorobenzene	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Chloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-315A	MW-315A	MW-315A	MW-319	MW-331	MW-331	MW-332
Field Sample ID*:		MW315AS	MW315AM	MW315AD	MW319D	MW331M	MW331	MW332M
Lab Sample ID:		AH10727	AH10728	AH10729	AH10931	AH10934	AH10935	AH10936
Sample Date:		9/13/2005	9/13/2005	9/13/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Original data	Original data	Original data	Original data	Original data	Original data
Sampling Information:		Shallow Diffusion	Mid Diffusion	Deep Diffusion	Deep Diffusion	Mid Diffusion	Low Flow	Mid Diffusion
	Units							
VOCs								
Chloroform	ug/l	1 U	1 U	1 U	1 U	1 U	-	2.6
Chloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
cis-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Dibromochloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Ethylbenzene	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Methyl ethyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	-	5 U
Methylene chloride	ug/l	1 U	1 U	1 U	1 UJ	1 UJ	-	1 UJ
Styrene	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Tetrachloroethene	ug/l	1 U	1 U	1 U	**33**	4	-	.79 J
Toluene	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
trans-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Trichloroethene	ug/l	1 U	1 U	1 U	4	**160**	-	**8.6**
Vinyl Chloride	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Xylenes, Total	ug/l	1 U	1 U	1 U	1 U	1 U	-	1 U
Total VOC	ug/l	.55	.53	.5	38.94	740.57		40.99

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-333	MW-333	MW-335	MW-335	MW-335	MW-335	MW-336
Field Sample ID*:		MW333	MW333M	MW335	MW335S	MW335M	MW335D	MW336
Lab Sample ID:		AH10902	AH10904	AH10808	AH10809	AH10810	AH10811	AH10812
Sample Date:		9/15/2005	9/15/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Original data	Original data	Original data	Original data	Original data	Original data
Sampling Information:		Low Flow	Mid Diffusion	Low Flow	Shallow Diffusion	Mid Diffusion	Deep Diffusion	Low Flow
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/l	-	6.6	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/l	-	**7.4**	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/l	-	.67 J	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene, total	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/l	60	-	-	-	-	-	-
2-Hexanone	ug/l	-	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/l	-	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	-	3 J	5 UJ	5 U	5 U	5 U	5 U
Benzene	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/l	-	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon disulfide	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-333	MW-333	MW-335	MW-335	MW-335	MW-335	MW-336
Field Sample ID*:		MW333	MW333M	MW335	MW335S	MW335M	MW335D	MW336
Lab Sample ID:		AH10902	AH10904	AH10808	AH10809	AH10810	AH10811	AH10812
Sample Date:		9/15/2005	9/15/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Original data	Original data	Original data	Original data	Original data	Original data
Sampling Information:		Low Flow	Mid Diffusion	Low Flow	Shallow Diffusion	Mid Diffusion	Deep Diffusion	Low Flow
	Units							
VOCs								
Chloroform	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/l	-	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Methyl ethyl ketone	ug/l	-	5 U	5 UJ	5 U	5 U	5 U	5 U
Methylene chloride	ug/l	-	1 UJ	1 U	1 U	1 U	1 U	1 U
Styrene	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/l	-	1 U	1 UJ	1 U	1 U	1 U	1 U
Toluene	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	ug/l	-	1 U	1 U	1 U	1 U	1 U	1 U
Total VOC	ug/l		14.67	0	0	0	0	0

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-336	MW-336	MW-336	MW-337	MW-337	MW-337	MW-337
Field Sample ID*:		MW336S	MW336M	MW336D	MW337	MW337S	MW337M	MW337D
Lab Sample ID:		AH10813	AH10814	AH10815	AH10816	AH10817	AH10818	AH10819
Sample Date:		9/14/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Original data	Original data	Original data	Original data	Original data	Original data
Sampling Information:		Shallow Diffusion	Mid Diffusion	Deep Diffusion	Low Flow	Shallow Diffusion	Mid Diffusion	Deep Diffusion
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
1,1-Dichloroethane	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
1,1-Dichloroethene	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
1,2-Dichloroethane	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
1,2-Dichloroethene, total	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
1,2-Dichloropropane	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
1,4-Dioxane	ug/l	-	-	-	-	-	-	-
2-Hexanone	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Acetone	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Benzene	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Bromodichloromethane	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Bromoform	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Bromomethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon disulfide	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Carbon tetrachloride	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Chlorobenzene	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Chloroethane	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-336	MW-336	MW-336	MW-337	MW-337	MW-337	MW-337
Field Sample ID*:		MW336S	MW336M	MW336D	MW337	MW337S	MW337M	MW337D
Lab Sample ID:		AH10813	AH10814	AH10815	AH10816	AH10817	AH10818	AH10819
Sample Date:		9/14/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Original data	Original data	Original data	Original data	Original data	Original data
Sampling Information:		Shallow Diffusion	Mid Diffusion	Deep Diffusion	Low Flow	Shallow Diffusion	Mid Diffusion	Deep Diffusion
	Units							
VOCs								
Chloroform	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Chloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Dibromochloromethane	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Ethylbenzene	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Methyl ethyl ketone	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Methylene chloride	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Styrene	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Tetrachloroethene	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Toluene	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Trichloroethene	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Vinyl Chloride	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Xylenes, Total	ug/l	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Total VOC	ug/l	0	0	0	0	0	0	0

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-337	MW-337	MW-338A	MW-338B	MW-338B	MW-338B	MW-338B
Field Sample ID*:		MW-XD2	MNAXD2	MW338A	MW338B	MW338BS	MW338BM	MW338BD
Lab Sample ID:		AH10820	AH10821	AH10743	AH10730	AH10731	AH10732	AH10733
Sample Date:		9/14/2005	9/14/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Field duplicates	Field duplicates	Original data	Original data	Original data	Original data	Original data
Sampling Information:		Deep Diffusion	Low Flow	Low Flow	Low Flow	Shallow Diffusion	Mid Diffusion	Deep Diffusion
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/l	.46 J	.59 J	1 U	1 U	.26 J	.32 J	.35 J
1,2-Dichloroethene, total	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/l	-	-	1 U	-	-	-	-
2-Hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	5 U	5 U	12	5 U	5 U	5 U	5 U
Benzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-337	MW-337	MW-338A	MW-338B	MW-338B	MW-338B	MW-338B
Field Sample ID*:		MW-XD2	MNAXD2	MW338A	MW338B	MW338BS	MW338BM	MW338BD
Lab Sample ID:		AH10820	AH10821	AH10743	AH10730	AH10731	AH10732	AH10733
Sample Date:		9/14/2005	9/14/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Field duplicates	Field duplicates	Original data	Original data	Original data	Original data	Original data
Sampling Information:		Deep Diffusion	Low Flow	Low Flow	Low Flow	Shallow Diffusion	Mid Diffusion	Deep Diffusion
	Units							
VOCs								
Chloroform	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl ethyl ketone	ug/l	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U
Methylene chloride	ug/l	1 U	1 U	1 U	1 U	1 U	1.1 U	1 U
Styrene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/l	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U
Toluene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/l	1.5 J	1.3 J	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total VOC	ug/l	1.96	1.89	0	0	.26	.32	.35

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-338C	MW-338C	MW-338C	MW-338C	MW-338C	MW-339	MW-339
Field Sample ID*:		MW338C	MW338CS	MW338CM	MW338CD	MW-XD1	MW339	MW339S
Lab Sample ID:		AH10738	AH10739	AH10740	AH10741	AH10742	AH10734	AH10735
Sample Date:		9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Original data	Original data	Original data	Field duplicates	Original data	Original data
Sampling Information:		Low Flow	Shallow Diffusion	Mid Diffusion	Deep Diffusion	Deep Diffusion	Low Flow	Shallow Diffusion
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	.5 J
1,2-Dichloroethene, total	ug/l	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	ug/l	-	-	-	-	-	-	-
2-Hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
Benzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-338C	MW-338C	MW-338C	MW-338C	MW-338C	MW-339	MW-339
Field Sample ID*:		MW338C	MW338CS	MW338CM	MW338CD	MW-XD1	MW339	MW339S
Lab Sample ID:		AH10738	AH10739	AH10740	AH10741	AH10742	AH10734	AH10735
Sample Date:		9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Original data	Original data	Original data	Field duplicates	Original data	Original data
Sampling Information:		Low Flow	Shallow Diffusion	Mid Diffusion	Deep Diffusion	Deep Diffusion	Low Flow	Shallow Diffusion
	Units							
VOCs								
Chloroform	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl ethyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	ug/l	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Styrene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/l	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Toluene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total VOC	ug/l	0	0	0	0	0	0	.5

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-339	MW-339	P-106	P-106	P-111	P-111	
Field Sample ID*:		MW339M	MW339D	P106	XD7	P111	XD6	
Lab Sample ID:		AH10736	AH10737	AH10894	AH10895	AH10932	AH10933	
Sample Date:		9/13/2005	9/13/2005	9/15/2005	9/15/2005	9/16/2005	9/16/2005	
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	
Field QC:		Original data	Original data	Original data	Field duplicates	Original data	Field duplicates	
Sampling Information:		Mid Diffusion	Deep Diffusion	Low Flow	Low Flow	Low Flow	Low Flow	
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 U	1 U	**360 J**	**320 J**	1 U	1 U	-
1,1,2,2-Tetrachloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
1,1,2-Trichloroethane	ug/l	1 U	1 U	.65 J	.67 J	1 U	1 U	-
1,1-Dichloroethane	ug/l	1 U	1 U	23	21	1 U	1 U	-
1,1-Dichloroethene	ug/l	1 U	1 U	**64 J**	**61**	1 U	1 U	-
1,2-Dichloroethane	ug/l	.23 J	.26 J	.79 J	.73 J	1 U	1 U	-
1,2-Dichloroethene, total	ug/l	1 U	1 U	14	13	1 U	1 U	-
1,2-Dichloropropane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
1,4-Dioxane	ug/l	-	-	30 J	-	-	-	-
2-Hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	-
4-Methyl-2-pentanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	-
Acetone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	-
Benzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Bromodichloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Bromoform	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Bromomethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Carbon disulfide	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Carbon tetrachloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Chlorobenzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Chloroethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-339	MW-339	P-106	P-106	P-111	P-111	
Field Sample ID*:		MW339M	MW339D	P106	XD7	P111	XD6	
Lab Sample ID:		AH10736	AH10737	AH10894	AH10895	AH10932	AH10933	
Sample Date:		9/13/2005	9/13/2005	9/15/2005	9/15/2005	9/16/2005	9/16/2005	
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	
Field QC:		Original data	Original data	Original data	Field duplicates	Original data	Field duplicates	
Sampling Information:		Mid Diffusion	Deep Diffusion	Low Flow	Low Flow	Low Flow	Low Flow	
	Units							
VOCs								
Chloroform	ug/l	1 U	1 U	.35 J	.32 J	1 U	1 U	-
Chloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
cis-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Dibromochloromethane	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Ethylbenzene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Methyl ethyl ketone	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	-
Methylene chloride	ug/l	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	-
Styrene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Tetrachloroethene	ug/l	1 U	1 U	**5.6**	**6.3 J**	1 U	1 U	-
Toluene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
trans-1,3-Dichloropropene	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Trichloroethene	ug/l	1 U	1 U	**220 J**	**190 J**	1 U	1 U	-
Vinyl Chloride	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Xylenes, Total	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	-
Total VOC	ug/l	.23	.26	688.39	613.02	0	0	-

Table B-3

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-4
Summary of Groundwater Samples - Eastern Plume
Target Analyte Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

			Station ID:	MW-224	MW-313	MW-315A	MW-331	MW-333
			Field Sample ID*:	MW224	MW313	MW315A	MW331	MNAXD1
			Lab Sample ID:	AH10896	AH10899	AH10898	AH10935	AH10906
			Sample Date:	9/15/2005	9/15/2005	9/15/2005	9/16/2005	9/15/2005
			Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
			Field QC:	Original data	Original data	Original data	Original data	Field duplicates
			Sampling Method:		Low Flow	Low Flow	Low Flow	Low Flow
	Units	**Federal MCL**	**Maine MEG**					
Metals								
Arsenic	ug/l	10	NA	2.3 U	10	4 J	2.3 U	10 J
Iron	ug/l	300	NA	170 J	2000 J	1600 J	61 J	1600 J
Manganese	ug/l	50	200	36 J	140 J	**360 J**	4 J	**240 J**

Table B-4
Summary of Groundwater Samples - Eastern Plume
Target Analyte Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-334	MW-335	MW-336	MW-337	MW-337	MW-338A	MW-338B
Field Sample ID*:		MW334	MW335	MW336	MW337	MNAXD2	MW338A	MW338B
Lab Sample ID:		AH10903	AH10808	AH10812	AH10816	AH10821	AH10743	AH10730
Sample Date:		9/15/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005	9/13/2005	9/13/2005
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Original data	Original data	Original data	Original data	Field duplicates	Original data	Original data
Sampling Method:		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
	Units							
Metals								
Arsenic	ug/l	7 J	2.3 U	2.3 U	2.3 U	2.3 U	60	3
Iron	ug/l	2600 J	2400 J	100 J	1200 J	1200 J	810 J	450 J
Manganese	ug/l	200 J	**220**	7	**890**	**1000**	41	**350**

Table B-4
Summary of Groundwater Samples - Eastern Plume
Target Analyte Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-338C	MW-339	P-106	P-111			
Field Sample ID*:		MW338C	MW339	P106	P111			
Lab Sample ID:		AH10738	AH10734	AH10894	AH10932			
Sample Date:		9/13/2005	9/13/2005	9/15/2005	9/16/2005			
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME			
Field QC:		Original data	Original data	Original data	Original data			
Sampling Method:		Low Flow	Low Flow	Low Flow	Low Flow			
	Units							
Metals								
Arsenic	ug/l	5	2.3 U	2.3 U	2.3 U	-	-	-
Iron	ug/l	240 J	450 J	320 J	1700 J	-	-	-
Manganese	ug/l	7	**330**	5	85 J	-	-	-

Table B-4

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

Table B-5
Summary of Groundwater Samples - Eastern Plume
Natural Attenuation Parameters (mg/L)
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

			Station ID:	MW-224	MW-224	MW-313	MW-313	MW-315A
			Field Sample ID*:	MW224	MW224 (AH10896)	MW313	MW313 (AH10899)	MW315A
			Lab Sample ID:	AH10896	0509392-02A	AH10899	0509392-04A	AH10898
			Sample Date:	9/15/2005	9/15/2005	9/15/2005	9/15/2005	9/15/2005
			Lab Name:	NEL-ME		NEL-ME		NEL-ME
			Field QC:	Original data	Original data	Original data	Original data	Original data
			Analysis Information:	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
	Units	**Federal MCL**	**Maine MEG**					
MNA Parameters								
Alkalinity, Total as CaCO3	mg/l	NA	NA	7.7	-	77	-	44
Chloride	mg/l	NA	NA	27	-	23	-	13
Ethane	mg/l	NA	NA	-	0.01 U	-	0.01 U	-
Ethene	mg/l	NA	NA	-	0.01 U	-	0.01 U	-
Methane	mg/l	NA	NA	-	0.01 U	-	0.052 J	-
Nitrogen, Nitrate+Nitrite	mg/l	NA	NA	1.5	-	0.1 U	-	0.1 U
Nitrogen, Nitrite	mg/l	NA	NA	0.2 U	-	0.2 U	-	0.2 U
Sulfate	mg/l	NA	NA	8.8	-	3.6	-	3
Total Organic Carbon	mg/l	NA	NA	1 J	-	1	-	1.1

Table B-5
Summary of Groundwater Samples - Eastern Plume
Natural Attenuation Parameters (mg/L)
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-315A	MW-331	MW-331	MW-333	MW-333	MW-333	MW-333
Field Sample ID*:		W315A (AH10898)	MW331 (AH10935)	MW331	MW333	MNAXD1	MW333 (AH10902)	MW333 (AH10902)
Lab Sample ID:		0509392-03A	0509430-02A	AH10935	AH10902	AH10906	0509392-05A	0509392-05AA
Sample Date:		9/15/2005	9/16/2005	9/16/2005	9/15/2005	9/15/2005	9/15/2005	9/15/2005
Lab Name:				NEL-ME	NEL-ME	NEL-ME		
Field QC:		Original data	Original data	Original data	Original data	Field duplicates	Original data	Original data
Analysis Information:		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
	Units							
MNA Parameters								
Alkalinity, Total as CaCO3	mg/l	-	-	35	66	66	-	-
Chloride	mg/l	-	-	95	20	20	-	-
Ethane	mg/l	0.01 U	0.01 U	-	-	-	0.01 U	0.01
Ethene	mg/l	0.01 U	0.01 U	-	-	-	0.01 U	0.01
Methane	mg/l	0.015	0.01 U	-	-	-	0.013	0.011
Nitrogen, Nitrate+Nitrite	mg/l	-	-	0.49	0.1 U	0.1 U	-	-
Nitrogen, Nitrite	mg/l	-	-	0.2 U	0.2 U	0.2 U	-	-
Sulfate	mg/l	-	-	7.9	3.9	4	-	-
Total Organic Carbon	mg/l	-	-	1 J	1.1	1.5 J	-	-

Table B-5
Summary of Groundwater Samples - Eastern Plume
Natural Attenuation Parameters (mg/L)
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-333	MW-334	MW-334	MW-335	MW-335	MW-336	MW-336
Field Sample ID*:		NAXDI (AH10906)	MW334	MW334 (AH10903)	MW335	MW335 (AH10808)	MW336	MW336 (AH10812)
Lab Sample ID:		0509392-08A	AH10903	0509392-06A	AH10808	0509364-01A	AH10812	0509364-02A
Sample Date:		9/15/2005	9/15/2005	9/15/2005	9/14/2005	9/14/2005	9/14/2005	9/14/2005
Lab Name:			NEL-ME		NEL-ME		NEL-ME	
Field QC:		Field duplicates	Original data	Original data	Original data	Original data	Original data	Original data
Analysis Information:		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
	Units							
MNA Parameters								
Alkalinity, Total as CaCO3	mg/l	-	52	-	75	-	6.9	-
Chloride	mg/l	-	17	-	37	-	4.8	-
Ethane	mg/l	0.01 U	-	0.01 U	-	0.01 U	-	0.01 U
Ethene	mg/l	0.01 U	-	0.01 U	-	0.01 U	-	0.01 U
Methane	mg/l	0.013 J	-	0.01 U	-	0.044	-	0.01 U
Nitrogen, Nitrate+Nitrite	mg/l	-	0.1 U	-	0.1 U	-	0.1 U	-
Nitrogen, Nitrite	mg/l	-	0.2 U	-	0.2 U	-	0.2 U	-
Sulfate	mg/l	-	3.2	-	3.5	-	3.2	-
Total Organic Carbon	mg/l	-	1 U	-	1 U	-	1 U	-

Table B-5
Summary of Groundwater Samples - Eastern Plume
Natural Attenuation Parameters (mg/L)
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-337	MW-337	MW-337	MW-337	MW-338A	MW-338A	MW-338B
Field Sample ID*:		MW337	MNAXD2	MW337(AH10816)	NAXD2 (AH10821)	MW338A	W338A (AH10743)	MW338B
Lab Sample ID:		AH10816	AH10821	0509364-03A	0509364-04A	AH10743	0509325-03A	AH10730
Sample Date:		9/14/2005	9/14/2005	9/14/2005	9/14/2005	9/13/2005	9/13/2005	9/13/2005
Lab Name:		NEL-ME	NEL-ME			NEL-ME		NEL-ME
Field QC:		Original data	Field duplicates	Original data	Field duplicates	Original data	Original data	Original data
Analysis Information:		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
	Units							
MNA Parameters								
Alkalinity, Total as CaCO3	mg/l	47	47	-	-	290	-	34
Chloride	mg/l	11	11	-	-	124	-	8
Ethane	mg/l	-	-	0.01 U	0.01 U	-	0.01 UJ	-
Ethene	mg/l	-	-	0.01 U	0.01 U	-	0.01 UJ	-
Methane	mg/l	-	-	0.01 U	0.01 U	-	0.33 J	-
Nitrogen, Nitrate+Nitrite	mg/l	0.1 U	0.1 U	-	-	0.1 U	-	0.1 U
Nitrogen, Nitrite	mg/l	0.2 U	0.2 U	-	-	0.2 U	-	0.2 U
Sulfate	mg/l	4.2	5.1	-	-	1	-	4.9
Total Organic Carbon	mg/l	1 U	1 U	-	-	3	-	1 U

Table B-5
Summary of Groundwater Samples - Eastern Plume
Natural Attenuation Parameters (mg/L)
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		MW-338B	MW-338C	MW-338C	MW-338C	MW-339	MW-339	P-106
Field Sample ID*:		W338B (AH10730)	MW338C	W338C (AH10738)	W338C (AH10738)	MW339	MW339 (AH10734)	P106
Lab Sample ID:		0509325-01A	AH10738	0509325-04A	0509325-04AA	AH10734	0509325-02A	AH10894
Sample Date:		9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/13/2005	9/15/2005
Lab Name:			NEL-ME			NEL-ME		NEL-ME
Field QC:		Original data	Original data	Original data	Original data	Original data	Original data	Original data
Analysis Information:		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
	Units							
MNA Parameters								
Alkalinity, Total as CaCO3	mg/l	-	20	-	-	33	-	34
Chloride	mg/l	-	3.9	-	-	7.3	-	11
Ethane	mg/l	0.01 U	-	0.01 U	0.01	-	0.01 U	-
Ethene	mg/l	0.01 U	-	0.01 U	0.01	-	0.01 U	-
Methane	mg/l	0.01 U	-	0.01 U	0.01	-	0.01 U	-
Nitrogen, Nitrate+Nitrite	mg/l	-	0.1 U	-	-	0.1 U	-	0.35
Nitrogen, Nitrite	mg/l	-	0.2 U	-	-	0.2 U	-	0.2 U
Sulfate	mg/l	-	3.3	-	-	3.6	-	5.5
Total Organic Carbon	mg/l	-	1	-	-	1 U	-	1.1

Table B-5
Summary of Groundwater Samples - Eastern Plume
Natural Attenuation Parameters (mg/L)
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

Station ID:		P-106	P-111	P-111	P-111			
Field Sample ID*:		P106 (A10894)	P111 (AH10932)	P111 (AH10932)	P111			
Lab Sample ID:		0509392-01A	0509430-01A	0509430-01AA	AH10932			
Sample Date:		9/15/2005	9/16/2005	9/16/2005	9/16/2005			
Lab Name:					NEL-ME			
Field QC:		Original data	Original data	Original data	Original data			
Analysis Information:		Low Flow	Low Flow	Low Flow	Low Flow			
	Units							
MNA Parameters								
Alkalinity, Total as CaCO3	mg/l	-	-	-	36	-	-	-
Chloride	mg/l	-	-	-	5.5	-	-	-
Ethane	mg/l	0.01 U	0.01 U	0.01	-	-	-	-
Ethene	mg/l	0.01 U	0.01 U	0.01	-	-	-	-
Methane	mg/l	0.01 U	0.01 U	0.01	-	-	-	-
Nitrogen, Nitrate+Nitrite	mg/l	-	-	-	0.1 U	-	-	-
Nitrogen, Nitrite	mg/l	-	-	-	0.2 U	-	-	-
Sulfate	mg/l	-	-	-	12	-	-	-
Total Organic Carbon	mg/l	-	-	-	1.6 J	-	-	-

Table B-5

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-6
Summary of Groundwater Samples - Groundwater Extraction and Treatment System
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: GWETS

			Station ID:	Combined Effluent	Combined Effluent	Raw Influent	EW-01	EW-02A
			Field Sample ID*:	COMB EFFLUENT	XD8	RAW INFLUENT	EW1	EW2A
			Lab Sample ID:	AH10941	AH10942	AH10940	AH10956	AH10955
			Sample Date:	9/16/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005
			Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
			Field QC:	Original data	Field duplicates	Original data	Original data	Original data
			Sampling Method:	Grab	Grab	Grab	Grab	Grab
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
1,1,1-Trichloroethane	ug/l	200	200	1 U	1 U	61	8.8 J	69
1,1,2,2-Tetrachloroethane	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
1,1,2-Trichloroethane	ug/l	5	3	1 U	1 U	1 U	1 UJ	1 U
1,1-Dichloroethane	ug/l	NA	70	1 U	1 U	7.2	1.4 J	9.1
1,1-Dichloroethene	ug/l	7	7	1 U	1 U	**11**	2.7 J	**16**
1,2-Dichloroethane	ug/l	5	5	1 U	1 U	1 U	1 UJ	.38 J
1,2-Dichloroethene, total	ug/l	70	70	1 U	1 U	14	13 J	18
1,2-Dichloropropane	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
1,4-Dioxane	ug/l	NA	NA	12	11	-	-	-
2-Hexanone	ug/l	NA	NA	5 U	5 U	5 U	5 UJ	5 U
4-Methyl-2-pentanone	ug/l	NA	NA	5 U	5 U	5 U	5 UJ	5 U
Acetone	ug/l	NA	NA	5 UJ	5 UJ	5 UJ	5 UJ	5 U
Benzene	ug/l	5	5	1 U	1 U	1 U	1 UJ	1 U
Bromodichloromethane	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
Bromoform	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
Bromomethane	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
Carbon disulfide	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
Carbon tetrachloride	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
Chlorobenzene	ug/l	100	47	1 U	1 U	1 U	1 UJ	1 U
Chloroethane	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
Chloroform	ug/l	NA	NA	1 U	1 U	.59 J	1 UJ	.21 J
Chloromethane	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
cis-1,3-Dichloropropene	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U

Table B-6
Summary of Groundwater Samples - Groundwater Extraction and Treatment System
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: GWETS

			Station ID:	Combined Effluent	Combined Effluent	Plume Raw Influent	EW-01	EW-02A
			Field Sample ID*:	COMB EFFLUENT	XD8	RAW INFLUENT	EW1	EW2A
			Lab Sample ID:	AH10941	AH10942	AH10940	AH10956	AH10955
			Sample Date:	9/16/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005
			Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
			Field QC:	Original data	Field duplicates	Original data	Original data	Original data
			Sampling Method:	Grab	Grab	Grab	Grab	Grab
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
Dibromochloromethane	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
Ethylbenzene	ug/l	700	700	1 U	1 U	1 U	1 UJ	1 U
Methyl ethyl ketone	ug/l	NA	NA	5 U	5 U	5 U	5 UJ	5 U
Methylene chloride	ug/l	5	NA	1 U	1 U	1 U	1 UJ	1 U
Styrene	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
Tetrachloroethene	ug/l	5	3	1 U	1 U	3.9	3.4 J	**7.8**
Toluene	ug/l	1000	1400	1 U	1 U	1 U	1 UJ	1 U
trans-1,3-Dichloropropene	ug/l	NA	NA	1 U	1 U	1 U	1 UJ	1 U
Trichloroethene	ug/l	5	5	1 U	1 U	**35**	**19 J**	**40**
Vinyl Chloride	ug/l	2	0.15	1 U	1 U	1 U	1 UJ	1 U
Xylenes, Total	ug/l	10000	600	1 U	1 U	1 U	1 UJ	1 U
Total VOC	ug/l	NA	NA	0	0	132.69	48.3	160.49

Table B-6
Summary of Groundwater Samples - Groundwater Extraction and Treatment System
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: GWETS

Station ID:		EW-05A						
Field Sample ID*:		BN-EP-27-EW05A						
Lab Sample ID:		AH10939						
Sample Date:		9/16/2005						
Lab Name:		NEL-ME						
Field QC:		Original data						
Sampling Method:		Grab						
Units								
VOCs								
1,1,1-Trichloroethane	ug/l	11	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/l	1 U	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/l	1 U	-	-	-	-	-	-
1,1-Dichloroethane	ug/l	3.6	-	-	-	-	-	-
1,1-Dichloroethene	ug/l	4.2	-	-	-	-	-	-
1,2-Dichloroethane	ug/l	1 U	-	-	-	-	-	-
1,2-Dichloroethene, total	ug/l	2.1	-	-	-	-	-	-
1,2-Dichloropropane	ug/l	1 U	-	-	-	-	-	-
1,4-Dioxane	ug/l	-	-	-	-	-	-	-
2-Hexanone	ug/l	5 U	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/l	5 U	-	-	-	-	-	-
Acetone	ug/l	5 UJ	-	-	-	-	-	-
Benzene	ug/l	1 U	-	-	-	-	-	-
Bromodichloromethane	ug/l	1 U	-	-	-	-	-	-
Bromoform	ug/l	1 U	-	-	-	-	-	-
Bromomethane	ug/l	1 U	-	-	-	-	-	-
Carbon disulfide	ug/l	1 U	-	-	-	-	-	-
Carbon tetrachloride	ug/l	1 U	-	-	-	-	-	-
Chlorobenzene	ug/l	1 U	-	-	-	-	-	-
Chloroethane	ug/l	1 U	-	-	-	-	-	-
Chloroform	ug/l	1.2	-	-	-	-	-	-
Chloromethane	ug/l	1 U	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/l	1 U	-	-	-	-	-	-

Table B-6
Summary of Groundwater Samples - Groundwater Extraction and Treatment System
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: GWETS

Station ID:		EW-05A						
Field Sample ID*:		EW05A						
Lab Sample ID:		AH10939						
Sample Date:		9/16/2005						
Lab Name:		NEL-ME						
Field QC:		Original data						
Sampling Method:		Grab						
	Units							
VOCs								
Dibromochloromethane	ug/l	1 U	-	-	-	-	-	-
Ethylbenzene	ug/l	1 U	-	-	-	-	-	-
Methyl ethyl ketone	ug/l	5 U	-	-	-	-	-	-
Methylene chloride	ug/l	1 U	-	-	-	-	-	-
Styrene	ug/l	1 U	-	-	-	-	-	-
Tetrachloroethene	ug/l	1 U	-	-	-	-	-	-
Toluene	ug/l	1 U	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/l	1 U	-	-	-	-	-	-
Trichloroethene	ug/l	**9.9**	-	-	-	-	-	-
Vinyl Chloride	ug/l	1 U	-	-	-	-	-	-
Xylenes, Total	ug/l	1 U	-	-	-	-	-	-
Total VOC	ug/l	32	-	-	-	-	-	-

Table B-6

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-7
Summary of Surface Water Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SW-04	SW-04	SW-07	SW-08	SW-09	
		Field Sample ID*:	SW4	XD12	SW7	SW8	SW9	
		Lab Sample ID:	AH11067	AH11068	AH11071	AH11058	AH11059	
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	
		Field QC:	Original data	Field duplicates	Original data	Original data	Original data	
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	
	Units	**Screening Value**						
VOCs								
1,1,1-Trichloroethane	ug/l	11	1 U	1 U	1 U	1 U	1 U	-
1,1,2,2-Tetrachloroethane	ug/l	610	1 U	1 U	1 U	1 U	1 U	-
1,1,2-Trichloroethane	ug/l	1200	1 U	1 U	1 U	1 U	1 U	-
1,1-Dichloroethane	ug/l	47	1 U	1 U	1 U	1 U	1 U	-
1,1-Dichloroethene	ug/l	25	1 U	1 U	1 U	1 U	1 U	-
1,2-Dichloroethane	ug/l	910	1 U	1 U	1 U	1 U	1 U	-
1,2-Dichloroethene, total	ug/l	NA	1 U	1 U	1 U	1 U	1 U	-
1,2-Dichloropropane	ug/l	2160	1 U	1 U	1 U	1 U	1 U	-
2-Hexanone	ug/l	99	5 U	5 U	5 U	5 U	5 U	-
4-Methyl-2-pentanone	ug/l	170	5 U	5 U	5 U	5 U	5 U	-
Acetone	ug/l	1500	5 U	5 U	5 U	5 U	5 U	-
Benzene	ug/l	130	1 U	1 U	1 U	1 U	1 U	-
Bromodichloromethane	ug/l	2610	1 U	1 U	1 U	1 U	1 U	-
Bromoform	ug/l	2300	1 U	1 U	1 U	1 U	1 U	-
Bromomethane	ug/l	9450	1 U	1 U	1 U	1 U	1 U	-
Carbon disulfide	ug/l	92	1 U	1 U	1 U	1 U	1 U	-
Carbon tetrachloride	ug/l	9.8	1 U	1 U	1 U	1 U	1 U	-
Chlorobenzene	ug/l	64	1 U	1 U	1 U	1 U	1 U	-
Chloroethane	ug/l	NA	1 U	1 U	1 U	1 U	1 U	-

Table B-7
Summary of Surface Water Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SW-04	SW-04	SW-07	SW-08	SW-09	
		Field Sample ID*:	SW4	XD12	SW7	SW8	SW9	
		Lab Sample ID:	AH11067	AH11068	AH11071	AH11058	AH11059	
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	
		Field QC:	Original data	Field duplicates	Original data	Original data	Original data	
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	
	Units	**Screening Value**						
Chloroform	ug/l	28	1 U	1 U	1 U	1 U	1 U	-
Chloromethane	ug/l	6000	1 U	1 U	1 U	1 U	1 U	-
cis-1,3-Dichloropropene	ug/l	0.085	1 U	1 U	1 U	1 U	1 U	-
Dibromochloromethane	ug/l	2510	1 U	1 U	1 U	1 U	1 U	-
Ethylbenzene	ug/l	7.3	1 U	1 U	1 U	1 U	1 U	-
Methyl ethyl ketone	ug/l	NA	5 U	5 U	5 U	5 U	5 U	-
Methylene chloride	ug/l	2200	1 U	1 U	1 U	1 UJ	1 UJ	-
Styrene	ug/l	300	1 U	1 U	1 U	1 U	1 U	-
Tetrachloroethene	ug/l	98	1 U	1 U	1 U	1 U	1 U	-
Toluene	ug/l	9.8	1 U	1 U	1 U	1 U	1 U	-
trans-1,3-Dichloropropene	ug/l	0.085	1 U	1 U	1 U	1 U	1 U	-
Trichloroethene	ug/l	47	1 U	1 U	1 U	1 U	1 U	-
Vinyl Chloride	ug/l	0.069	1 U	1 U	1 U	1 U	1 U	-
Xylenes, Total	ug/l	1.8	1 U	1 U	1 U	1 U	1 U	-
Total VOC	ug/l	NA	0	0	0	0	0	-

Table B-7

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-8
Summary of Surface Water Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SW-04	SW-04	SW-07	SW-08	SW-09	SW-15
		Field Sample ID*:	SW4	XD12	SW7	SW8	SW9	SW15
		Lab Sample ID:	AH11067	AH11068	AH11071	AH11058	AH11059	AH11070
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Field duplicates	Original data	Original data	Original data	Original data
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
Metals								
Aluminum	ug/l	87	200 U	200 U	120 U	200 U	200 U	200 U
Antimony, Furnace-GW	ug/l	NA	6 U	6 U	6 U	6 U	6 U	6 U
Arsenic	ug/l	150	10 U	10 U	10 U	10 U	10 U	10 U
Barium	ug/l	3.9	200 U	200 U	200 U	200 U	200 U	200 U
Beryllium	ug/l	0.66	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Cadmium	ug/l	0.08	5 U	5 U	5 U	5 U	5 U	5 U
Calcium	ug/l	NA	9900	10000	10000	10000	9600	9400
Chromium	ug/l	11	10 U	10 U	10 U	10 U	10 U	10 U
Cobalt	ug/l	23	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ
Copper	ug/l	2.36	25 U	25 U	25 U	25 U	25 U	25 U
Iron	ug/l	1000	990 J	870 J	920 J	960 J	1000 J	760 J
Lead	ug/l	0.41	3 U	3 U	3 U	3 U	3 U	3 U
Magnesium	ug/l	NA	5000 U	5000 U	5000 U	5000 U	5000 U	5000 U
Manganese	ug/l	120	220	210	230	240	220	140
Mercury by Cold Vapor GW	ug/l	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	13.4	40 U	40 U	40 U	40 U	40 U	40 U
Potassium	ug/l	NA	5000 U	5000 U	5000 U	5000 U	5000 U	5000 U
Selenium Furnace GW	ug/l	NA	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/l	0.23	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Table B-8
Summary of Surface Water Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SW-04	SW-04	SW-07	SW-08	SW-09	SW-15
		Field Sample ID*:	SW4	XD12	SW7	SW8	SW9	SW15
		Lab Sample ID:	AH11067	AH11068	AH11071	AH11058	AH11059	AH11070
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Field duplicates	Original data	Original data	Original data	Original data
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
Sodium	ug/l	NA	16000 J	17000	17000	16000	14000	18000
Thallium, Furnace, Groundwater	ug/l	NA	2 U	2 U	2 U	2 U	2 U	2 U
Vanadium	ug/l	20	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	ug/l	NA	30 J	40 J	20 J	30 J	20 J	30 J

Table B-8
Summary of Surface Water Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

Station ID:	SW-16
Field Sample ID*:	SW16
Lab Sample ID:	AH11075
Sample Date:	9/19/2005
Lab Name:	NEL-ME
Field QC:	Original data
Sampling Method:	Grab

	Units							
Metals								
Aluminum	ug/l	200 U	-	-	-	-	-	-
Antimony, Furnace-GW	ug/l	6 U	-	-	-	-	-	-
Arsenic	ug/l	10 U	-	-	-	-	-	-
Barium	ug/l	200 U	-	-	-	-	-	-
Beryllium	ug/l	5 UJ	-	-	-	-	-	-
Cadmium	ug/l	5 U	-	-	-	-	-	-
Calcium	ug/l	9400	-	-	-	-	-	-
Chromium	ug/l	10 U	-	-	-	-	-	-
Cobalt	ug/l	50 UJ	-	-	-	-	-	-
Copper	ug/l	25 U	-	-	-	-	-	-
Iron	ug/l	870 J	-	-	-	-	-	-
Lead	ug/l	3 U	-	-	-	-	-	-
Magnesium	ug/l	5000 U	-	-	-	-	-	-
Manganese	ug/l	180	-	-	-	-	-	-
Mercury by Cold Vapor GW	ug/l	0.2 U	-	-	-	-	-	-
Nickel	ug/l	40 U	-	-	-	-	-	-
Potassium	ug/l	5000 U	-	-	-	-	-	-
Selenium Furnace GW	ug/l	5 U	-	-	-	-	-	-
Silver	ug/l	10 UJ	-	-	-	-	-	-

Table B-8
Summary of Surface Water Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

Station ID:	SW-16
Field Sample ID*:	SW16
Lab Sample ID:	AH11075
Sample Date:	9/19/2005
Lab Name:	NEL-ME
Field QC:	Original data
Sampling Method:	

	Units							
Sodium	ug/l	16000	-	-	-	-	-	-
Thallium, Furnace, Groundwater	ug/l	2 U	-	-	-	-	-	-
Vanadium	ug/l	50 U	-	-	-	-	-	-
Zinc	ug/l	20 U	-	-	-	-	-	-

Table B-8

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-9
Summary of Surface Water Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	SW-010	SW-011	SW-012	SW-013	SW-013	SW-014
		Field Sample ID*:	SW10	SW11	SW12	SW13	SW-XD16	SW14
		Lab Sample ID:	AH10944	AH10945	AH10953	AH10946	AH10948	AH10947
		Sample Date:	9/16/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Field duplicates	Original data
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
VOCs								
1,1,1-Trichloroethane	ug/l	11	1 U	1 U	1 U	1 UJ	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	610	1 U	1 U	1 U	1 UJ	1 U	1 U
1,1,2-Trichloroethane	ug/l	1200	1 U	1 U	1 U	1 UJ	1 U	1 U
1,1-Dichloroethane	ug/l	47	1 U	1 U	1 U	1 UJ	1 U	1 U
1,1-Dichloroethene	ug/l	25	1 U	1 U	1 U	1 UJ	1 U	1 U
1,2-Dichloroethane	ug/l	910	1 U	1 U	1 U	1 UJ	1 U	1 U
1,2-Dichloroethene, total	ug/l	NA	1 U	1 U	1 U	1 UJ	1 U	1 U
1,2-Dichloropropane	ug/l	2160	1 U	1 U	1 U	1 UJ	1 U	1 U
2-Hexanone	ug/l	99	5 U	5 U	5 U	5 UJ	5 U	5 U
4-Methyl-2-pentanone	ug/l	170	5 U	5 U	5 U	5 UJ	5 U	5 U
Acetone	ug/l	1500	5 UJ	5 UJ	19 J	72 J	34 J	22
Benzene	ug/l	130	1 U	1 U	1 U	1 UJ	1 U	1 U
Bromodichloromethane	ug/l	2610	1 U	1 U	1 U	1 UJ	1 U	1 U
Bromoform	ug/l	2300	1 U	1 U	1 U	1 UJ	1 U	1 U
Bromomethane	ug/l	9450	1 U	1 U	1 U	1 UJ	1 U	1 U
Carbon disulfide	ug/l	92	1 U	1 U	1 U	1 UJ	1 U	1 U
Carbon tetrachloride	ug/l	9.8	1 U	1 U	1 U	1 UJ	1 U	1 U
Chlorobenzene	ug/l	64	1 U	1 U	1 U	1 UJ	1 U	1 U
Chloroethane	ug/l	NA	1 U	1 U	1 U	1 UJ	1 U	1 U
Chloroform	ug/l	28	1 U	1 U	1 U	1 UJ	1 U	1 U

Table B-9
Summary of Surface Water Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	SW-010	SW-011	SW-012	SW-013	SW-013	SW-014
		Field Sample ID*:	SW10	SW11	SW12	SW13	SW-XD16	SW14
		Lab Sample ID:	AH10944	AH10945	AH10953	AH10946	AH10948	AH10947
		Sample Date:	9/16/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Field duplicates	Original data
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
VOCs								
Chloromethane	ug/l	6000	1 U	1 U	1 U	1 UJ	1 U	1 U
cis-1,3-Dichloropropene	ug/l	0.085	1 U	1 U	1 U	1 UJ	1 U	1 U
Dibromochloromethane	ug/l	2510	1 U	1 U	1 U	1 UJ	1 U	1 U
Ethylbenzene	ug/l	7.3	1 U	1 U	1 U	1 UJ	1 U	1 U
Methyl ethyl ketone	ug/l	NA	5 U	5 U	5 U	5 UJ	5 U	5 U
Methylene chloride	ug/l	2200	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ
Styrene	ug/l	300	1 U	1 U	1 U	1 UJ	1 U	1 U
Tetrachloroethene	ug/l	98	1 U	1 U	1 U	1 UJ	1 U	1 U
Toluene	ug/l	9.8	1 U	1 U	1 U	1 UJ	1 U	1 U
trans-1,3-Dichloropropene	ug/l	0.085	1 U	1 U	1 U	1 UJ	1 U	1 U
Trichloroethene	ug/l	47	1 U	1 U	1 UJ	1 UJ	1 U	1 U
Vinyl Chloride	ug/l	0.069	1 U	1 U	1 U	1 UJ	1 U	1 U
Xylenes, Total	ug/l	1.8	1 U	1 U	1 U	1 UJ	1 U	1 U
Total VOC	ug/l	NA	0	0	0	0	0	0

Table B-9

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-10
Summary of Leachate Station Seep Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05	SEEP-09	SEEP-09
		Field Sample ID*:	SEEP1	SEEP3	SEEP4	SEEP5	SEEP9	XD11
		Lab Sample ID:	AH11051	AH11052	AH11066	AH11053	AH11062	AH11063
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Field duplicates
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
VOCs								
1,1,1-Trichloroethane	ug/l	11	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	610	1 U	0.83 J	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/l	1200	1 U	0.72 J	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/l	47	1 U	0.48 J	1 U	1 U	5.1	5.4
1,1-Dichloroethene	ug/l	25	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/l	910	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene, total	ug/l	NA	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/l	2160	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone	ug/l	99	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/l	170	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	1500	5 U	5.2	3.8 U	9.3	5 U	5 U
Benzene	ug/l	130	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/l	2610	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/l	2300	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/l	9450	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	ug/l	92	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	ug/l	9.8	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/l	64	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/l	NA	1 U	1 U	1 U	1 U	1.6	1.5
Chloroform	ug/l	28	1 U	1 U	1 U	1 U	1 U	1 U

Table B-10
Summary of Leachate Station Seep Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05	SEEP-09	SEEP-09
		Field Sample ID*:	SEEP1	SEEP3	SEEP4	SEEP5	SEEP9	XD11
		Lab Sample ID:	AH11051	AH11052	AH11066	AH11053	AH11062	AH11063
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Field duplicates
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
VOCs								
Chloromethane	ug/l	6000	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/l	0.085	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/l	2510	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/l	7.3	1 U	1 U	1 U	1 U	1 U	1 U
Methyl ethyl ketone	ug/l	NA	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	ug/l	2200	1 UJ	1 UJ	1.2	1 UJ	1 UJ	1 U
Styrene	ug/l	300	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/l	98	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	ug/l	9.8	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/l	0.085	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/l	47	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/l	0.069	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	ug/l	1.8	1 U	1 U	1 U	1 U	1 U	1 U
Total VOC	ug/l	NA	0	2.03	0	0	6.7	6.9

Table B-10

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-11
Summary of Leachate Station Seep Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05	SEEP-09	SEEP-09
		Field Sample ID*:	SEEP1	SEEP3	SEEP4	SEEP5	SEEP9	XD11
		Lab Sample ID:	AH11051	AH11052	AH11066	AH11053	AH11062	AH11063
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Field duplicates
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
Metals								
Aluminum	ug/l	87	200 U	8000 J	50000 J	200 U	200 U	200 U
Antimony, Furnace-GW	ug/l	NA	6 U	17	6 U	6 U	6 U	6 U
Arsenic	ug/l	150	10 U	30	30	30	40	40
Barium	ug/l	3.9	200 U	460	200 U	200 U	200 U	200 U
Beryllium	ug/l	0.66	5 UJ	5 UJ	5 J	5 UJ	5 UJ	5 UJ
Cadmium	ug/l	0.08	5 U	5 U	5 U	5 U	5 U	5 U
Calcium	ug/l	NA	150000	140000	120000	53000	50000 U	52000
Chromium	ug/l	11	10 U	30	430	10 U	10 U	10 U
Cobalt	ug/l	23	50 UJ	50 UJ	390 J	50 UJ	50 UJ	50 UJ
Copper	ug/l	2.36	25 U	25 U	30	25 U	25 U	25 U
Iron	ug/l	1000	1700 J	160000 J	150000 J	23000 J	29000 J	35000 J
Lead	ug/l	0.41	3 U	50	39	3 U	3 U	3 U
Magnesium	ug/l	NA	10000	9800	11000	11000	5000 U	5100
Manganese	ug/l	120	230	42000	2600	3500	1600	1800
Mercury by Cold Vapor GW	ug/l	NA	0.2 U	0.8	0.2	0.2 U	0.2 U	0.2 U
Nickel	ug/l	13.4	40 U	40 U	790	40 U	40 UJ	40 U
Potassium	ug/l	NA	60000	60000	26000	6200	7600	7800
Selenium Furnace GW	ug/l	NA	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/l	0.23	10 UJ	10 UJ	10 UJ	10 UJ	10 R	10 UJ

Table B-11
Summary of Leachate Station Seep Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05	SEEP-09	SEEP-09
		Field Sample ID*:	SEEP1	SEEP3	SEEP4	SEEP5	SEEP9	XD11
		Lab Sample ID:	AH11051	AH11052	AH11066	AH11053	AH11062	AH11063
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Field duplicates
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
Sodium	ug/l	NA	14000	50000 U	8700	12000	17000	18000
Thallium, Furnace, Groundwater	ug/l	NA	2 U	22	2 U	2 U	2 U	2 U
Vanadium	ug/l	20	50 U	50 U	70	50 U	50 U	50 U
Zinc	ug/l	NA	20 U	20 U	30 J	30 J	20 UJ	20 U

Table B-11

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-12
Summary of Leachate Station Seep Samples - Sites 1 and 3
Pesticides by EPA Method 8081
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05	SEEP-09	SEEP-09
		Field Sample ID*:	SEEP1	SEEP3	SEEP4	SEEP5	SEEP9	XD11
		Lab Sample ID:	AH11051	AH11052	AH11066	AH11053	AH11062	AH11063
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Field duplicates
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
Pesticides								
4,4'-DDD	ug/l	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	ug/l	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/l	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aldrin	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha-BHC	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha-chlordane	ug/l	NA	0.05 U	0 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta-BHC	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chlordane	ug/l	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Delta-BHC	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan I	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan II	ug/l	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	ug/l	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	ug/l	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Ketone	ug/l	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma-BHC (Lindane)	ug/l	NA	0.05 U	0.59	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-Chlordane	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	NA	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 UJ
Heptachlor Epoxide	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U

Table B-12
Summary of Leachate Station Seep Samples - Sites 1 and 3
Pesticides by EPA Method 8081
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05	SEEP-09	SEEP-09
		Field Sample ID*:	SEEP1	SEEP3	SEEP4	SEEP5	SEEP9	XD11
		Lab Sample ID:	AH11051	AH11052	AH11066	AH11053	AH11062	AH11063
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Field duplicates
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
Pesticides								
Methoxychlor	ug/l	NA	0.5 U	0.5 UJ	0.5 U	0.50 U	0.5 UJ	0.5 UJ
Toxaphene	ug/l	NA	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorobenzene	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U

Table B-12

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-13
Summary of Leachate Station Seep Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	SEEP-11	SEEP-11				
		Field Sample ID*:	SEEP11	SEEP-XD15				
		Lab Sample ID:	AH10951	AH10952				
		Sample Date:	9/16/2005	9/16/2005				
		Lab Name:	NEL-ME	NEL-ME				
		Field QC:	Original data	Field duplicates				
		Sampling Method:	Grab	Grab				
	Units	**Screening Value**						
VOCs								
1,1,1-Trichloroethane	ug/l	11	0.6 J	0.5 J	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/l	610	1 UJ	1 U	-	-	-	-
1,1,2-Trichloroethane	ug/l	1200	1 UJ	1 U	-	-	-	-
1,1-Dichloroethane	ug/l	47	1 UJ	1 U	-	-	-	-
1,1-Dichloroethene	ug/l	25	1 UJ	1 U	-	-	-	-
1,2-Dichloroethane	ug/l	910	1 UJ	1 U	-	-	-	-
1,2-Dichloroethene, total	ug/l	NA	2.2 J	1.9	-	-	-	-
1,2-Dichloropropane	ug/l	2160	1 UJ	1 U	-	-	-	-
2-Hexanone	ug/l	99	5 UJ	5 U	-	-	-	-
4-Methyl-2-pentanone	ug/l	170	5 UJ	5 U	-	-	-	-
Acetone	ug/l	1500	3.8 J	5 U	-	-	-	-
Benzene	ug/l	130	1 UJ	1 U	-	-	-	-
Bromodichloromethane	ug/l	2610	1 UJ	1 U	-	-	-	-
Bromoform	ug/l	2300	1 UJ	1 U	-	-	-	-
Bromomethane	ug/l	9450	1 UJ	1 U	-	-	-	-
Carbon disulfide	ug/l	92	1 UJ	1 U	-	-	-	-
Carbon tetrachloride	ug/l	9.8	1 UJ	1 U	-	-	-	-
Chlorobenzene	ug/l	64	1 UJ	1 U	-	-	-	-
Chloroethane	ug/l	NA	1 UJ	1 U	-	-	-	-
Chloroform	ug/l	28	1 UJ	1 U	-	-	-	-

Table B-13
Summary of Leachate Station Seep Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	SEEP-11	SEEP-11				
		Field Sample ID*:	SEEP11	SEEP-XD15				
		Lab Sample ID:	AH10951	AH10952				
		Sample Date:	9/16/2005	9/16/2005				
		Lab Name:	NEL-ME	NEL-ME				
		Field QC:	Original data	Field duplicates				
		Sampling Method:	Grab	Grab				
	Units	**Screening Value**						
VOCs								
Chloromethane	ug/l	6000	1 UJ	1 U	-	-	-	-
cis-1,3-Dichloropropene	ug/l	0.085	1 UJ	1 U	-	-	-	-
Dibromochloromethane	ug/l	2510	1 UJ	1 U	-	-	-	-
Ethylbenzene	ug/l	7.3	1 UJ	1 U	-	-	-	-
Methyl ethyl ketone	ug/l	NA	5 UJ	5 U	-	-	-	-
Methylene chloride	ug/l	2200	1 UJ	1 UJ	-	-	-	-
Styrene	ug/l	300	1 UJ	1 U	-	-	-	-
Tetrachloroethene	ug/l	98	1.6 J	1.4	-	-	-	-
Toluene	ug/l	9.8	1 UJ	1 U	-	-	-	-
trans-1,3-Dichloropropene	ug/l	0.085	1 UJ	1 U	-	-	-	-
Trichloroethene	ug/l	47	1.5 J	1.4	-	-	-	-
Vinyl Chloride	ug/l	0.069	1 UJ	1 U	-	-	-	-
Xylenes, Total	ug/l	1.8	1 UJ	1 U	-	-	-	-
Total VOC	ug/l	NA	5.9	5.2	-	-	-	-

Table B-13

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-14
Summary of Leachate Station Sediment Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05	SEEP-09	SEEP-09
		Field Sample ID*:	LT1	LT3	LT4	LT5	LT9	XD13
		Lab Sample ID:	AH11054	AH11055	AH11056	AH11057	AH11060	AH11061
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Field duplicates
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
VOCs								
1,1,1-Trichloroethane	mg/kg	0.17	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.026 R	0.024 UJ
1,1,2,2-Tetrachloroethane	mg/kg	0.94	0.0052 J	0.009 J	0.022 R	0.023 UJ	0.026 R	0.024 R
1,1,2-Trichloroethane	mg/kg	0.17	0.005 UJ	0.015 J	0.022 R	0.023 UJ	0.0078 J	0.002 J
1,1-Dichloroethane	mg/kg	4.6	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.48 J	0.04 J
1,1-Dichloroethene	mg/kg	4.8	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.026 R	0.024 UJ
1,2-Dichlorobenzene	mg/kg	0.34	0.0012 J	0.022 J	0.061 J	0.023 J	0.84 J	0.35 J
1,2-Dichloroethane	mg/kg	4.4	0.005 UJ	0.0035 J	0.022 R	0.023 UJ	0.026 R	0.024 UJ
1,2-Dichloroethene, total	mg/kg	NA	0.005 UJ	0.015 J	0.0046 J	0.023 UJ	0.0083 J	0.024 UJ
1,2-Dichloropropane	mg/kg	5.8	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.026 R	0.024 UJ
1,3-Dichlorobenzene	mg/kg	1.7	0.00078 J	0.0074 J	0.043 J	0.016 J	0.032 J	0.029 J
1,4-Dichlorobenzene	mg/kg	0.35	0.005 UJ	0.037 J	0.7 J	0.44 J	0.76 J	0.29 J
2-Hexanone	mg/kg	4.4	0.01 UJ	0.053 J	1.2 J	0.04 UJ	0.05 R	0.04 UJ
4-Methyl-2-pentanone	mg/kg	0.026	0.01 UJ	0.0034 J	0.066 J	0.04 UJ	0.039 J	0.04 UJ
Acetone	mg/kg	2.3	0.021 J	1.1 J	9.2 J	0.87 J	12 J	1.6 J
Benzene	mg/kg	0.057	0.005 UJ	0.0033 J	0.015 J	0.023 UJ	0.014 J	0.024 UJ
Bromodichloromethane	mg/kg	7.7	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.026 R	0.024 UJ
Bromoform	mg/kg	12.2	0.005 UJ	0.009 R	0.022 R	0.023 UJ	0.026 R	0.024 R
Bromomethane	mg/kg	1.4	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.026 R	0.024 UJ
Carbon disulfide	mg/kg	0.0016	0.0035 J	0.045 J	0.23 J	0.0054 J	0.72 J	0.097 J
Carbon tetrachloride	mg/kg	7.7	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.026 R	0.024 UJ

Table B-14
Summary of Leachate Station Sediment Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05	SEEP-09	SEEP-09
		Field Sample ID*:	LT1	LT3	LT4	LT5	LT9	XD13
		Lab Sample ID:	AH11054	AH11055	AH11056	AH11057	AH11060	AH11061
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Field duplicates
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
VOCs								
Chlorobenzene	mg/kg	0.82	0.005 UJ	0.009 R	0.032 J	0.0026 J	0.067 J	0.013 J
Chloroethane	mg/kg	2.9	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.16 J	0.019 UJ
Chloroform	mg/kg	5.6	0.005 UJ	0.009 UJ	0.007 J	0.023 UJ	0.026 R	0.024 UJ
Chloromethane	mg/kg	2.1	0.005 UJ	0.008 UJ	0.031 R	0.012 UJ	0.026 R	0.015 U
cis-1,3-Dichloropropene	mg/kg	0.000023	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.026 R	0.024 UJ
Dibromochloromethane	mg/kg	9.9	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.026 R	0.024 UJ
Ethylbenzene	mg/kg	3.6	0.005 UJ	0.009 R	0.022 R	0.023 UJ	0.015 J	0.005 J
Methyl ethyl ketone	mg/kg	NA	0.002 J	0.01 UJ	0.28 J	0.038 J	0.64 J	0.089 J
Methylene chloride	mg/kg	3.7	0.0013 J	0.0052 J	0.19 J	0.023 UJ	0.54 J	0.4 J
Styrene	mg/kg	9.2	0.005 UJ	0.009 R	0.022 R	0.023 UJ	0.015 J	0.0055 J
Tetrachloroethene	mg/kg	0.53	0.005 UJ	0.0055 J	0.038 J	0.023 UJ	0.012 J	0.024 UJ
Toluene	mg/kg	0.67	0.0009 J	0.0034 J	0.086 J	0.0046 J	0.063 J	0.015 J
trans-1,3-Dichloropropene	mg/kg	0.000023	0.005 UJ	0.009 UJ	0.022 R	0.023 UJ	0.026 R	0.024 UJ
Trichloroethene	mg/kg	1.4	0.0011 J	0.024 J	0.022 R	0.023 UJ	0.0088 J	0.0025 J
Vinyl Chloride	mg/kg	0.000016	0.01 UJ	0.0048 J	0.04 R	0.04 UJ	0.05 R	0.04 UJ
Xylenes, Total	mg/kg	9.7	0.005 UJ	0.0063 J	0.12 J	0.023 UJ	0.066 J	0.02 J
Total VOC	mg/kg	NA	0.023	0.25	2.88	0.5	3.95	0.96

Table B-14

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-15
Summary of Leachate Station Sediment Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05	SEEP-09	SEEP-09
		Field Sample ID*:	LT1	LT3	LT4	LT5	LT9	XD13
		Lab Sample ID:	AH11054	AH11055	AH11056	AH11057	AH11060	AH11061
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Field duplicates
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
Metals								
Aluminum	mg/kg	26000	3300 J	53000 J	7200 J	2700 J	8600 J	7300 J
Antimony	mg/kg	0.16	4 U	10 U	22 UJ	23 UJ	26 R	21 UJ
Arsenic	mg/kg	9.8	0 U	11	44 J	740 J	140 J	100 J
Barium	mg/kg	0.7	12	130	51 J	78 J	120 J	53 J
Beryllium	mg/kg	0.55	0.4 U	1.0 U	2.2 UJ	2.3 UJ	2.6 UJ	2.1 UJ
Cadmium	mg/kg	0.99	0 U	2 U	4 UJ	4 UJ	5 UJ	4 UJ
Calcium	mg/kg	NA	1100	6400	20000 J	7400 J	9000 J	8100 J
Chromium	mg/kg	43.4	5.7	17	16 J	4 UJ	13 J	11 J
Cobalt	mg/kg	10	9.9	10 U	54 J	63 J	85 J	64 J
Copper	mg/kg	31.6	2.6	2 U	19 J	4 UJ	5 UJ	4 UJ
Iron	mg/kg	10000	5700 J	64000 J	26000 J	260000 J	110000 J	85000 J
Lead	mg/kg	35.8	3.5	16	130 J	24 J	22 J	17 J
Magnesium	mg/kg	NA	1300	1400	1100 J	740 J	2200 J	1900 J
Manganese	mg/kg	630	74	3000	66 J	2000 J	3400 J	1300 J
Mercury	mg/kg	0.18	0.12	1.3	3.7 J	0.20 UJ	0.24 UJ	0.18 UJ
Nickel	mg/kg	22.7	11	8.1	170 J	31 J	20 J	20 J
Potassium	mg/kg	NA	520 J	370 J	440 UJ	460 UJ	530 UJ	420 UJ
Selenium	mg/kg	0.29	4 UJ	10 UJ	22 UJ	23 UJ	26 UJ	21 UJ
Silver	mg/kg	0.5	0.4 UJ	1.0 UJ	2.2 UJ	2.3 UJ	2.6 UJ	2.1 UJ

Table B-15
Summary of Leachate Station Sediment Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05	SEEP-09	SEEP-09
		Field Sample ID*:	LT1	LT3	LT4	LT5	LT9	XD13
		Lab Sample ID:	AH11054	AH11055	AH11056	AH11057	AH11060	AH11061
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Field duplicates
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
Sodium	mg/kg	NA	86 UJ	210 UJ	440 UJ	460 UJ	530 UJ	420 UJ
Thallium	mg/kg	NA	4 U	10 U	22 UJ	23 UJ	26 UJ	21 UJ
Vanadium	mg/kg	43	8.9	17	64 J	23 UJ	26 J	21 UJ
Zinc	mg/kg	NA	16	2 U	22 J	4 UJ	5 UJ	5 J

Table B-15

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-16
Summary of Sediment Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SED-09	SED-15	SED-16	SED-17	SED-18	SED-19
		Field Sample ID*:	SED9	SED15	SED16	SED17	SED18	SED19
		Lab Sample ID:	AH11072	AH11073	AH11074	AH11069	AH11076	AH11064
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Original data
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
Metals								
Aluminum	mg/kg	26000	77,000 J	6,200 J	3,500 J	3,000 J	4,000 J	2,300 J
Antimony	mg/kg	0.16	5.4 U	4.4 U	3.5 U	4.4 U	5.1 U	4.2 UJ
Arsenic	mg/kg	9.8	4.4	1.2	2	1.9	2.5	1.8
Barium	mg/kg	0.7	56	32	18	31	29	26 J
Beryllium	mg/kg	0.55	.54 U	.44 U	.35 U	.44 U	.51 U	.42 U
Cadmium	mg/kg	0.99	1.1 U	.88 U	.7 U	.88 U	1 U	.84 U
Calcium	mg/kg	NA	1,600	770	550	580	900	610
Chromium	mg/kg	43.4	17	10	4.4	4.6	8.9	3.7 J
Cobalt	mg/kg	10	7.2	4.4 U	3.5 U	4.4 U	5.1 U	4.2 U
Copper	mg/kg	31.6	5.1	5.8	.7 U	.88 U	2.3	2.8 J
Iron	mg/kg	10000	180,000 J	15,000 J	8,800 J	7,400 J	8,900 J	5,900 J
Lead	mg/kg	35.8	11	4	2.7	3	6	2.7 J
Magnesium	mg/kg	NA	3,800	2,700	1,100	1,200	2,000	850
Manganese	mg/kg	630	570	140	330	710	240	93 J
Mercury	mg/kg	0.18	.048 U	.040 U	.036 U	.042 U	.051 U	.041 U
Nickel	mg/kg	22.7	12	8.1	4.4	5.5	7.7	3.6
Potassium	mg/kg	NA	1,500 J	1,500 J	360 J	390 J	820 J	280 J
Selenium	mg/kg	0.29	5.4 UJ	4.4 UJ	3.5 UJ	4.4 UJ	5.1 UJ	4.2 UJ
Silver	mg/kg	0.5	.54 UJ	.44 UJ	.35 UJ	.44 UJ	.51 UJ	.42 UJ
Sodium	mg/kg	NA	110 UJ	88 UJ	70 UJ	88 UJ	100 UJ	84 UJ
Thallium	mg/kg	NA	5.4 U	4.4 U	3.5 U	4.4 U	5.1 U	4.2 U
Vanadium	mg/kg	43	24	16	7.2	8	14	6.7
Zinc	mg/kg	NA	51	21	13	18	25	13

Table B-16
Summary of Sediment Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

Station ID:		SED-19						
Field Sample ID*:		XD17						
Lab Sample ID:		AH11065						
Sample Date:		9/19/2005						
Lab Name:		NEL-ME						
Field QC:		Field duplicates						
Sampling Method:		Grab						
Units								
Metals								
Aluminum	mg/kg	2,800 J	-	-	-	-	-	-
Antimony	mg/kg	4.3 U	-	-	-	-	-	-
Arsenic	mg/kg	1.8	-	-	-	-	-	-
Barium	mg/kg	14 J	-	-	-	-	-	-
Beryllium	mg/kg	.43 U	-	-	-	-	-	-
Cadmium	mg/kg	.87 U	-	-	-	-	-	-
Calcium	mg/kg	430	-	-	-	-	-	-
Chromium	mg/kg	4.5	-	-	-	-	-	-
Cobalt	mg/kg	4.3 U	-	-	-	-	-	-
Copper	mg/kg	6.7 J	-	-	-	-	-	-
Iron	mg/kg	6,200 J	-	-	-	-	-	-
Lead	mg/kg	3	-	-	-	-	-	-
Magnesium	mg/kg	1,100	-	-	-	-	-	-
Manganese	mg/kg	90	-	-	-	-	-	-
Mercury	mg/kg	.038 U	-	-	-	-	-	-
Nickel	mg/kg	4.5	-	-	-	-	-	-
Potassium	mg/kg	360 J	-	-	-	-	-	-
Selenium	mg/kg	4.3 UJ	-	-	-	-	-	-
Silver	mg/kg	.43 UJ	-	-	-	-	-	-
Sodium	mg/kg	86 UJ	-	-	-	-	-	-
Thallium	mg/kg	4.3 U	-	-	-	-	-	-
Vanadium	mg/kg	7	-	-	-	-	-	-
Zinc	mg/kg	15	-	-	-	-	-	-

Table B-16

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-17
Summary of Sediment Samples - Sites 1 and 3
Pesticides by EPA Method 8081A
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

		Station ID:	SED-09	SED-15	SED-16	SED-17	SED-18	SED-19
		Field Sample ID*:	SED9	SED15	SED16	SED17	SED18	SED19
		Lab Sample ID:	AH11072	AH11073	AH11074	AH11069	AH11076	AH11064
		Sample Date:	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005	9/19/2005
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Original data	Original data	Original data	Original data	Original data	Original data
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
Pesticides								
4,4'-DDD	mg/kg	0.00488	.13 U	.14 U	.12 U	.09 U	.13 U	.13 UJ
4,4'-DDE	mg/kg	0.00316	.026 U	.027 U	.025 U	.018 U	.026 U	.026 UJ
4,4'-DDT	mg/kg	0.00416	.13 UJ	.14 UJ	.12 U	.09 UJ	.13 UJ	.13 UJ
Aldrin	mg/kg	0.002	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Alpha-BHC	mg/kg	0.006	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Alpha-chlordane	mg/kg	0.0032	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Beta-BHC	mg/kg	0.005	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Chlordane	mg/kg	NA	.13 U	.14 U	.12 U	.09 U	.13 U	.13 UJ
Delta-BHC	mg/kg	0.0024	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Dieldrin	mg/kg	0.0019	.026 U	.027 U	.025 U	.018 U	.026 U	.026 UJ
Endosulfan I	mg/kg	0.0055	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Endosulfan II	mg/kg	0.0055	.026 U	.027 U	.025 U	.018 U	.026 U	.026 UJ
Endosulfan Sulfate	mg/kg	0.0055	.26 U	.27 U	.25 U	.18 U	.26 U	.26 UJ
Endrin	mg/kg	0.0022	.026 U	.027 U	.025 U	.018 U	.026 U	.026 UJ
Endrin Aldehyde	mg/kg	0.0022	.13 U	.14 U	.12 U	.09 U	.13 U	.13 UJ
Endrin Ketone	mg/kg	0.0022	.13 U	.14 U	.12 U	.09 U	.13 U	.13 UJ
Gamma-BHC (Lindane)	mg/kg	0.0024	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Gamma-Chlordane	mg/kg	0.0032	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Heptachlor	mg/kg	0.0025	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Heptachlor Epoxide	mg/kg	0.0025	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Hexachlorobenzene	mg/kg	NA	.013 U	.014 U	.012 U	.009 U	.013 U	.013 UJ
Methoxychlor	mg/kg	0.019	.13 UJ	.14 UJ	.12 U	.09 UJ	.13 UJ	.13 UJ
Toxaphene	mg/kg	NA	.13 U	.14 U	.12 U	.09 U	.13 U	.13 UJ

Table B-17
Summary of Sediment Samples - Sites 1 and 3
Pesticides by EPA Method 8081A
Fall 2005 (Monitoring Event 27)

Site Name: Sites 1 & 3

Station ID:		SED-19						
Field Sample ID*:		XD17						
Lab Sample ID:		AH11065						
Sample Date:		9/19/2005						
Lab Name:		NEL-ME						
Field QC:		Field duplicates						
Sampling Method:		Grab						
	Units							
Pesticides								
4,4'-DDD	mg/kg	.13 U	-	-	-	-	-	-
4,4'-DDE	mg/kg	.026 U	-	-	-	-	-	-
4,4'-DDT	mg/kg	.13 UJ	-	-	-	-	-	-
Aldrin	mg/kg	.013 U	-	-	-	-	-	-
Alpha-BHC	mg/kg	.013 U	-	-	-	-	-	-
Alpha-chlordane	mg/kg	.013 U	-	-	-	-	-	-
Beta-BHC	mg/kg	.013 U	-	-	-	-	-	-
Chlordane	mg/kg	.13 U	-	-	-	-	-	-
Delta-BHC	mg/kg	.013 U	-	-	-	-	-	-
Dieldrin	mg/kg	.026 U	-	-	-	-	-	-
Endosulfan I	mg/kg	.013 U	-	-	-	-	-	-
Endosulfan II	mg/kg	.026 U	-	-	-	-	-	-
Endosulfan Sulfate	mg/kg	.26 U	-	-	-	-	-	-
Endrin	mg/kg	.026 U	-	-	-	-	-	-
Endrin Aldehyde	mg/kg	.13 U	-	-	-	-	-	-
Endrin Ketone	mg/kg	.13 U	-	-	-	-	-	-
Gamma-BHC (Lindane)	mg/kg	.013 U	-	-	-	-	-	-
Gamma-Chlordane	mg/kg	.013 U	-	-	-	-	-	-
Heptachlor	mg/kg	.013 U	-	-	-	-	-	-
Heptachlor Epoxide	mg/kg	.013 U	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	.013 U	-	-	-	-	-	-
Methoxychlor	mg/kg	.13 UJ	-	-	-	-	-	-
Toxaphene	mg/kg	.13 U	-	-	-	-	-	-

Table B-17

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-18
Summary of Sediment Samples - Eastern Plume
Pesticides by EPA Method 8081A
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	SED-11	SED-11				
		Field Sample ID*:	SED11	SED-XD17				
		Lab Sample ID:	AH10949	AH10950				
		Sample Date:	9/16/2005	9/16/2005				
		Lab Name:	NEL-ME	NEL-ME				
		Field QC:	Original data	Field duplicates				
		Sampling Method:	Grab	Grab				
	Units	**Screening Value**						
Pesticides								
4,4'-DDD	mg/kg	0.00488	0.17 U	0.16 U	-	-	-	-
4,4'-DDE	mg/kg	0.00316	0.034 U	0.033 U	-	-	-	-
4,4'-DDT	mg/kg	0.00416	0.17 U	0.16 U	-	-	-	-
Aldrin	mg/kg	0.002	0.017 U	0.016 U	-	-	-	-
Alpha-BHC	mg/kg	0.006	0.017 U	0.016 U	-	-	-	-
Alpha-chlordane	mg/kg	0.0032	0.0170 U	0.0160 U	-	-	-	-
Beta-BHC	mg/kg	0.005	0.017 U	0.016 U	-	-	-	-
Chlordane	mg/kg	NA	0.17 U	0.16 U	-	-	-	-
Delta-BHC	mg/kg	0.0024	0.017 U	0.016 U	-	-	-	-
Dieldrin	mg/kg	0.0019	0.034 U	0.033 U	-	-	-	-
Endosulfan I	mg/kg	0.0055	0.017 U	0.016 U	-	-	-	-
Endosulfan II	mg/kg	0.0055	0.034 U	0.033 U	-	-	-	-
Endosulfan Sulfate	mg/kg	0.0055	0.34 U	0.33 U	-	-	-	-
Endrin	mg/kg	0.0022	0.034 U	0.033 U	-	-	-	-
Endrin Aldehyde	mg/kg	0.0022	0.17 U	0.16 U	-	-	-	-
Endrin Ketone	mg/kg	0.0022	0.17 U	0.16 U	-	-	-	-
Gamma-BHC (Lindane)	mg/kg	0.0024	0.017 U	0.016 U	-	-	-	-
Gamma-Chlordane	mg/kg	0.0032	0.0170 U	0.0160 U	-	-	-	-
Heptachlor	mg/kg	0.0025	0.017 U	0.016 U	-	-	-	-
Heptachlor Epoxide	mg/kg	0.0025	0.017 U	0.016 U	-	-	-	-

Table B-18
Summary of Sediment Samples - Eastern Plume
Pesticides by EPA Method 8081A
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	SED-11	SED-11				
		Field Sample ID*:	SED11	SED-XD17				
		Lab Sample ID:	AH10949	AH10950				
		Sample Date:	9/16/2005	9/16/2005				
		Lab Name:	NEL-ME	NEL-ME				
		Field QC:	Original data	Field duplicates				
		Sampling Method:	Grab	Grab				
	Units	**Screening Value**						
Pesticides								
Hexachlorobenzene	mg/kg	NA	0.0 U	0.0 U	-	-	-	-
Methoxychlor	mg/kg	0.019	0.17 U	0.16 U	-	-	-	-
Toxaphene	mg/kg	NA	0.17 U	0.16 U	-	-	-	-

Table B-18

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-19
Summary of Sediment Samples - Eastern Plume
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	SED-11	SED-11				
		Field Sample ID*:	SED11	XD17				
		Lab Sample ID:	AH10949	AH10950				
		Sample Date:	9/16/2005	9/16/2005				
		Lab Name:	NEL-ME	NEL-ME				
		Field QC:	Original data	Field duplicates				
		Sampling Method:	Grab	Grab				
	Units	**Screening Value**						
Metals								
Aluminum	mg/kg	26000	8700 J	5300 J	-	-	-	-
Antimony	mg/kg	0.16	6 R	4 U	-	-	-	-
Arsenic	mg/kg	9.8	8.5 J	4.9 J	-	-	-	-
Barium	mg/kg	0.7	56 J	25 J	-	-	-	-
Beryllium	mg/kg	0.55	0.6 U	4 U	-	-	-	-
Cadmium	mg/kg	0.99	1 U	8 U	-	-	-	-
Calcium	mg/kg	NA	1400 J	1000 J	-	-	-	-
Chromium	mg/kg	43.4	15 J	7 J	-	-	-	-
Cobalt	mg/kg	10	9 J	4.0 UJ	-	-	-	-
Copper	mg/kg	31.6	4.9 J	2 J	-	-	-	-
Iron	mg/kg	10000	43000 J	14000 J	-	-	-	-
Lead	mg/kg	35.8	33 J	9.1 J	-	-	-	-
Magnesium	mg/kg	NA	2500	1600	-	-	-	-
Manganese	mg/kg	630	780 J	390 J	-	-	-	-
Mercury	mg/kg	0.18	0.04 U	0.04 U	-	-	-	-
Nickel	mg/kg	22.7	12 J	6 J	-	-	-	-
Potassium	mg/kg	NA	940	620	-	-	-	-
Selenium	mg/kg	0.29	6 U	4 U	-	-	-	-
Silver	mg/kg	0.5	0.6 R	0.4 UJ	-	-	-	-

Table B-19
Summary of Sediment Samples - Eastern Plume
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	SED-11	SED-11				
		Field Sample ID*:	SED11	XD17				
		Lab Sample ID:	AH10949	AH10950				
		Sample Date:	9/16/2005	9/16/2005				
		Lab Name:	NEL-ME	NEL-ME				
		Field QC:	Original data	Field duplicates				
		Sampling Method:	Grab	Grab				
	Units	**Screening Value**						
Sodium	mg/kg	NA	120 UJ	80 U	-	-	-	-
Thallium	mg/kg	NA	6 U	4 U	-	-	-	-
Vanadium	mg/kg	43	26 J	13 J	-	-	-	-
Zinc	mg/kg	NA	60 J	23 J	-	-	-	-

Table B-19

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-20
Summary of Quality Control Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	Rinsate Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	
		Field Sample ID*:	MW-QS1	QT1	QT2	QT3	QT4	
		Lab Sample ID:	AH11290	AH10744	AH10825	AH10905	AH10957	
		Sample Date:	9/22/2005	9/13/2005	9/14/2005	9/15/2005	9/16/2005	
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	
		Field QC:	Trip blank	Trip blank	Trip blank	Trip blank	Trip blank	
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	
	Units	**Screening Value**						
VOCs								
1,1,1-Trichloroethane	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
1,1,2,2-Tetrachloroethane	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
1,1,2-Trichloroethane	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
1,1-Dichloroethane	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
1,1-Dichloroethene	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
1,2-Dichloroethane	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
1,2-Dichloroethene, total	ug/l	NA	1 UJ	1 U	1 U	1 U	1 UJ	-
1,2-Dichloropropane	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
1,4-Dioxane	ug/l	NA	1 U	1 U	-	1 U	1 UJ	-
2-Hexanone	ug/l	NA	5 U	5 U	5 U	5 U	5 UJ	-
4-Methyl-2-pentanone	ug/l	NA	5 U	5 U	5 U	5 U	5 UJ	-
Acetone	ug/l	NA	26 J	5 U	5 U	5 U	5 UJ	-
Benzene	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Bromodichloromethane	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Bromoform	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Bromomethane	ug/l	NA	1 UJ	1 U	1 U	1 U	1 UJ	-
Carbon disulfide	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Carbon tetrachloride	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Chlorobenzene	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Chloroethane	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-

Table B-20
Summary of Quality Control Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	Rinsate Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	
		Field Sample ID*:	MW-QS1	QT1	QT2	QT3	QT4	
		Lab Sample ID:	AH11290	AH10744	AH10825	AH10905	AH10957	
		Sample Date:	9/22/2005	9/13/2005	9/14/2005	9/15/2005	9/16/2005	
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	
		Field QC:	Trip blank	Trip blank	Trip blank	Trip blank	Trip blank	
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	
	Units	**Screening Value**						
VOCs								
Chloroform	ug/l	NA	1.6	1 U	1 U	1 U	1 UJ	-
Chloromethane	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
cis-1,3-Dichloropropene	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Dibromochloromethane	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Ethylbenzene	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Methyl ethyl ketone	ug/l	NA	0.54 J	5 U	5 UJ	5 U	5 UJ	-
Methylene chloride	ug/l	NA	3.8 UJ	1 U	1 U	1 UJ	1.3 J	-
Styrene	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Tetrachloroethene	ug/l	NA	1 U	1 U	1 UJ	1 U	1 UJ	-
Toluene	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
trans-1,3-Dichloropropene	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Trichloroethene	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Vinyl Chloride	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-
Xylenes, Total	ug/l	NA	1 U	1 U	1 U	1 U	1 UJ	-

Table B-20

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

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Table B-21
Summary of Quality Control Samples - Eastern Plume
Target Analyte List Metals by EPA 6000/7000 Series Methods
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	Rinsate Blank					
		Field Sample ID*:	MW-QS1					
		Lab Sample ID:	AH11290					
		Sample Date:	9/22/2005					
		Lab Name:	NEL-ME					
		Field QC:	Trip blank					
		Sampling Method:	Grab					
	Units	**Screening Value**						
Metals								
Arsenic	ug/l	NA	2.3 U	-	-	-	-	-
Iron	ug/l	NA	100 J	-	-	-	-	-
Manganese	ug/l	NA	2 U	-	-	-	-	-

Table B-21

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
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Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

Table B-22
Summary of Quality Control Samples - Eastern Plume
Natural Attenuation Paramenters (mg/L)
Fall 2005 (Monitoring Event 27)

Site Name: Eastern Plume

		Station ID:	Rinsate Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	
		Field Sample ID*:	QS1	Trip Blank	Trip Blank	(T-blank)	Trip Blank	
		Lab Sample ID:	AH11290	0509325-05A	0509364-05A	0509392-07A	0509430-03A	
		Sample Date:	9/22/2005	9/13/2005	9/14/2005	9/15/2005	9/16/2005	
		Lab Name:	NEL-ME					
		Field QC:	Rinsate blank	Trip blank	Trip blank	Trip blank	Trip blank	
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	
	Units	**Screening Value**						
MNA Parameters								
Alkalinity, Total as CaCO3	mg/l	NA	5 U	-	-	-	-	-
Chloride	mg/l	NA	1 U	-	-	-	-	-
Ethane	mg/l	NA	-	0.01 U	0.01 U	0.01 U	0.01 U	-
Ethene	mg/l	NA	-	0.01 U	0.01 U	0.01 U	0.01 U	-
Methane	mg/l	NA	-	0.01 U	0.01 U	0.01 U	0.01 U	-
Nitrogen, Nitrate+Nitrite	mg/l	NA	0.1 U	-	-	-	-	-
Nitrogen, Nitrite	mg/l	NA	0.2 U	-	-	-	-	-
Sulfate	mg/l	NA	1 U	-	-	-	-	-
Total Organic Carbon	mg/l	NA	1 U	-	-	-	-	-

Table B-22

Notes:

MEG - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL - obtained from 40 CFR Parts 141 and 142 (U.S. EPA 1998).
Screening Value - Risk Based Ecological Screening Values for Surface Water, Seep Water, and Sediment at the Naval Air Station Brunswick, EA Science and Technology, January, 2006
* Field Sample IDs begin with **BN-1&3-27-** for samples collected from Sites 1 and 3 or **BN-EP-27-** for samples collected from the Eastern Plume area.
VOCs analyzed by EPA Method 8260B.
Target Analyte List Metals analyzed by EPA 6000/7000 series methods.
Pesticides analyzed by EPA Method 8081A.
Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
The acetone concentrations reported from samples collected from Passive Diffusion Bags (PDBS) are not considered usable data because PDB sampling techniques are not designed for acetone collection.
Highlighted concentrations indicate exceedance of an MEG, MCL or screening level. The color of the highlight indicated which screening level was exceeded.
Refer to the Data Quality Review section for reporting limits and method detection limits for all analyzed compounds.

Acronyms:

-	Not sampled
EPA	U.S. Environmental Protection Agency
GWETS	Groundwater Extraction and Treatment System
ID	Identification
MCL	Maximum Contaminant Level
MEG	Maximum Exposure Guideline
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NA	Criteria not applicable
VOC	Volatile Organic Compound
ug/L	micrograms per liter

Validation Qualifiers:

U	Not detected down to the Method Detection Limit (MDL). MDLs are provided in Appendix D (Analytical Data Quality Review).
J	Estimated concentration
UJ	Not detected. Sample quantitation limit is estimated.
R	Value rejected by data validator

VOC Contaminants of Concern:
1,1-Dichloroethane
1,2-Dichloroethene, total
Chlorobenzene
Ethylbenzene
Methylene Chloride
Toluene
Vinyl Chloride
Xylenes, total

Metals Contaminants of Concern:
Aluminum
Arsenic
Barium
Chromium
Lead
Manganese
Nickel
Potassium

APPENDIX C
Temporal Trend Graphs

Appendix C.1

Long-Term Monitoring Trend Results
Sites 1 and 3

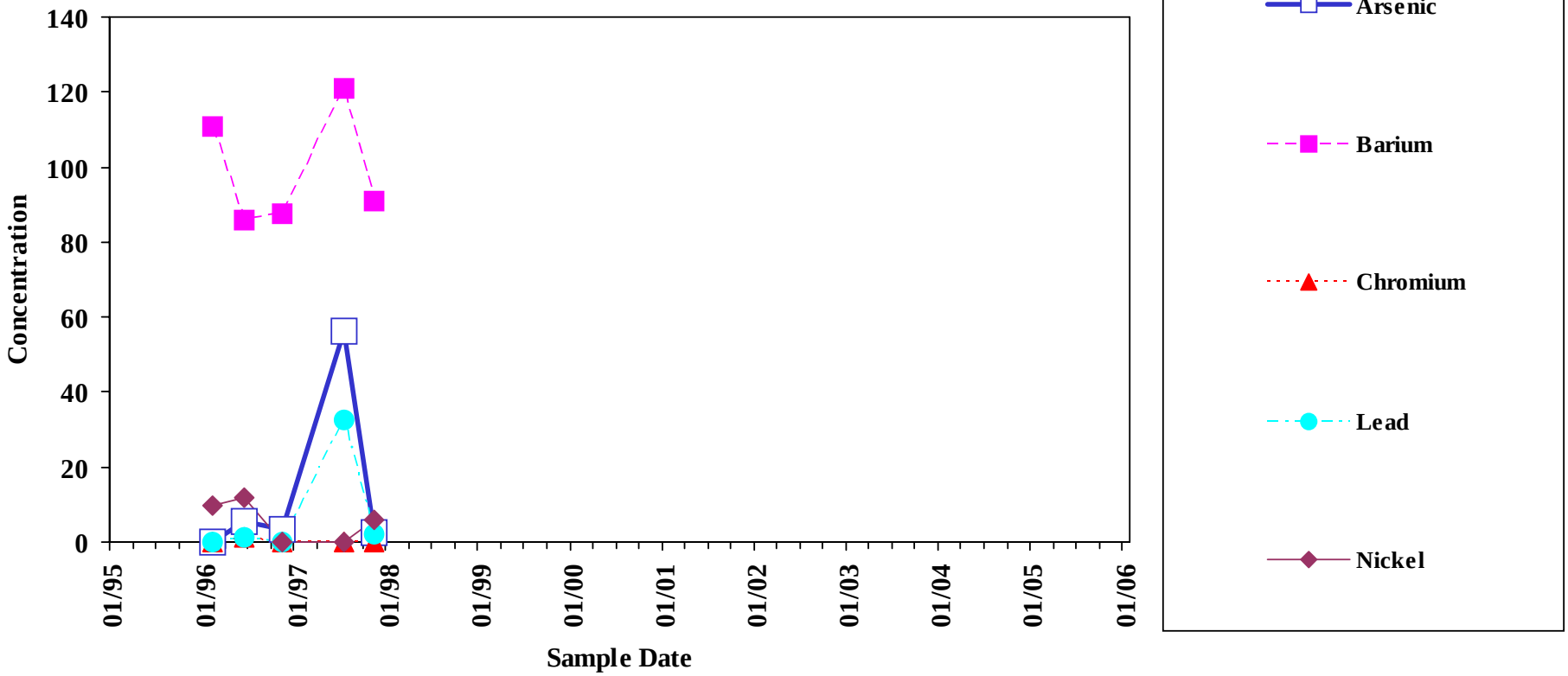
- Extraction Well Data (EW)
- Leachate Sediment Data (LT)
- Groundwater Data (MW)
- Stream Sediment Data (SED)
- Leachate Seep Data (SEEP)
- Extraction System Influent – Sites 1 and 3
- Surface Water (SW)

Sample Location:

EW-06

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

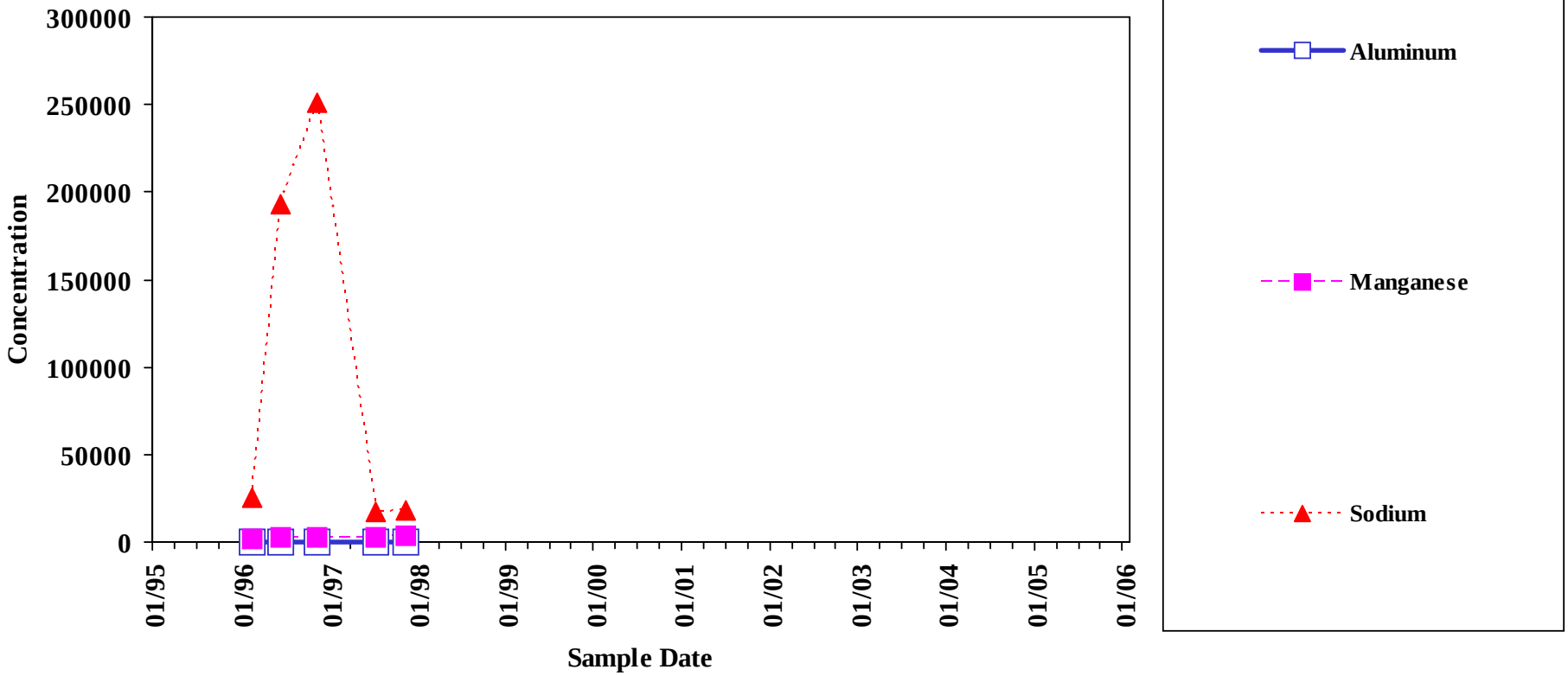
Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

Sample Location:

EW-06

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

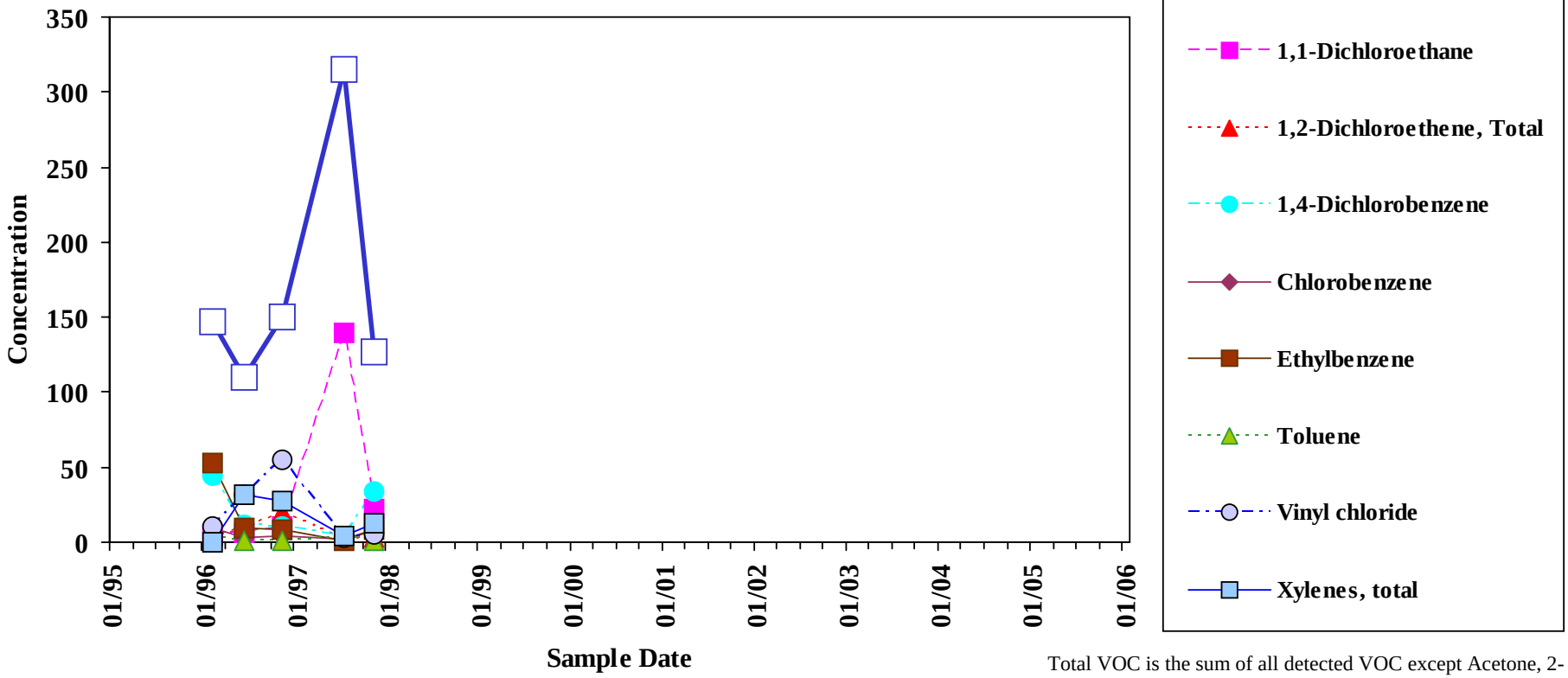
Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

Sample Location:

EW-06

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

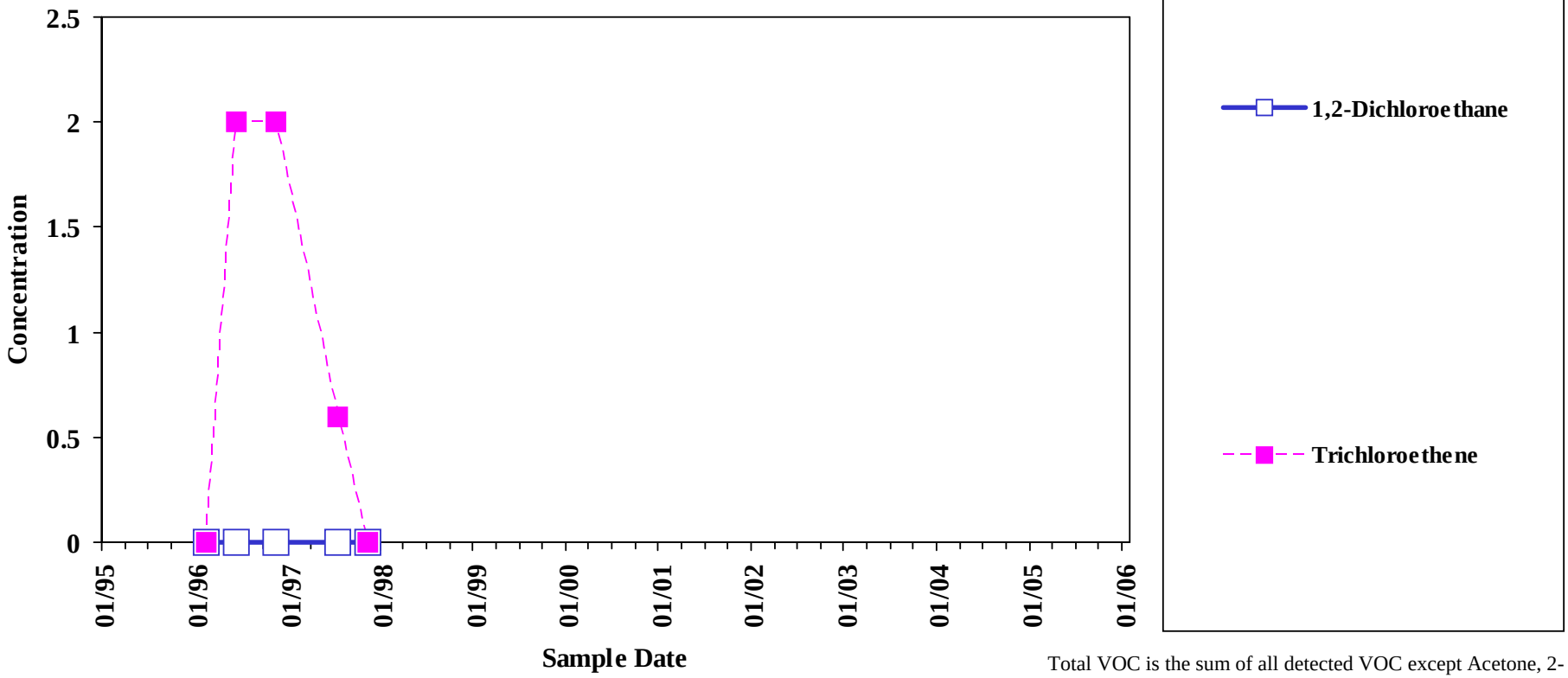
Sample Location:

EW-06

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

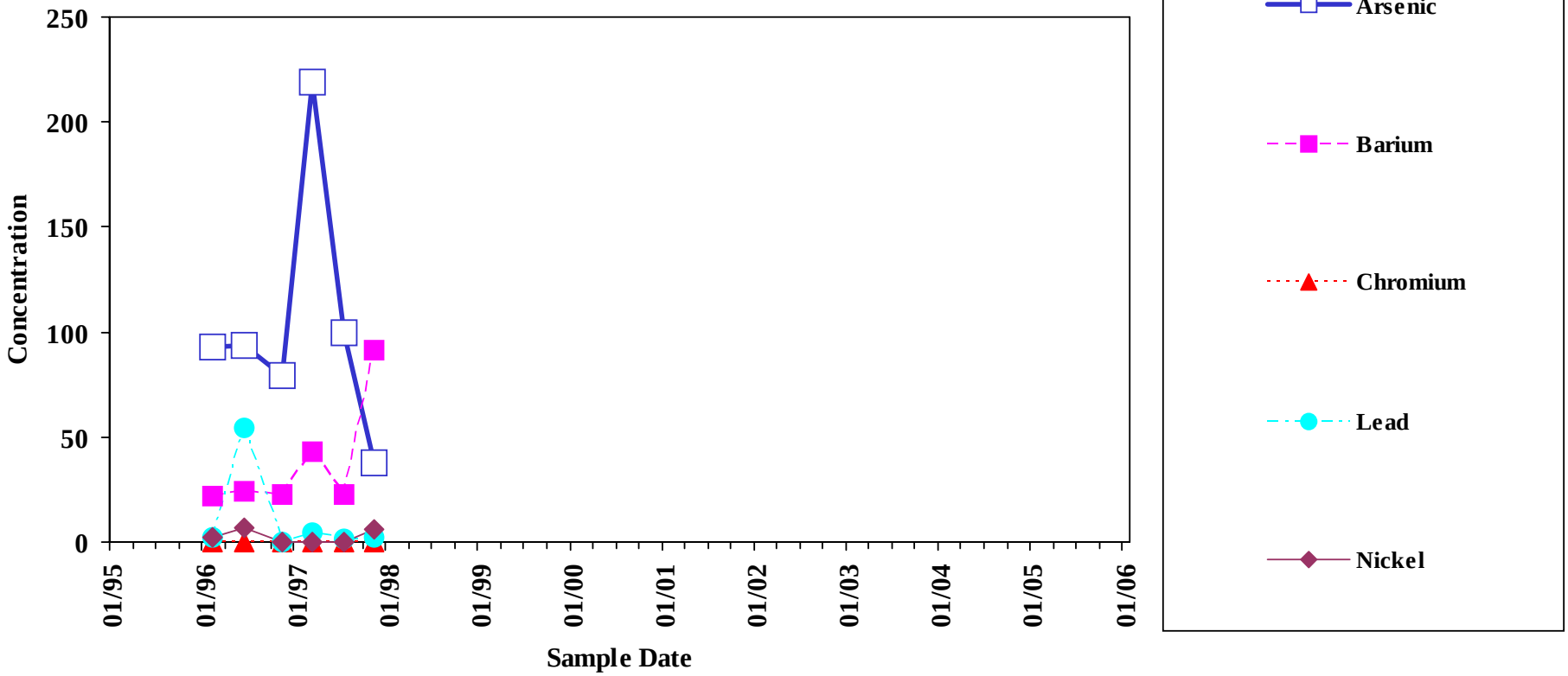
Xylenes, total	
MEG:	600
MCL:	10000

Sample Location:

EW-07

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

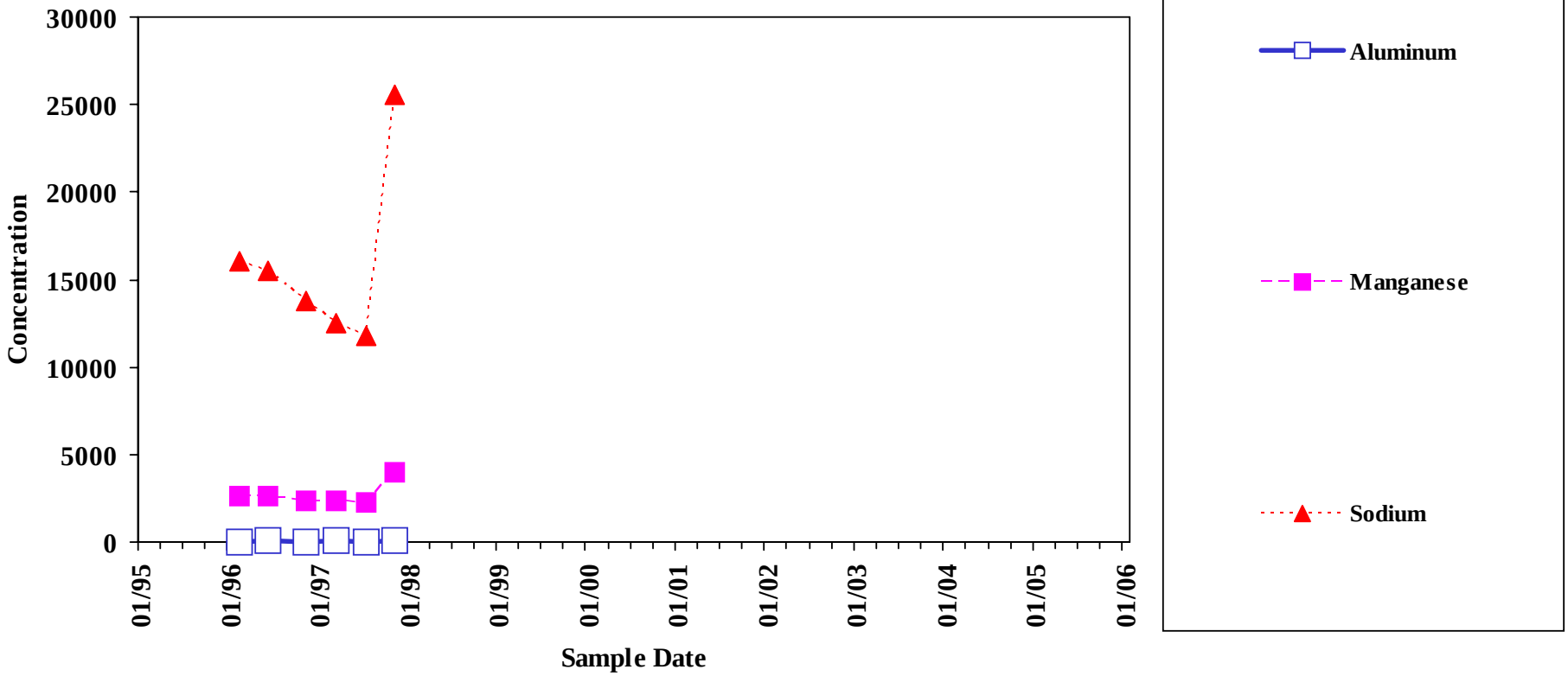
Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

Sample Location:

EW-07

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

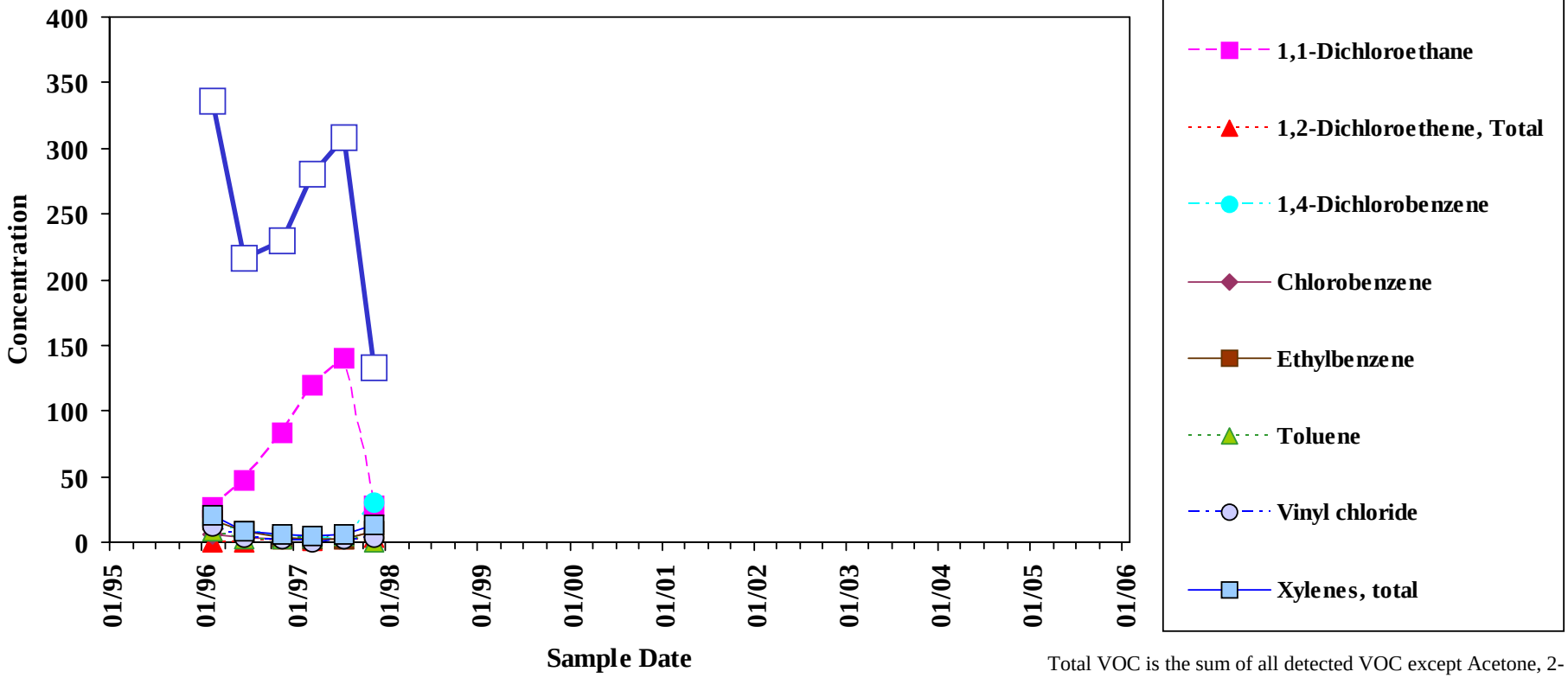
Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

Sample Location:

EW-07

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

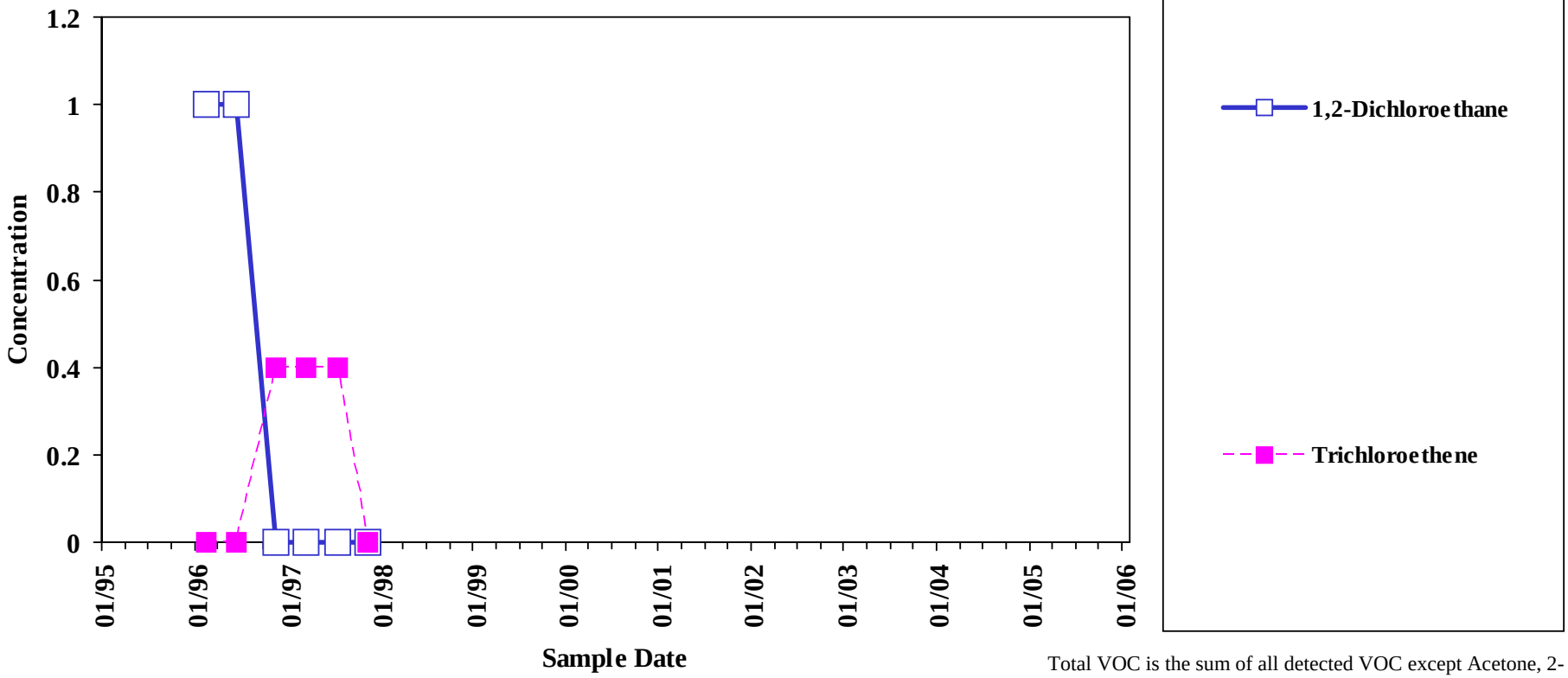
Sample Location:

EW-07

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

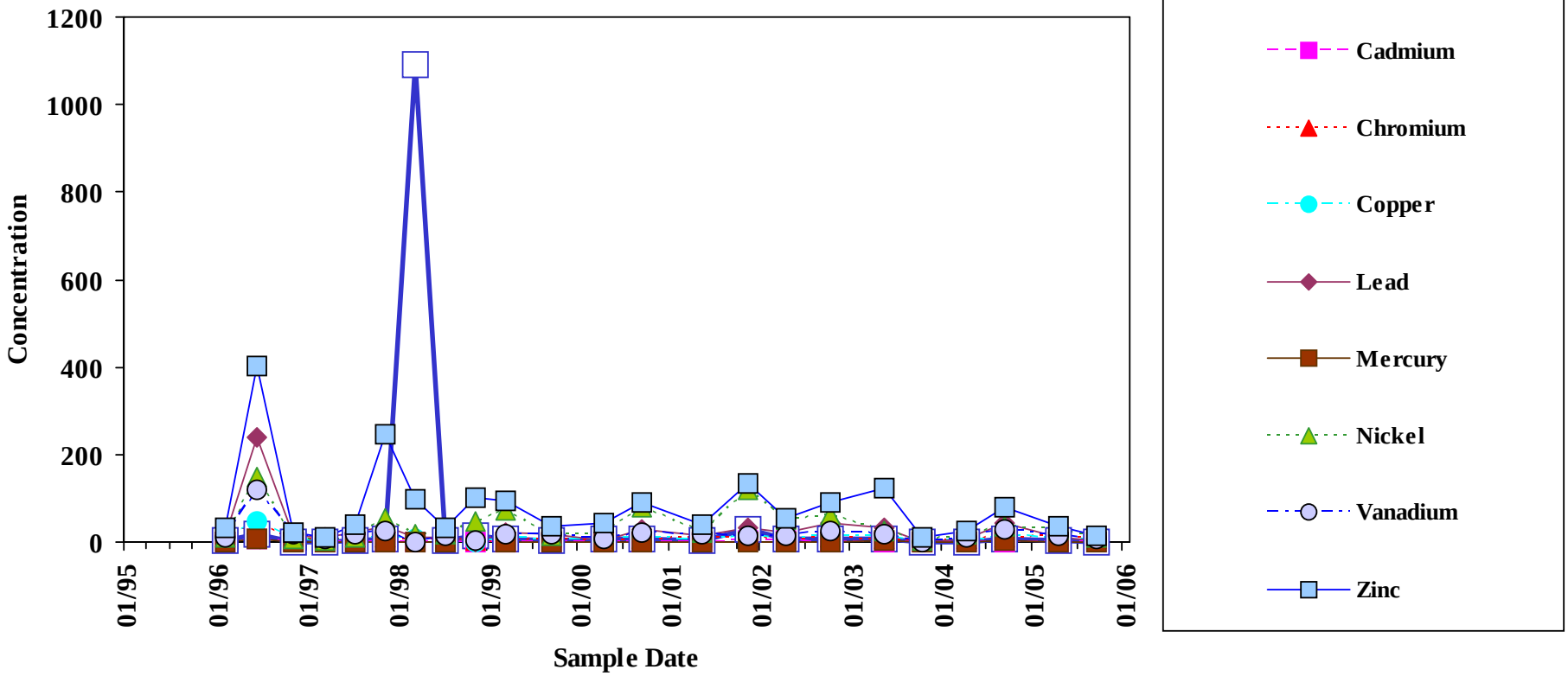
Xylenes, total	
MEG:	600
MCL:	10000

Sample Location:

LT-01

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

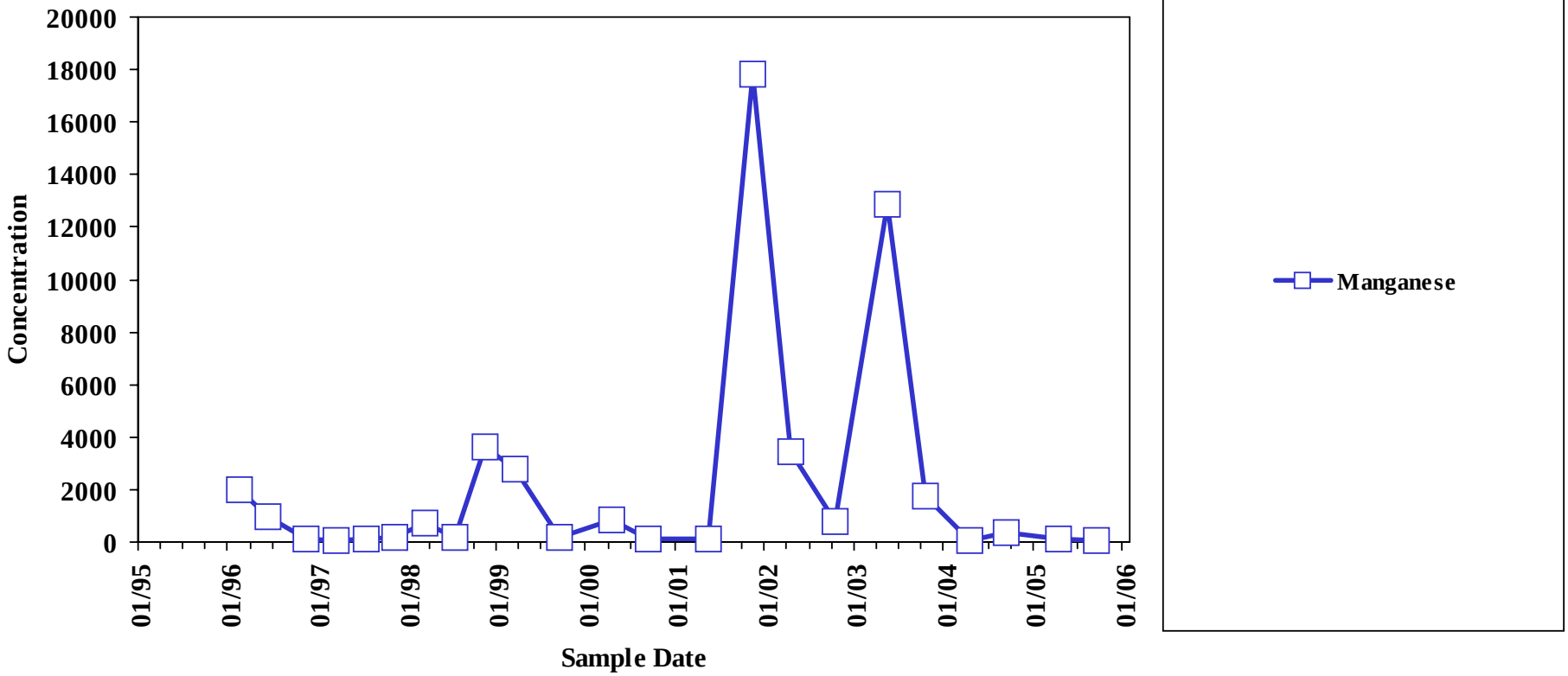
Sample concentration units: mg/Kg

Sample Location:

LT-01

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

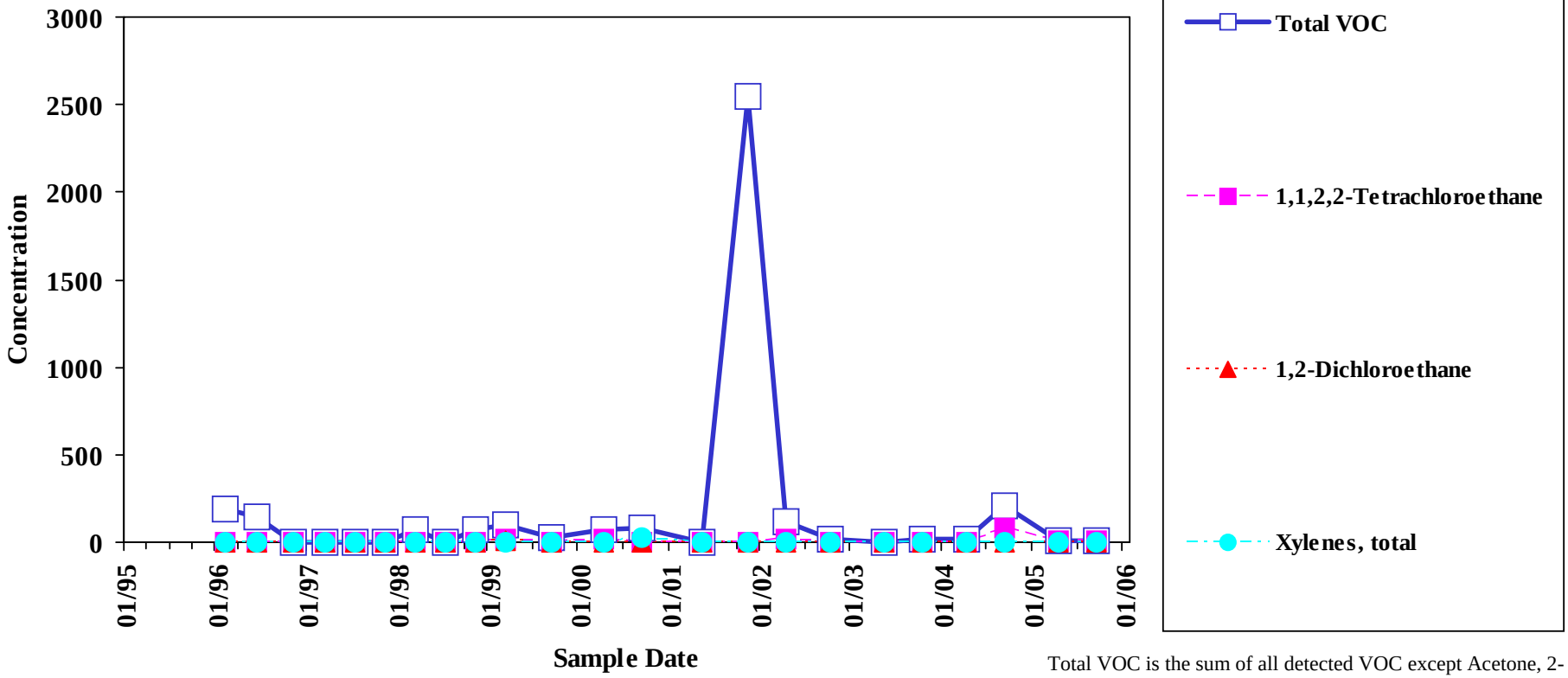
Sample concentration units: mg/Kg

Sample Location:

LT-01

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/Kg

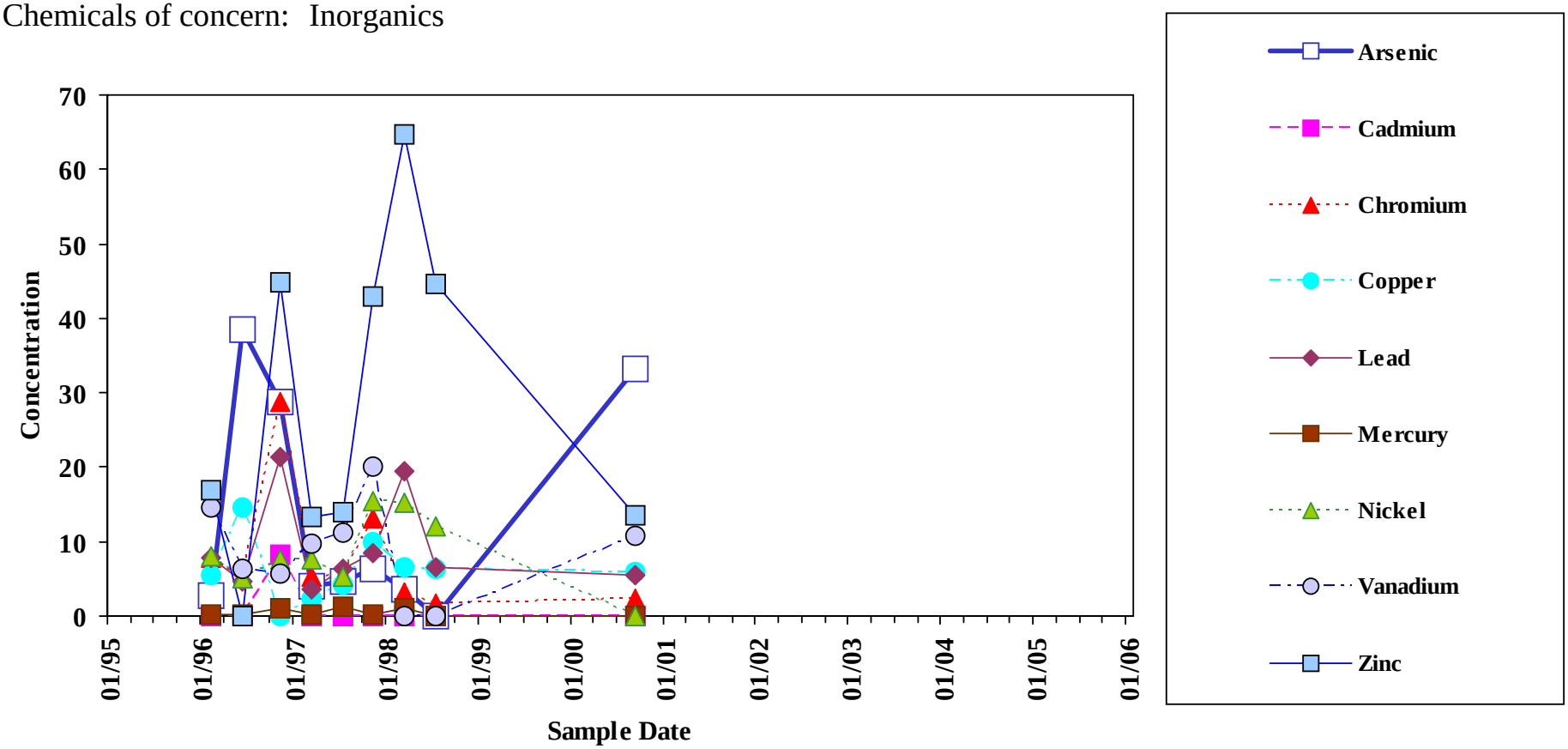
Sample Location:

LT-02

Sites 1 & 3

Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

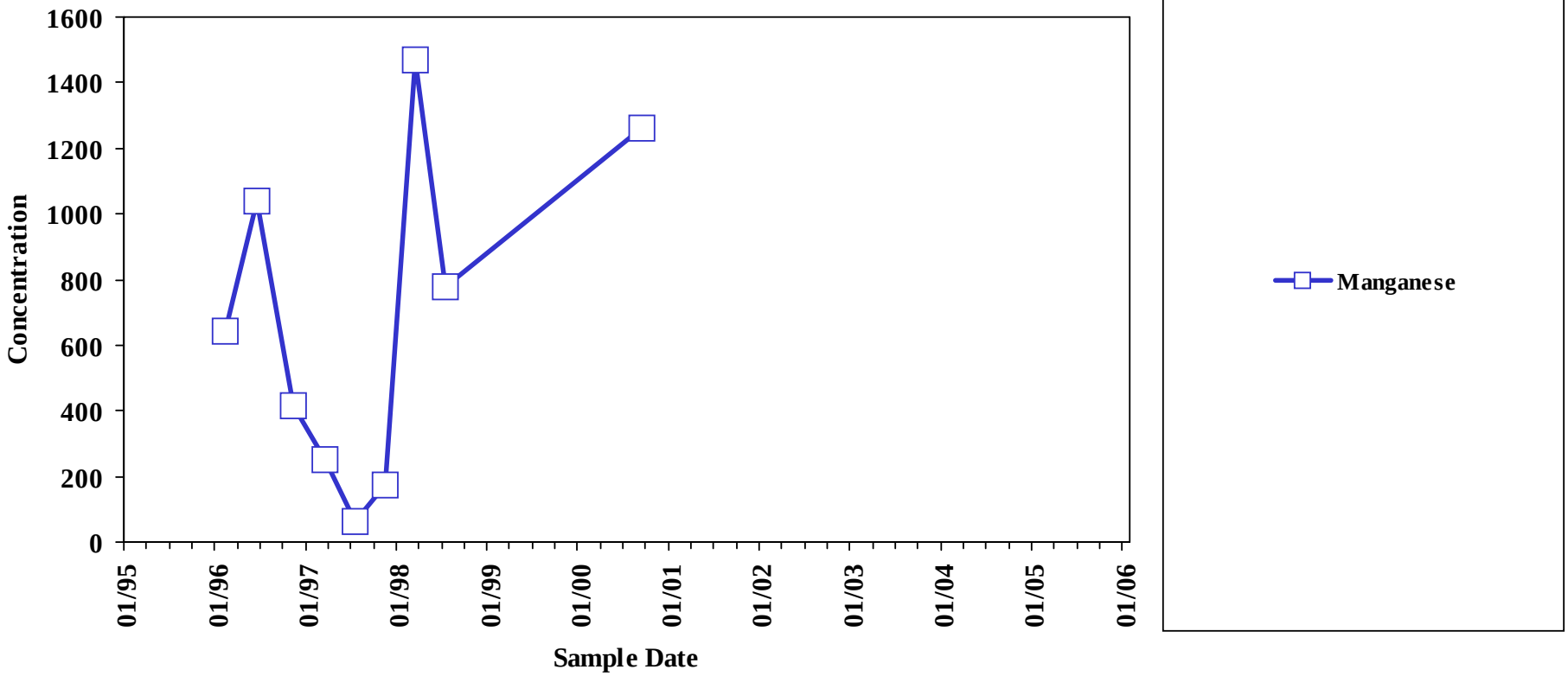
Sample concentration units: mg/Kg

Sample Location:

LT-02

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

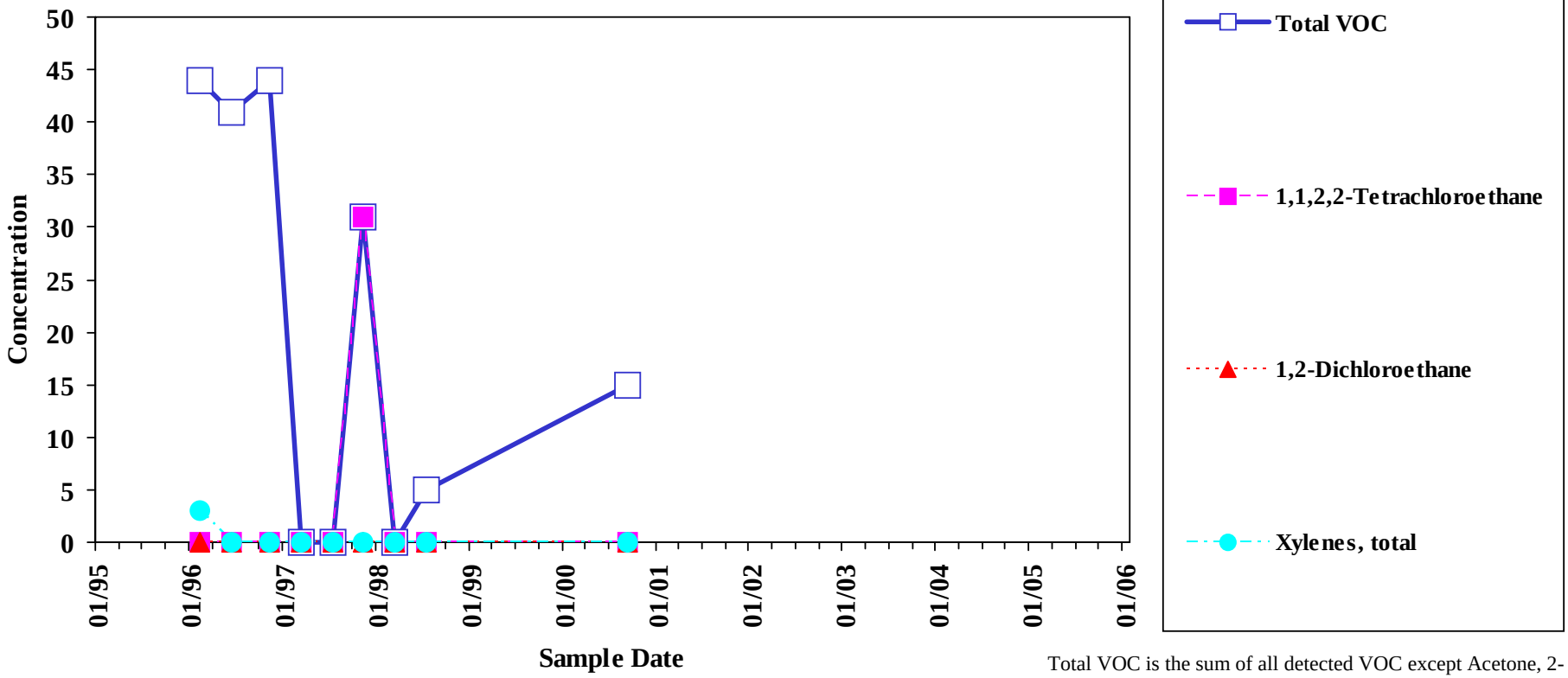
Sample concentration units: mg/Kg

Sample Location:

LT-02

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

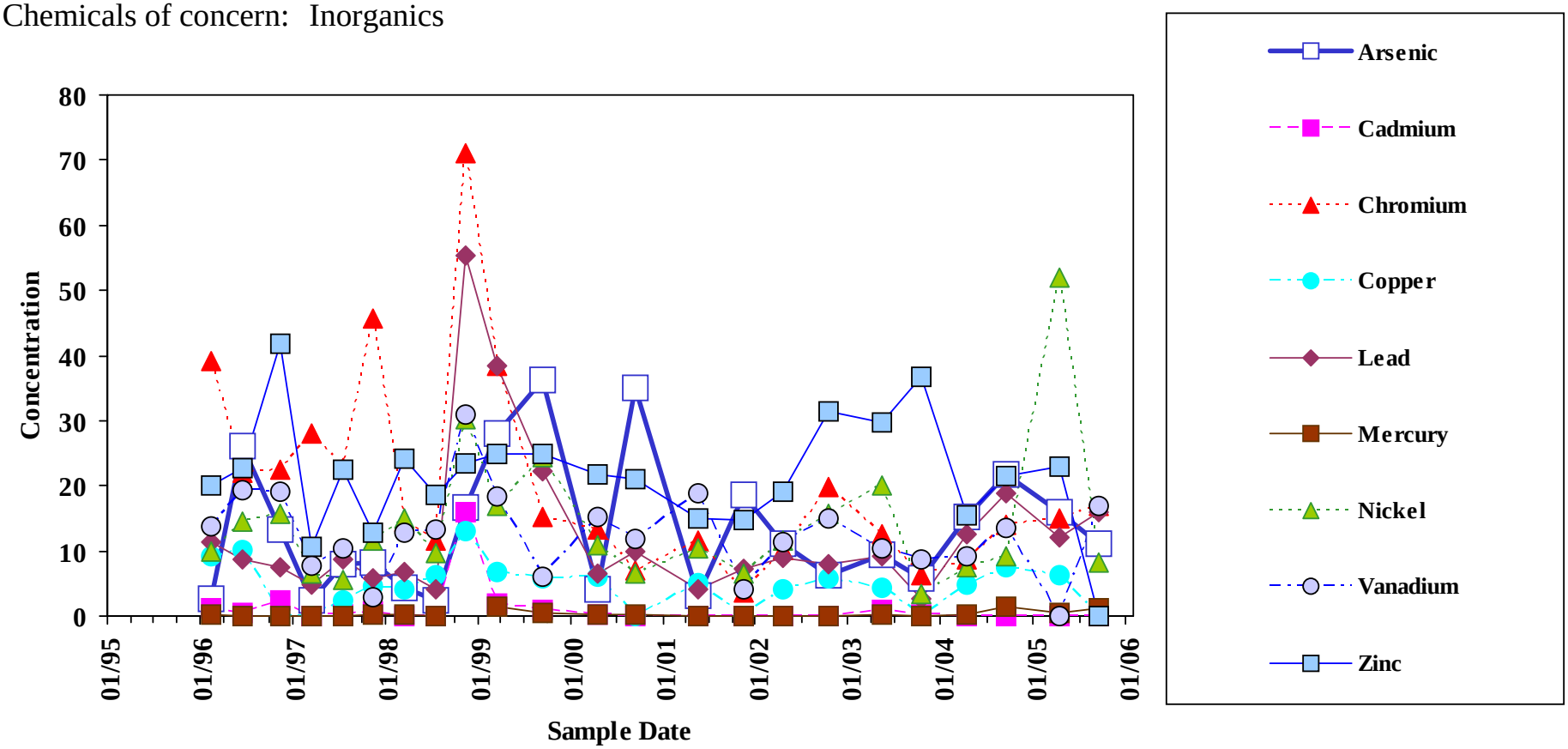
Sample concentration units: µg/Kg

Sample Location:

LT-03

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

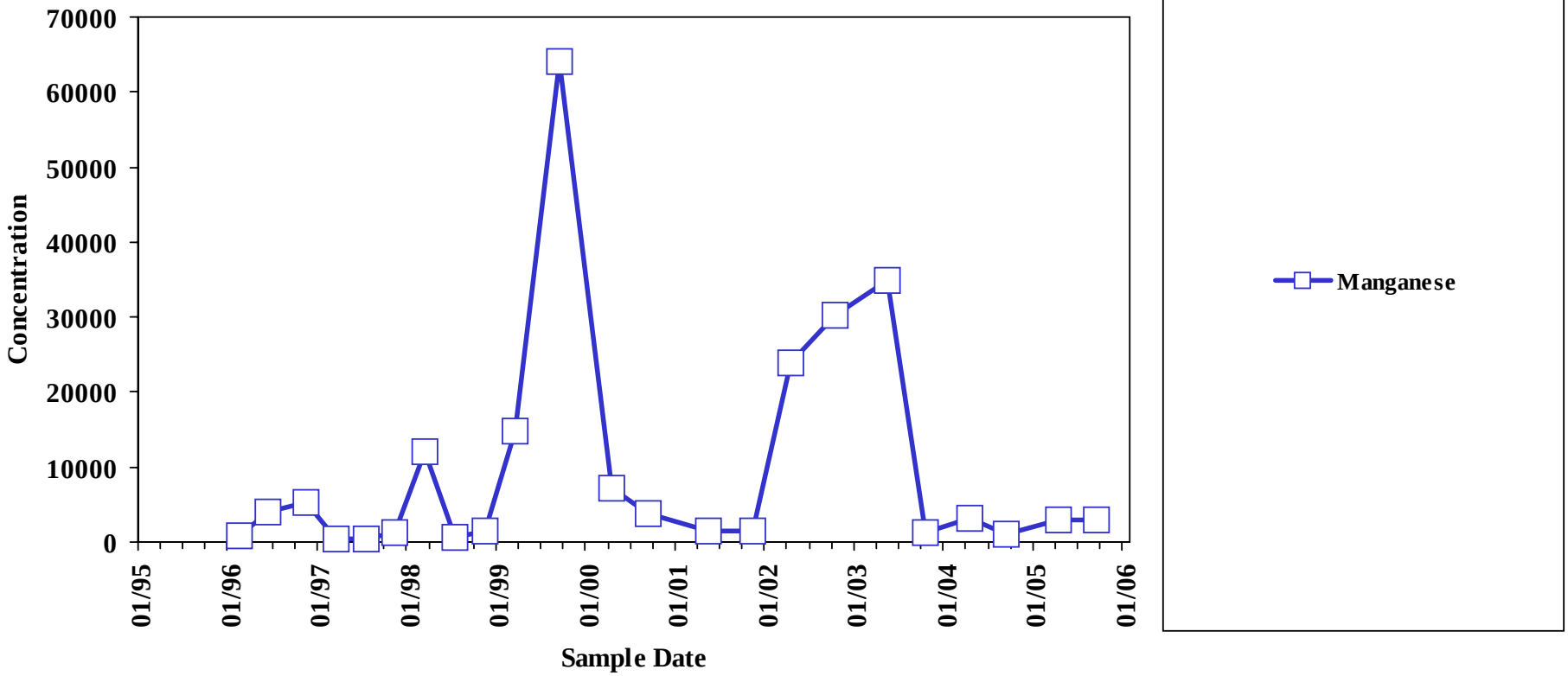
Sample concentration units: mg/Kg

Sample Location:

LT-03

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

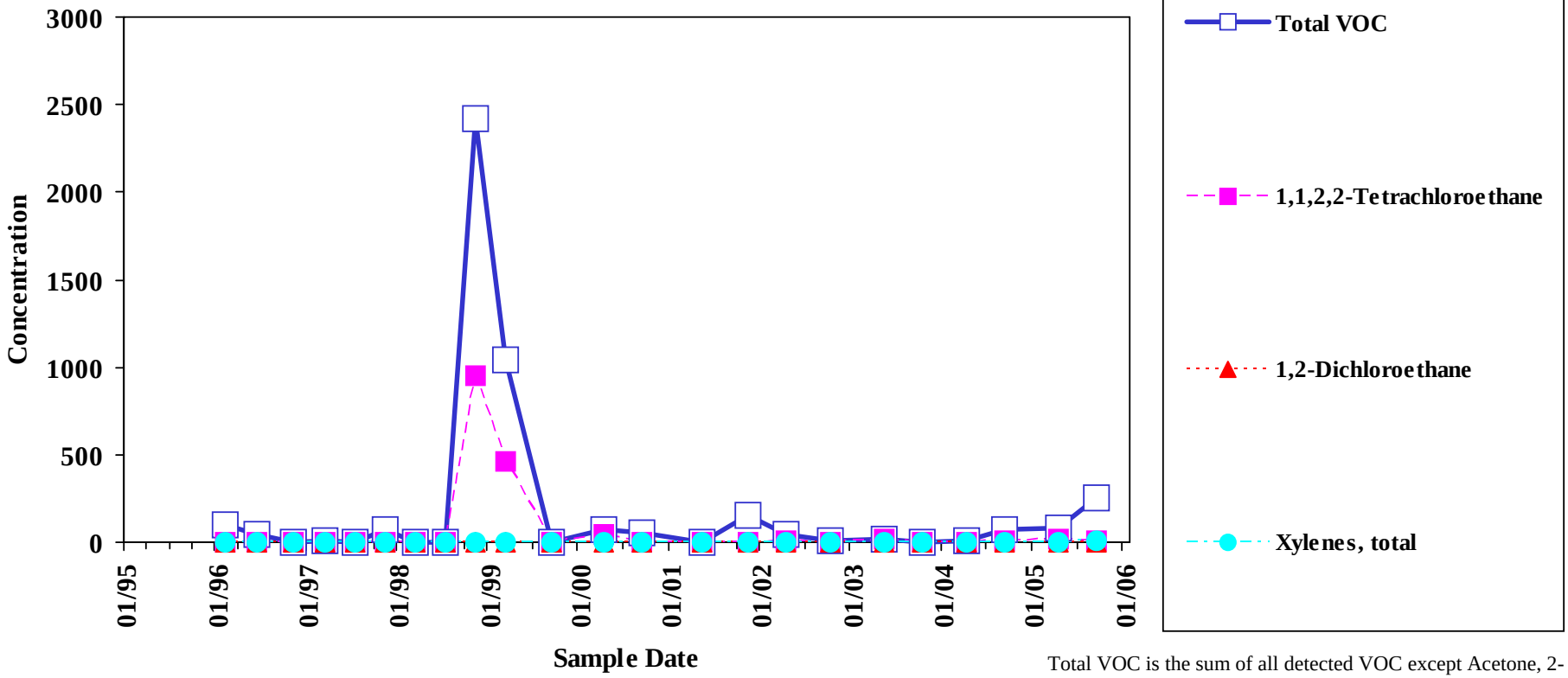
Sample concentration units: mg/Kg

Sample Location:

LT-03

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

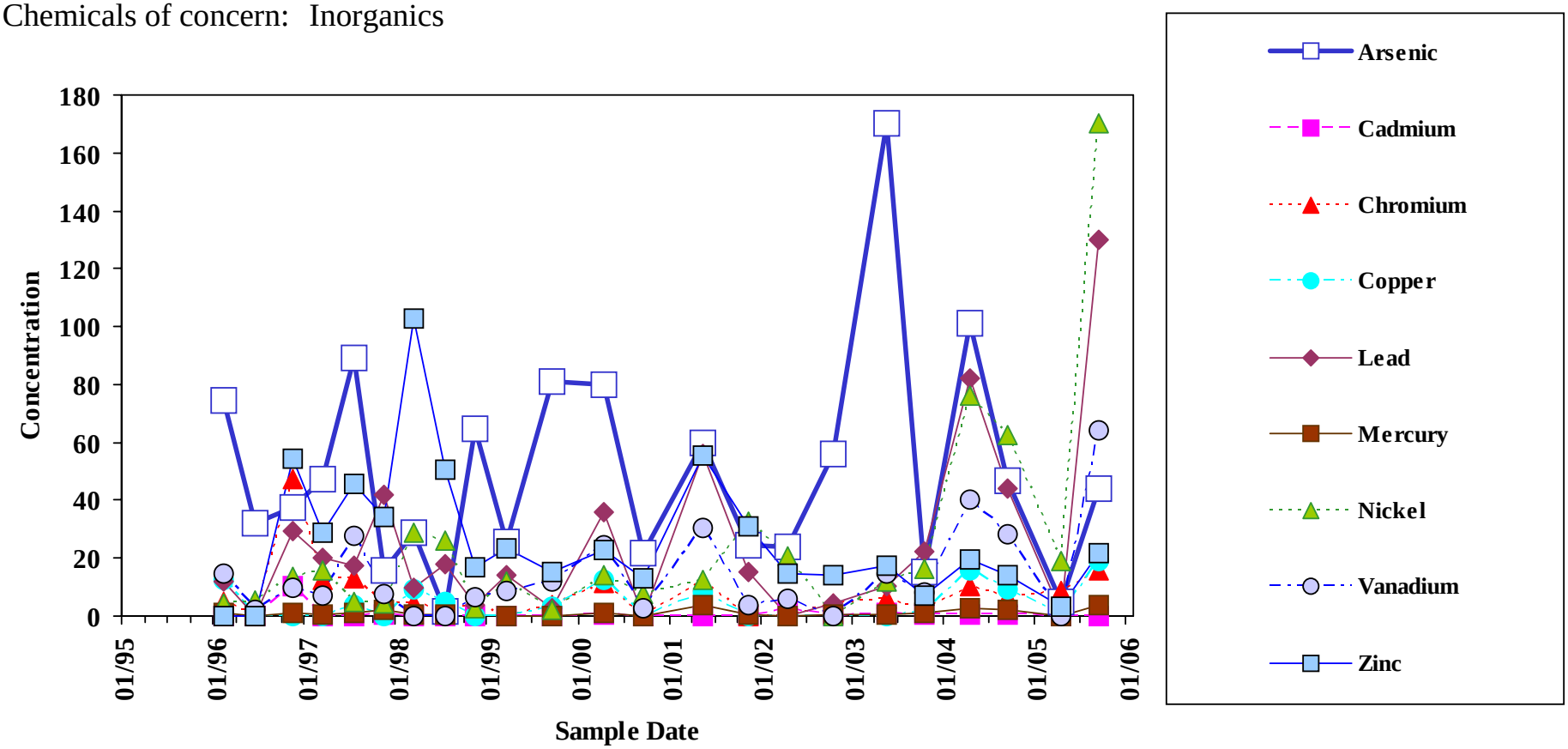
Sample concentration units: µg/Kg

Sample Location:

LT-04

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

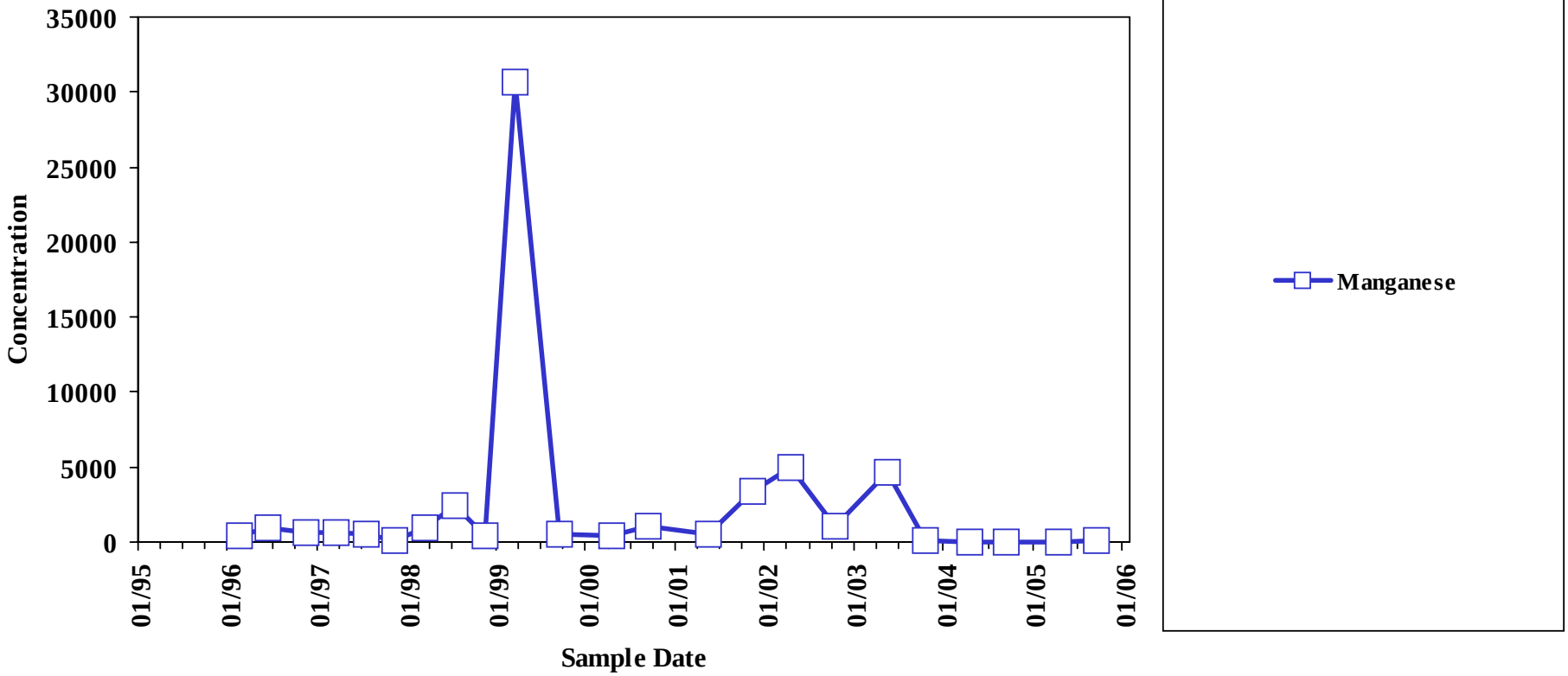
Sample concentration units: mg/Kg

Sample Location:

LT-04

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

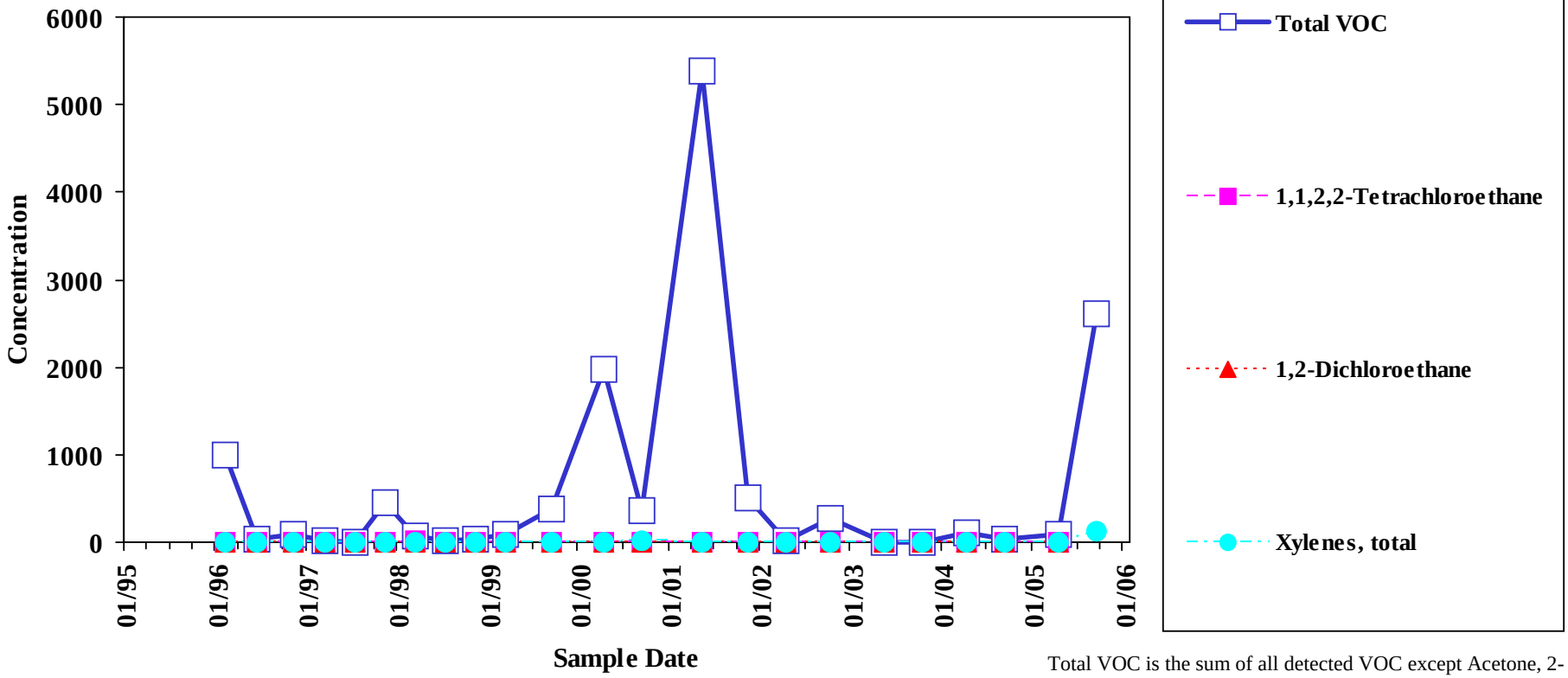
Sample concentration units: mg/Kg

Sample Location:

LT-04

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

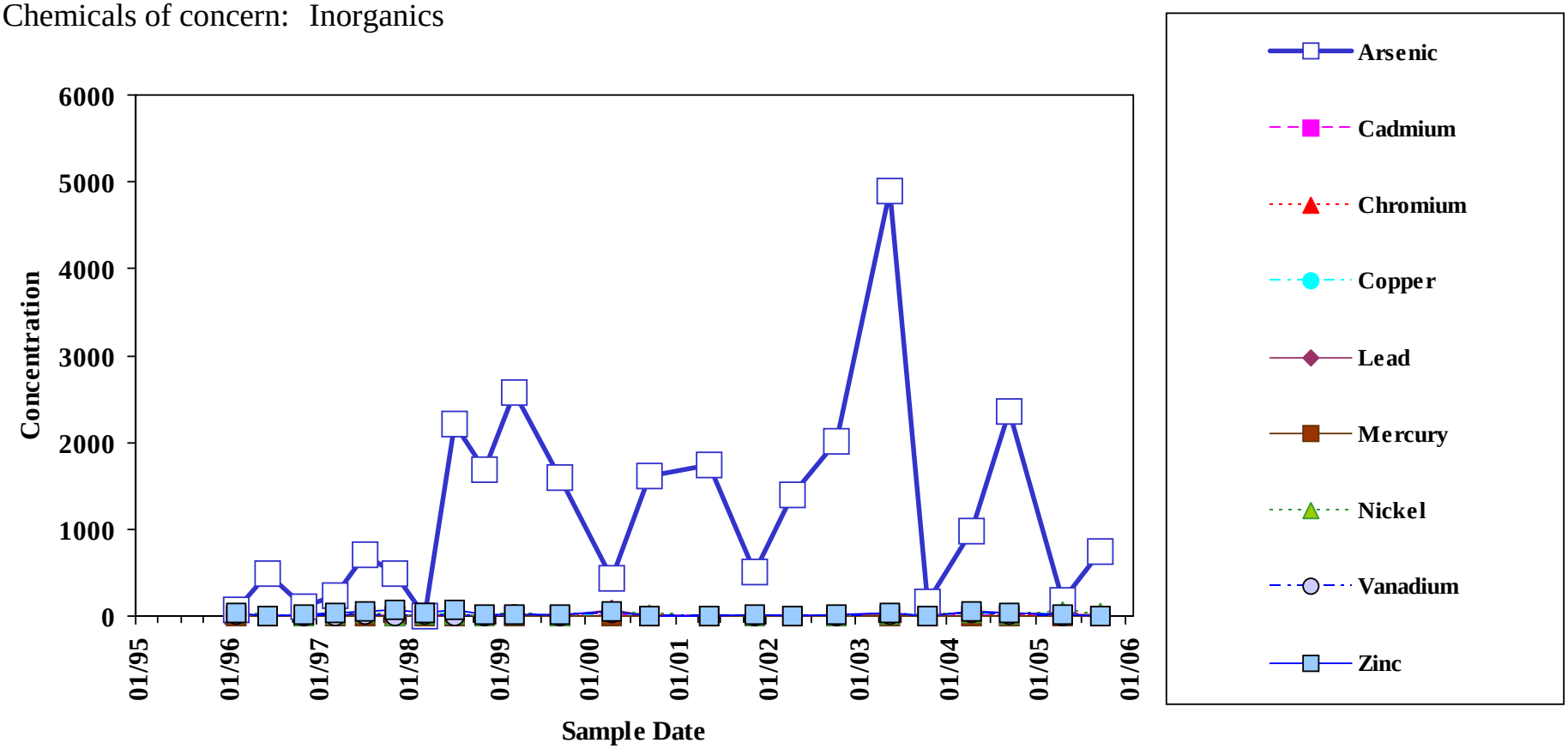
Sample concentration units: µg/Kg

Sample Location:

LT-05

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

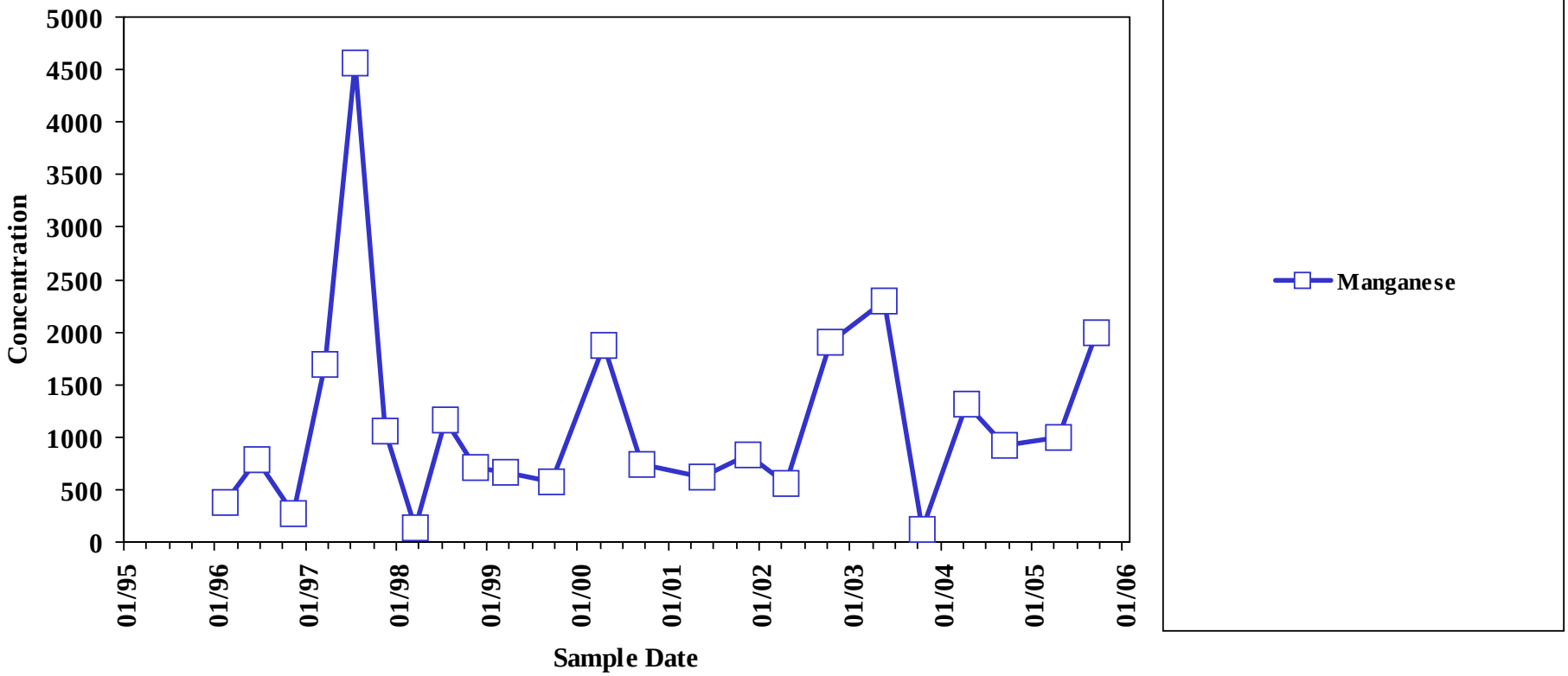
Sample concentration units: mg/Kg

Sample Location:

LT-05

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

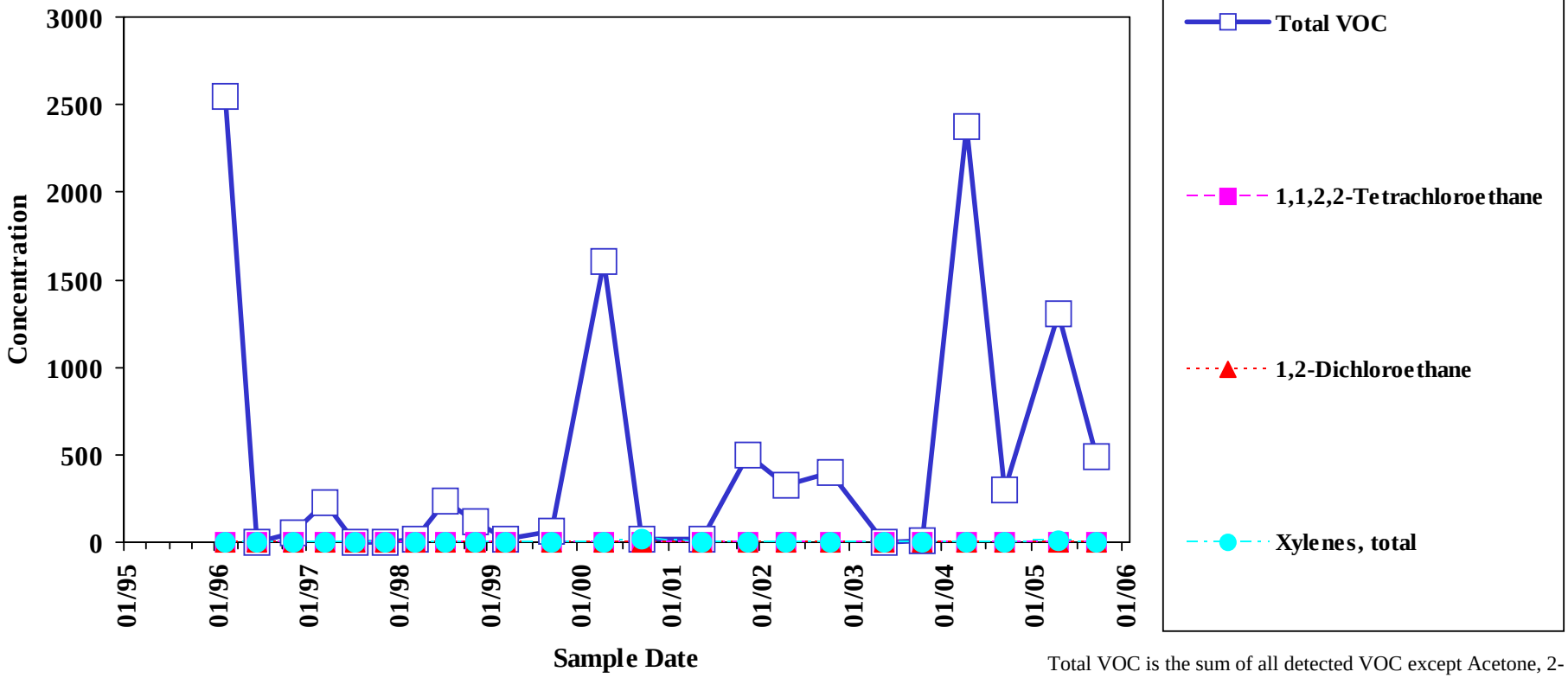
Sample concentration units: mg/Kg

Sample Location:

LT-05

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

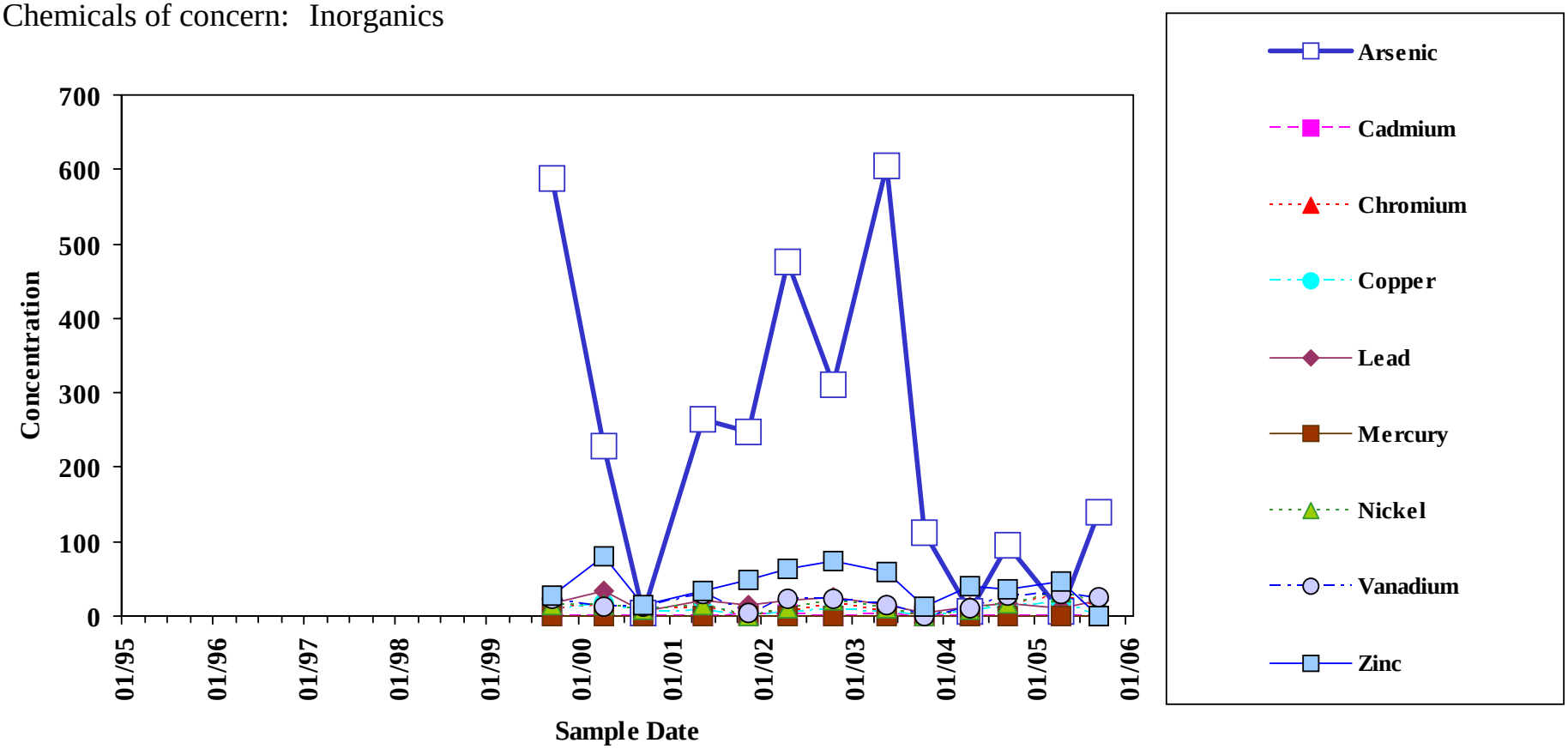
Sample concentration units: µg/Kg

Sample Location:

LT-09

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

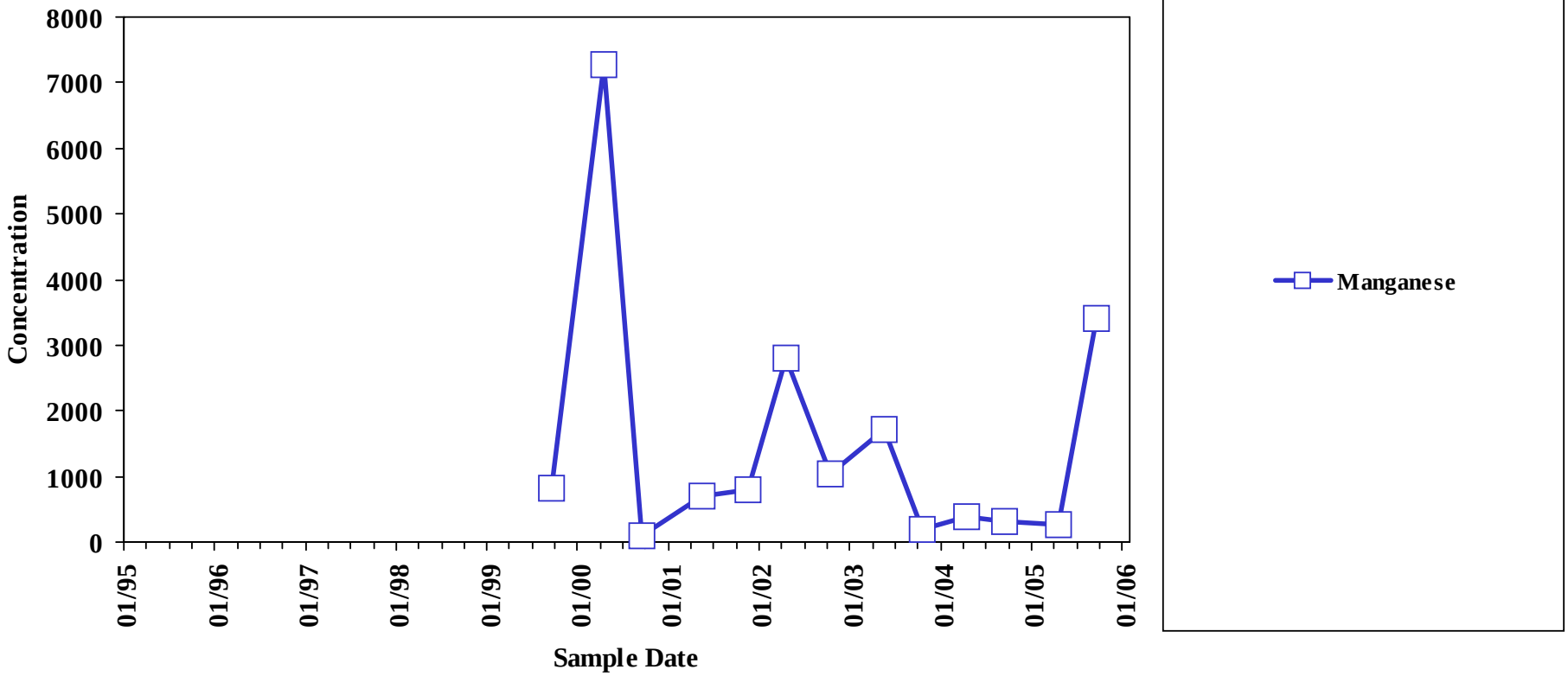
Sample concentration units: mg/Kg

Sample Location:

LT-09

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

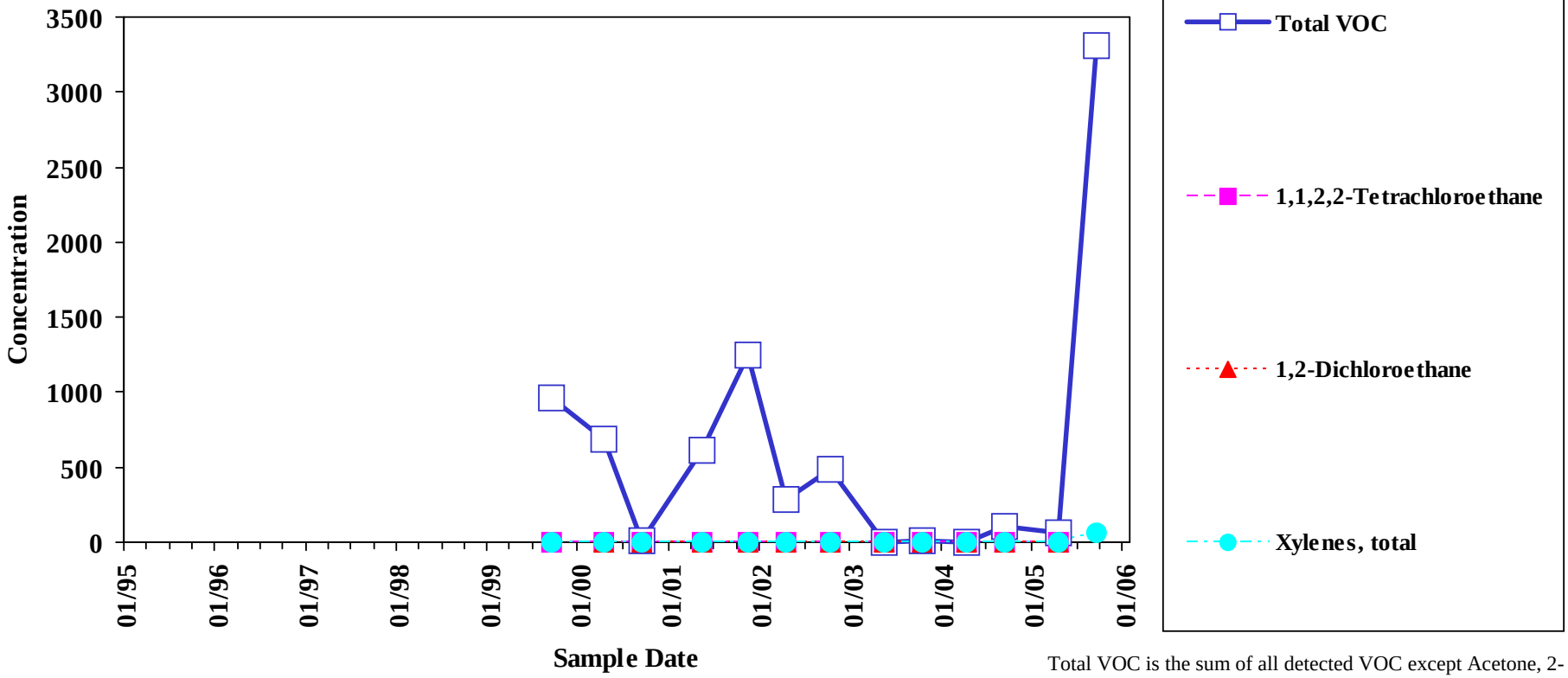
Sample concentration units: mg/Kg

Sample Location:

LT-09

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/Kg

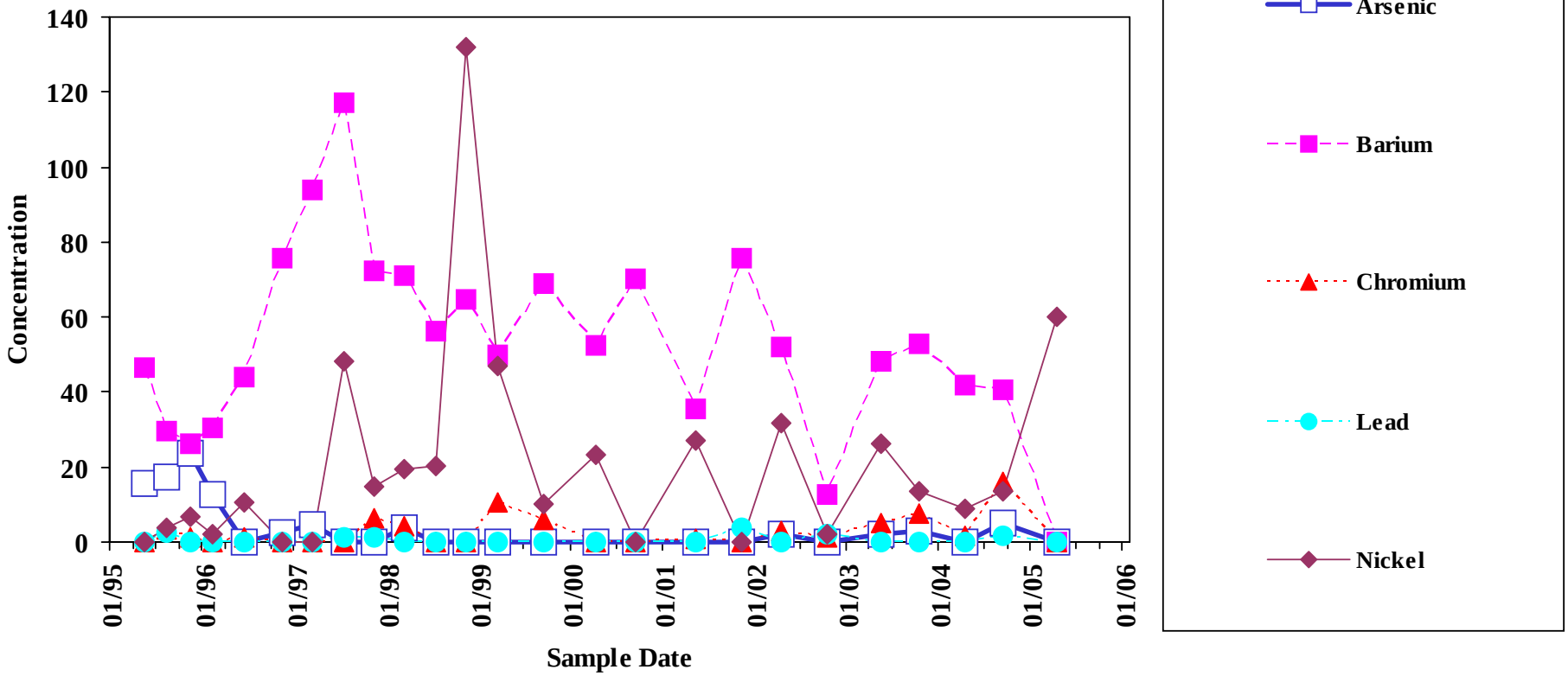
Sample Location:

MW-202A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

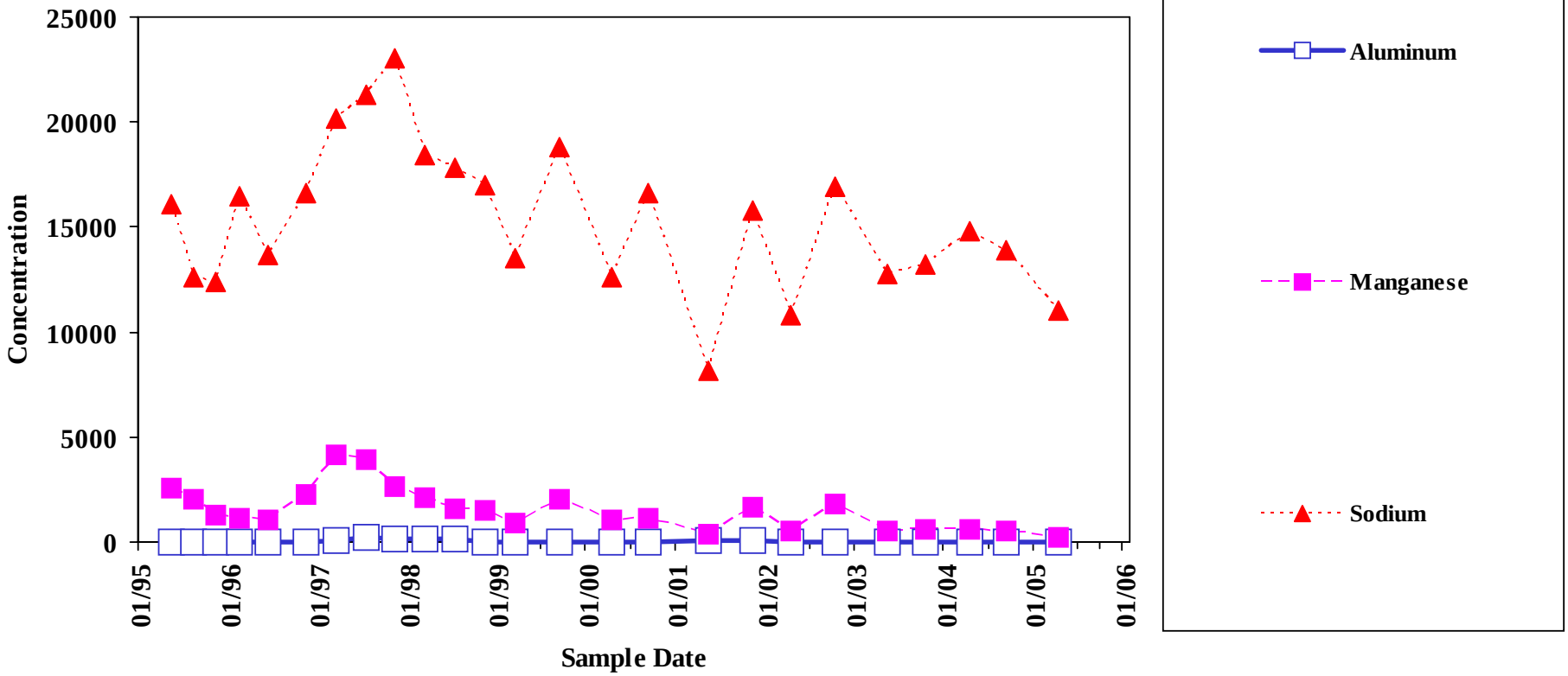
Sample Location:

MW-202A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

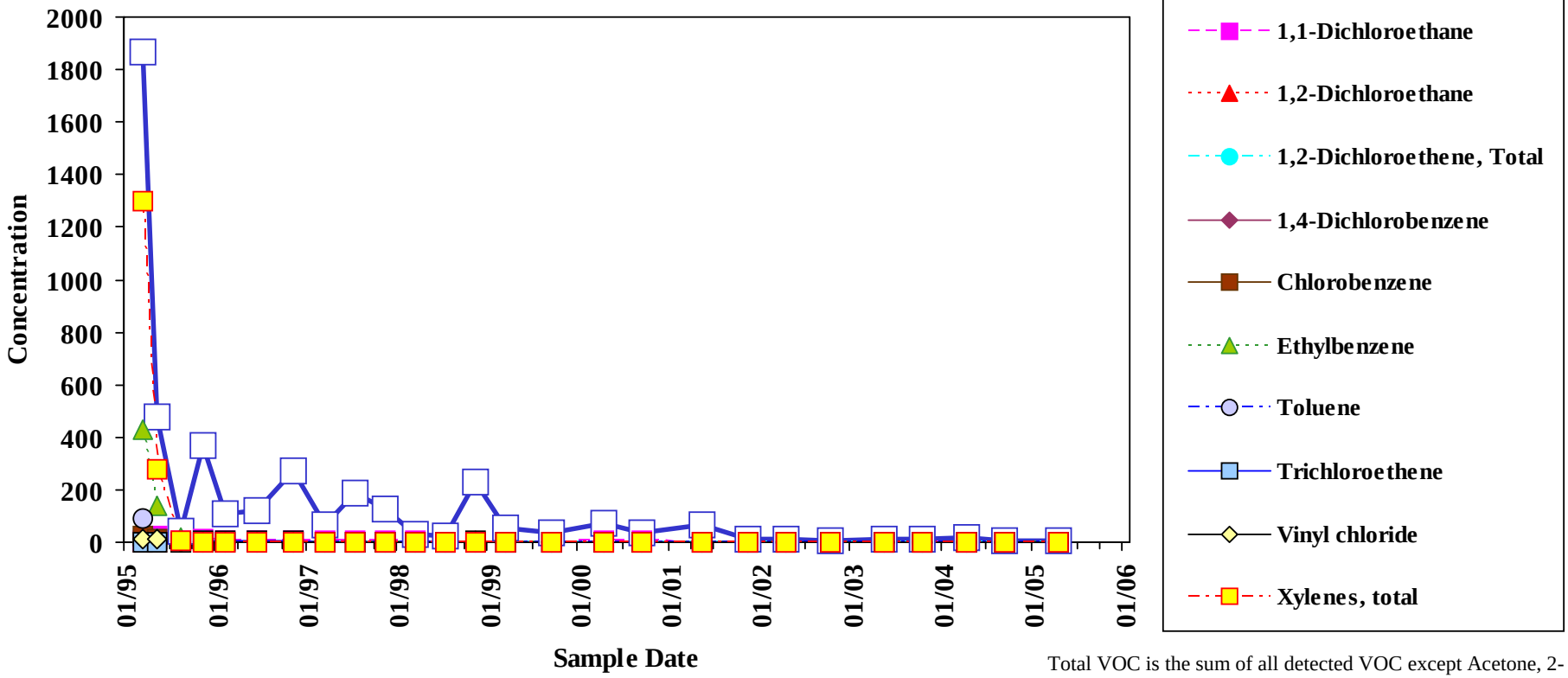
Sample Location:

MW-202A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

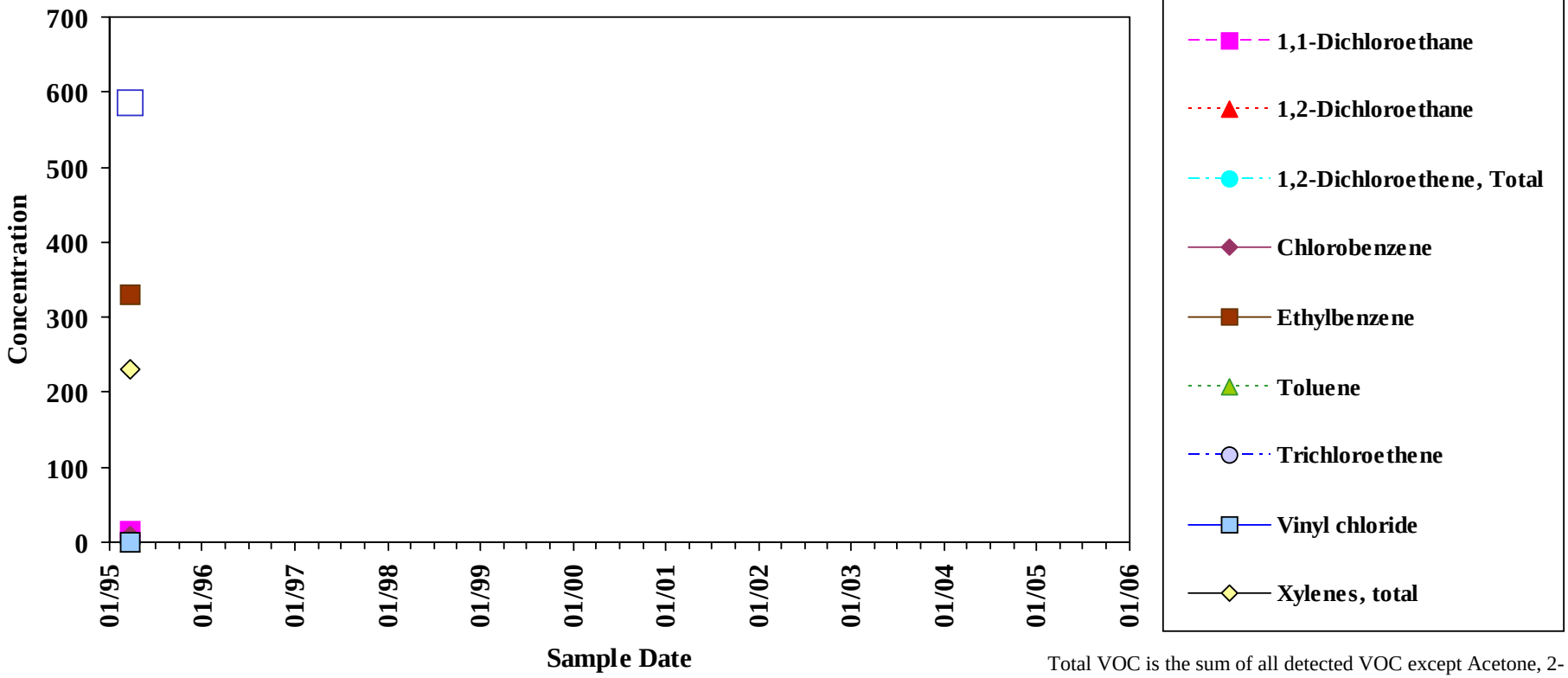
Sample Location:

MW-202B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

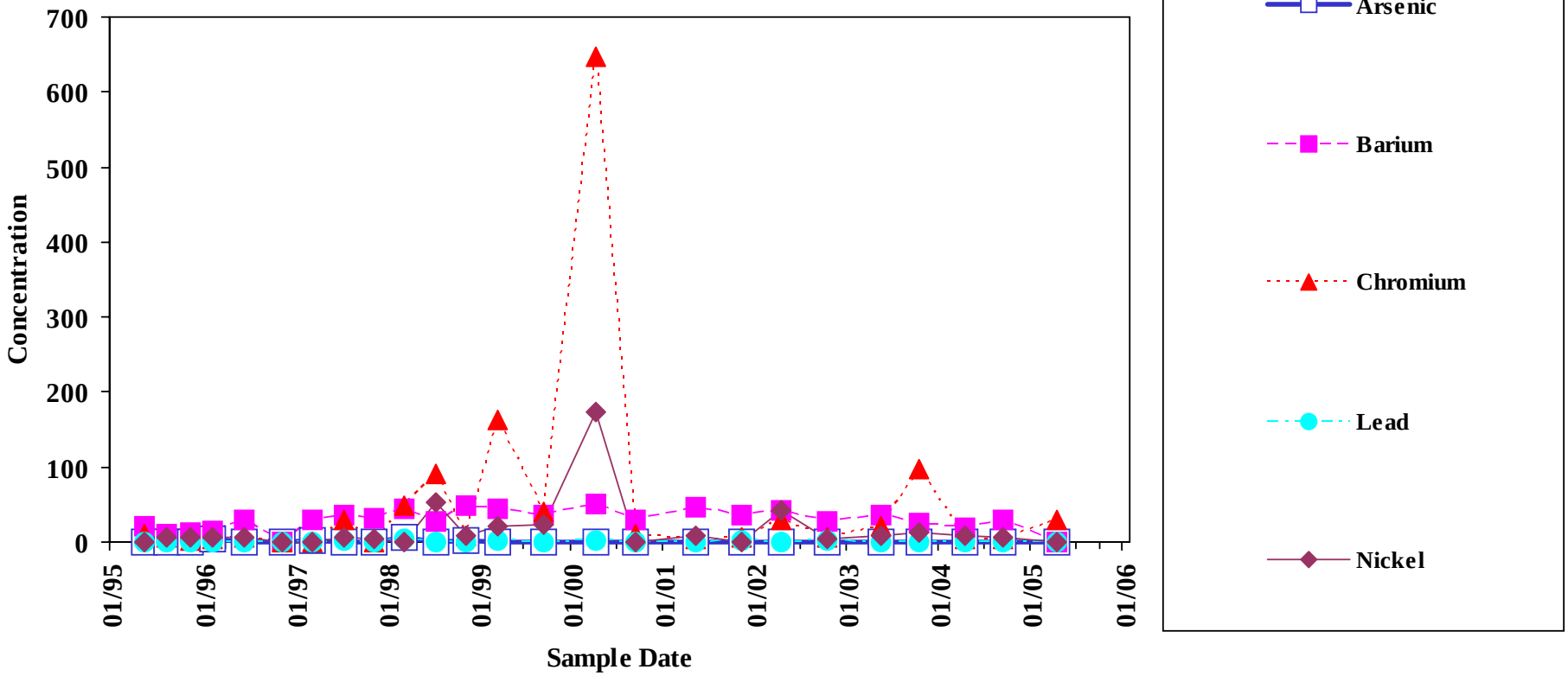
Sample Location:

MW-203

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

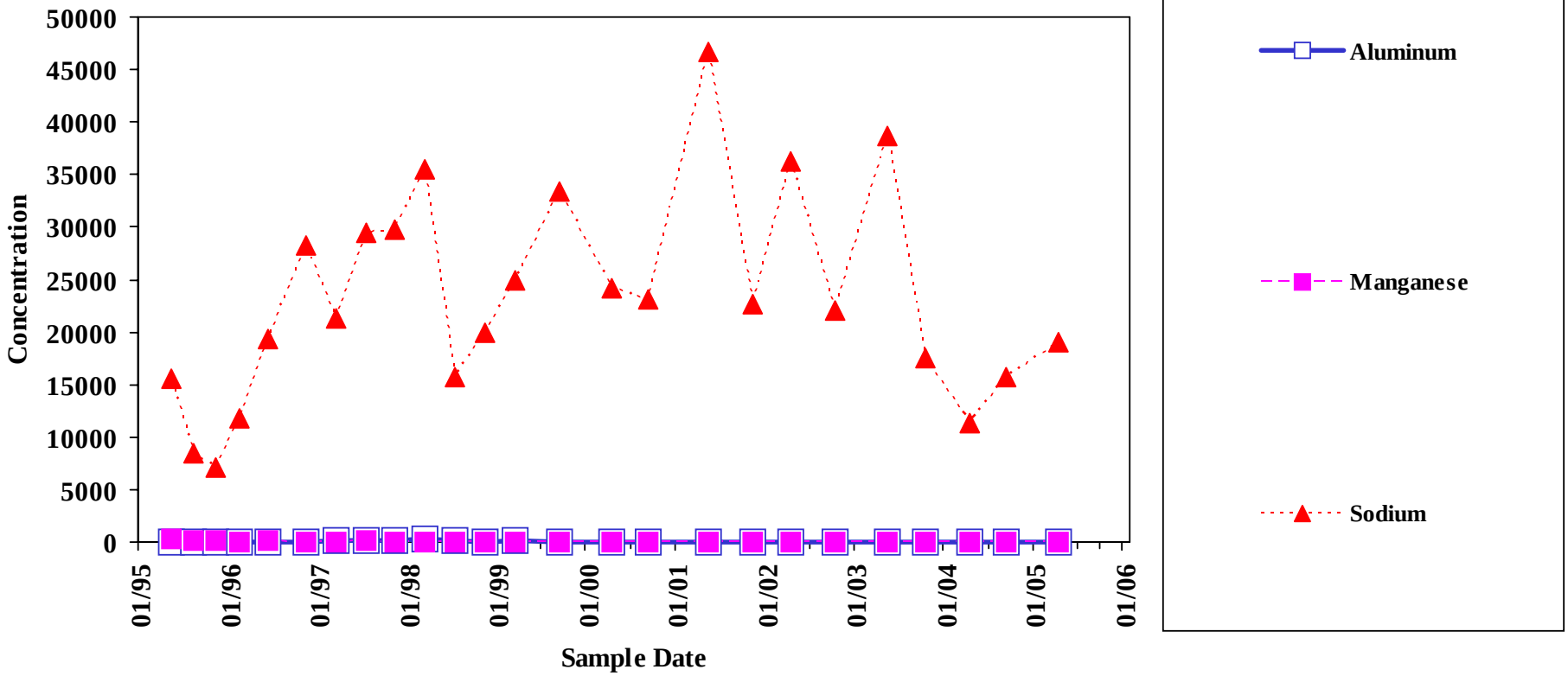
Sample Location:

MW-203

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

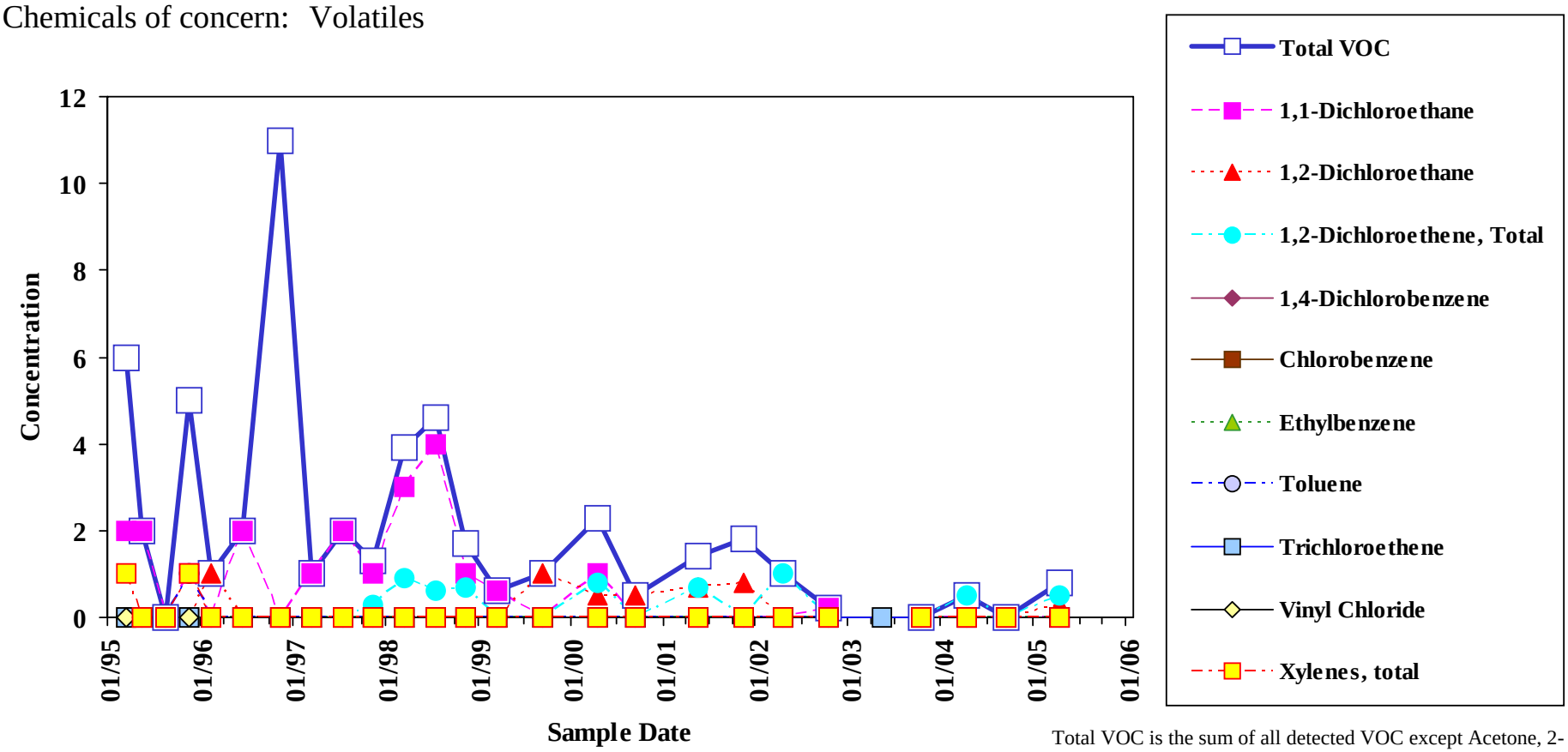
Sample Location:

MW-203

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

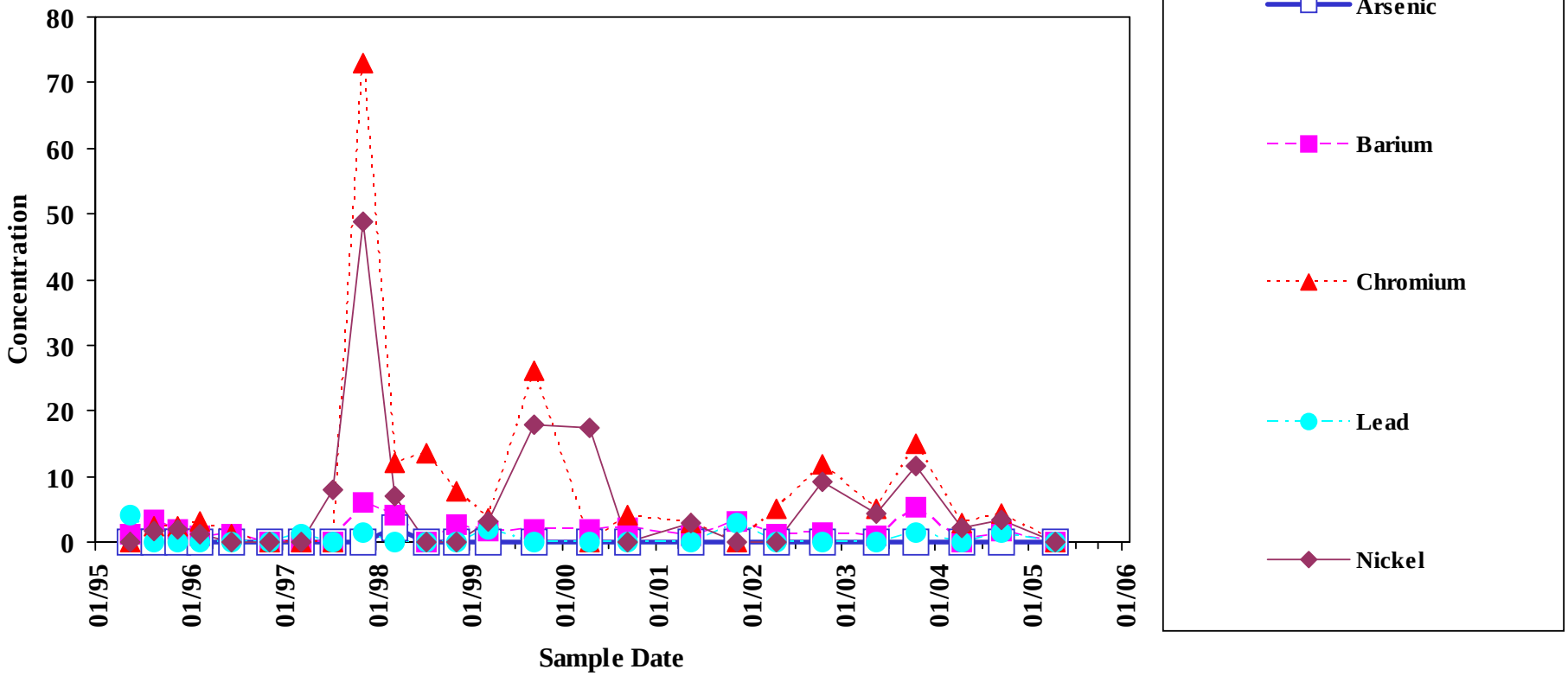
Sample Location:

MW-204

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

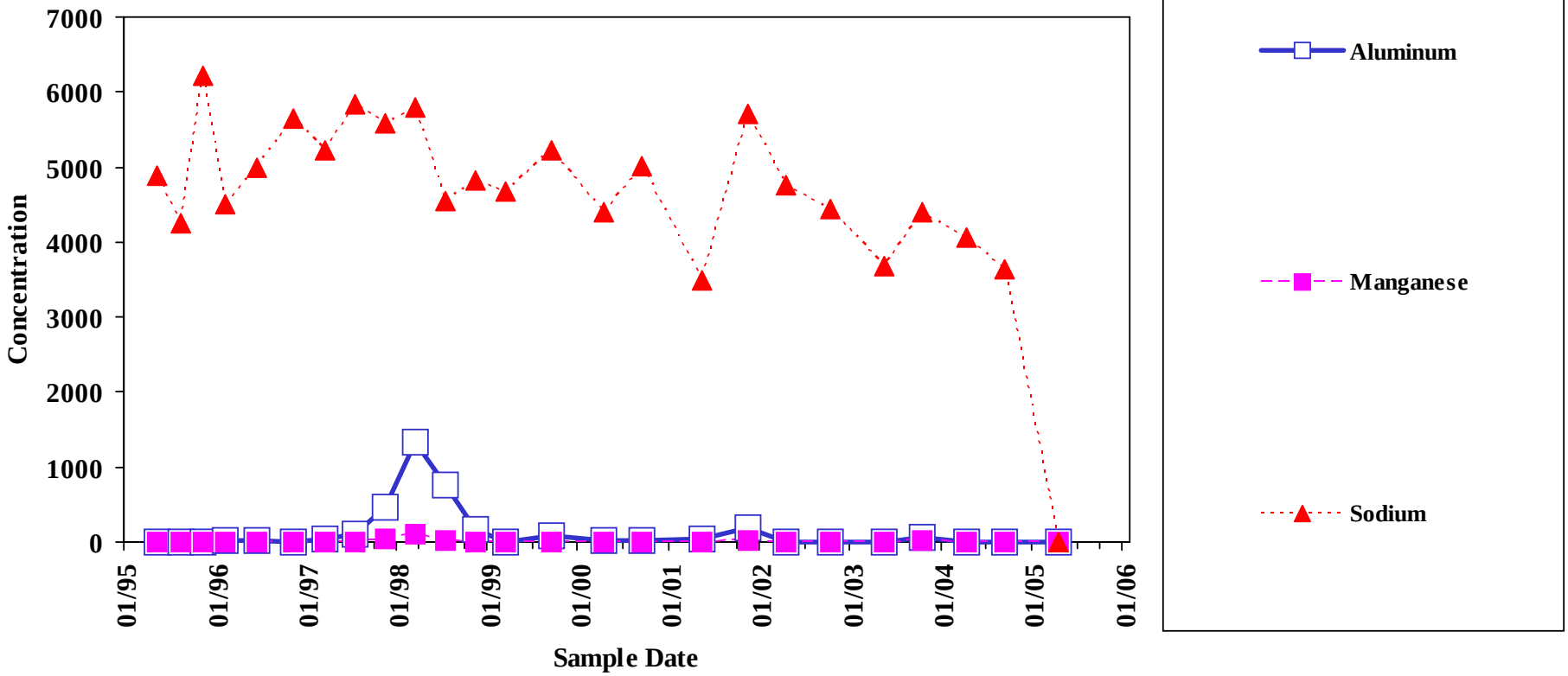
Sample Location:

MW-204

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

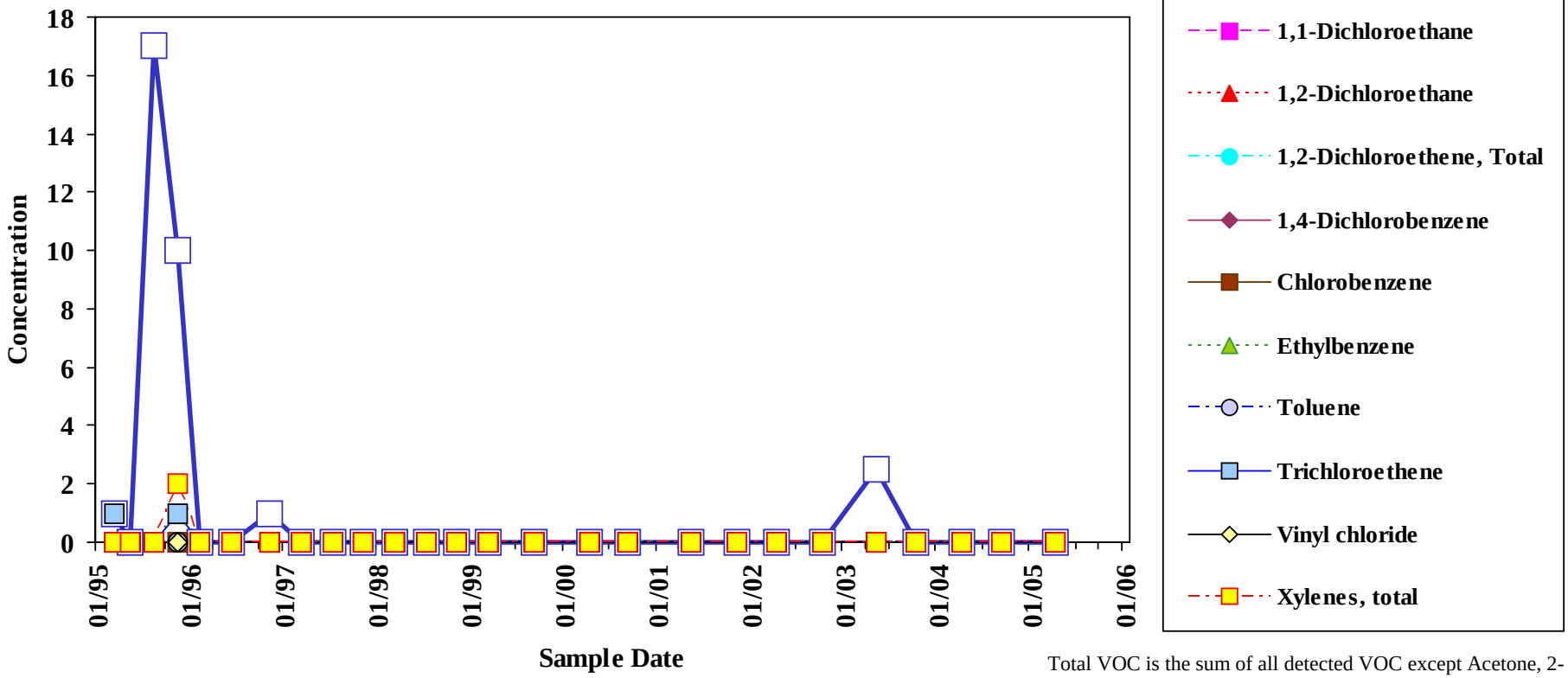
Sample Location:

MW-204

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

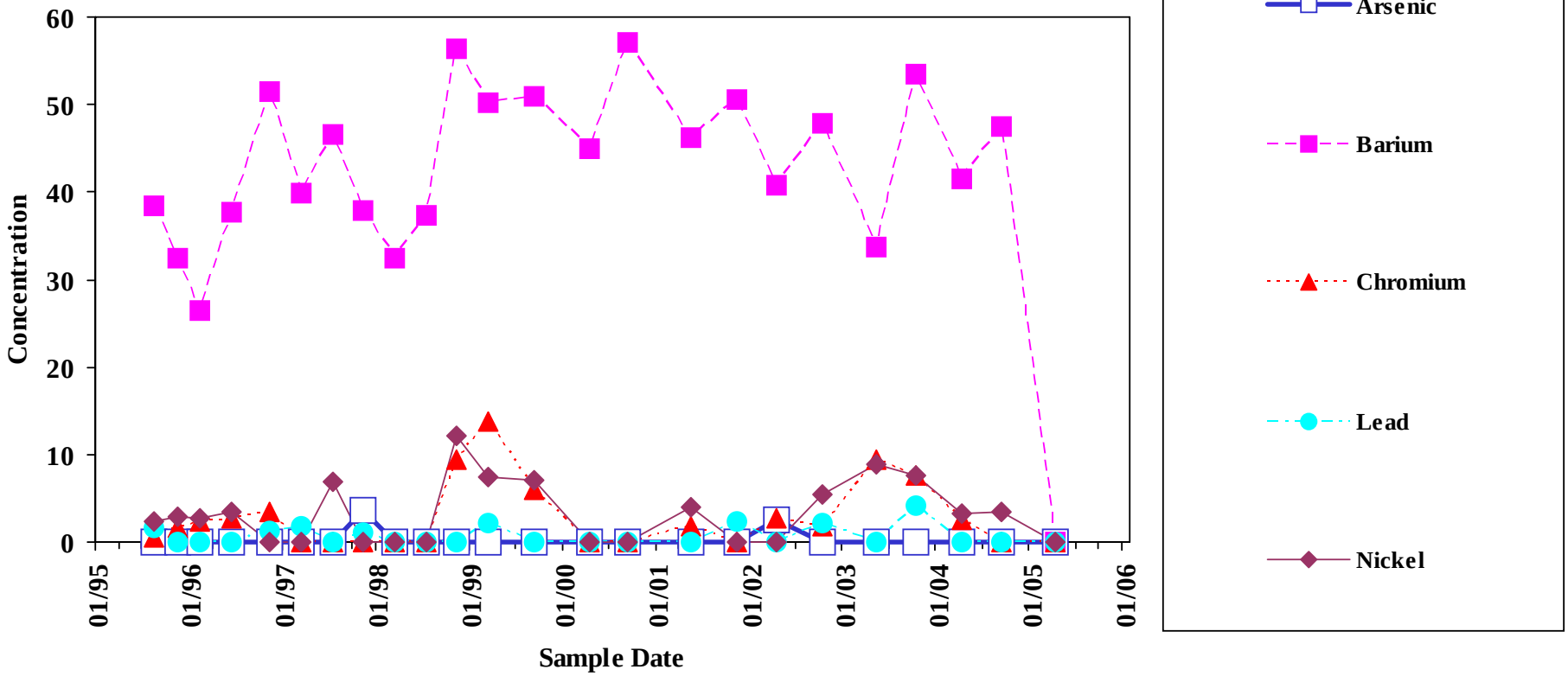
Sample Location:

MW-2101

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

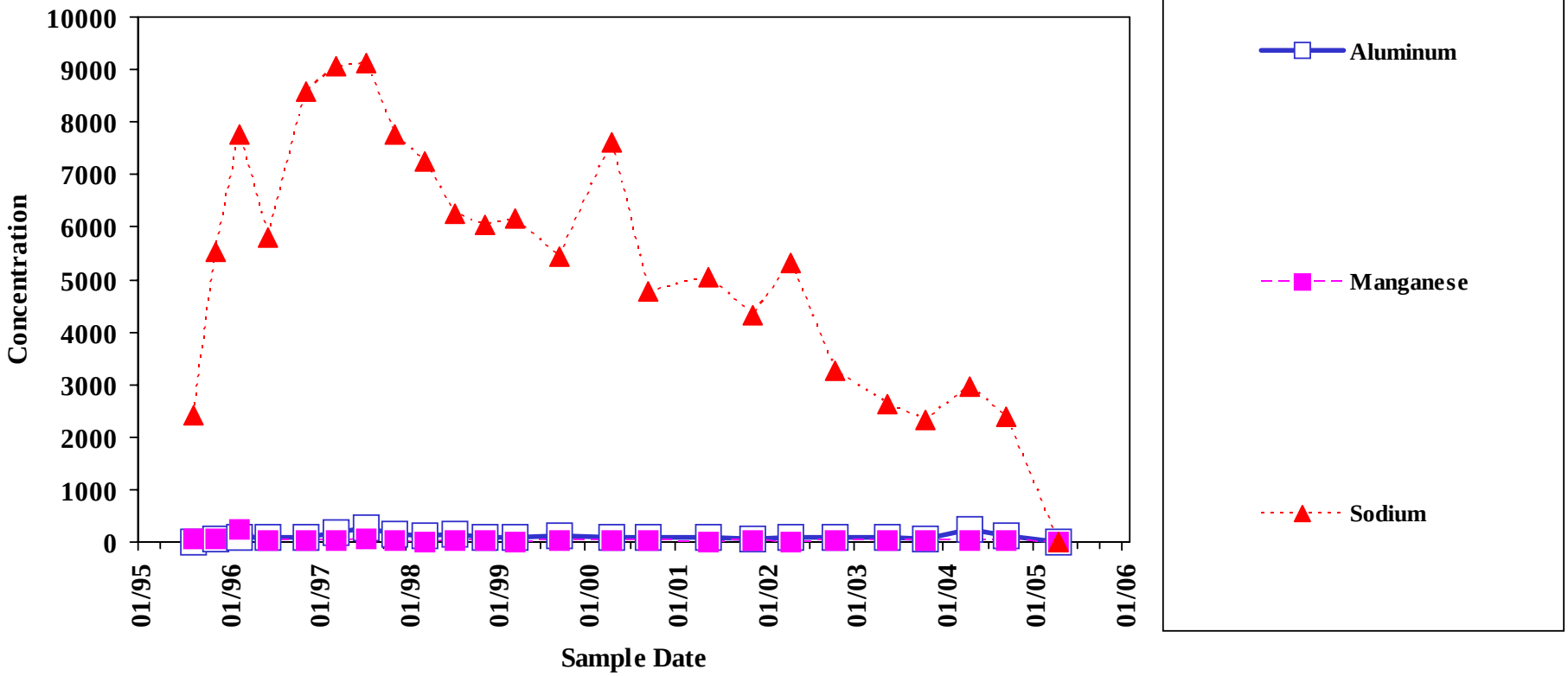
Sample Location:

MW-2101

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

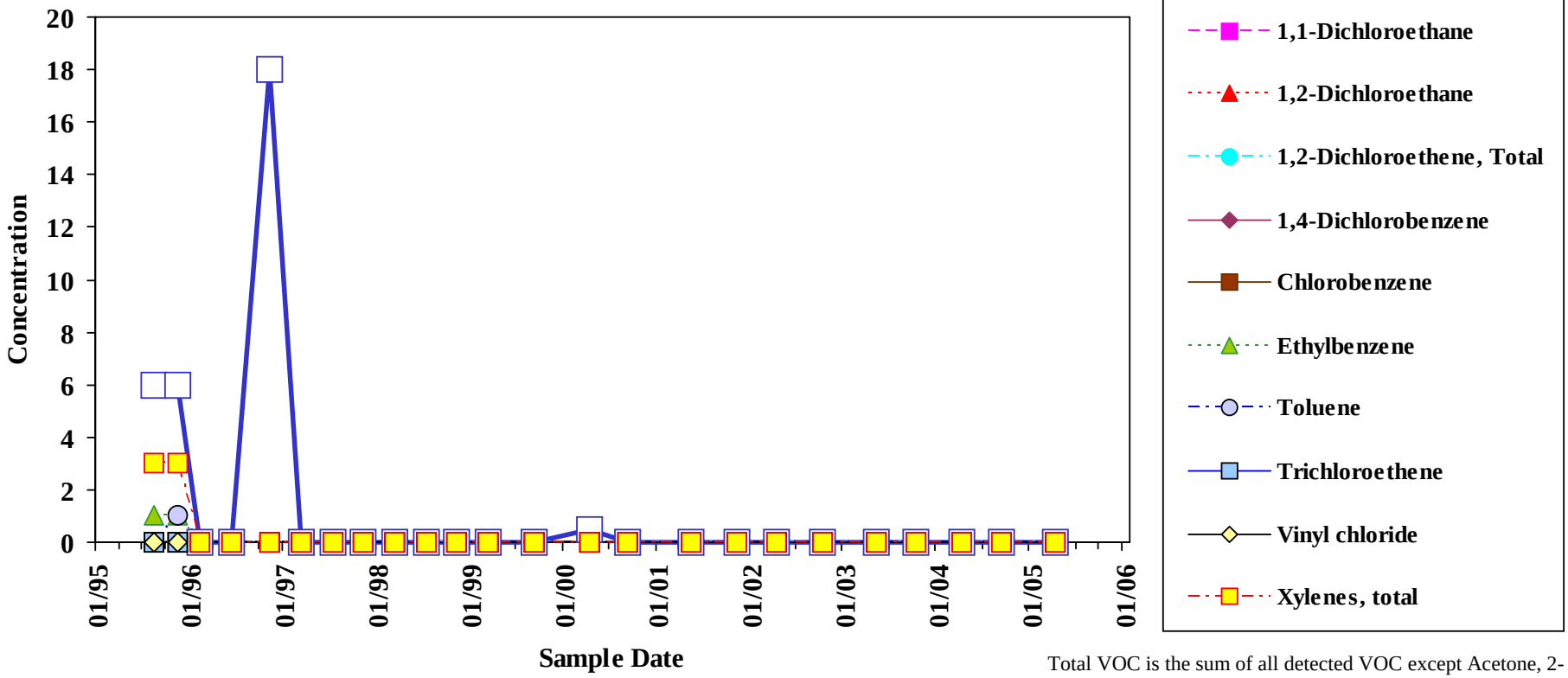
Sample Location:

MW-2101

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

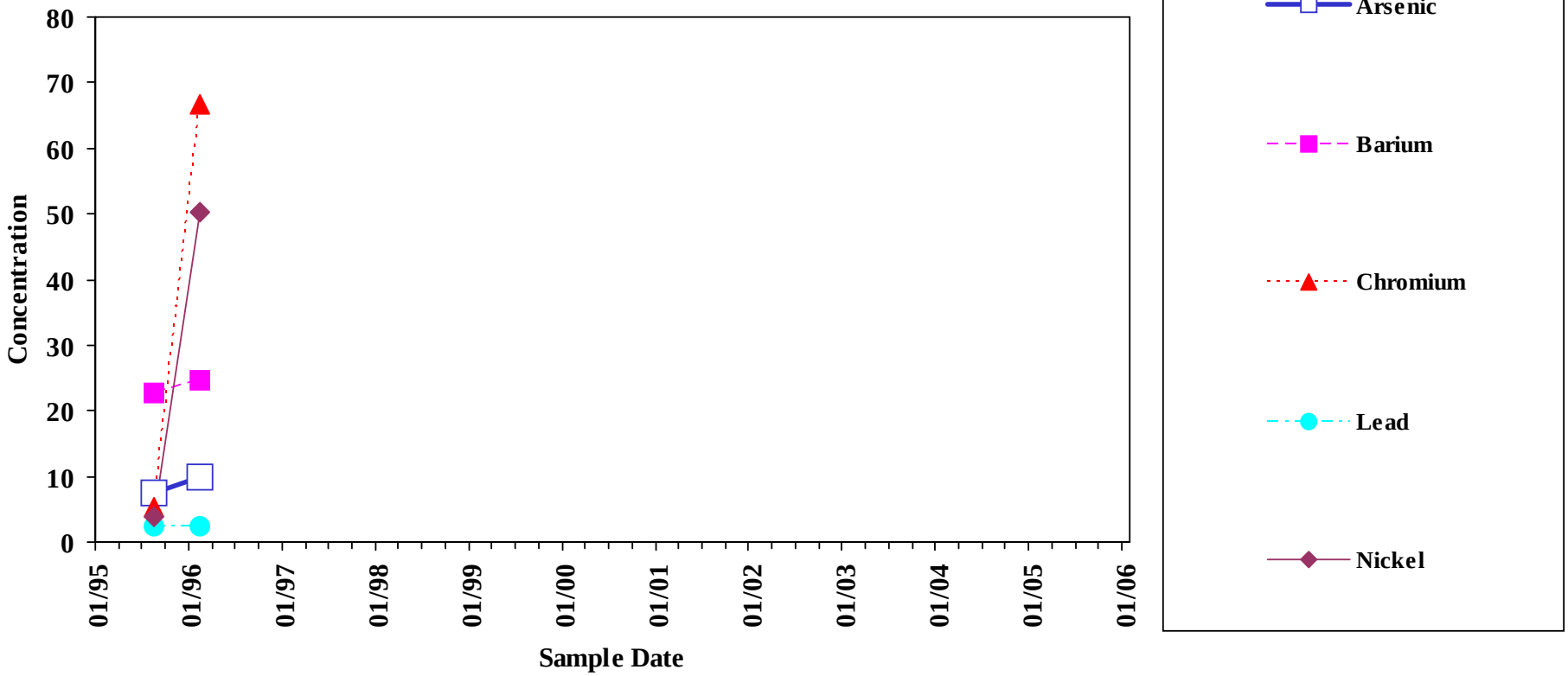
Sample Location:

MW-210A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

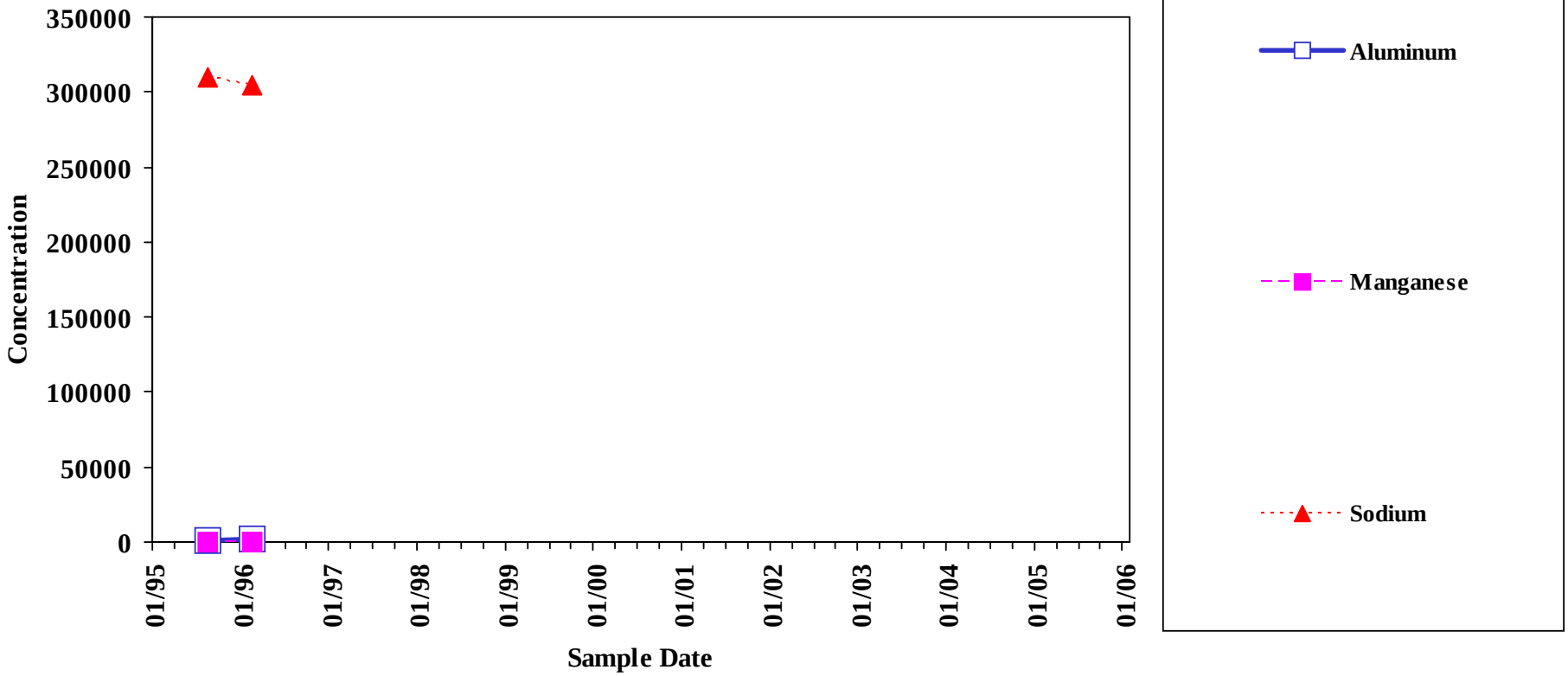
Sample Location:

MW-210A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

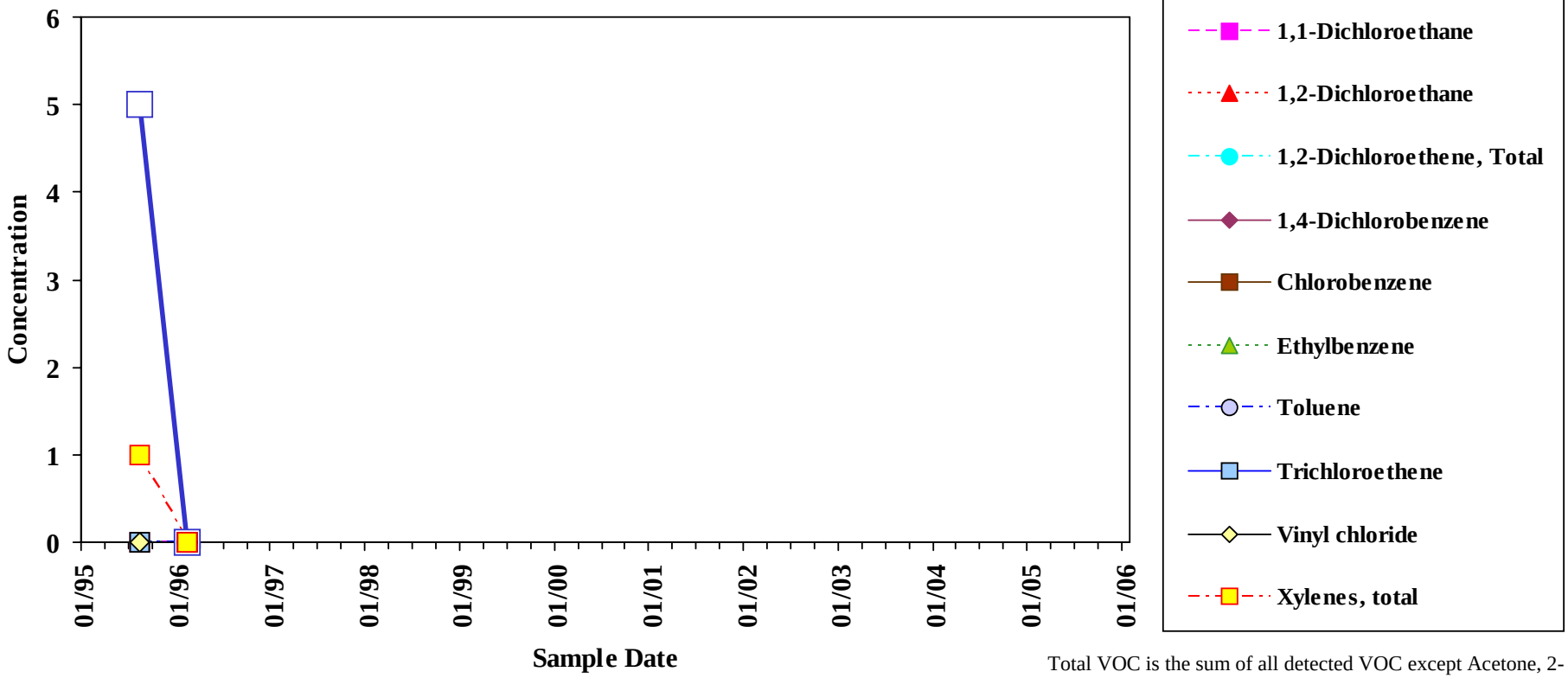
Sample Location:

MW-210A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

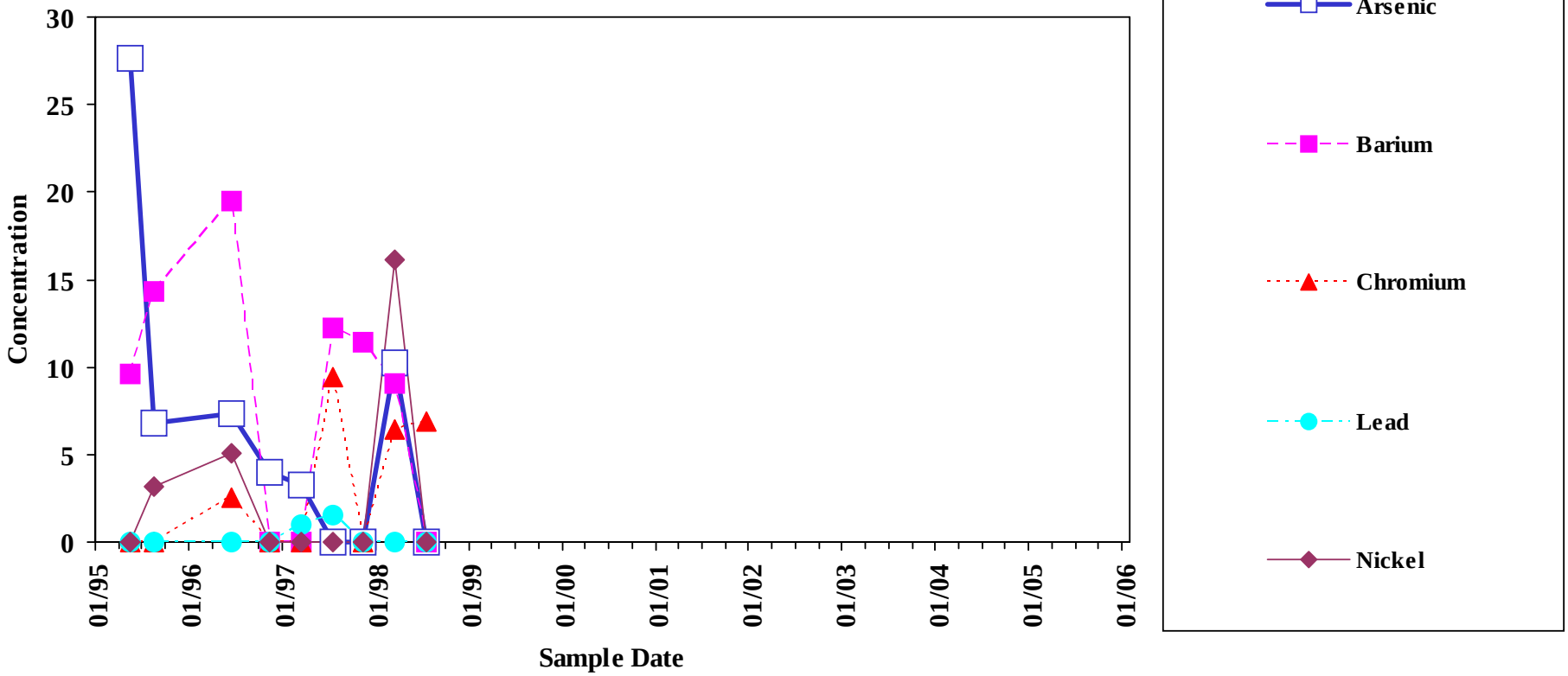
Sample Location:

MW-210B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

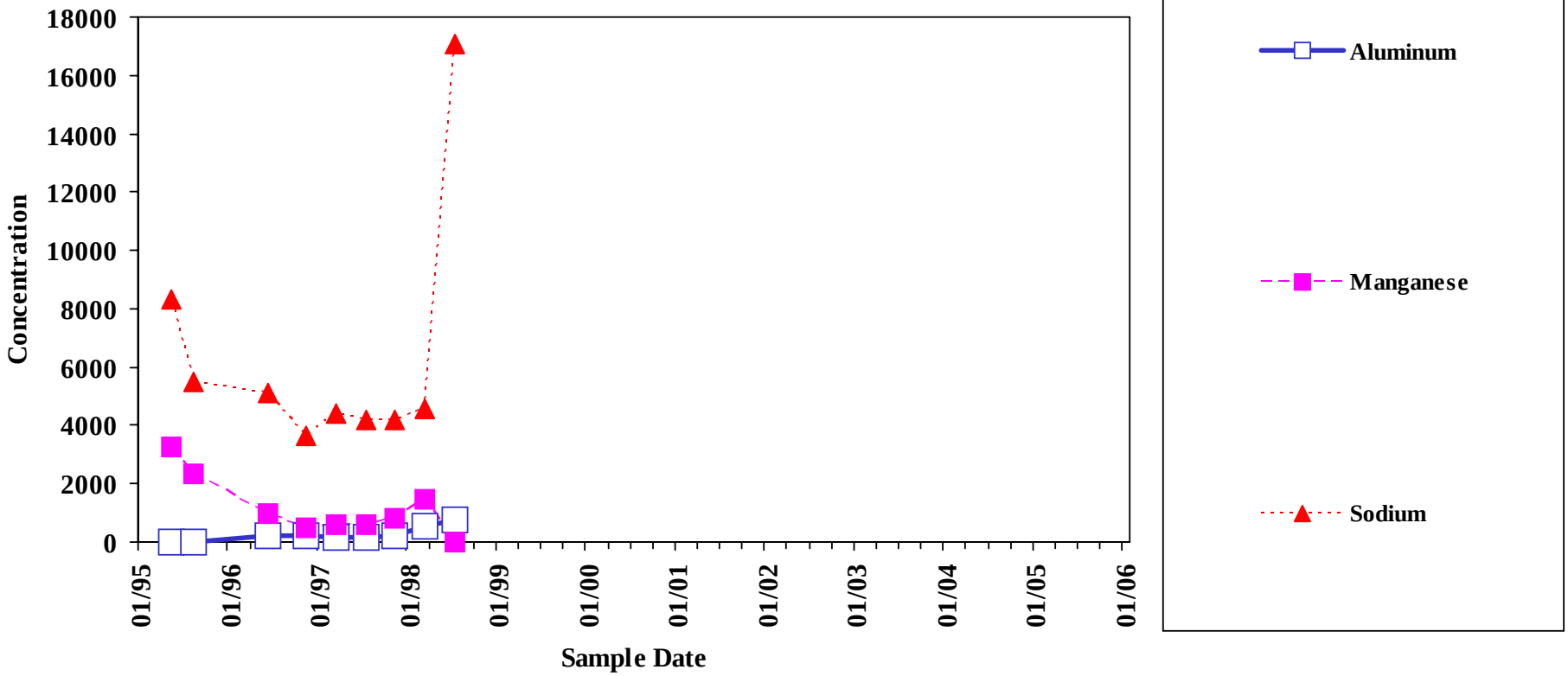
Sample Location:

MW-210B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

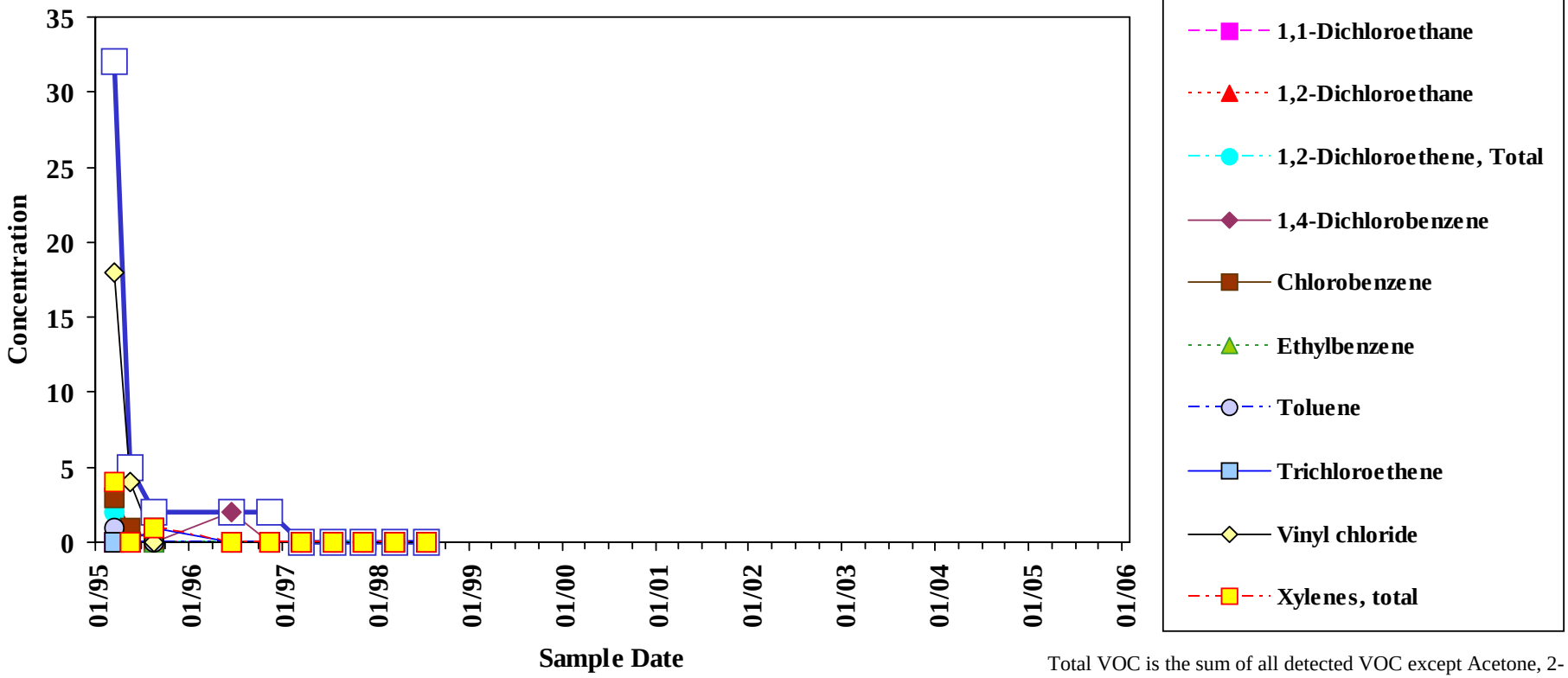
Sample Location:

MW-210B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

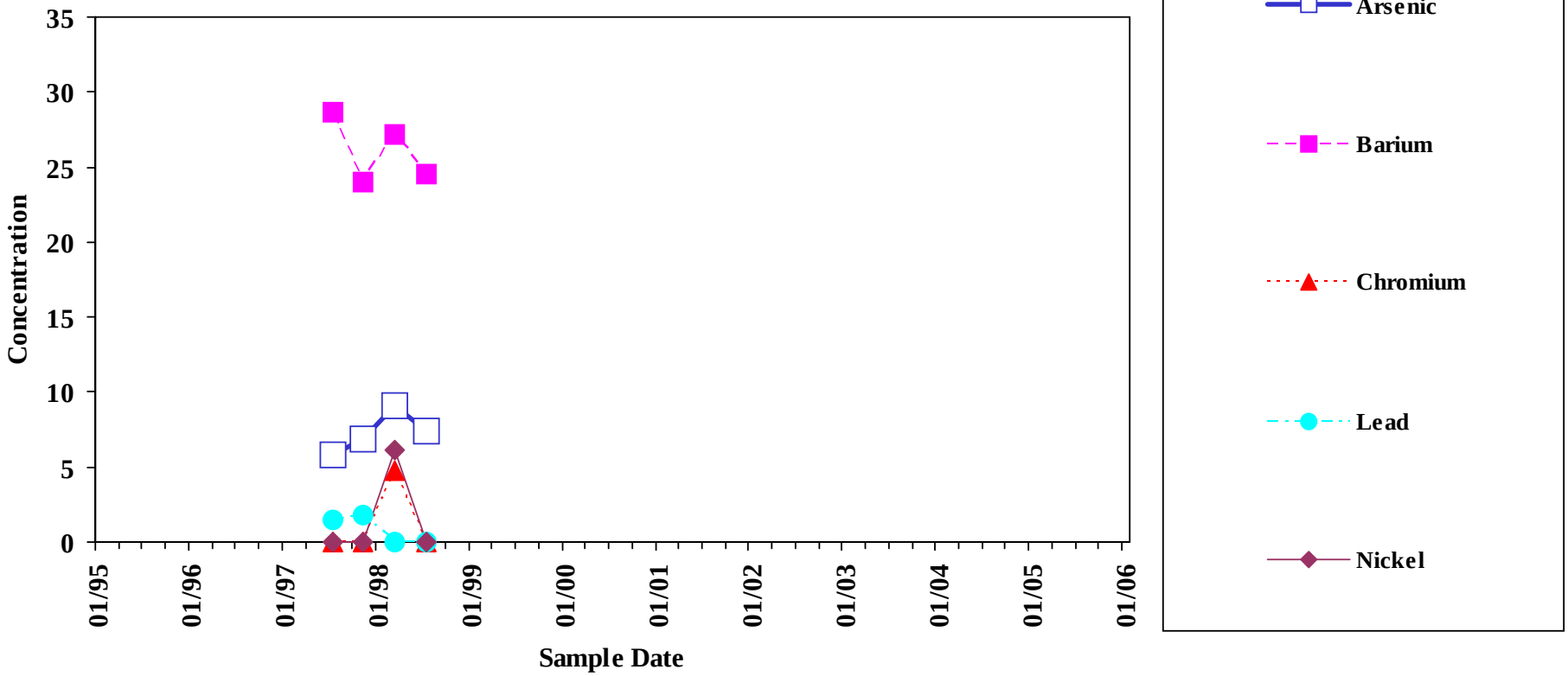
Sample Location:

MW-210R

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

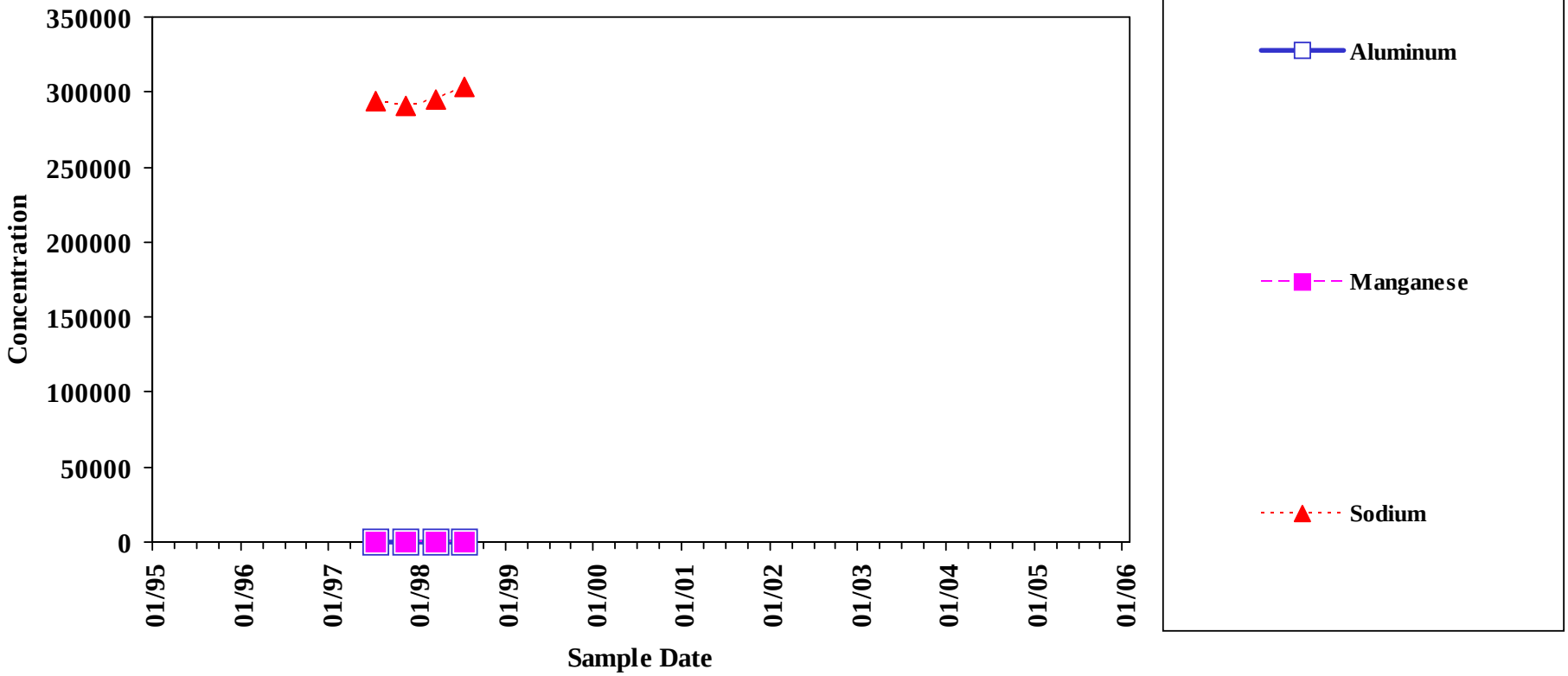
Sample Location:

MW-210R

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

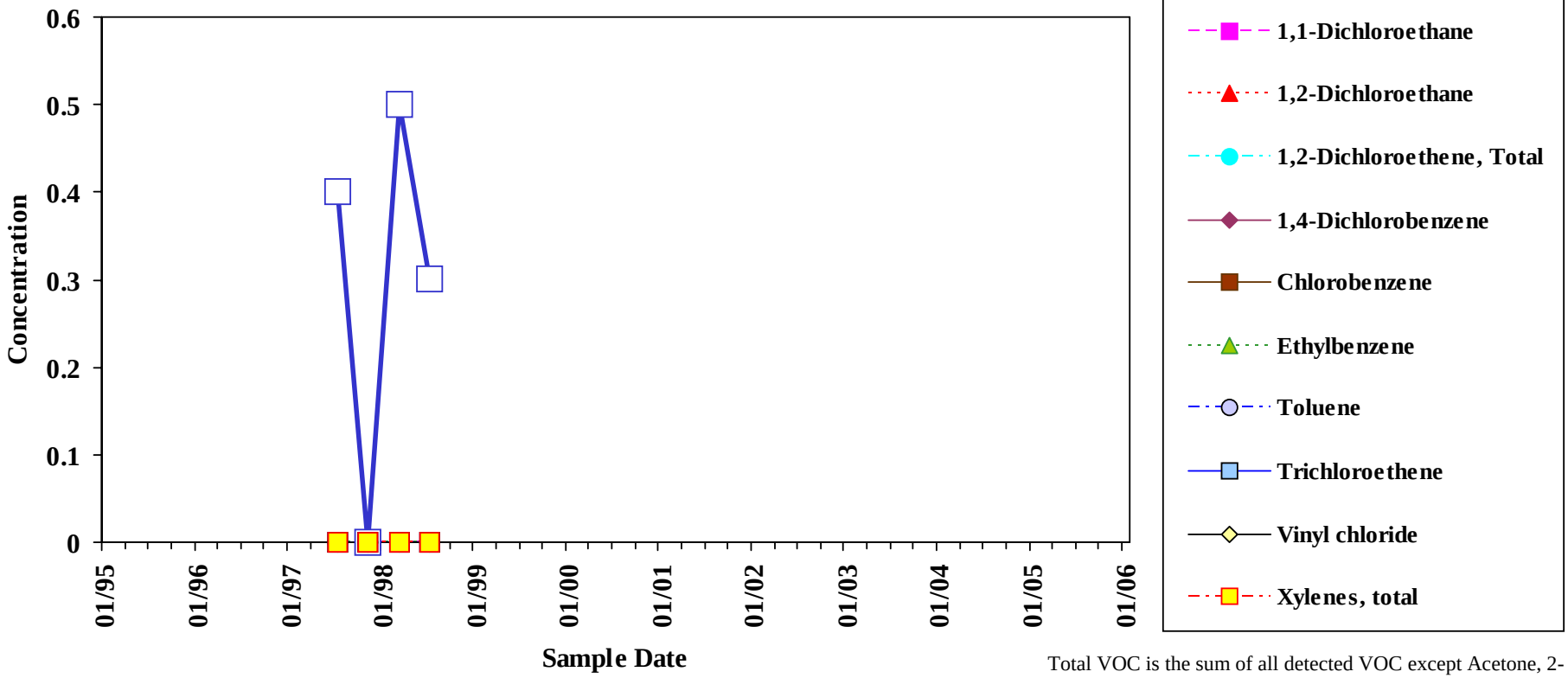
Sample Location:

MW-210R

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

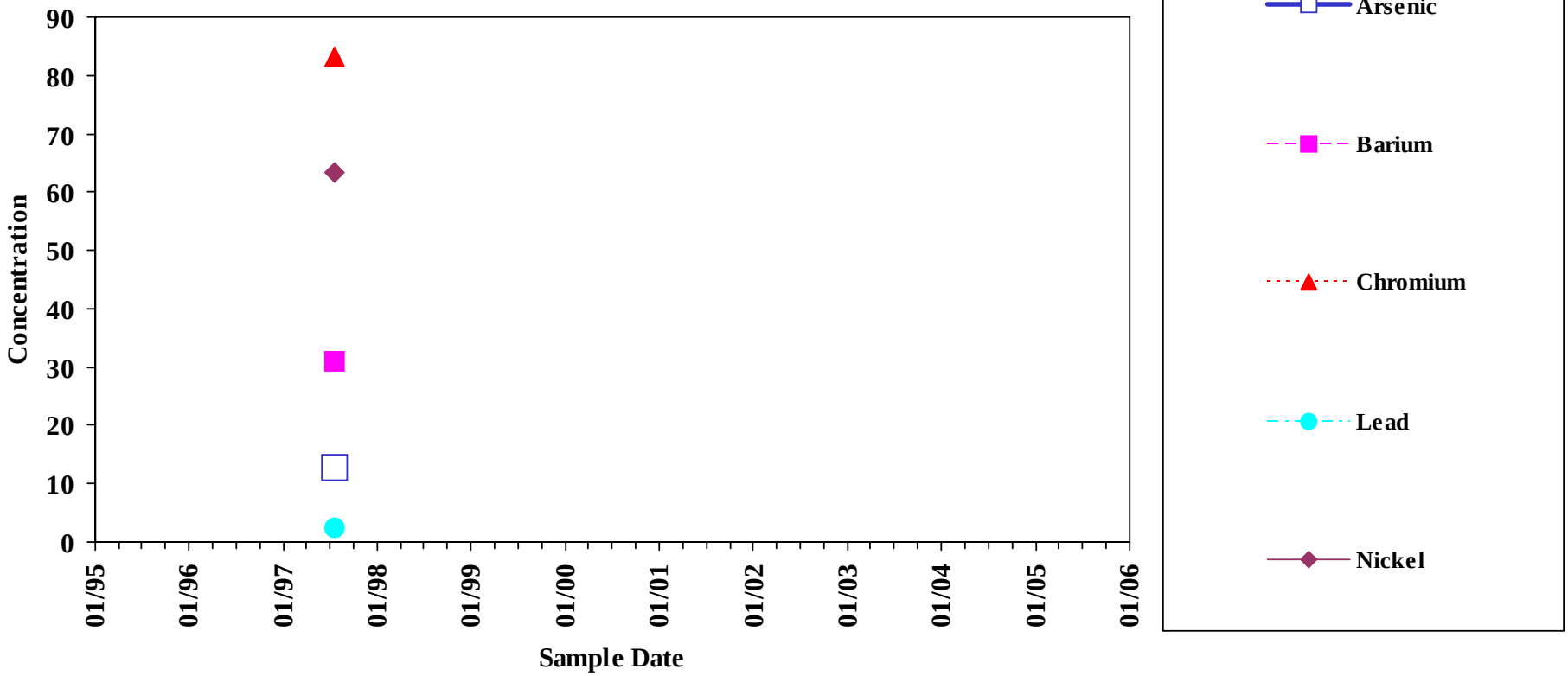
Sample Location:

MW-211B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

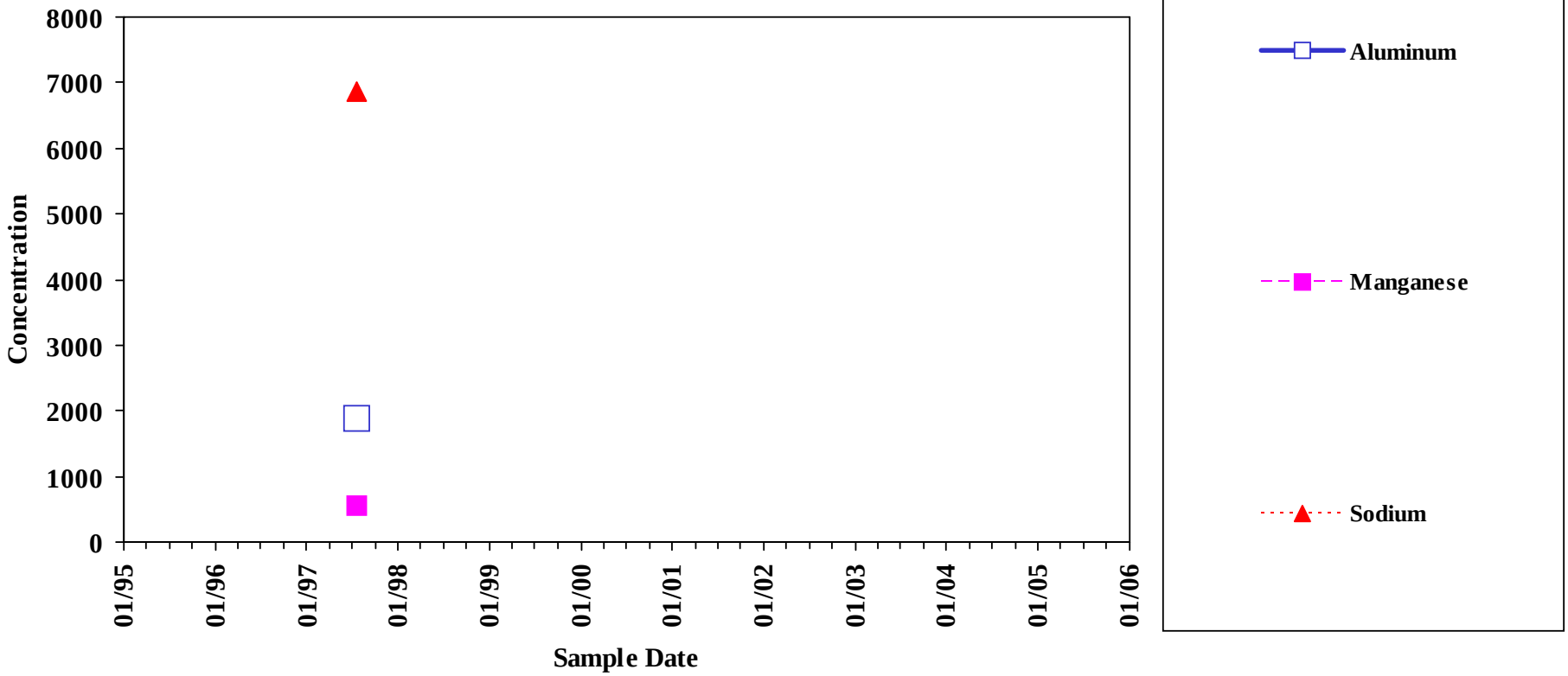
Sample Location:

MW-211B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

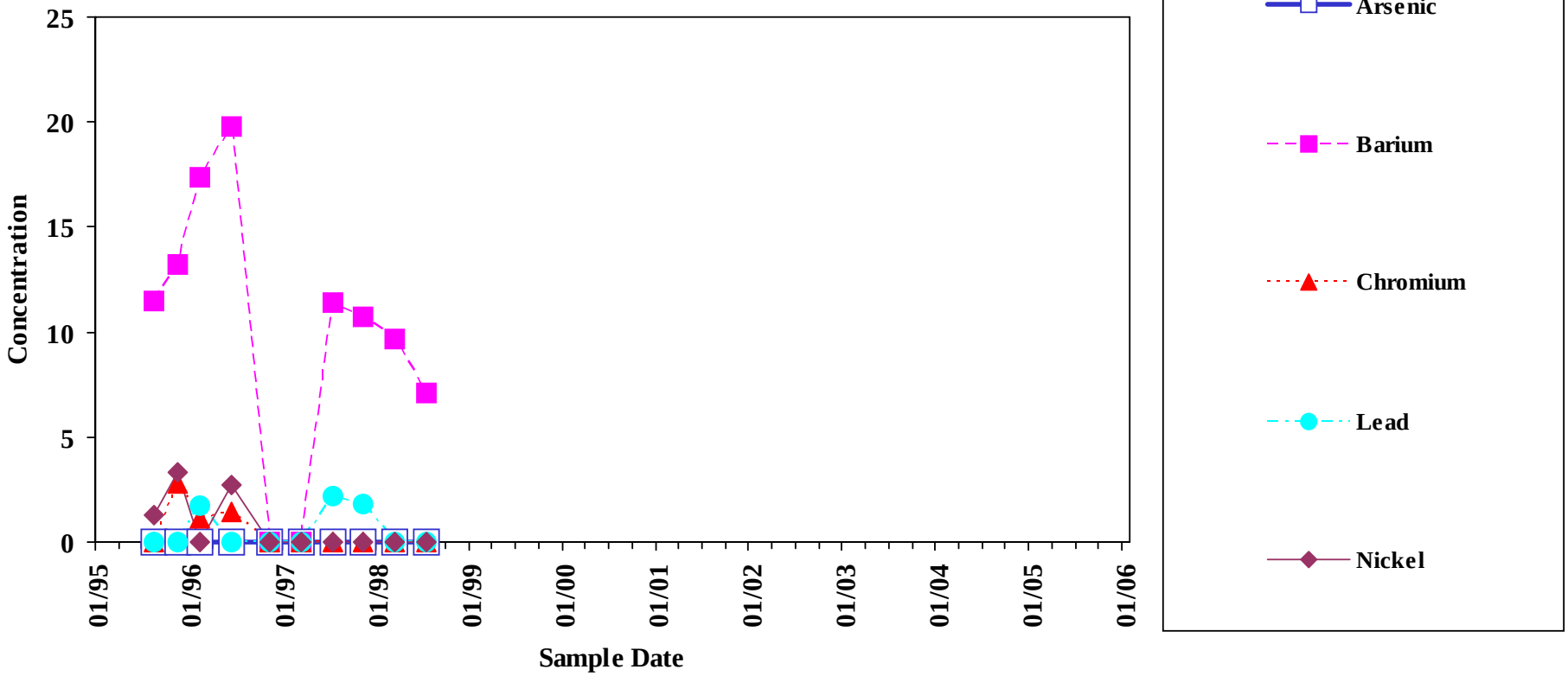
Sample Location:

MW-215R

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

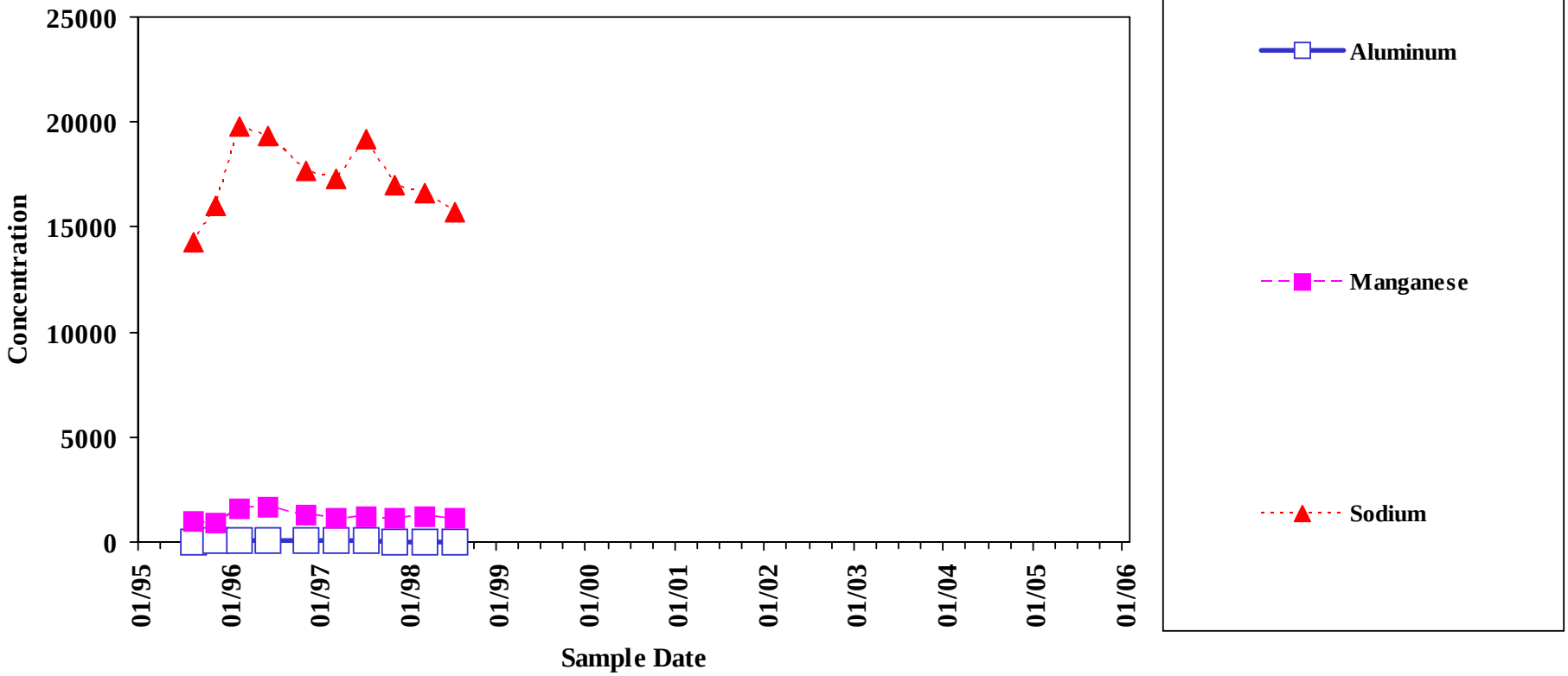
Sample Location:

MW-215R

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

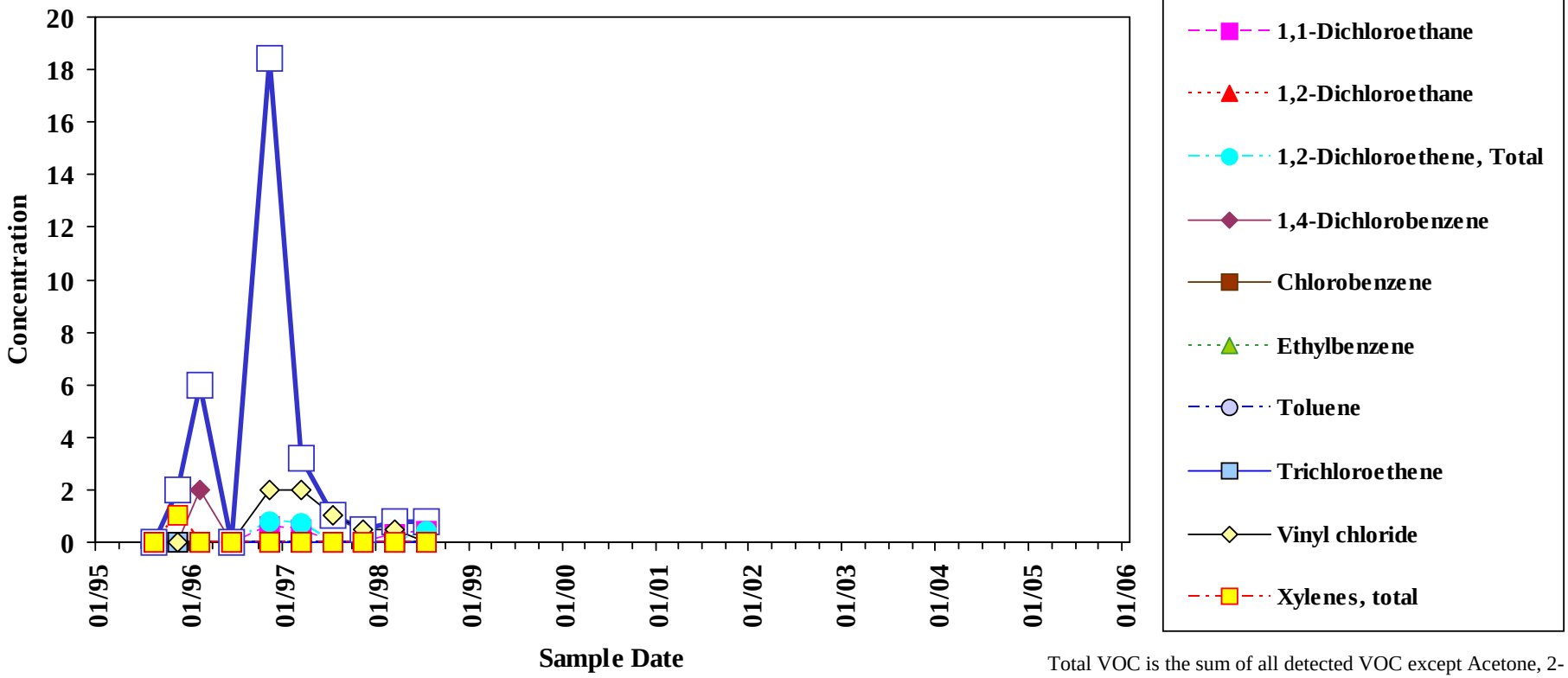
Sample Location:

MW-215R

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

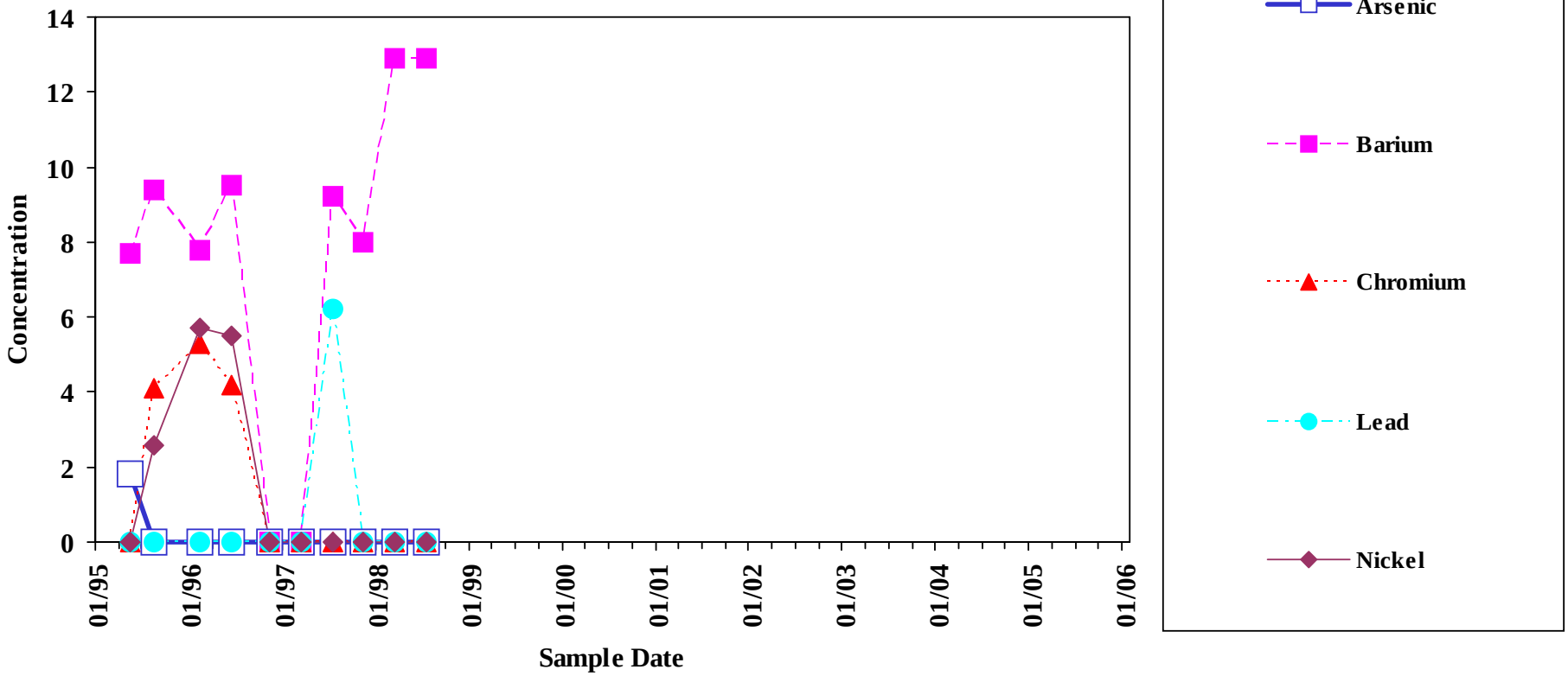
Sample Location:

MW-216A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

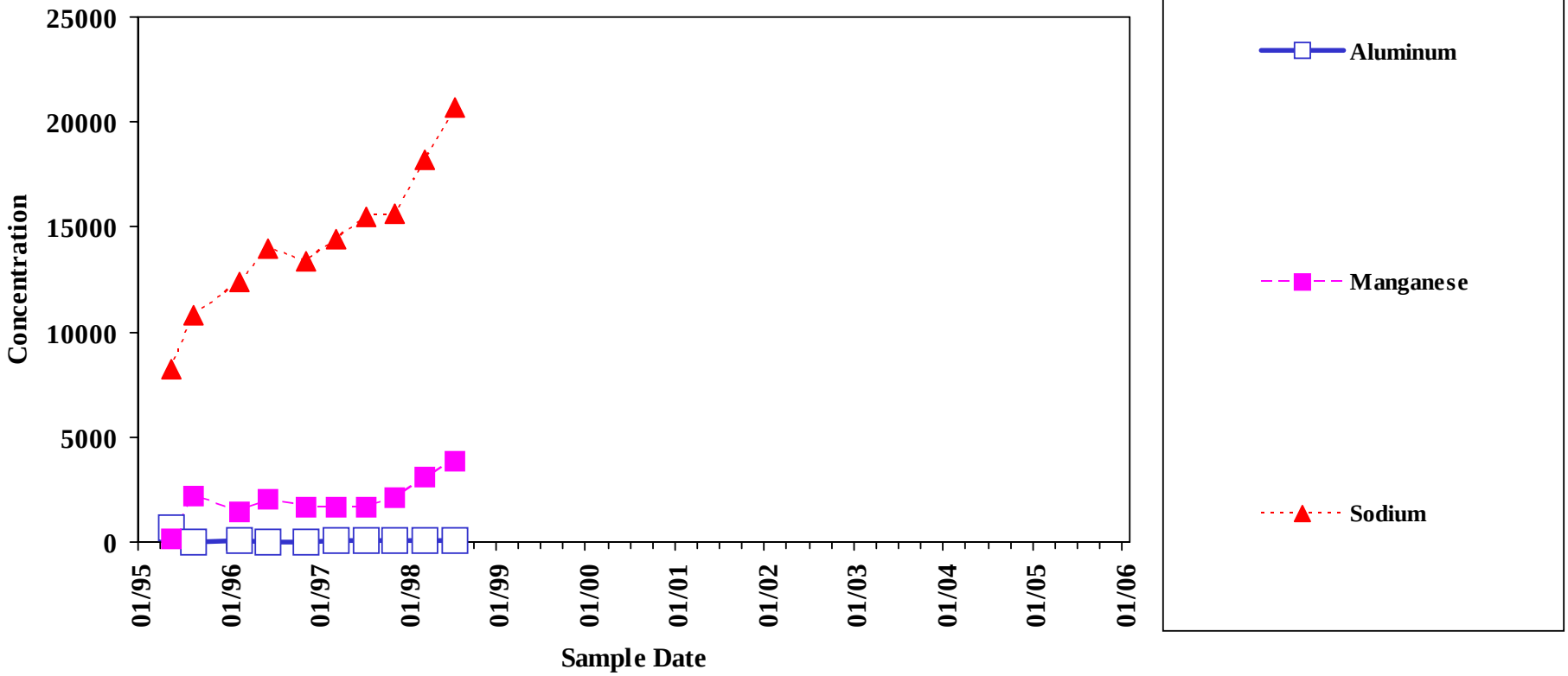
Sample Location:

MW-216A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

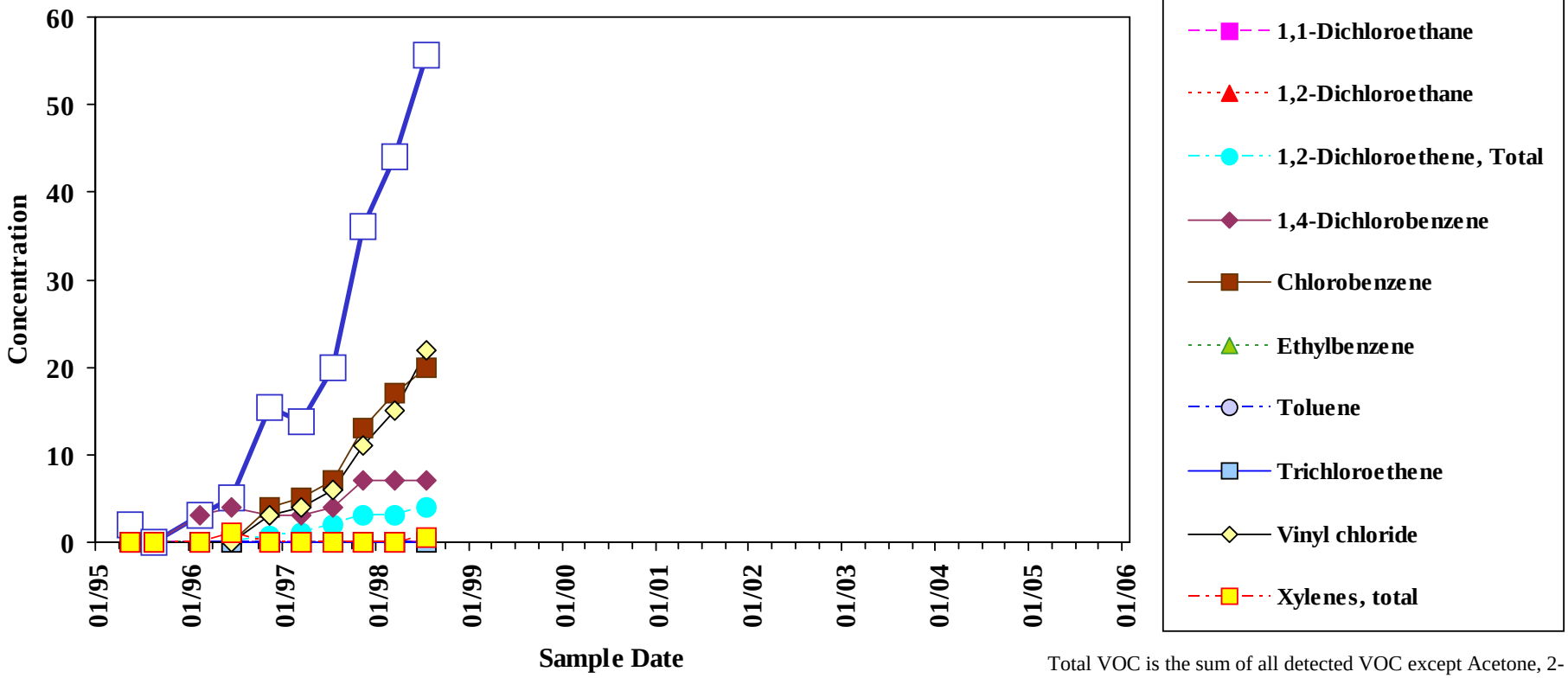
Sample Location:

MW-216A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

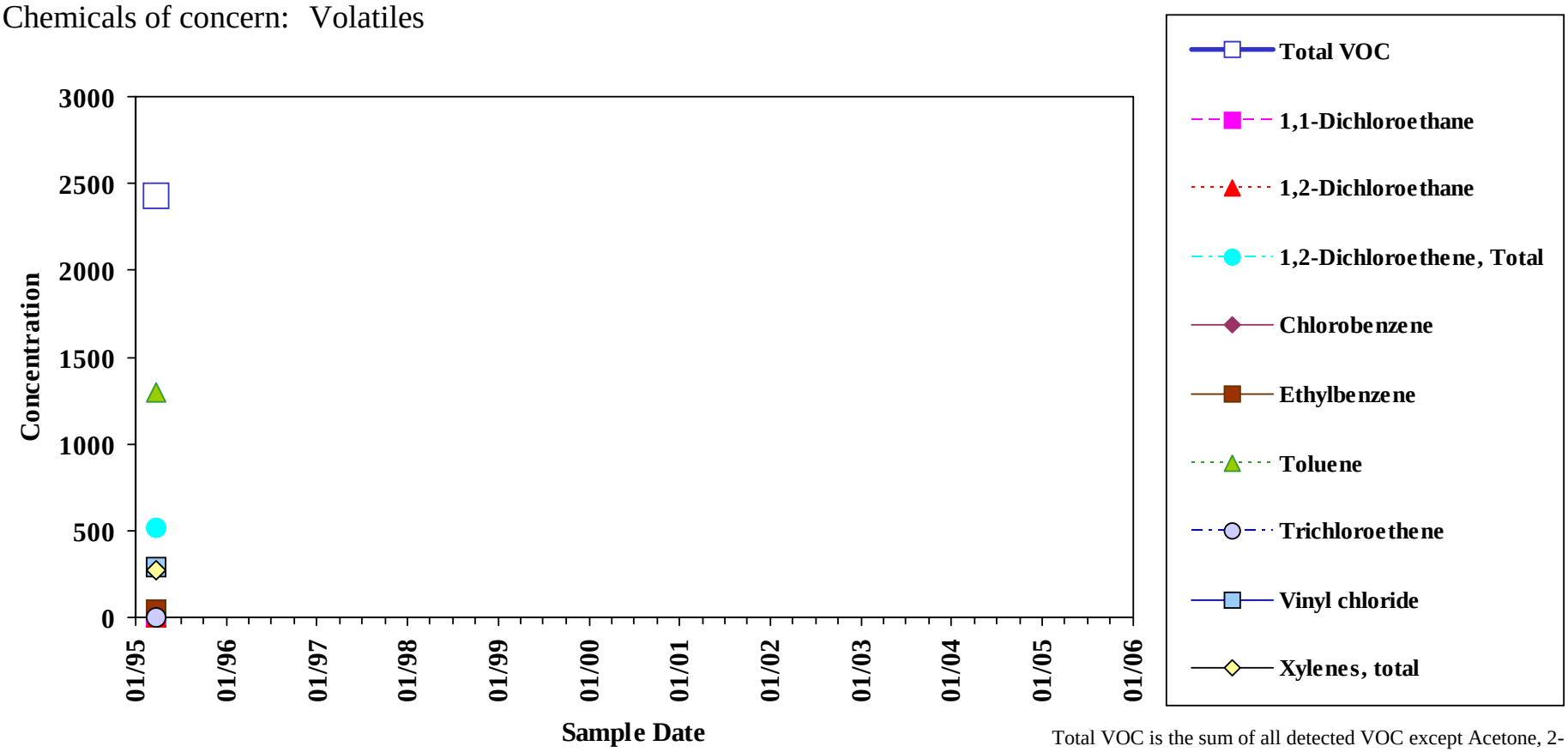
Sample Location:

MW-216B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

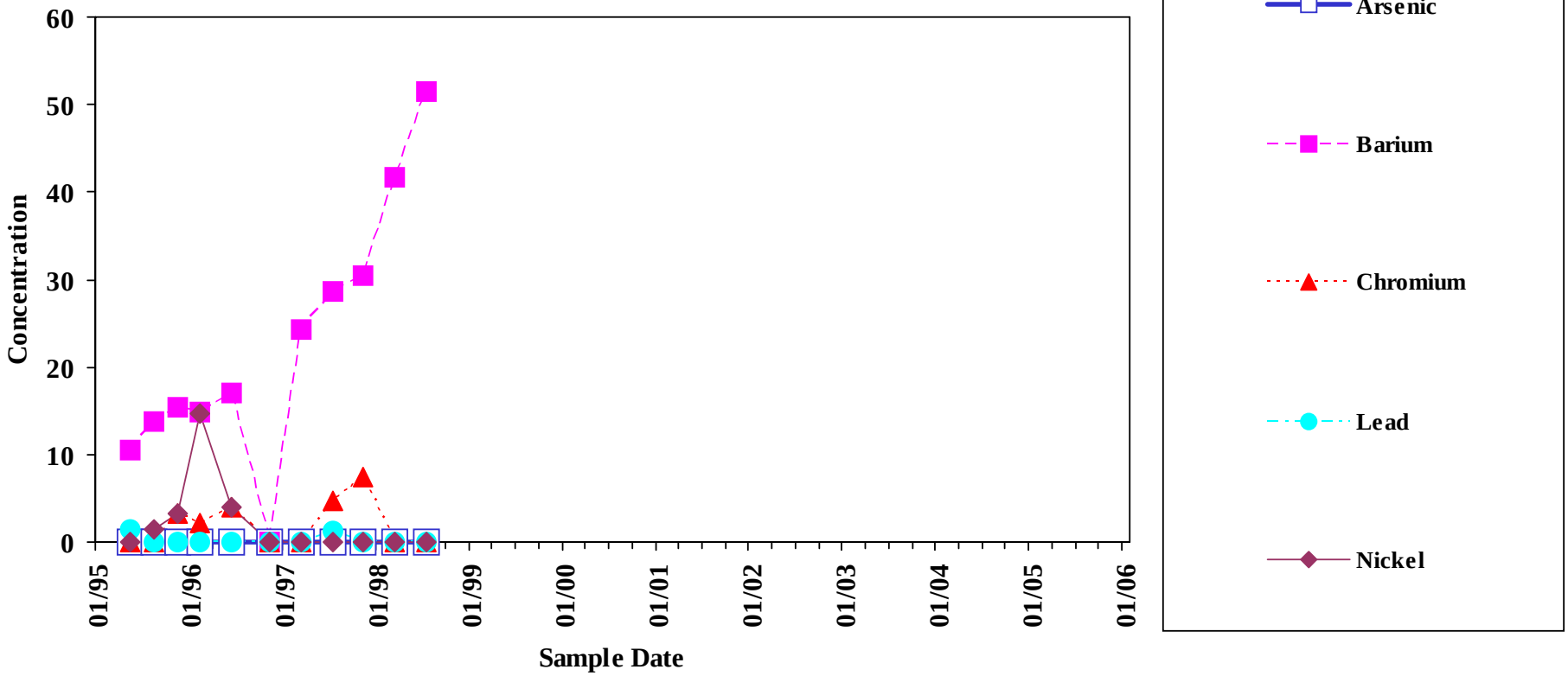
Sample Location:

MW-217A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

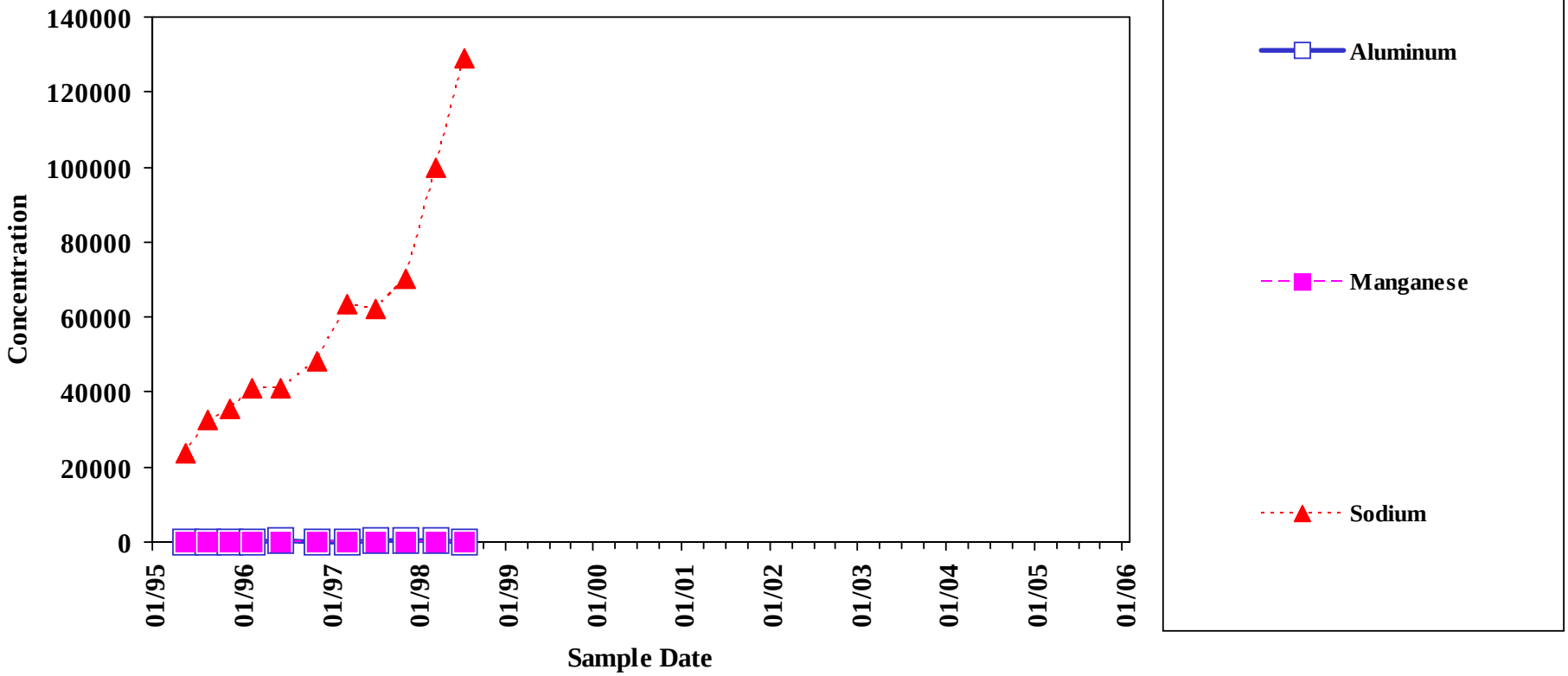
Sample Location:

MW-217A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

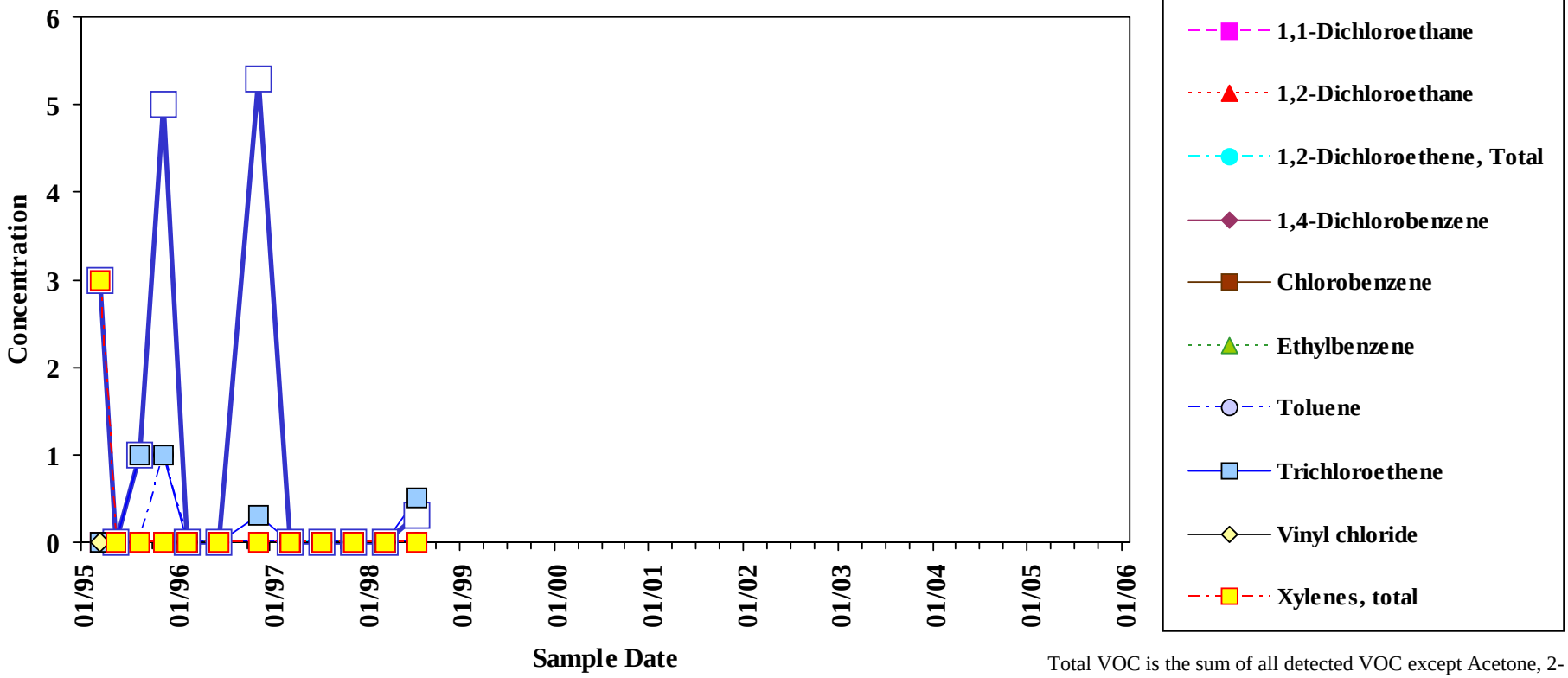
Sample Location:

MW-217A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

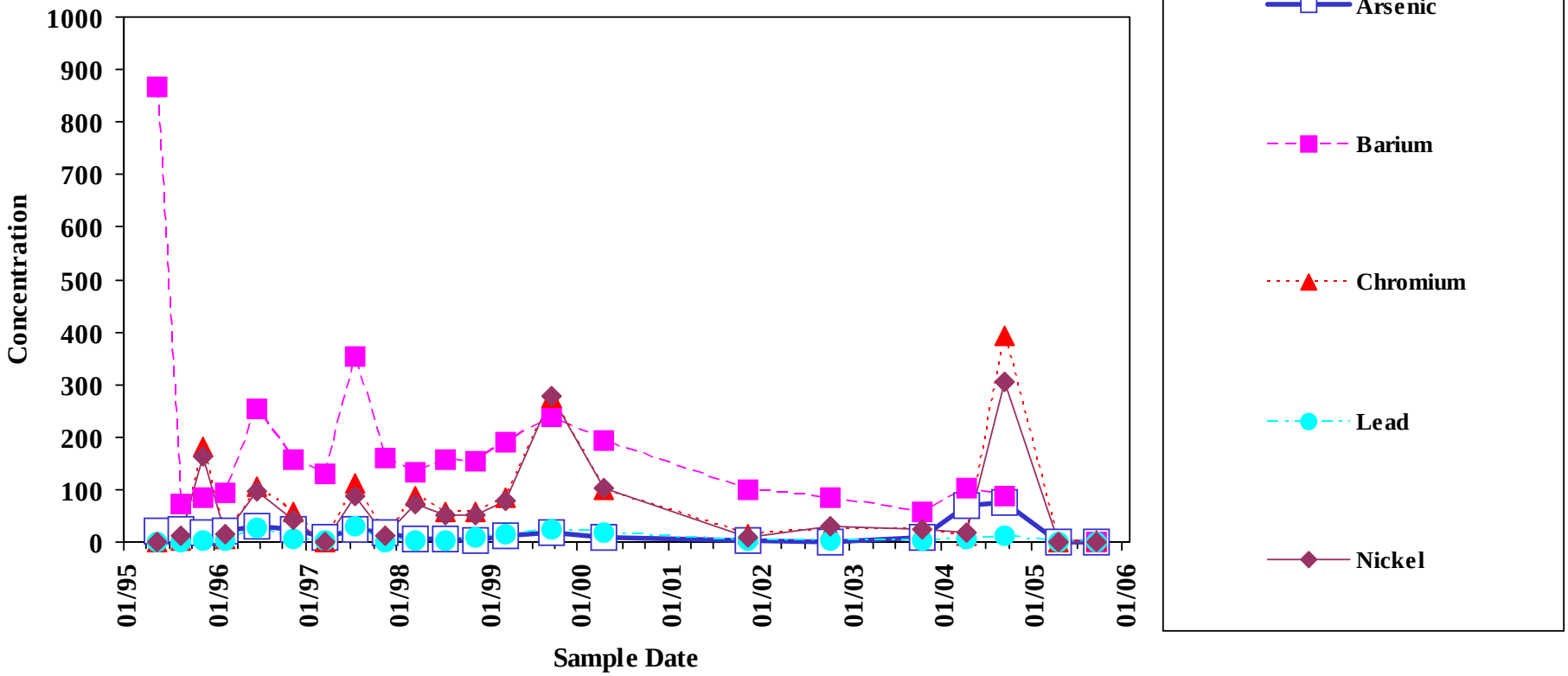
Sample Location:

MW-217B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

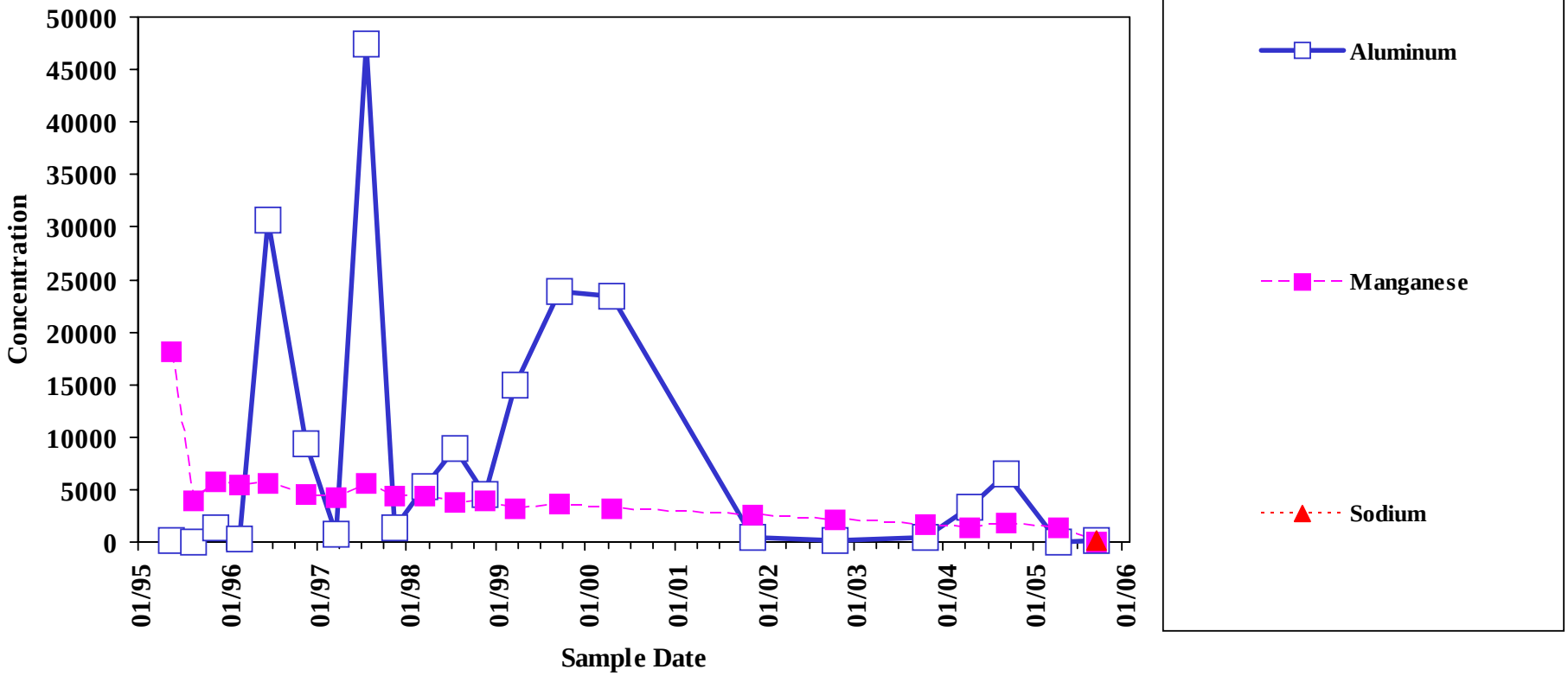
Sample Location:

MW-217B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

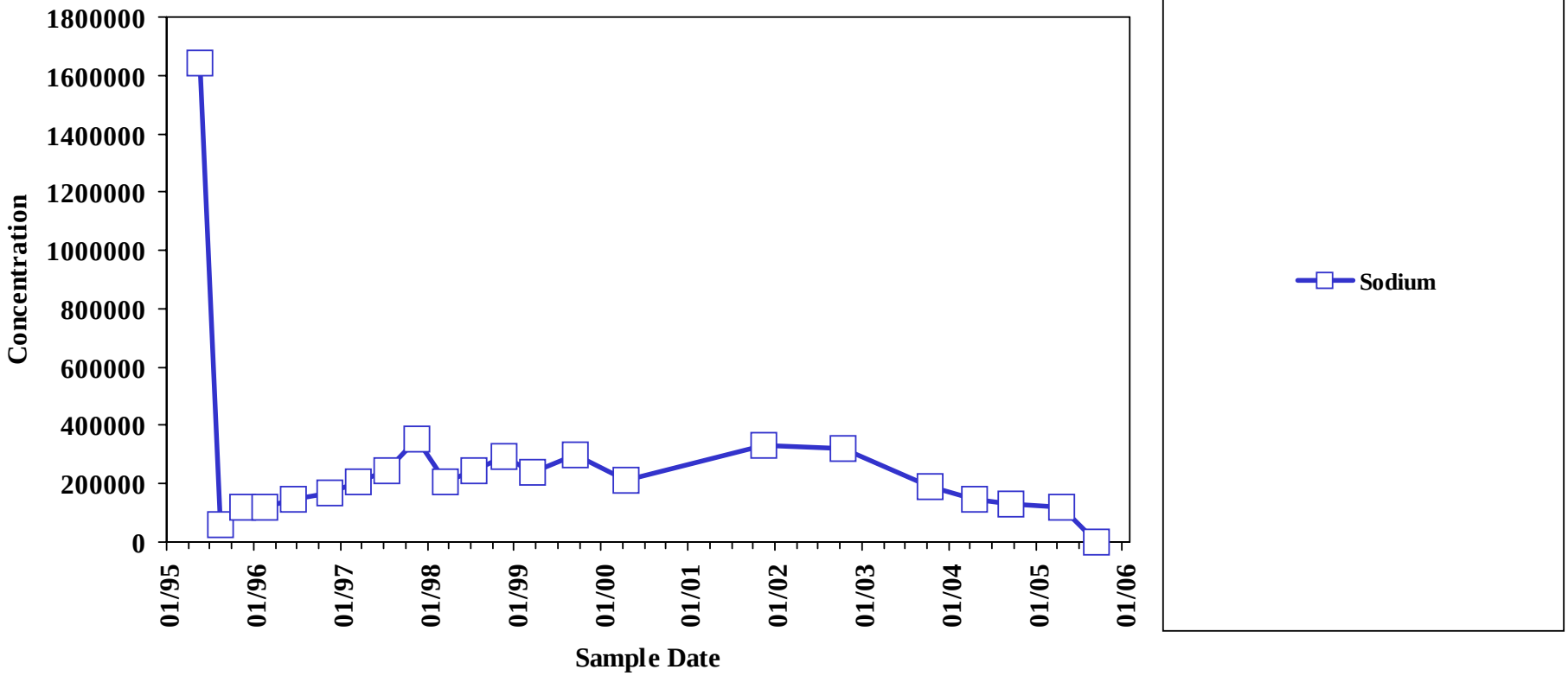
Sample Location:

MW-217B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

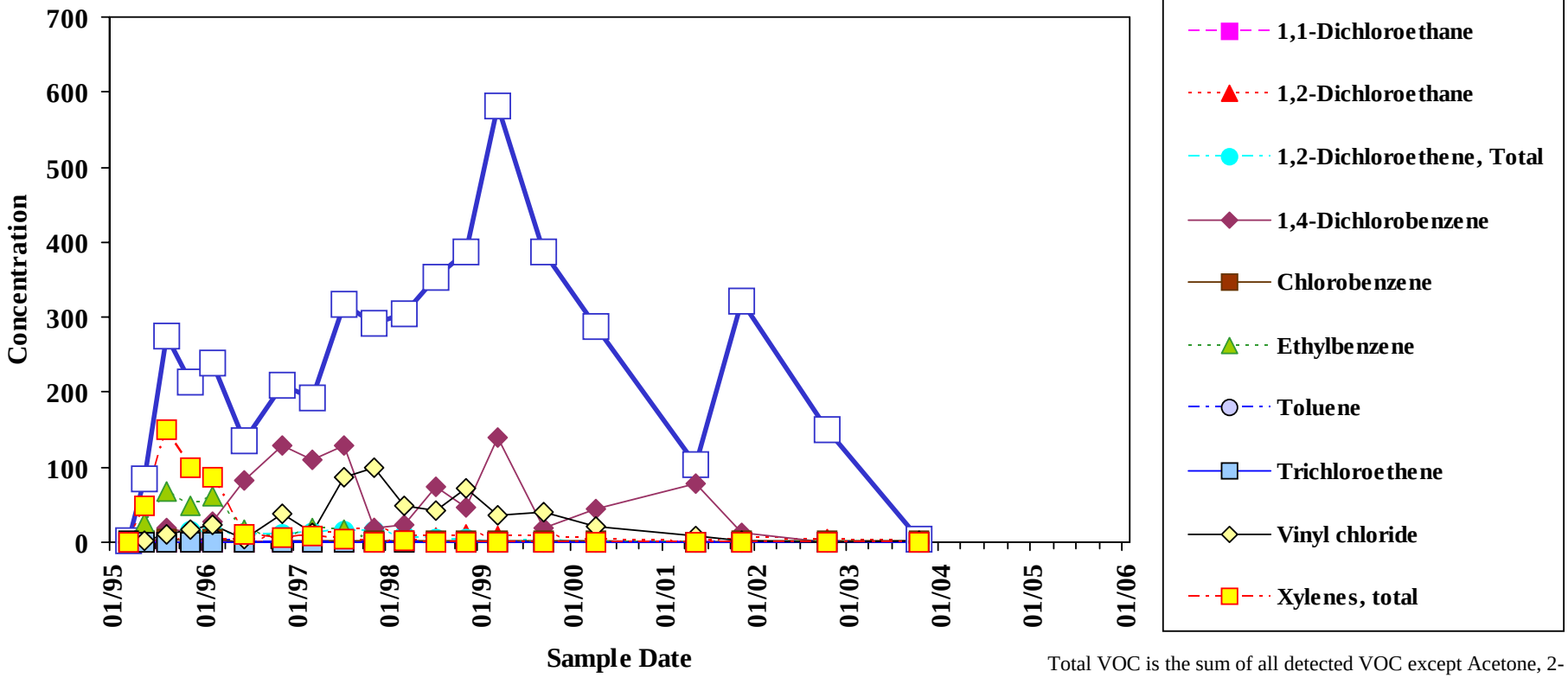
Sample Location:

MW-217B

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

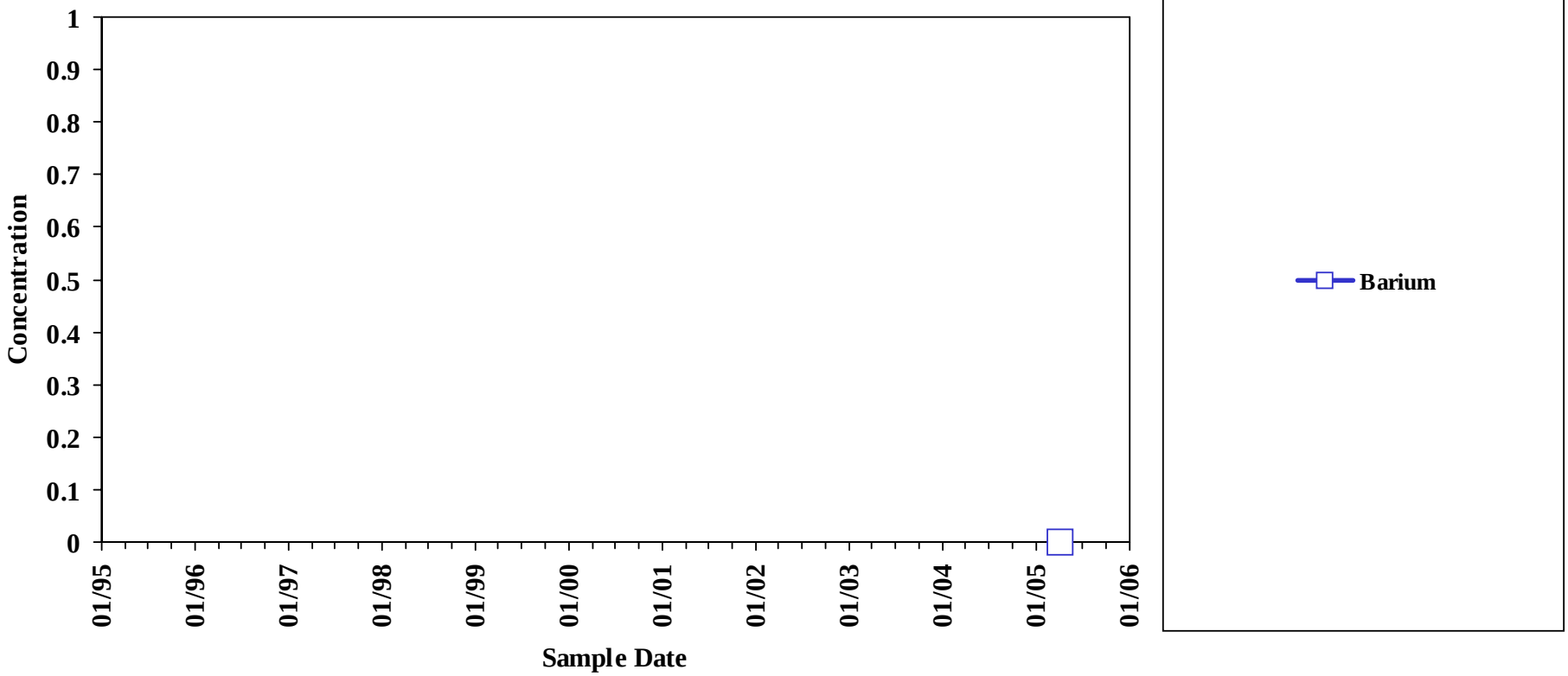
Sample Location:

MW-217B

Deep Diffusion Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

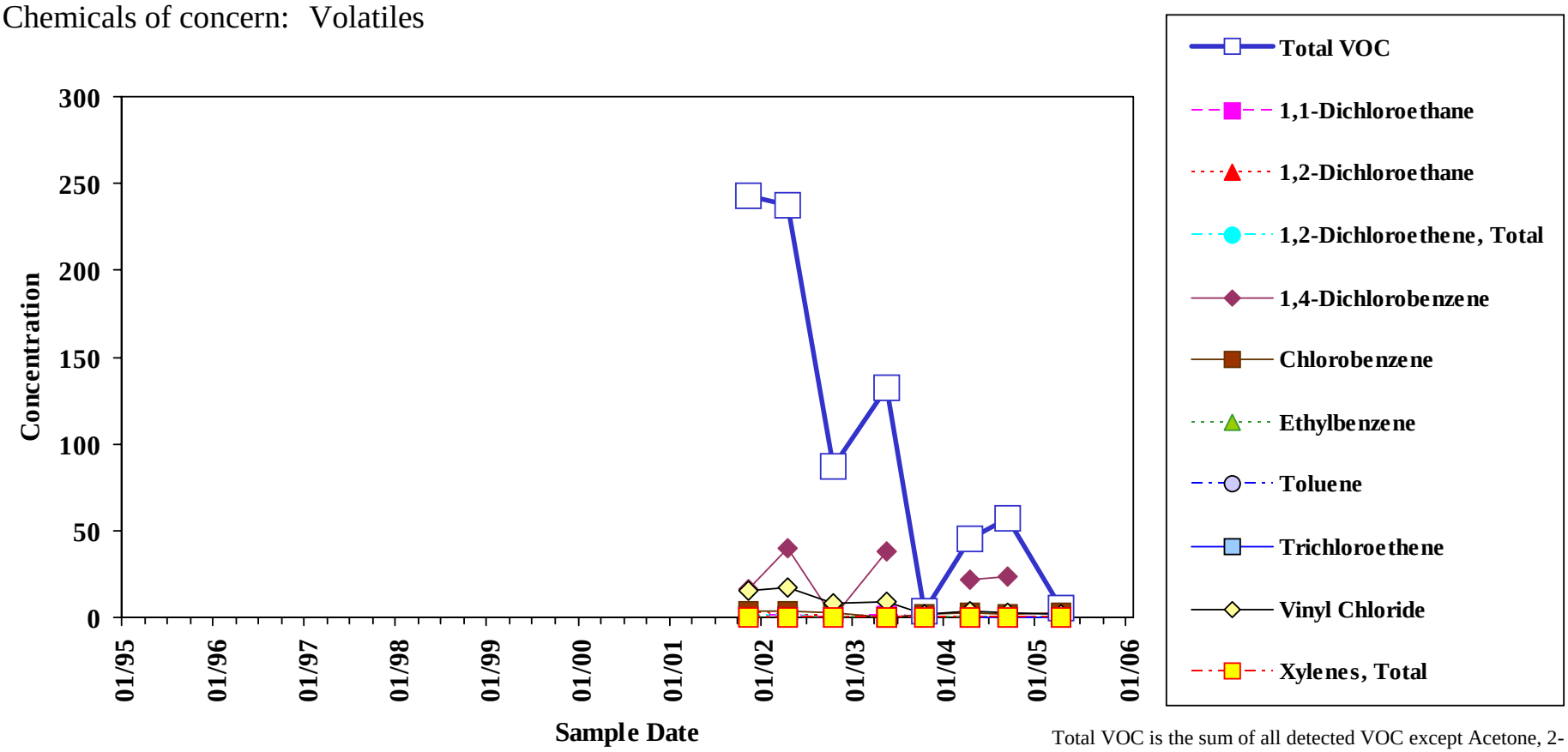
Sample Location:

MW-217B

Deep Diffusion Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

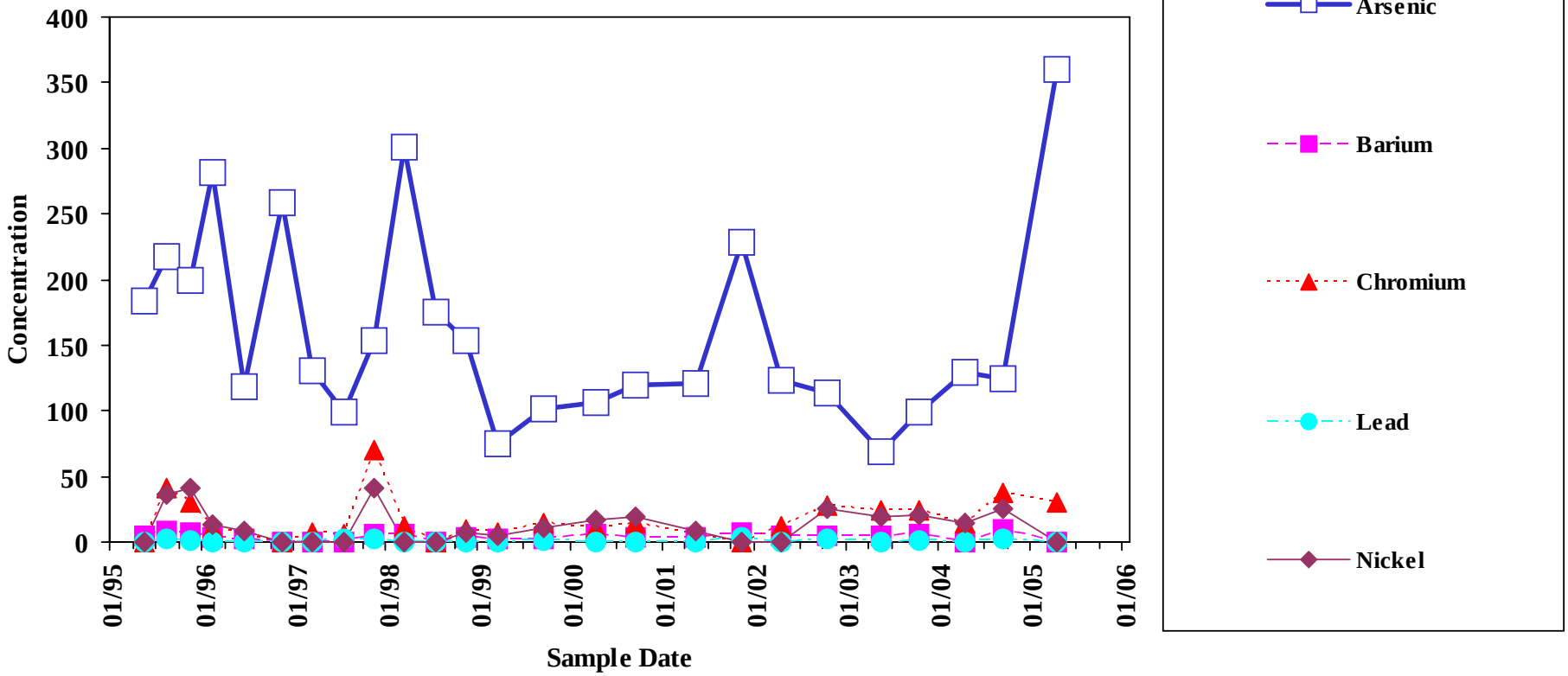
Sample Location:

MW-218

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

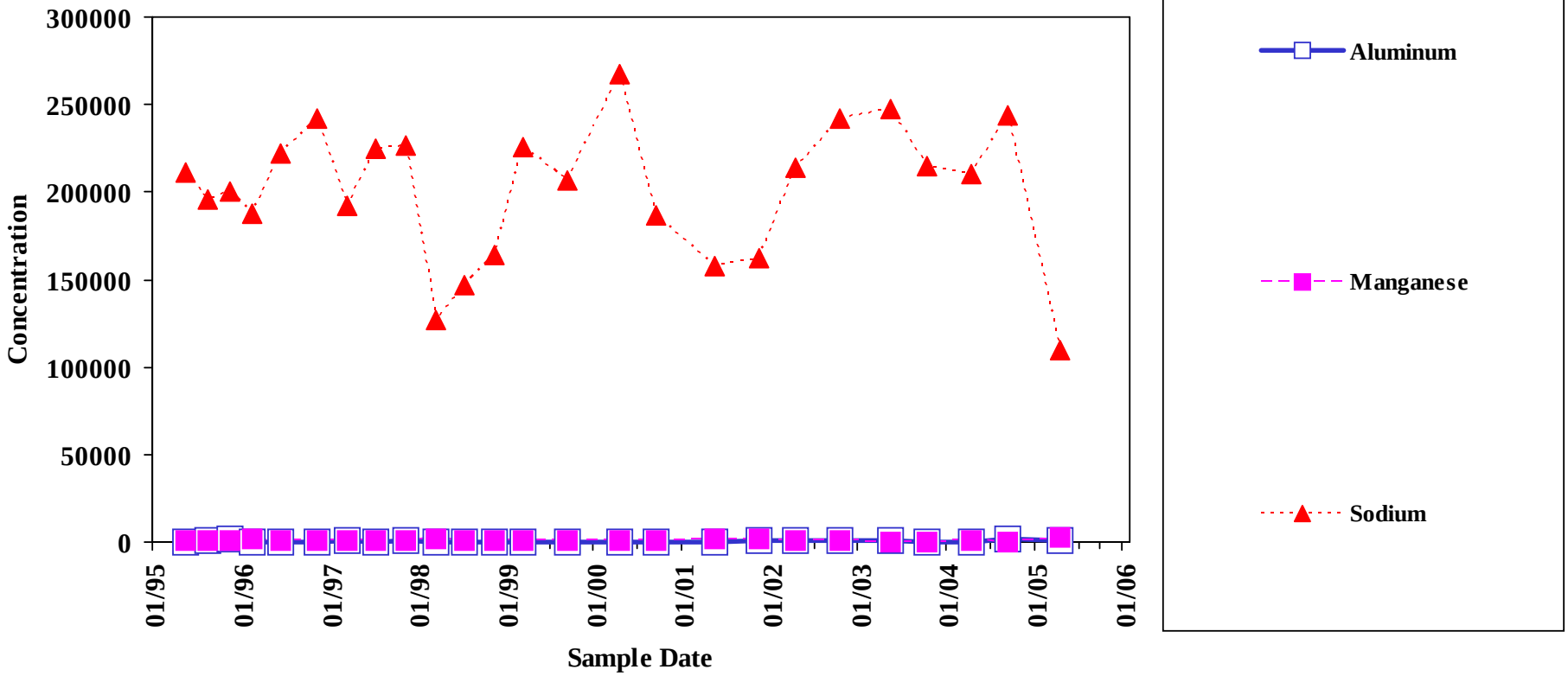
Sample Location:

MW-218

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

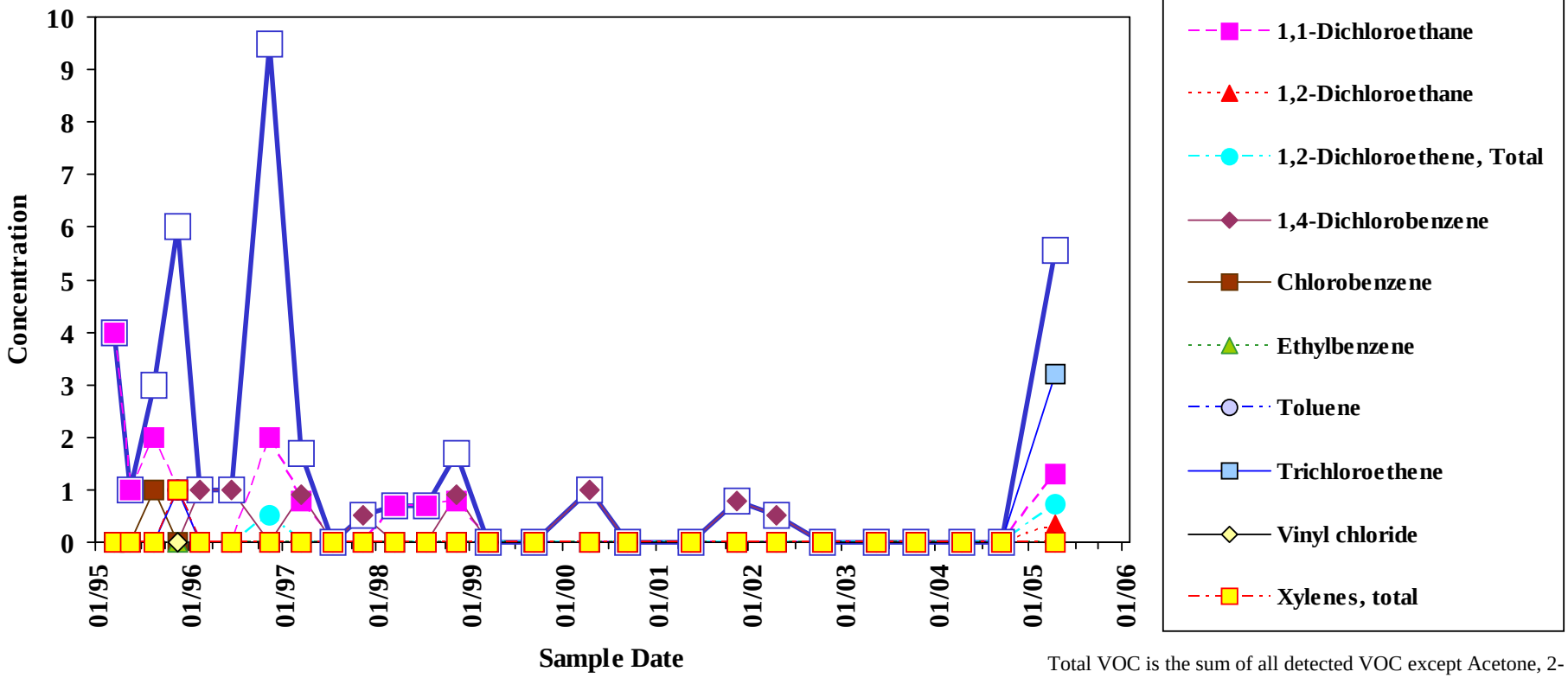
Sample Location:

MW-218

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

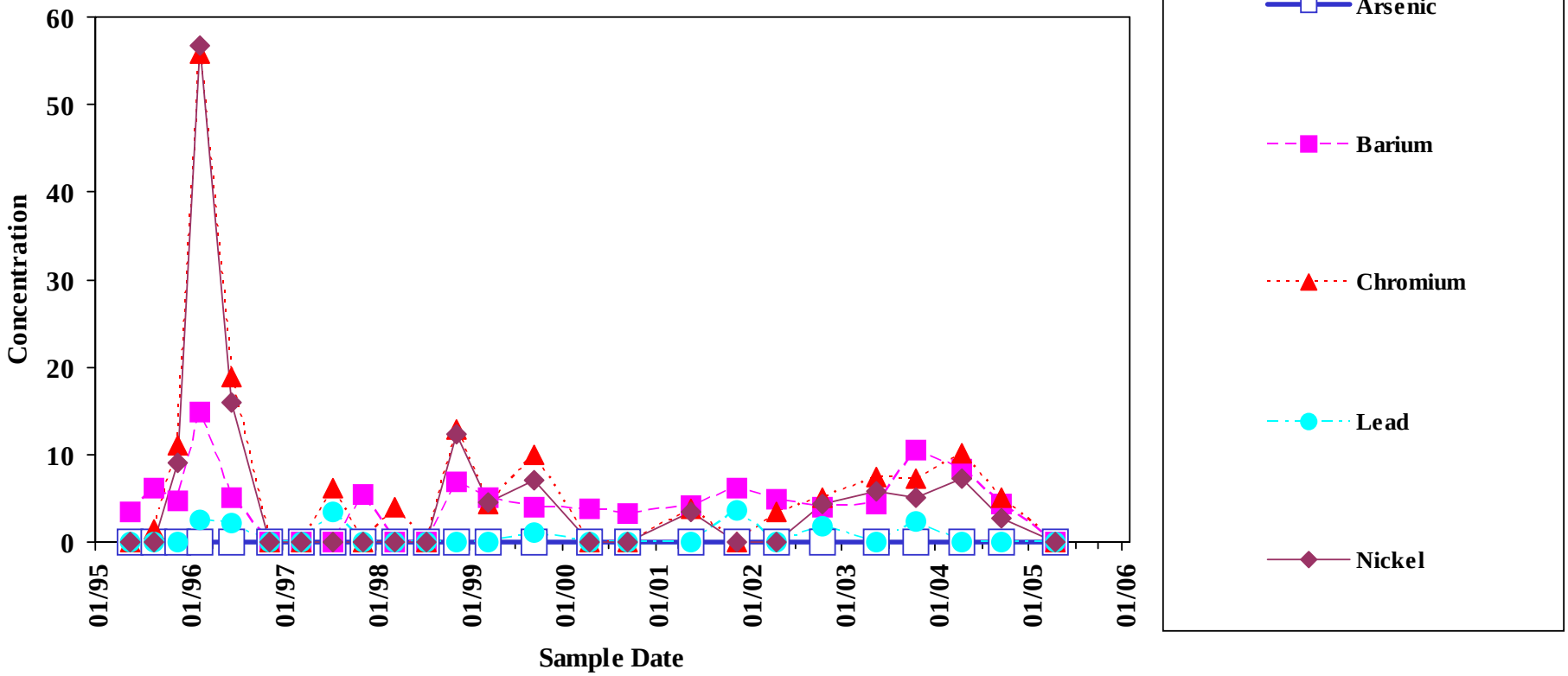
Sample Location:

MW-219

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

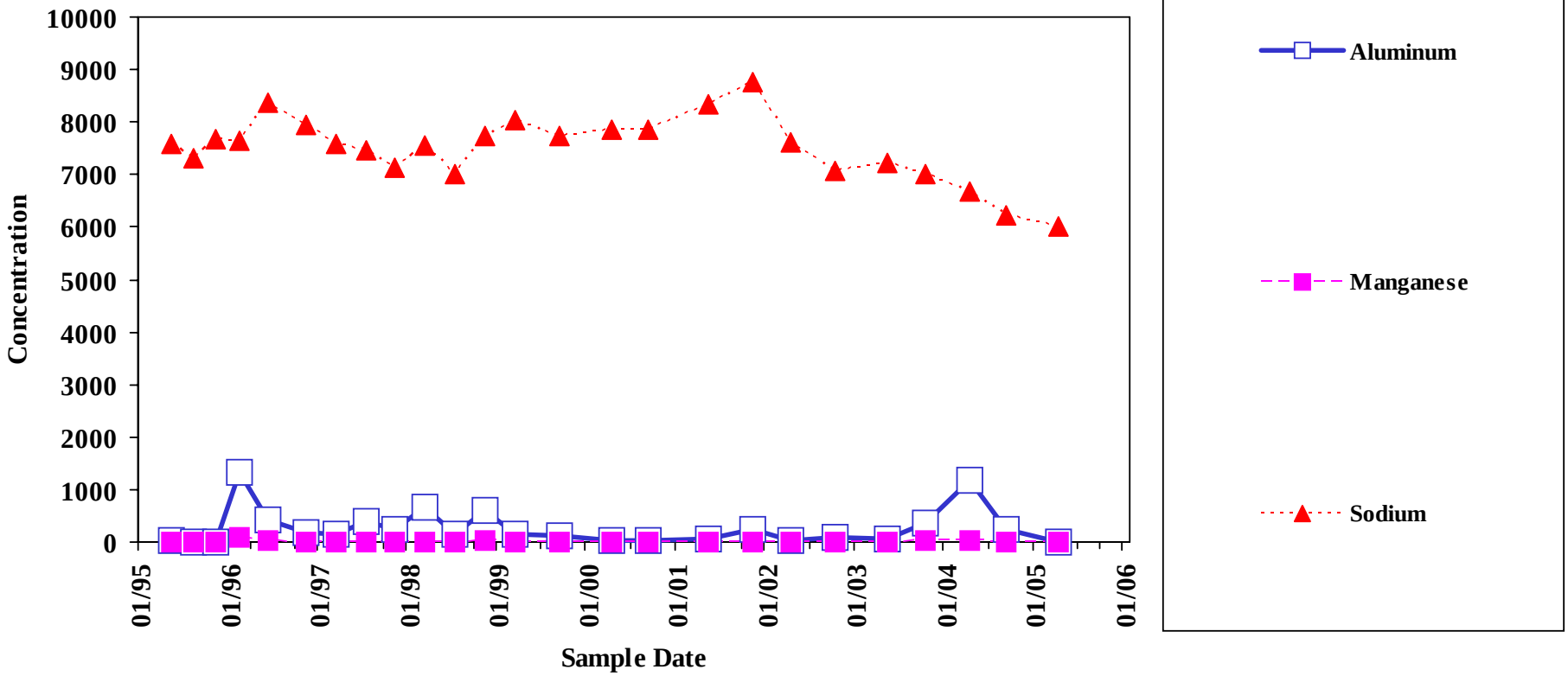
Sample Location:

MW-219

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

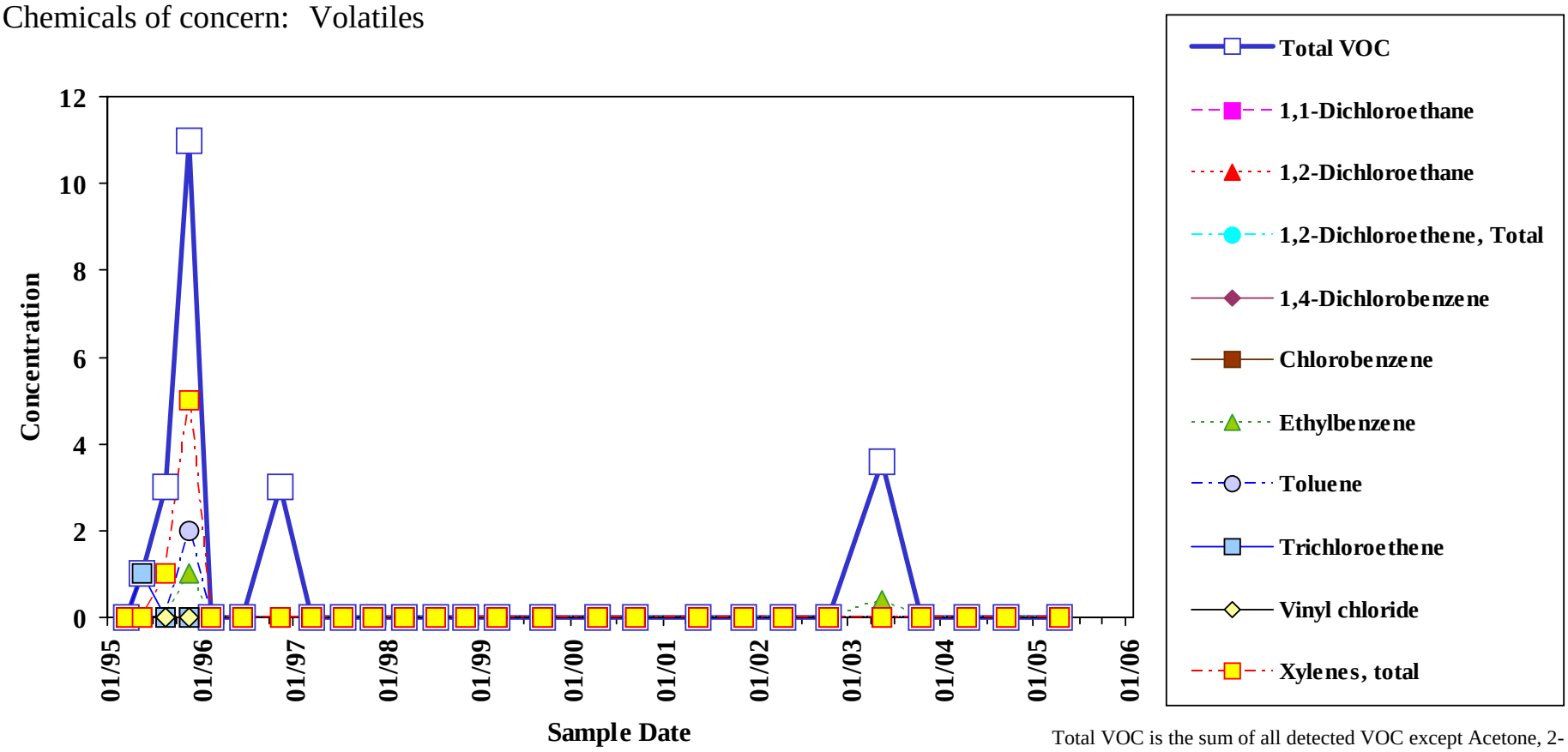
Sample Location:

MW-219

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

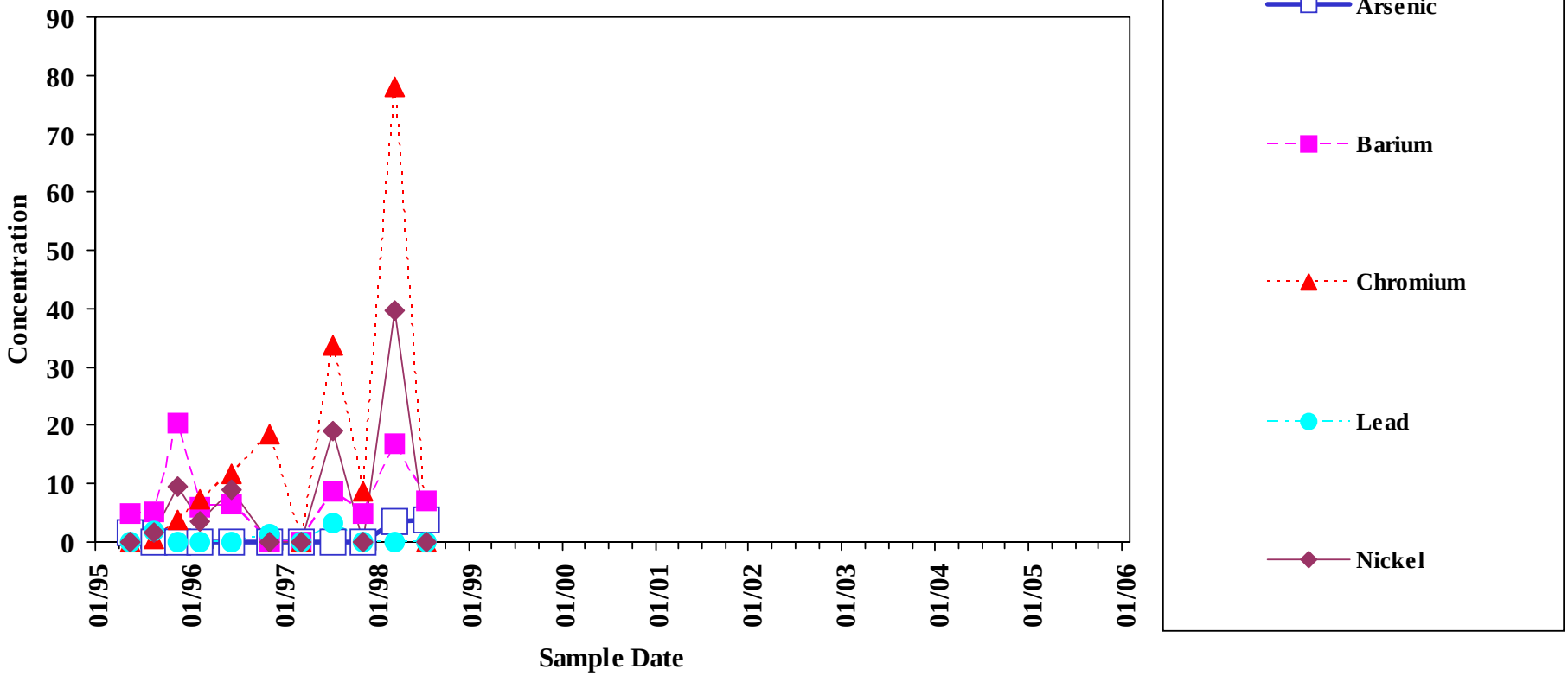
Sample Location:

MW-220

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

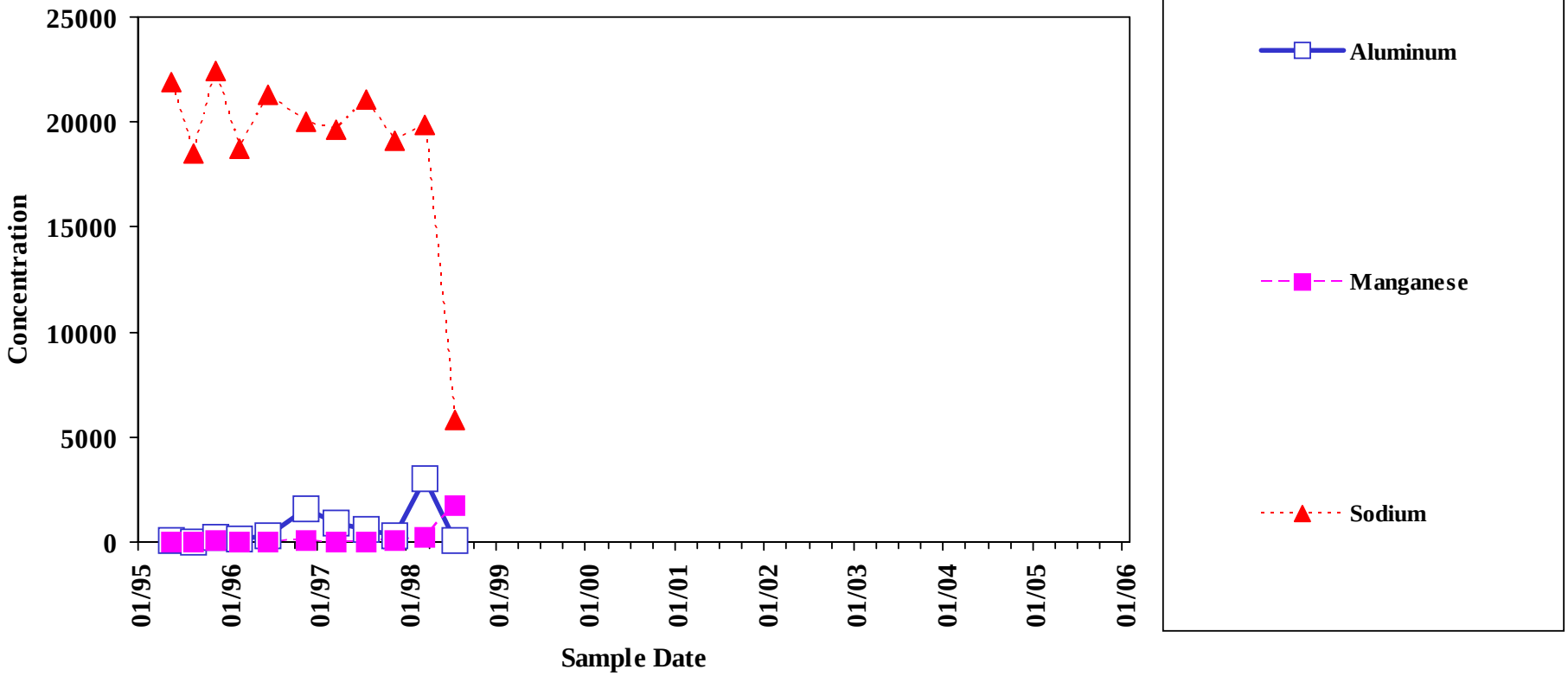
Sample Location:

MW-220

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

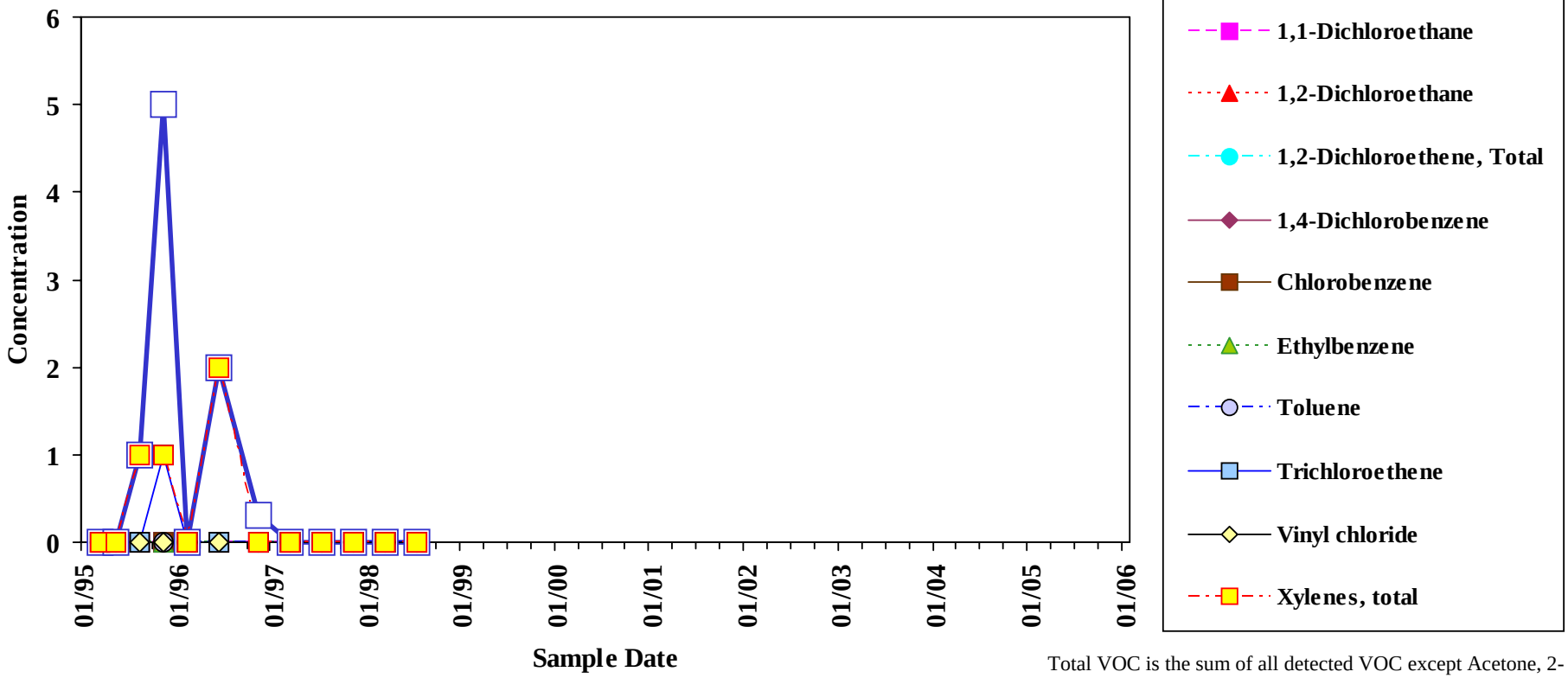
Sample Location:

MW-220

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

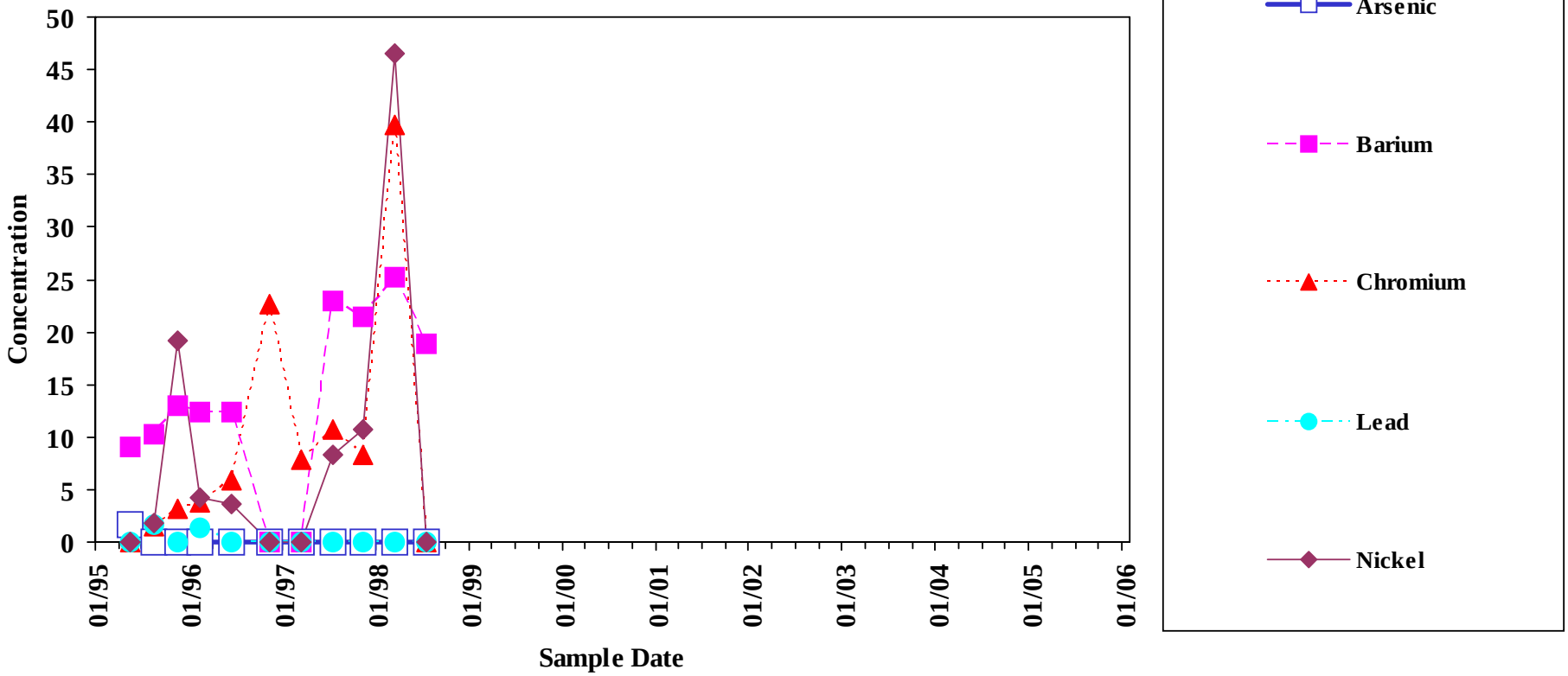
Sample Location:

MW-232A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

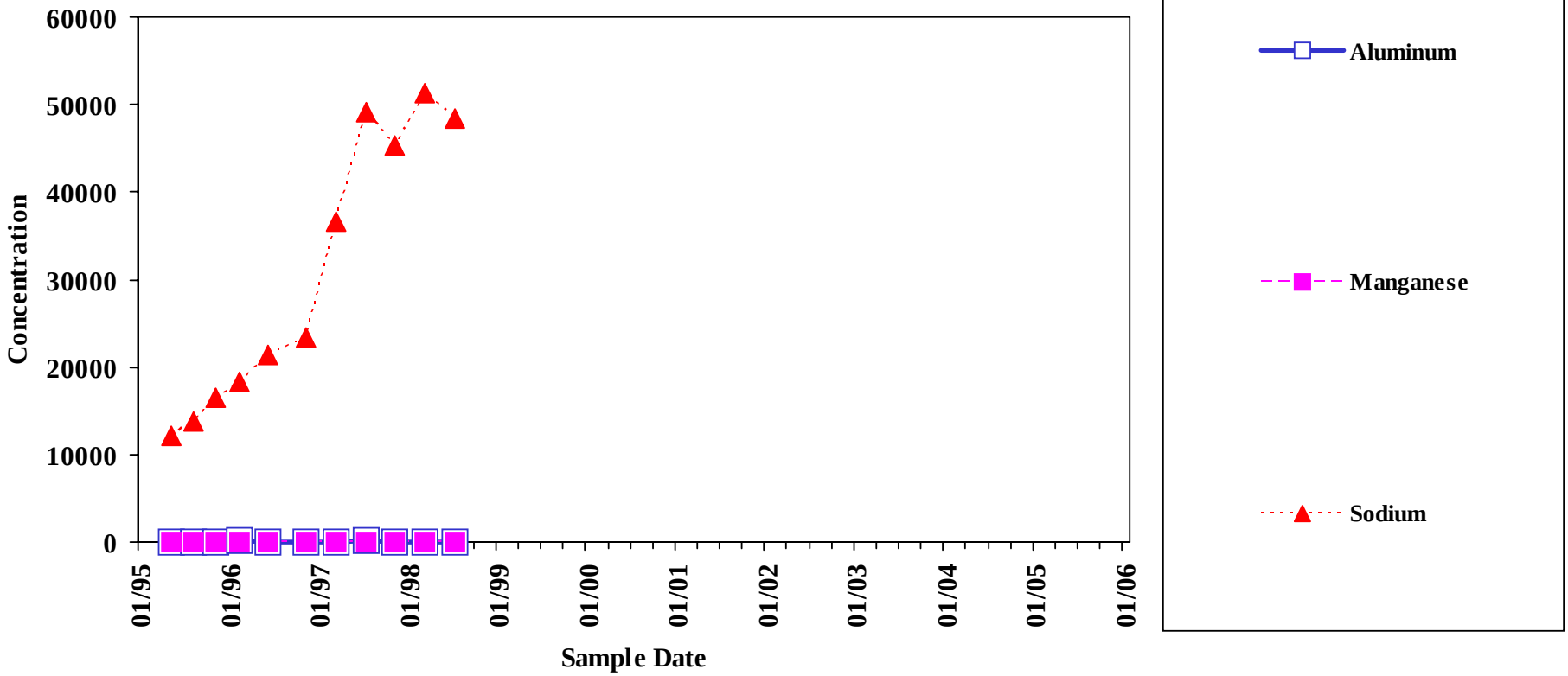
Sample Location:

MW-232A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

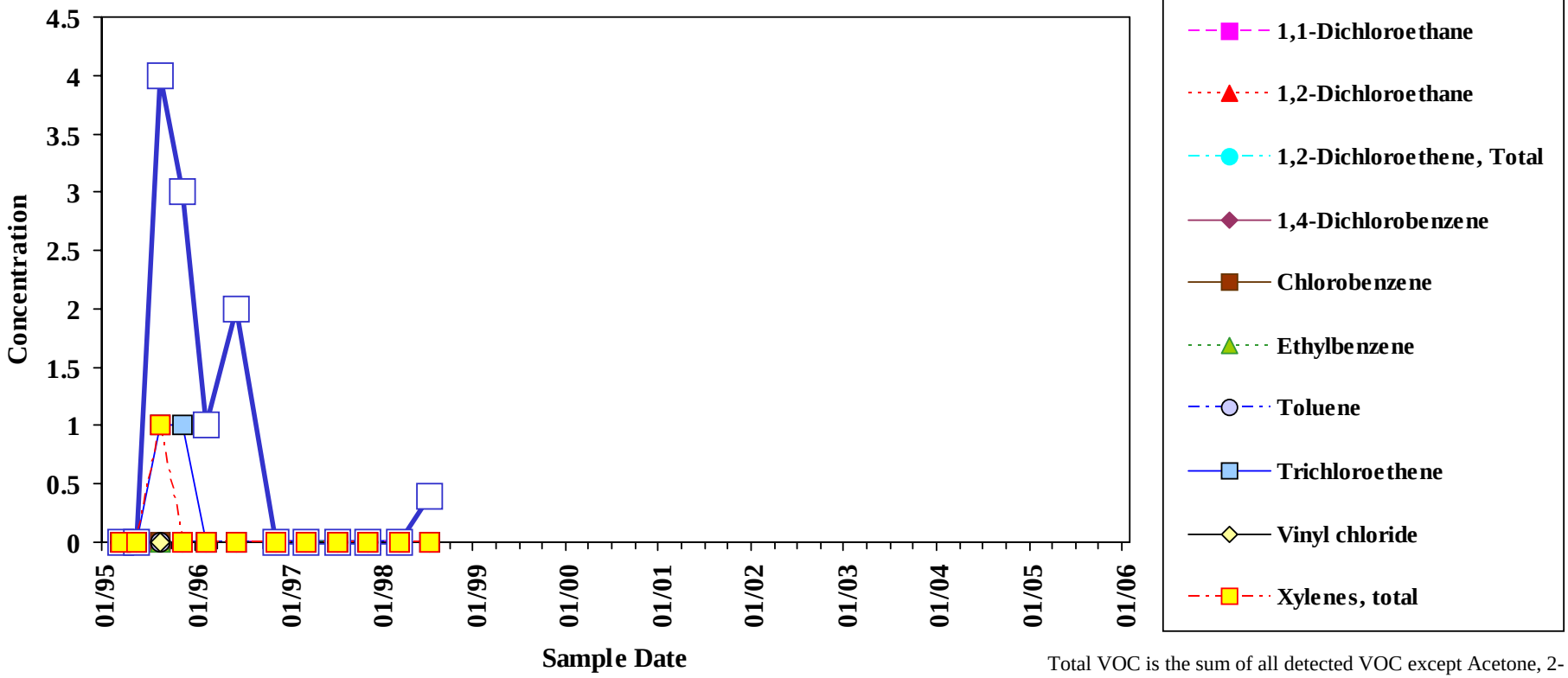
Sample Location:

MW-232A

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

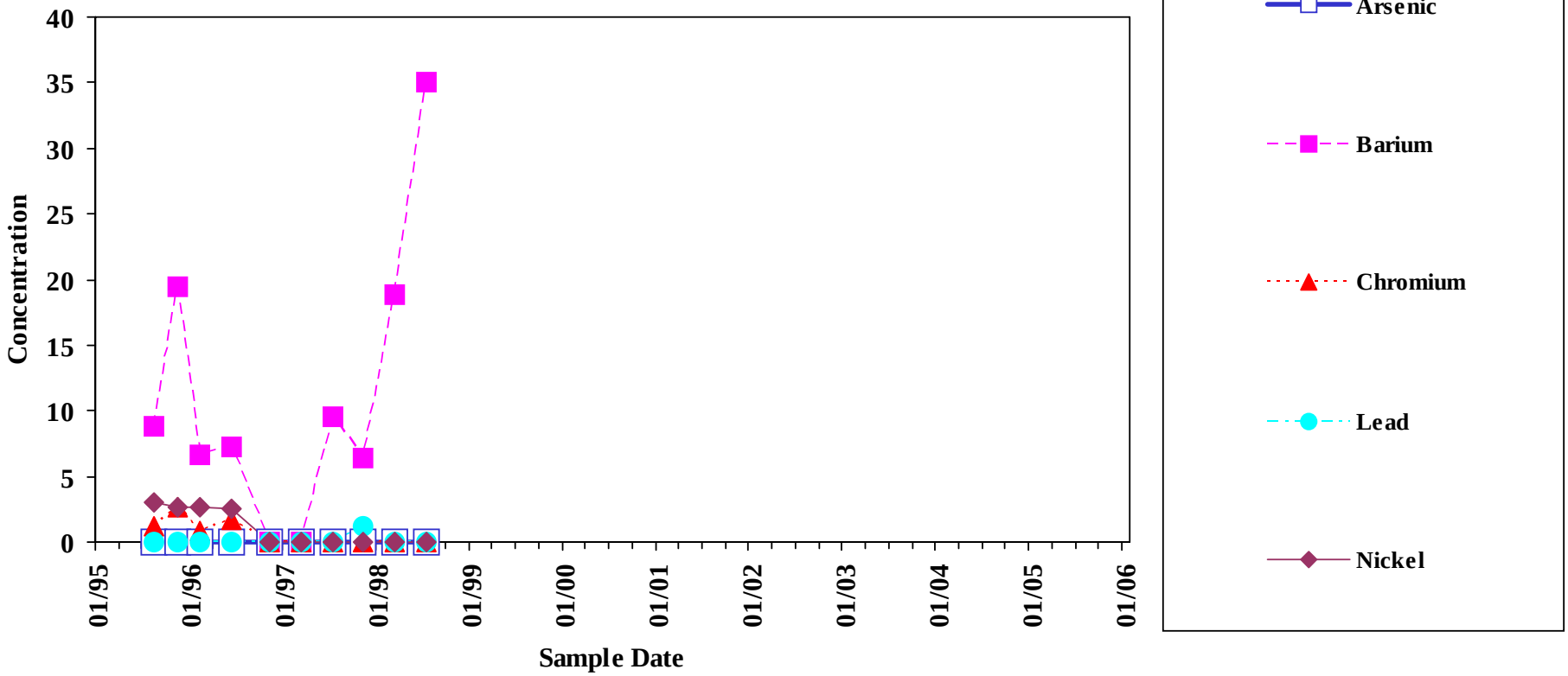
Sample Location:

MW-234R

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

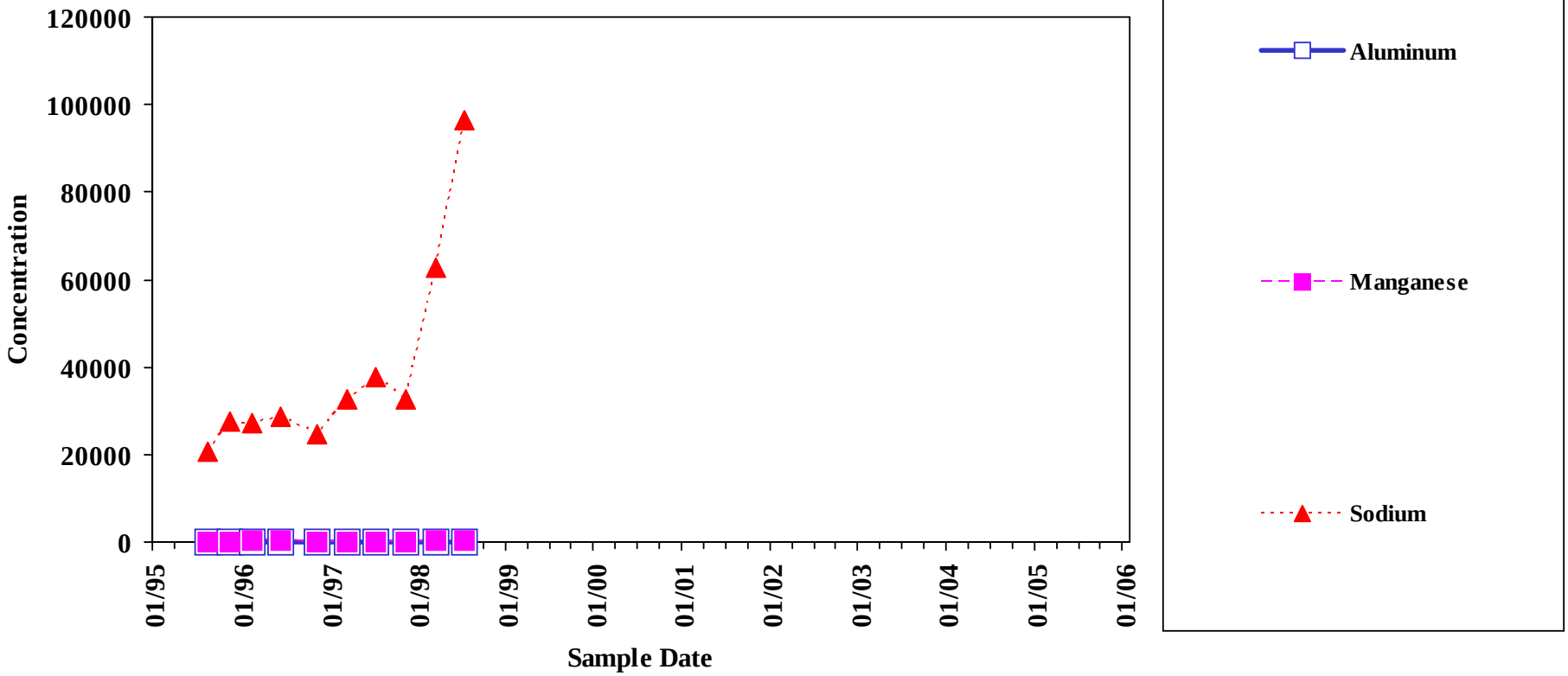
Sample Location:

MW-234R

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

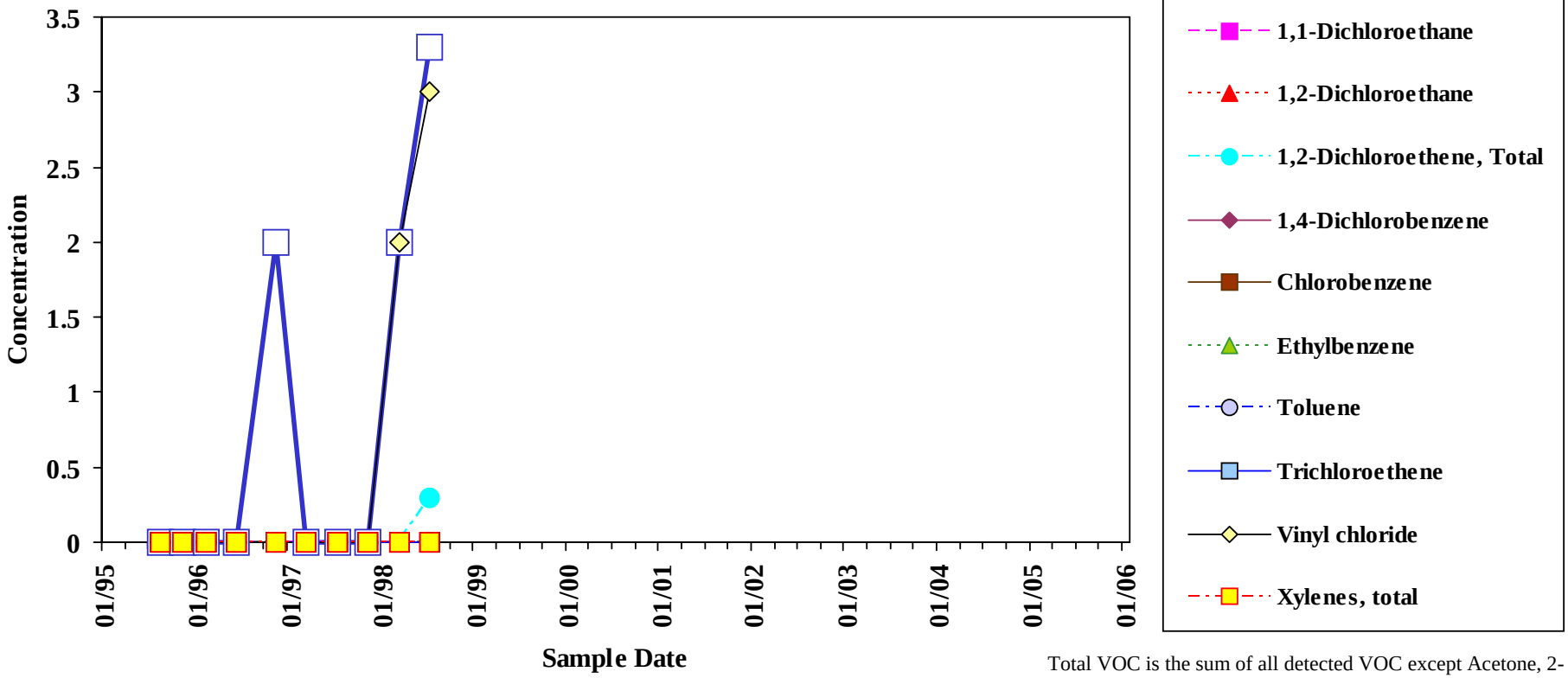
Sample Location:

MW-234R

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

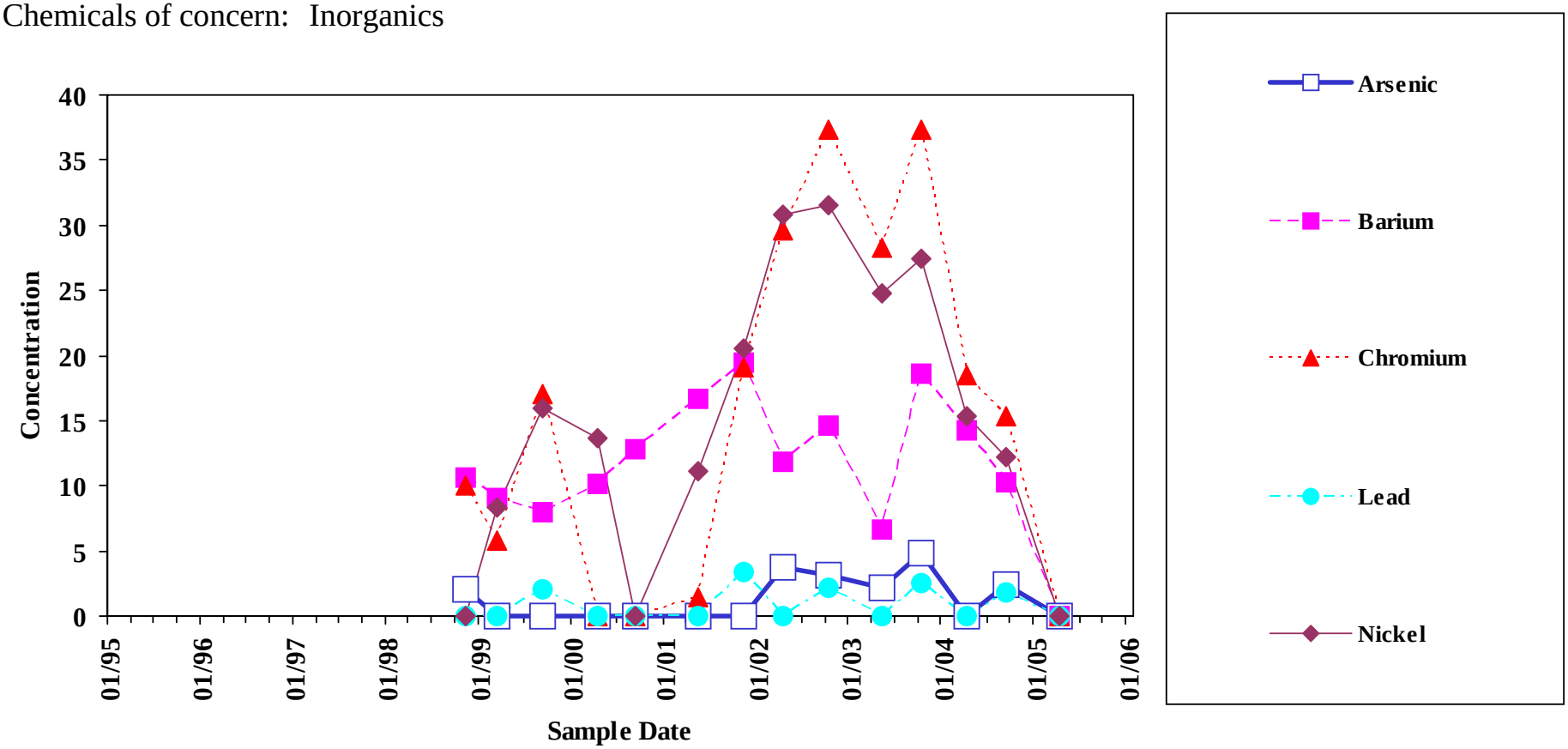
Sample Location:

MW-240

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

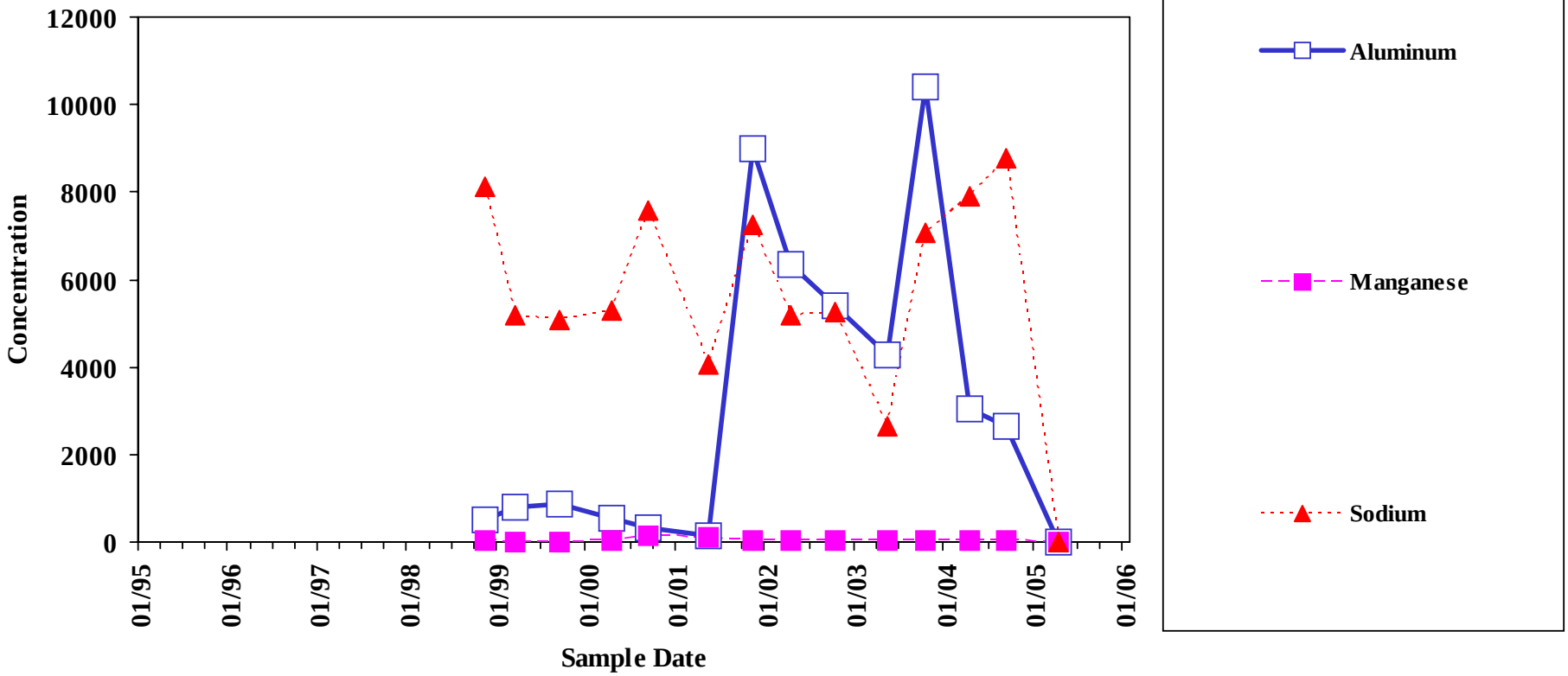
Sample Location:

MW-240

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

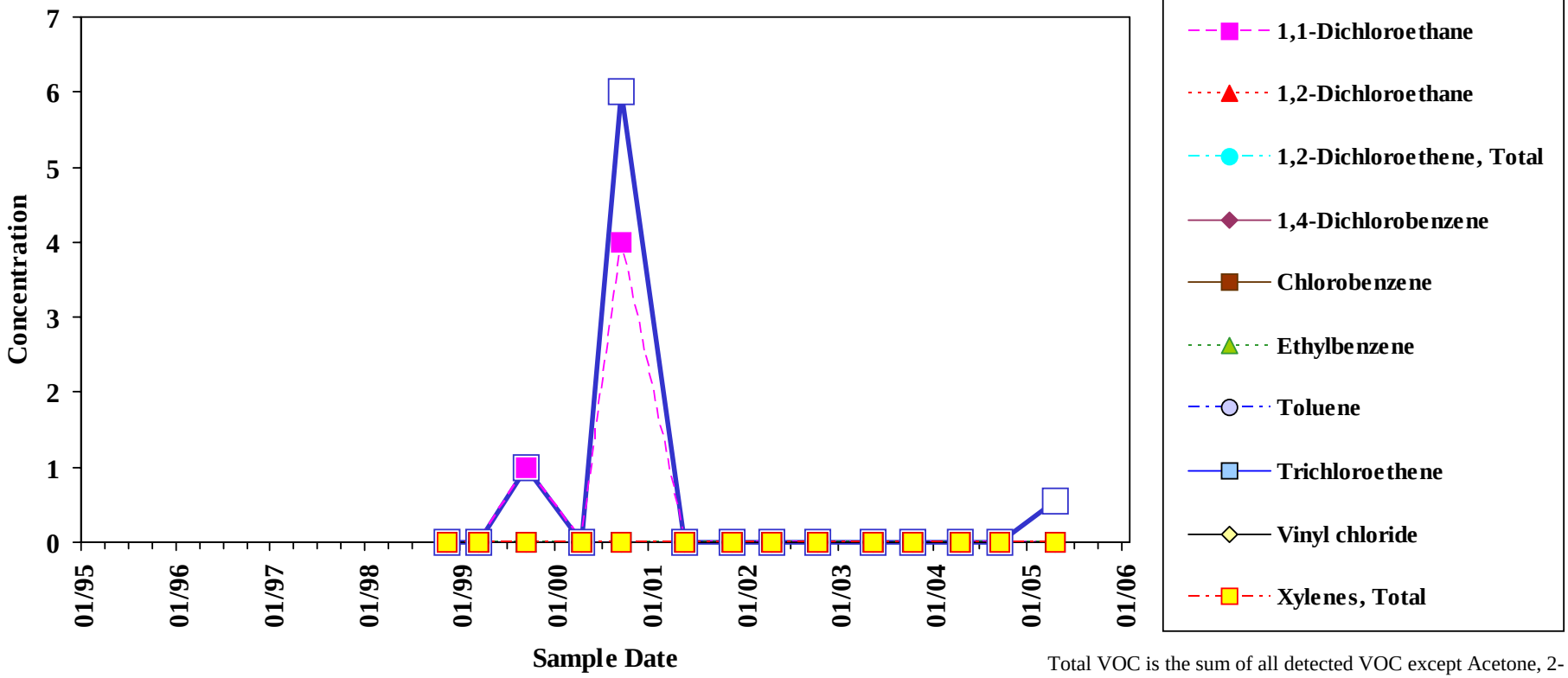
Sample Location:

MW-240

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

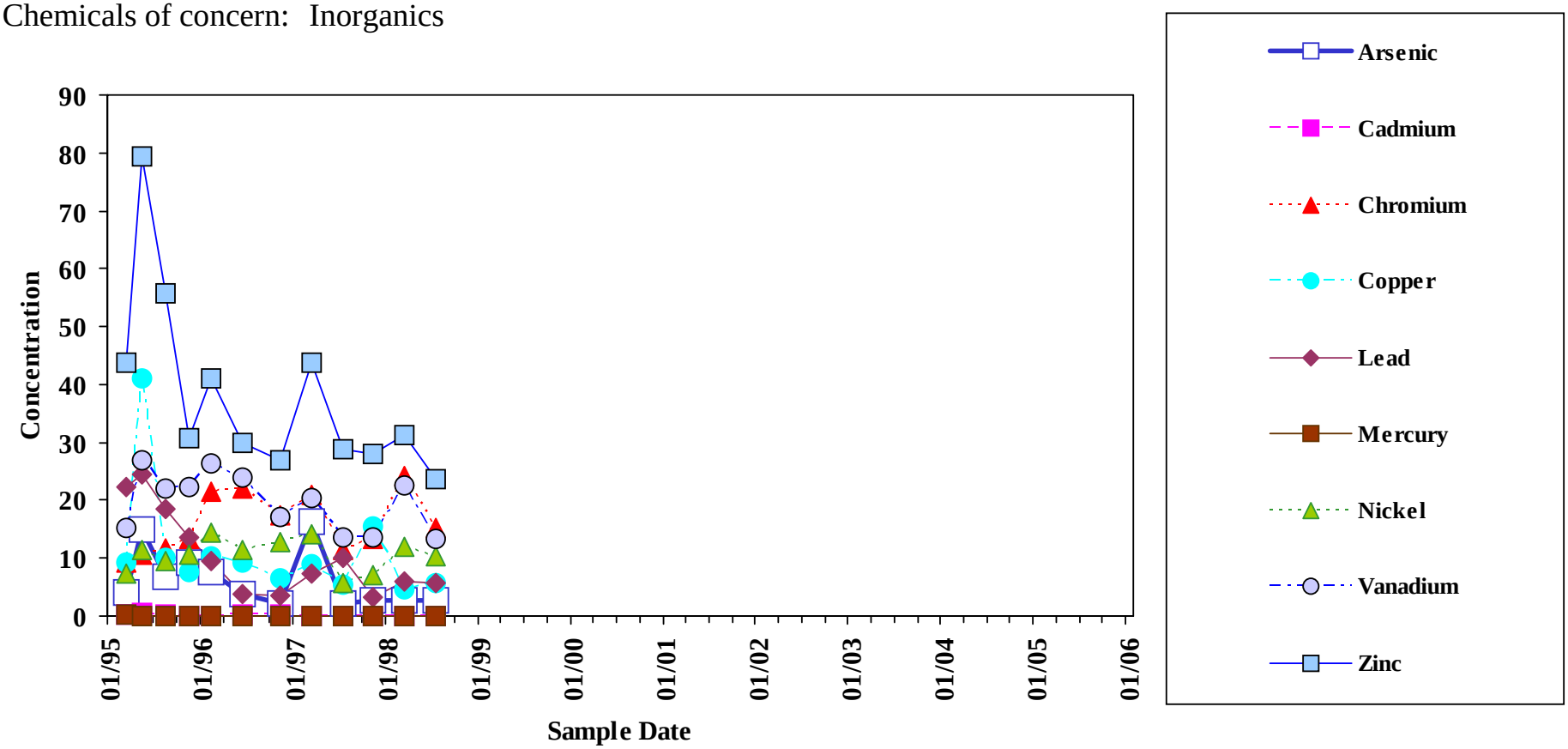
Xylenes, total	
MEG:	600
MCL:	10000

Sample Location:

SED-01

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

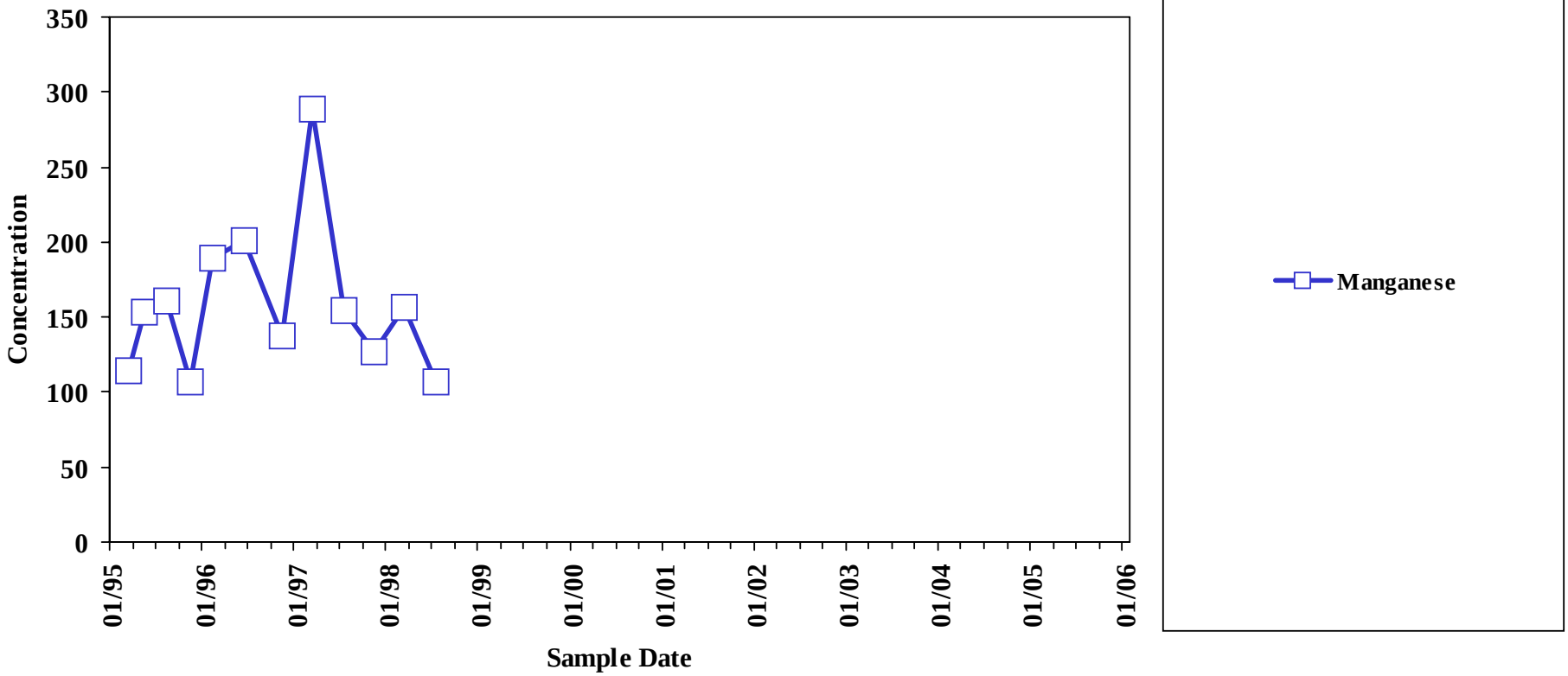
Sample concentration units: mg/Kg

Sample Location:

SED-01

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

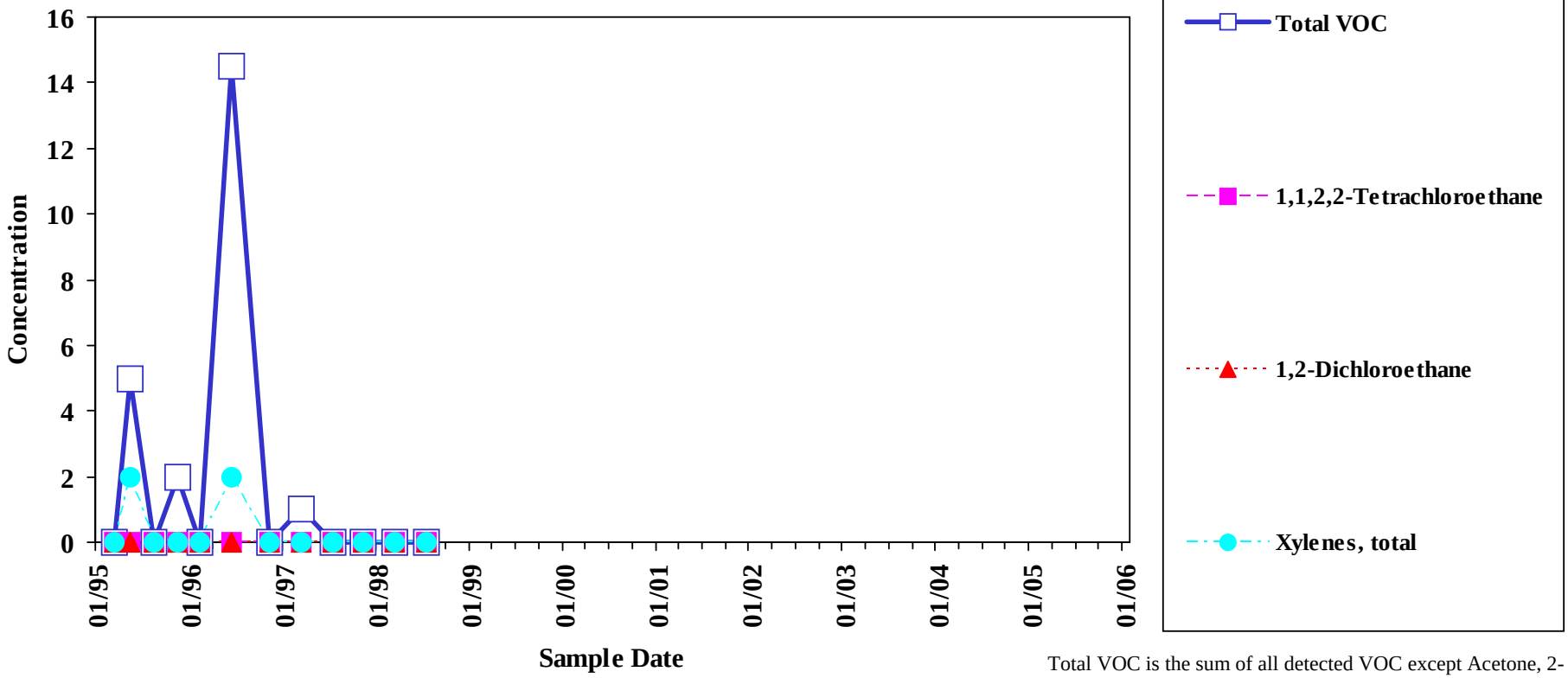
Sample concentration units: mg/Kg

Sample Location:

SED-01

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

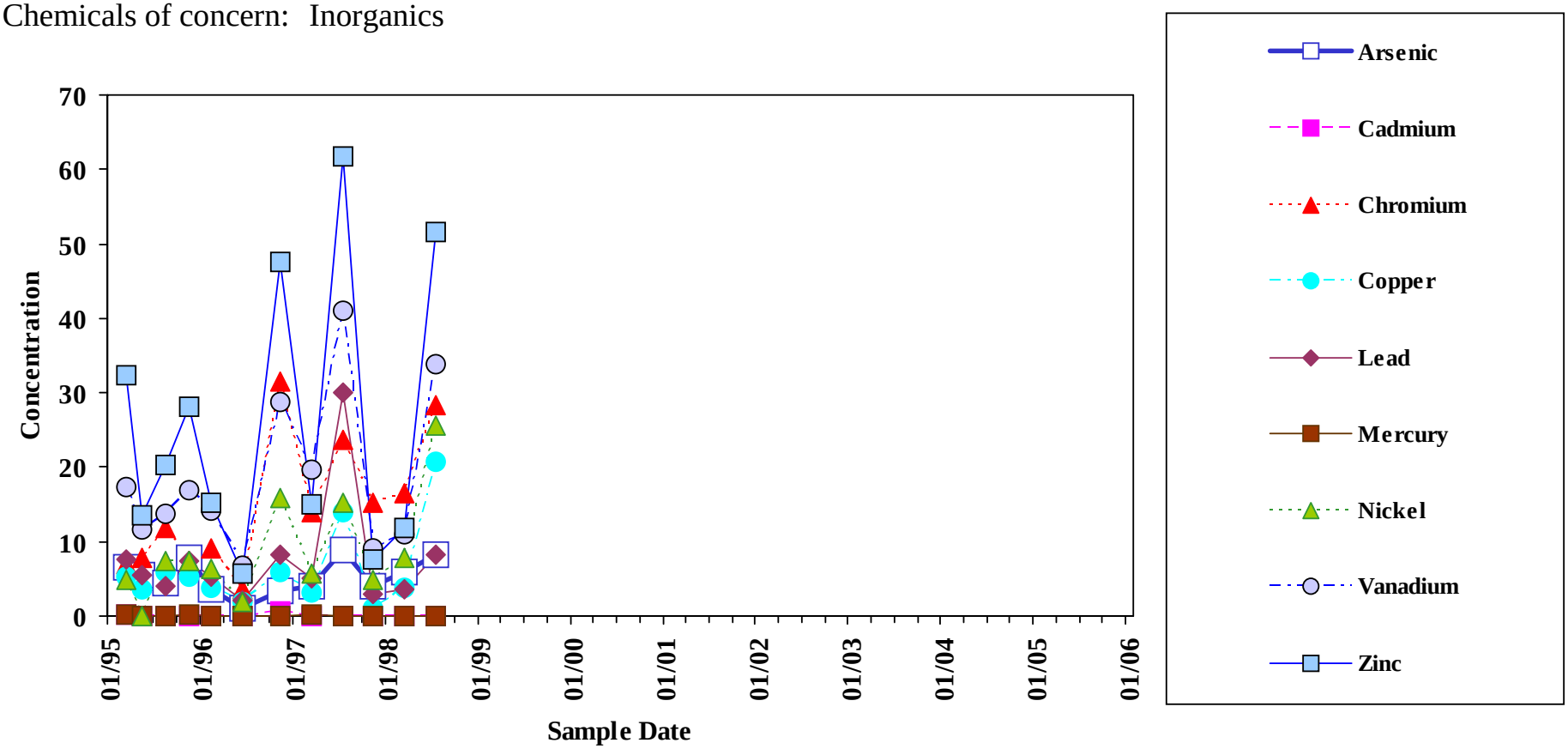
Sample concentration units: µg/Kg

Sample Location:

SED-02

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

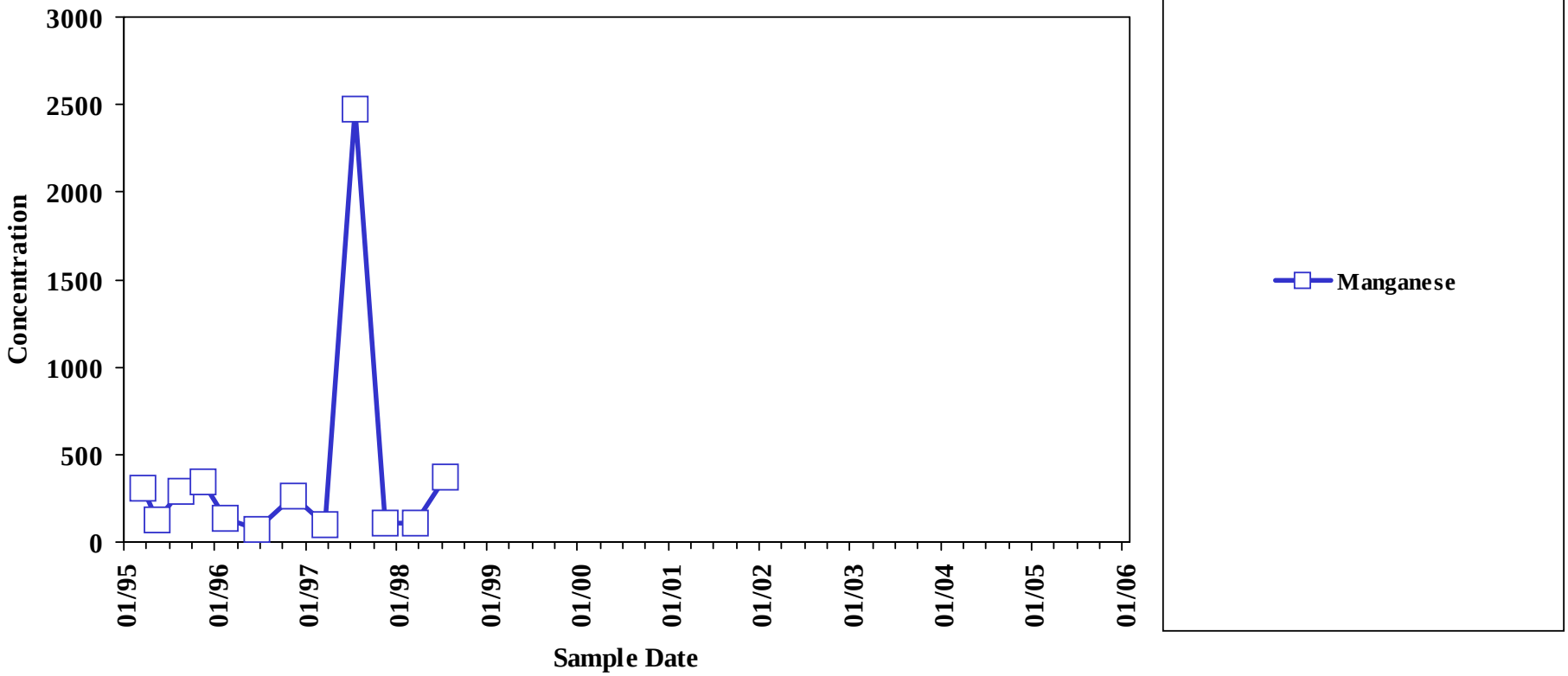
Sample concentration units: mg/Kg

Sample Location:

SED-02

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

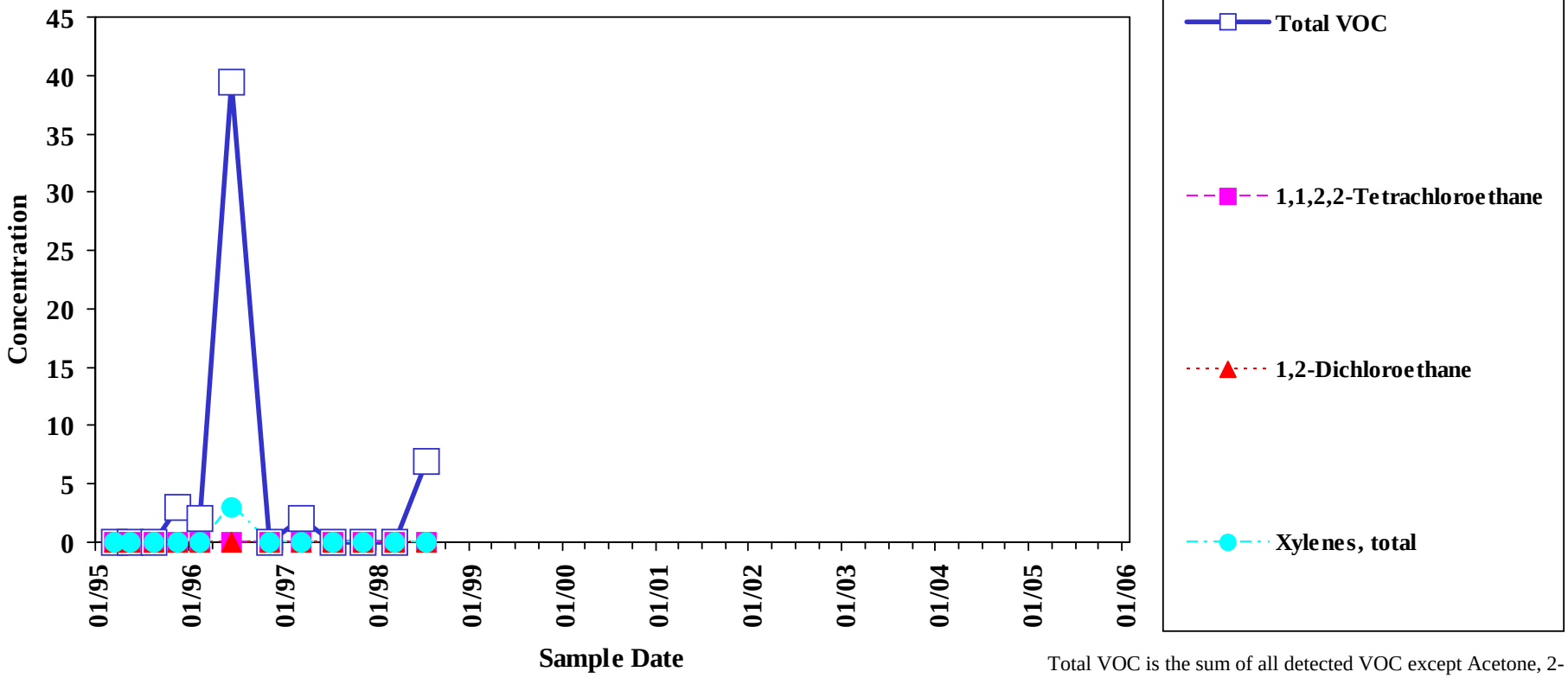
Sample concentration units: mg/Kg

Sample Location:

SED-02

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

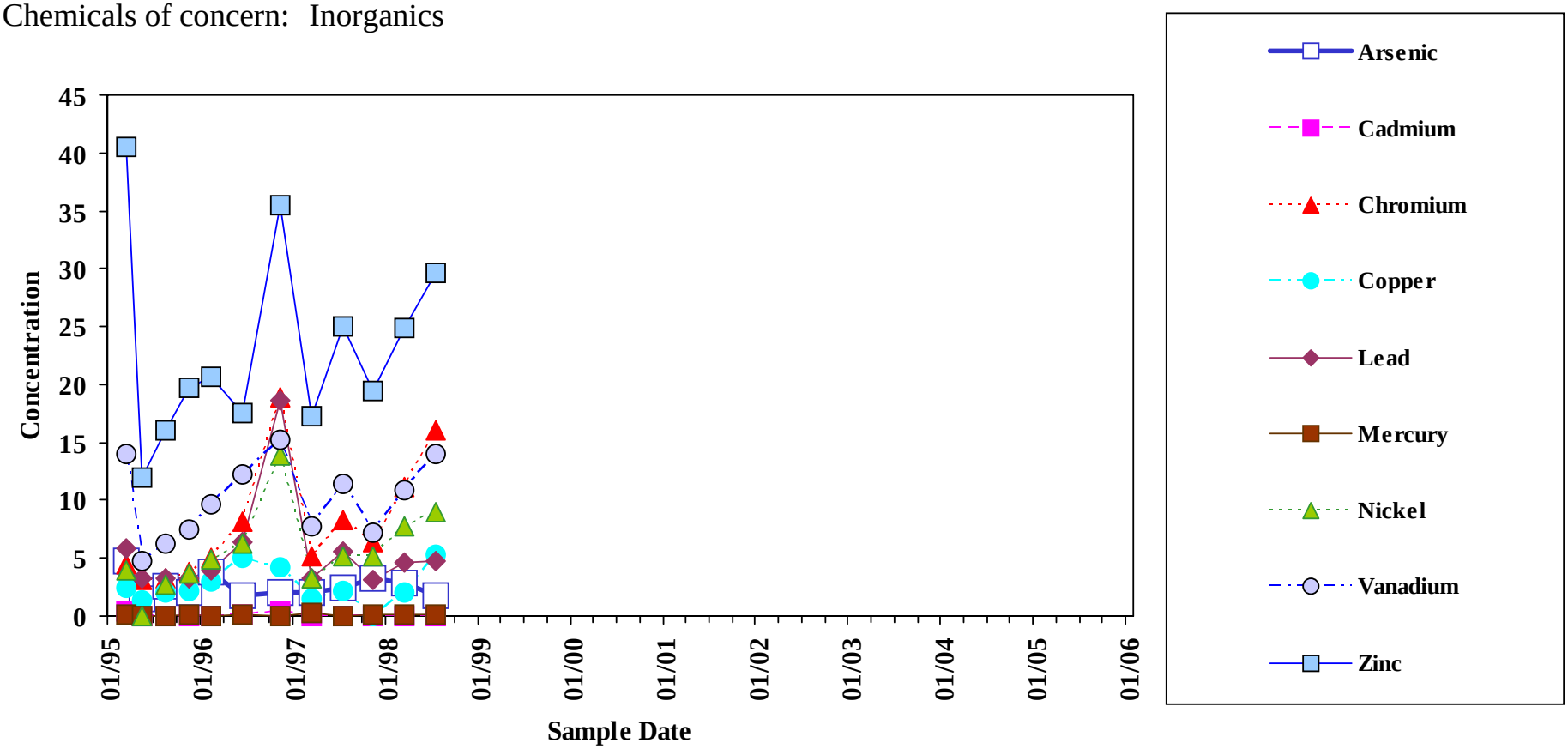
Sample concentration units: µg/Kg

Sample Location:

SED-03

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

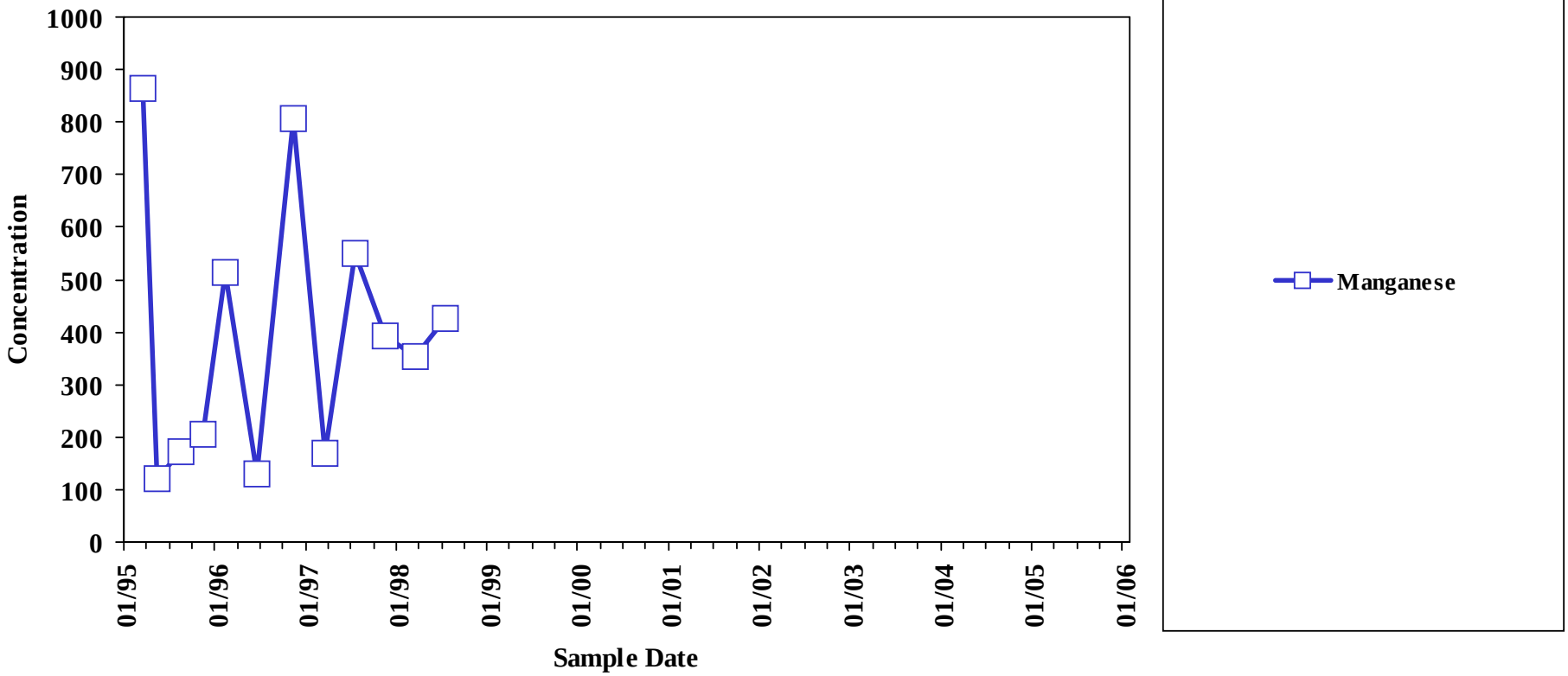
Sample concentration units: mg/Kg

Sample Location:

SED-03

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

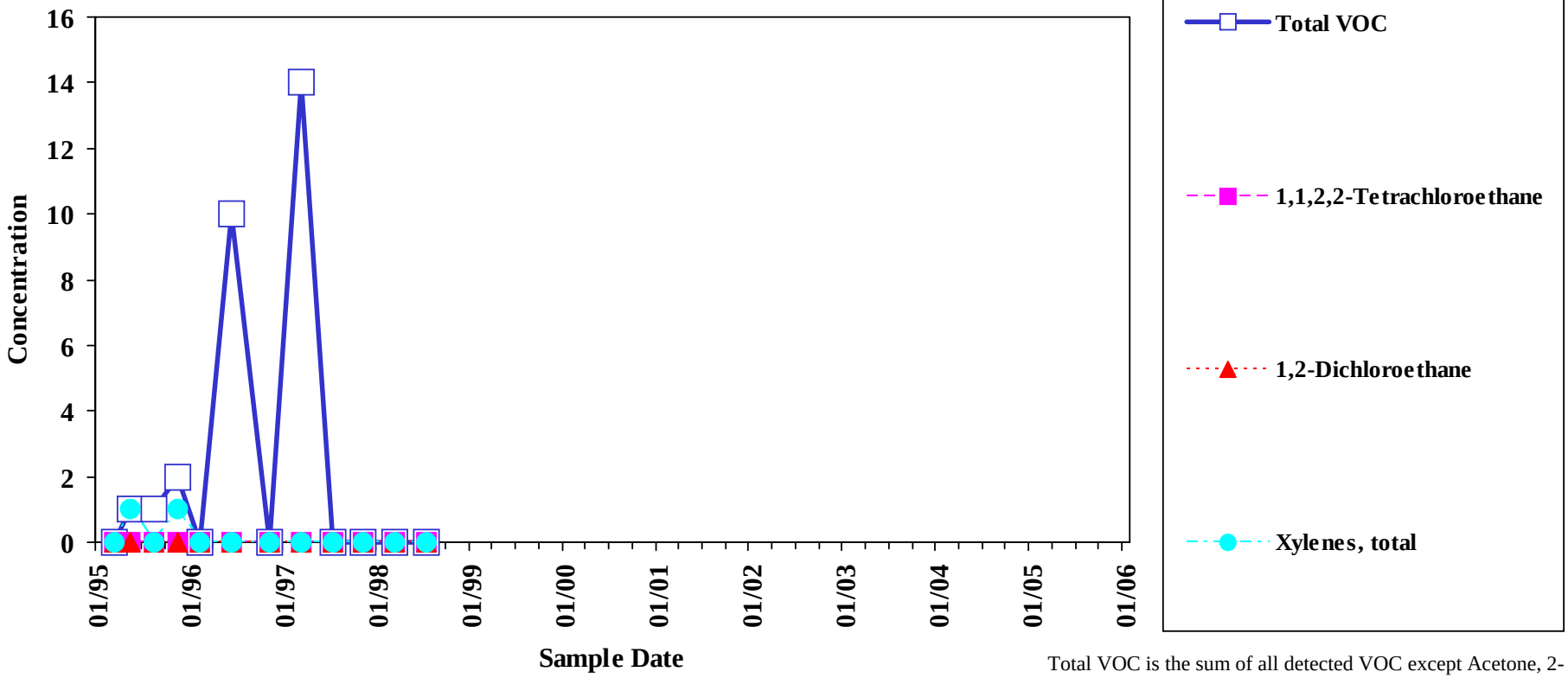
Sample concentration units: mg/Kg

Sample Location:

SED-03

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

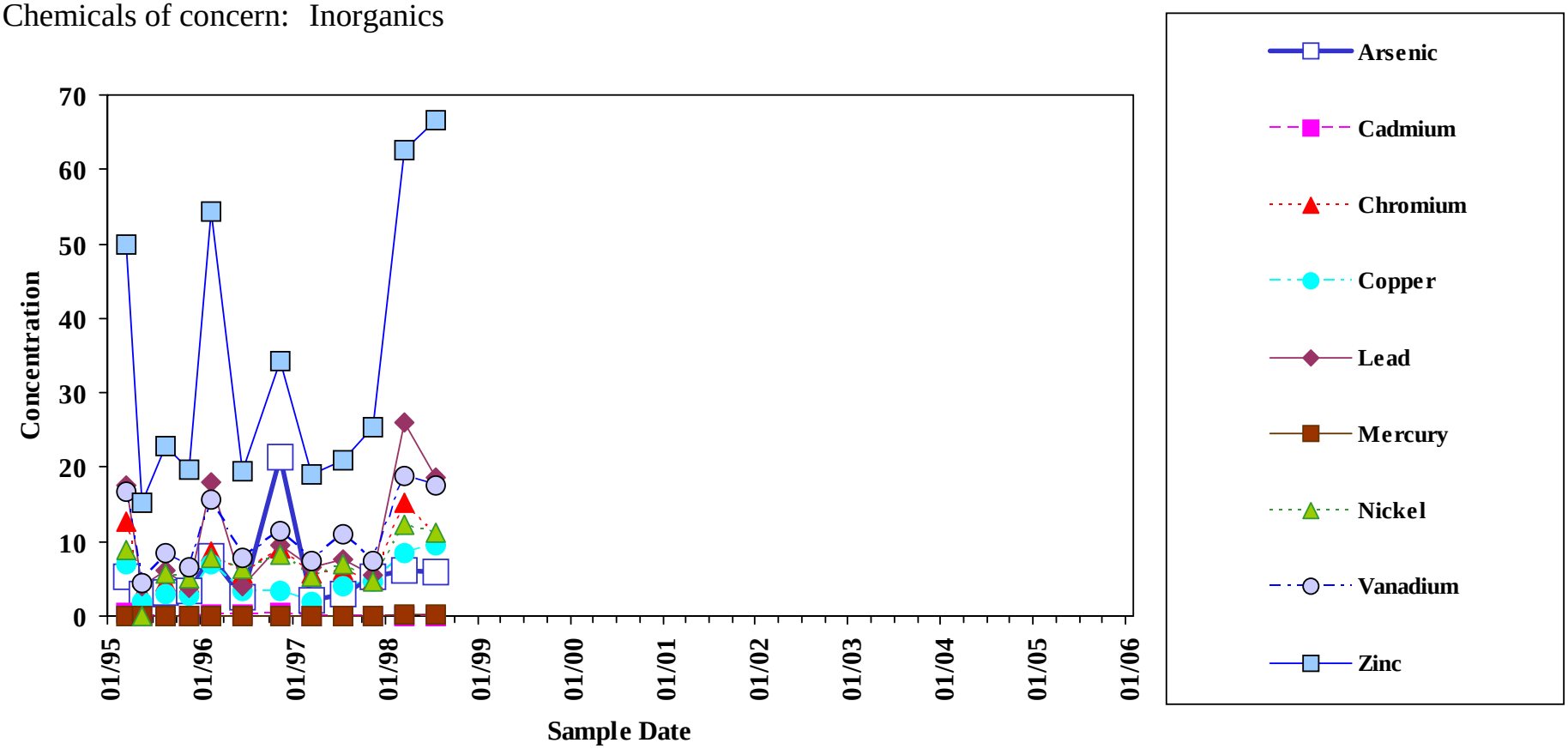
Sample concentration units: µg/Kg

Sample Location:

SED-04

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

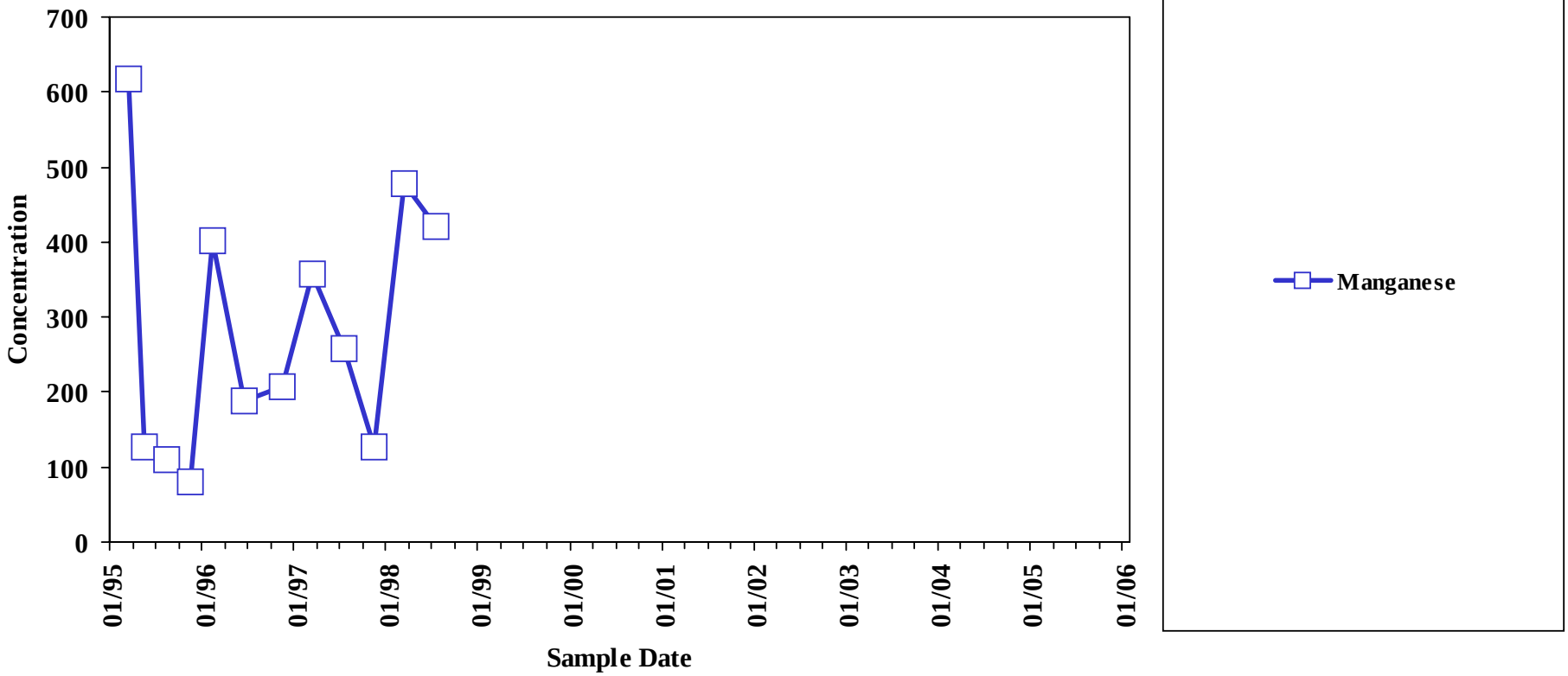
Sample concentration units: mg/Kg

Sample Location:

SED-04

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

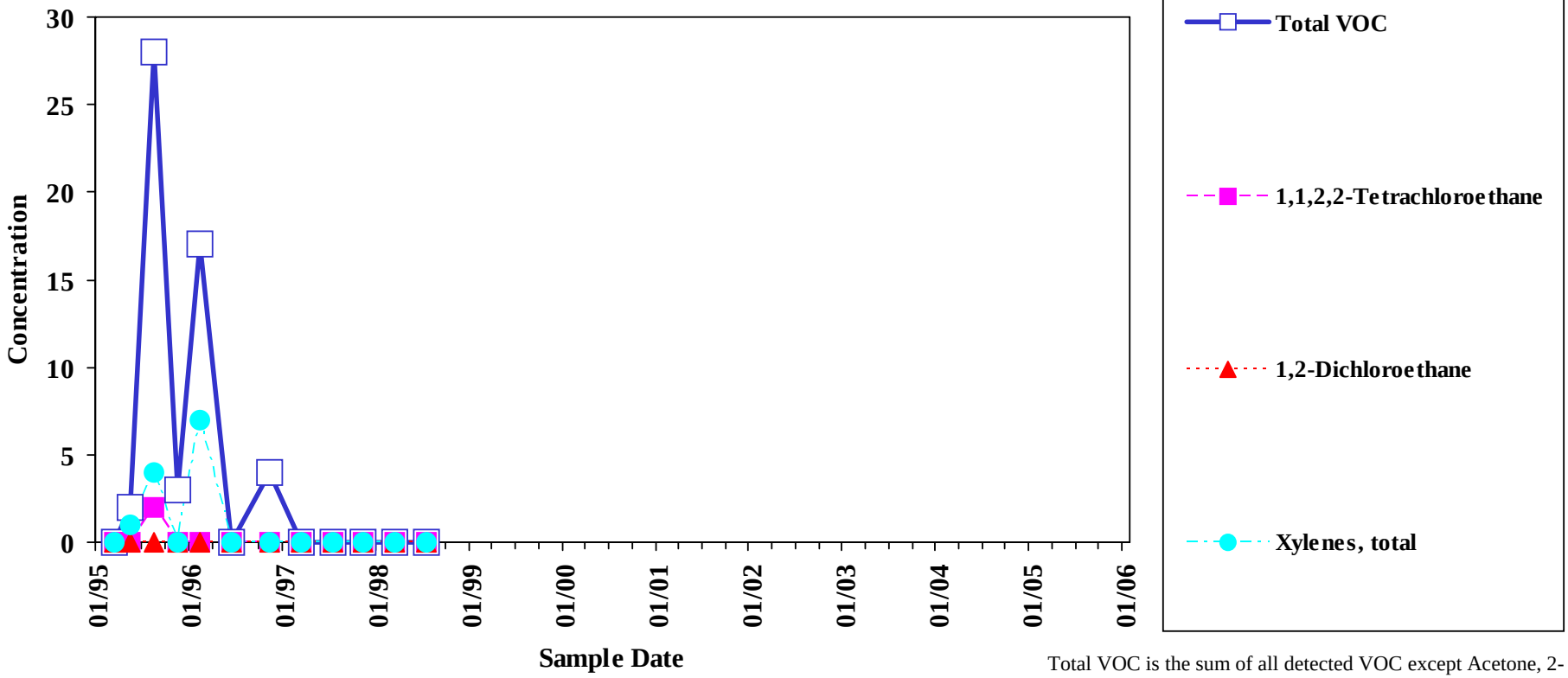
Sample concentration units: mg/Kg

Sample Location:

SED-04

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

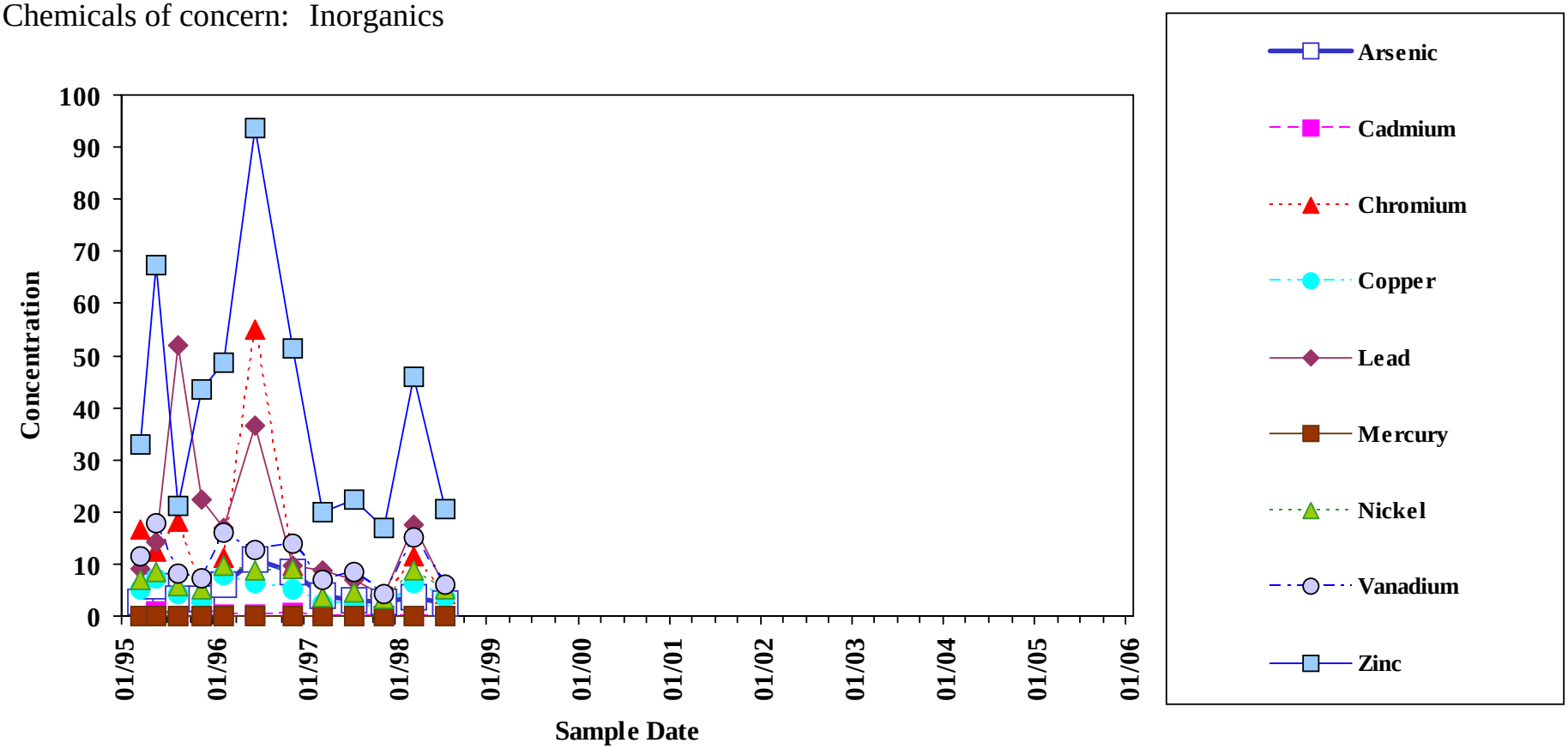
Sample concentration units: µg/Kg

Sample Location:

SED-05

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

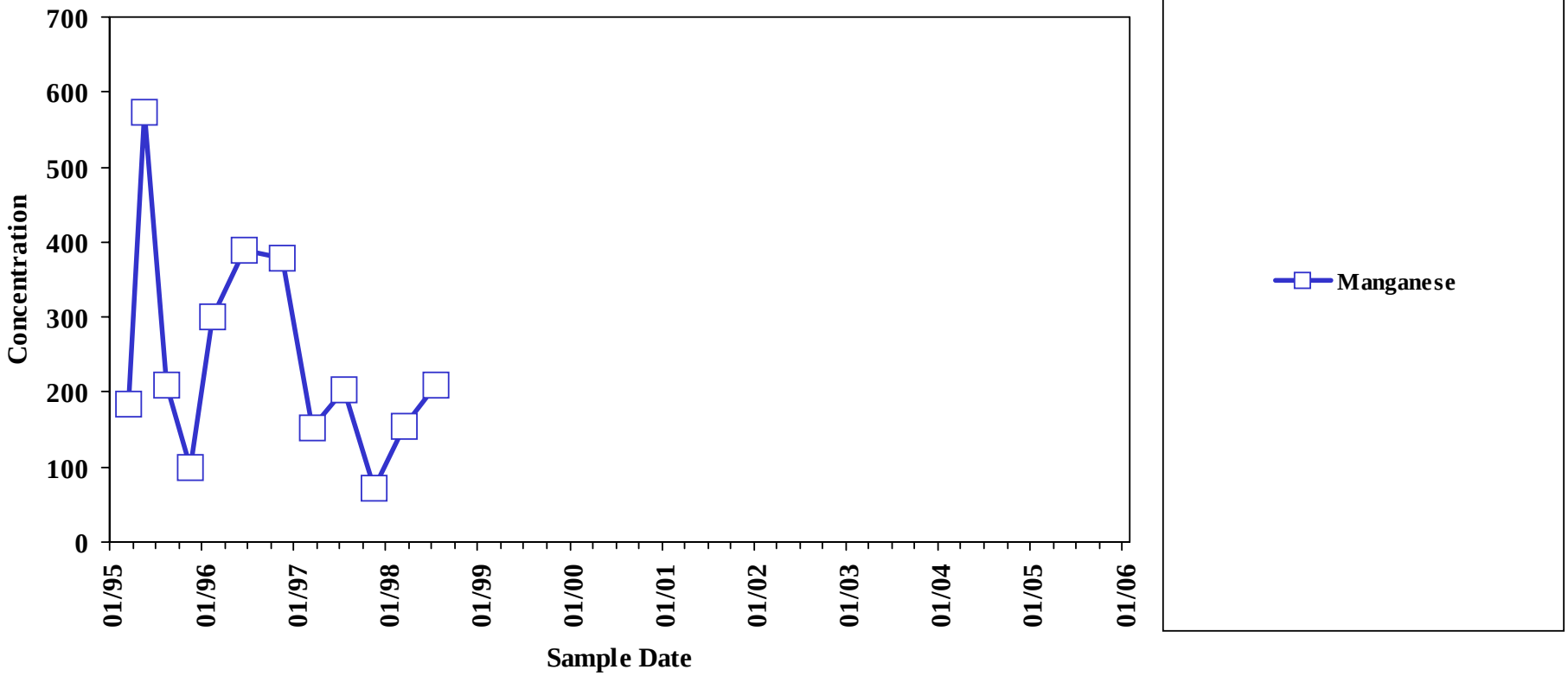
Sample concentration units: mg/Kg

Sample Location:

SED-05

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

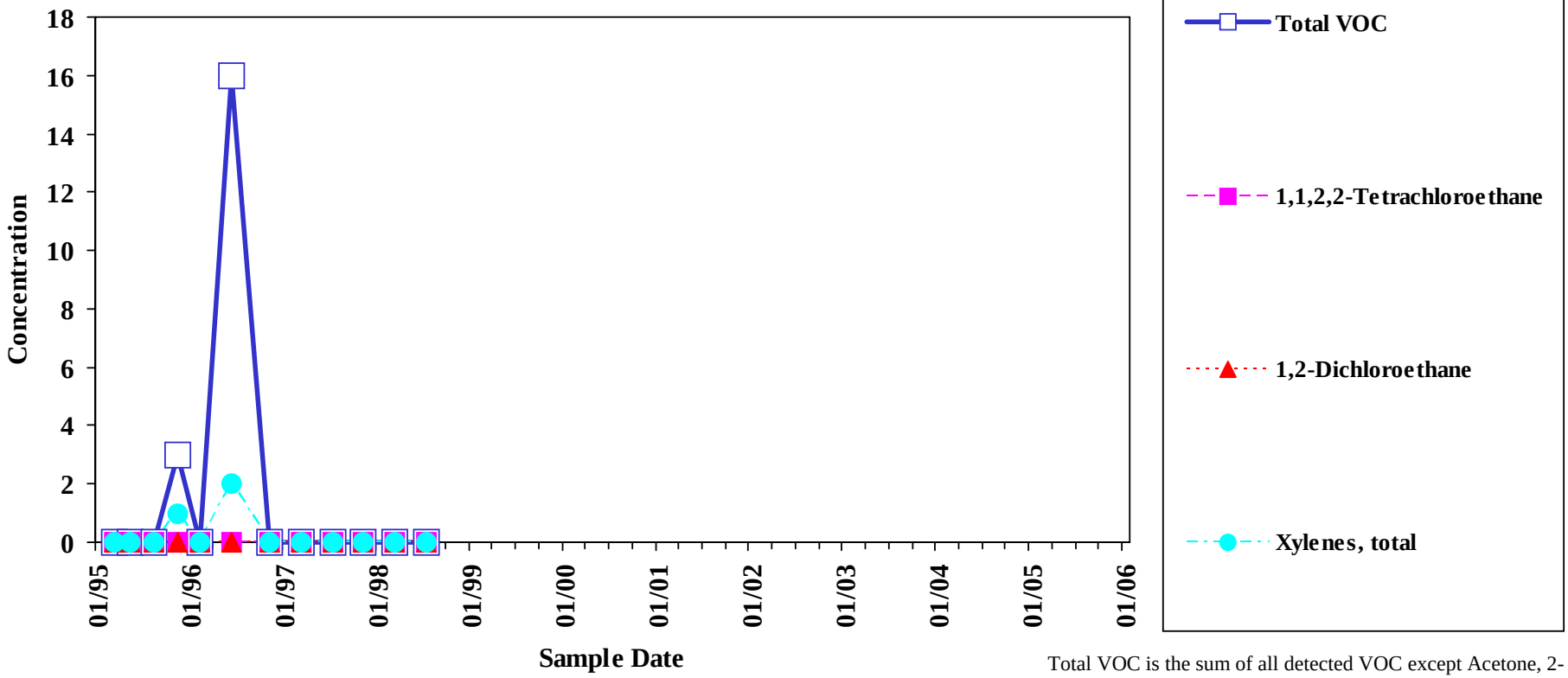
Sample concentration units: mg/Kg

Sample Location:

SED-05

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

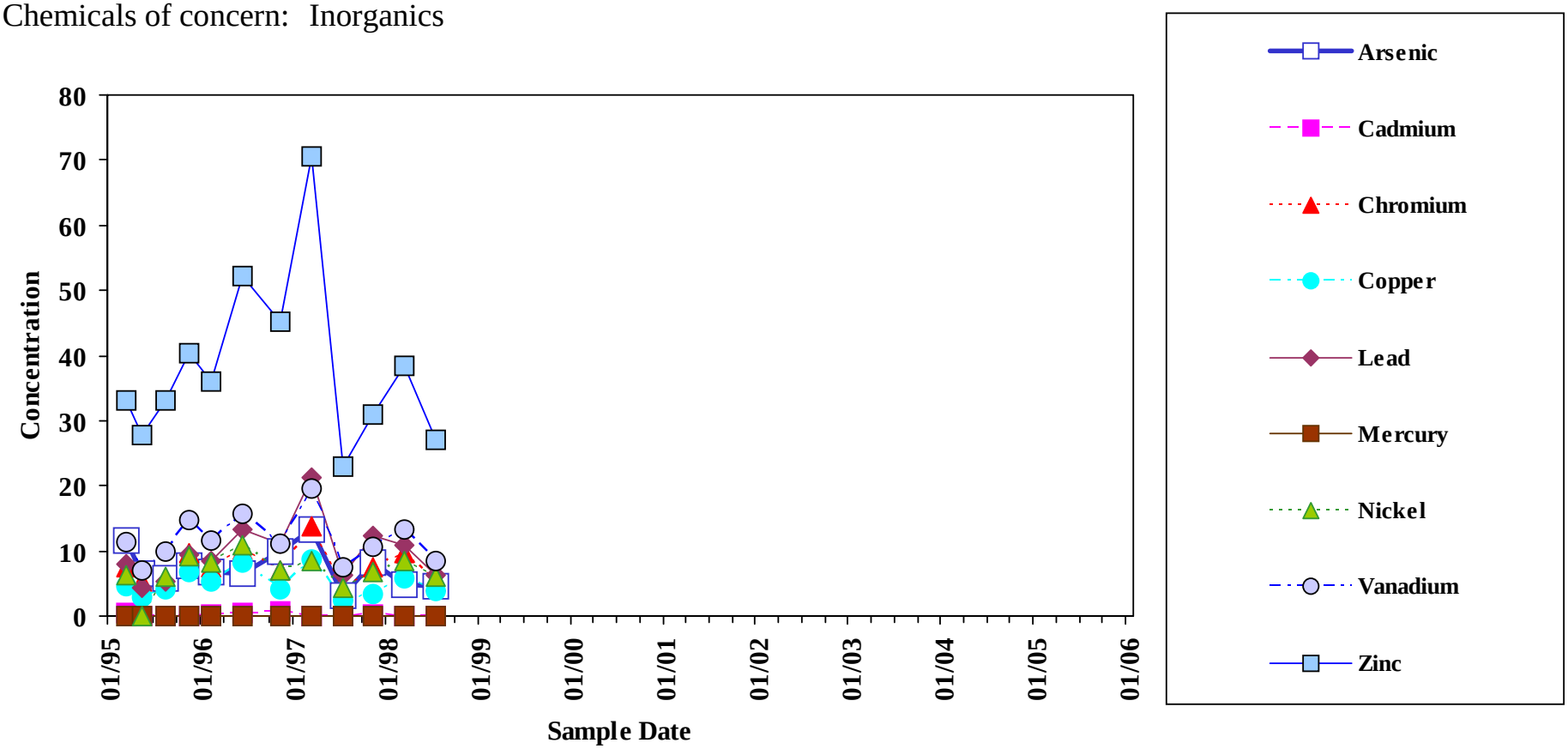
Sample concentration units: µg/Kg

Sample Location:

SED-06

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

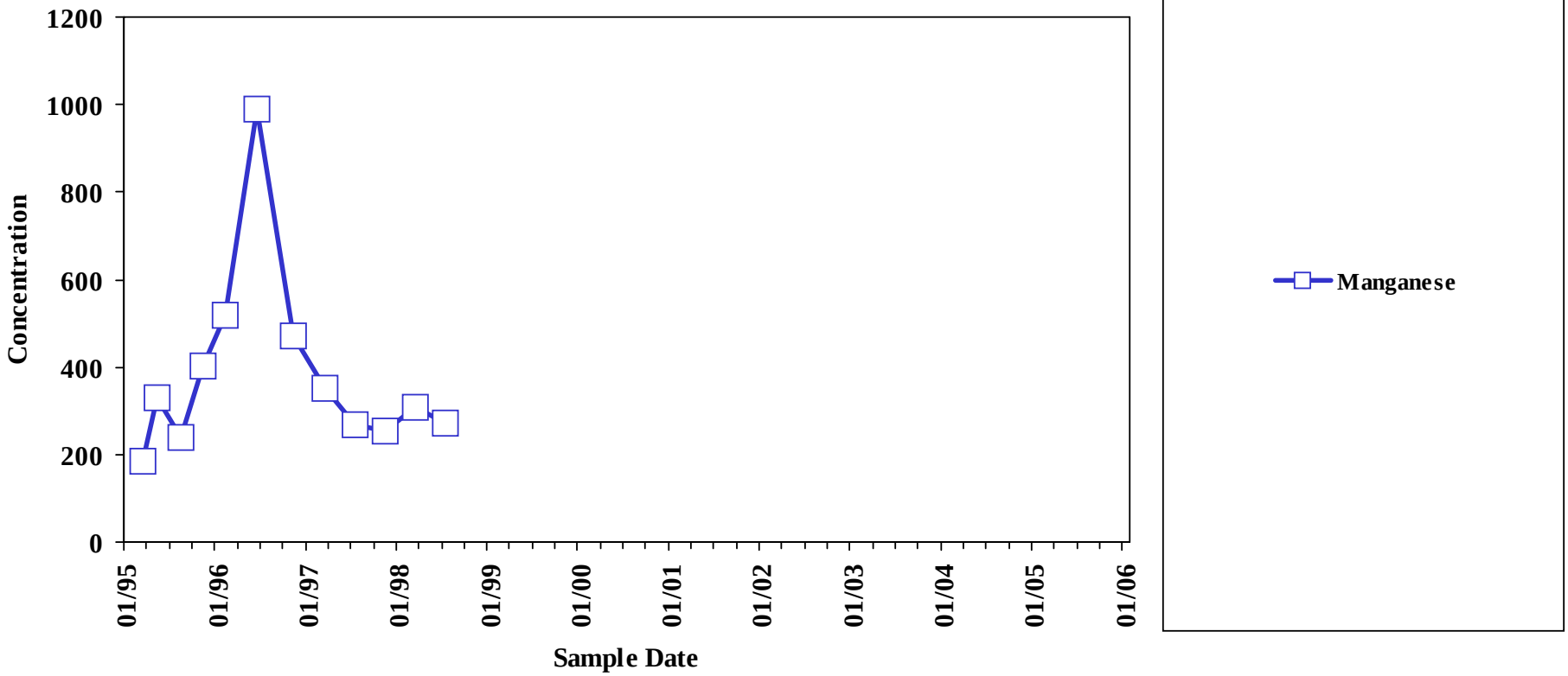
Sample concentration units: mg/Kg

Sample Location:

SED-06

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

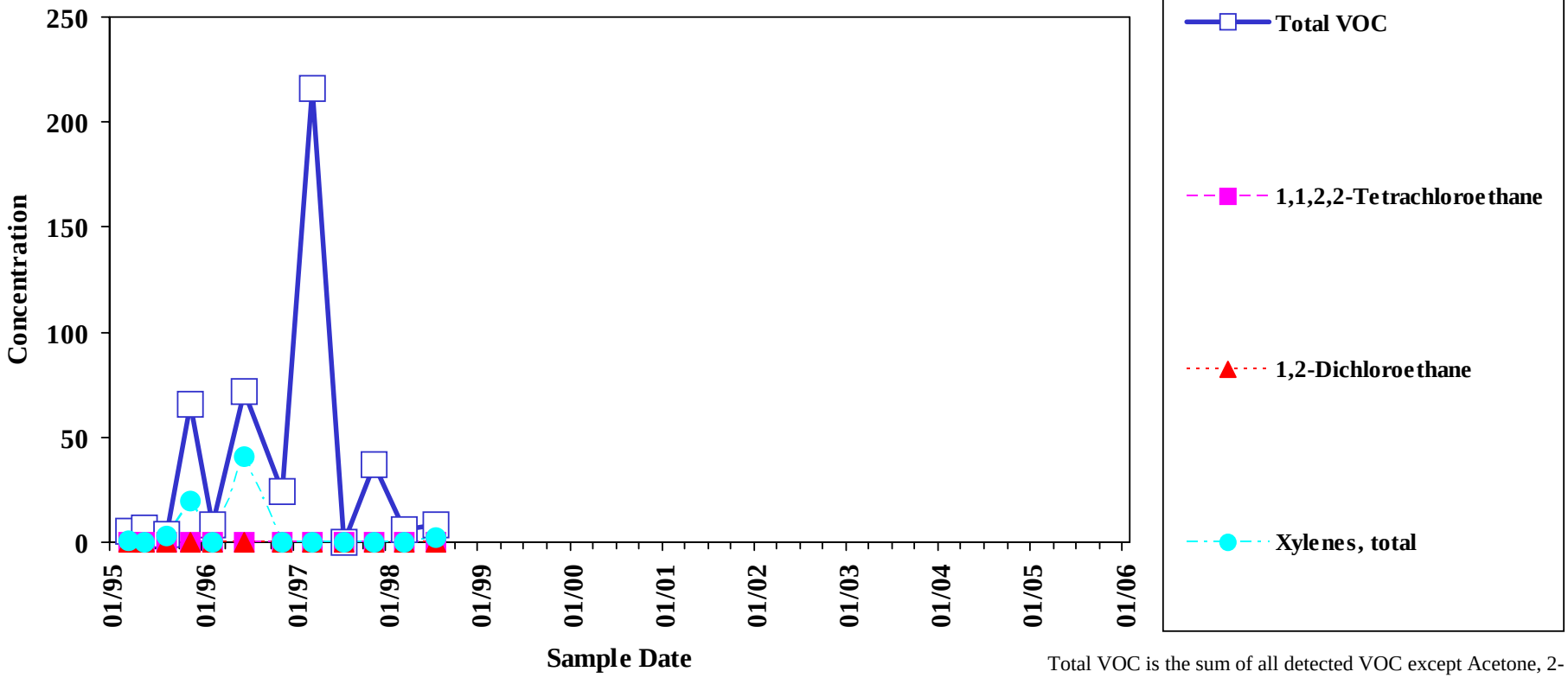
Sample concentration units: mg/Kg

Sample Location:

SED-06

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

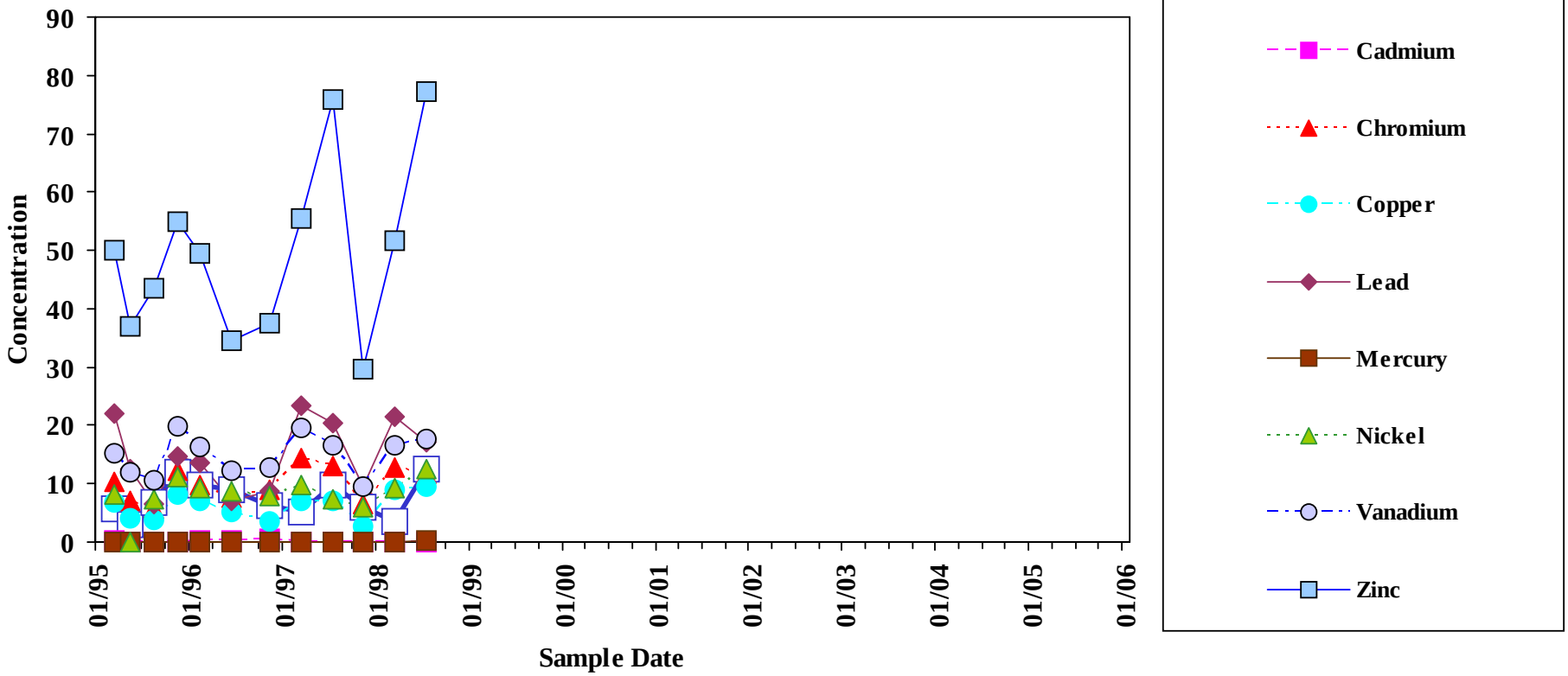
Sample concentration units: µg/Kg

Sample Location:

SED-07

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

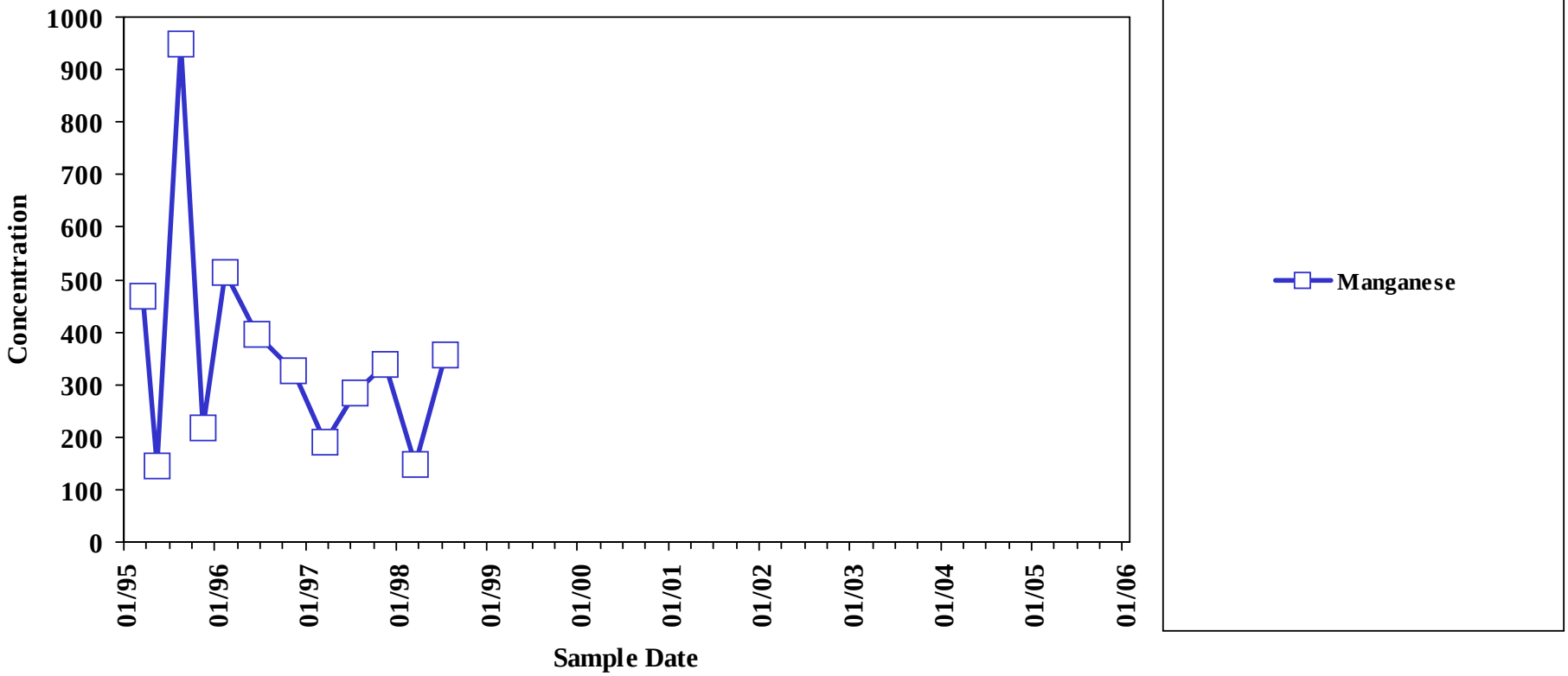
Sample concentration units: mg/Kg

Sample Location:

SED-07

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

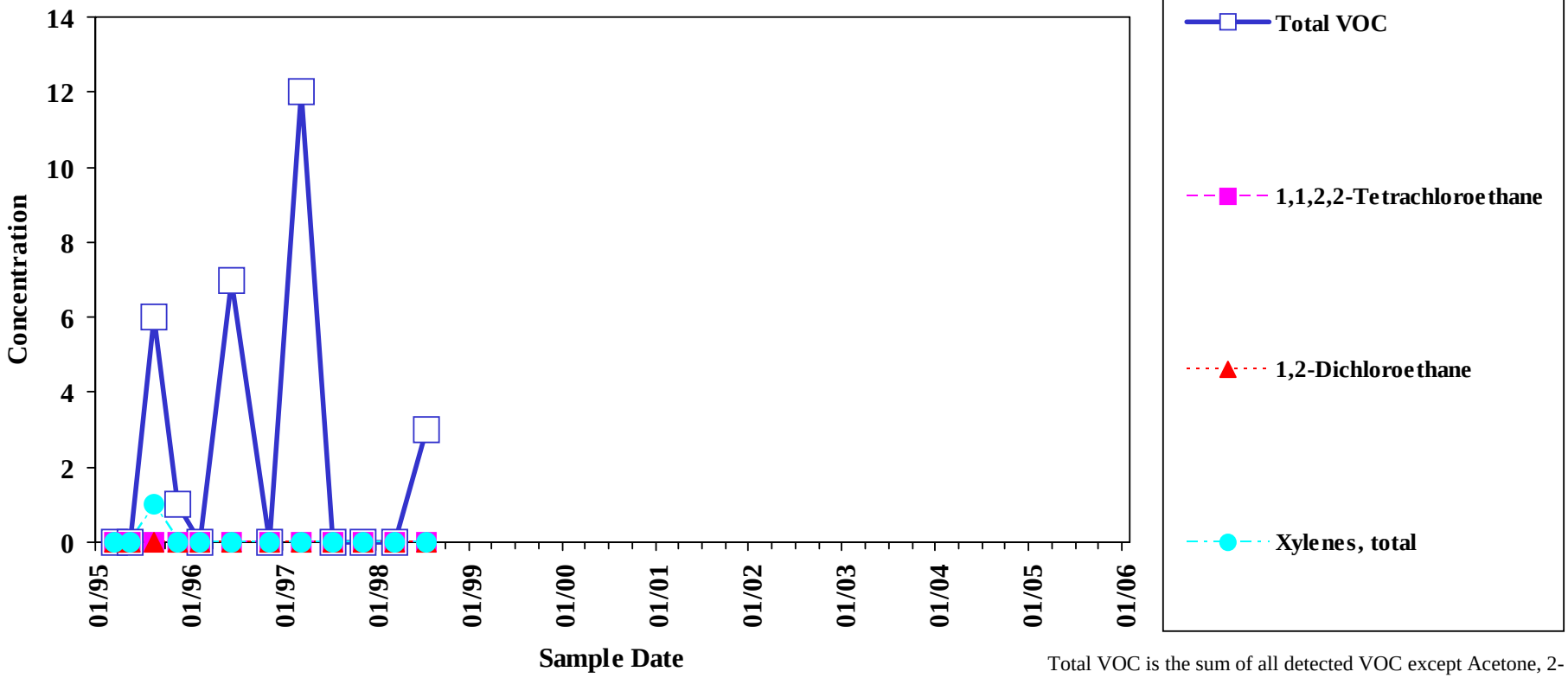
Sample concentration units: mg/Kg

Sample Location:

SED-07

Sites 1 & 3
Sediment

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

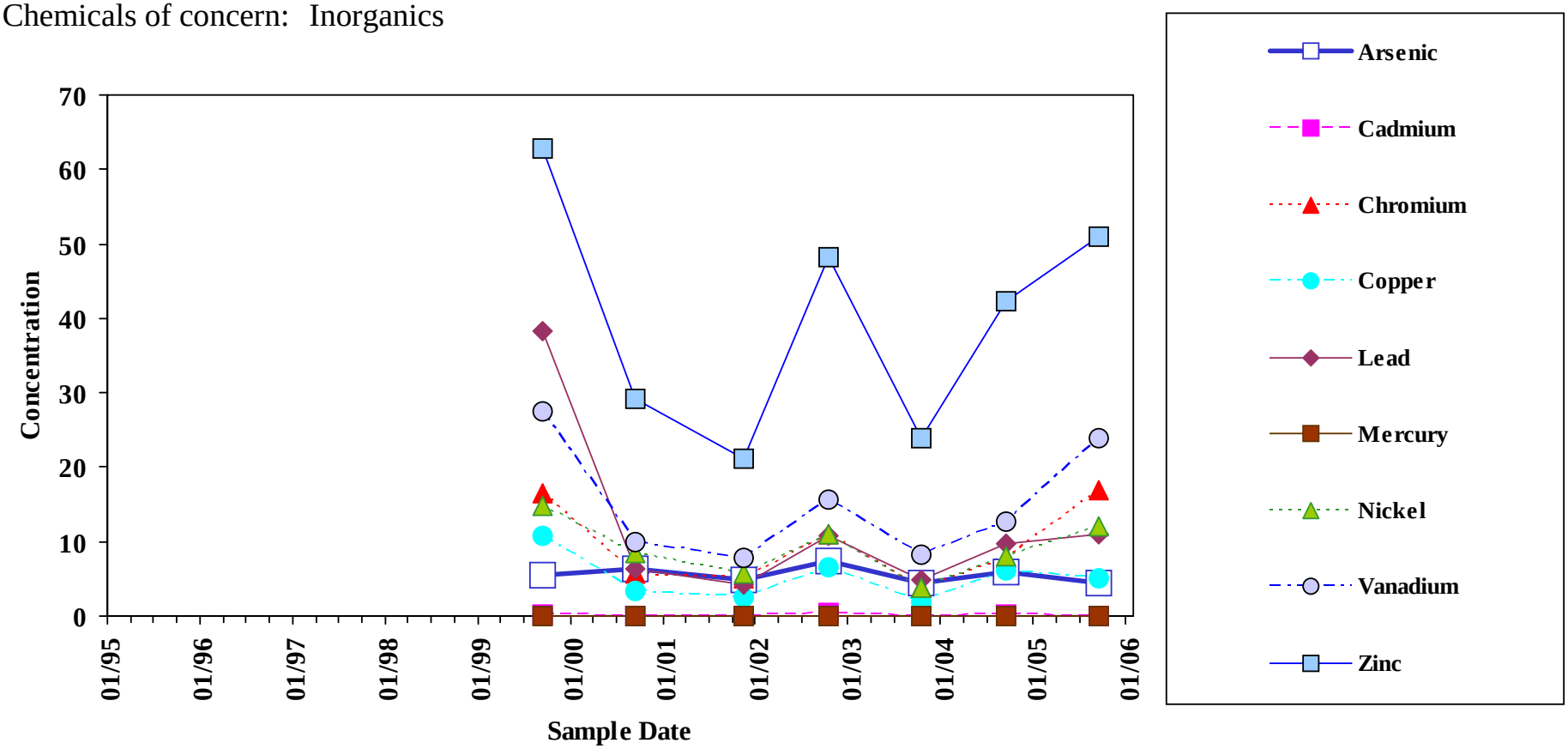
Sample concentration units: µg/Kg

Sample Location:

SED-09

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

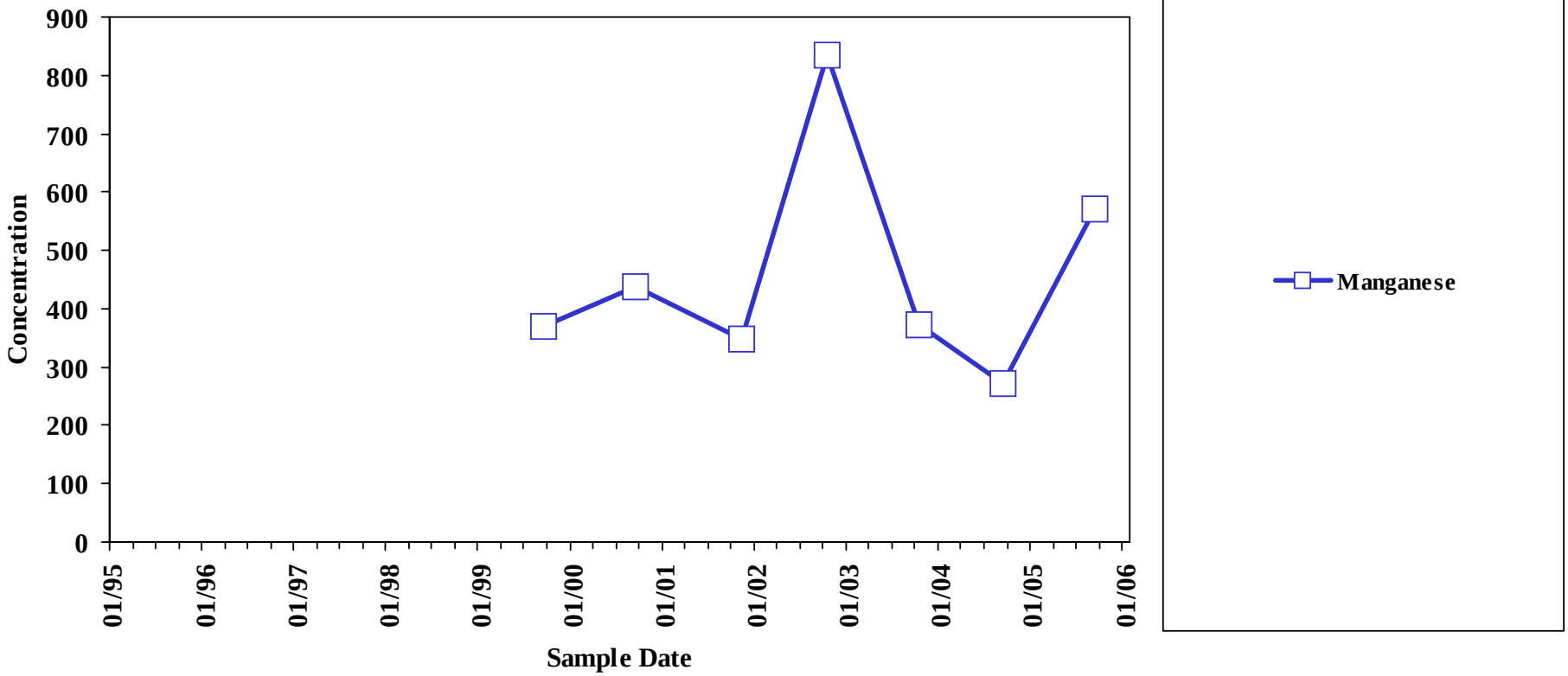
Sample concentration units: mg/Kg

Sample Location:

SED-09

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

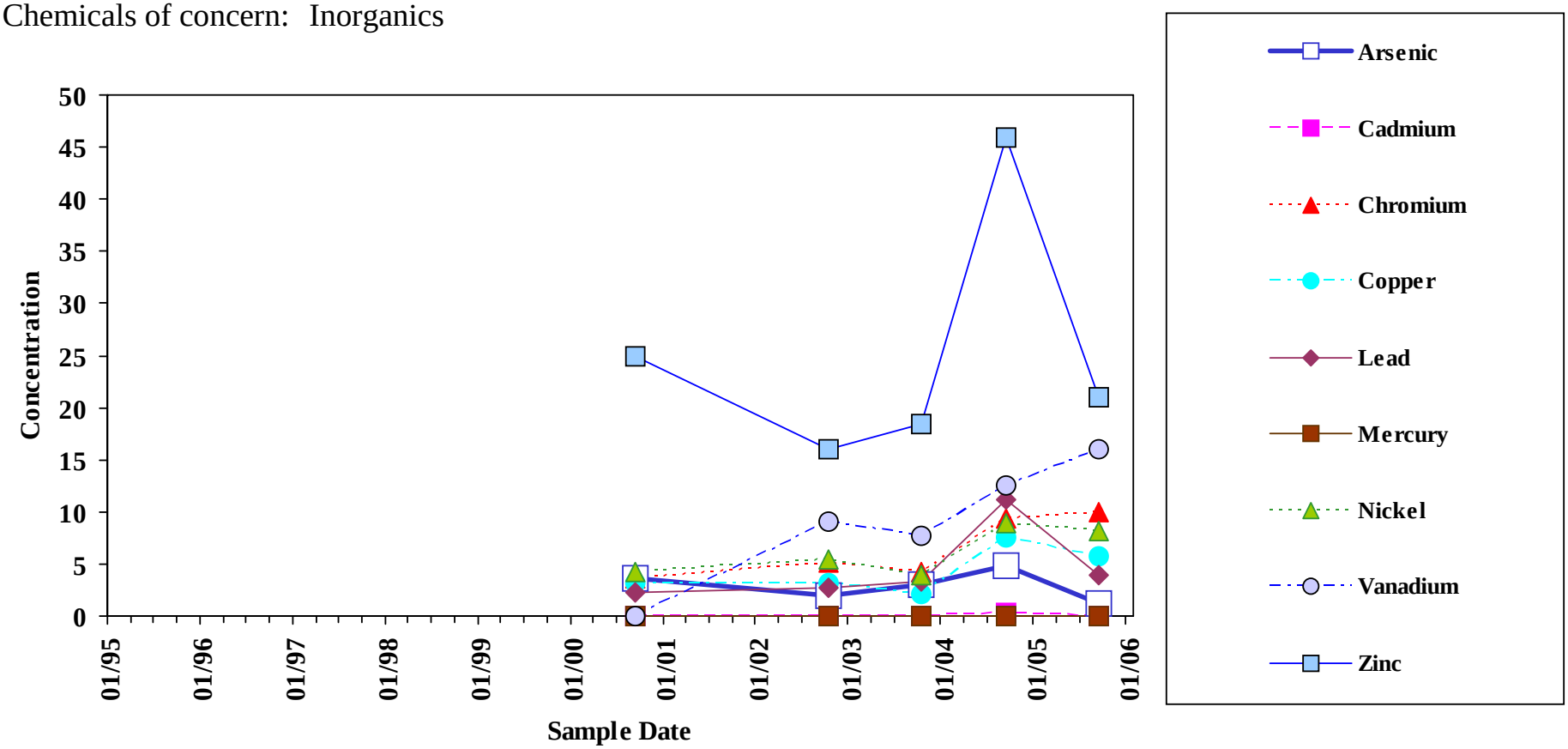
Sample concentration units: mg/Kg

Sample Location:

SED-15

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

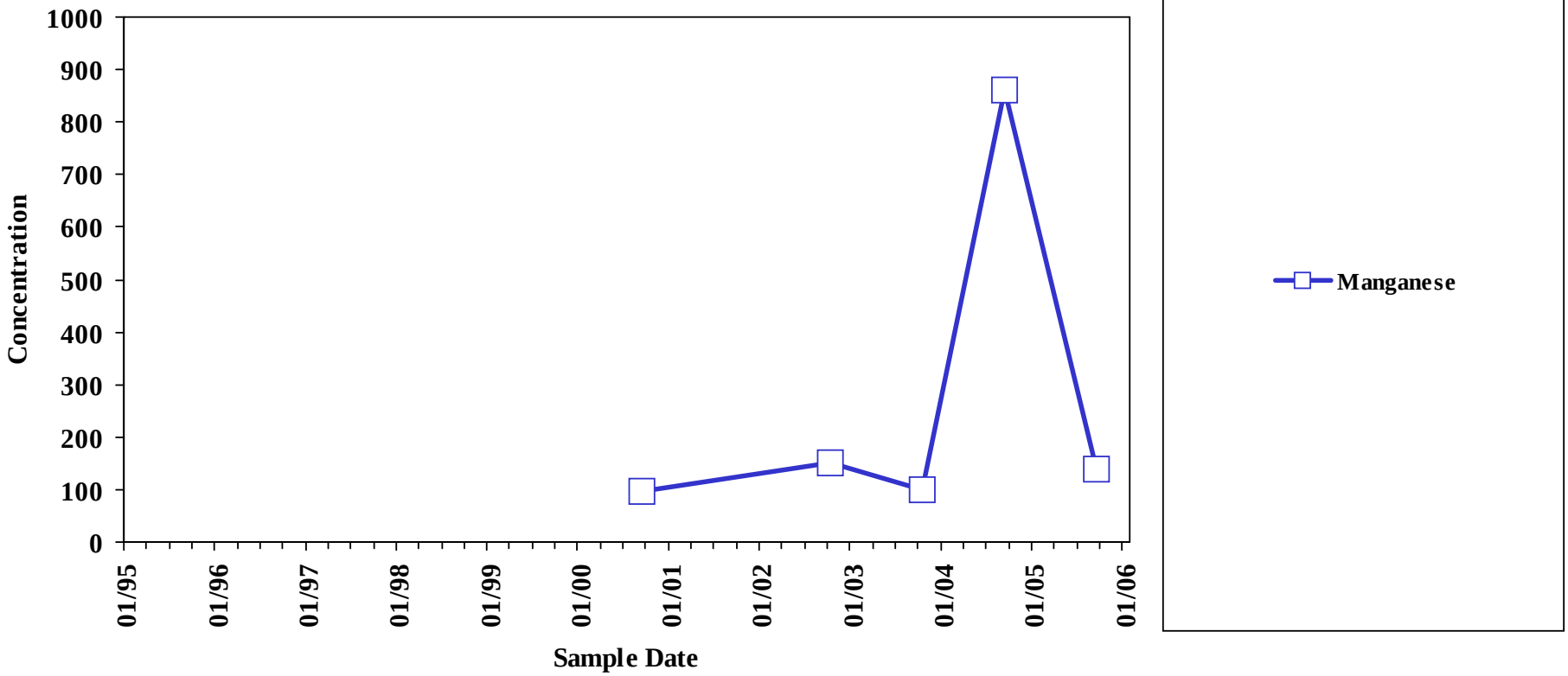
Sample concentration units: mg/Kg

Sample Location:

SED-15

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

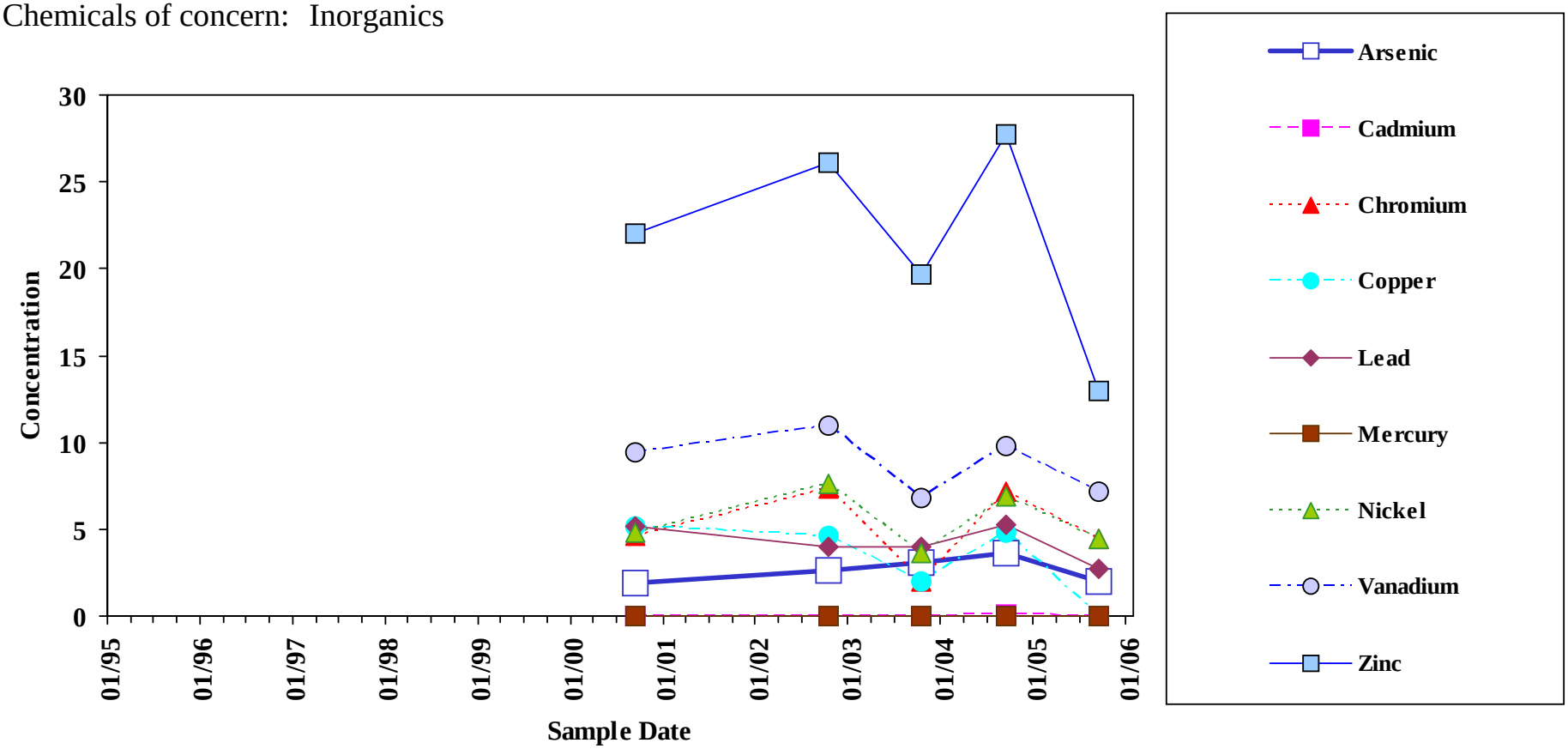
Sample concentration units: mg/Kg

Sample Location:

SED-16

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

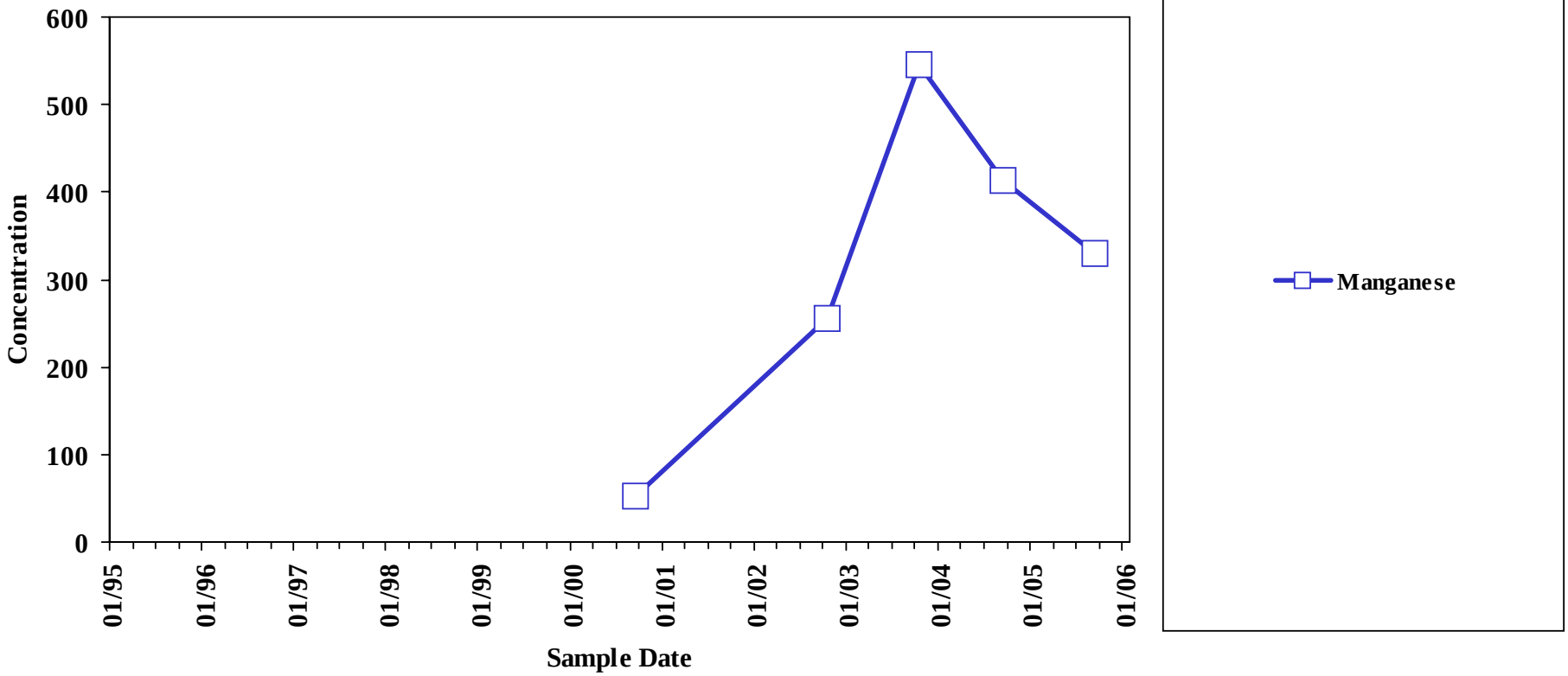
Sample concentration units: mg/Kg

Sample Location:

SED-16

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

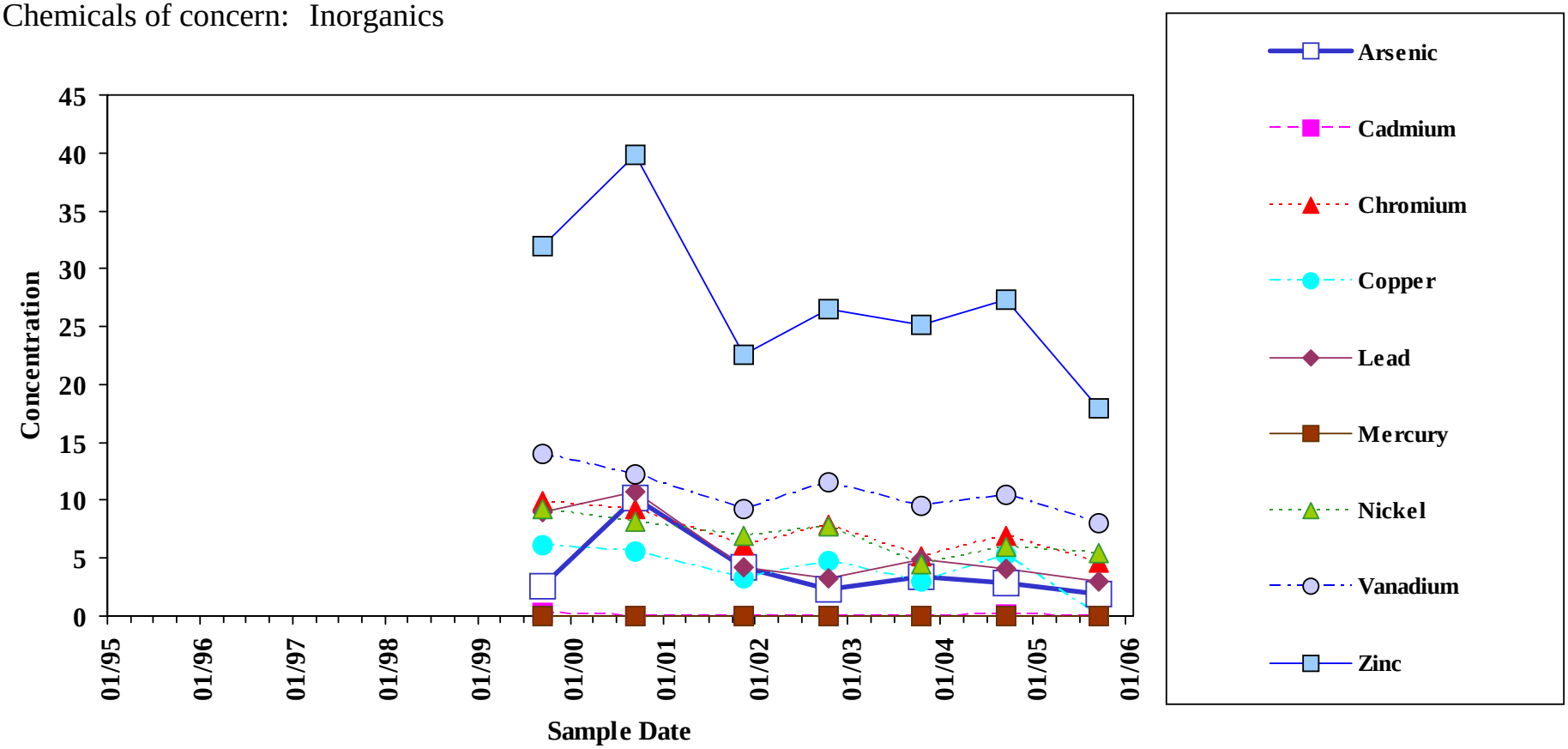
Sample concentration units: mg/Kg

Sample Location:

SED-17

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

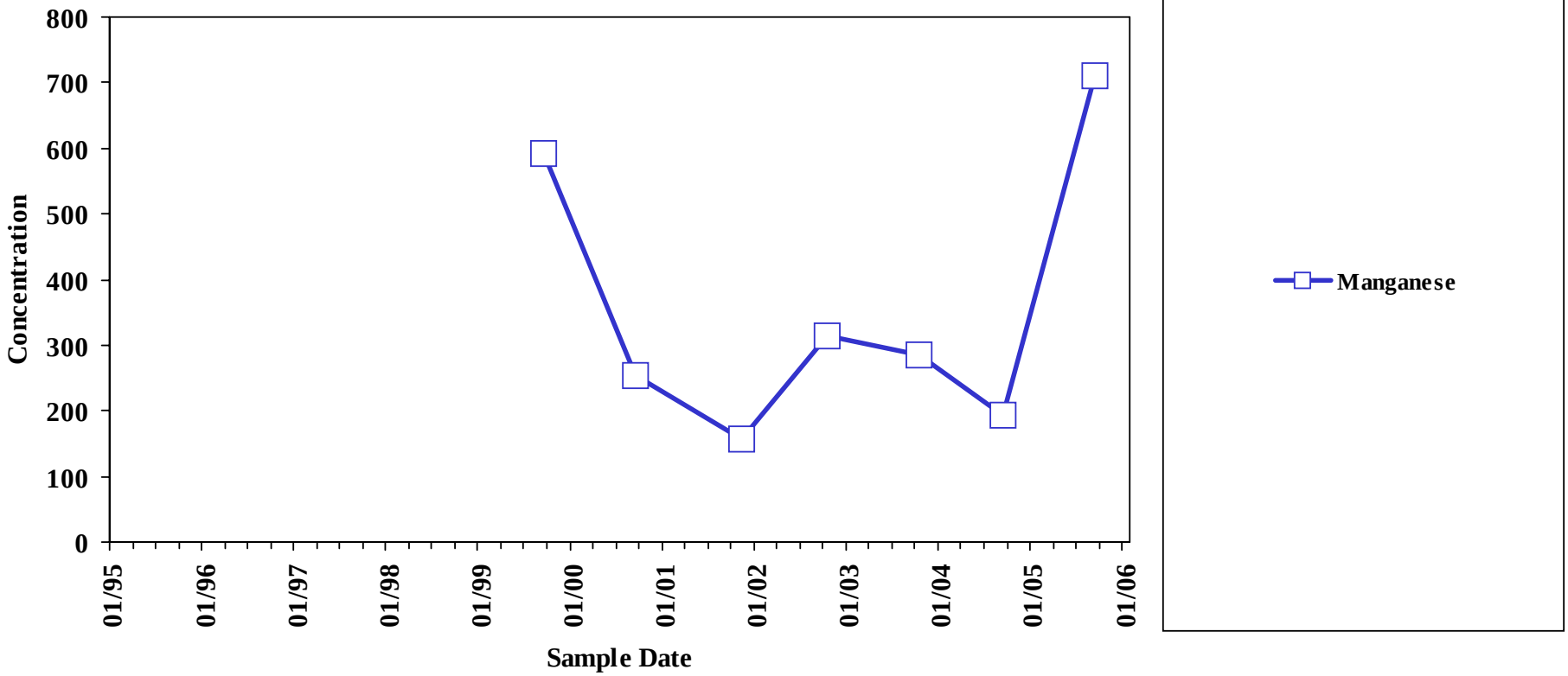
Sample concentration units: mg/Kg

Sample Location:

SED-17

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

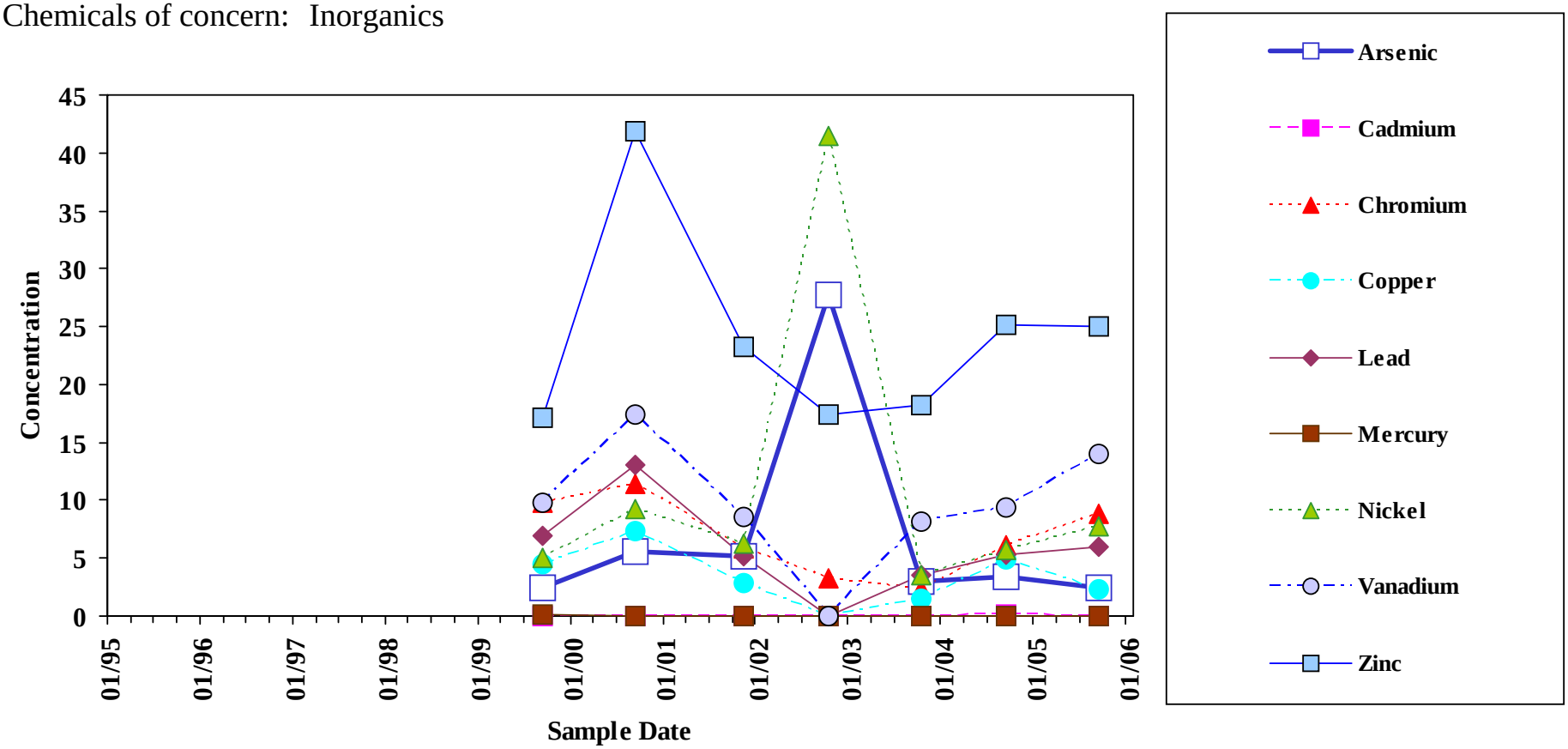
Sample concentration units: mg/Kg

Sample Location:

SED-18

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

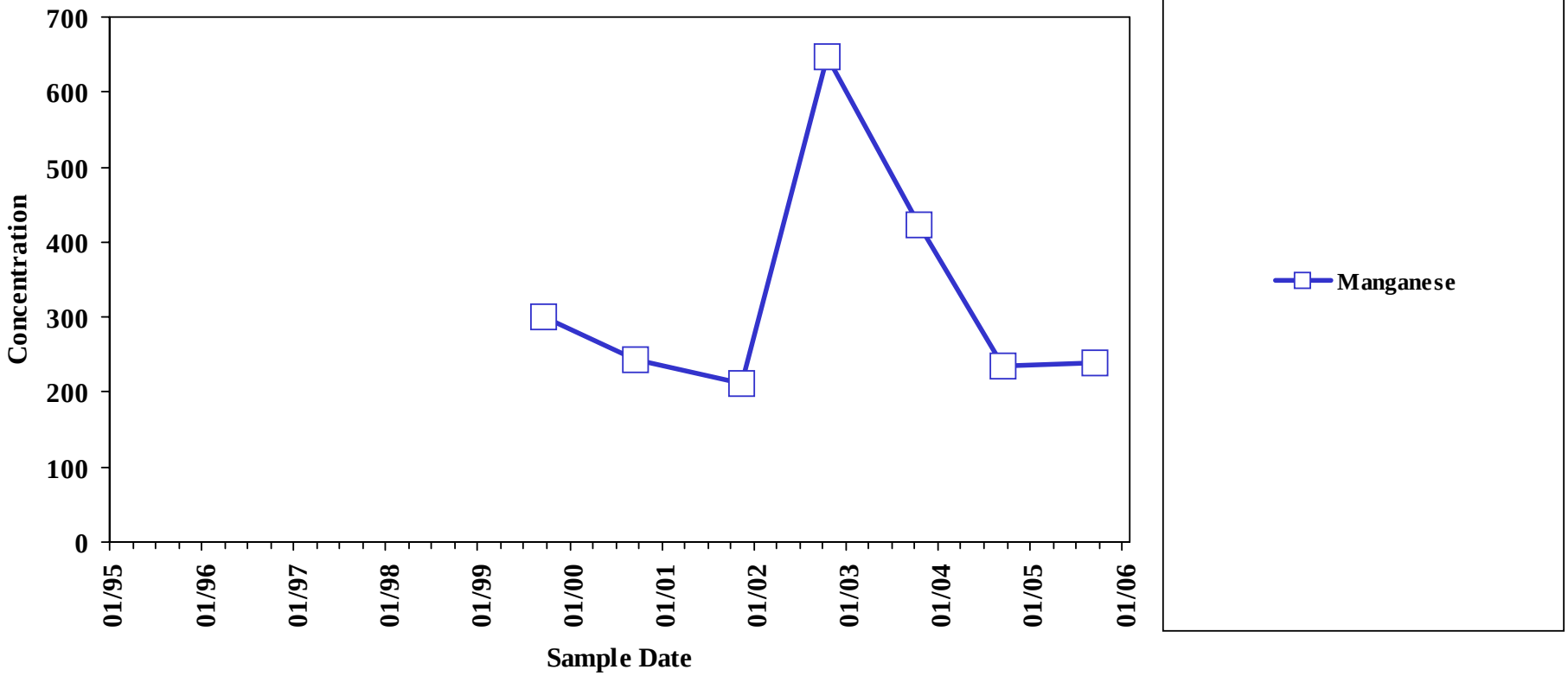
Sample concentration units: mg/Kg

Sample Location:

SED-18

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

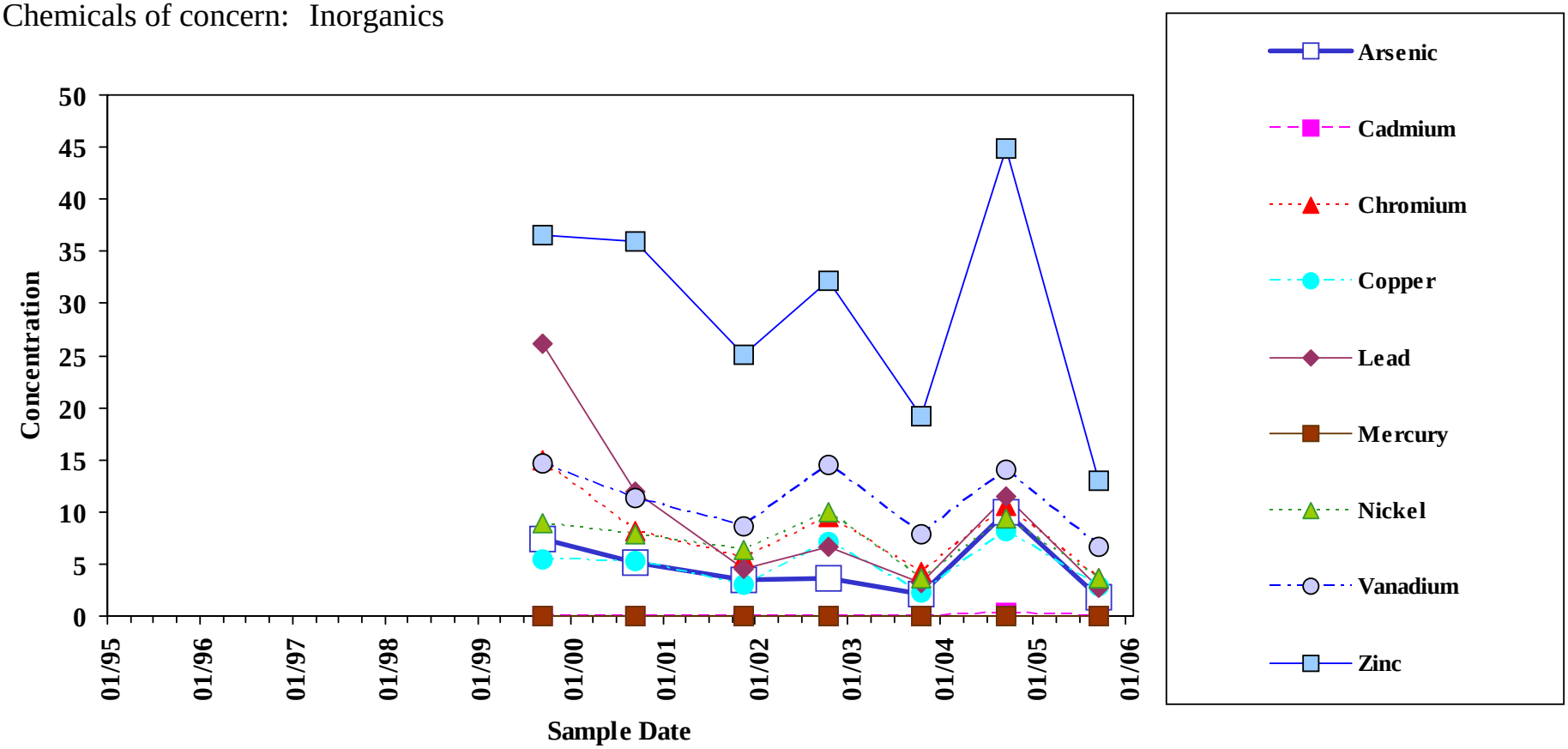
Sample concentration units: mg/Kg

Sample Location:

SED-19

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

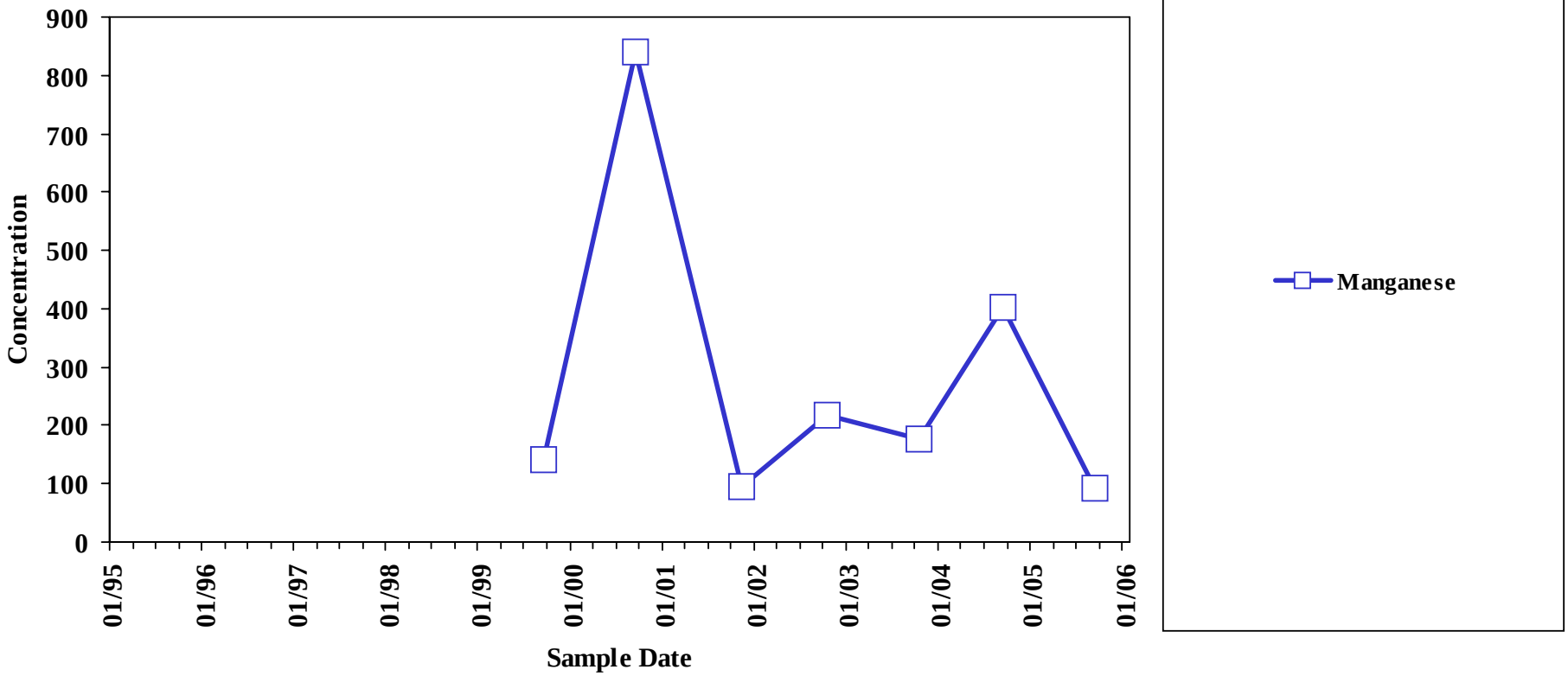
Sample concentration units: mg/Kg

Sample Location:

SED-19

Sites 1 & 3
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

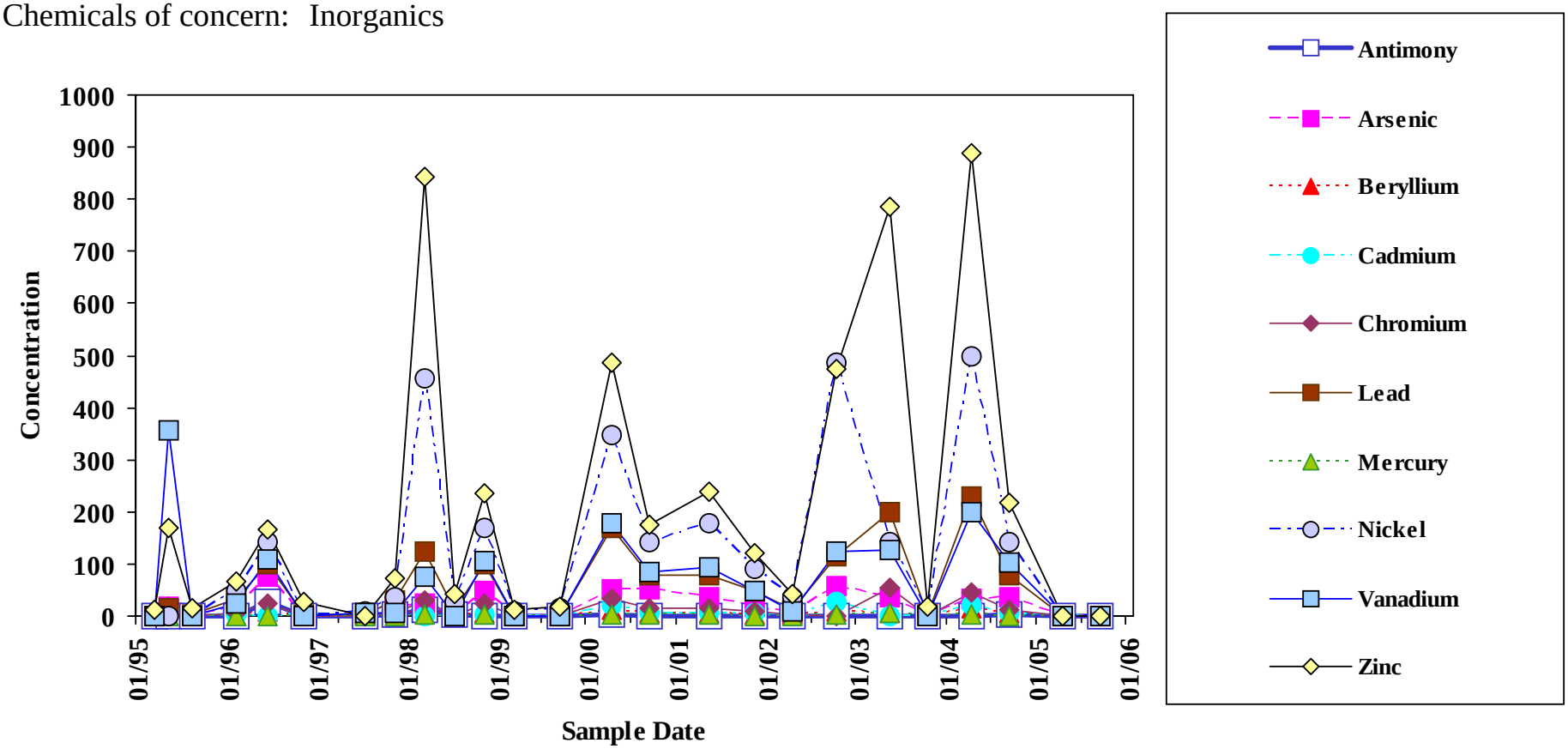
Sample concentration units: mg/Kg

Sample Location:

SEEP-01

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

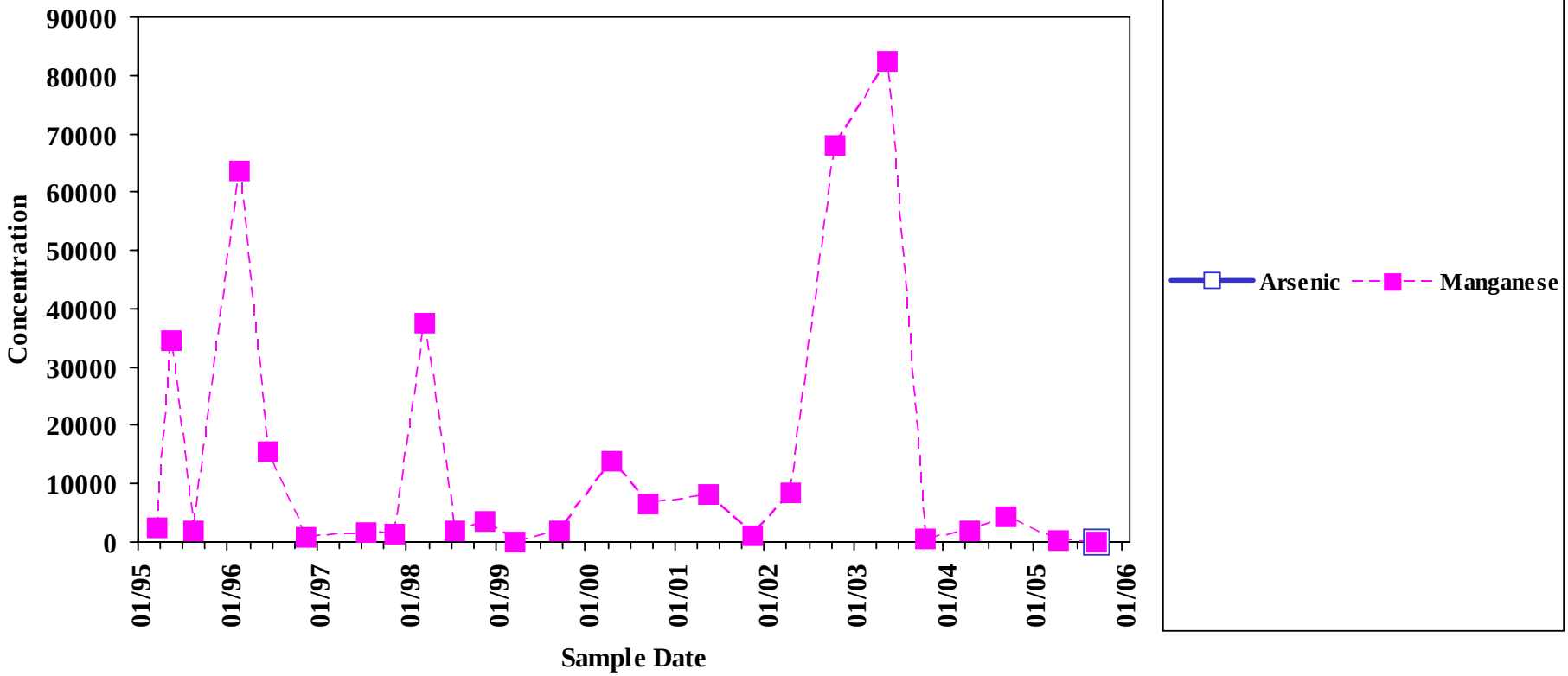
Sample concentration units: µg/L

Sample Location:

SEEP-01

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

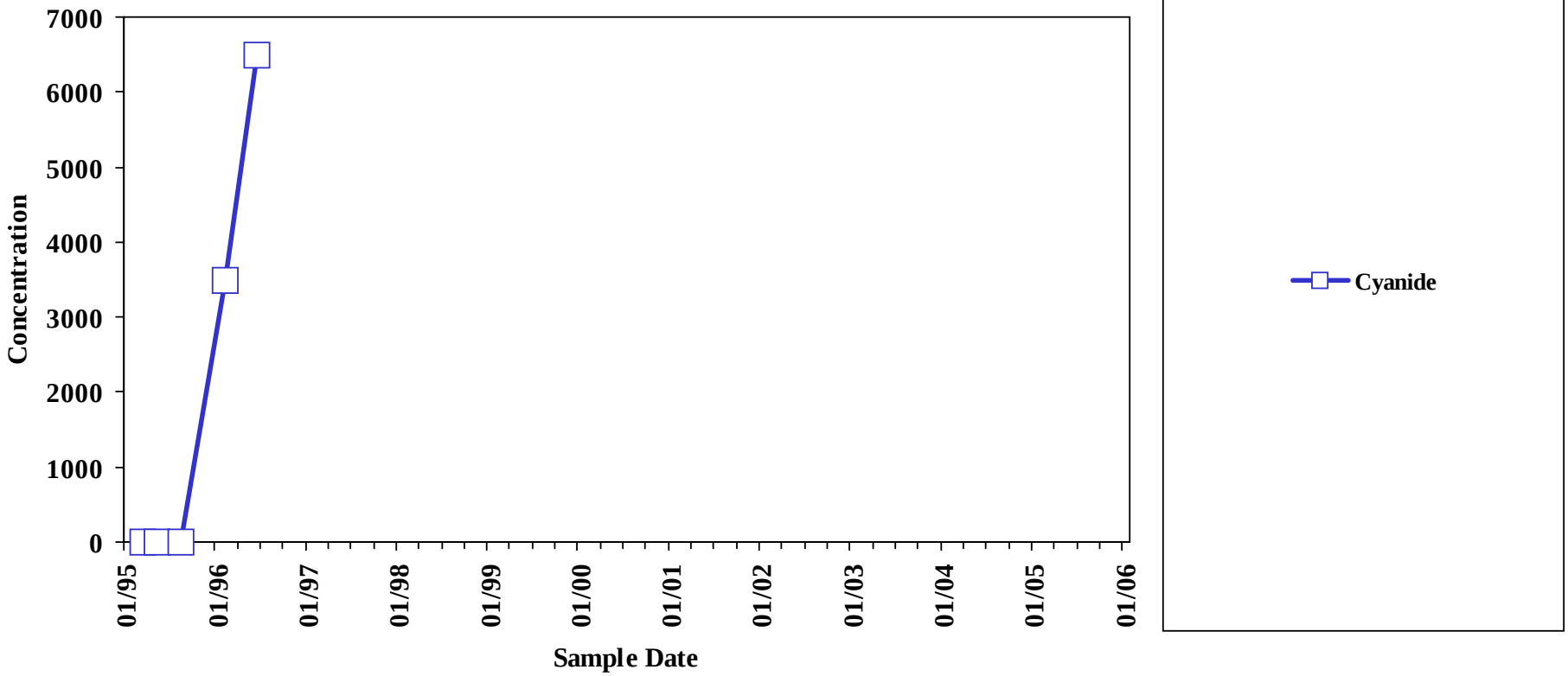
Sample concentration units: µg/L

Sample Location:

SEEP-01

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

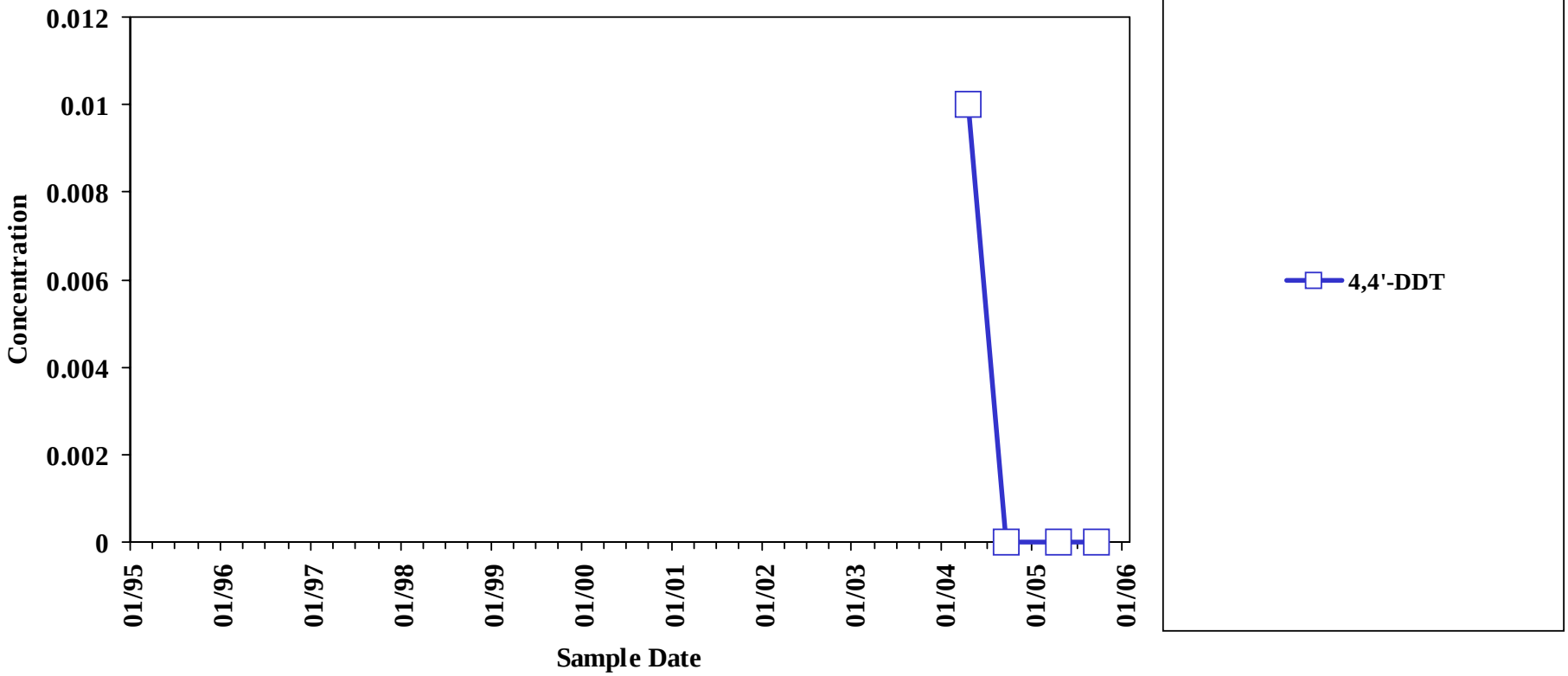
Sample concentration units: µg/L

Sample Location:

SEEP-01

Sites 1 & 3
Leachate

Chemicals of concern: Pesticides



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

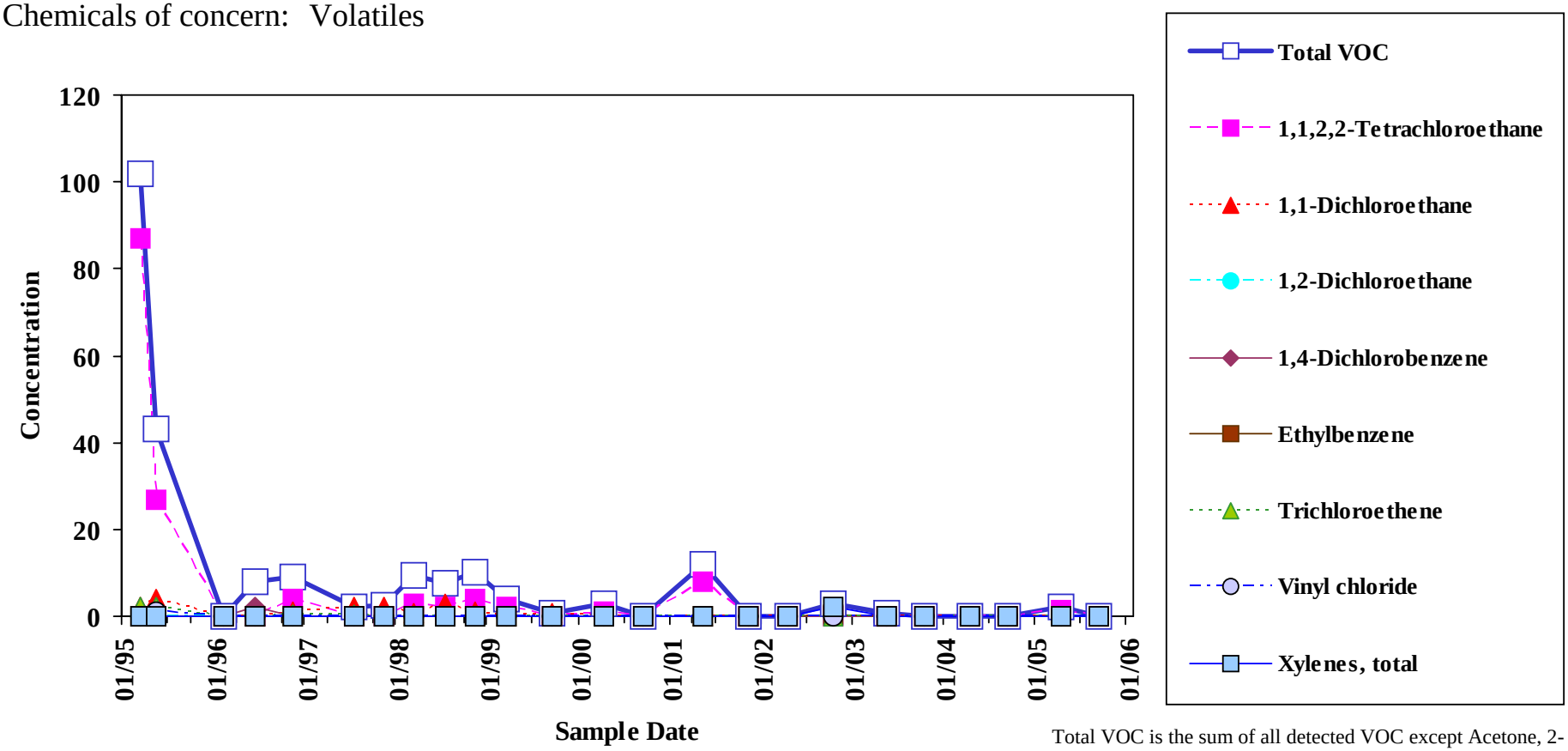
Sample concentration units: µg/l

Sample Location:

SEEP-01

Sites 1 & 3
Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

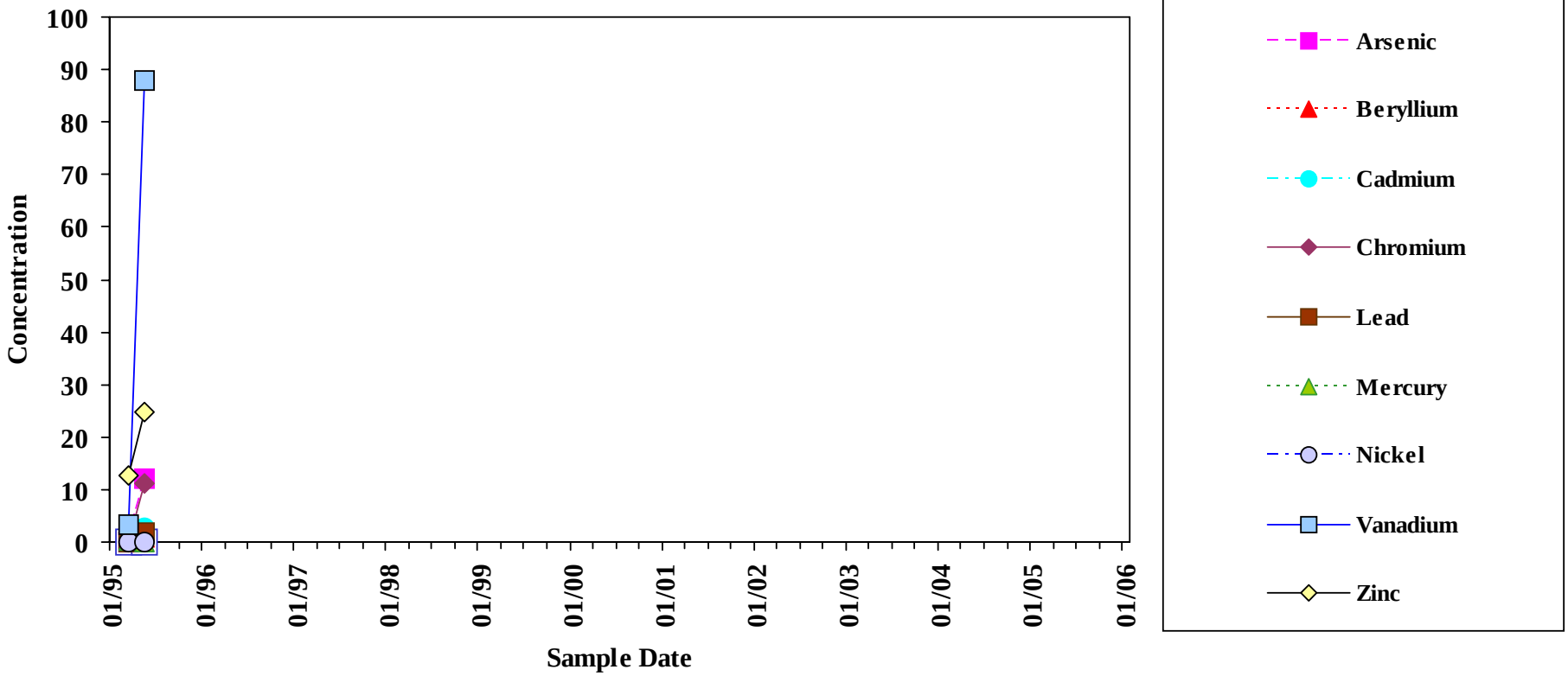
Sample concentration units: µg/L

Sample Location:

SEEP-02

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

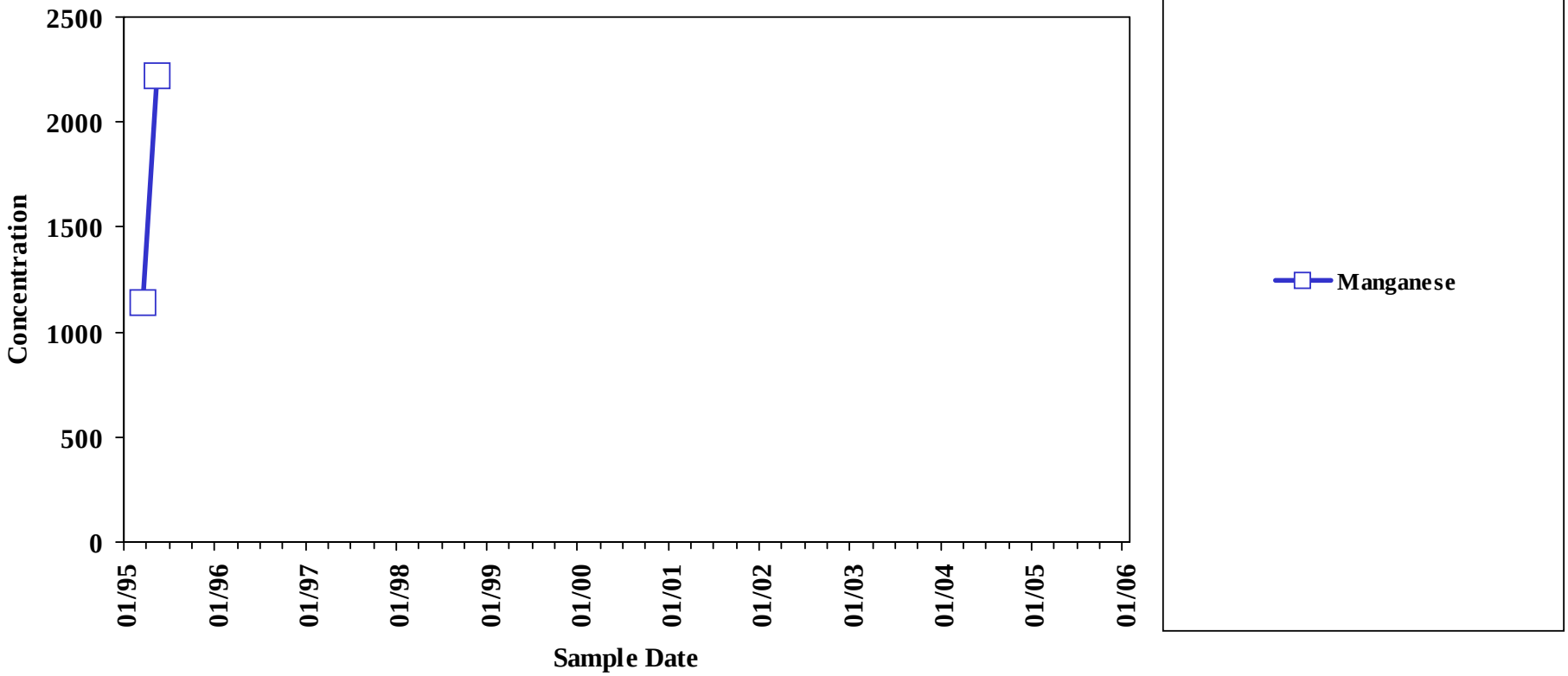
Sample concentration units: µg/L

Sample Location:

SEEP-02

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

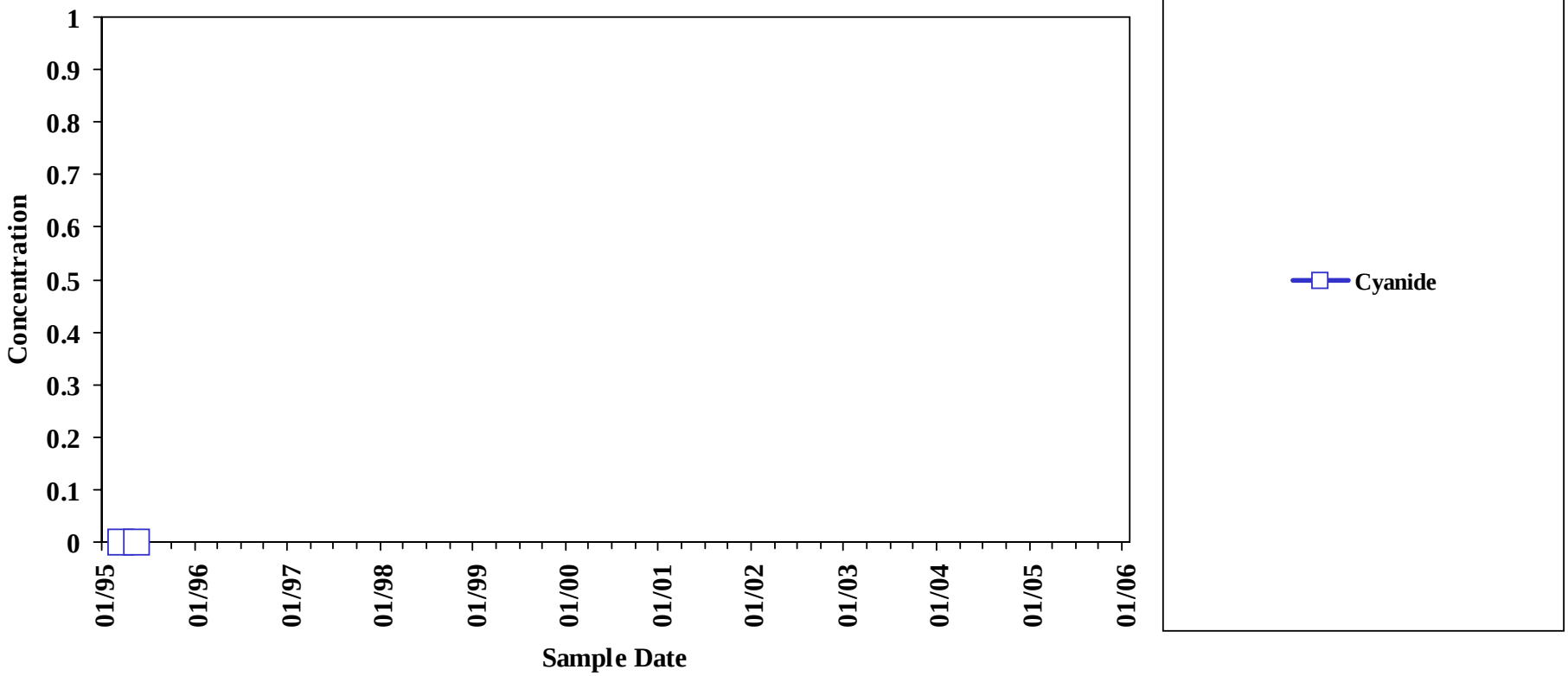
Sample concentration units: µg/L

Sample Location:

SEEP-02

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

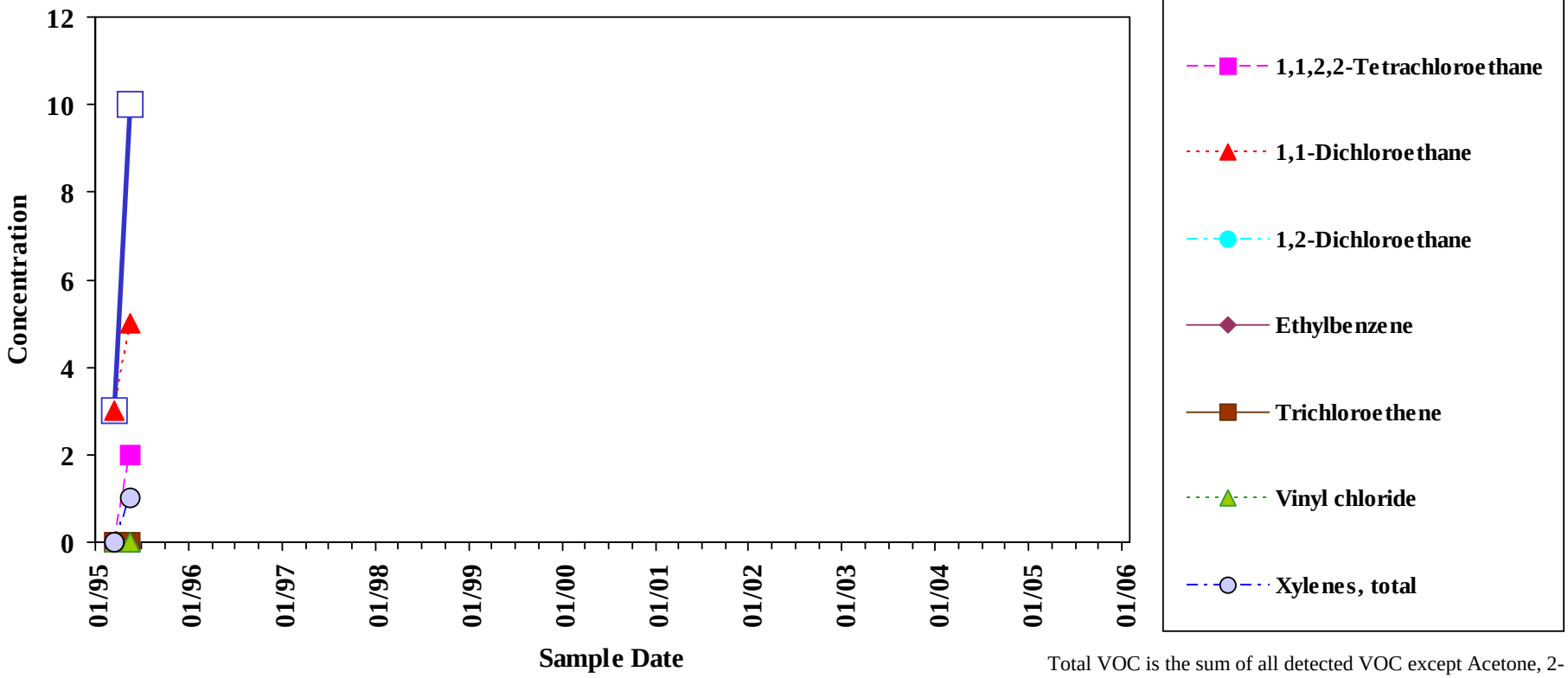
Sample concentration units: µg/L

Sample Location:

SEEP-02

Sites 1 & 3
Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

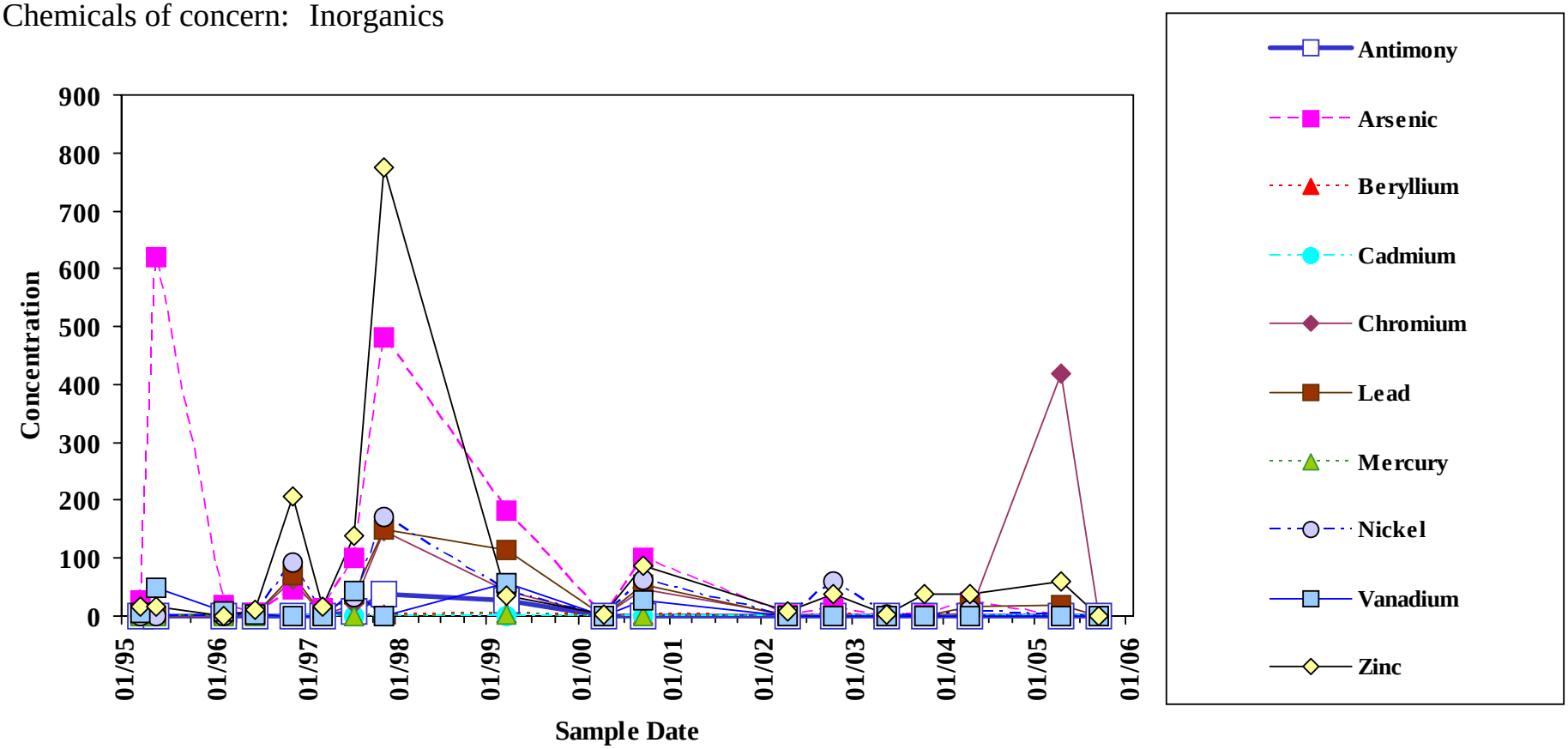
Sample concentration units: µg/L

Sample Location:

SEEP-03

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

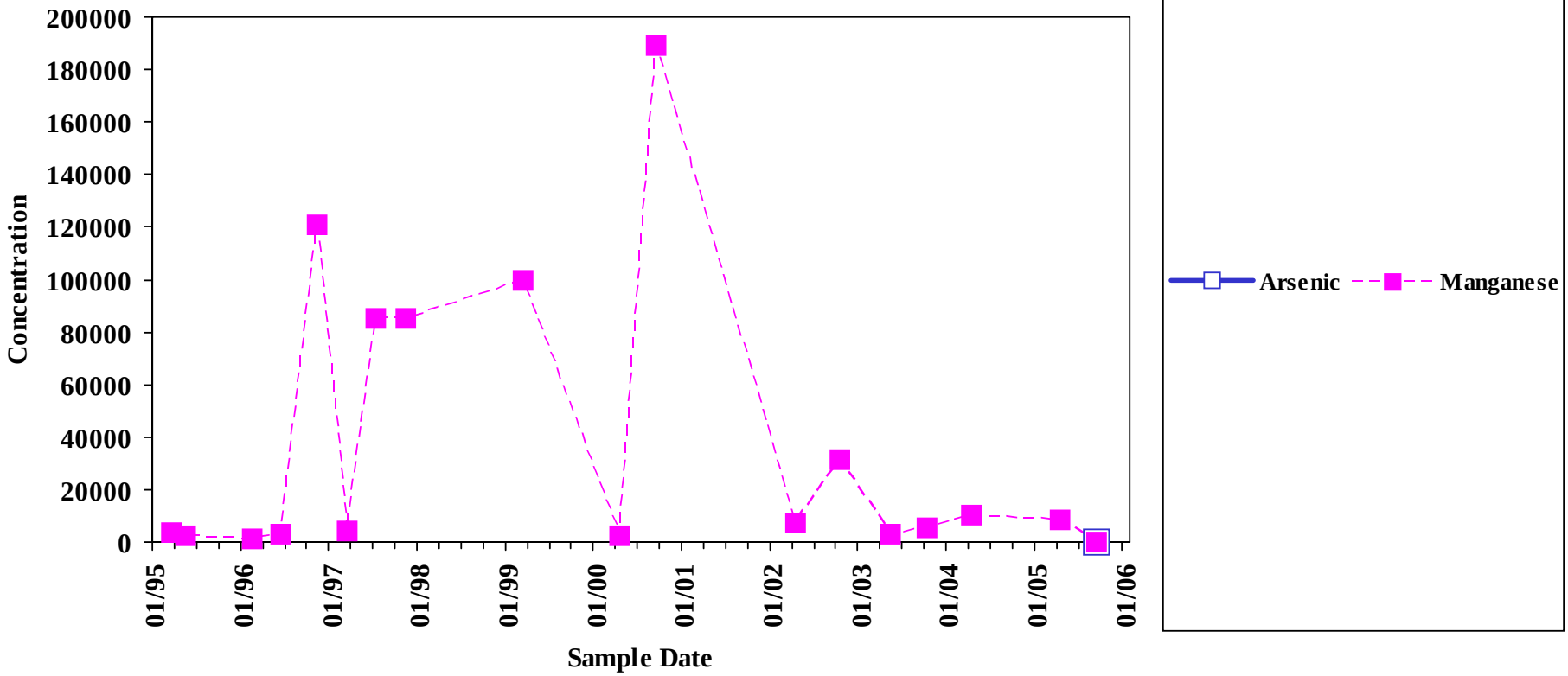
Sample concentration units: mg/L

Sample Location:

SEEP-03

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

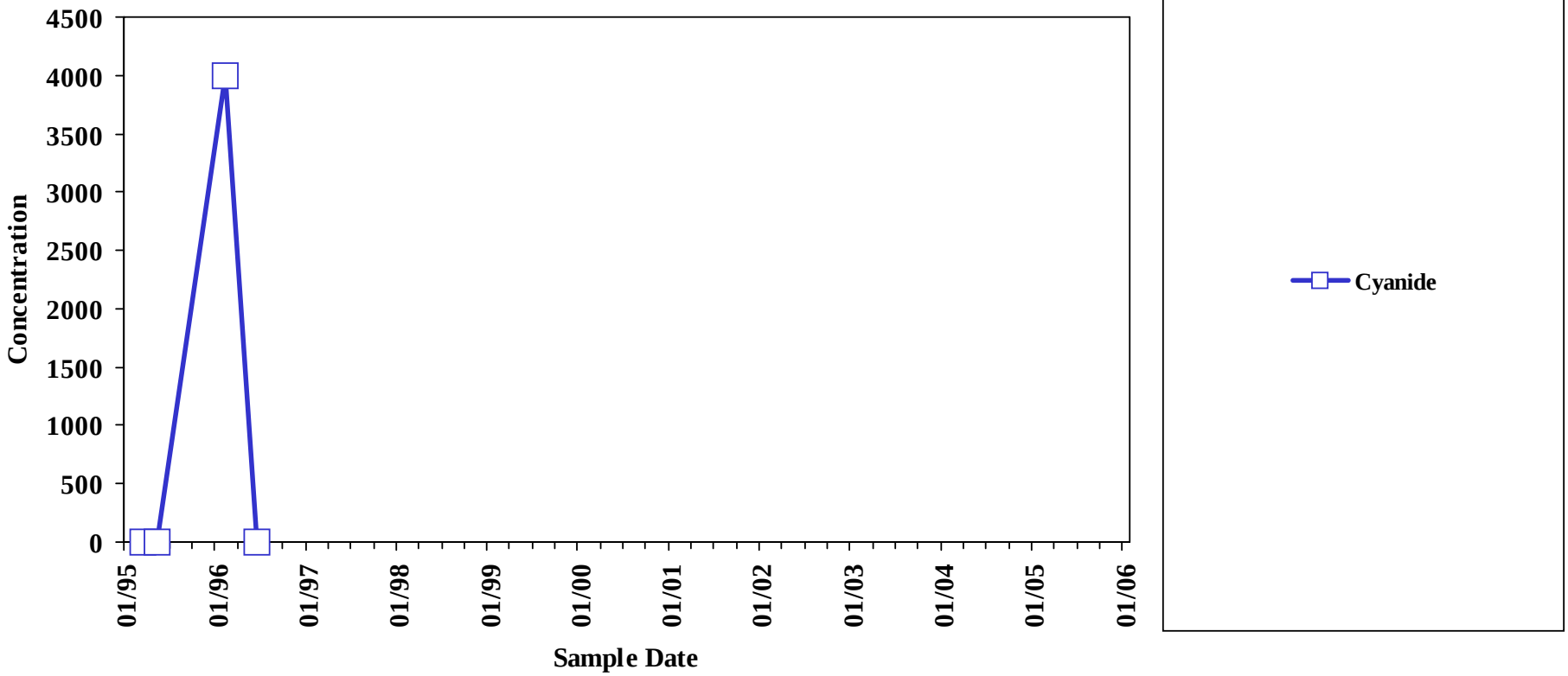
Sample concentration units: µg/L

Sample Location:

SEEP-03

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

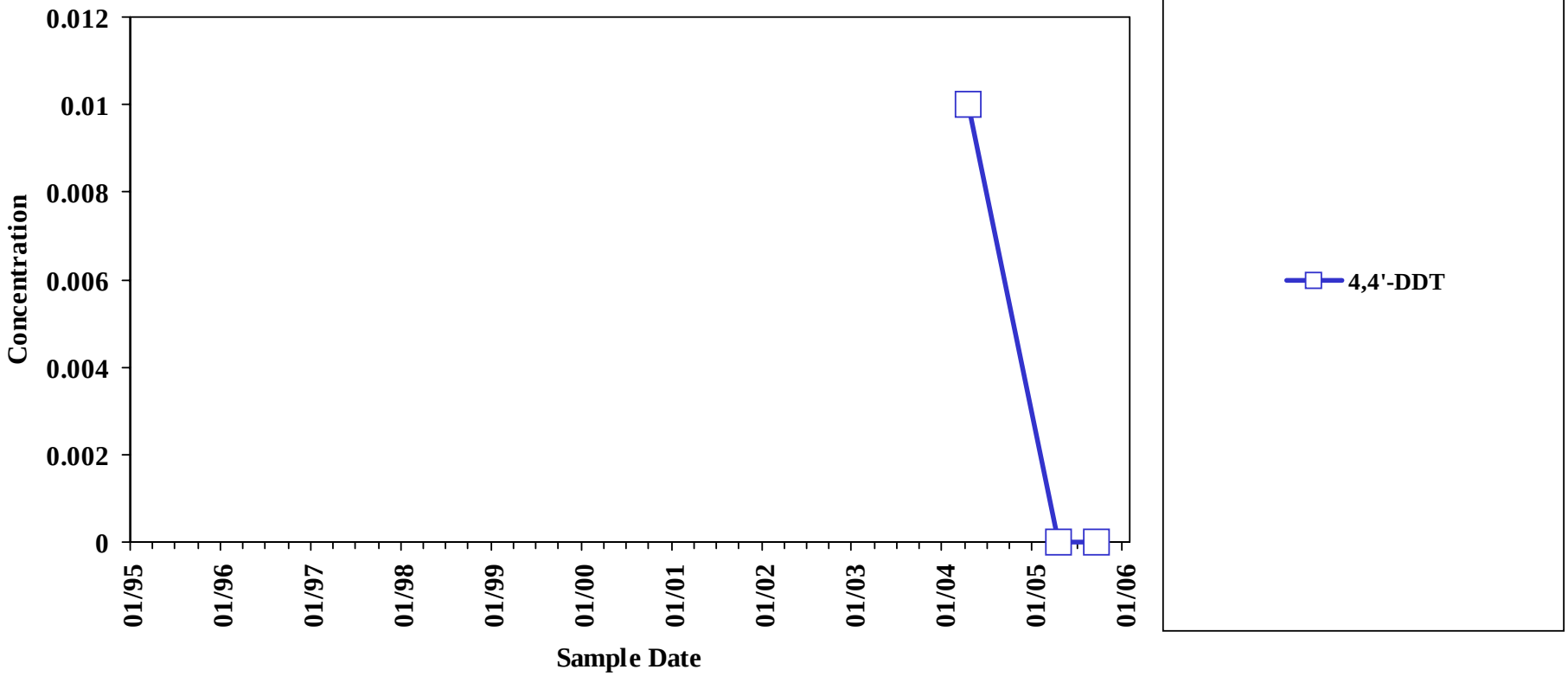
Sample concentration units: µg/L

Sample Location:

SEEP-03

Sites 1 & 3
Leachate

Chemicals of concern: Pesticides



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

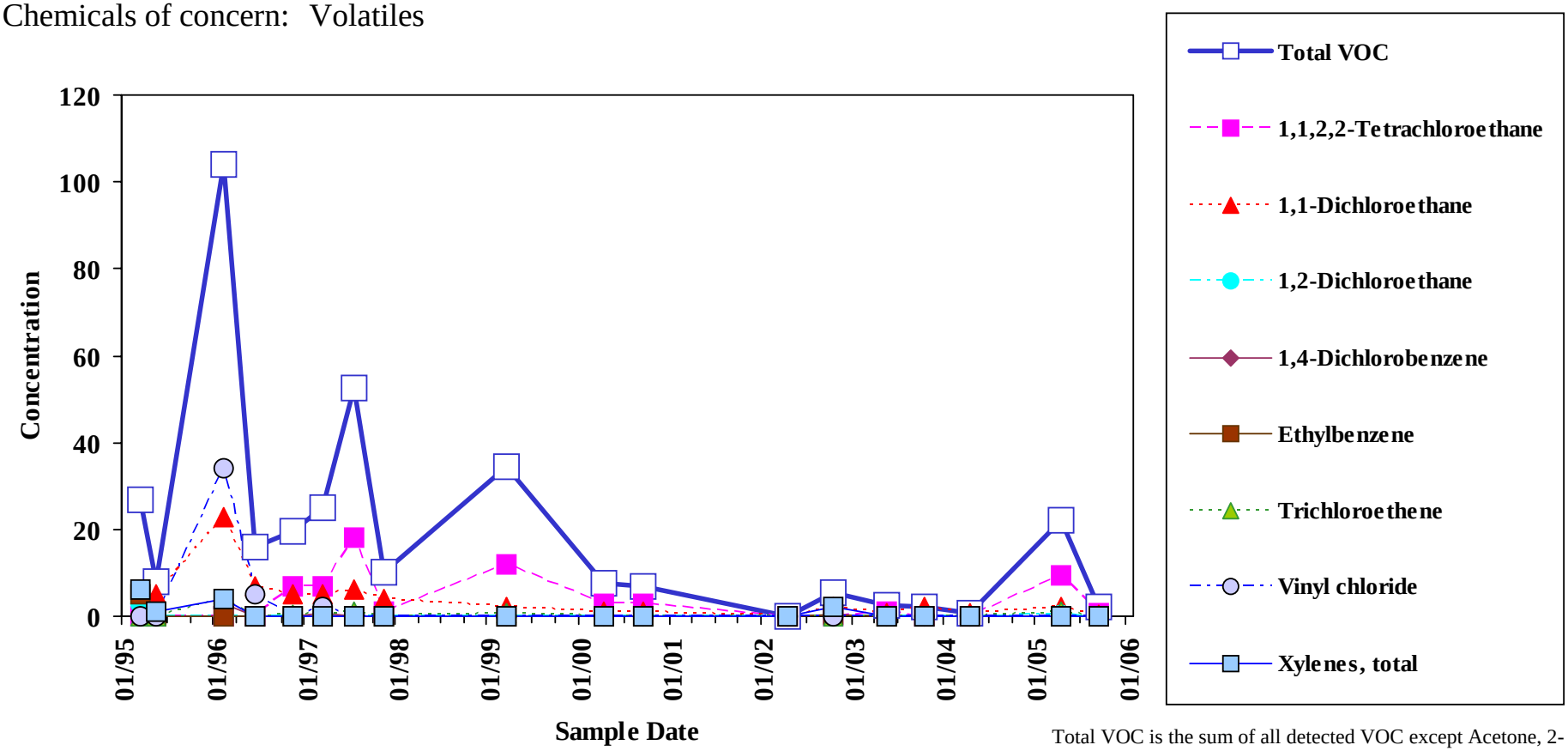
Sample concentration units: µg/l

Sample Location:

SEEP-03

Sites 1 & 3
Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

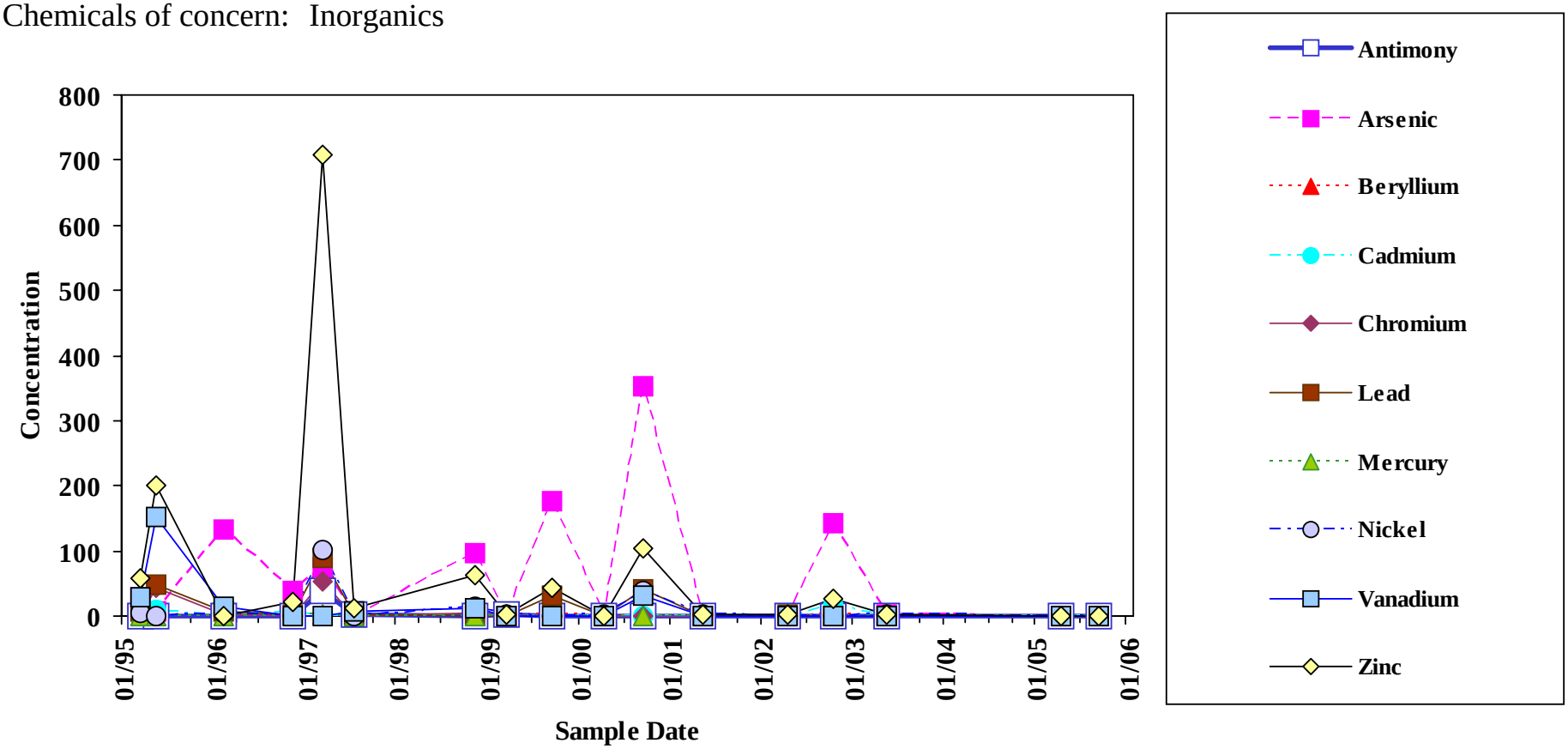
Sample concentration units: µg/L

Sample Location:

SEEP-04

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

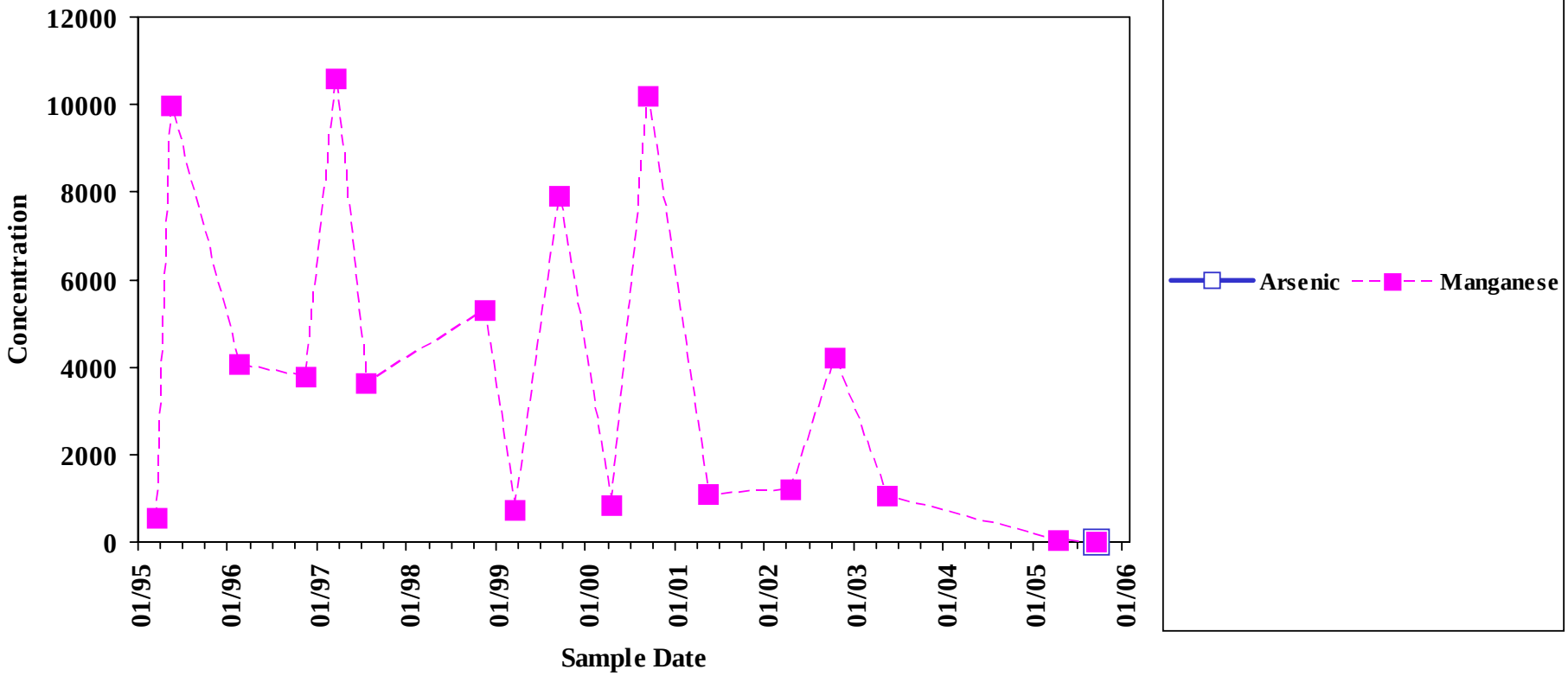
Sample concentration units: µg/L

Sample Location:

SEEP-04

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

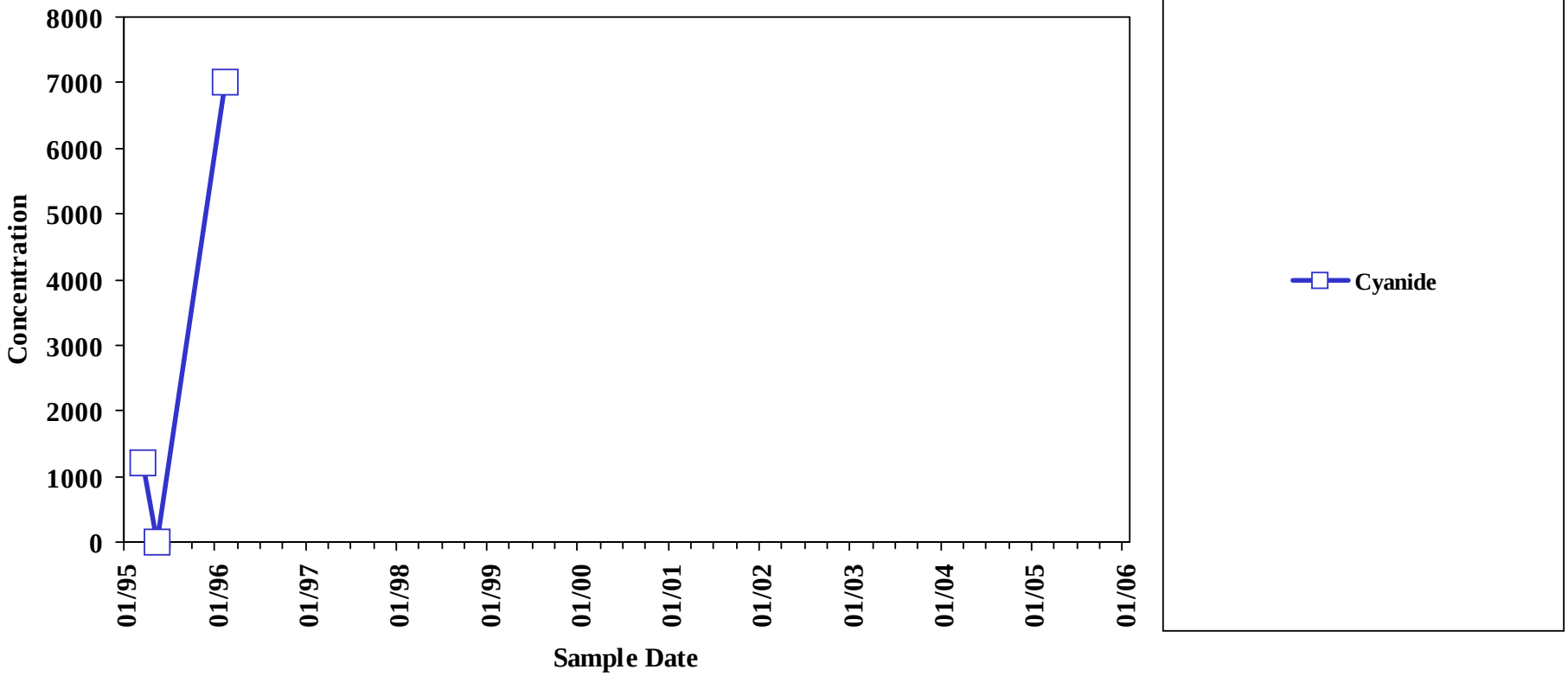
Sample concentration units: µg/L

Sample Location:

SEEP-04

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

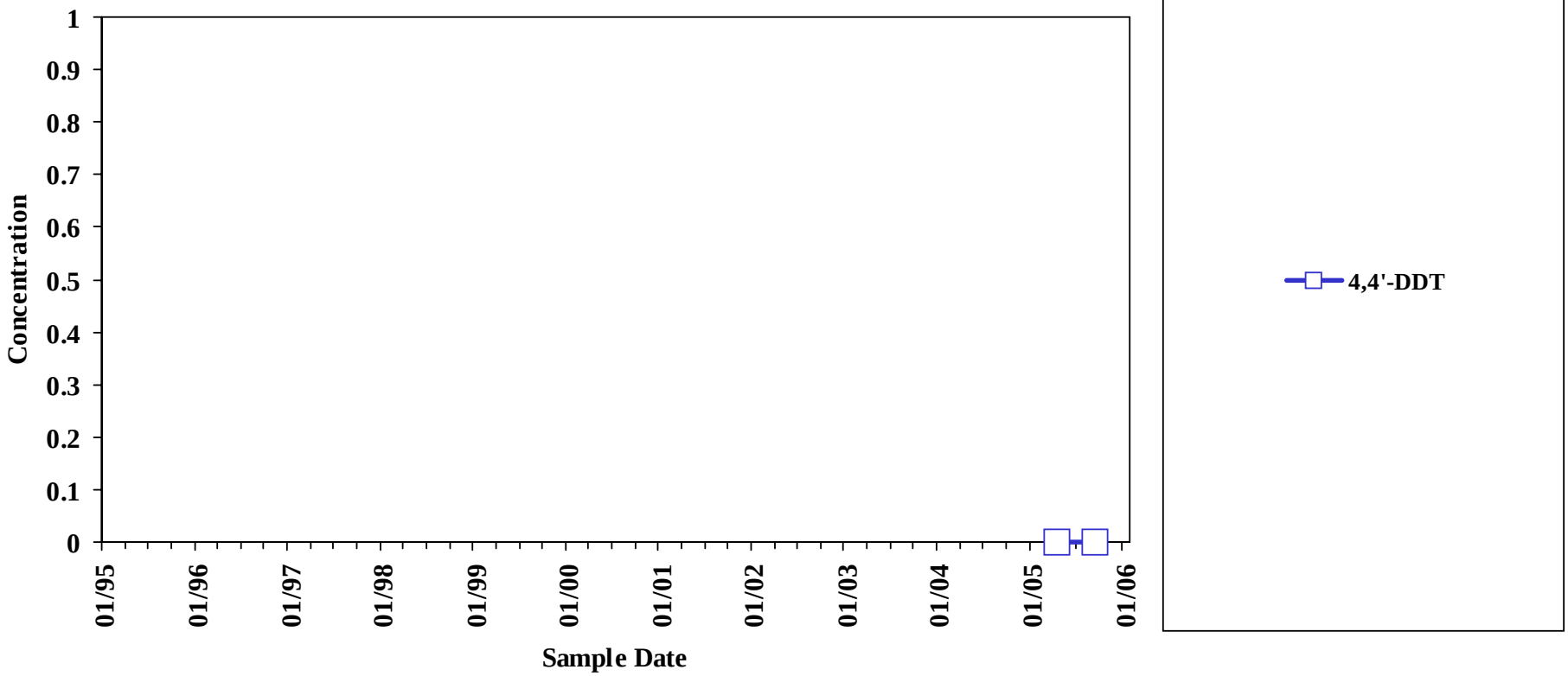
Sample concentration units: µg/L

Sample Location:

SEEP-04

Sites 1 & 3
Leachate

Chemicals of concern: Pesticides



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

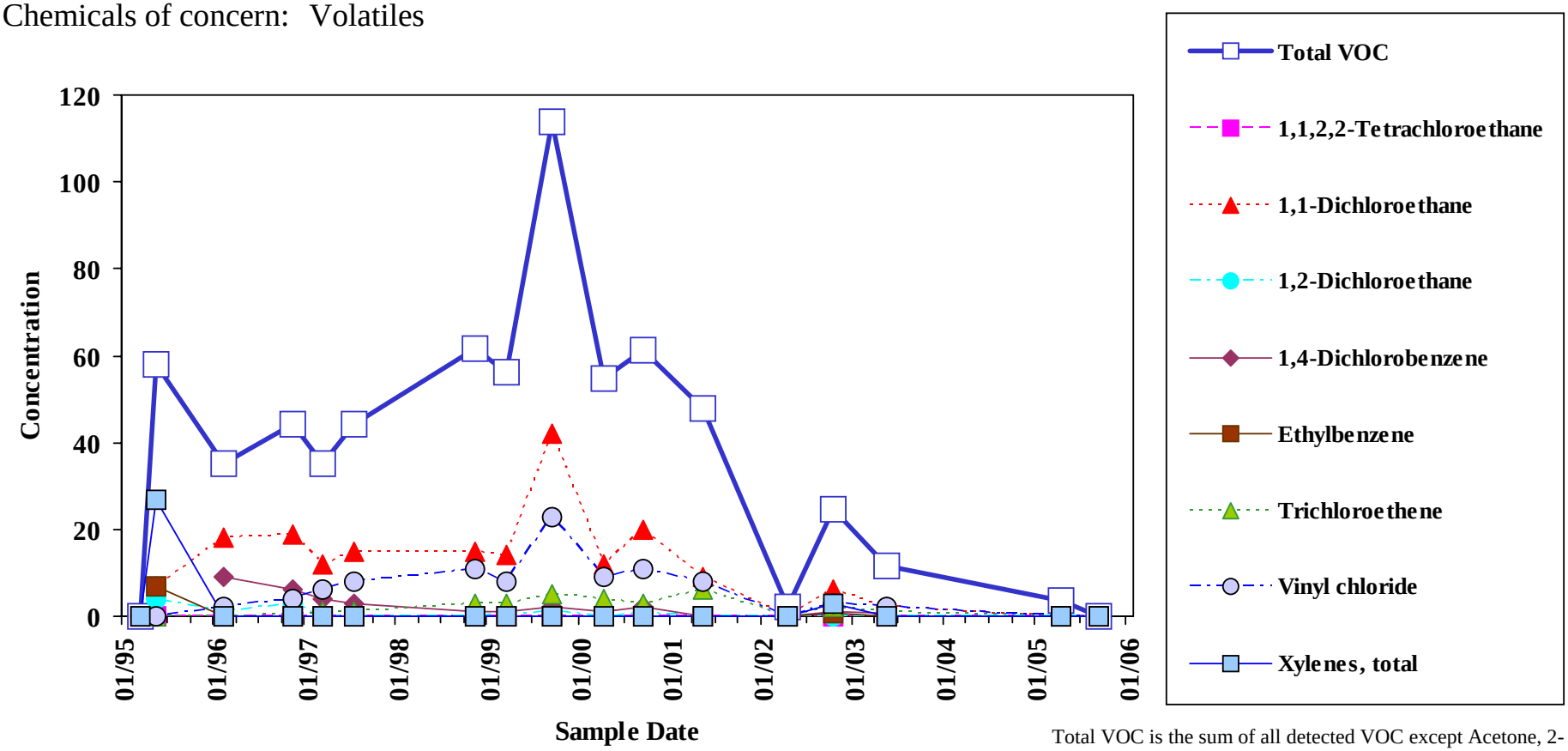
Sample concentration units: µg/L

Sample Location:

SEEP-04

Sites 1 & 3
Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

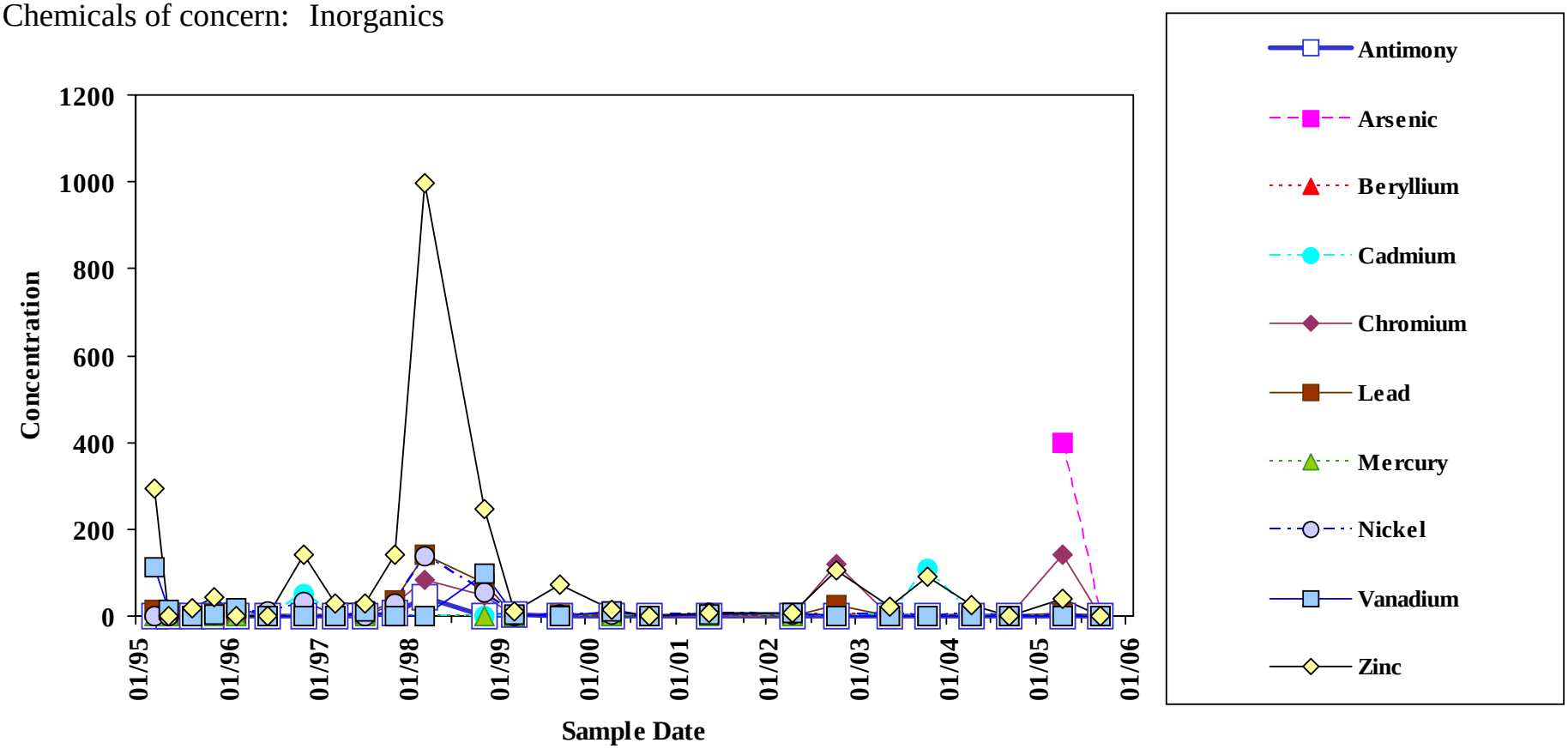
Sample concentration units: µg/L

Sample Location:

SEEP-05

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

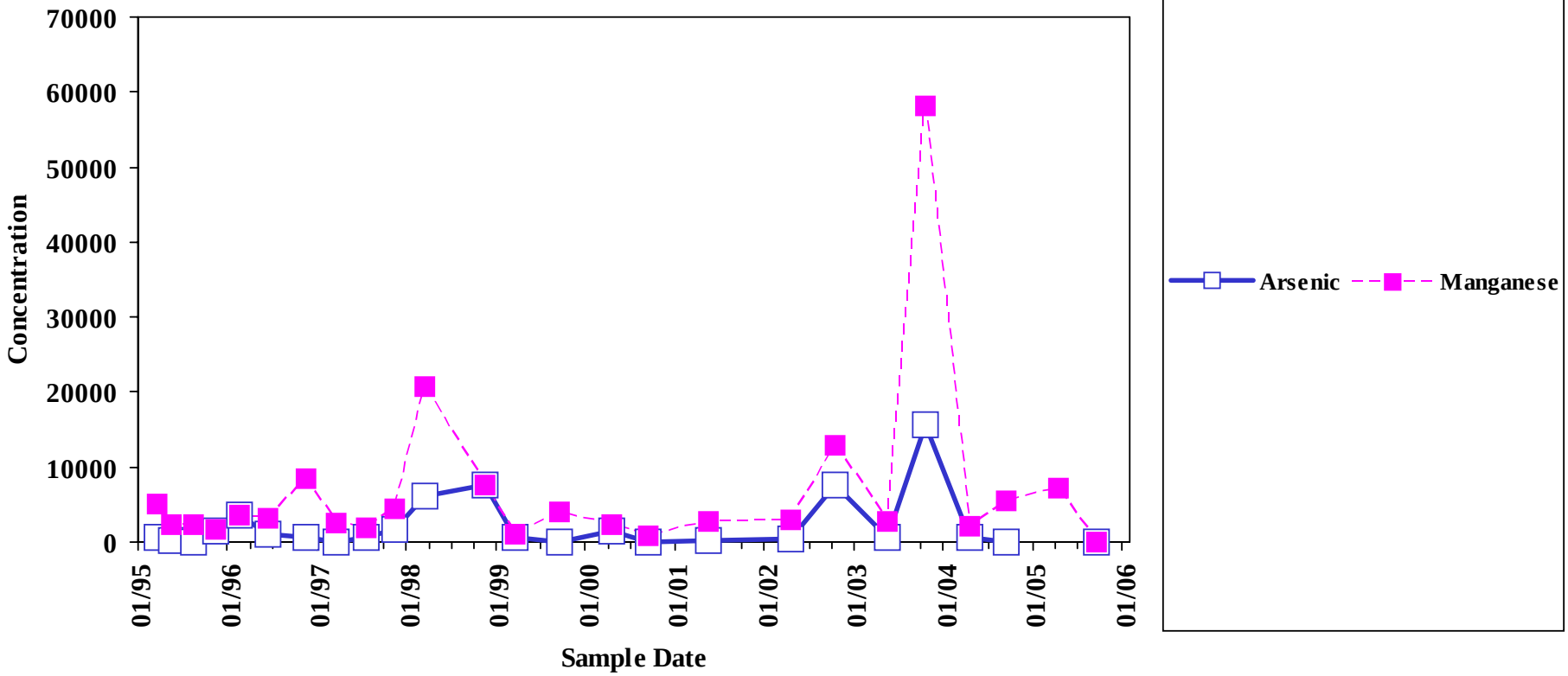
Sample concentration units: µg/L

Sample Location:

SEEP-05

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

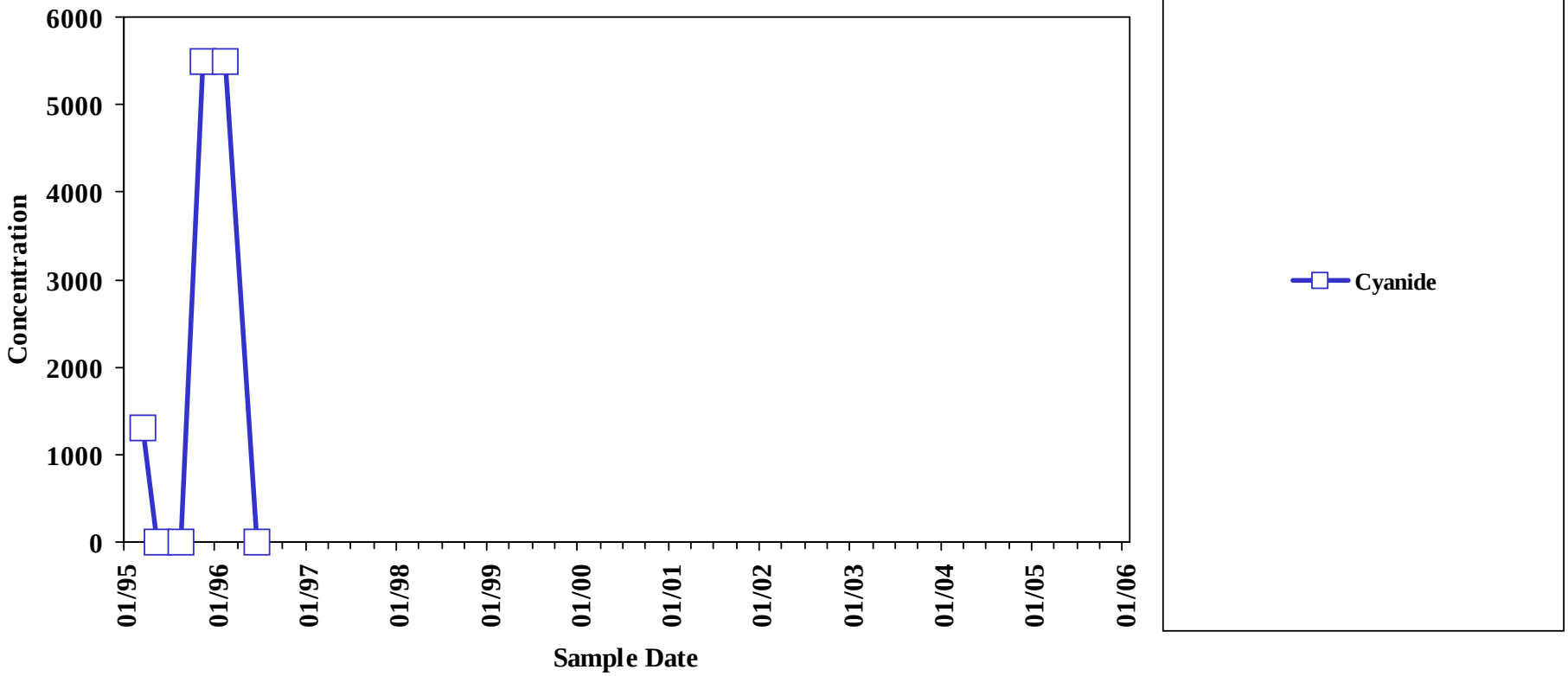
Sample concentration units: µg/L

Sample Location:

SEEP-05

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

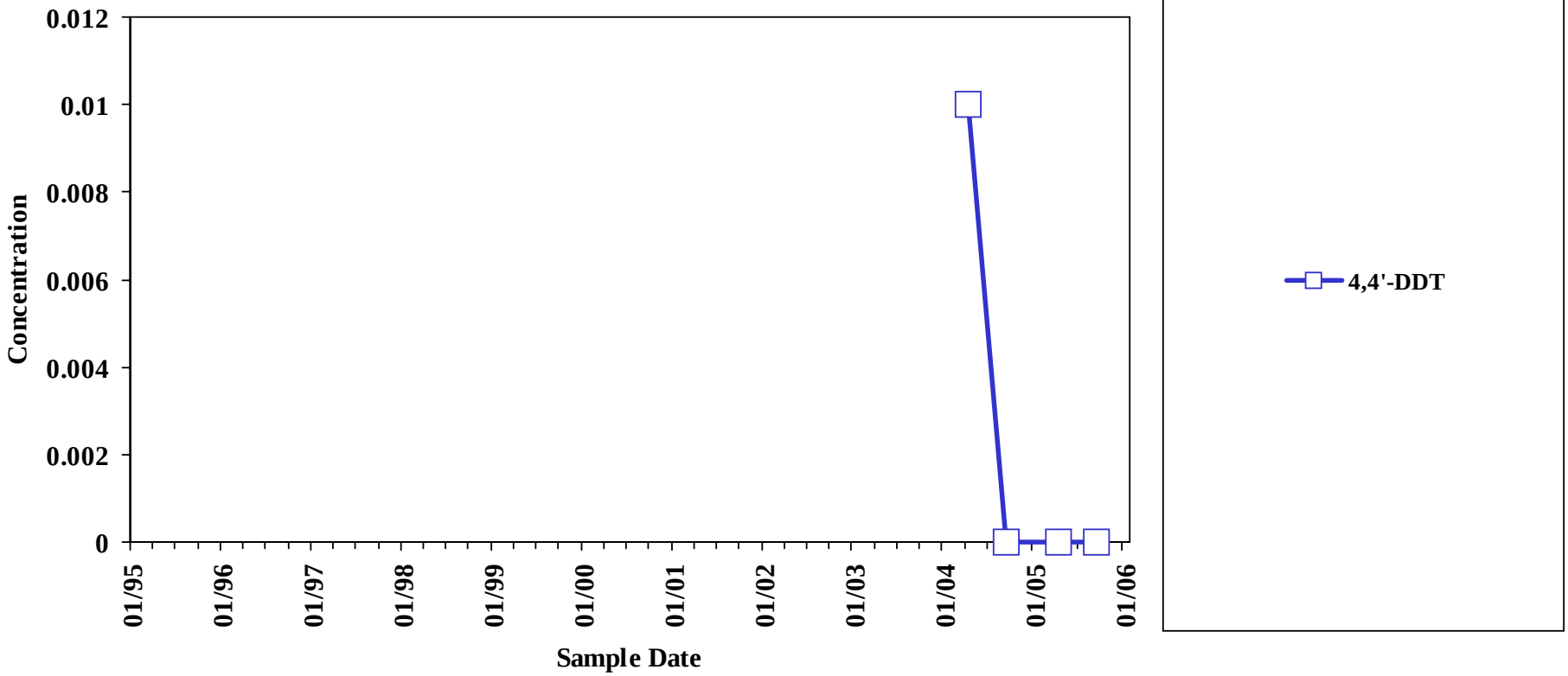
Sample concentration units: µg/L

Sample Location:

SEEP-05

Sites 1 & 3
Leachate

Chemicals of concern: Pesticides



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

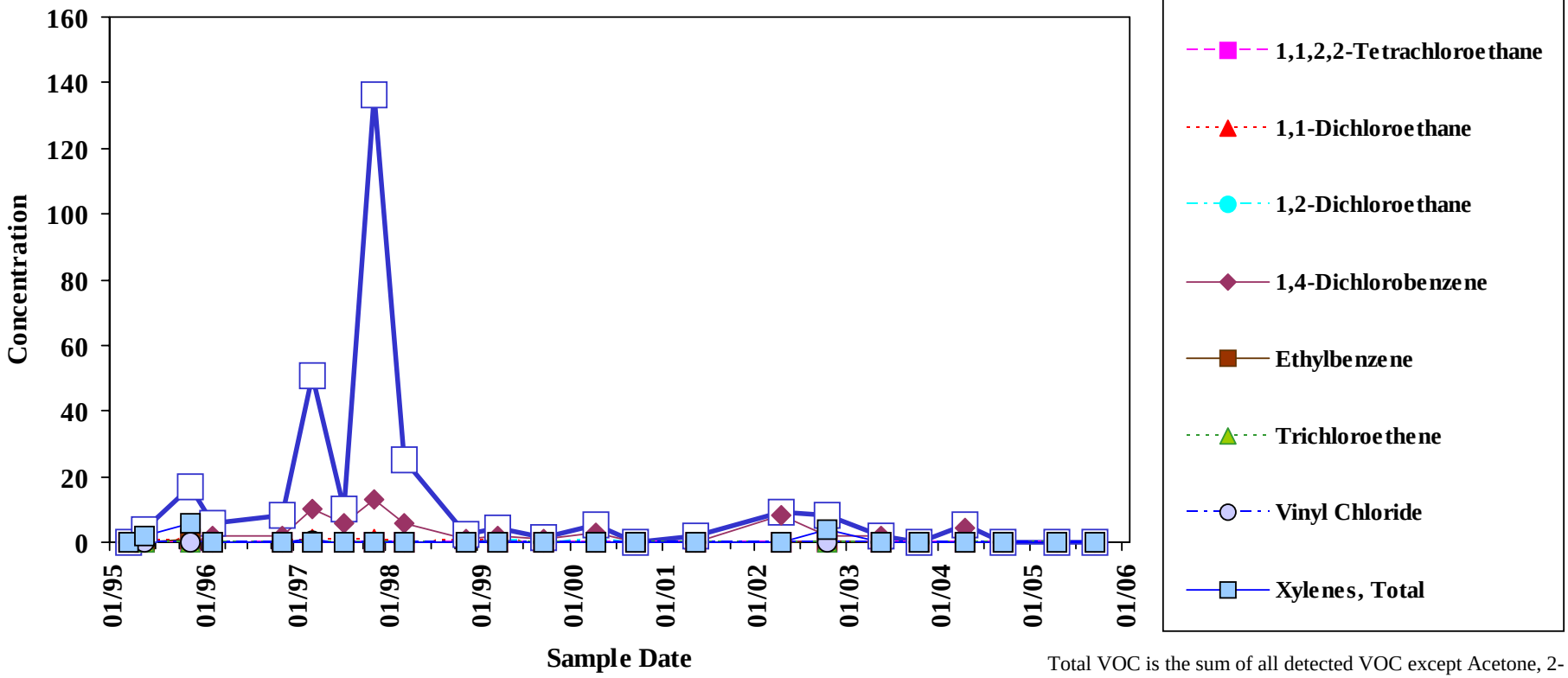
Sample concentration units: µg/l

Sample Location:

SEEP-05

Sites 1 & 3
Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

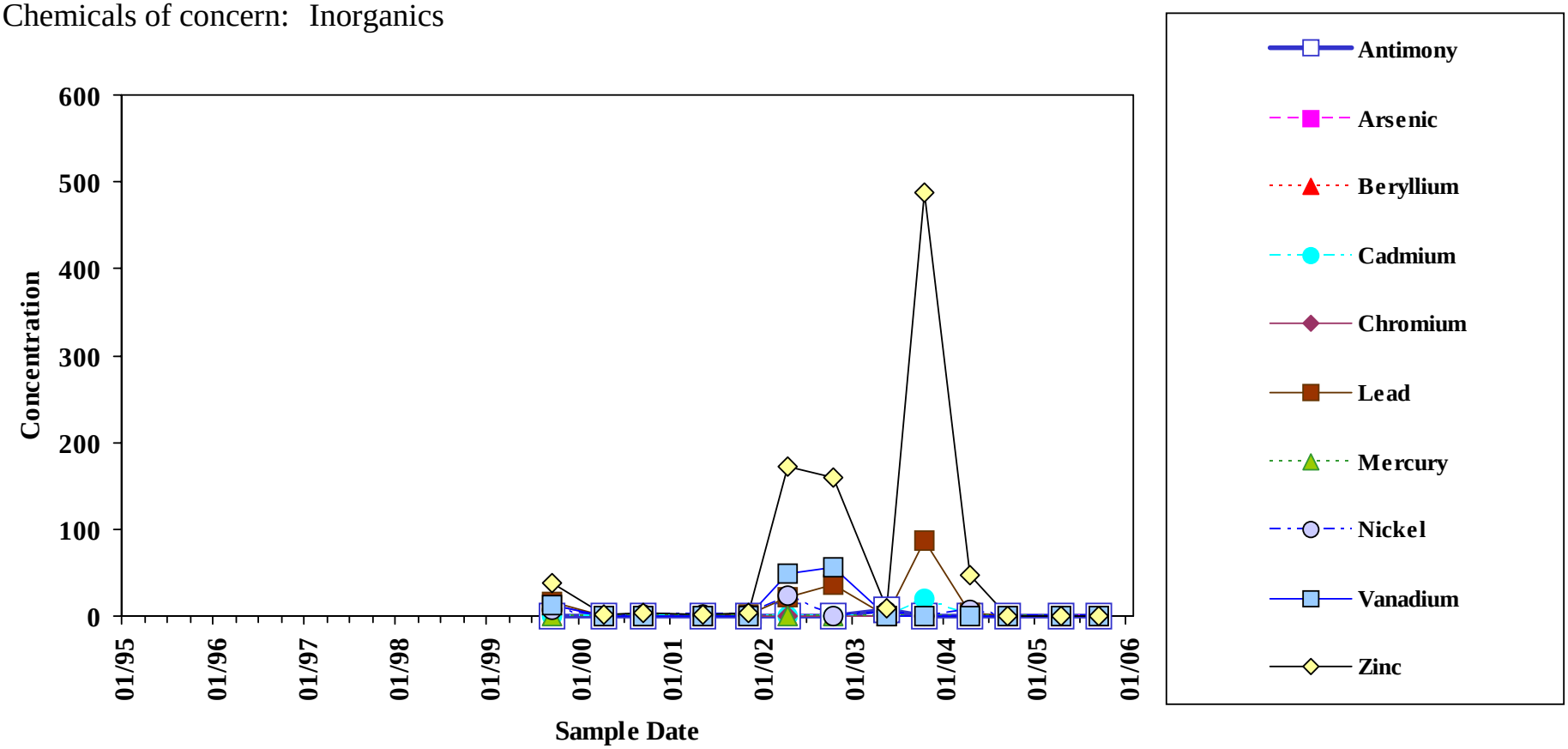
Sample concentration units: µg/L

Sample Location:

SEEP-09

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

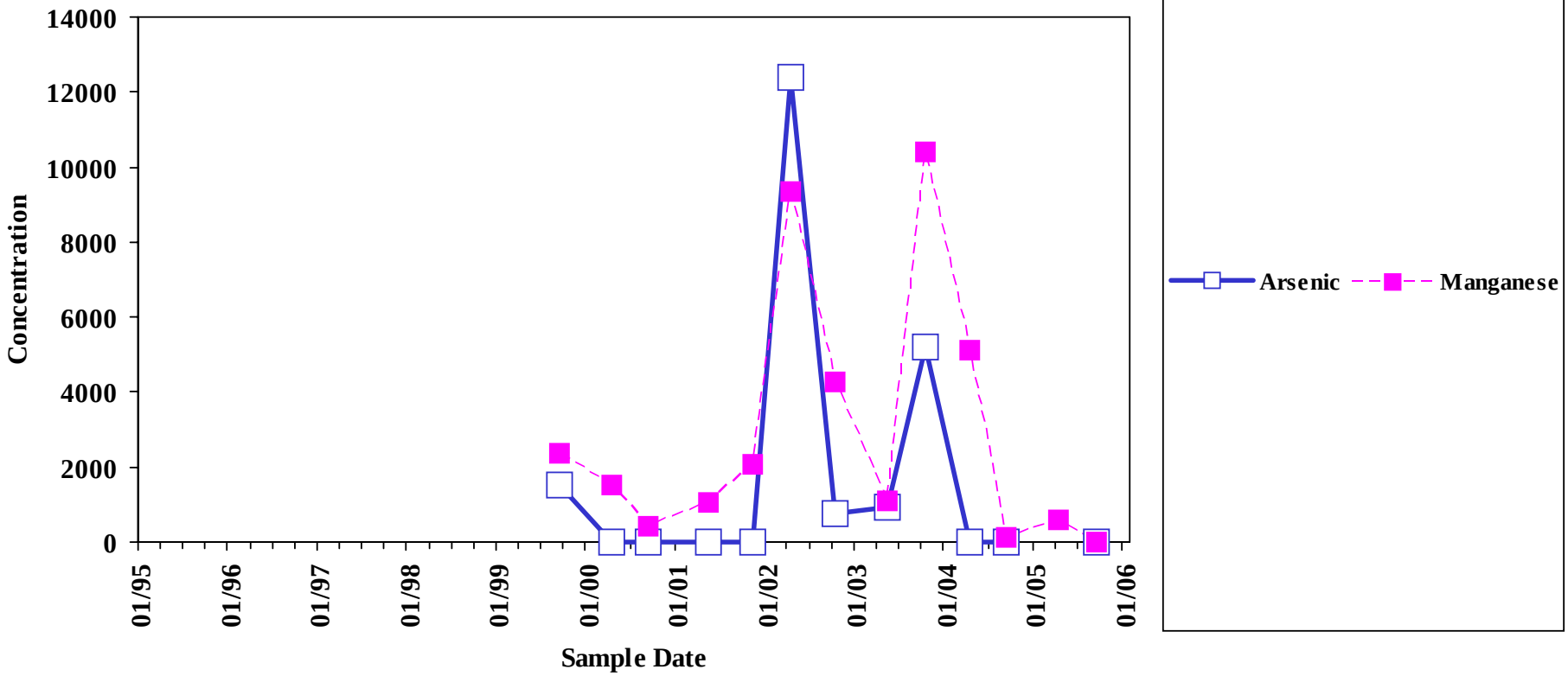
Sample concentration units: µg/L

Sample Location:

SEEP-09

Sites 1 & 3
Leachate

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

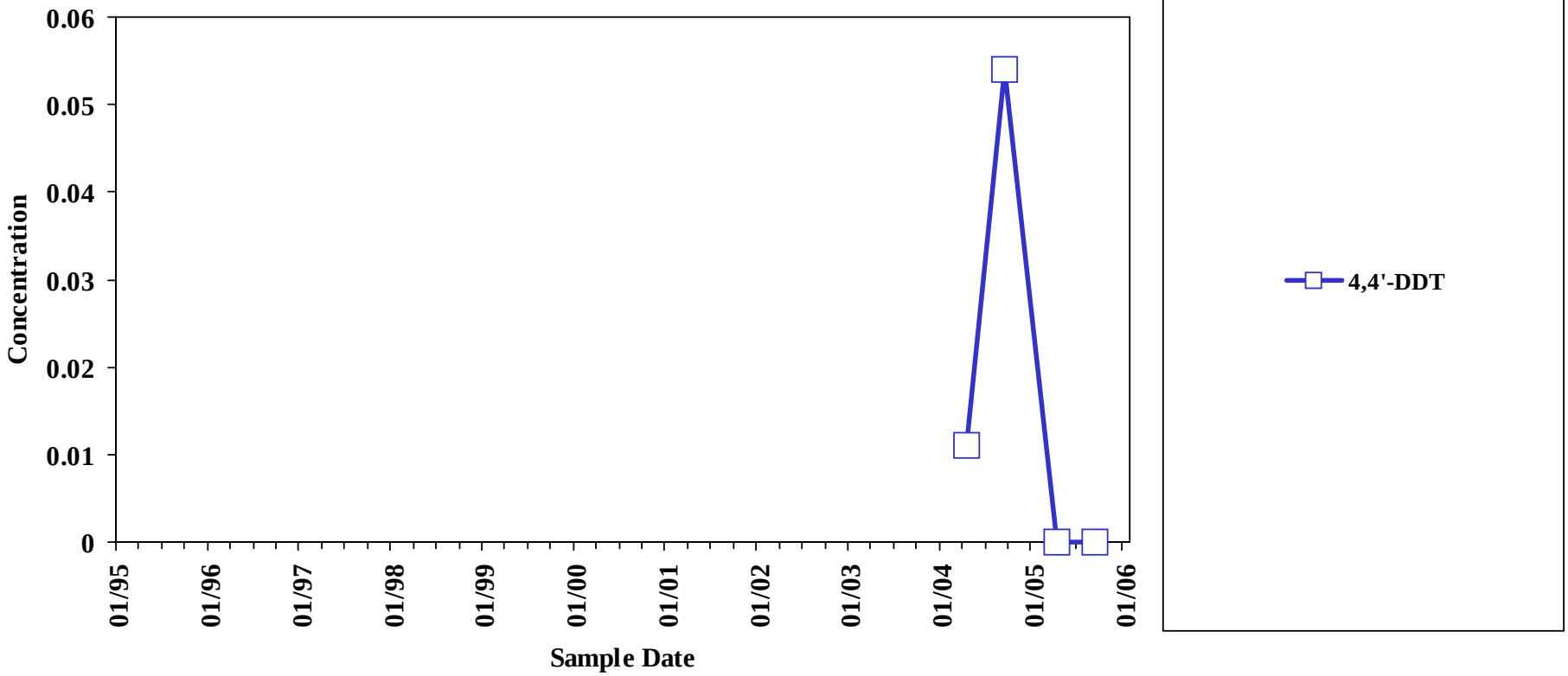
Sample concentration units: µg/L

Sample Location:

SEEP-09

Sites 1 & 3
Leachate

Chemicals of concern: Pesticides



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

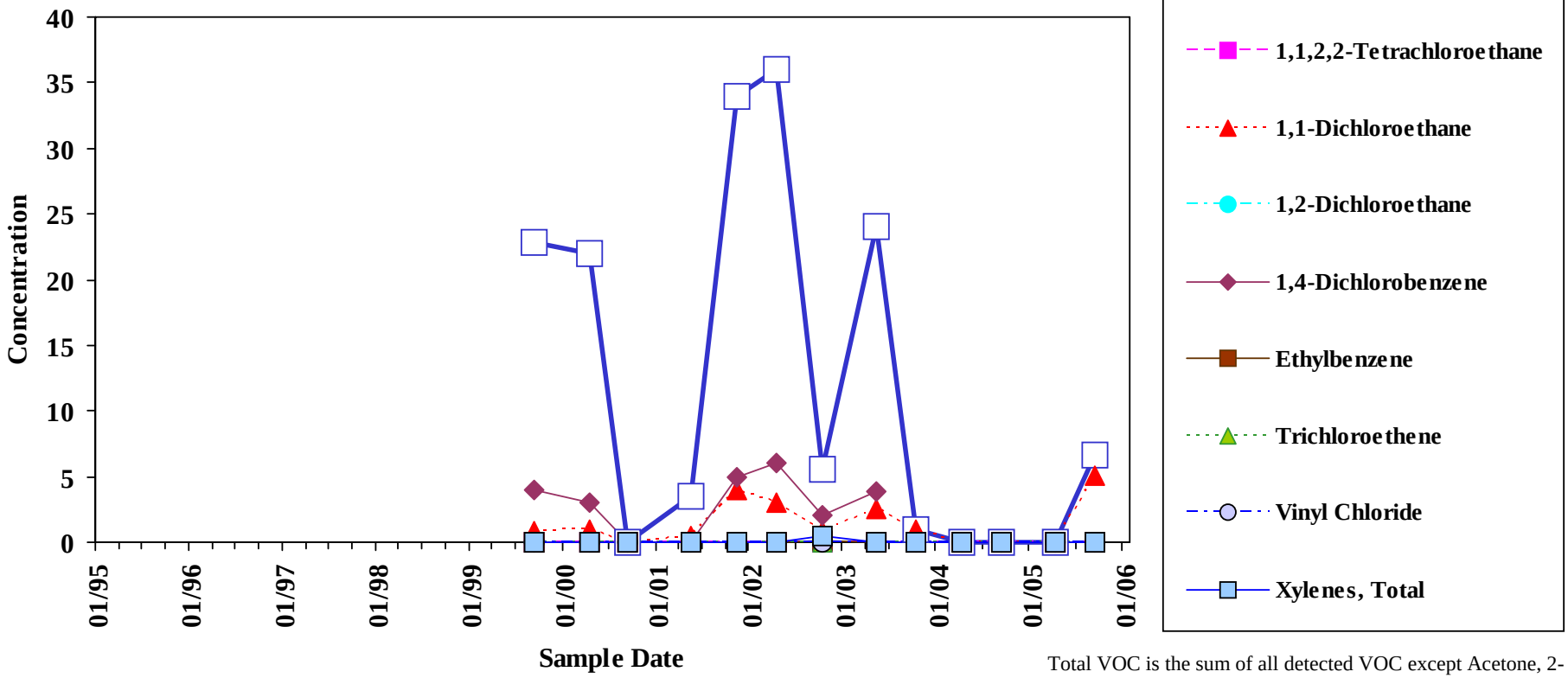
Sample concentration units: µg/l

Sample Location:

SEEP-09

Sites 1 & 3
Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

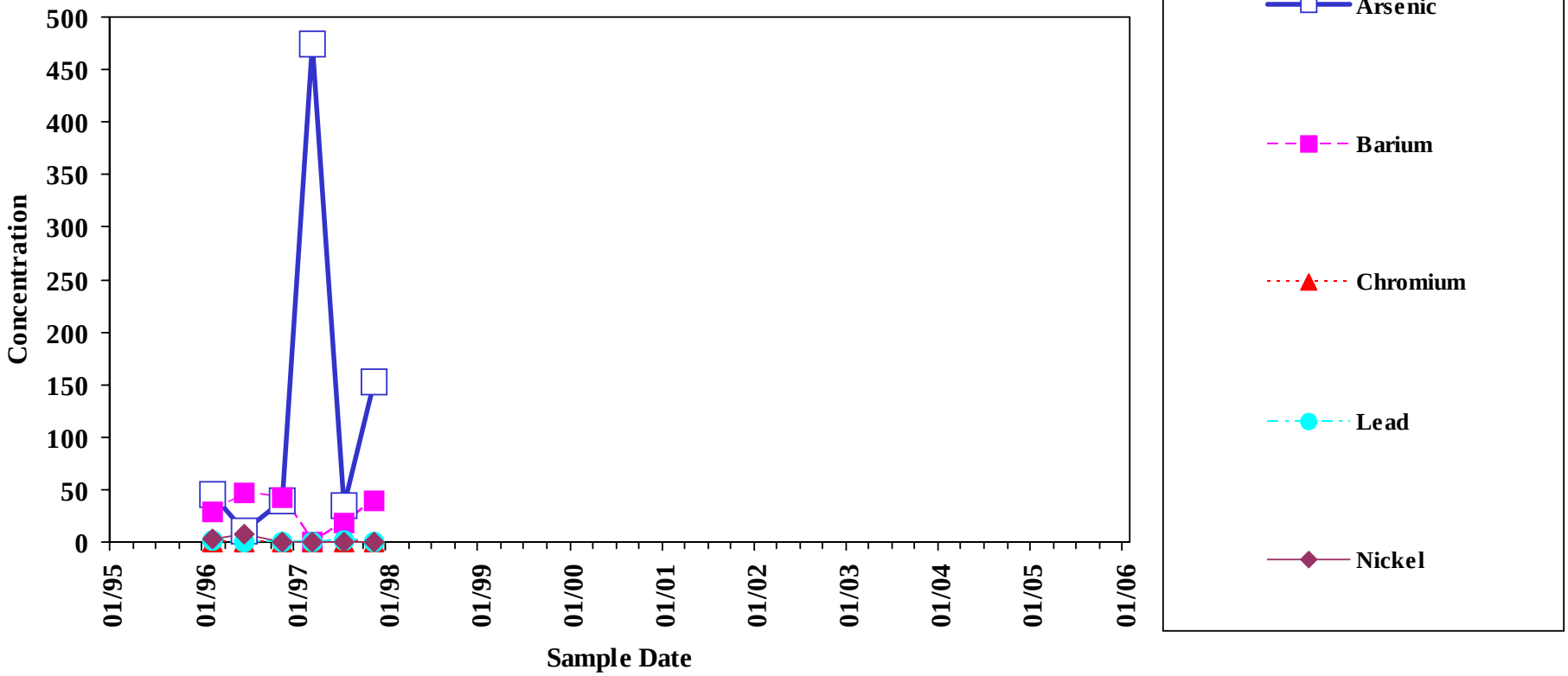
Sample concentration units: µg/L

Sample Location:

Sites 1 & 3 Raw Influent

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

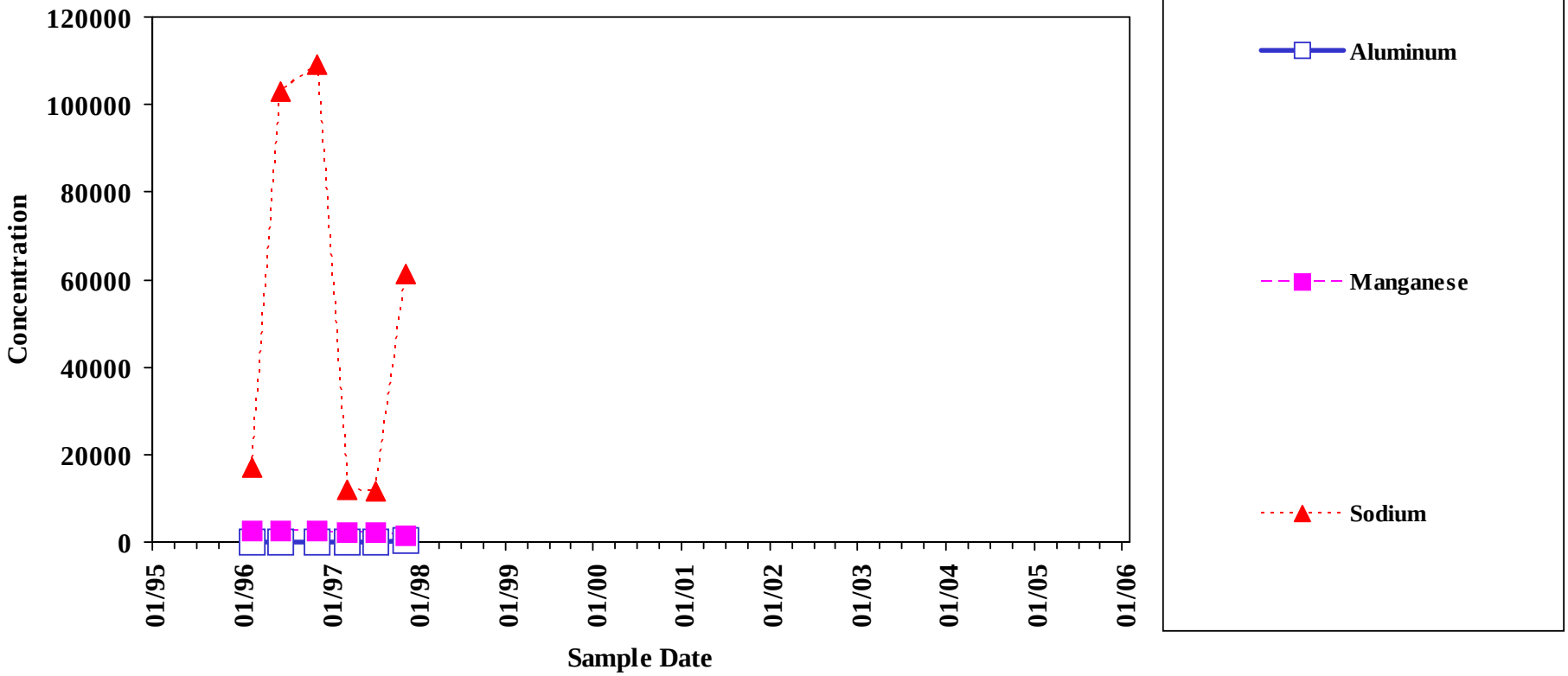
Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

Sample Location:

Sites 1 & 3 Raw Influent

Sites 1 & 3
Groundwater

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

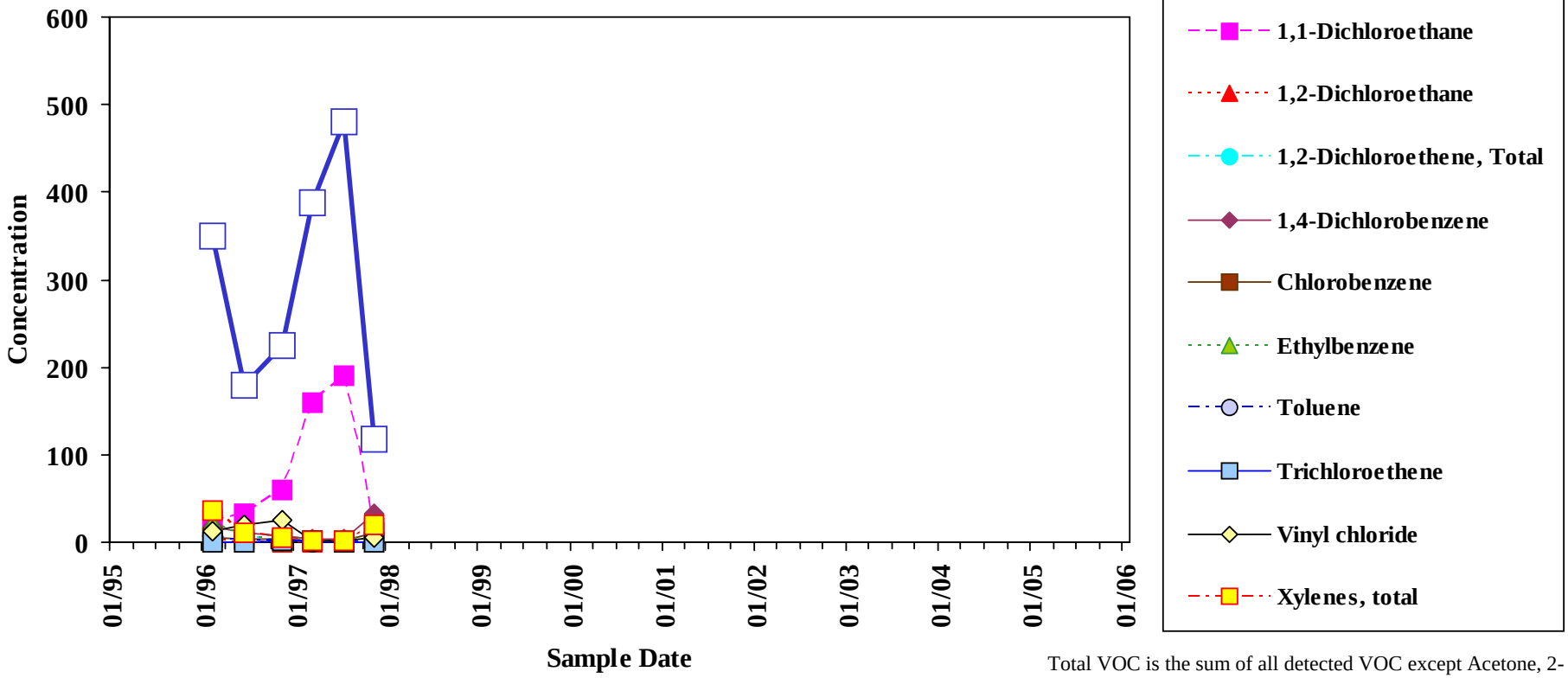
Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

Sample Location:

Sites 1 & 3 Raw Influent

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1-Dichloroethane		1,2-Dichloroethene, total		1,4-Dichlorobenzene		Chlorobenzene		Ethylbenzene		Methylene chloride		Toluene		Vinyl Chloride	
MEG:	70	MEG:	70	MEG:	27	MEG:	47	MEG:	700	MEG:	-	MEG:	1400	MEG:	0.15
MCL:	-	MCL:	70	MCL:	75	MCL:	100	MCL:	700	MCL:	5	MCL:	1000	MCL:	2

Xylenes, total	
MEG:	600
MCL:	10000

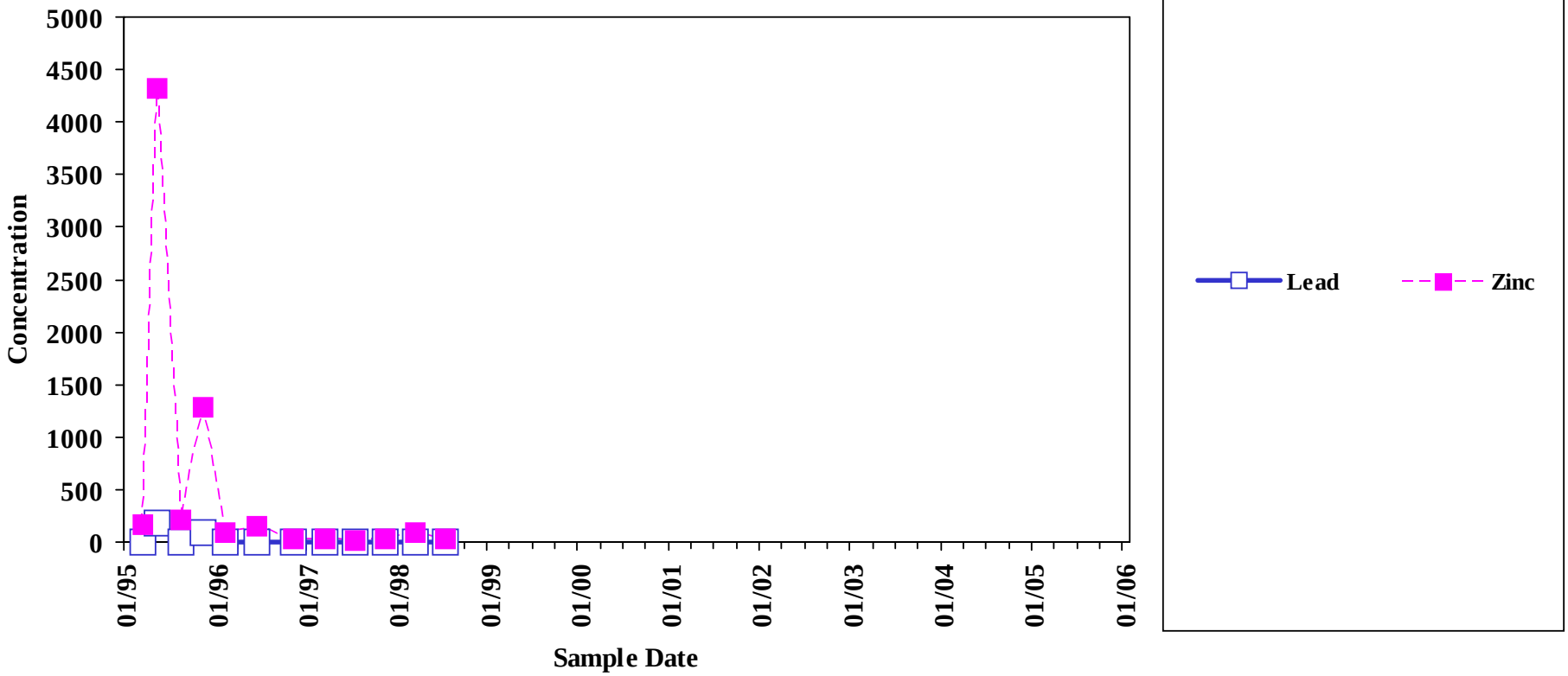
Sample Location:

SW-01

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

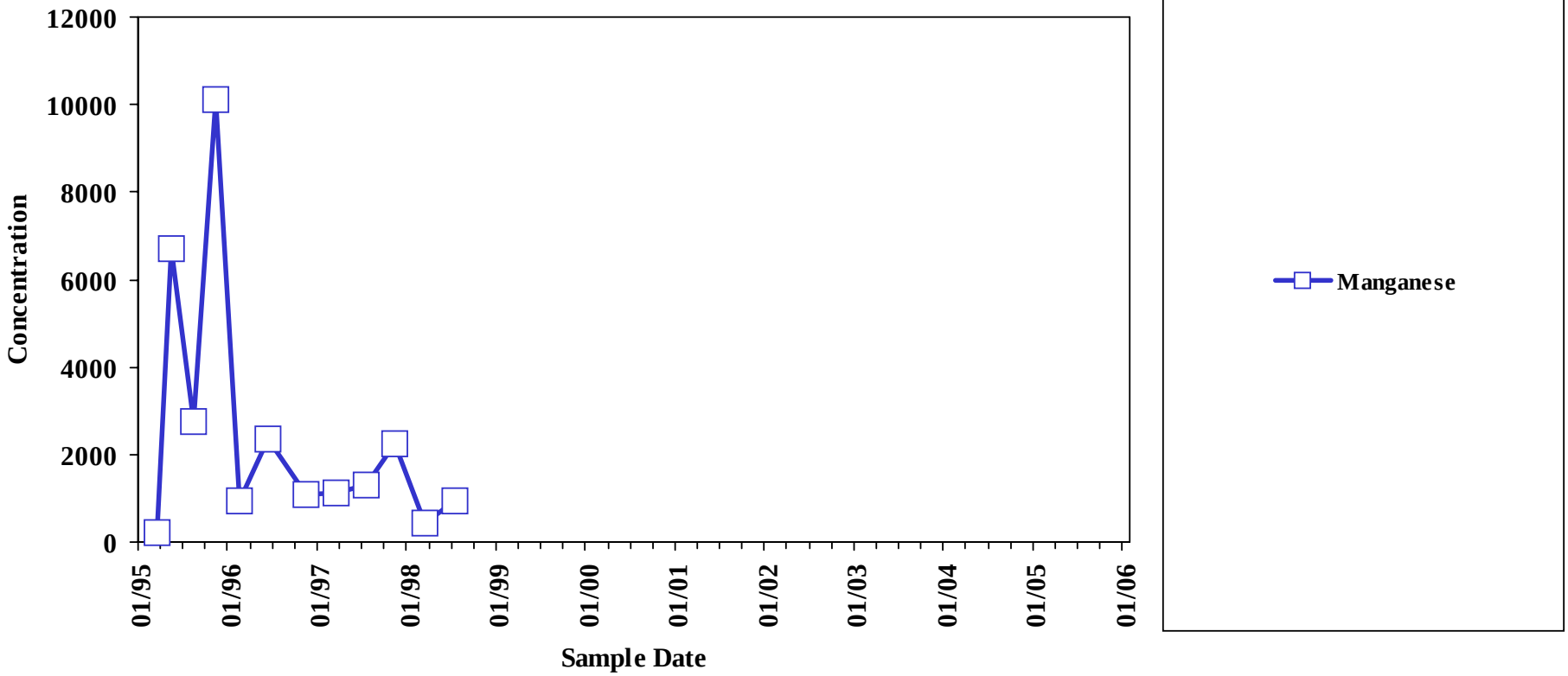
Sample Location:

SW-01

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

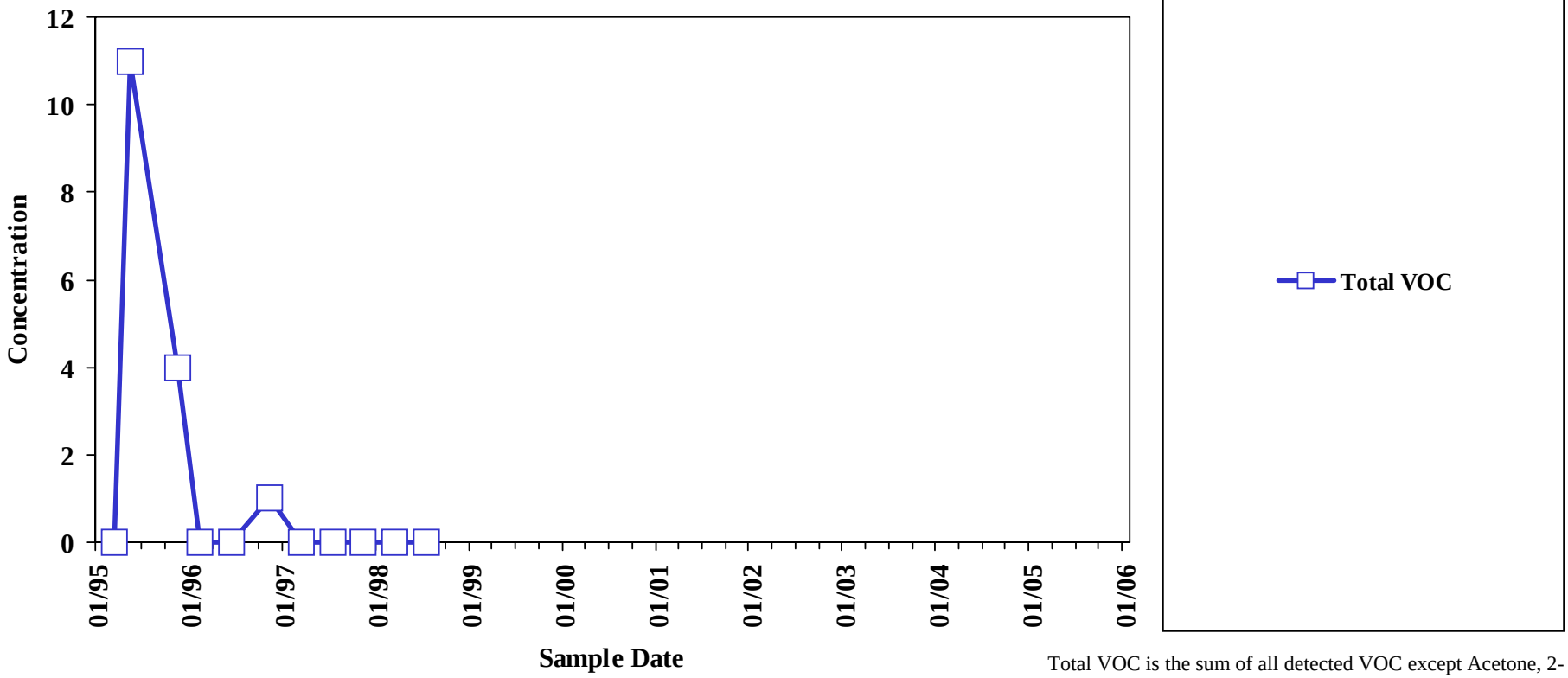
Sample Location:

SW-01

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

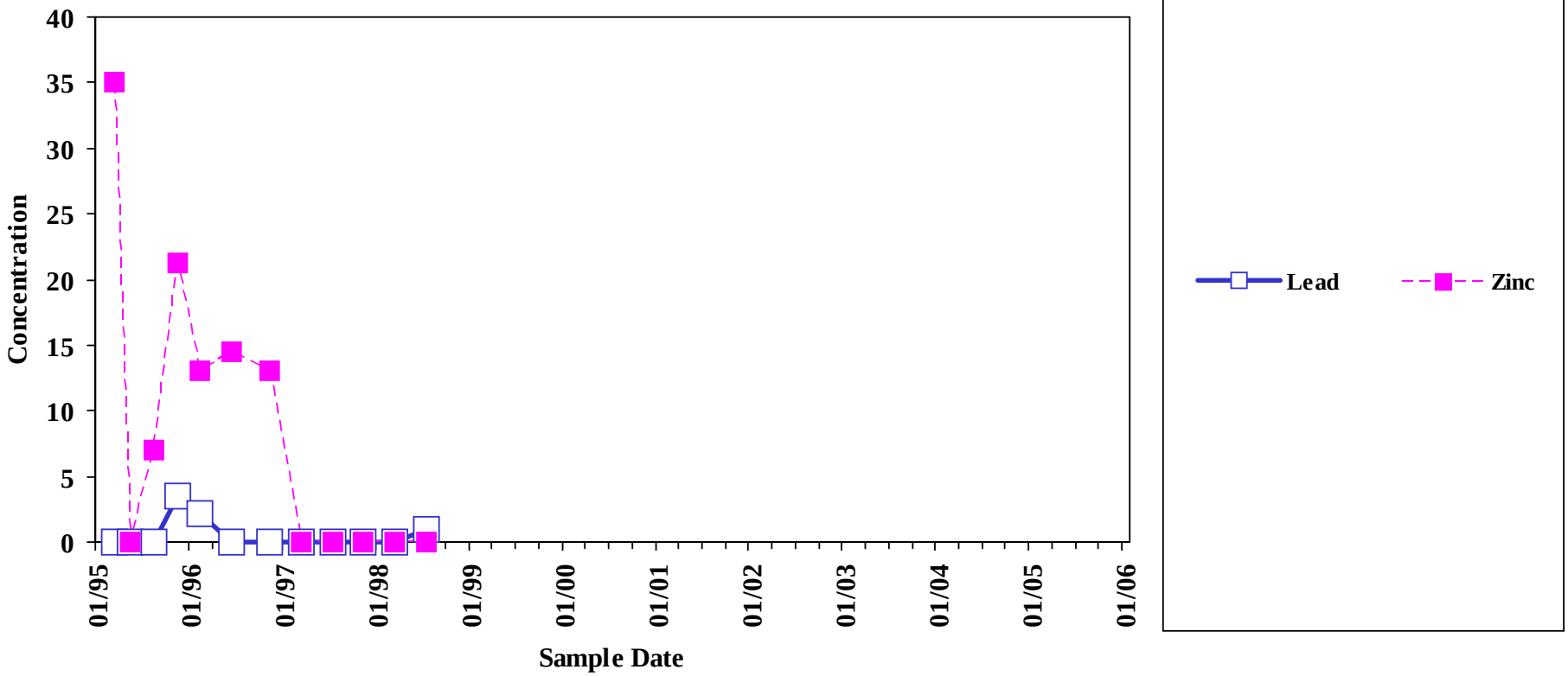
Sample Location:

SW-02

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

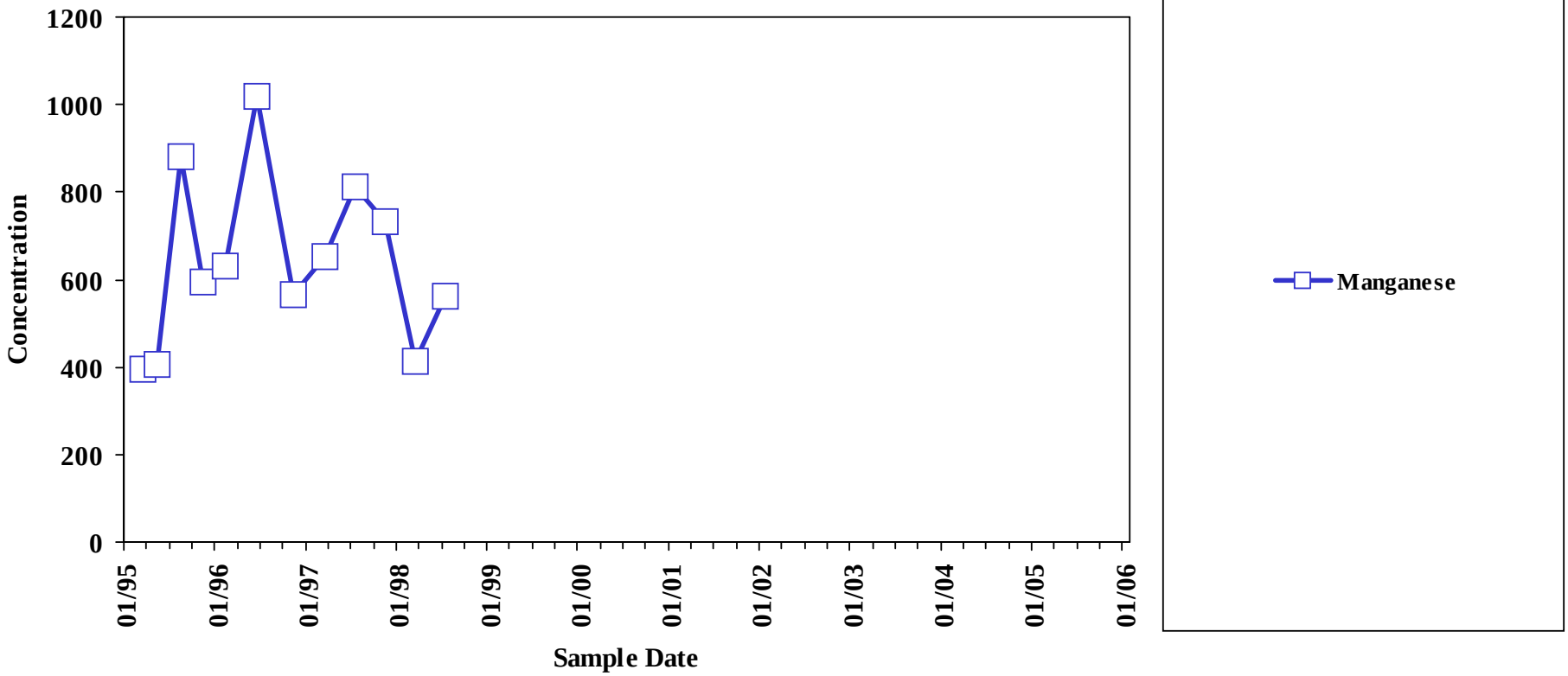
Sample Location:

SW-02

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

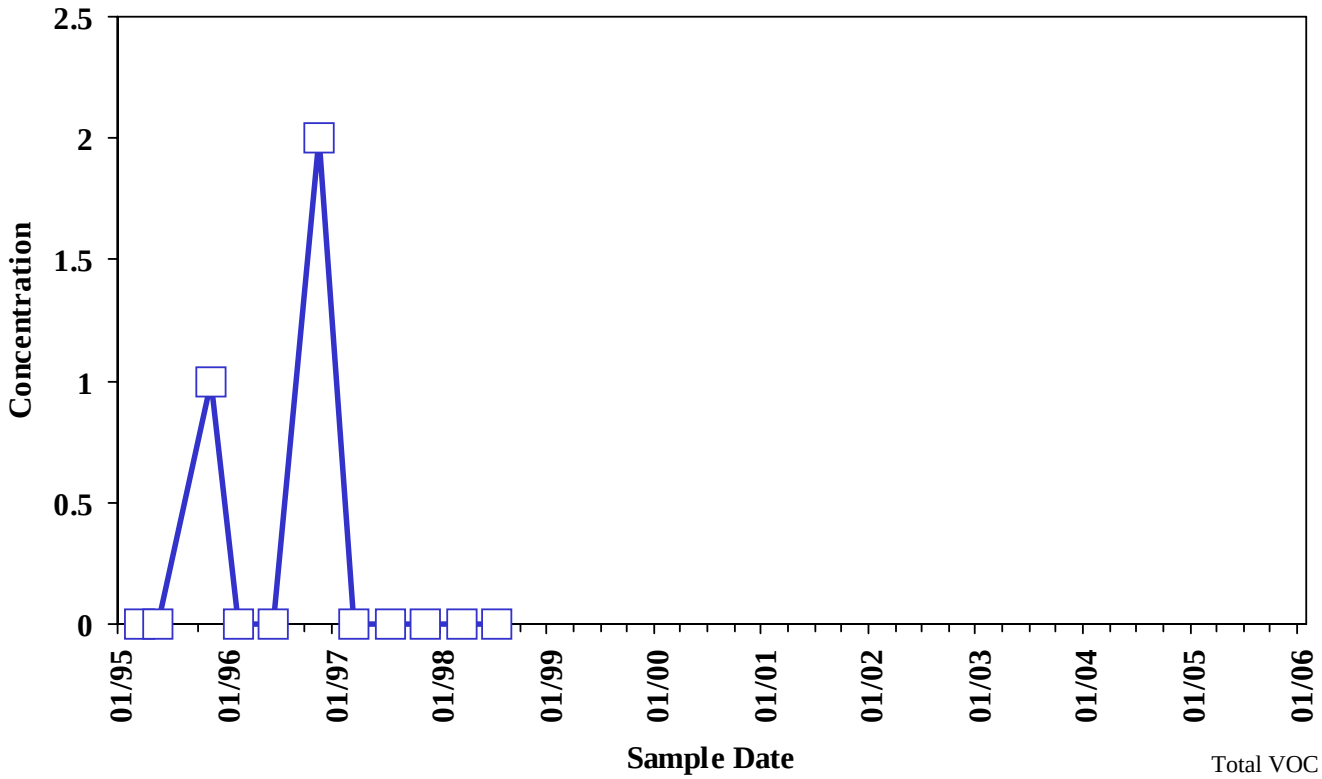
Sample Location:

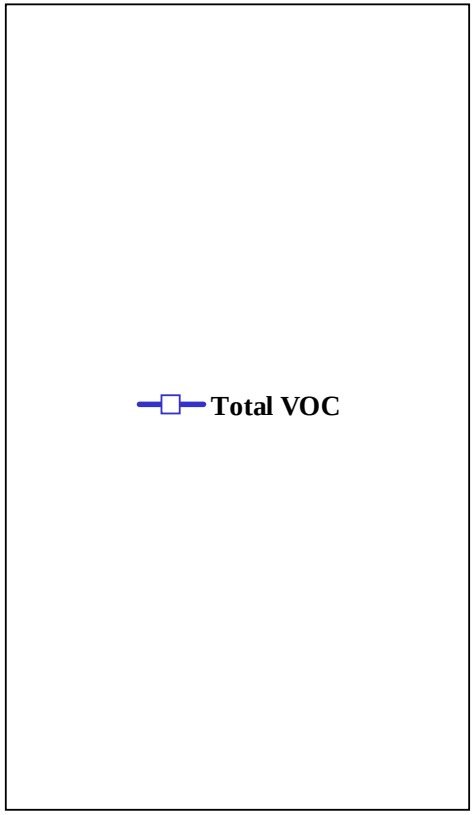
SW-02

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles





Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

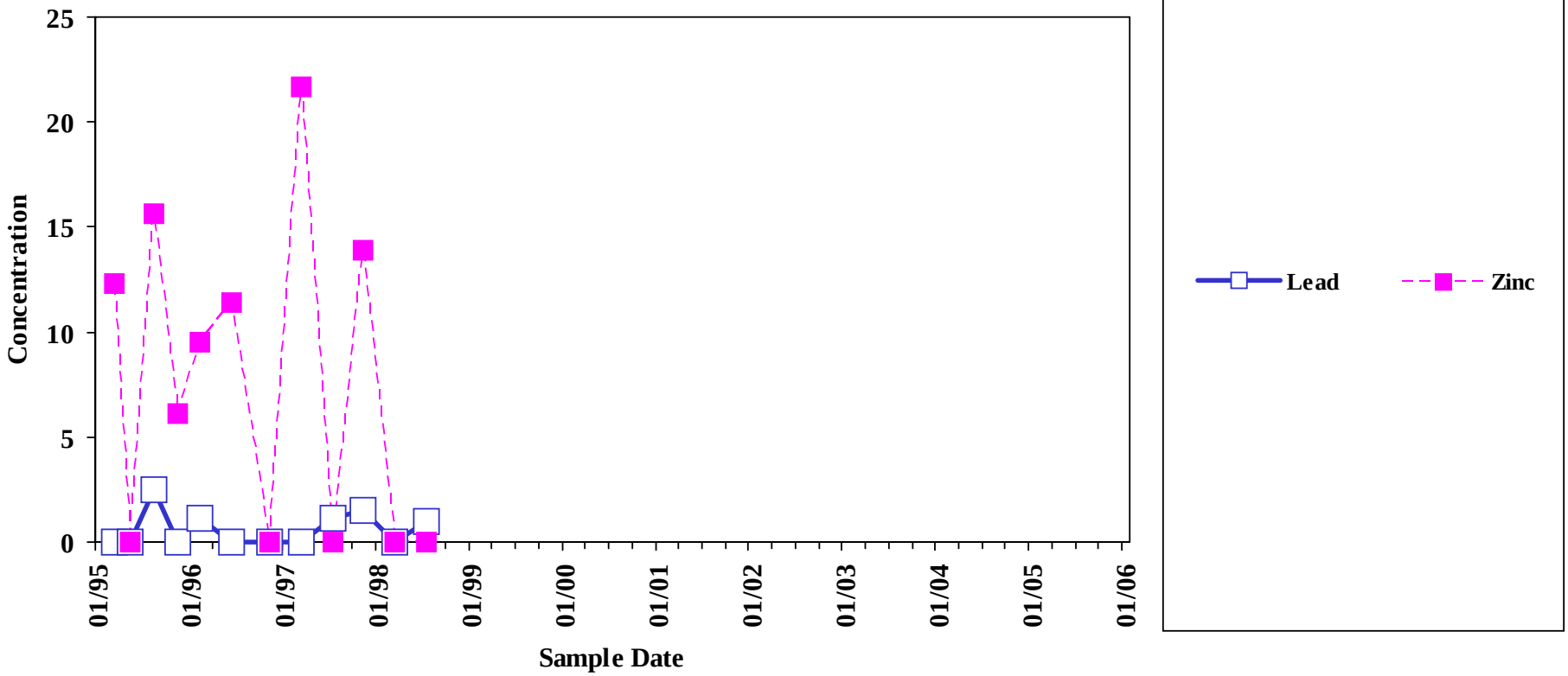
Sample Location:

SW-03

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

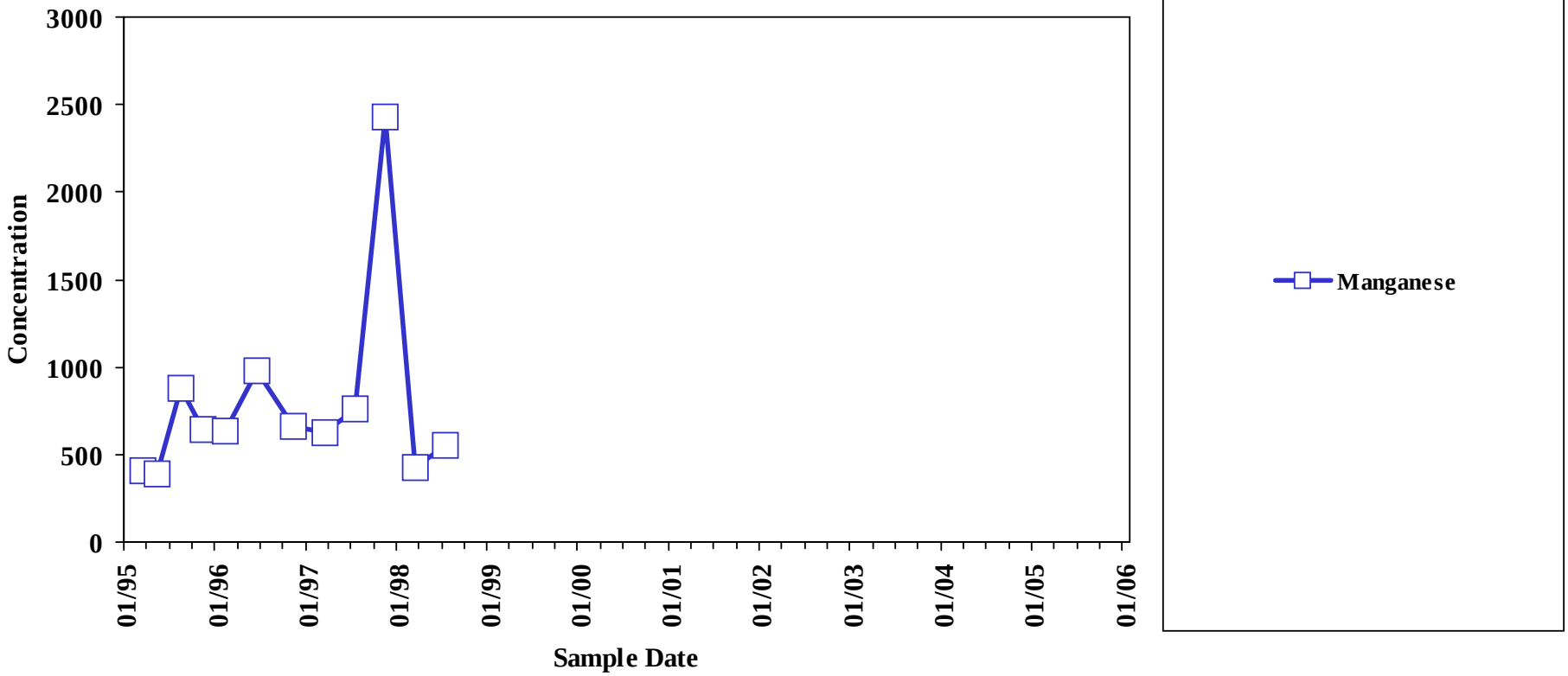
Sample Location:

SW-03

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

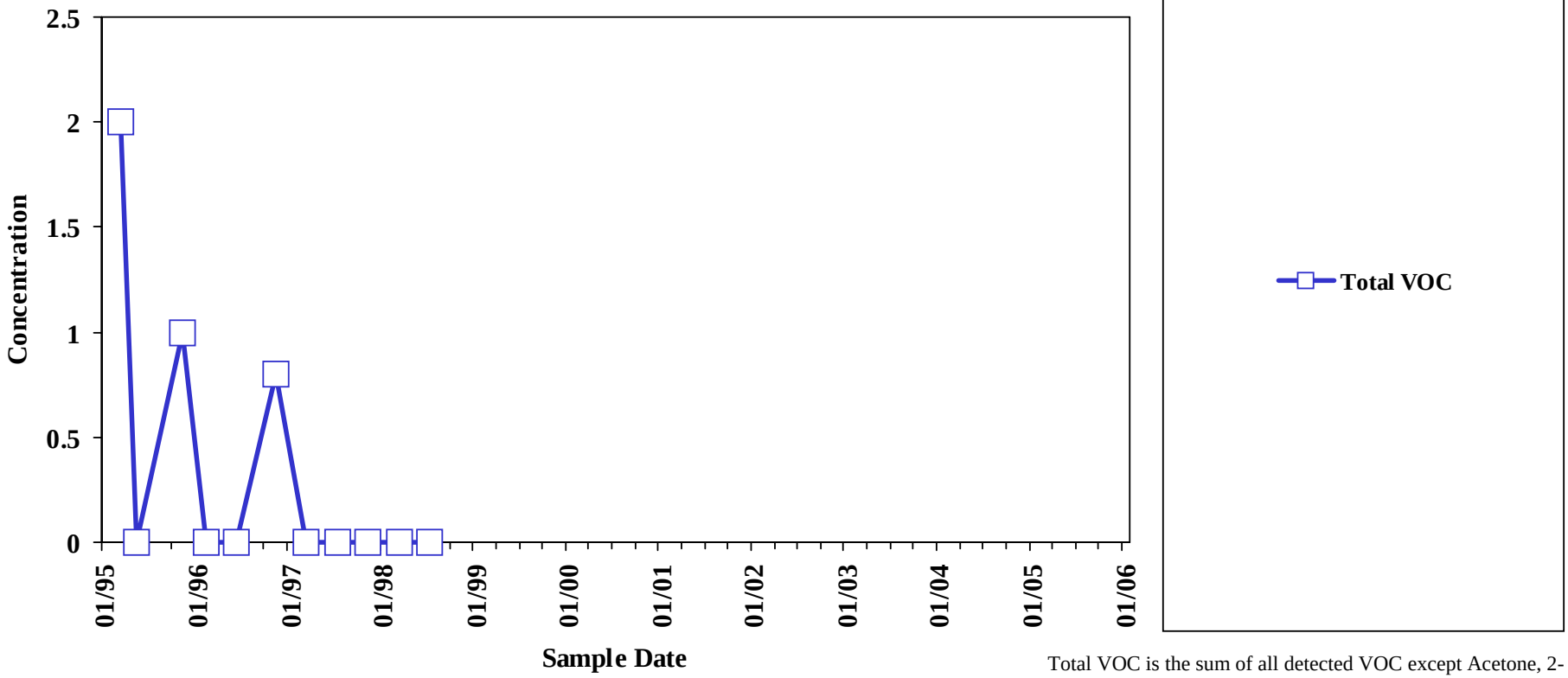
Sample Location:

SW-03

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

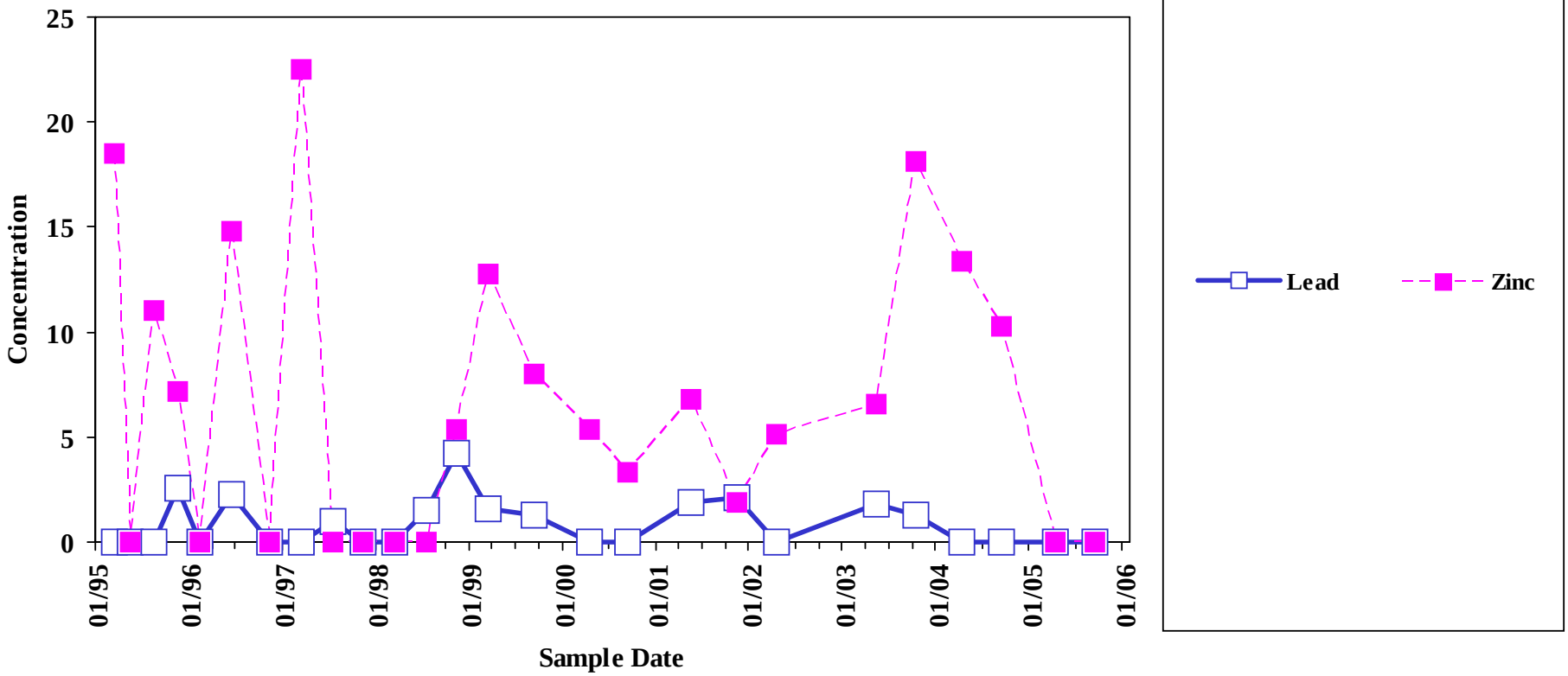
Sample Location:

SW-04

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

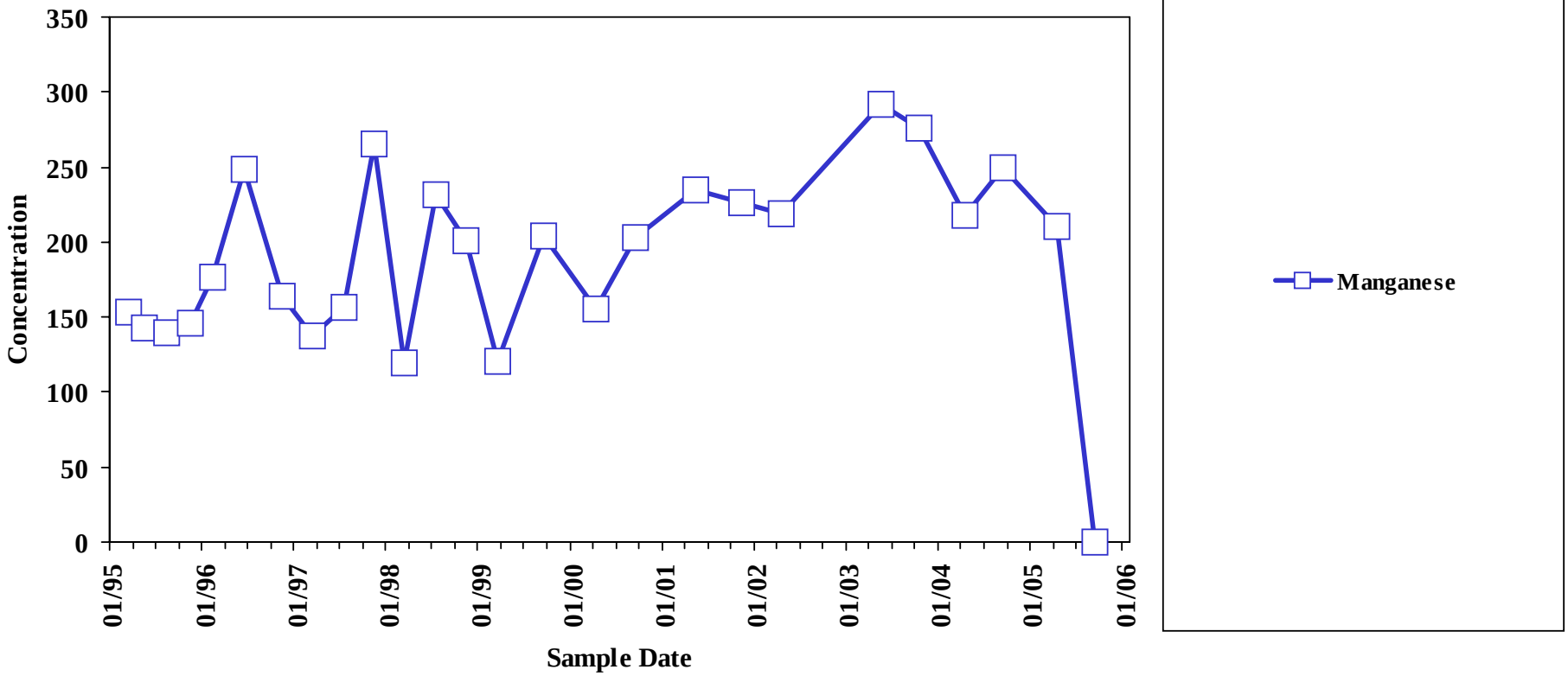
Sample Location:

SW-04

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

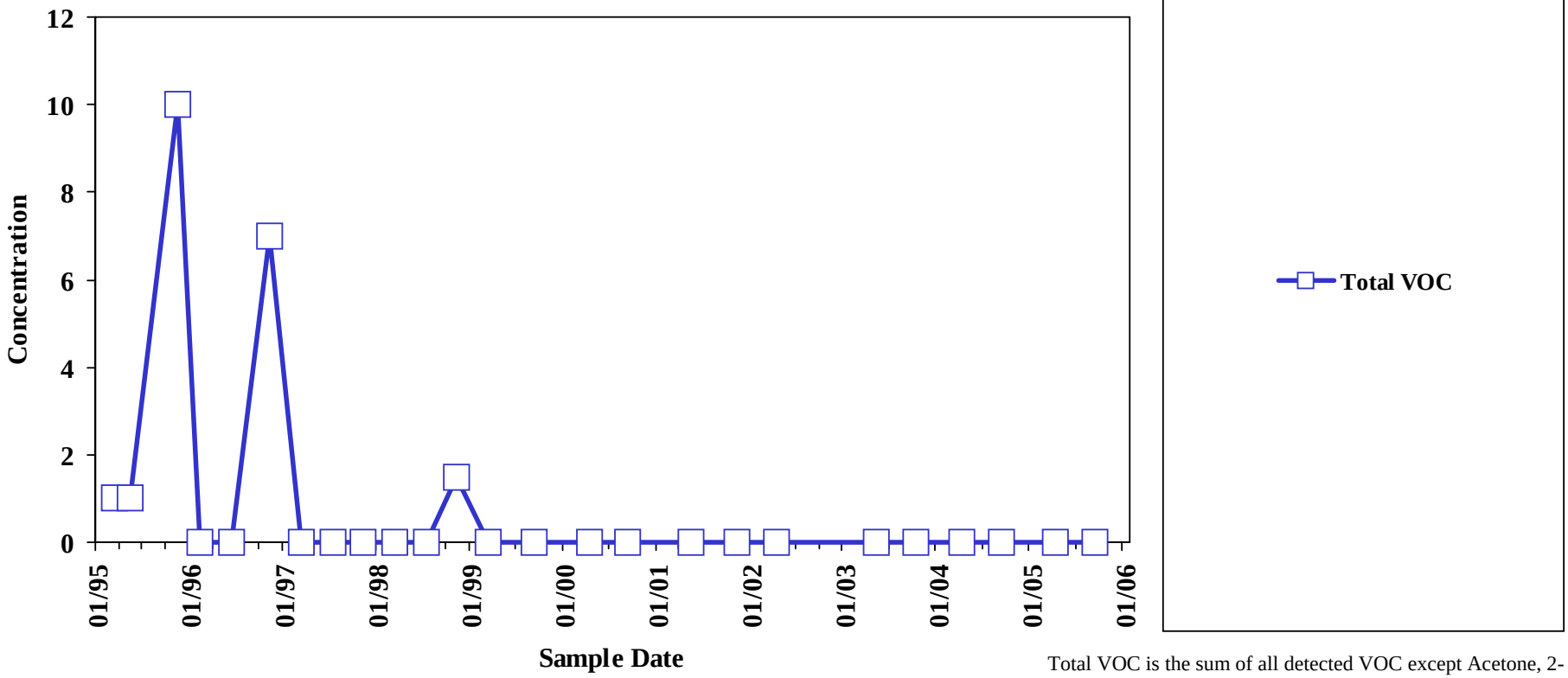
Sample Location:

SW-04

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

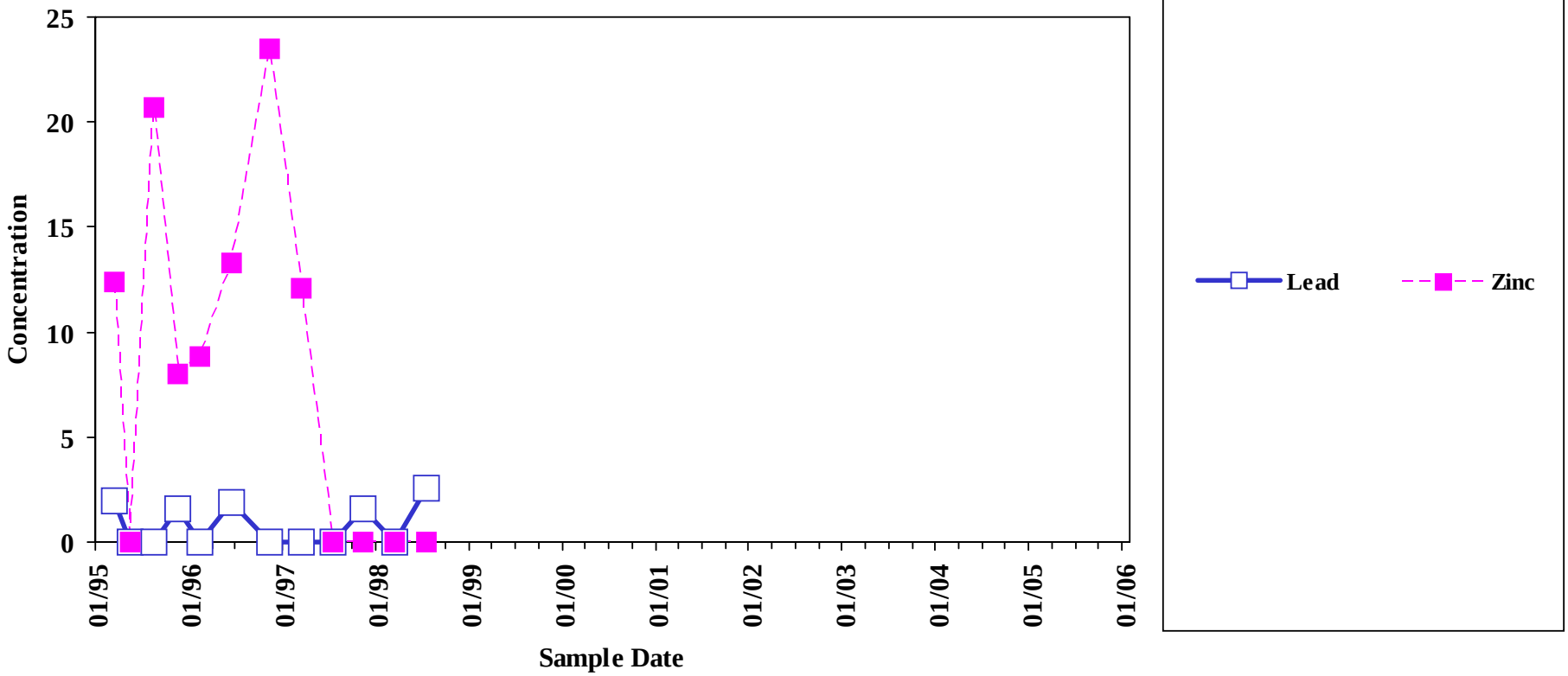
Sample Location:

SW-05

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

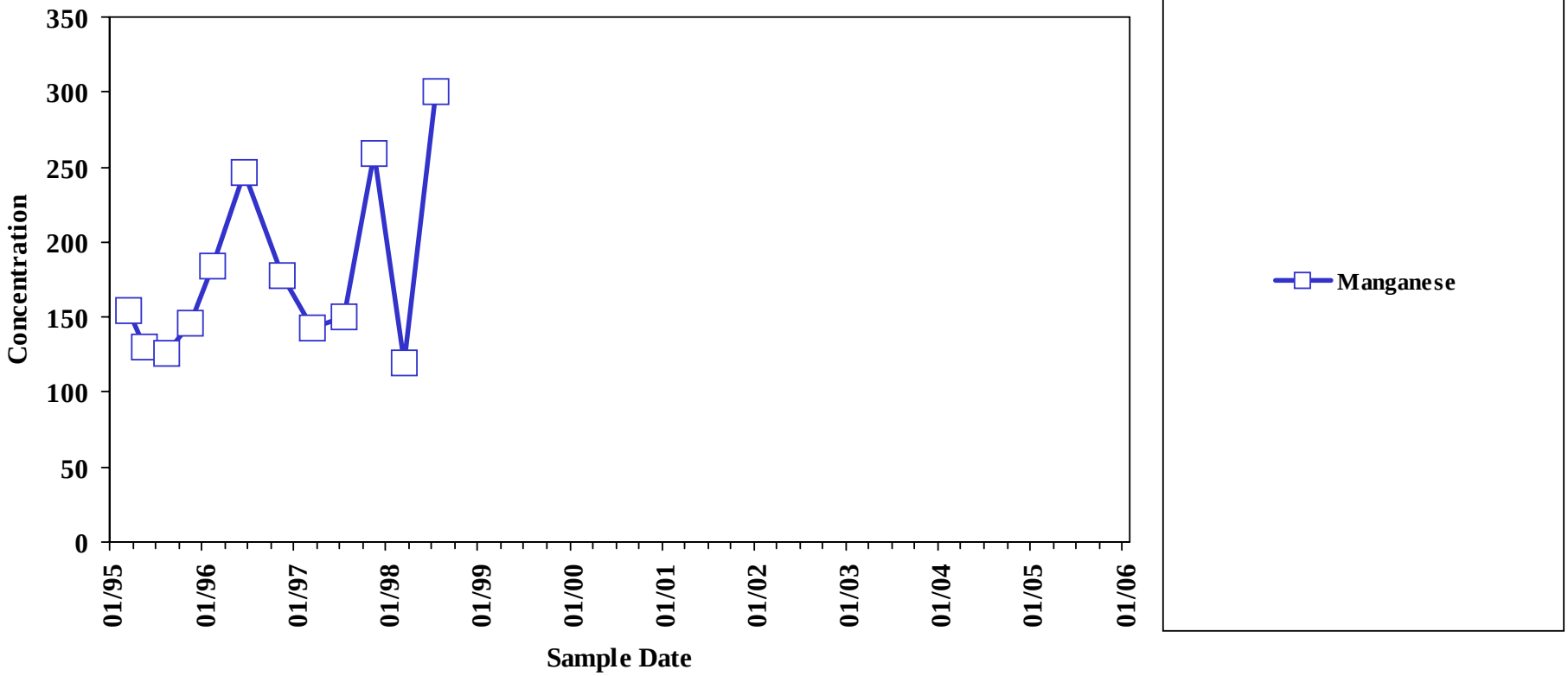
Sample Location:

SW-05

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

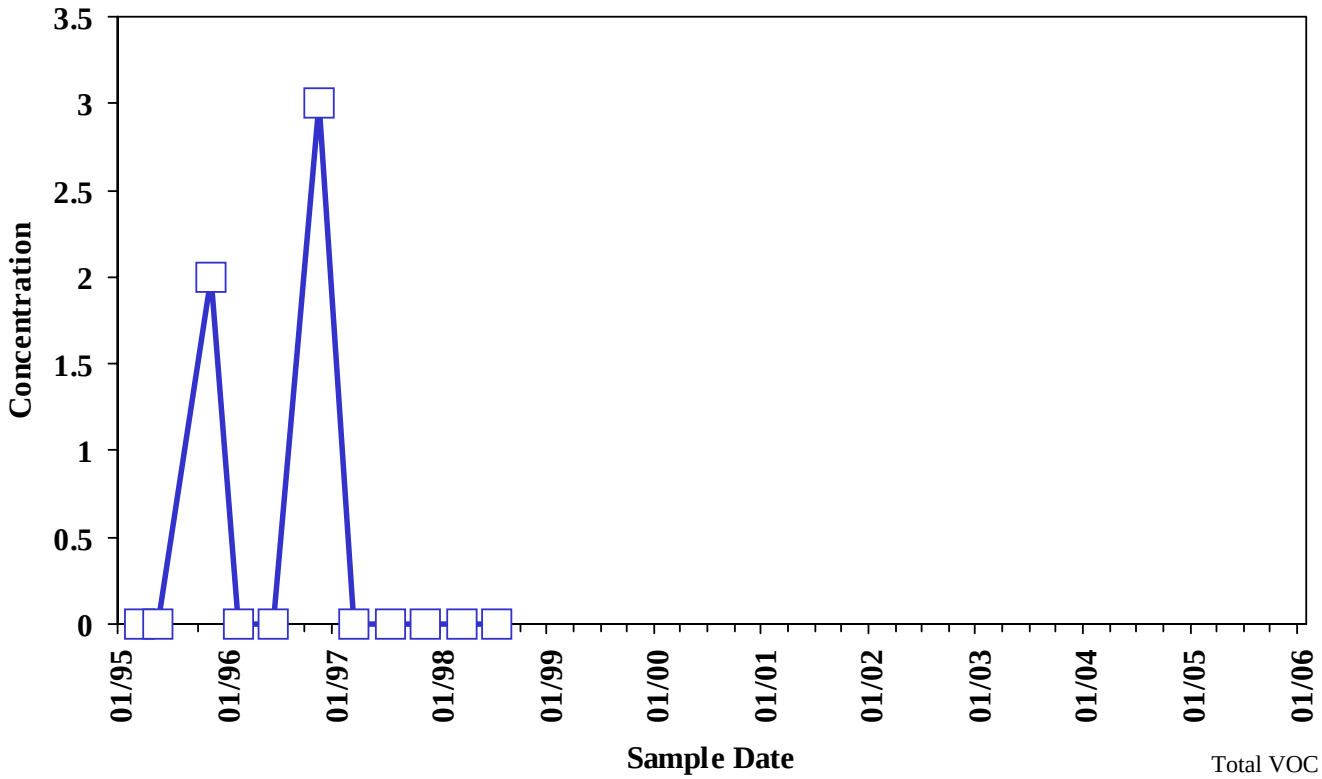
Sample Location:

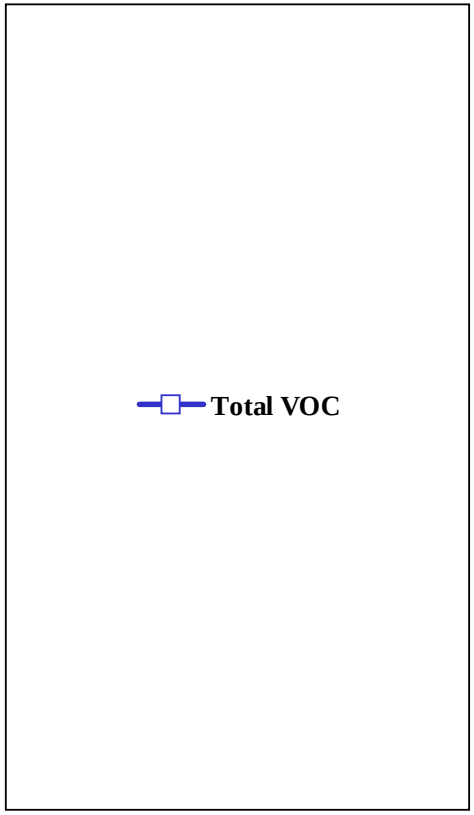
SW-05

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles





Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

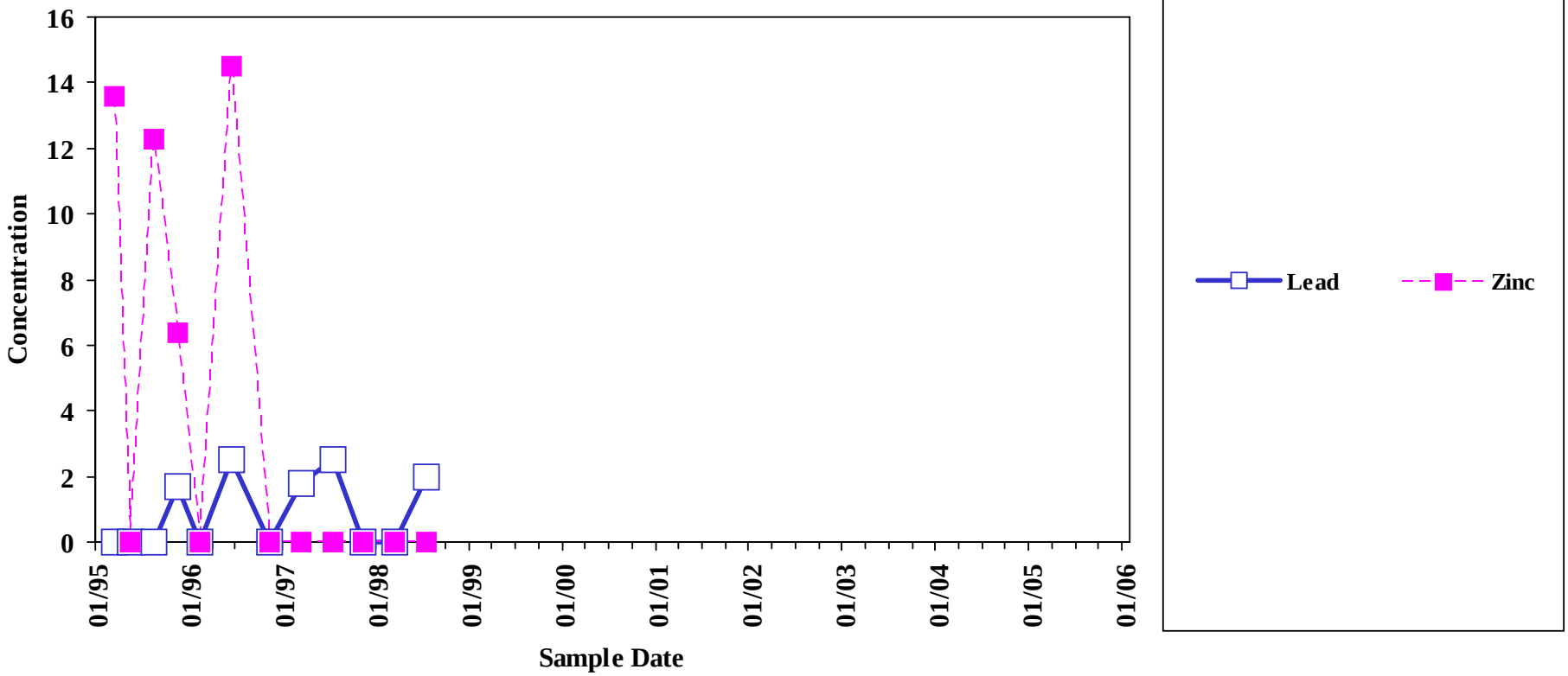
Sample Location:

SW-06

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

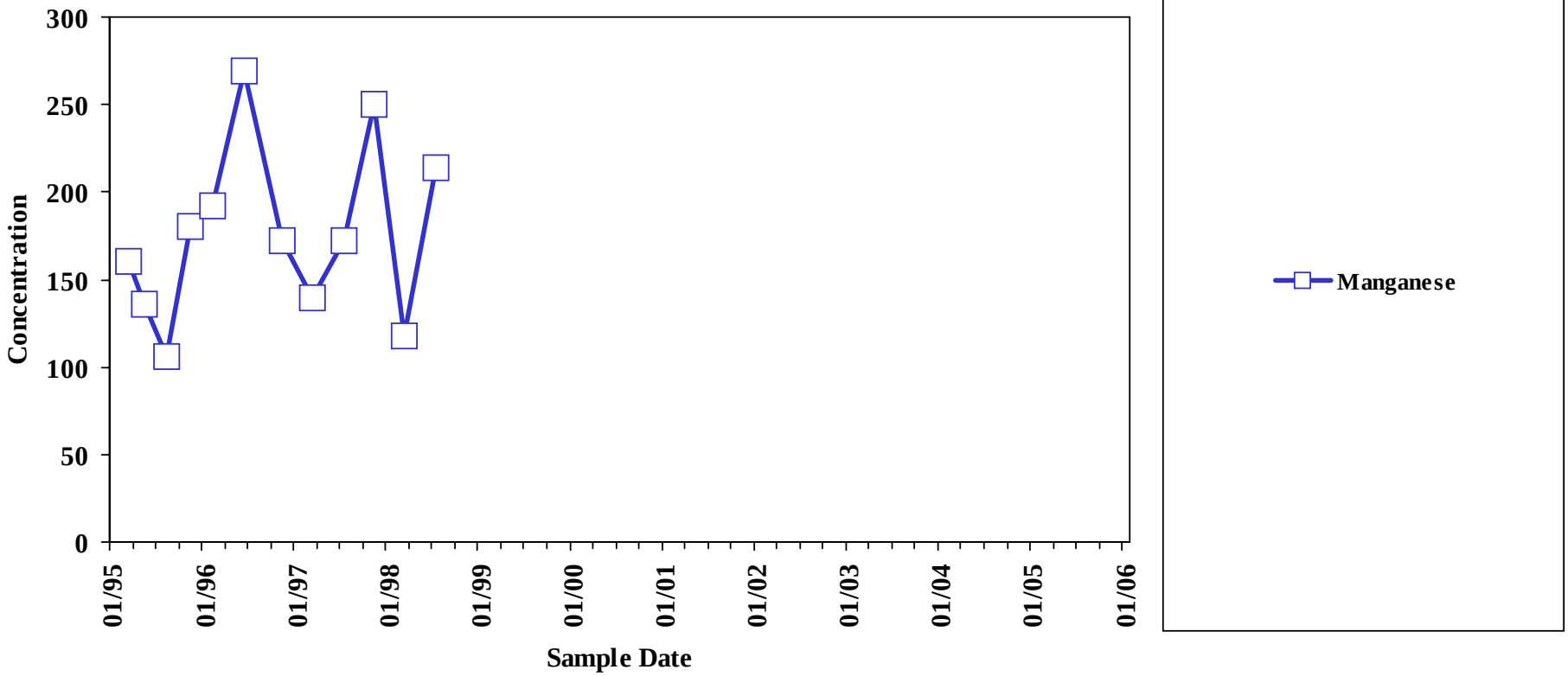
Sample Location:

SW-06

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

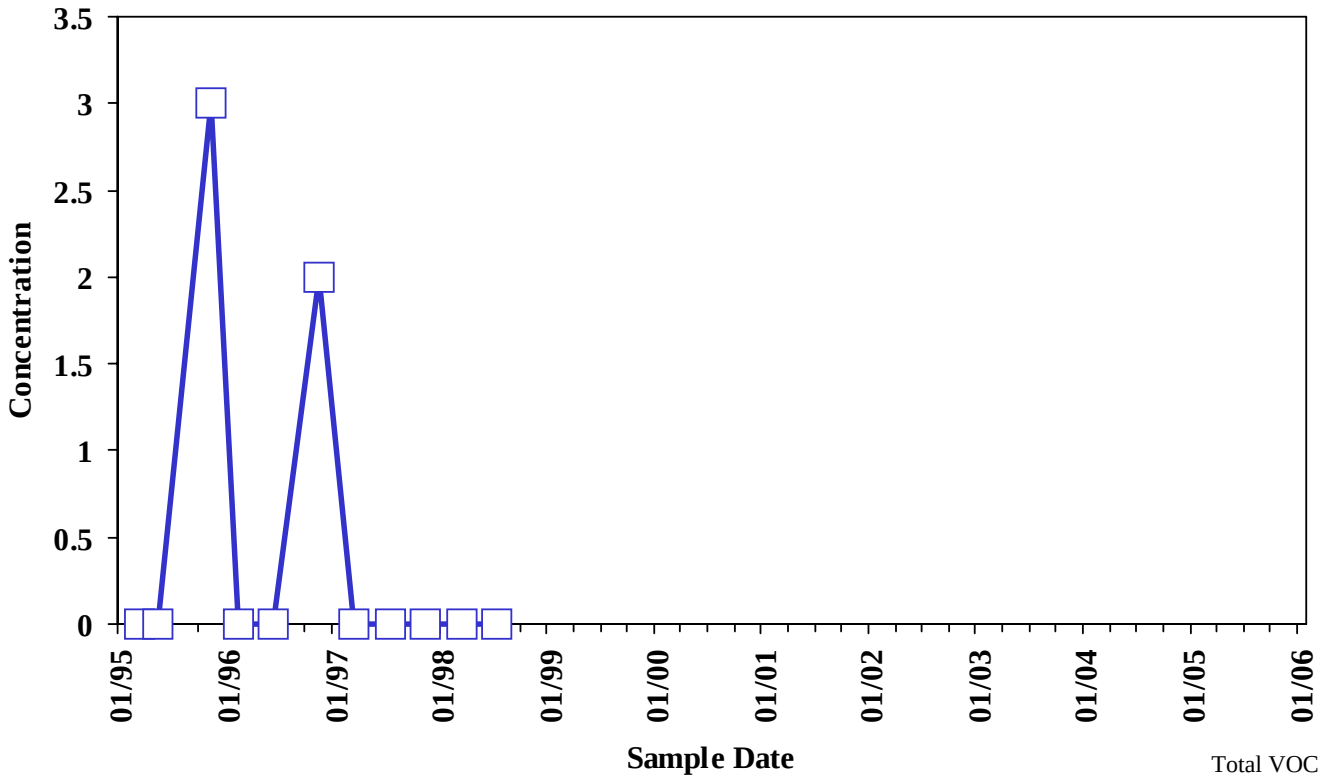
Sample Location:

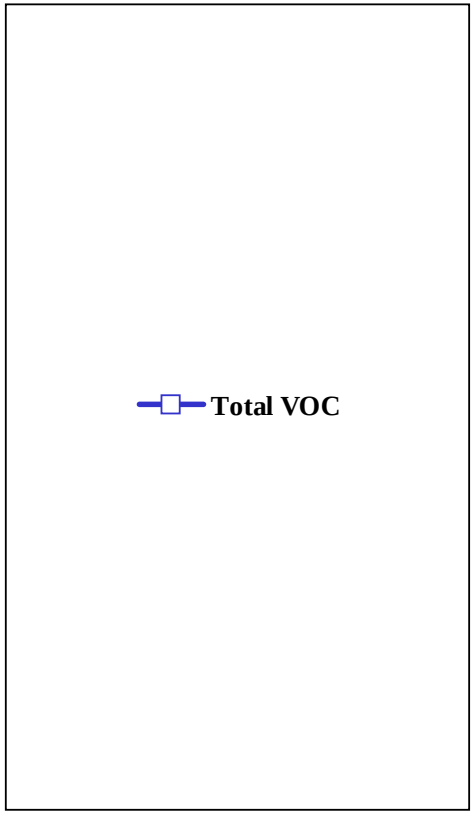
SW-06

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles





Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

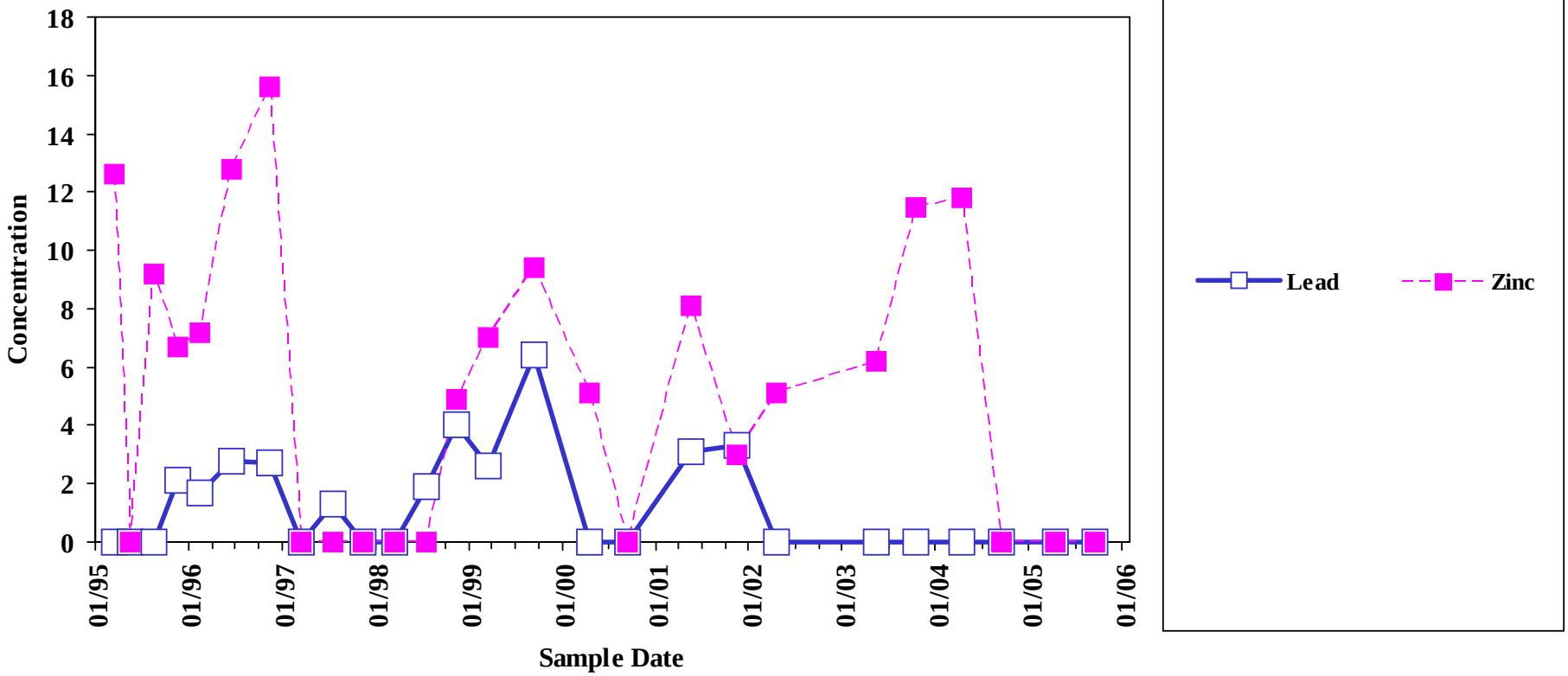
Sample Location:

SW-07

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

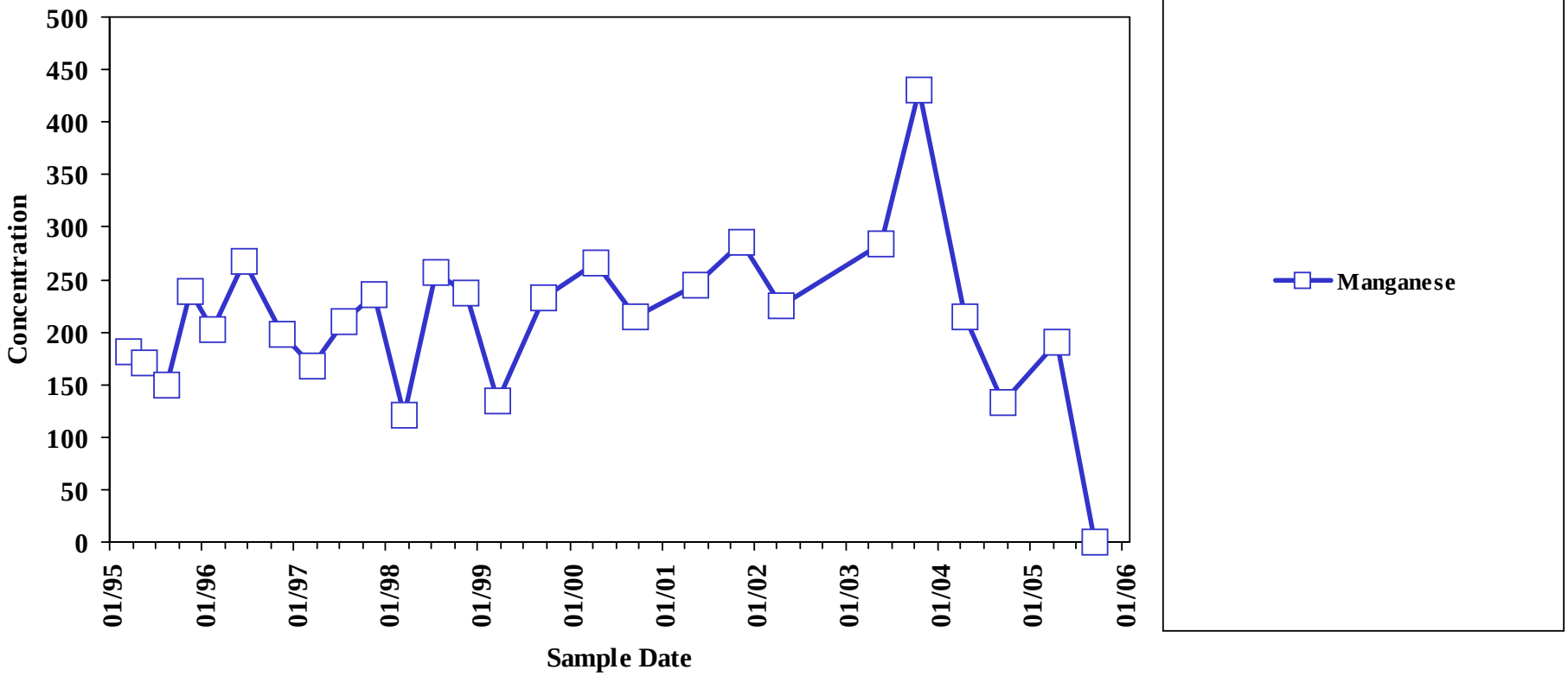
Sample Location:

SW-07

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

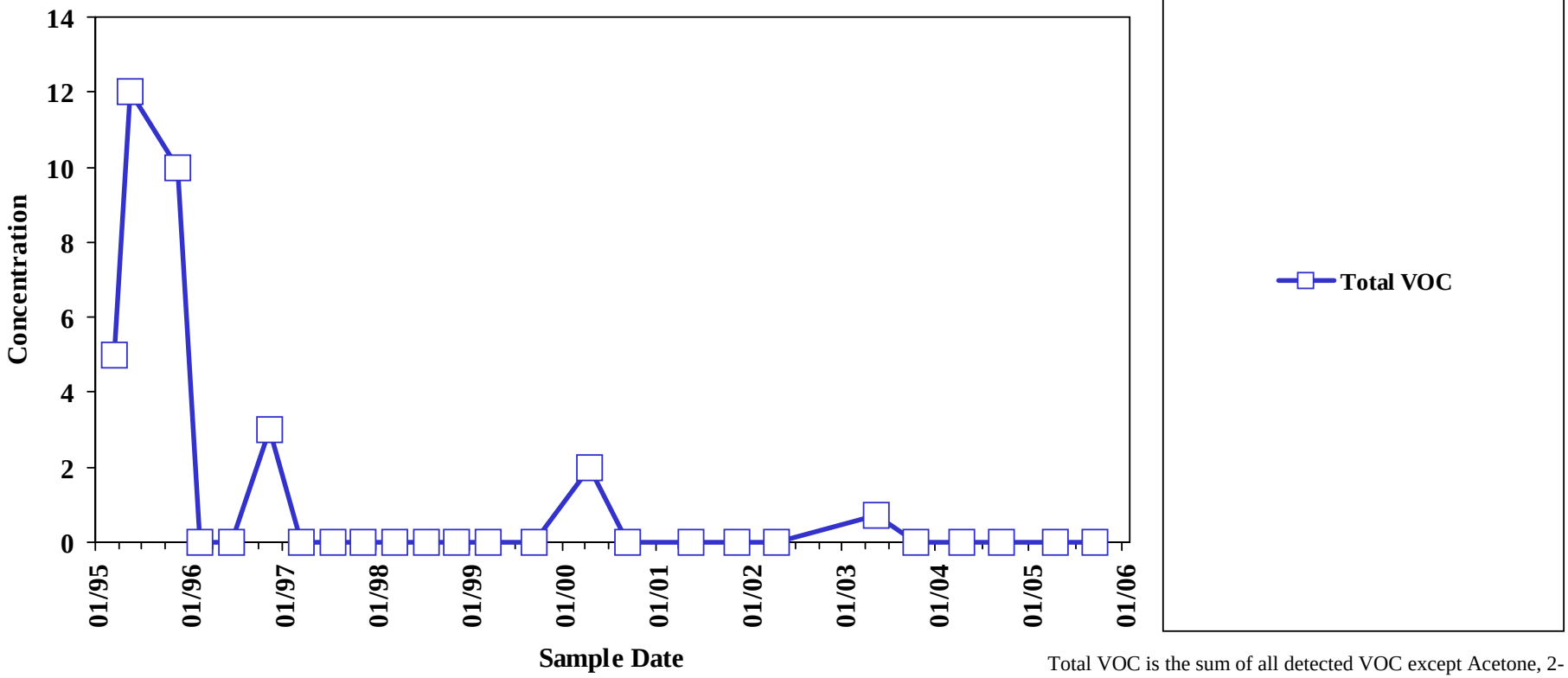
Sample Location:

SW-07

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

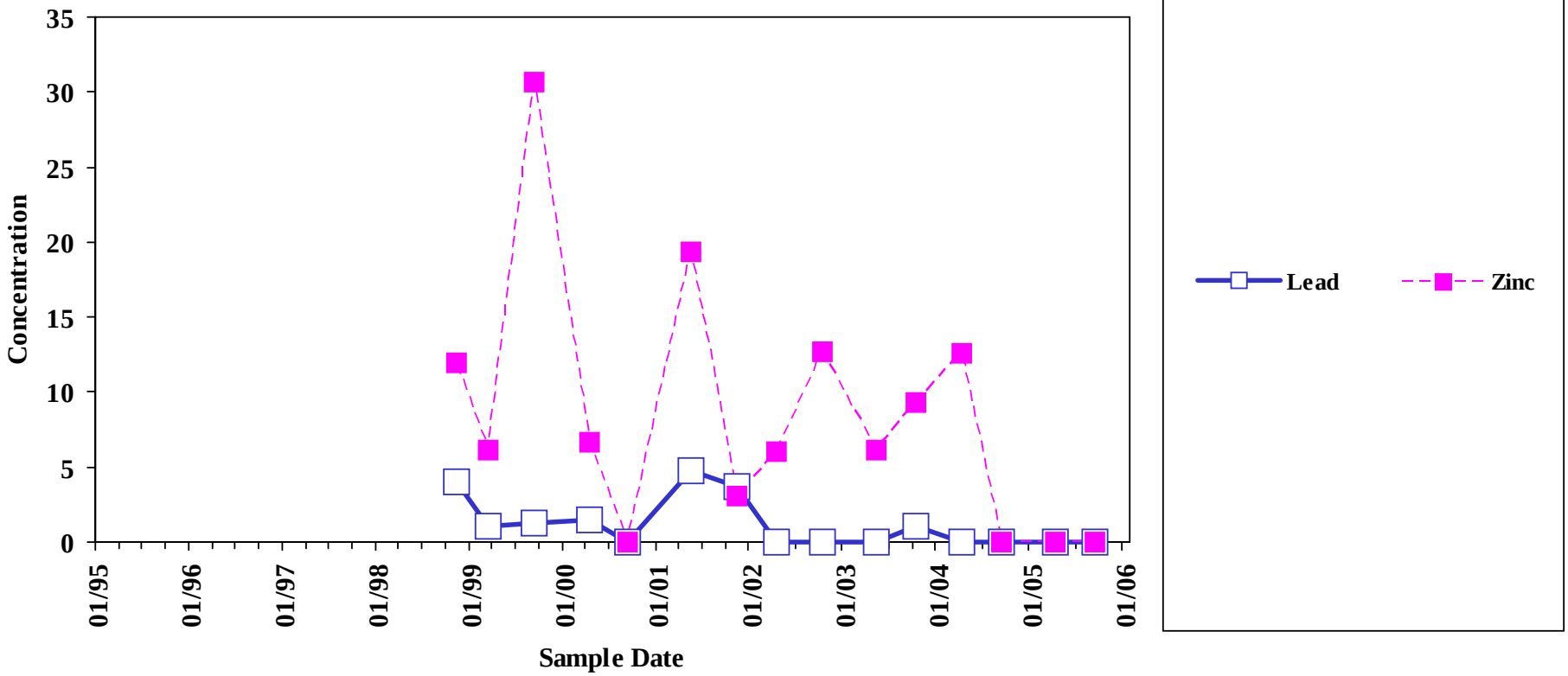
Sample Location:

SW-08

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

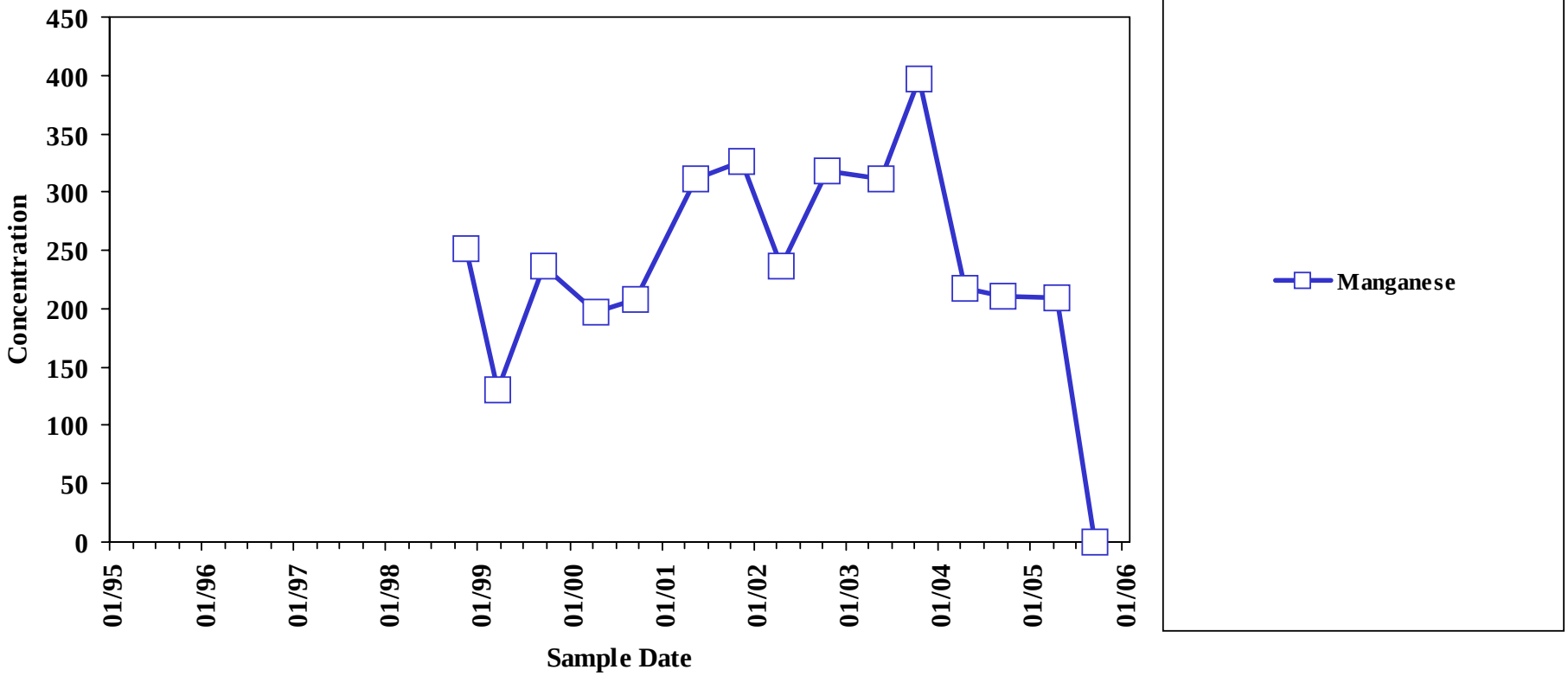
Sample Location:

SW-08

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

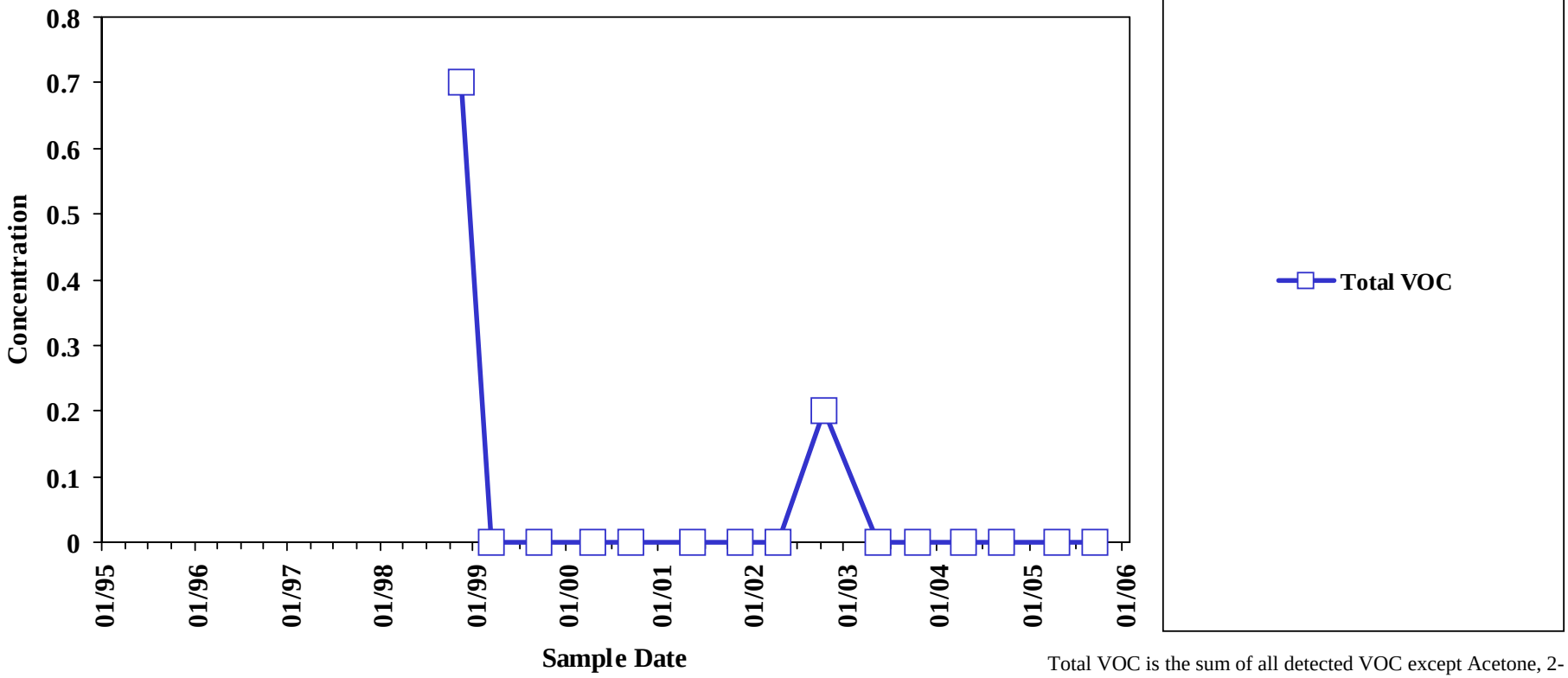
Sample Location:

SW-08

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

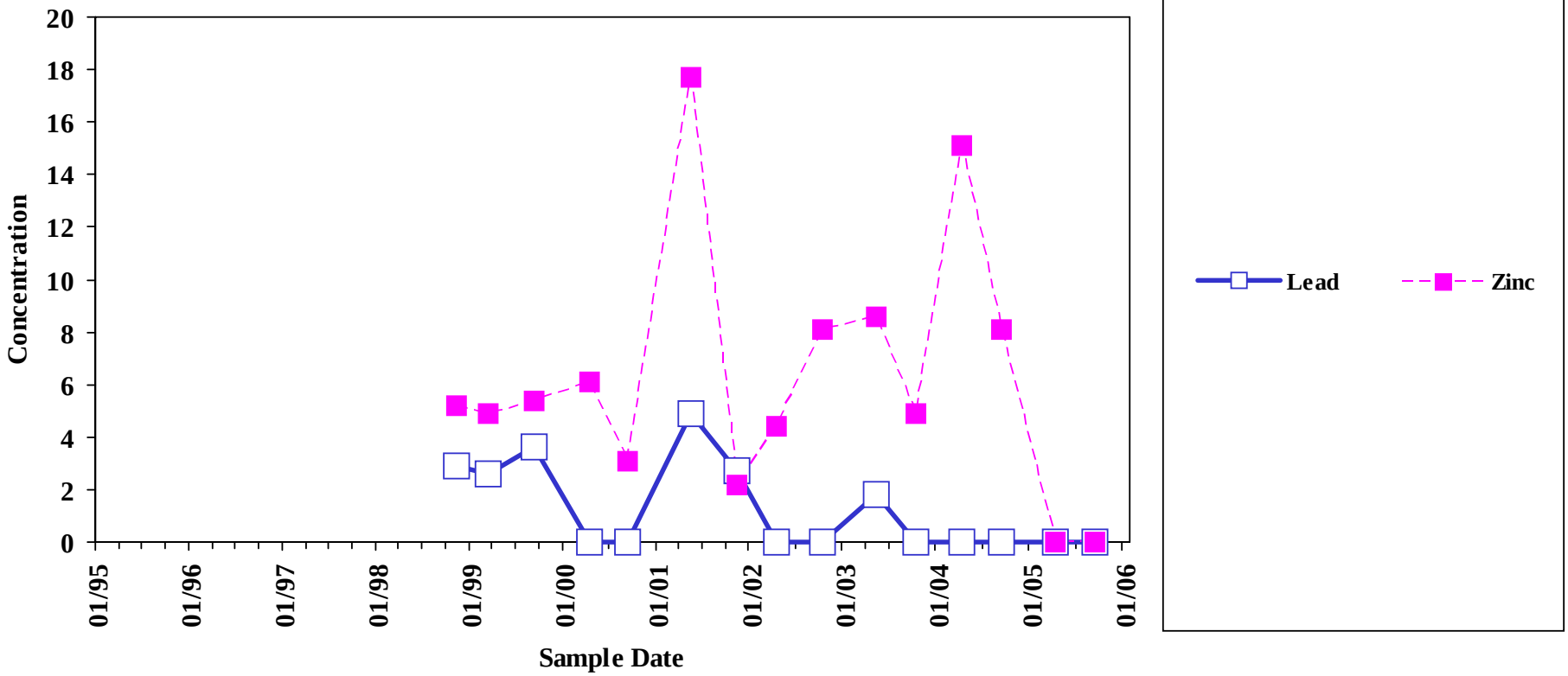
Sample Location:

SW-09

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

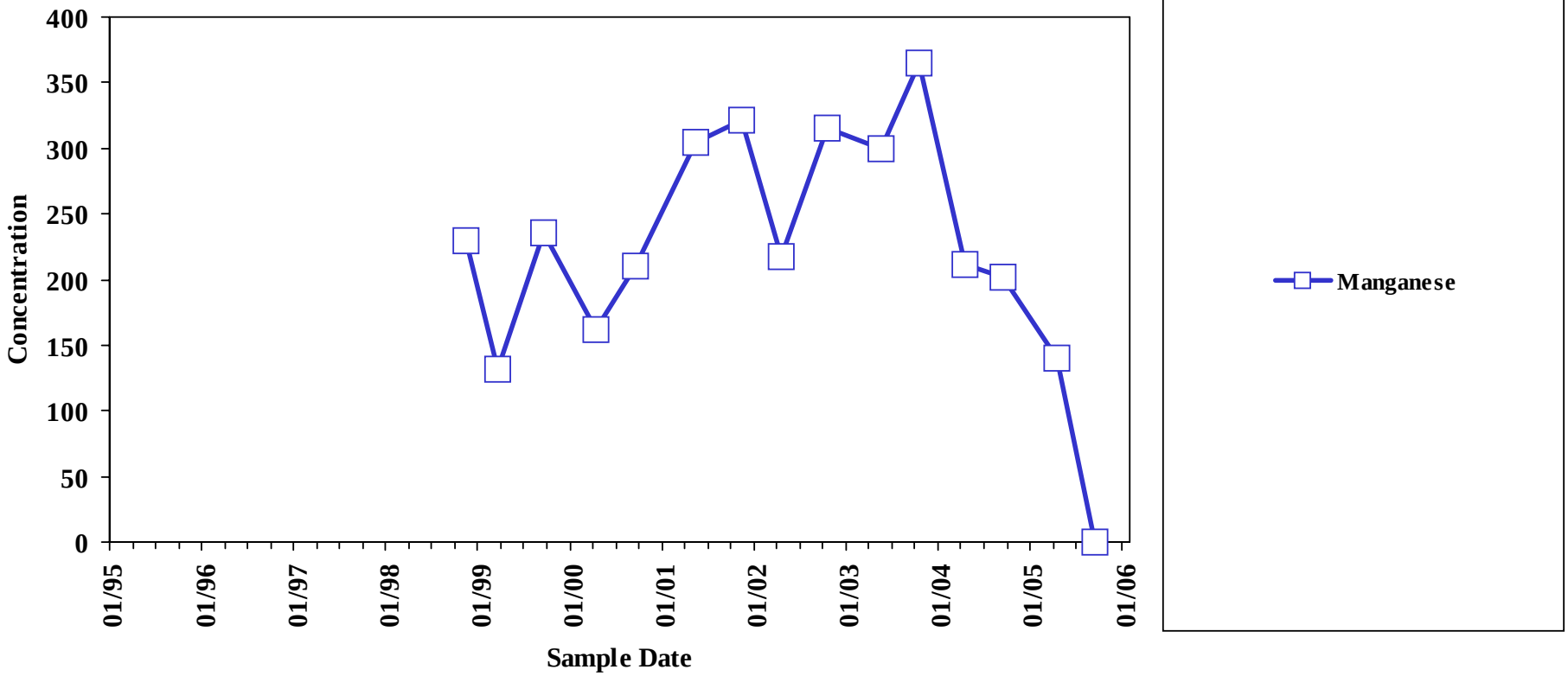
Sample Location:

SW-09

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

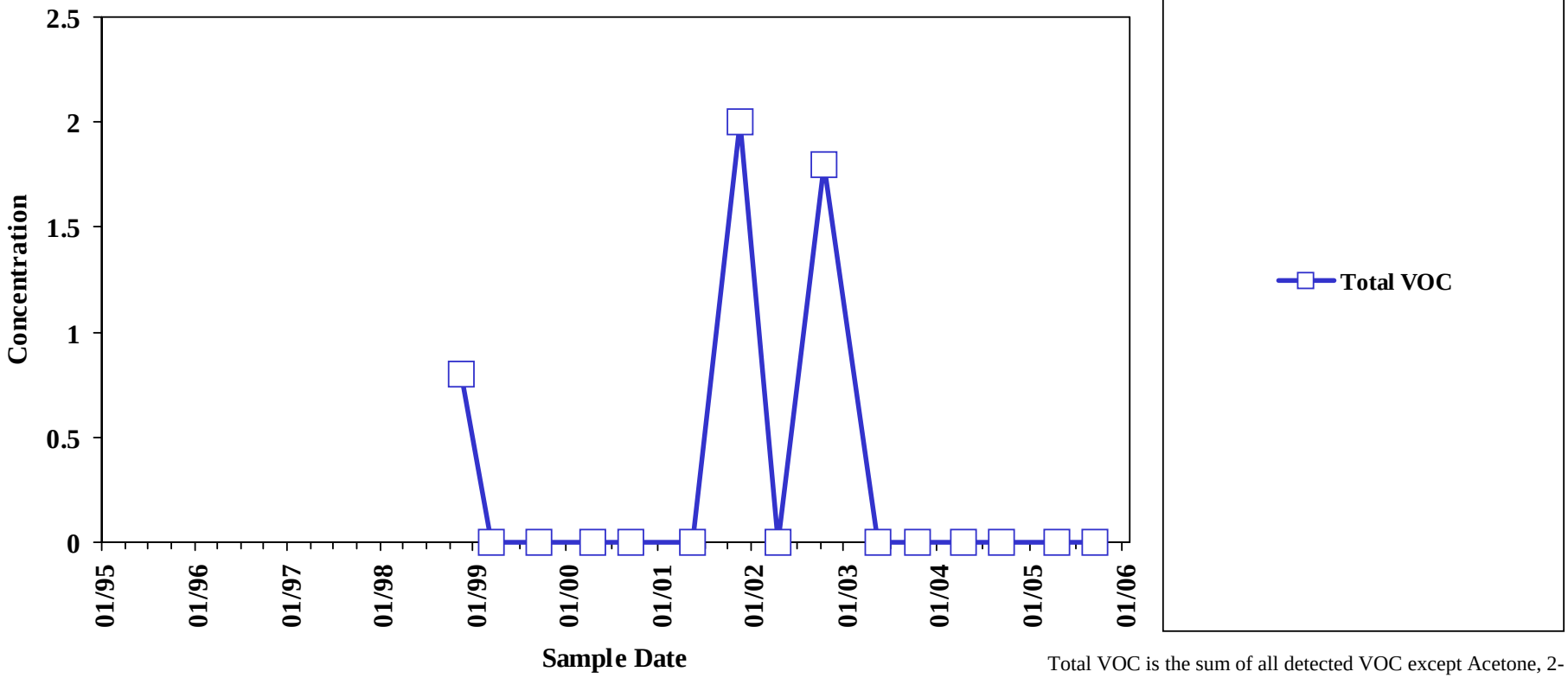
Sample Location:

SW-09

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

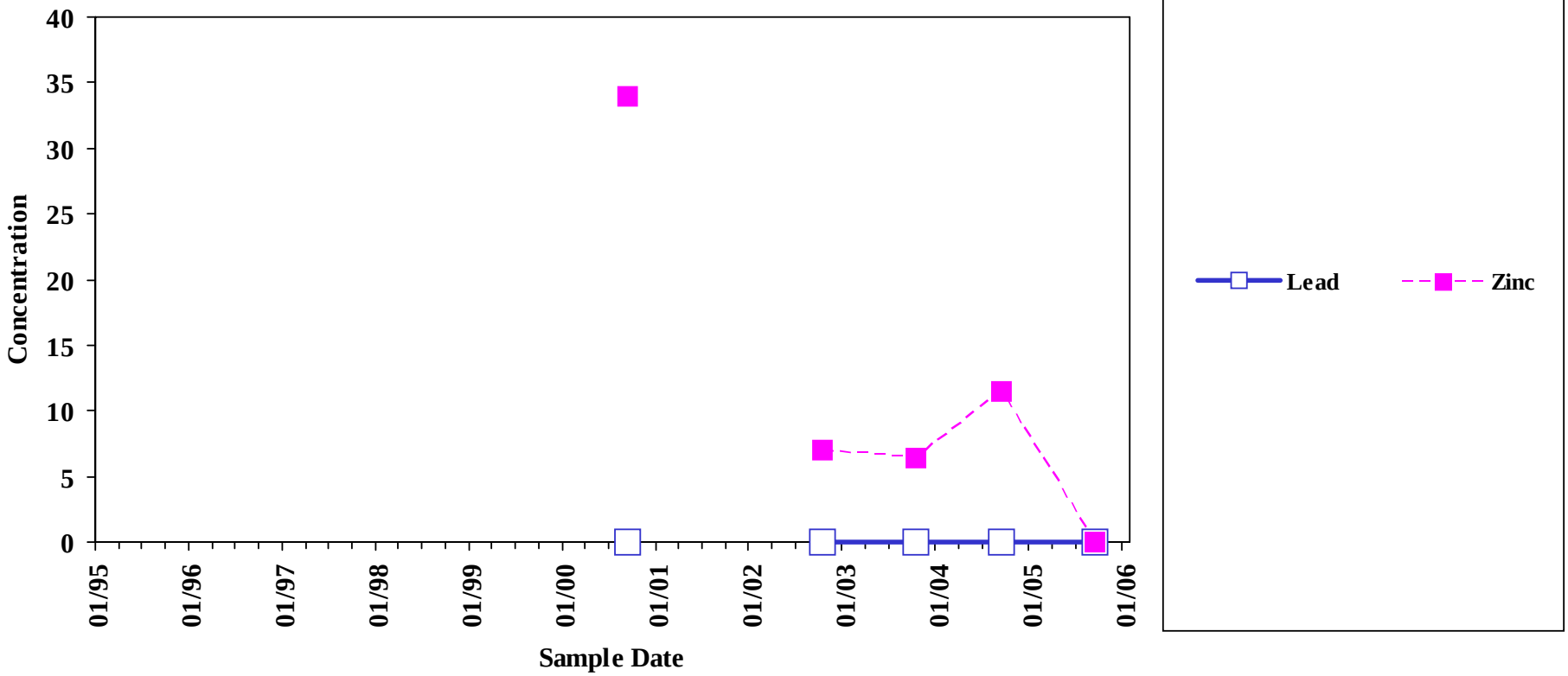
Sample Location:

SW-15

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

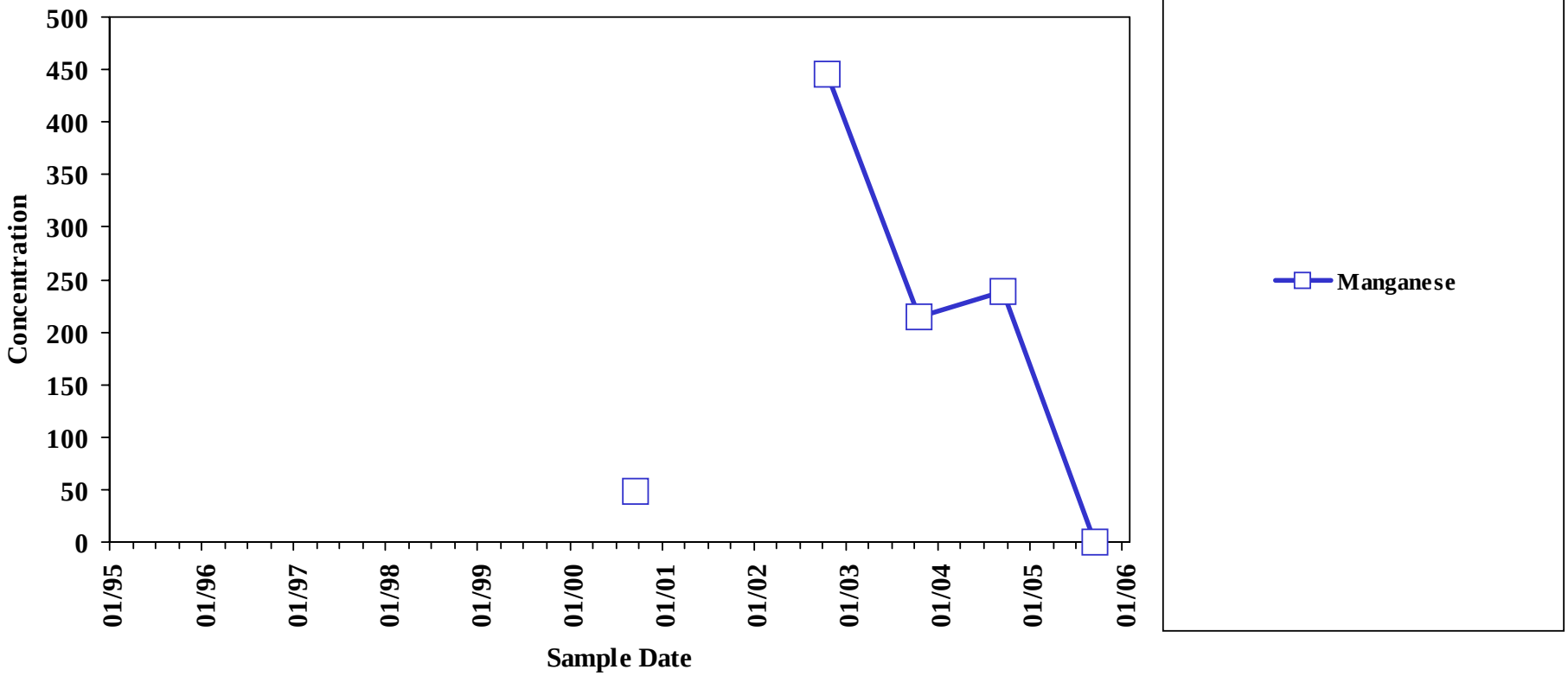
Sample Location:

SW-15

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

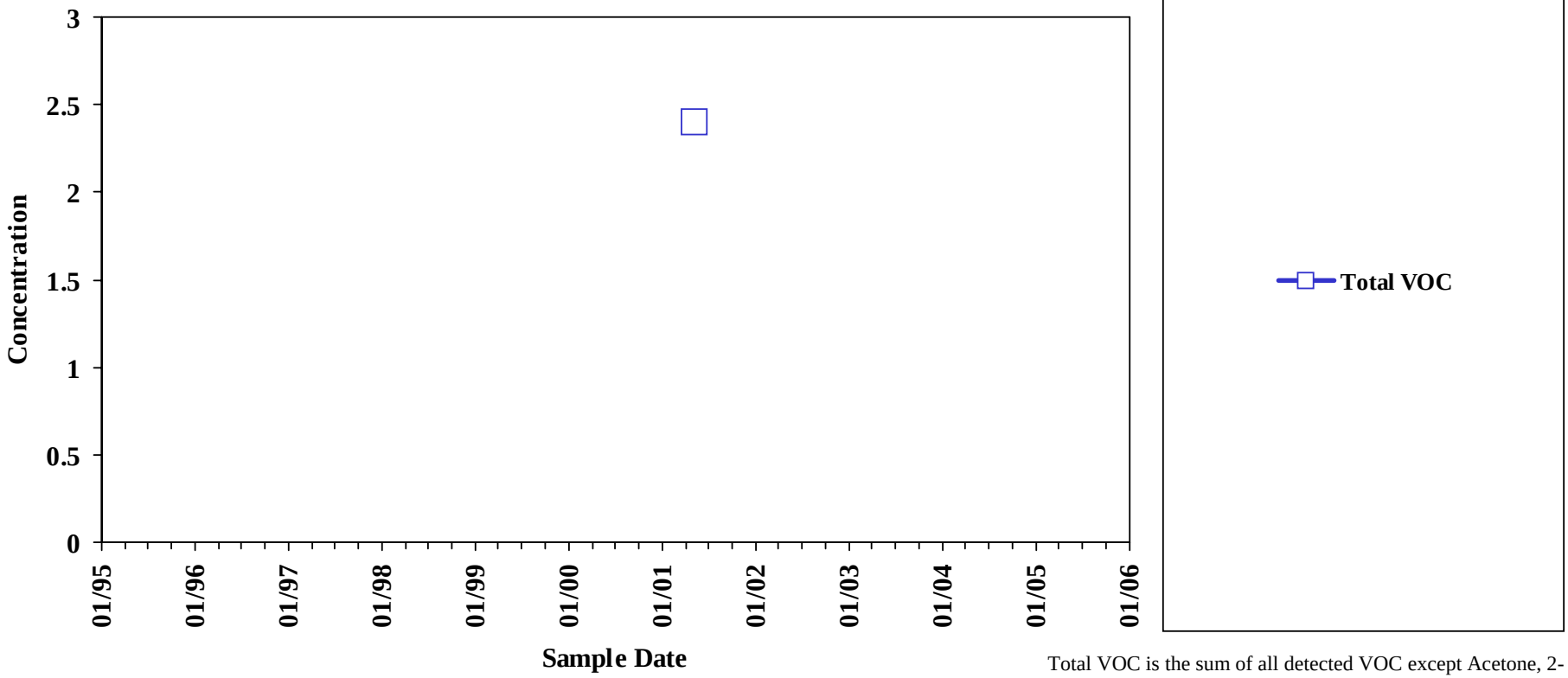
Sample Location:

SW-15

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

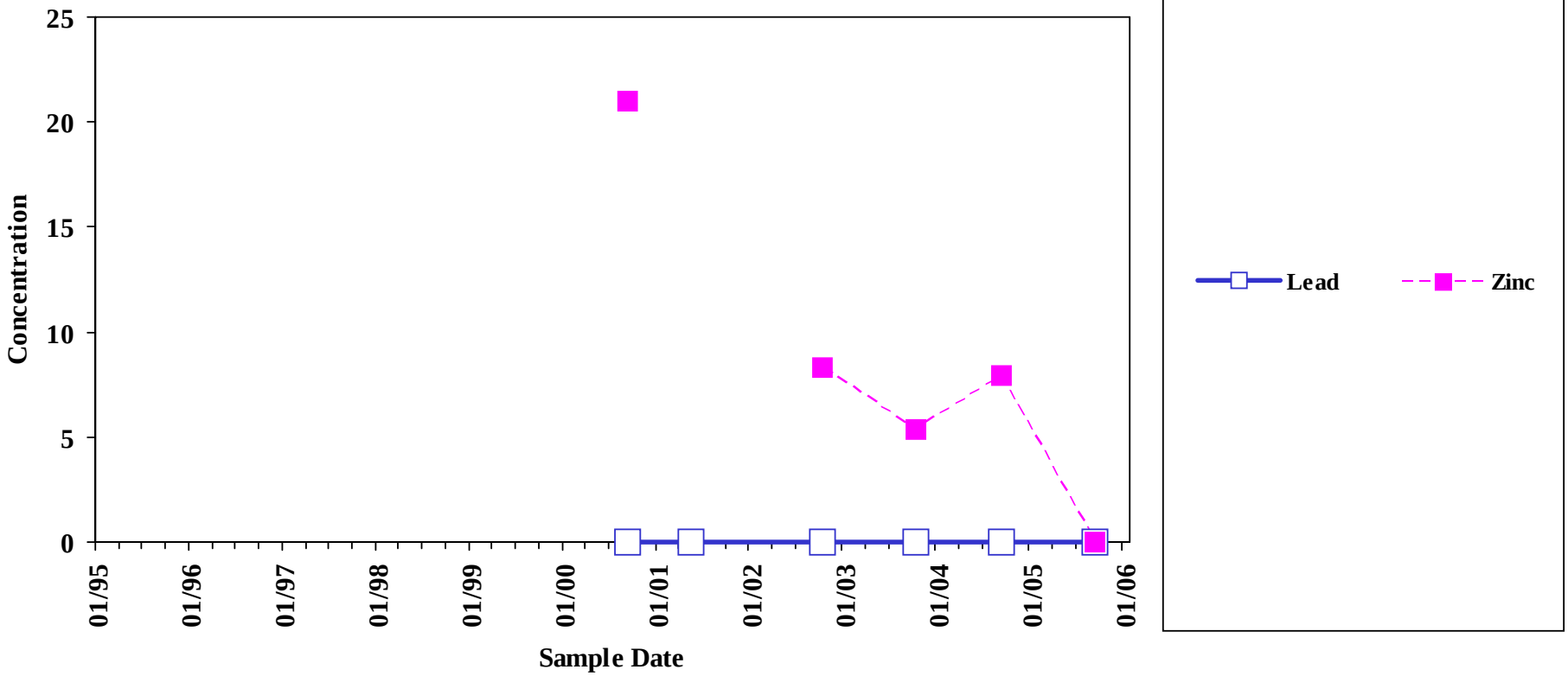
Sample Location:

SW-16

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

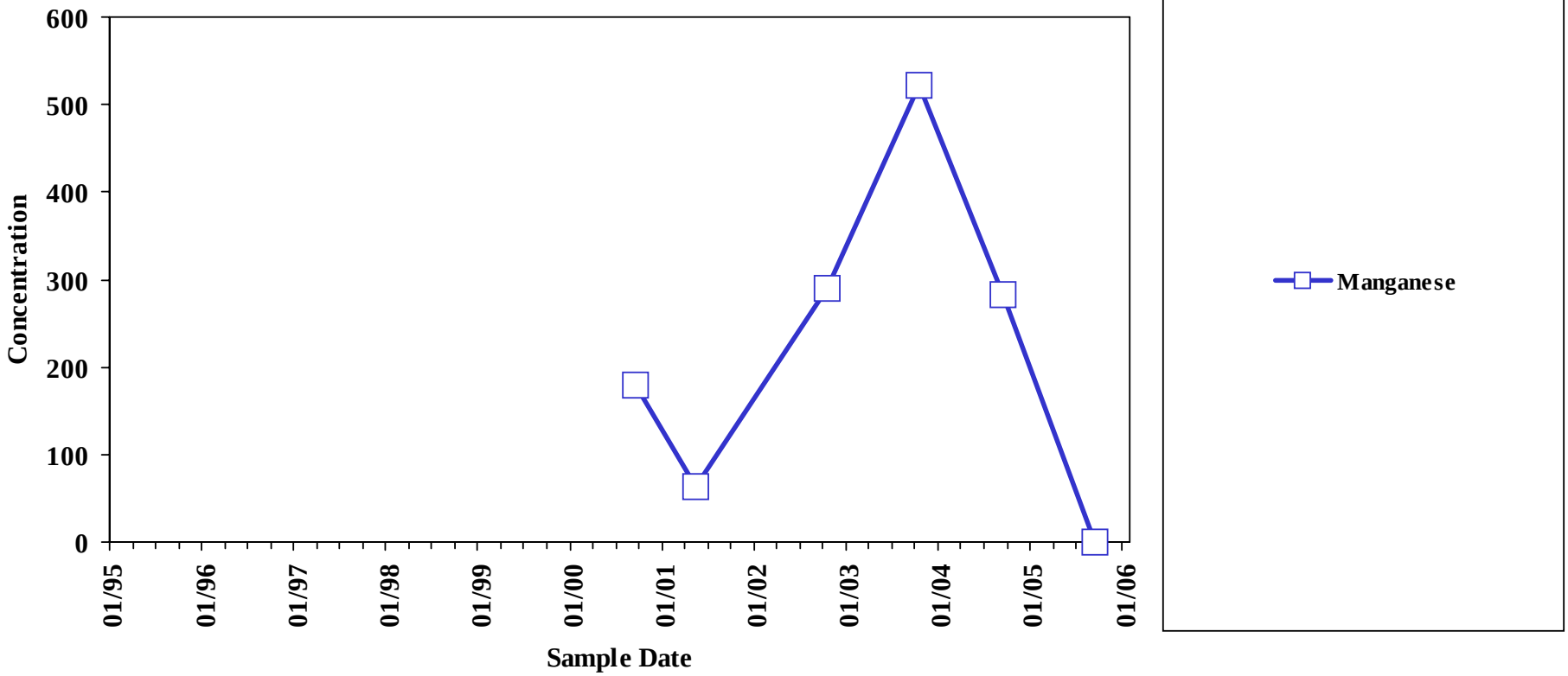
Sample Location:

SW-16

Sites 1 & 3

Surface water

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

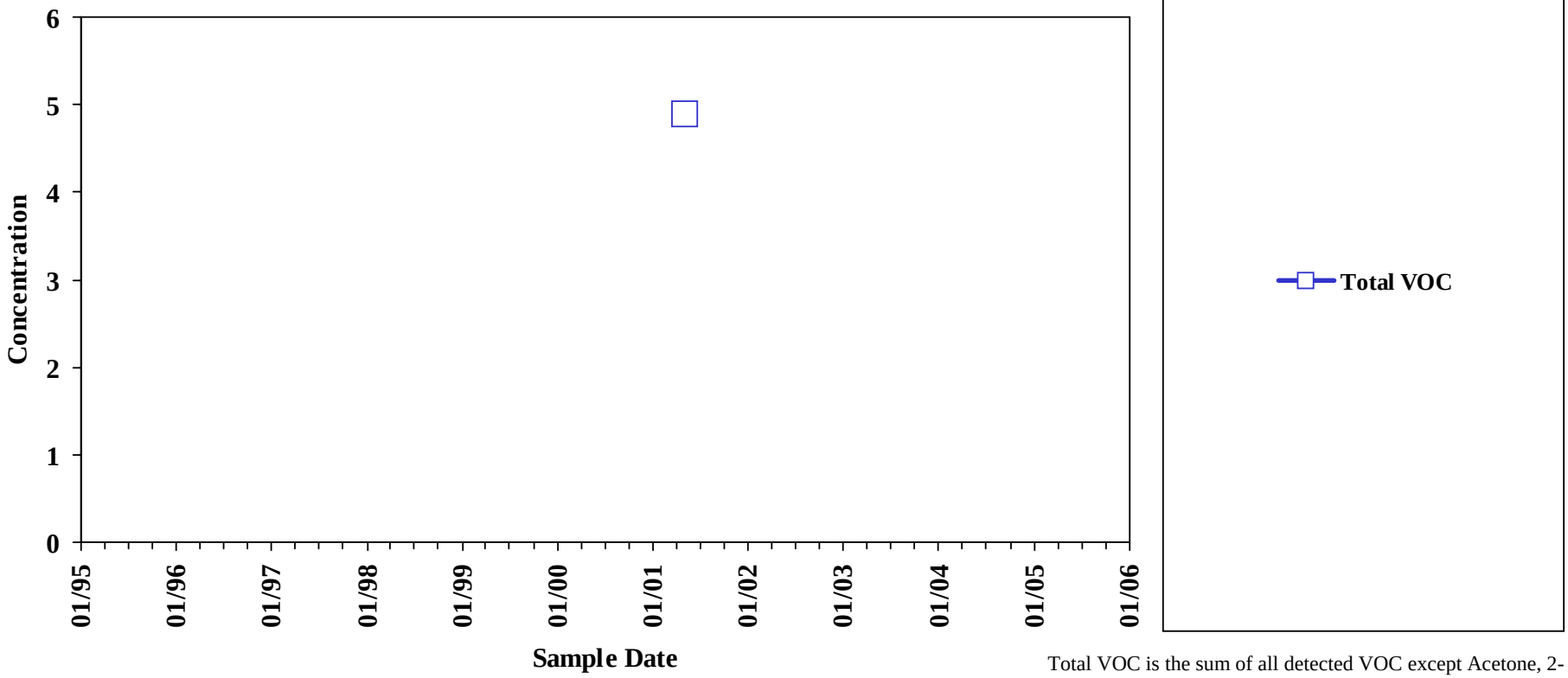
Sample Location:

SW-16

Sites 1 & 3

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Acetone, 2-Butanone, Methylene Chloride, and 1,4-Dioxane.

Sample concentration units: µg/L

Appendix C.2

Long-Term Monitoring Trend Results
Eastern Plume

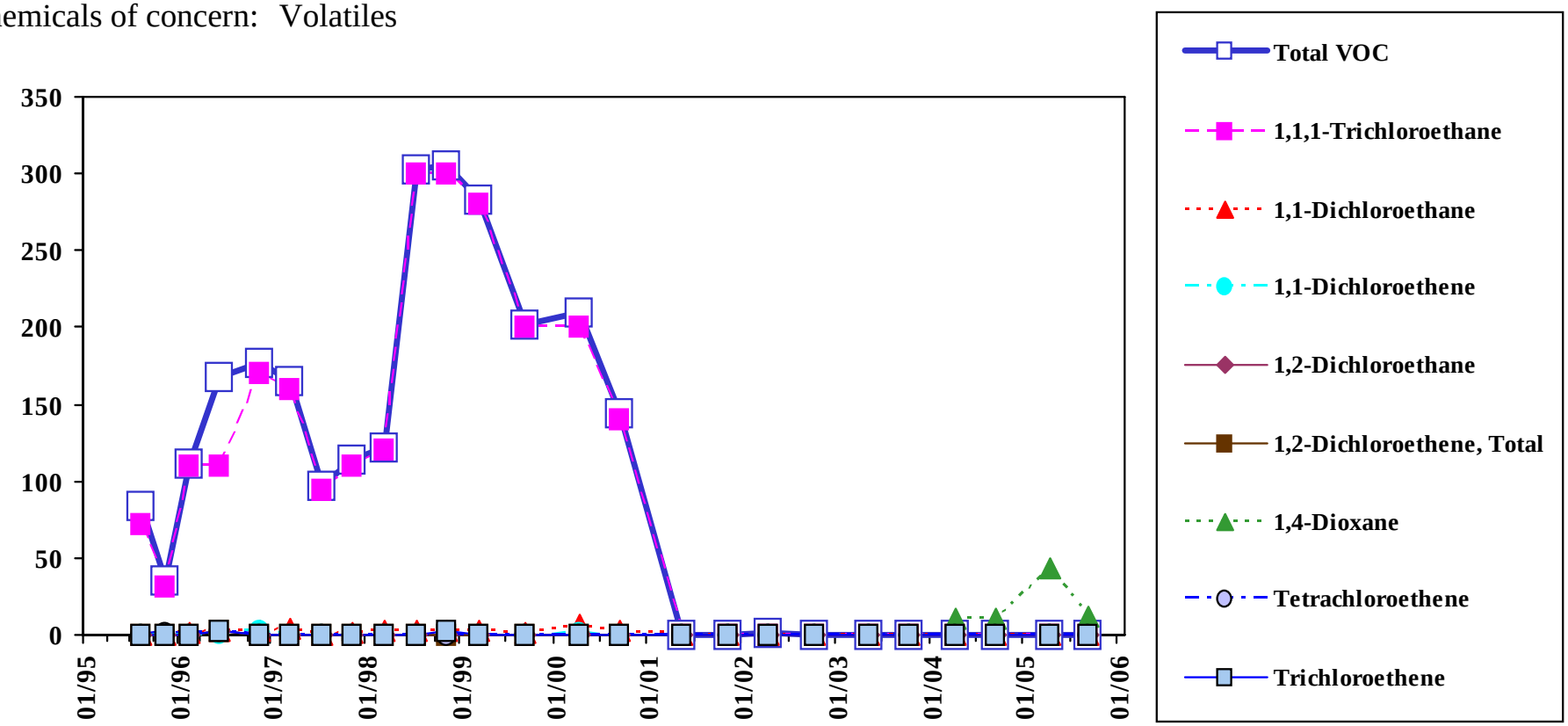
Extraction System Influent/Effluent and Extraction Well Data (EW)
Groundwater Data (MW)

Sample Location:

Eastern Plume Combined Effluent

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

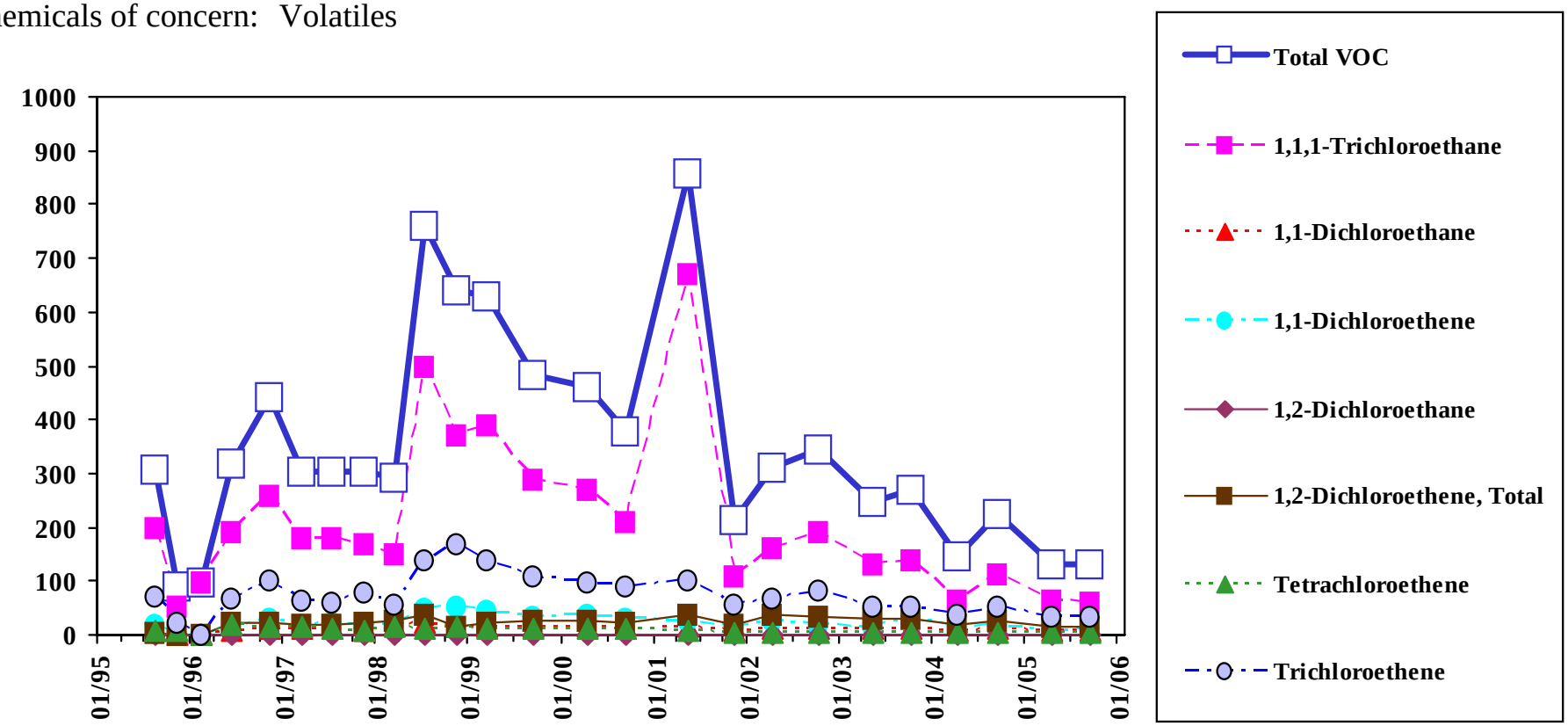
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

Sample Location:

Eastern Plume Raw Influent

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

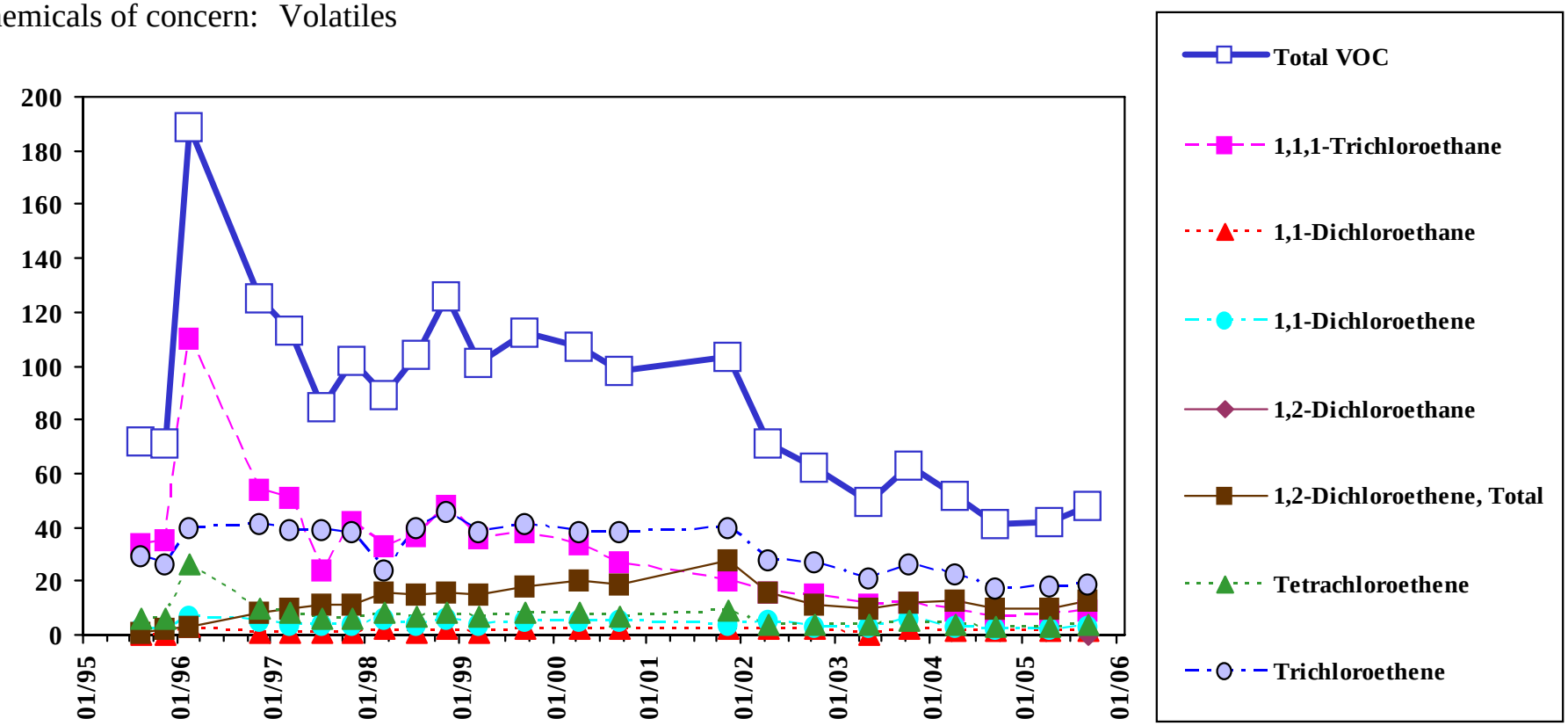
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

Sample Location:

EW-01

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

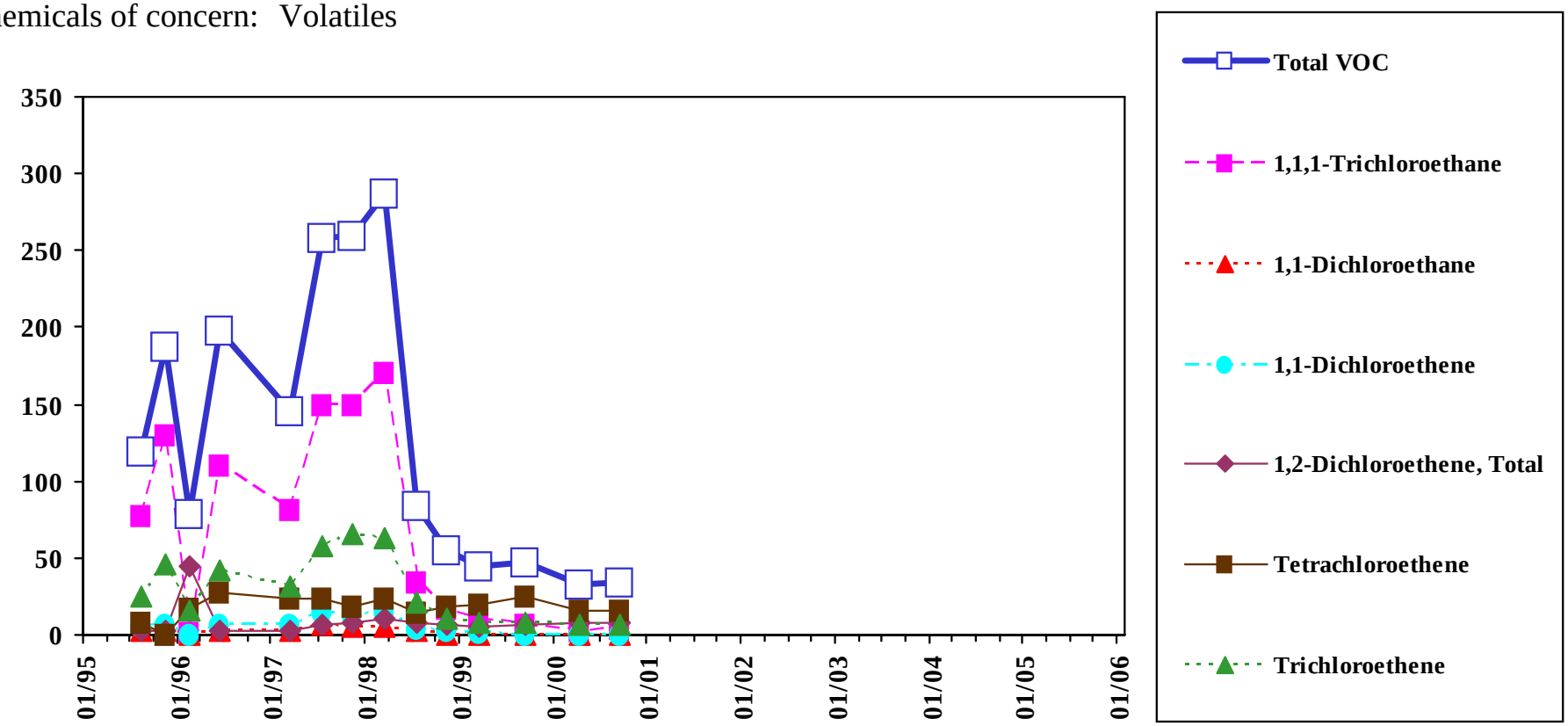
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

Sample Location:

EW-02

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

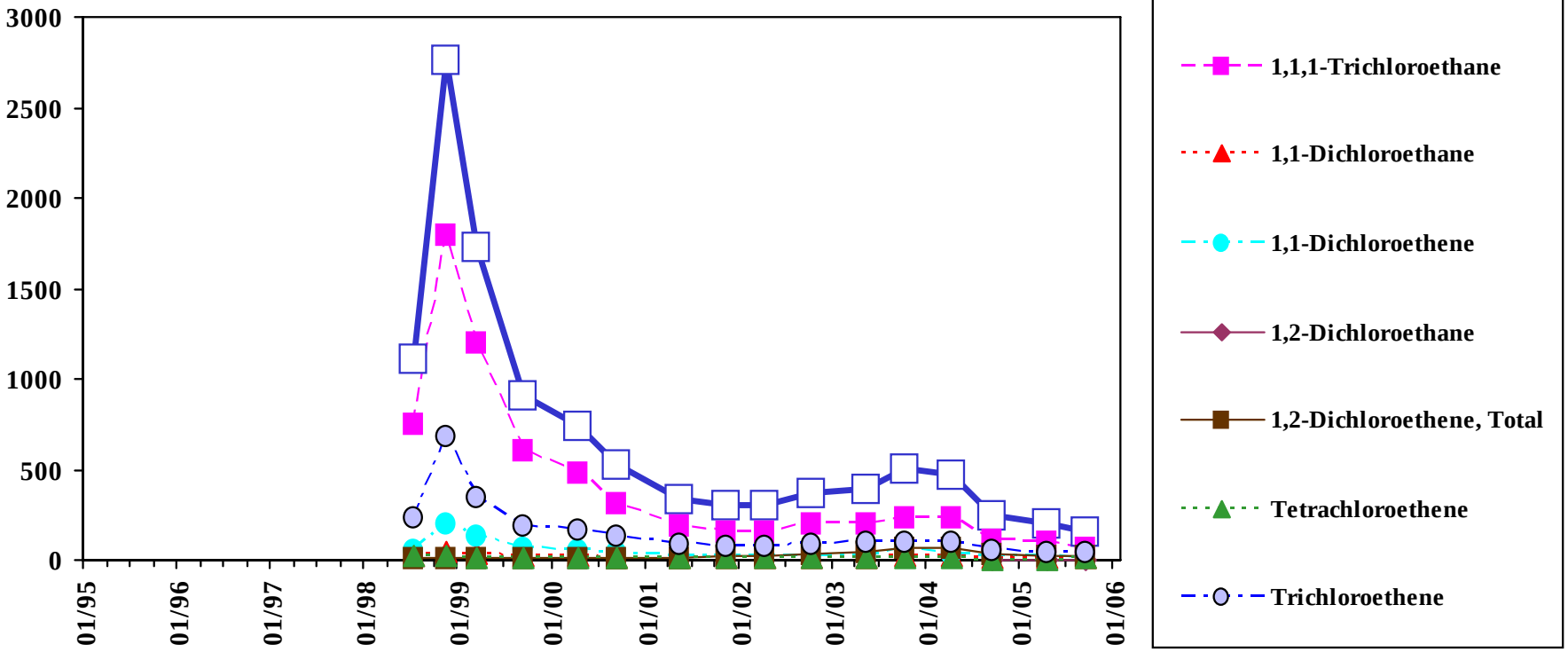
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

Sample Location:

EW-02A

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

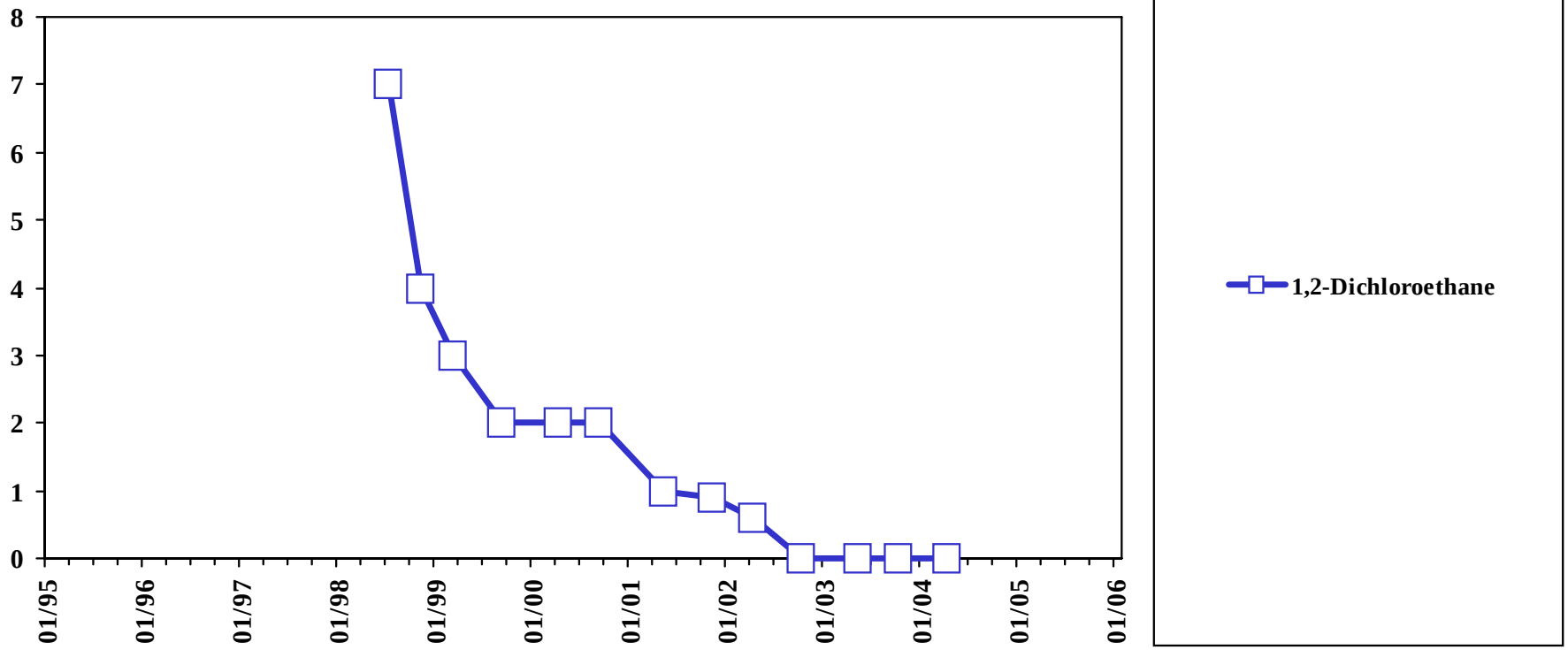
Sample Location:

EW-02A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

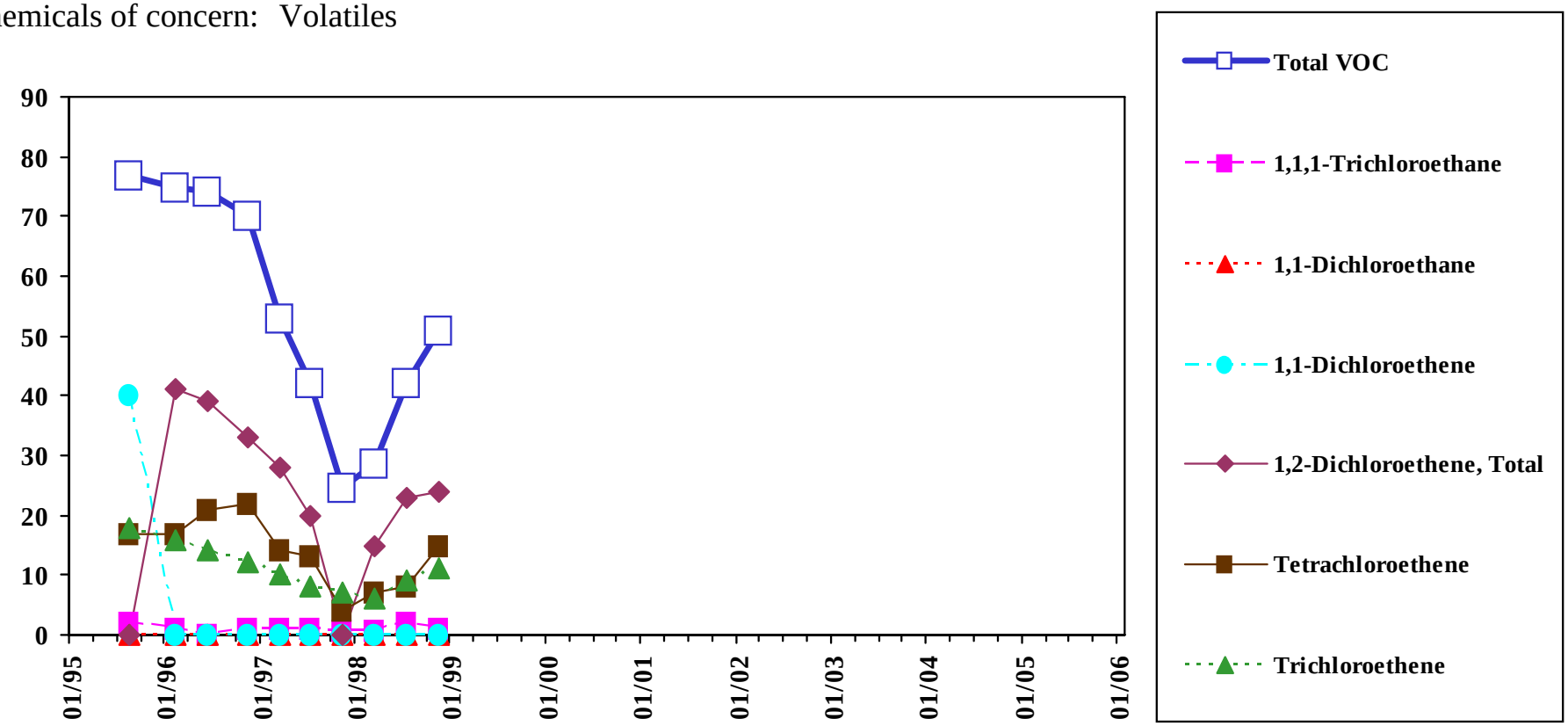
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

Sample Location:

EW-03

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

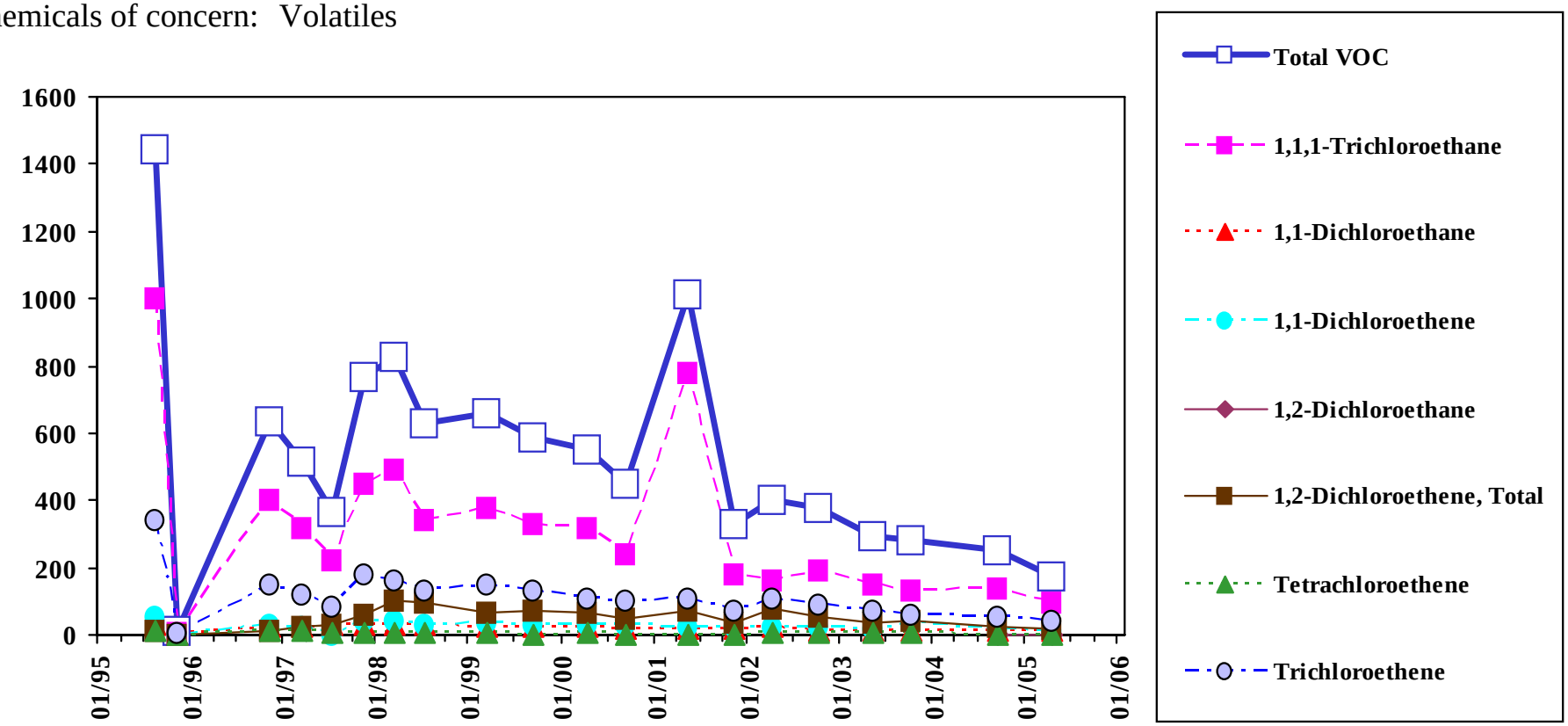
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

Sample Location:

EW-04

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

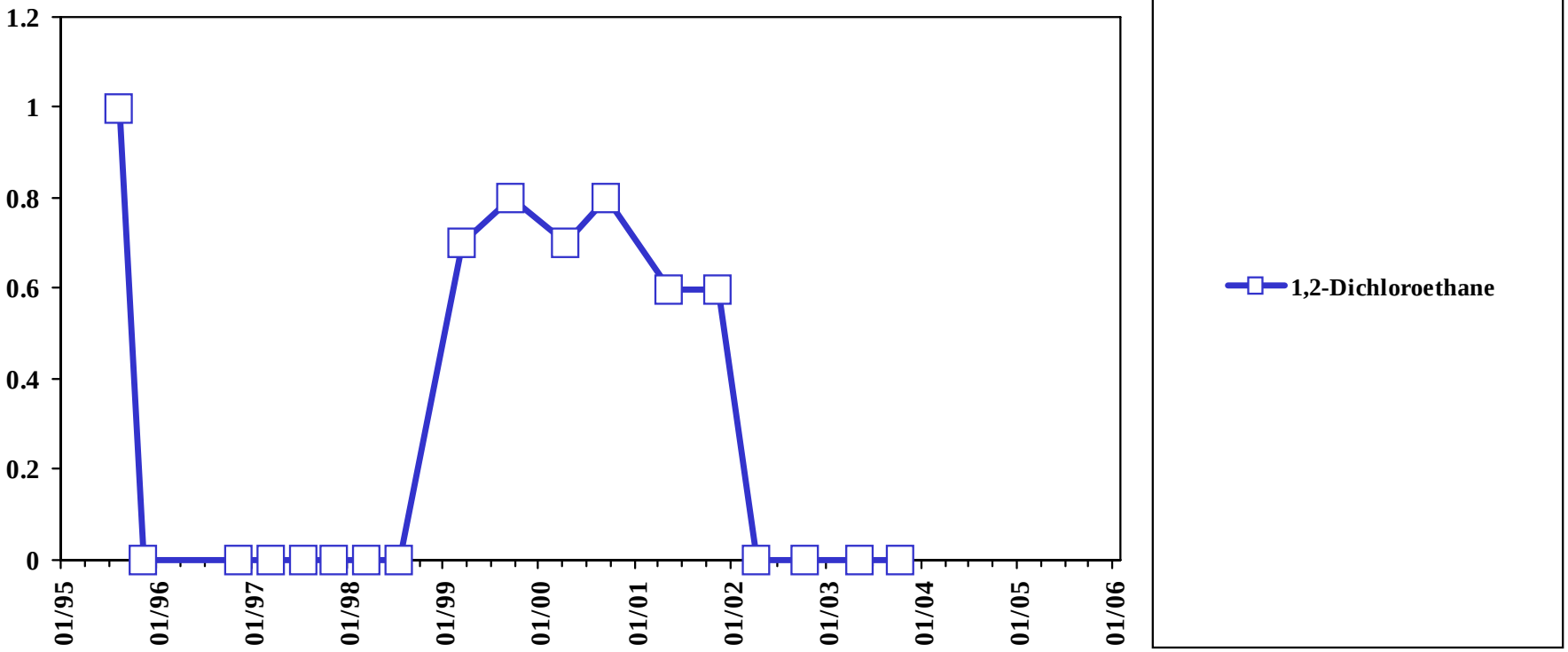
Sample Location:

EW-04

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

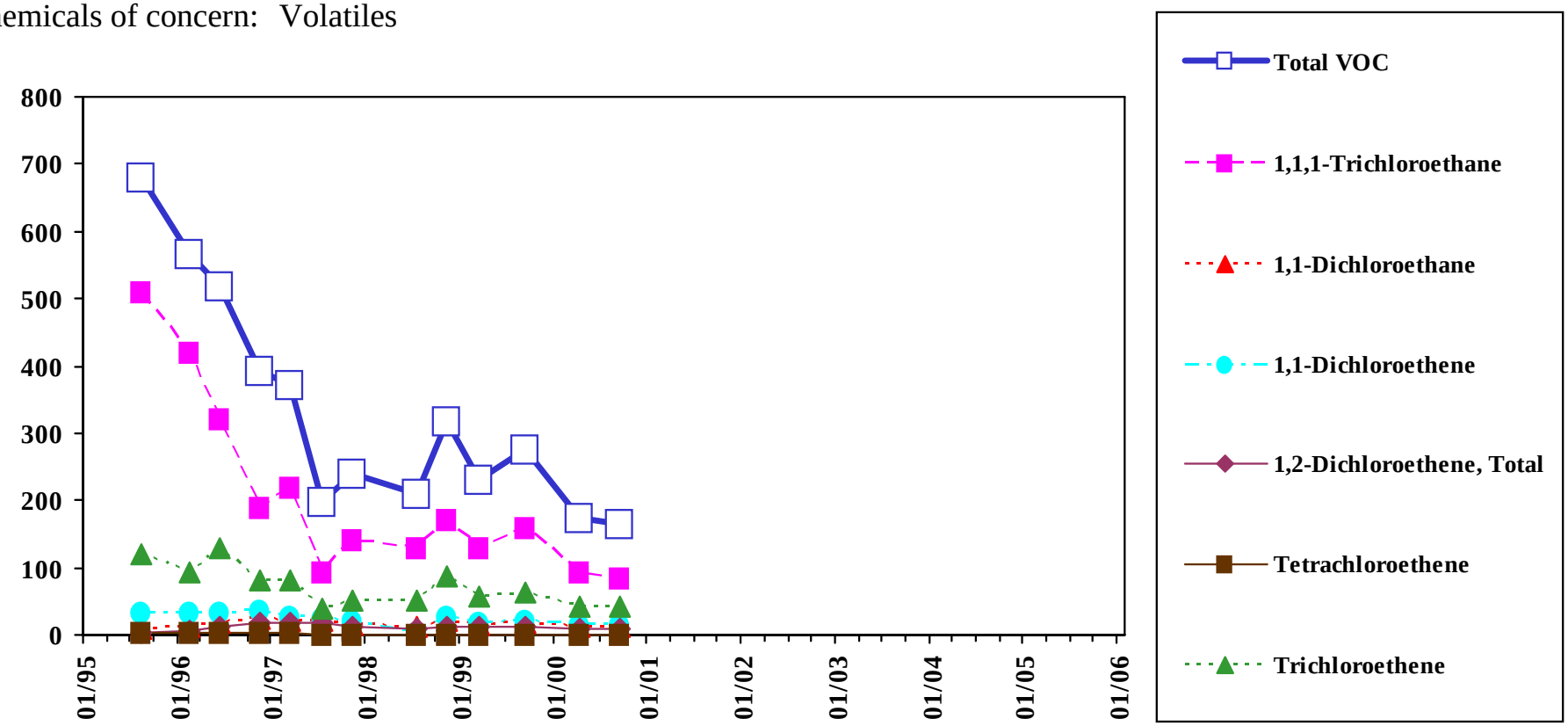
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

Sample Location:

EW-05

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

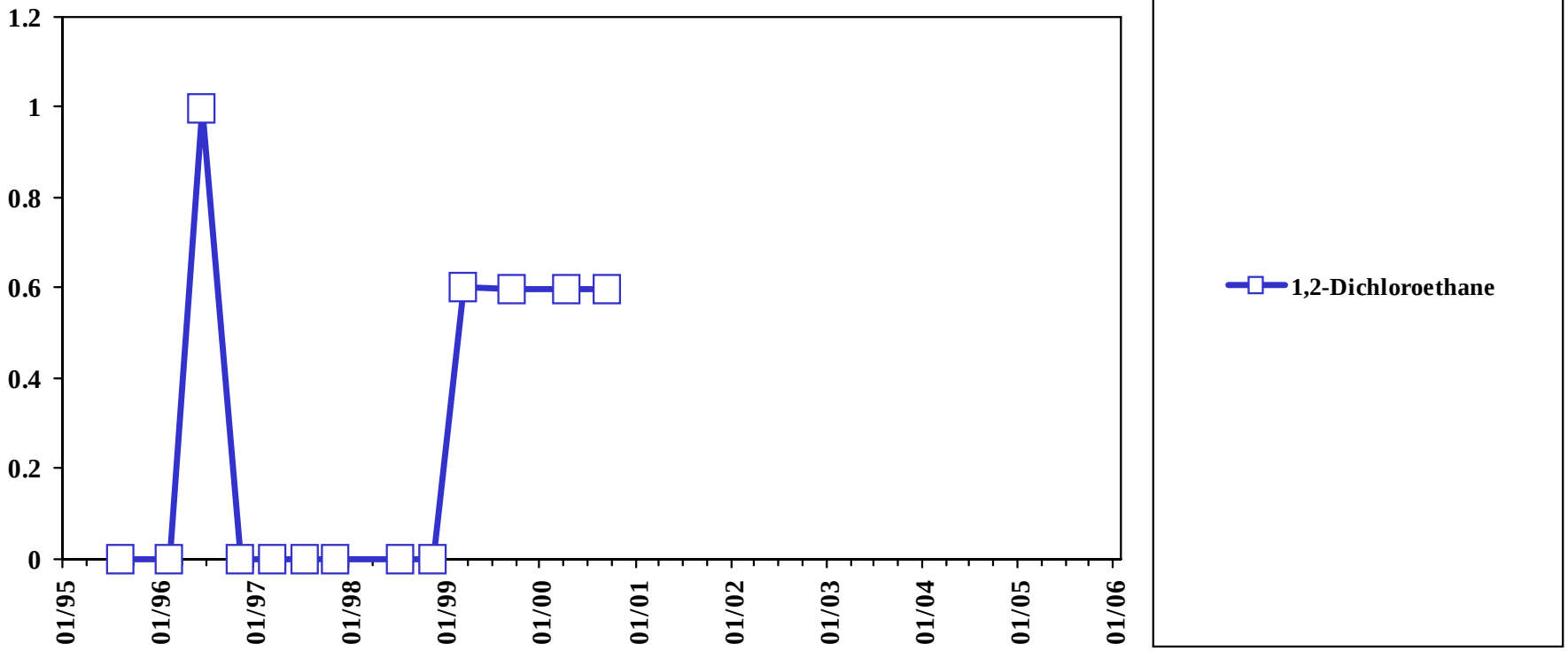
Sample Location:

EW-05

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

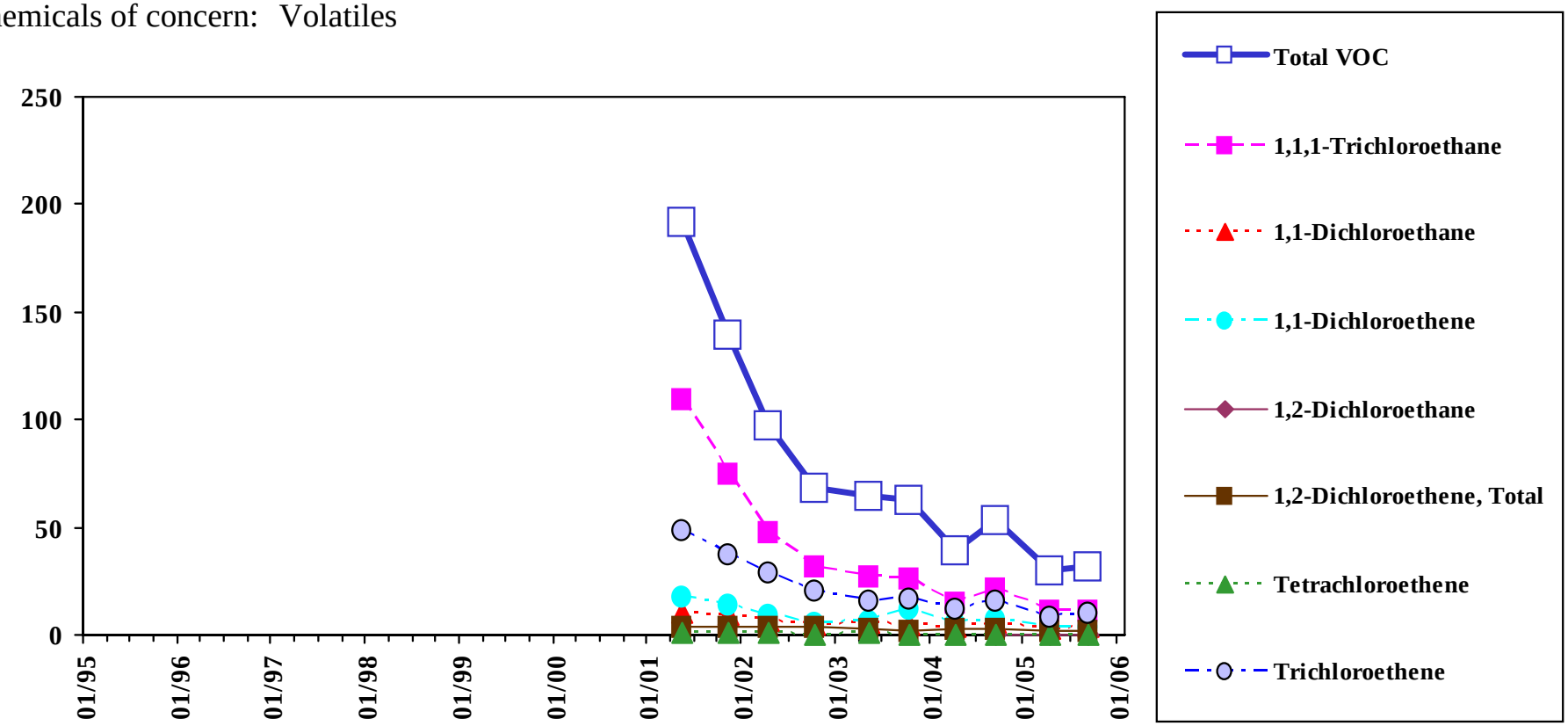
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

Sample Location:

EW-05A

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

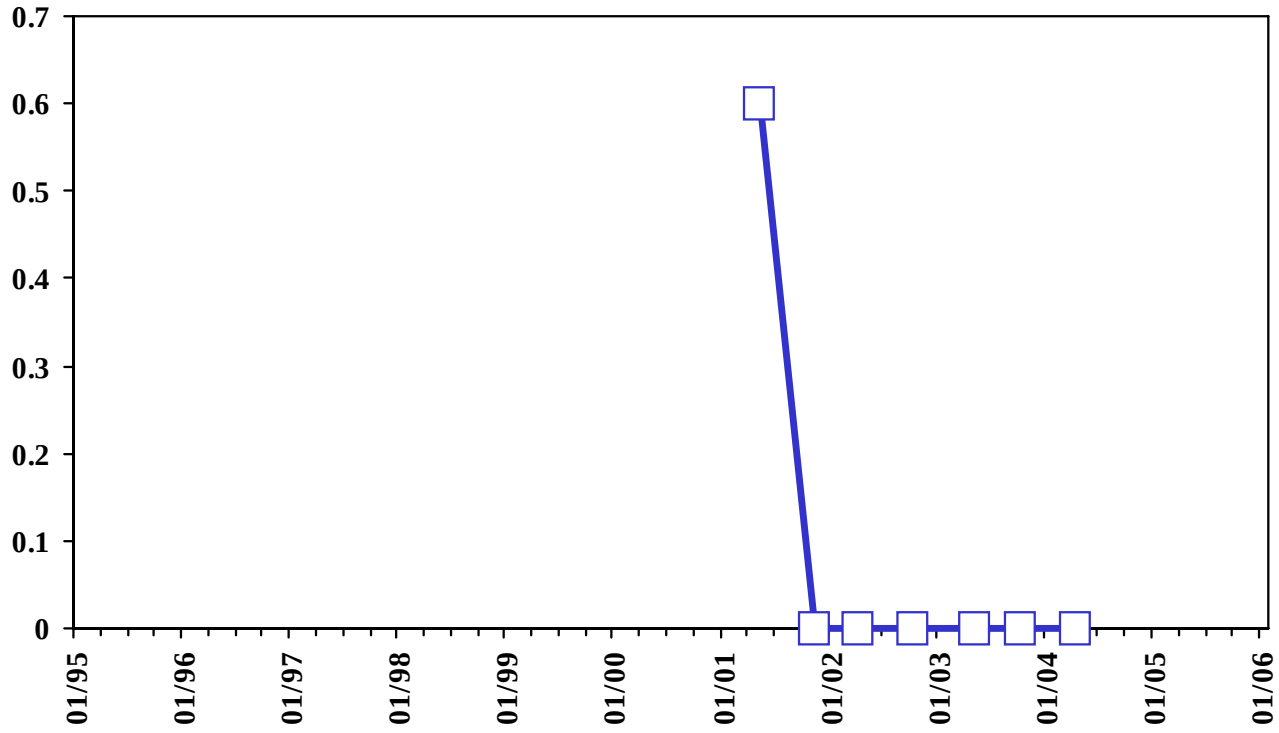
Sample Location:

EW-05A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

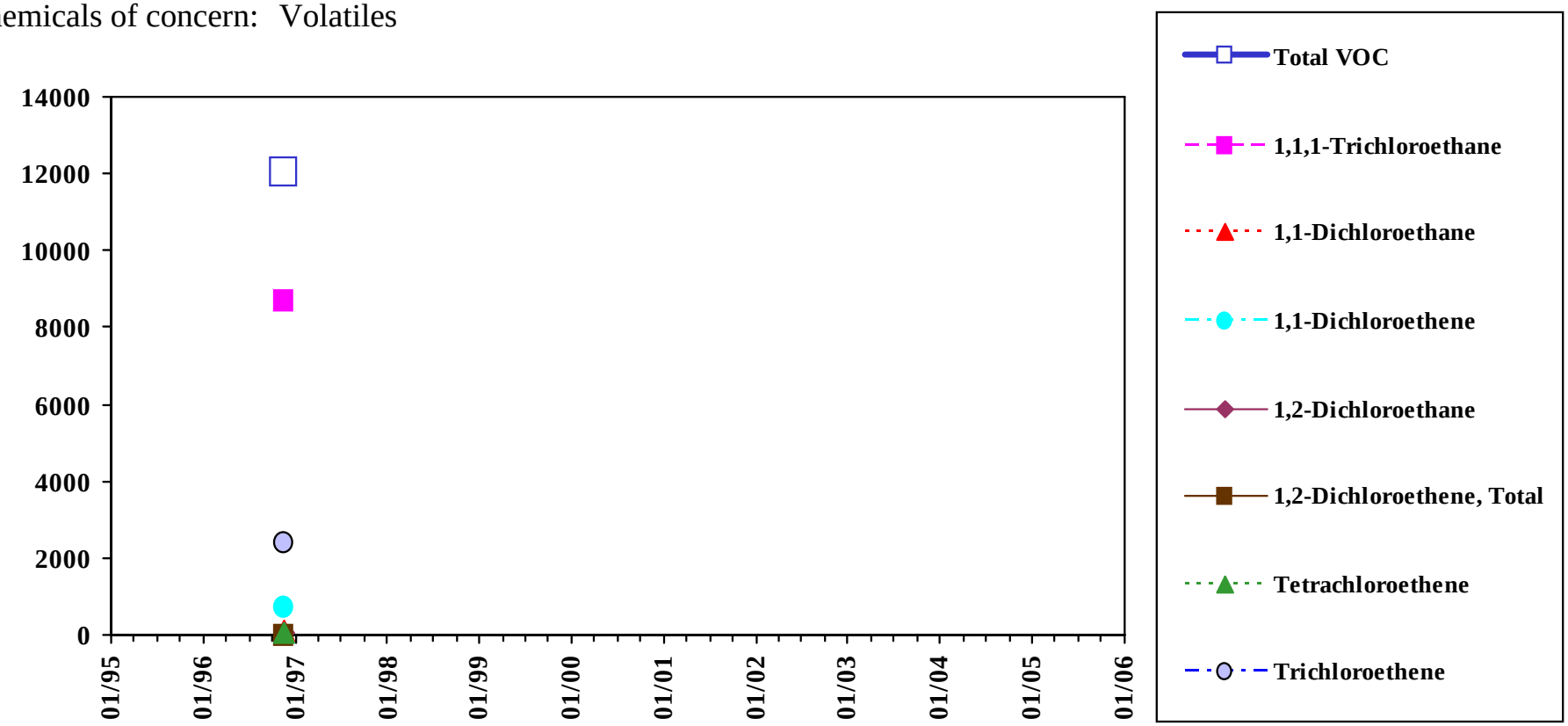
Sample Location:

MW-101

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

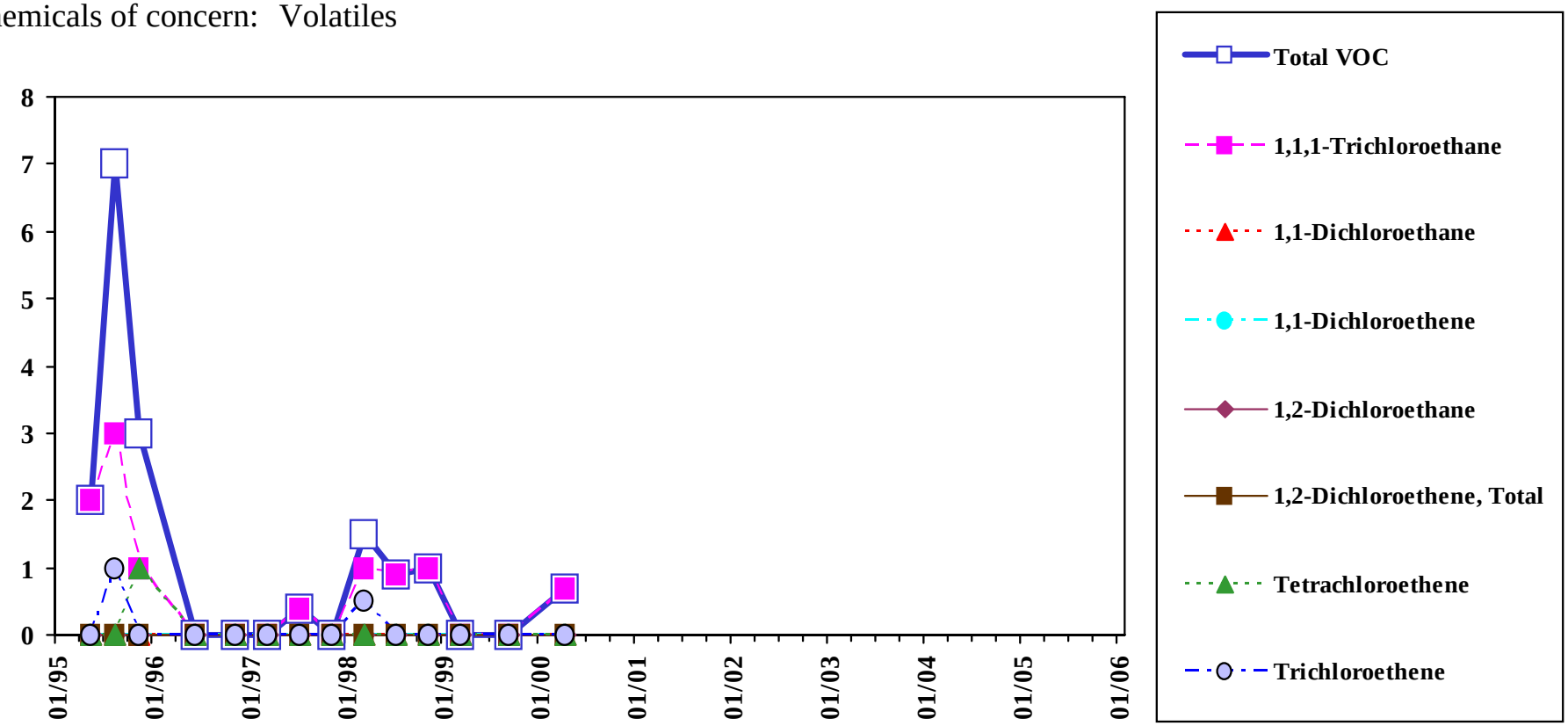
Sample Location:

MW-105A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

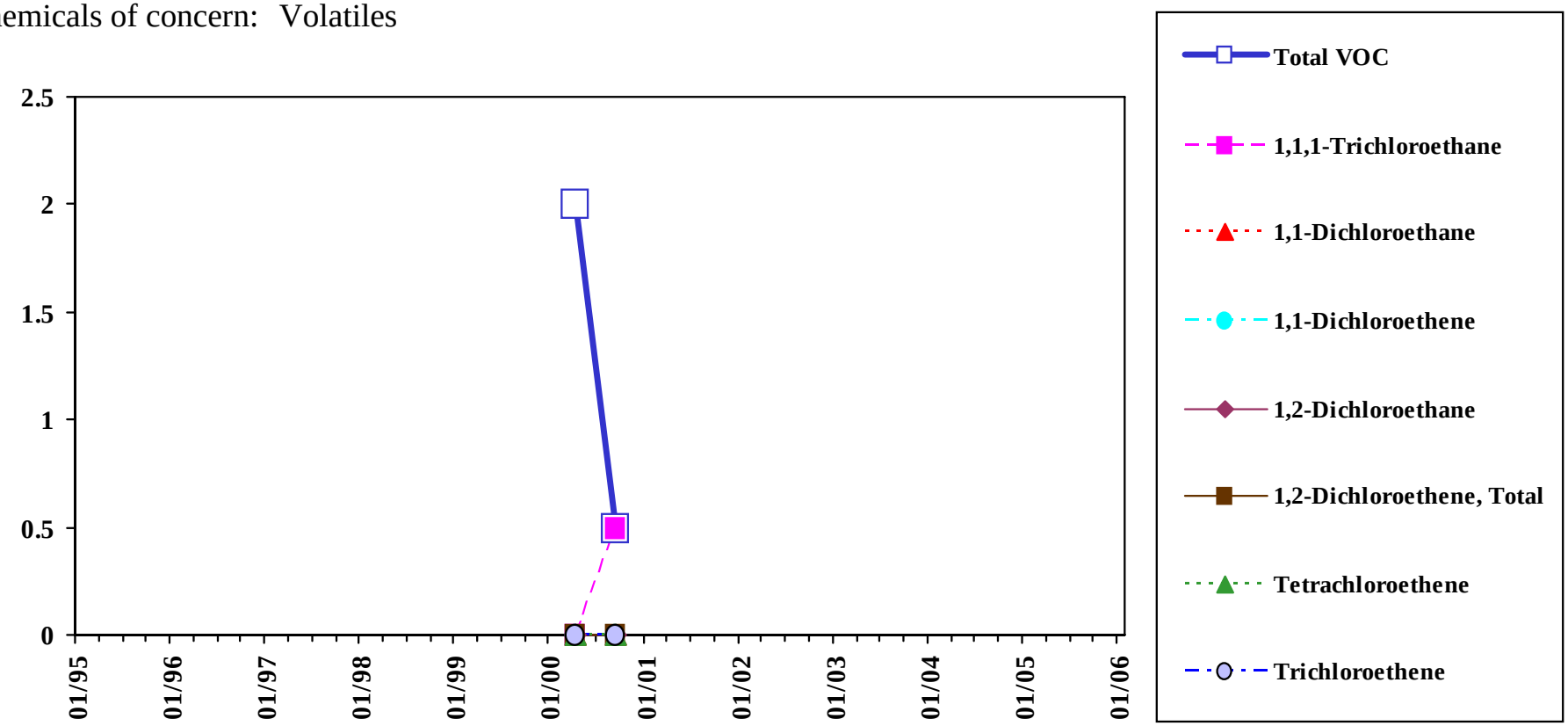
Sample Location:

MW-105A

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

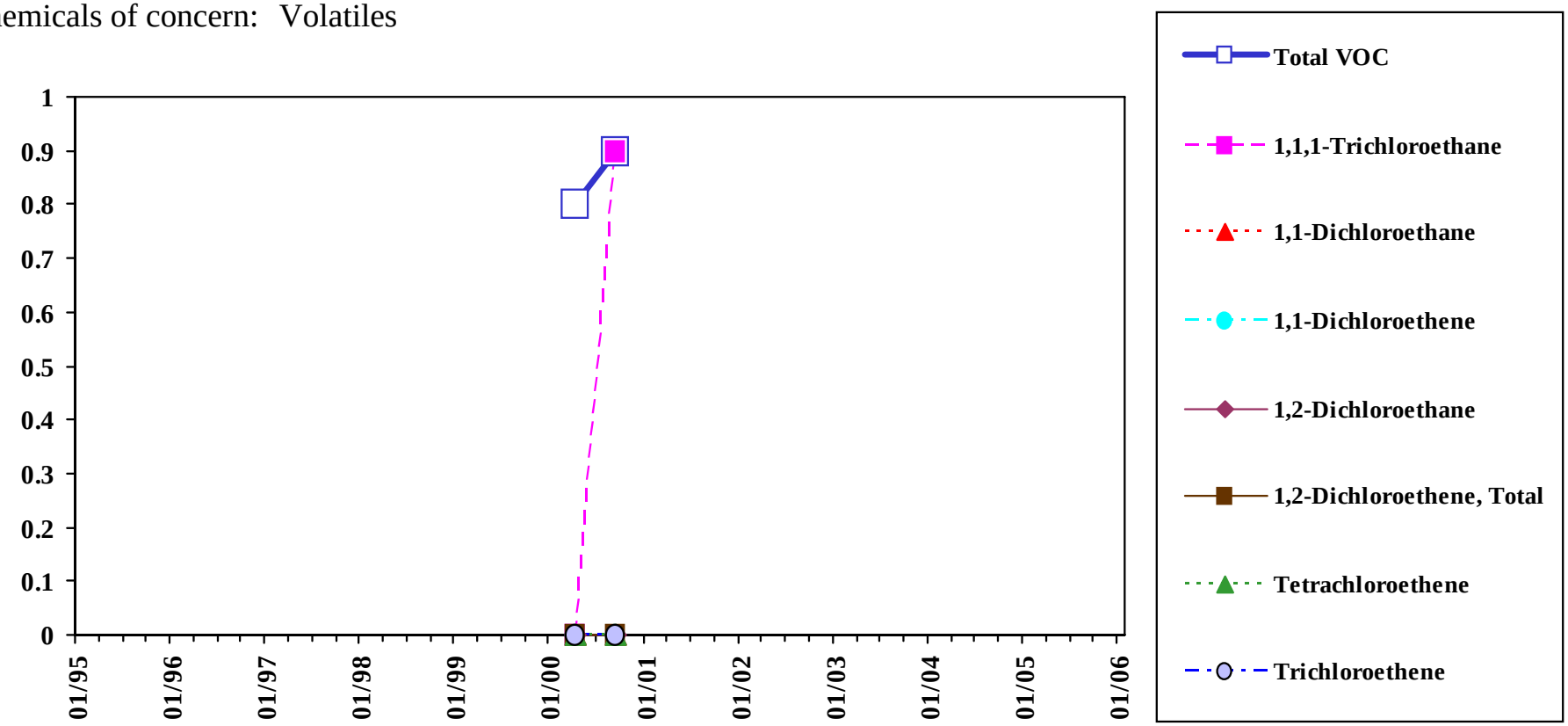
Sample Location:

MW-105A

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

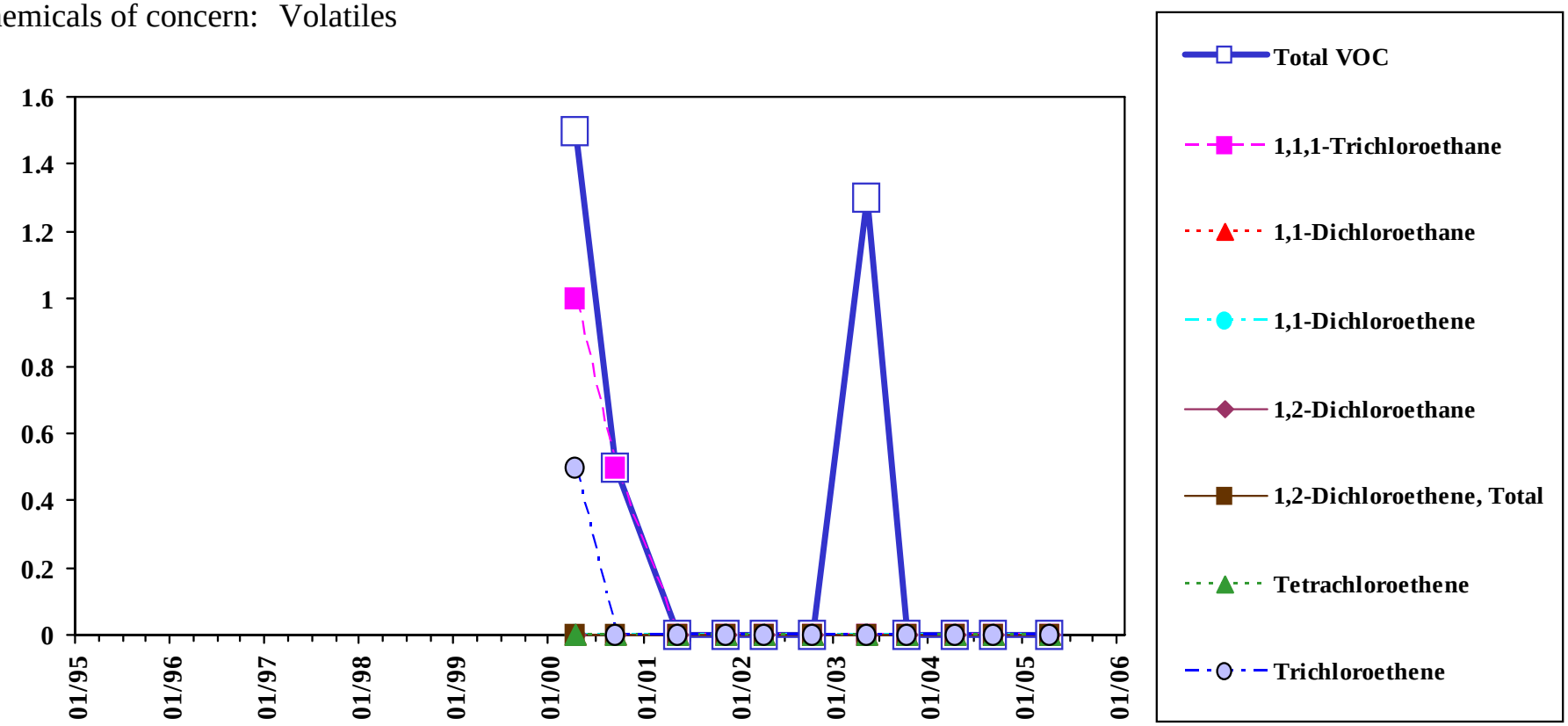
Sample Location:

MW-105A

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

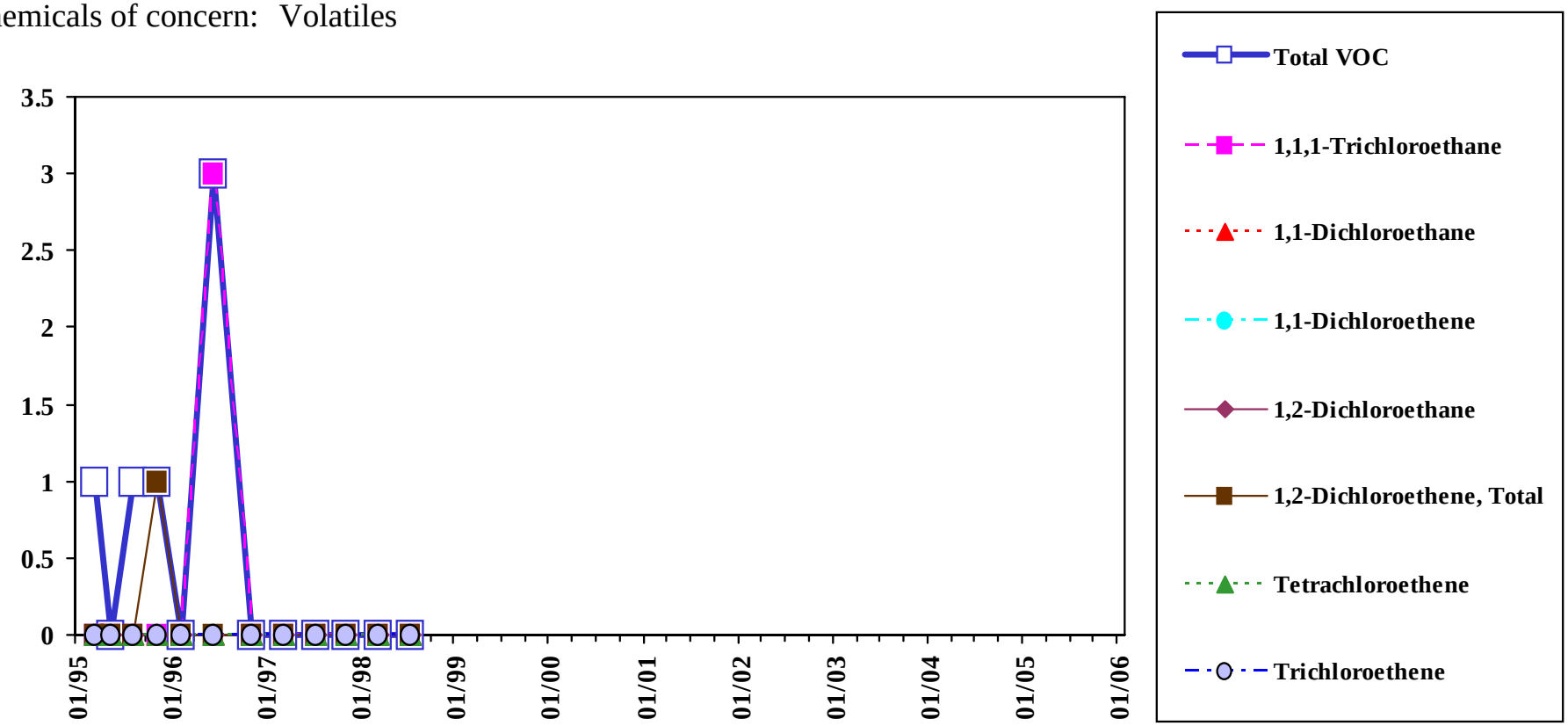
Sample Location:

MW-105B

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

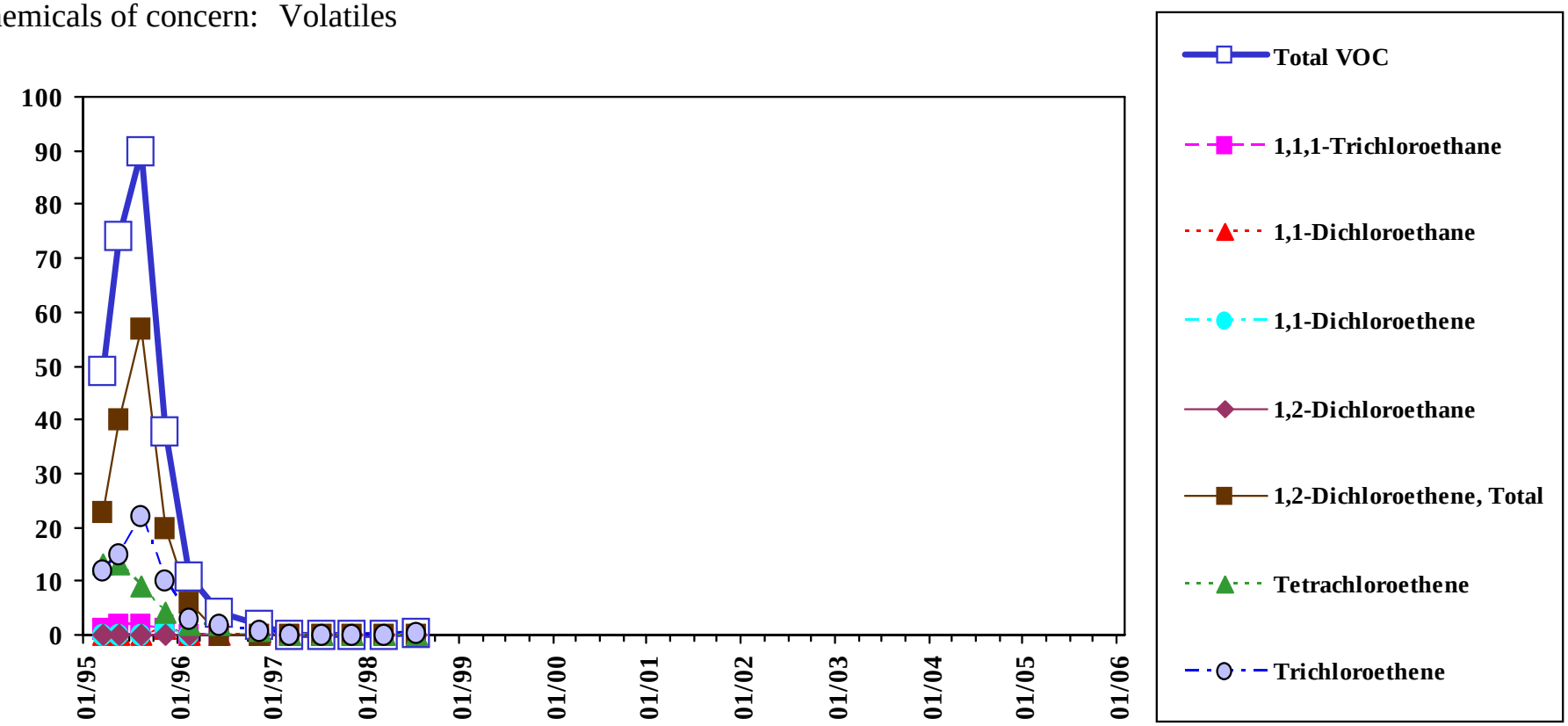
Sample Location:

MW-106

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

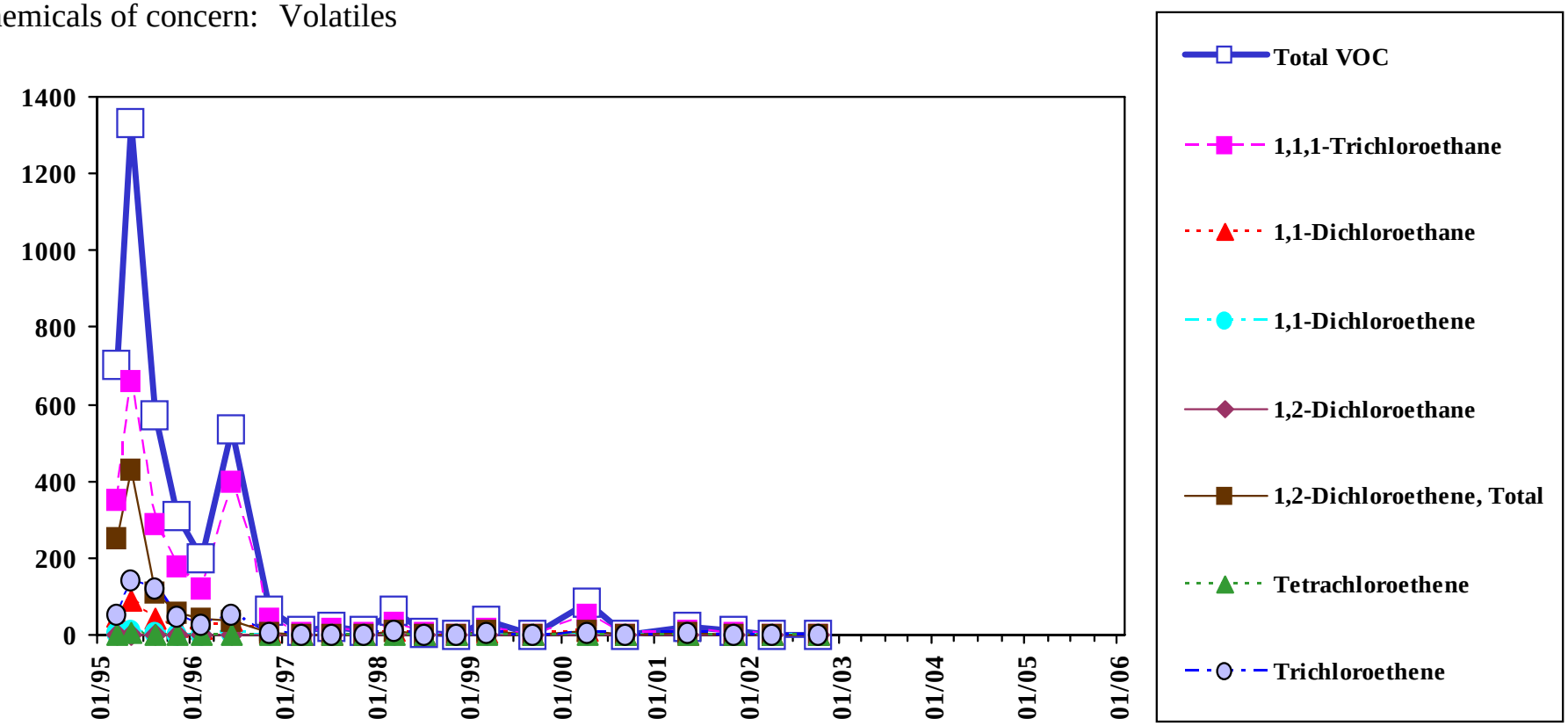
Sample Location:

MW-1104

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

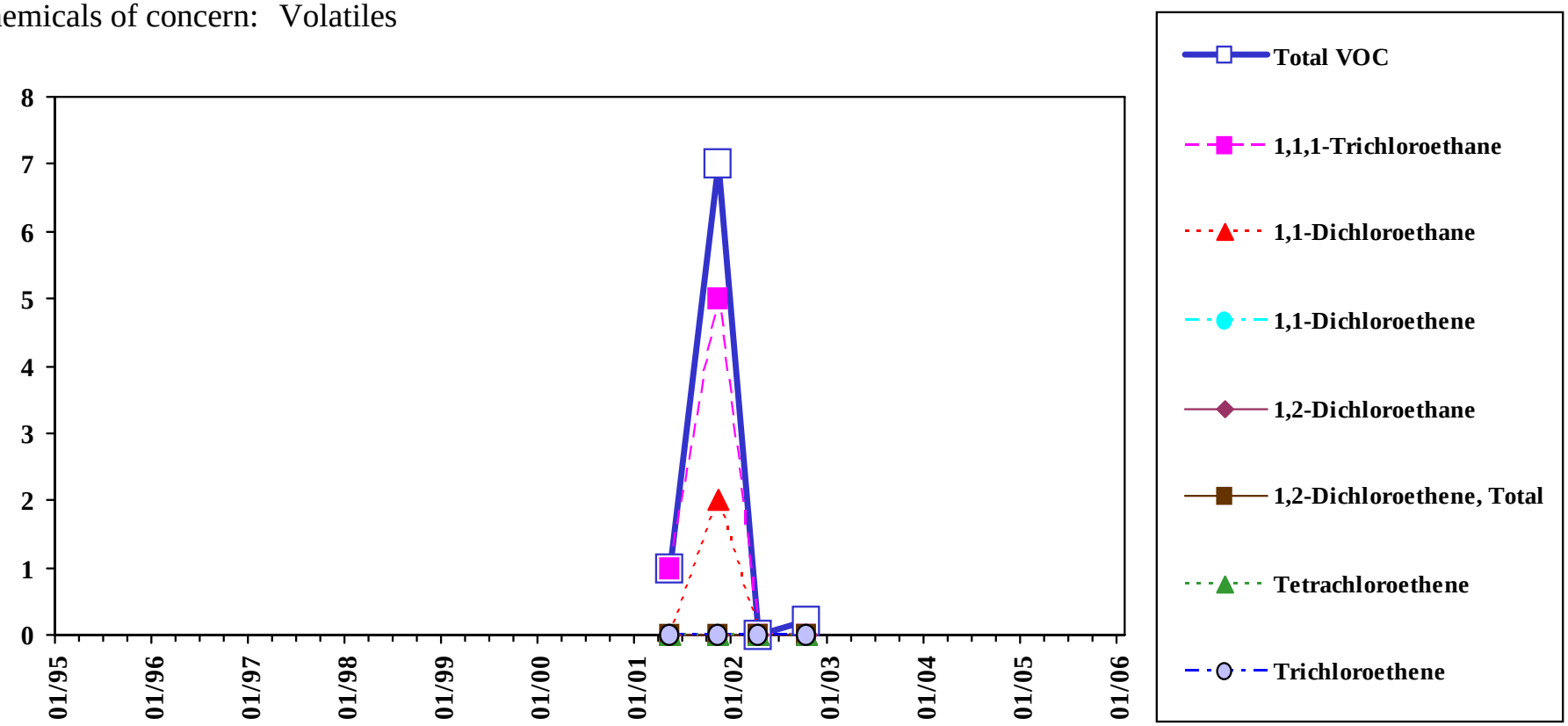
Sample Location:

MW-1104

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

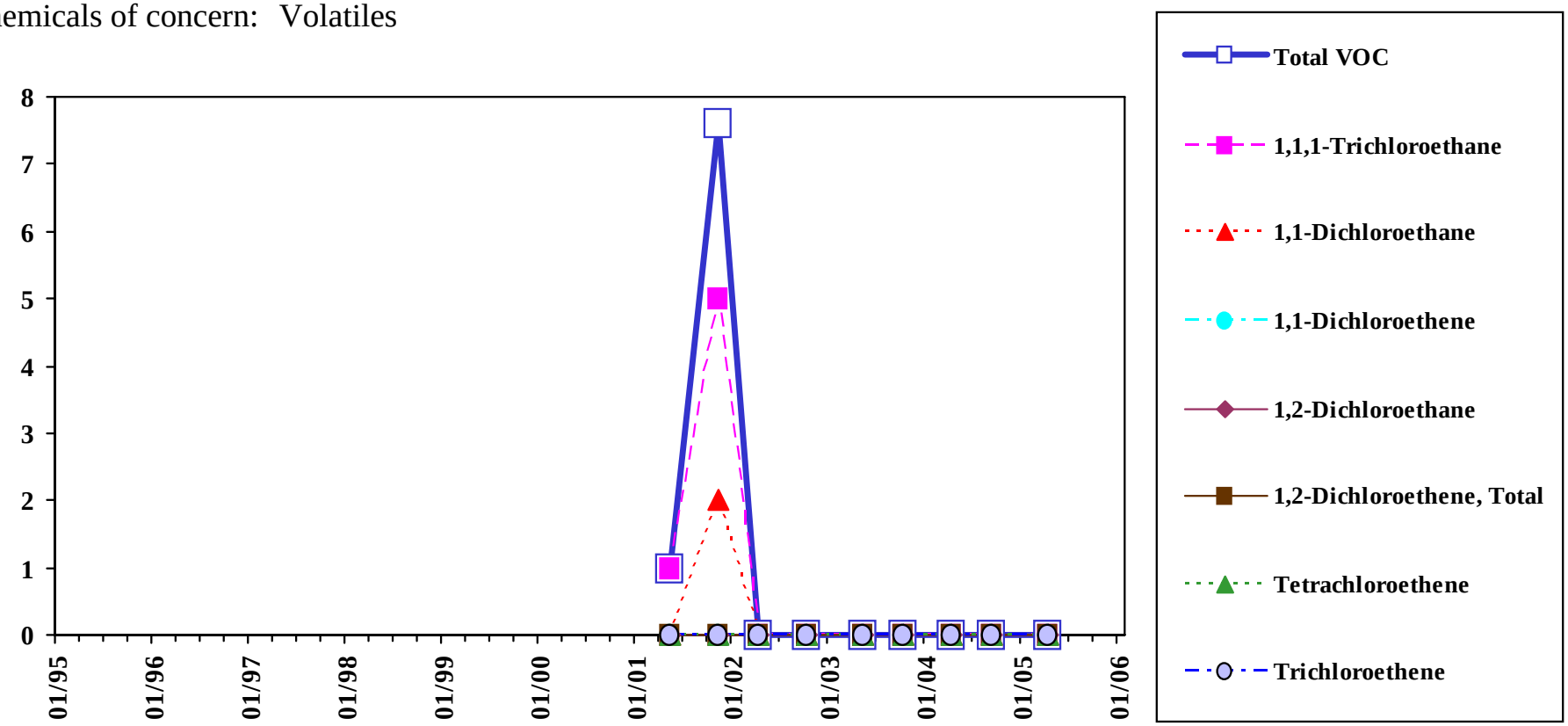
Sample Location:

MW-1104

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

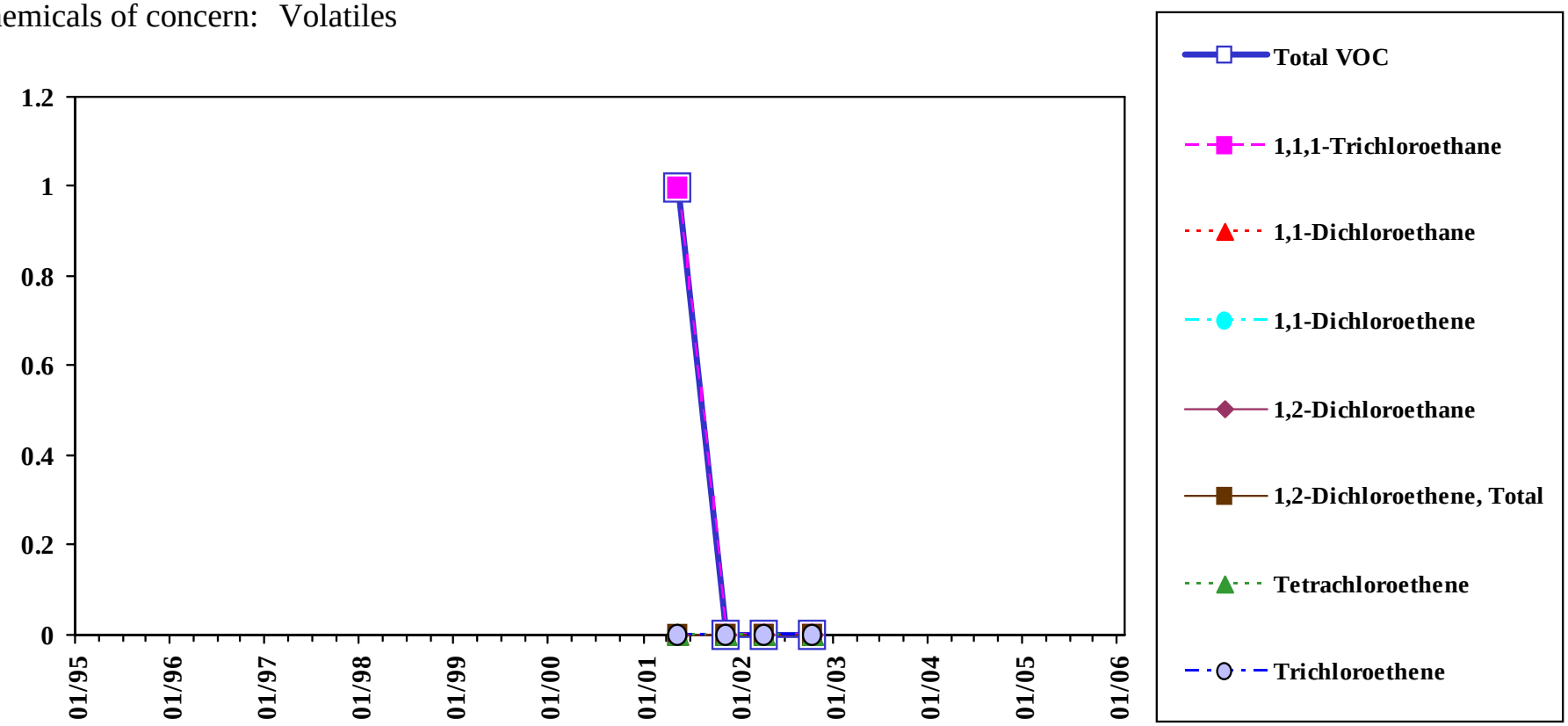
Sample Location:

MW-1104

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

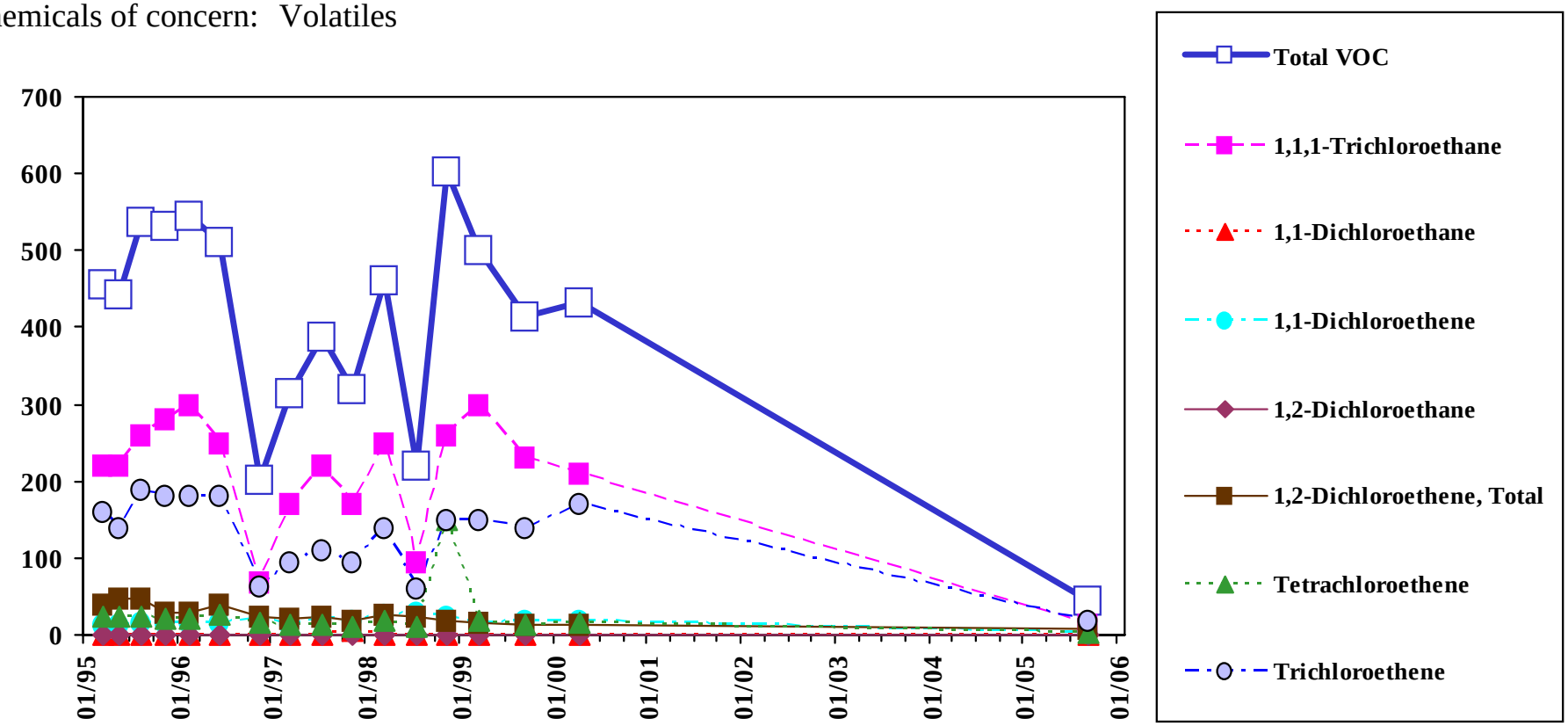
Sample Location:

MW-205

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

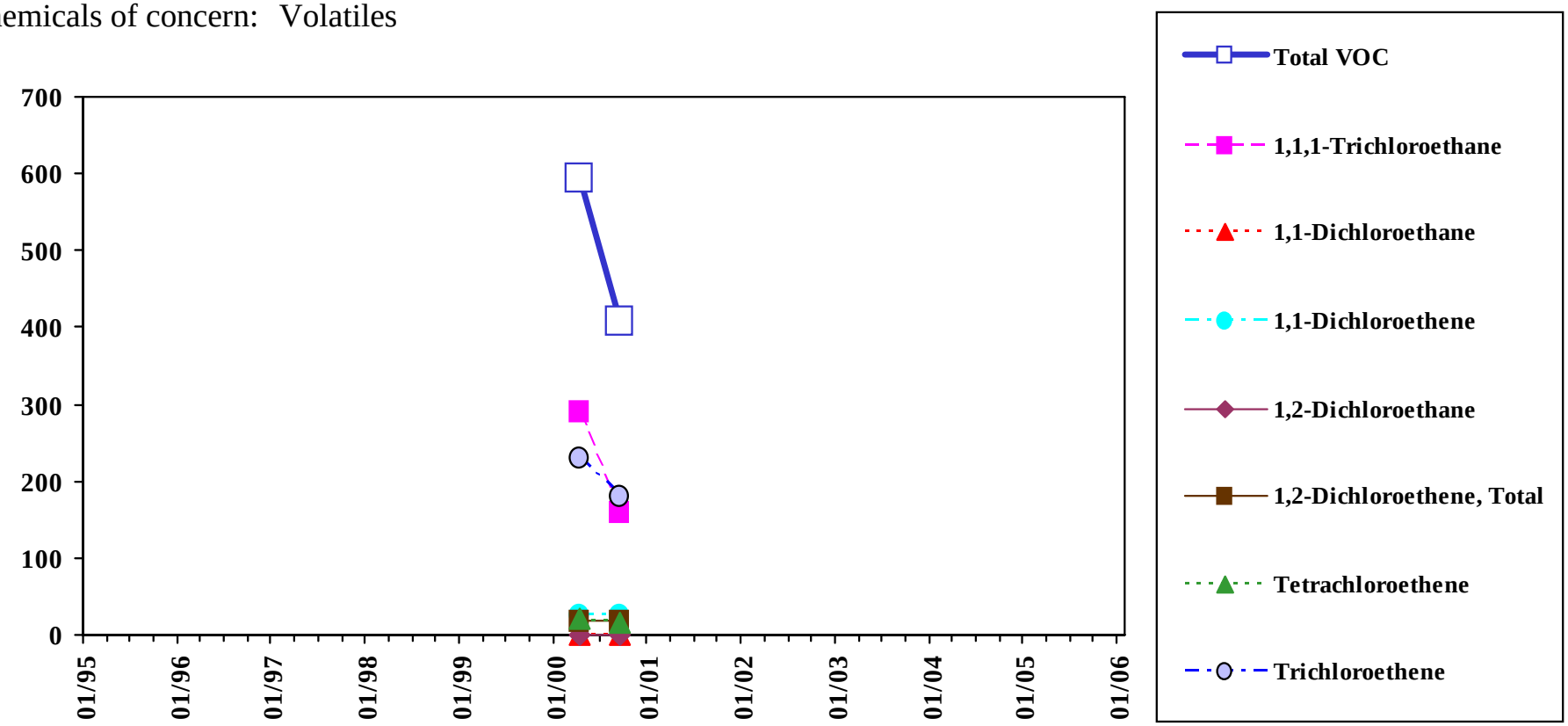
Sample Location:

MW-205

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

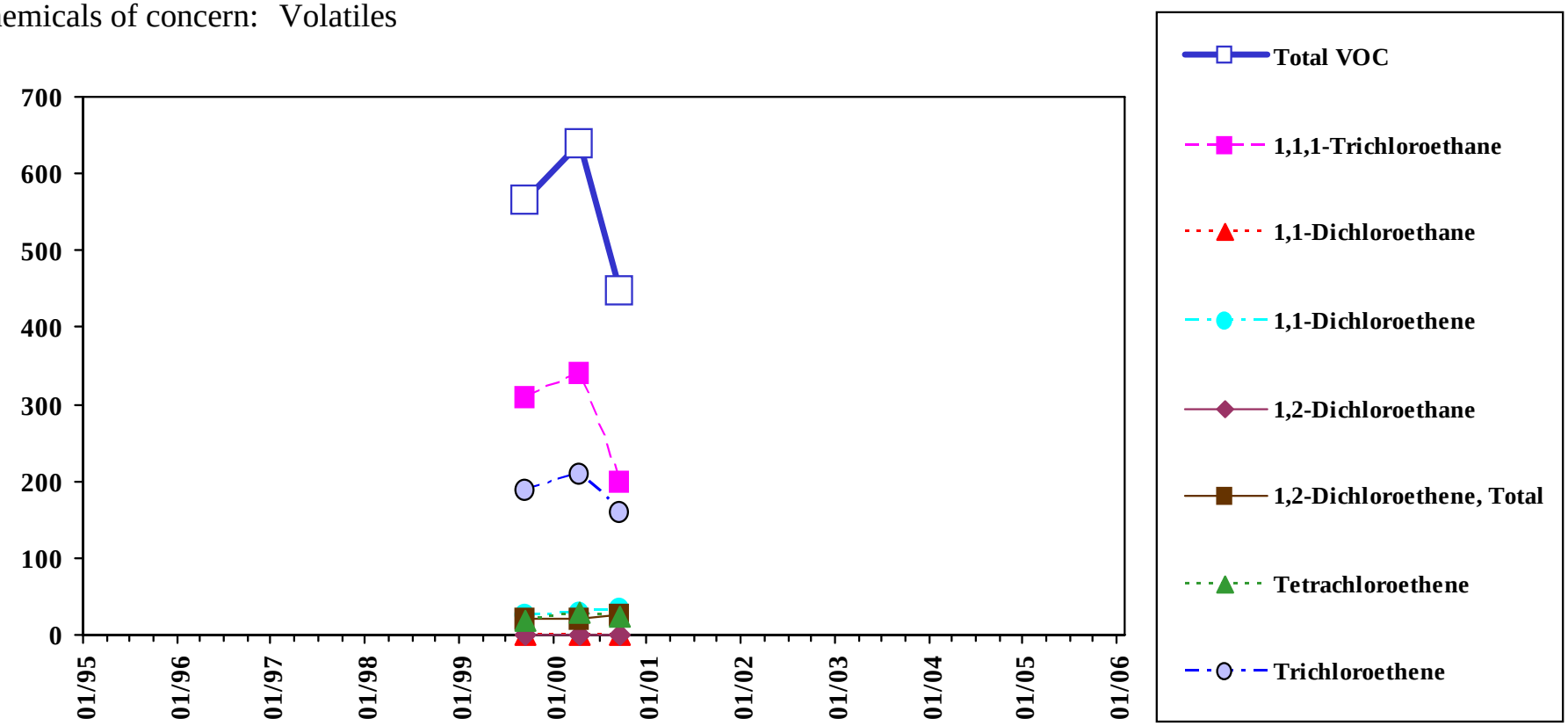
Sample Location:

MW-205

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

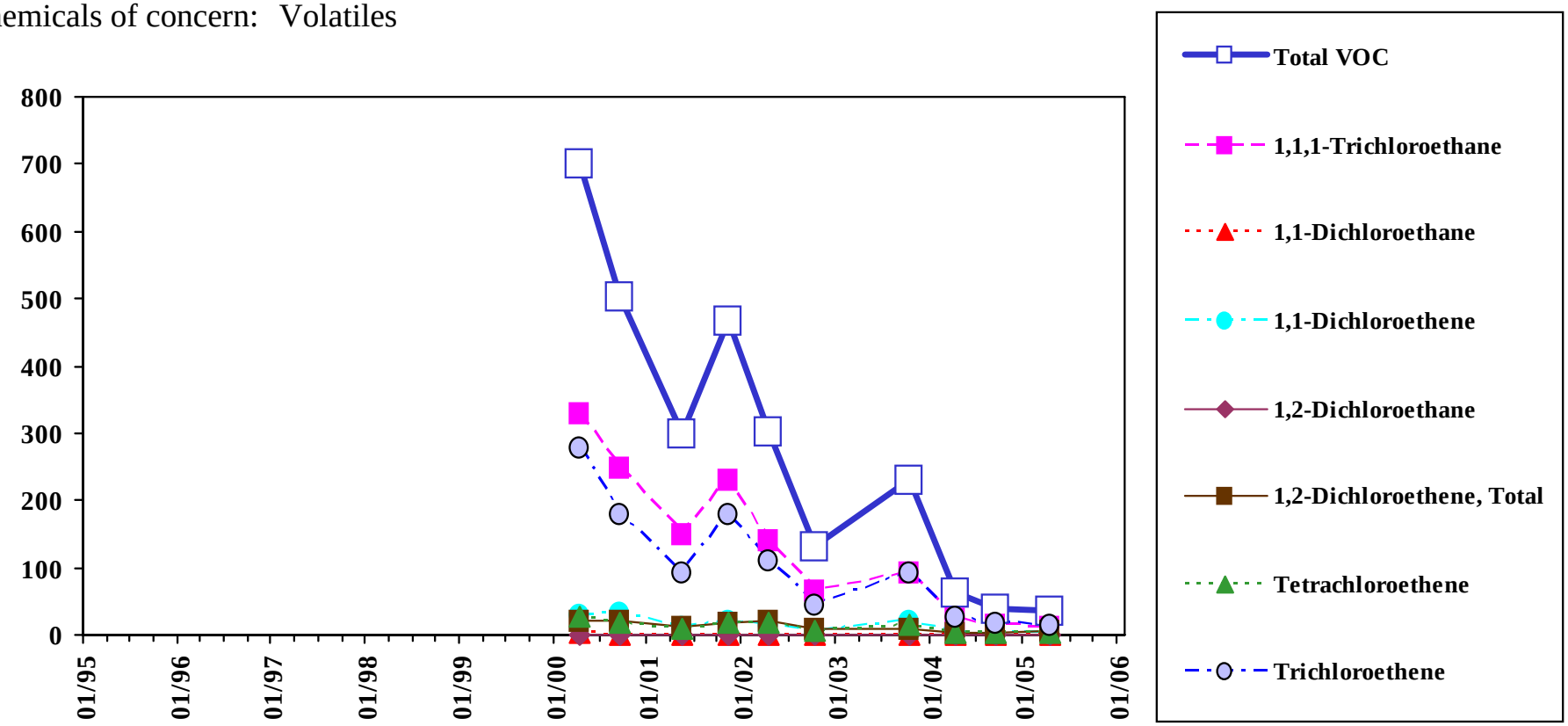
Sample Location:

MW-205

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

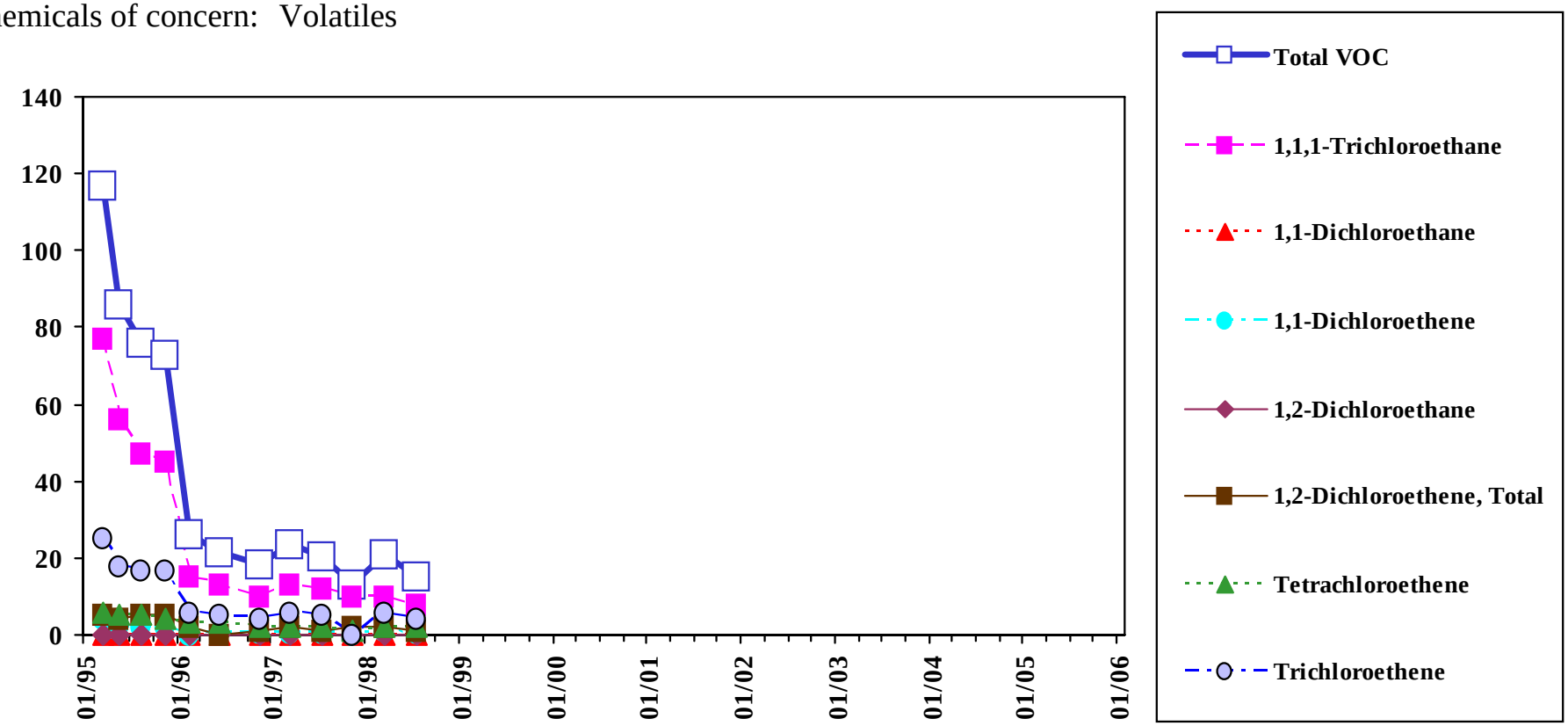
Sample Location:

MW-206A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

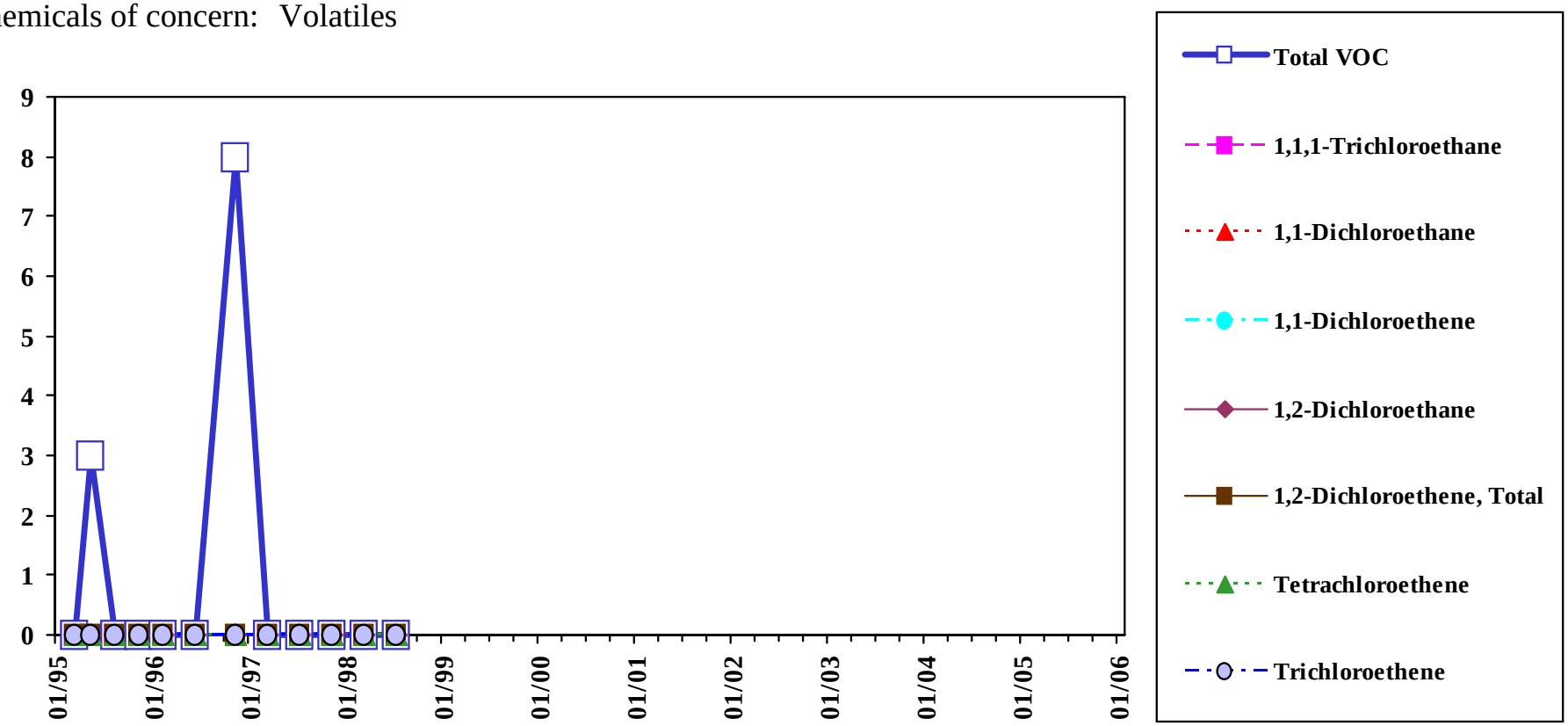
Sample Location:

MW-206B

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

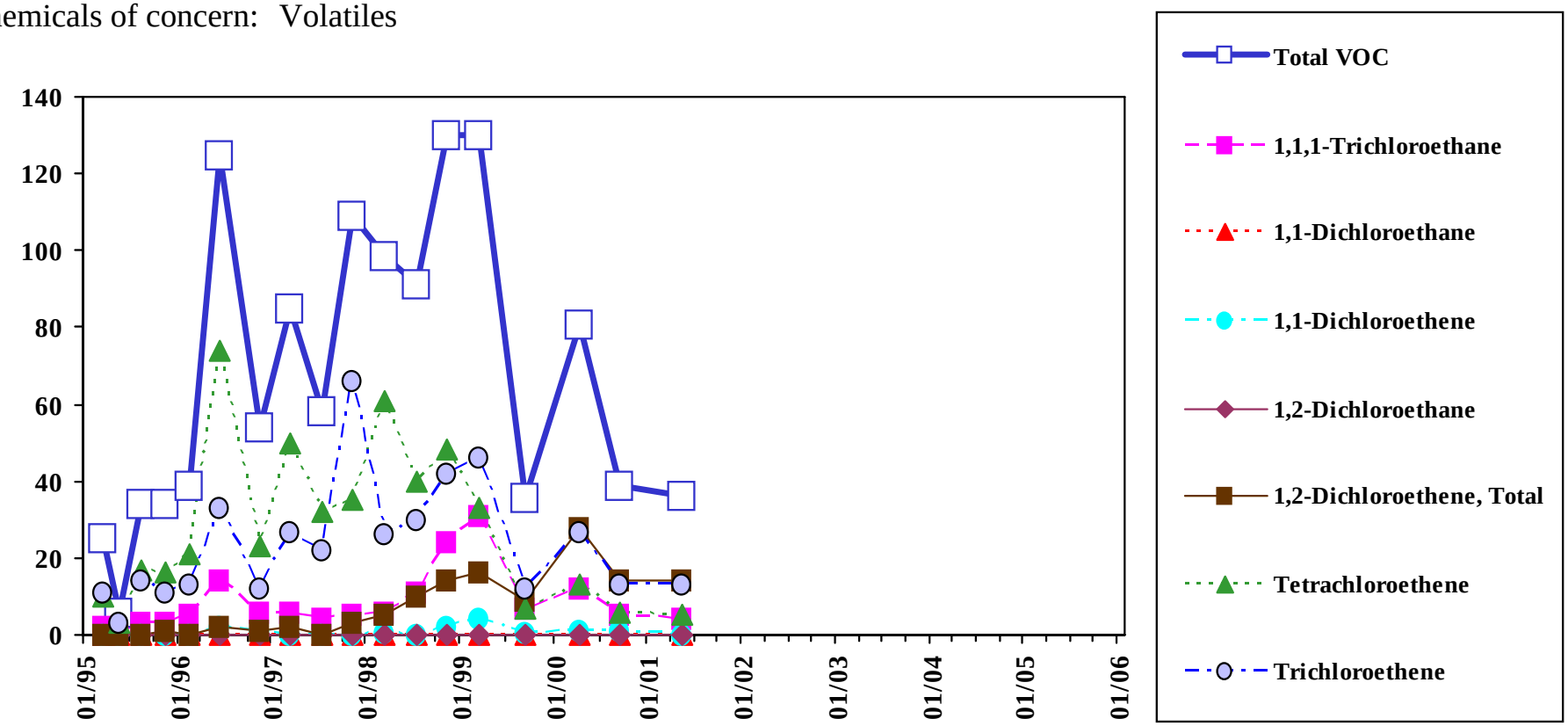
Sample Location:

MW-207A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

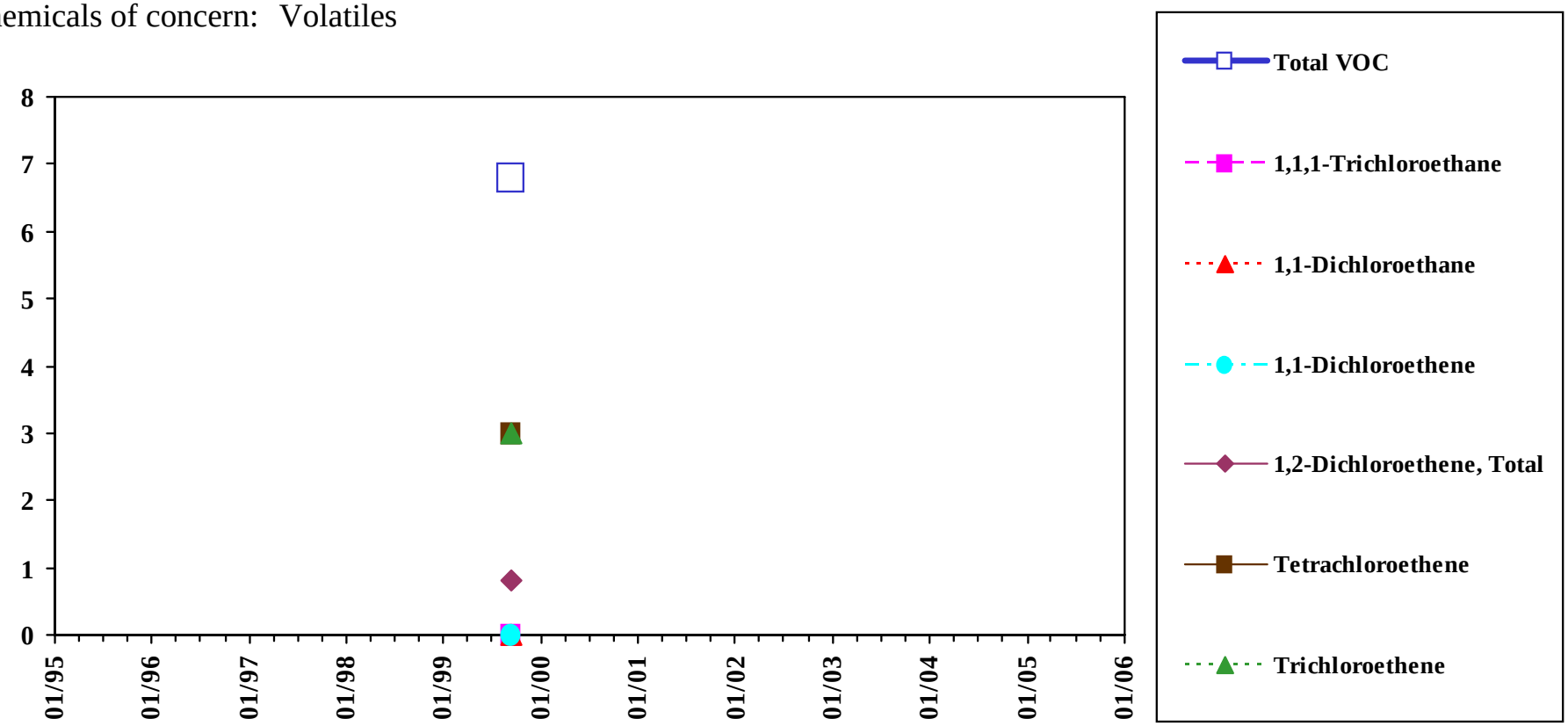
Sample Location:

MW-207A

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

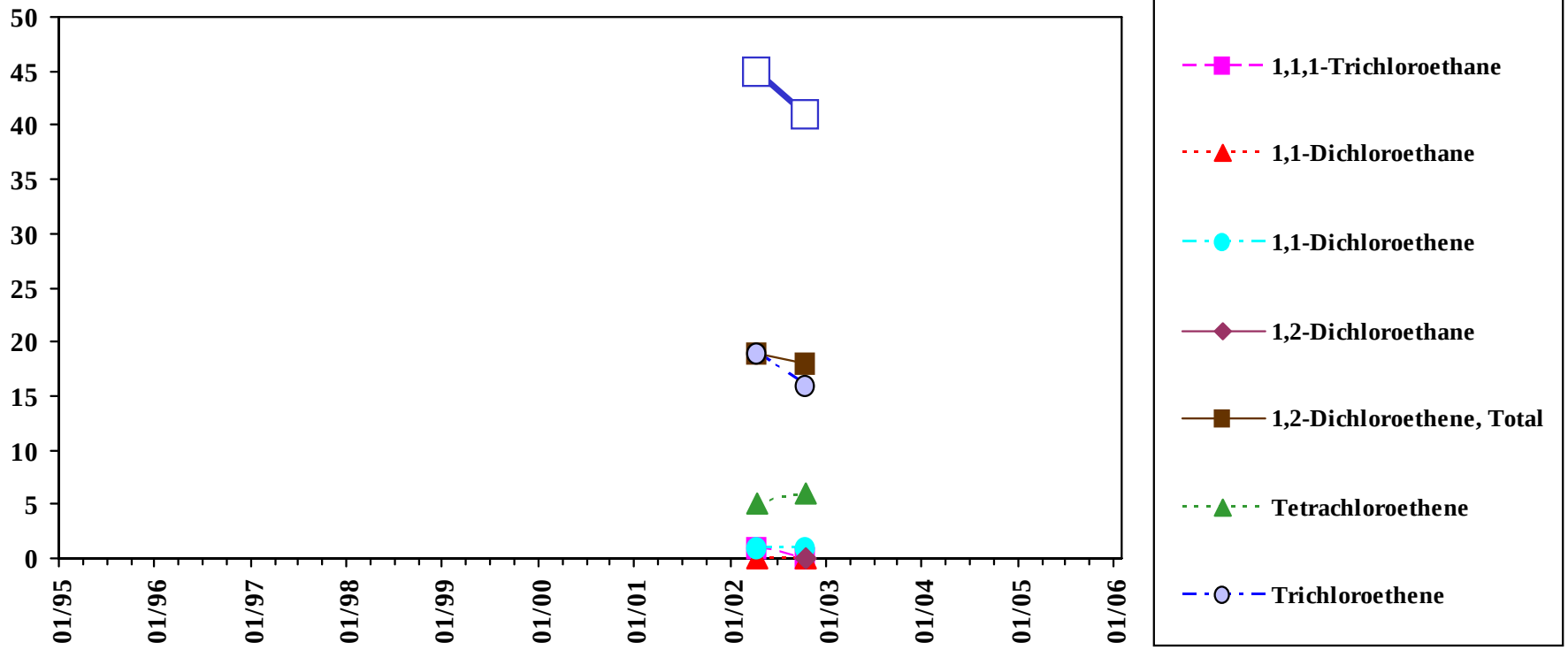
Sample Location:

MW-207AR

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

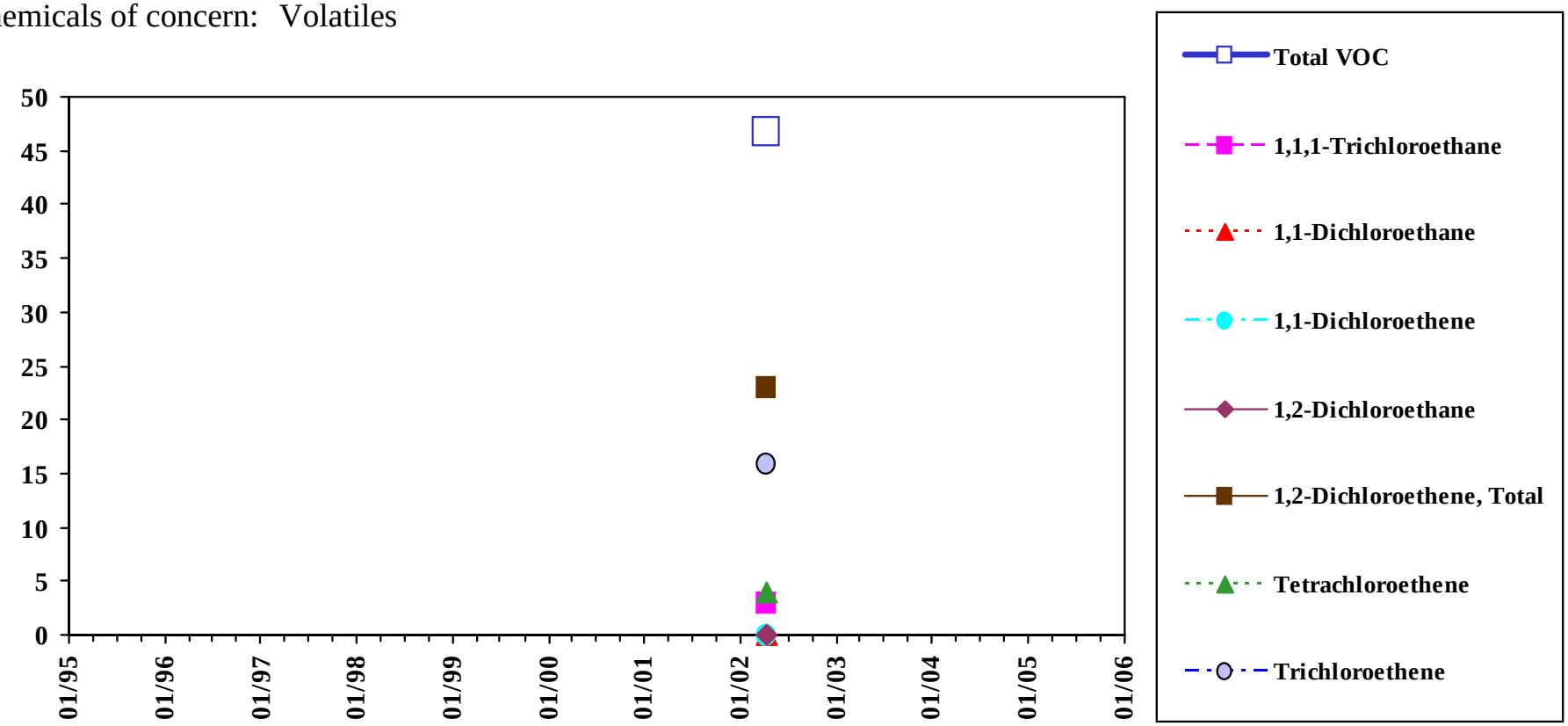
Sample Location:

MW-207AR

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

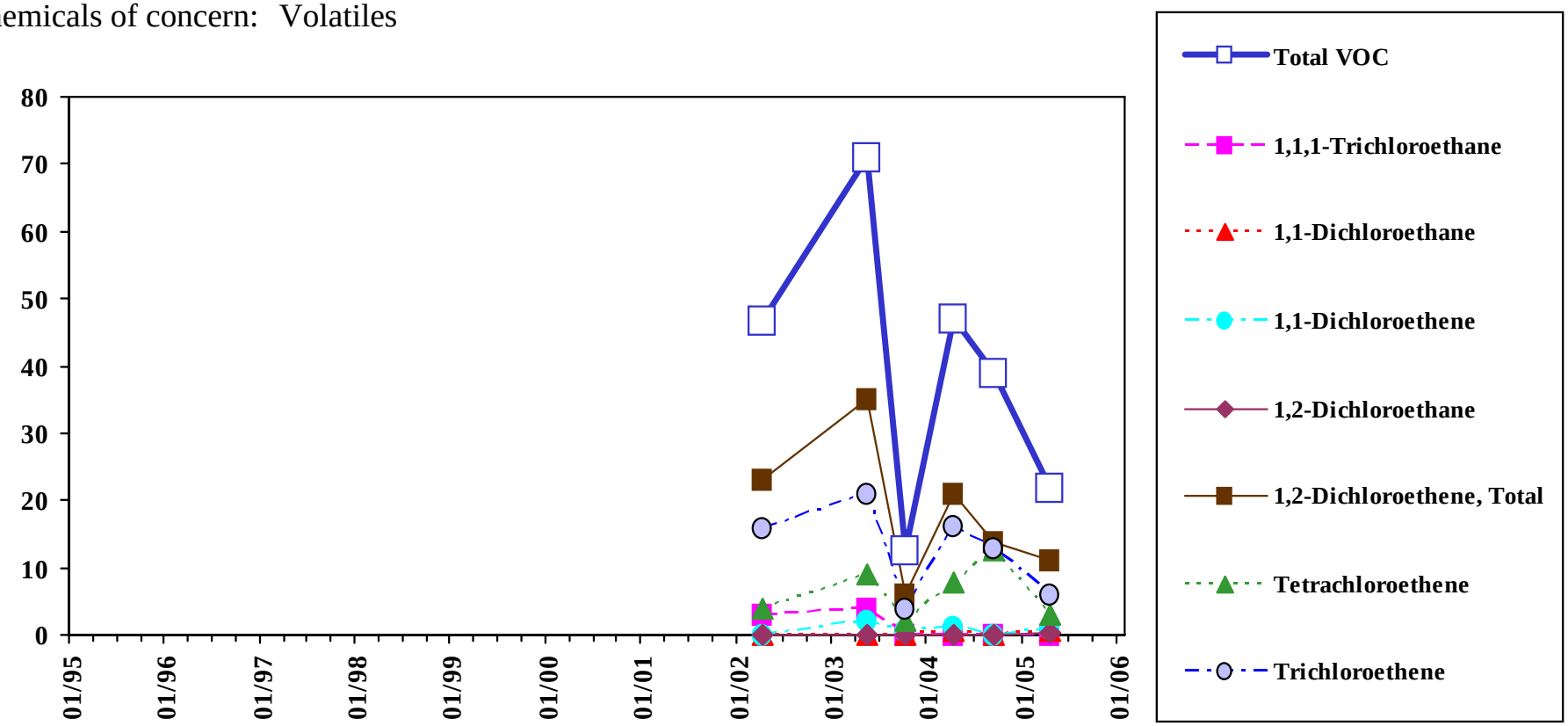
Sample Location:

MW-207AR

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

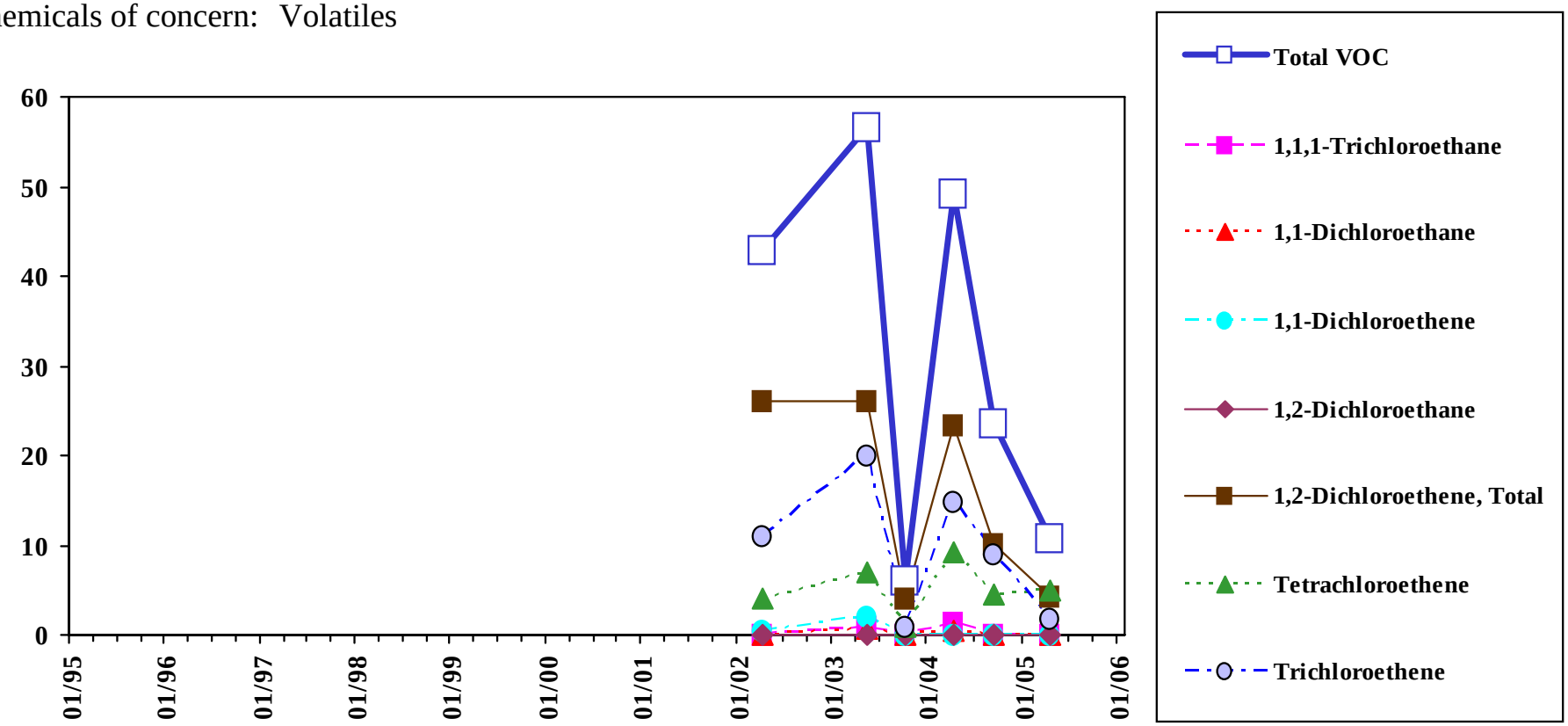
Sample Location:

MW-207AR

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

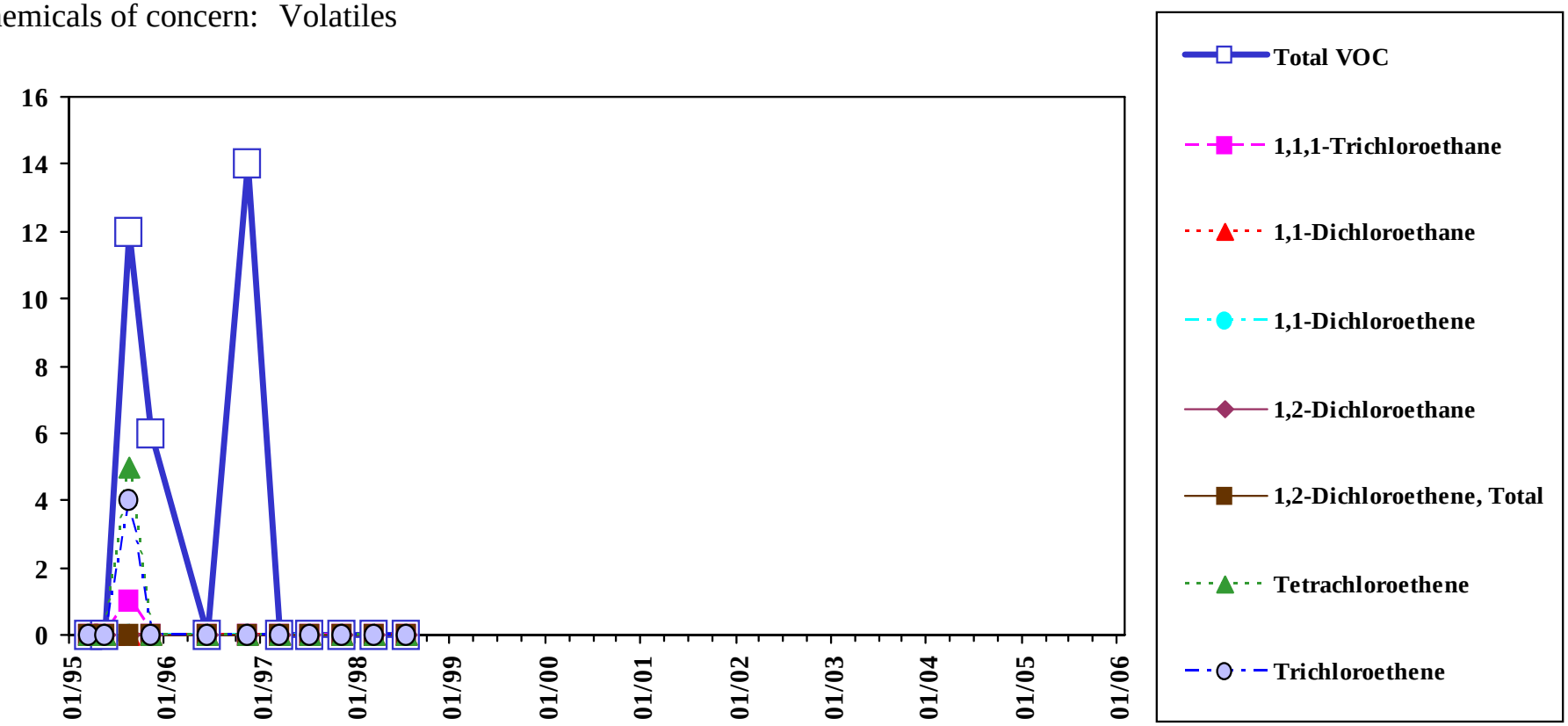
Sample Location:

MW-207B

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

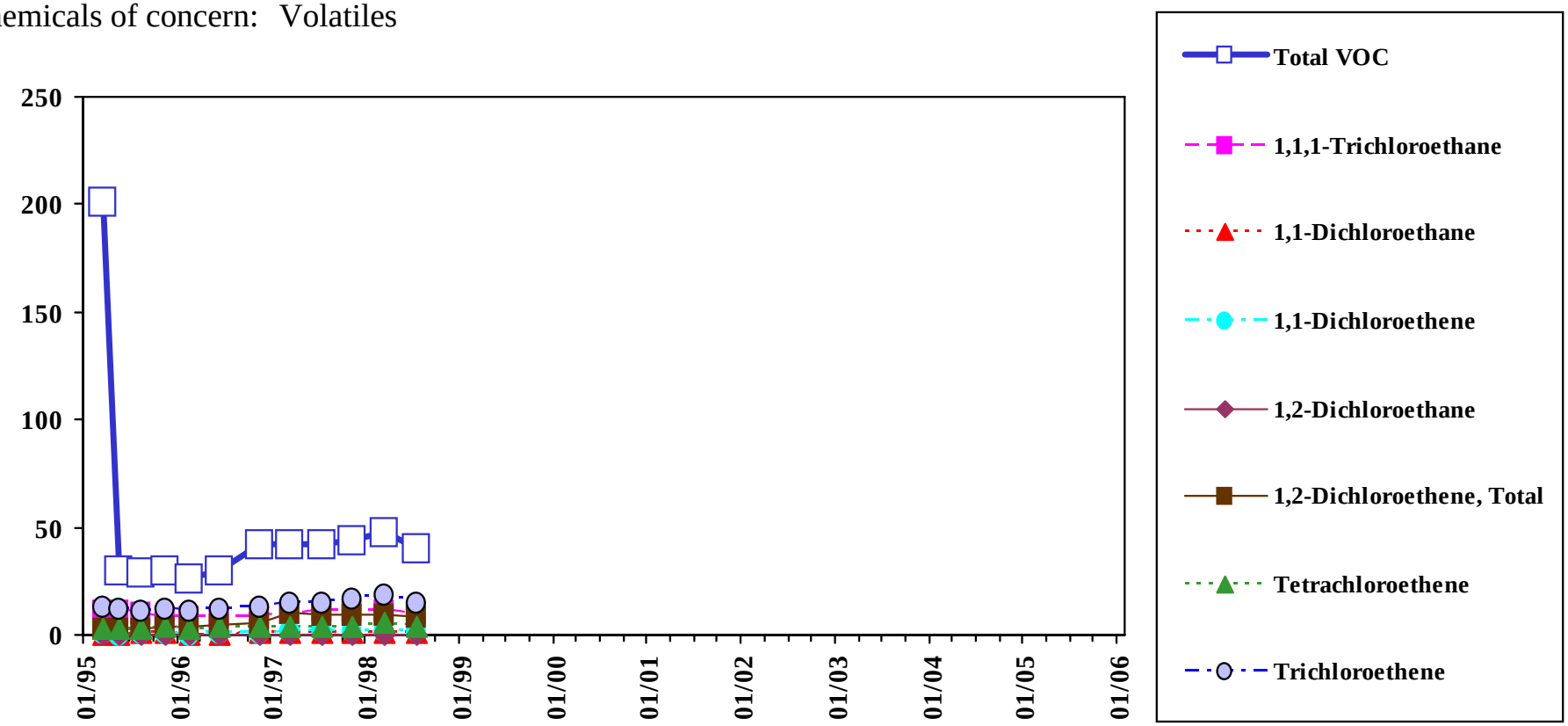
Sample Location:

MW-208

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

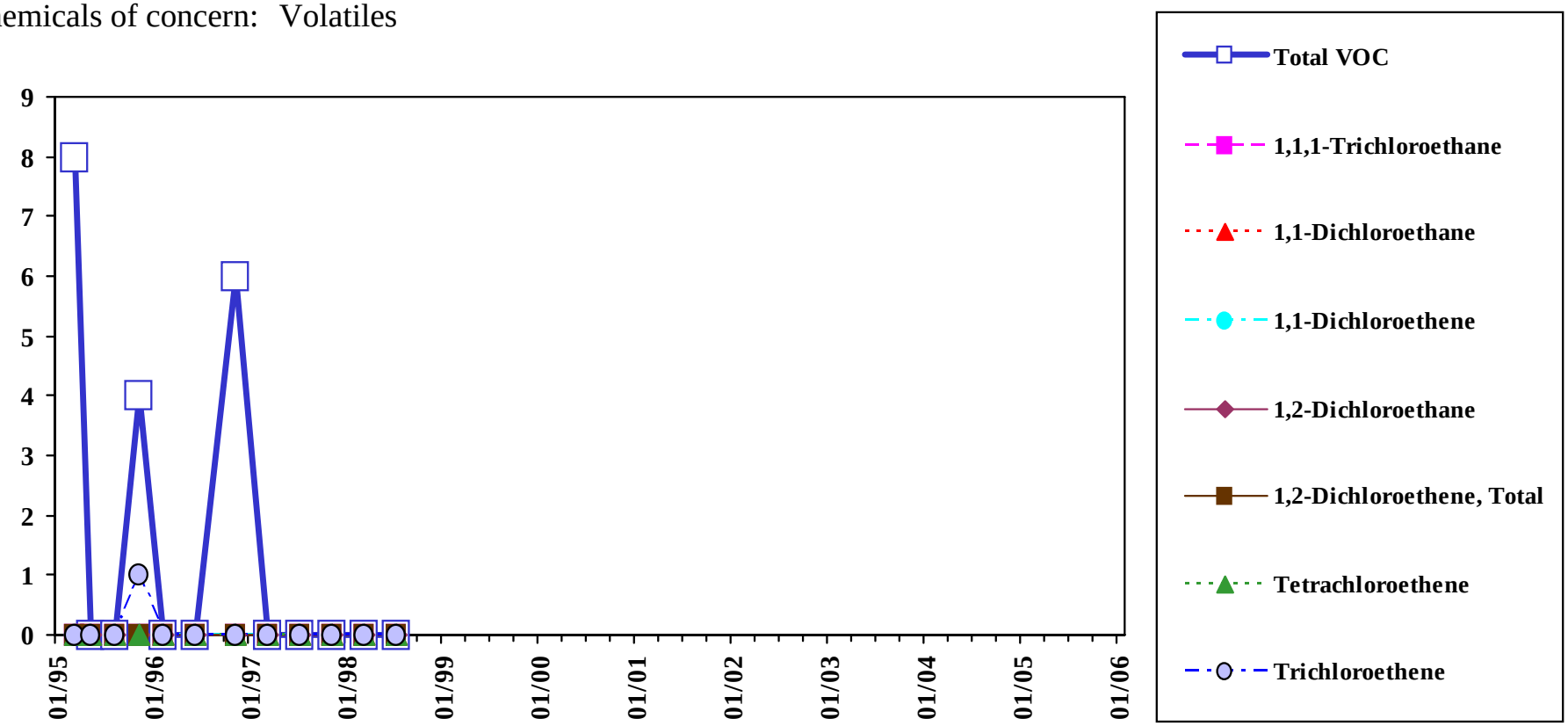
Sample Location:

MW-209

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

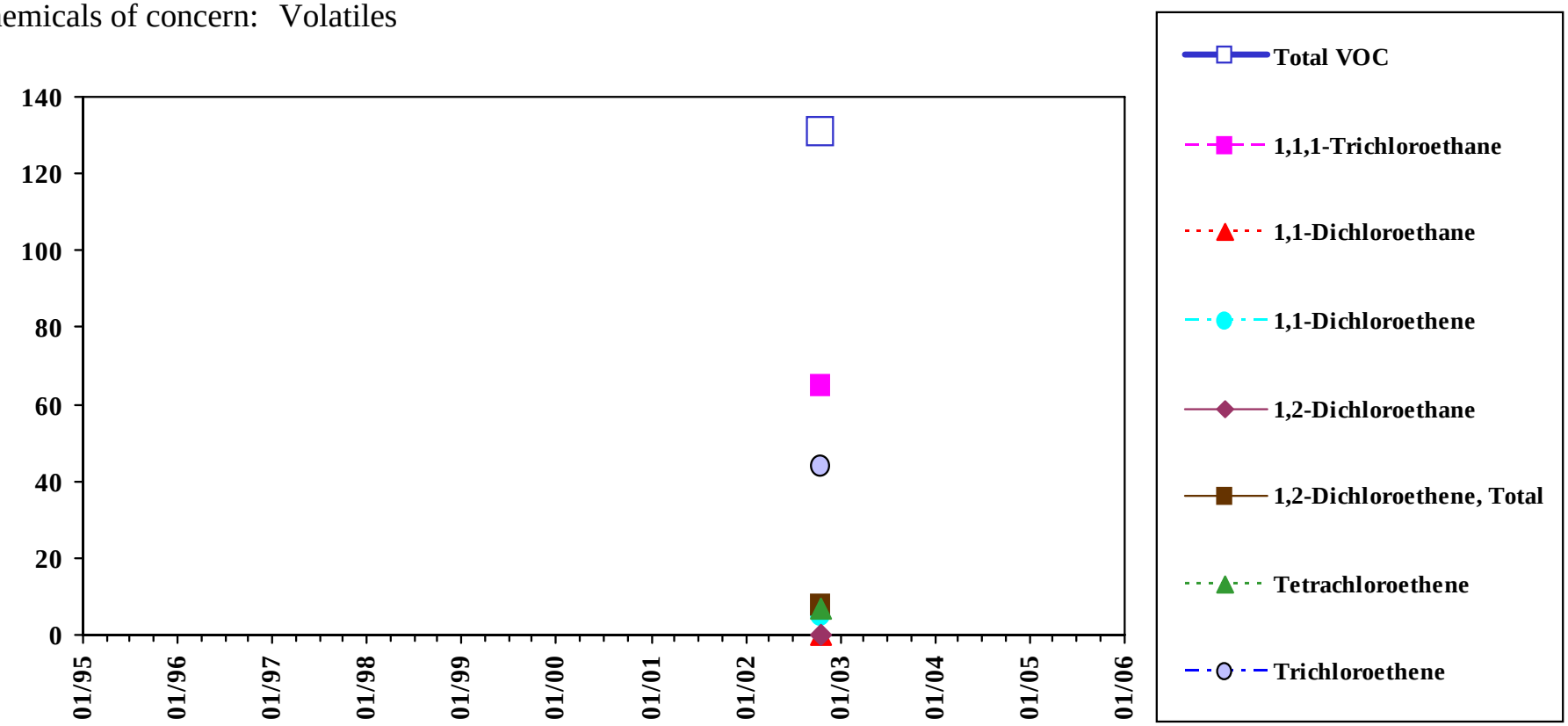
Sample Location:

MW-209

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

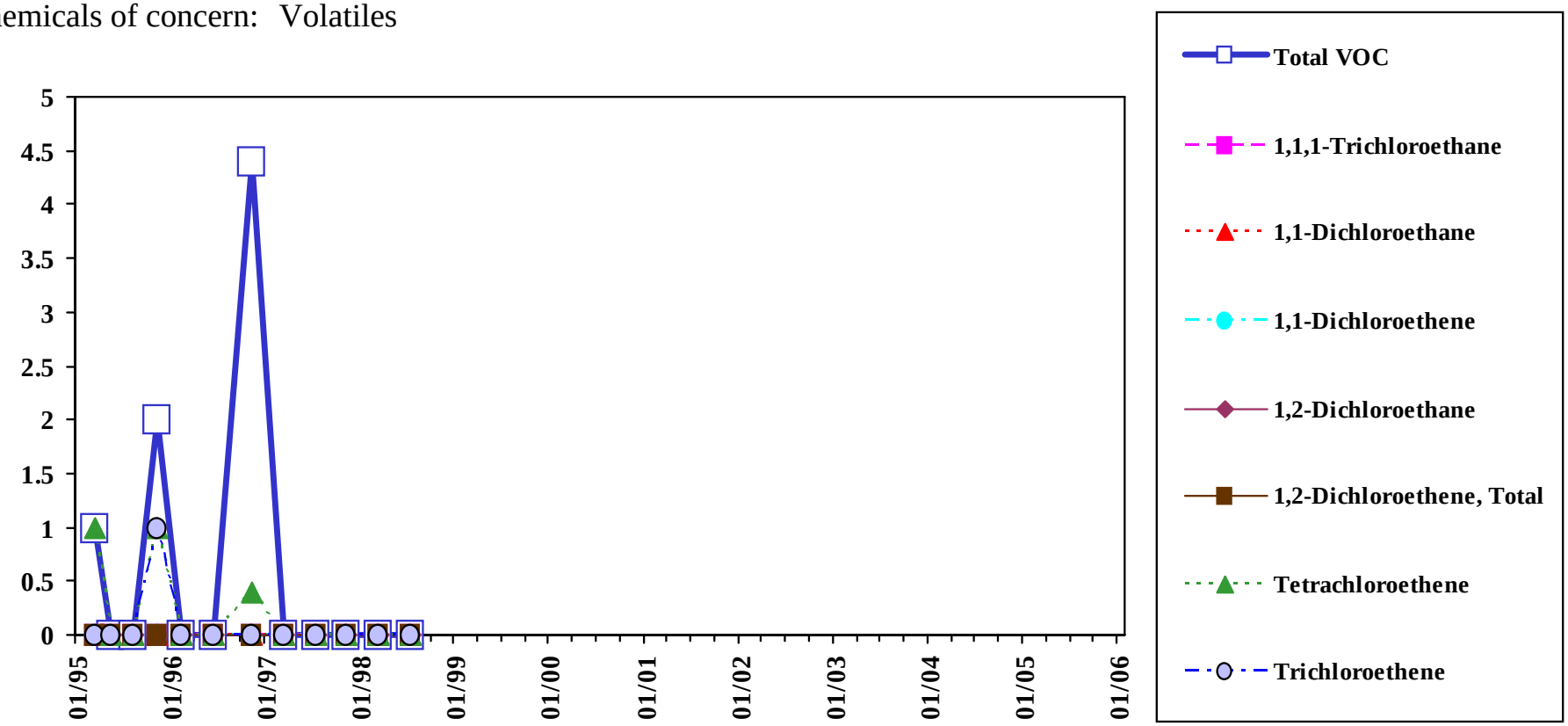
Sample Location:

MW-222

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

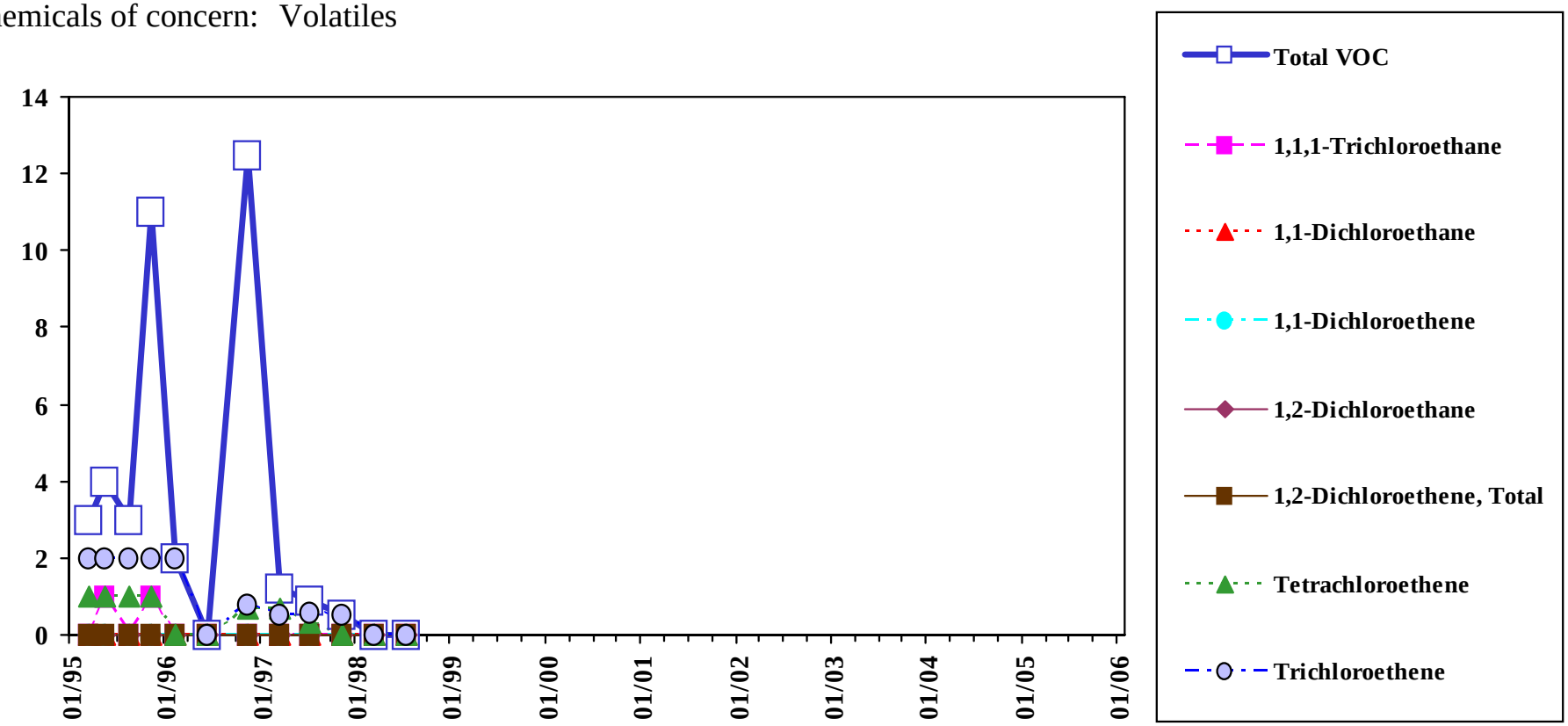
Sample Location:

MW-223

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

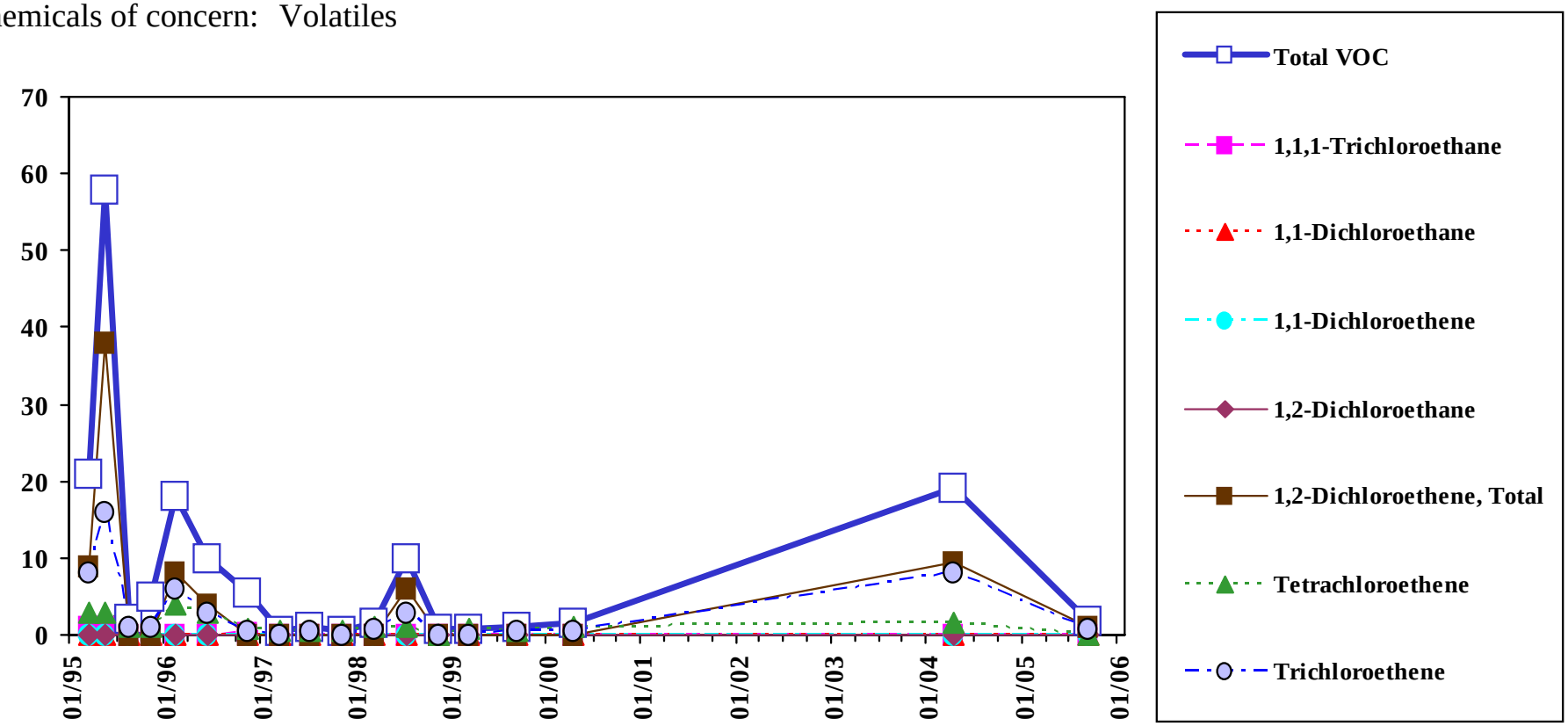
Sample Location:

MW-224

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

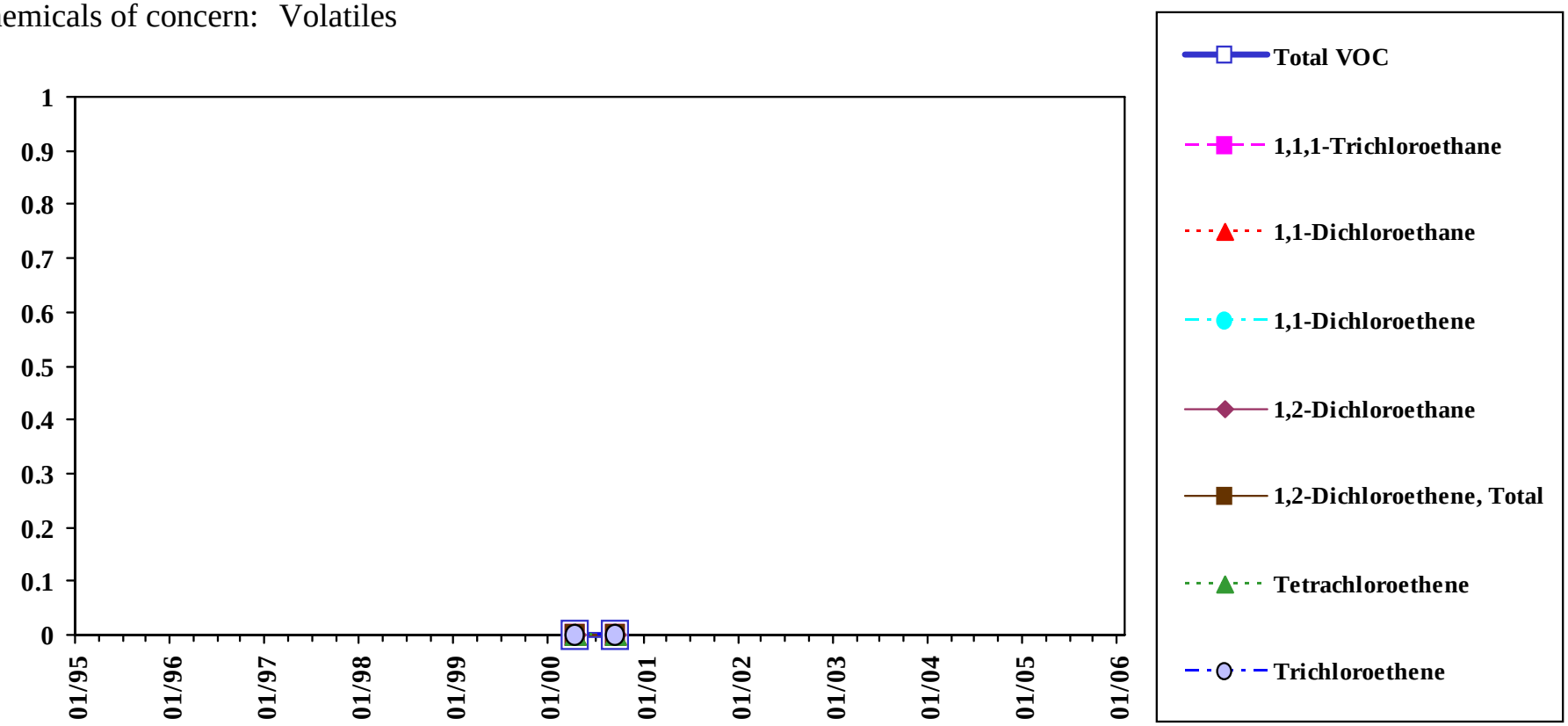
Sample Location:

MW-224

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

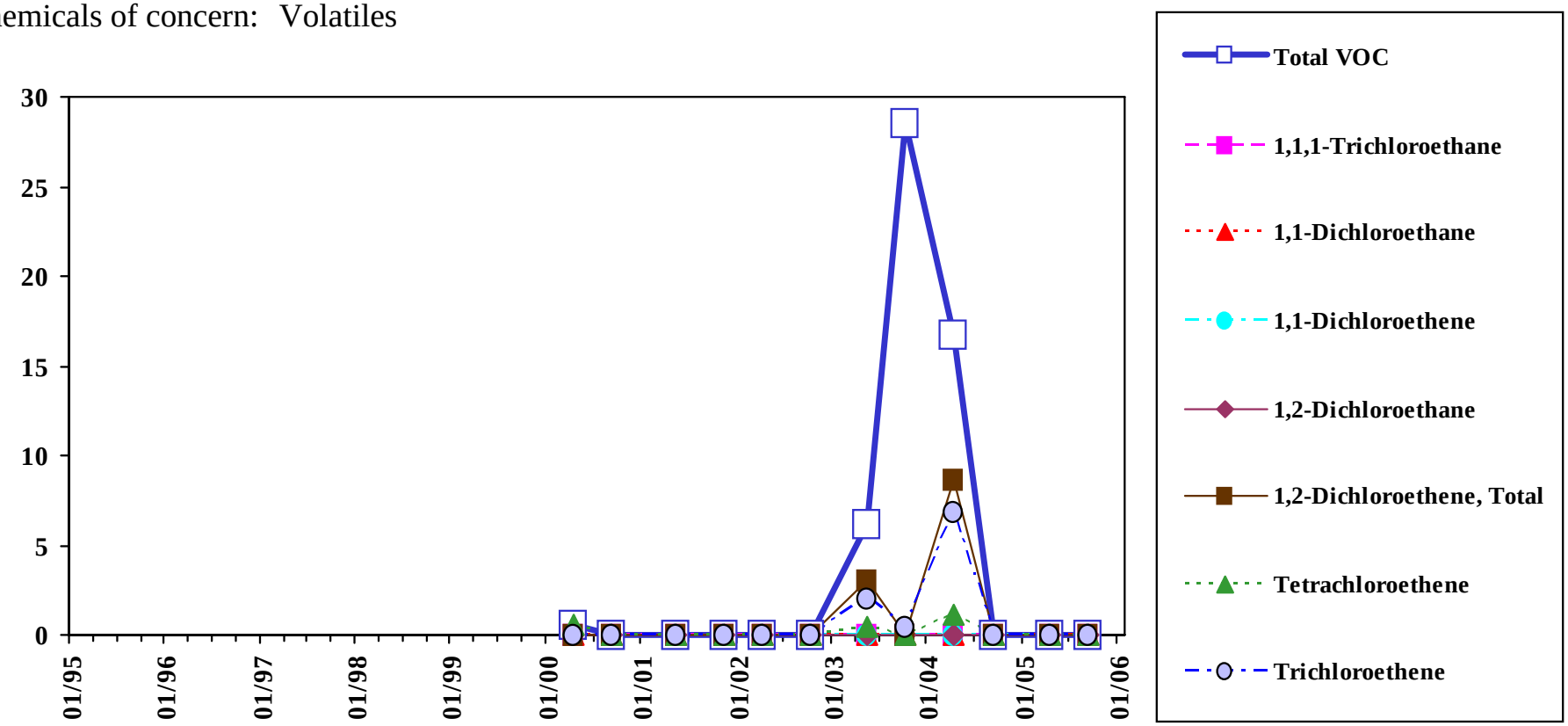
Sample Location:

MW-224

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

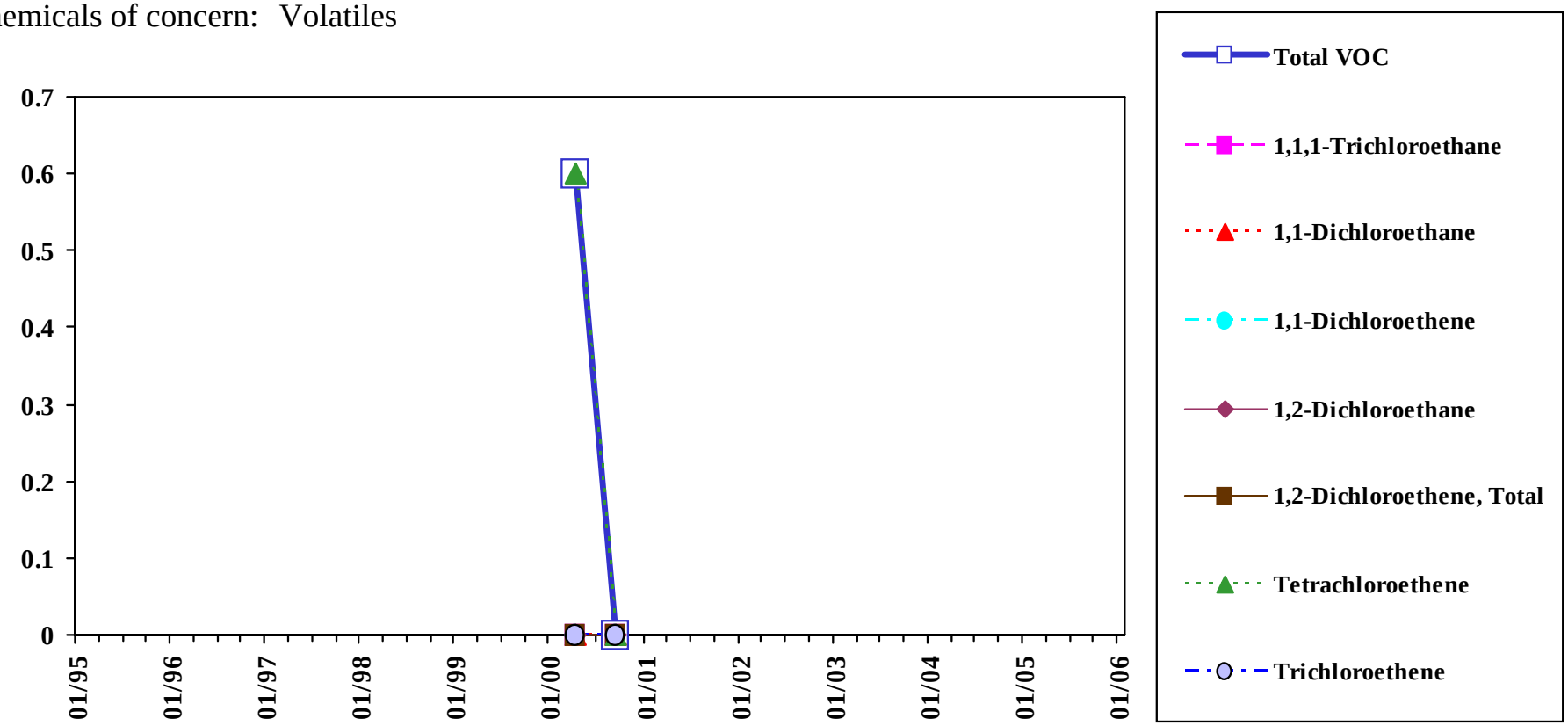
Sample Location:

MW-224

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

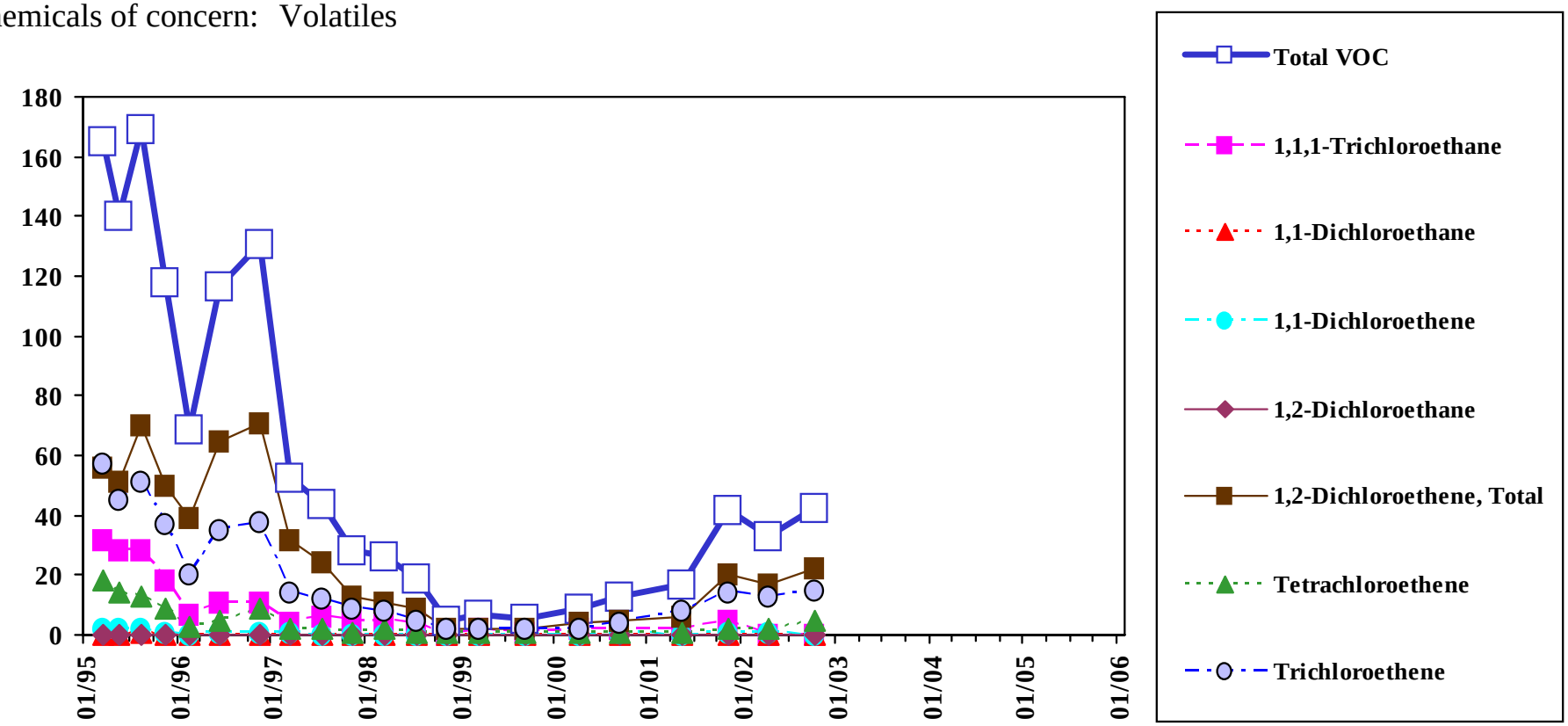
Sample Location:

MW-225A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

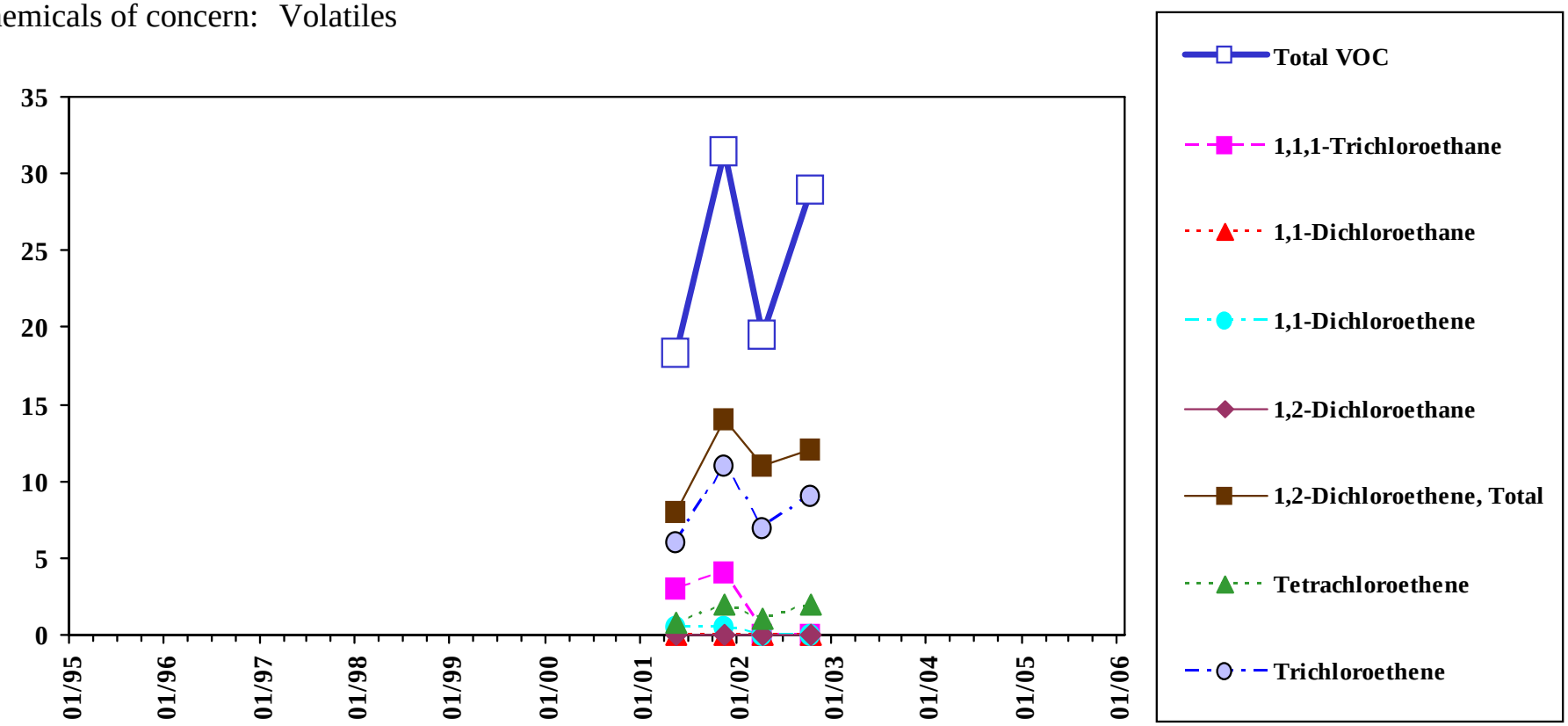
Sample Location:

MW-225A

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

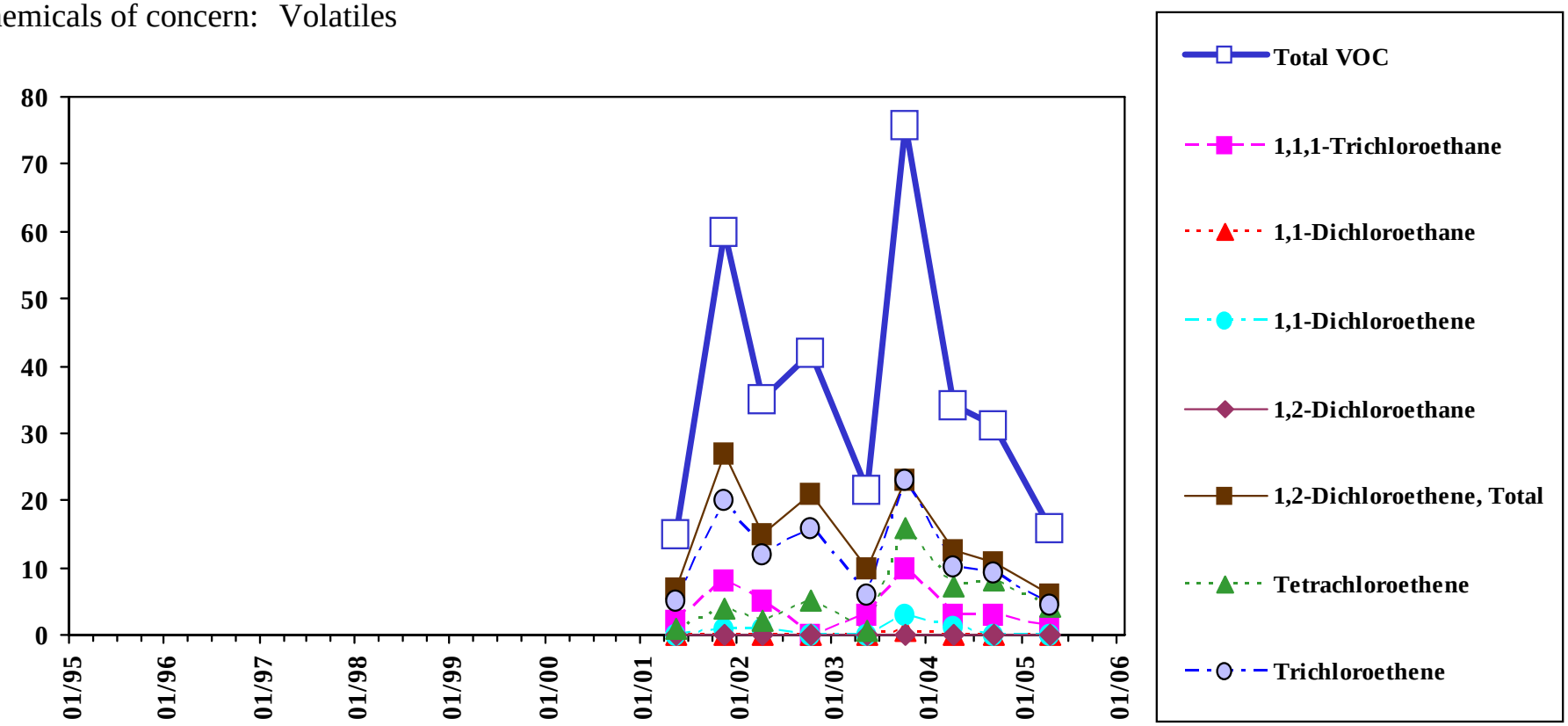
Sample Location:

MW-225A

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

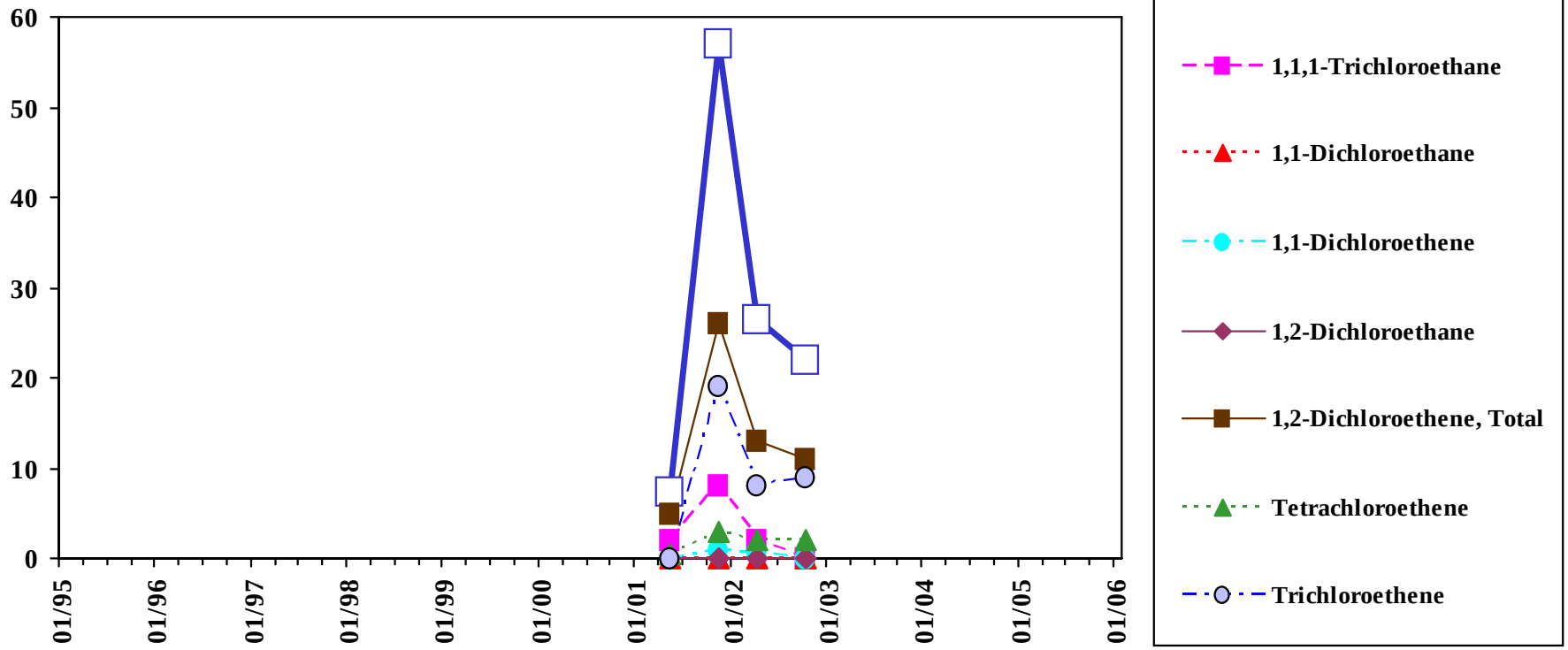
Sample Location:

MW-225A

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

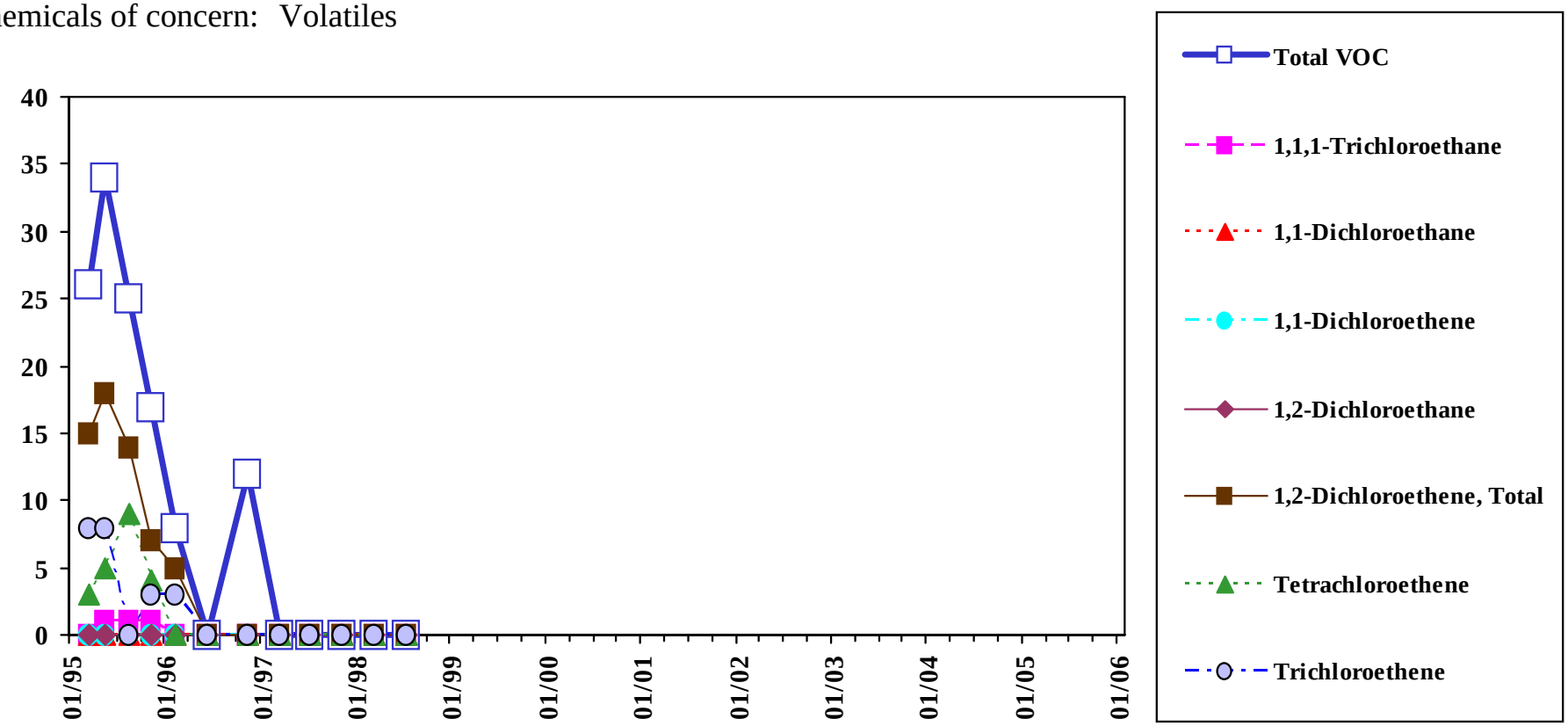
Sample Location:

MW-225B

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

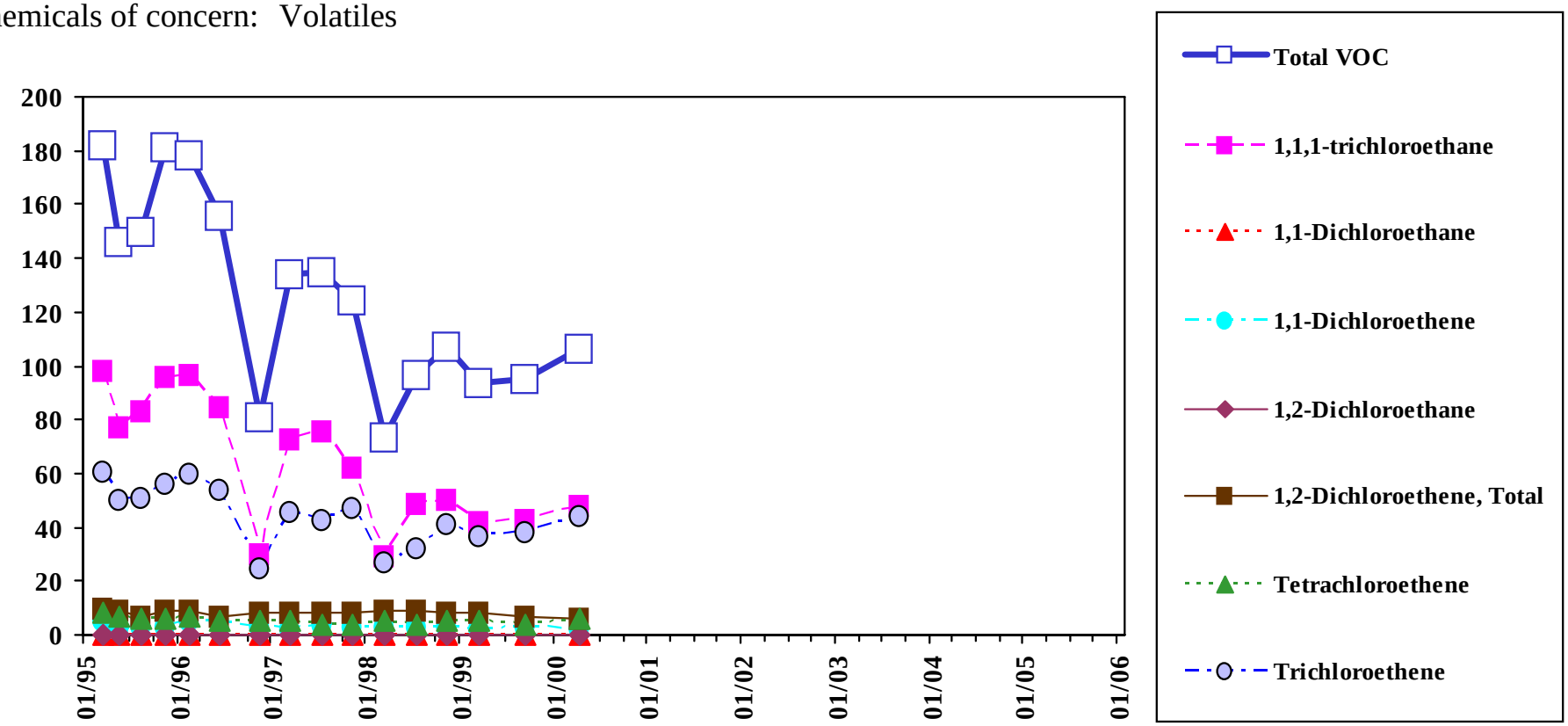
Sample Location:

MW-229A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

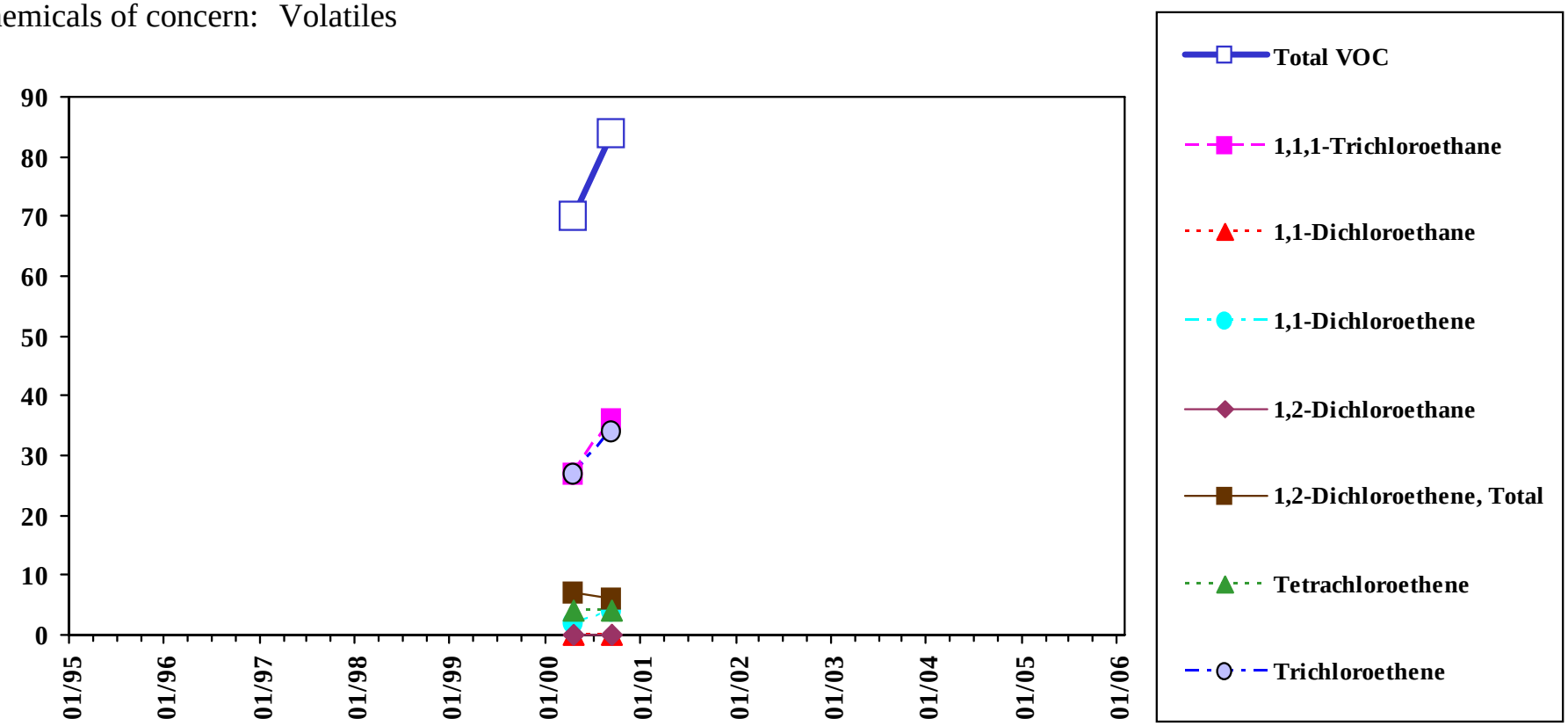
Sample Location:

MW-229A

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

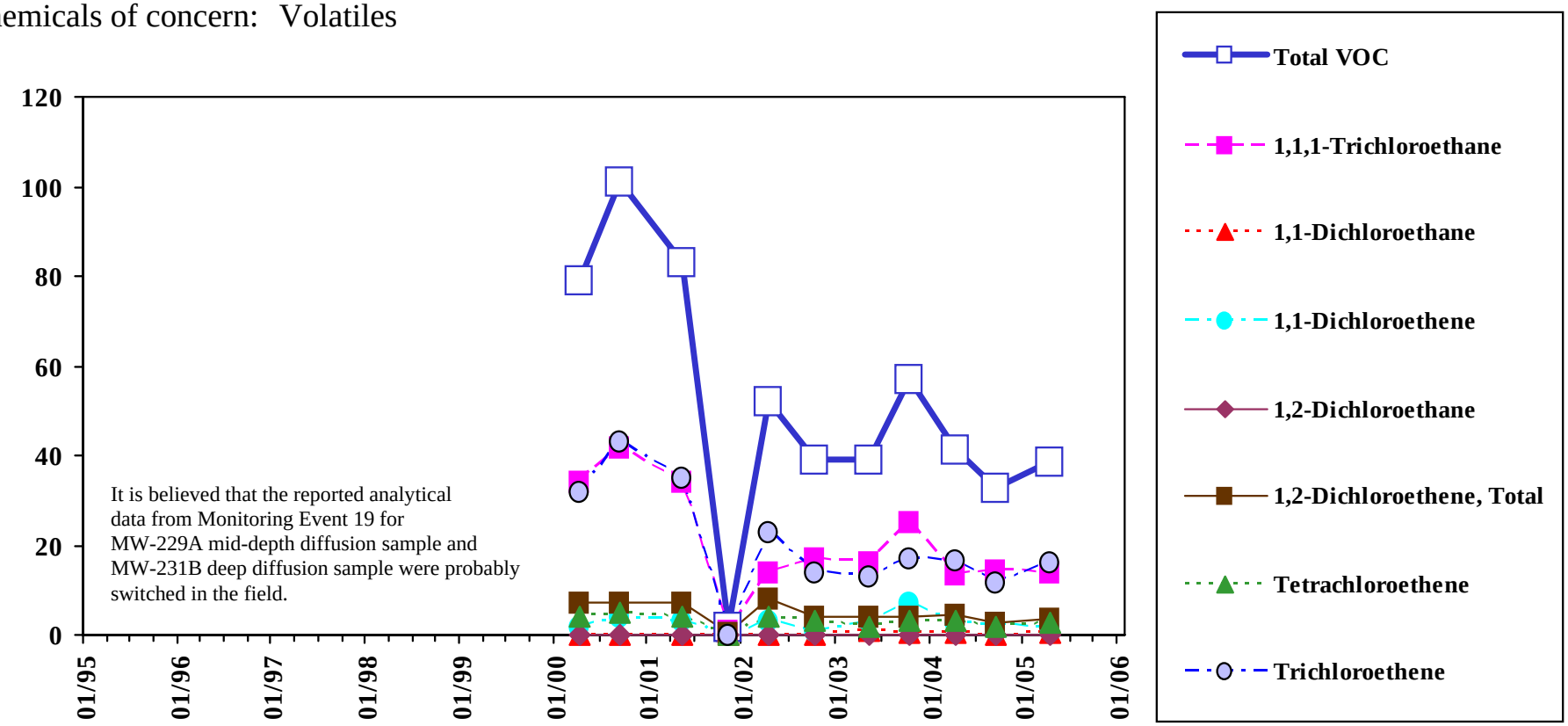
Sample Location:

MW-229A

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

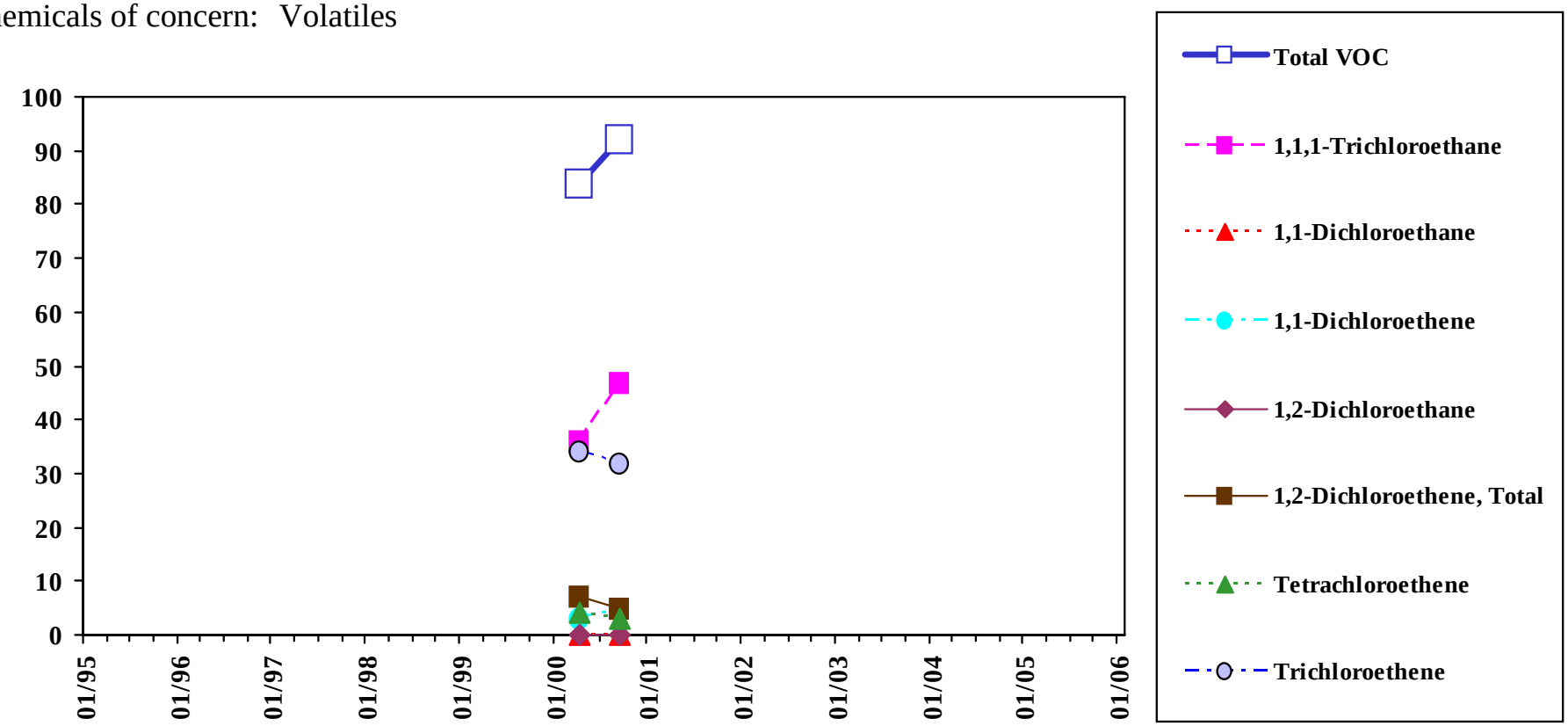
Sample Location:

MW-229A

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

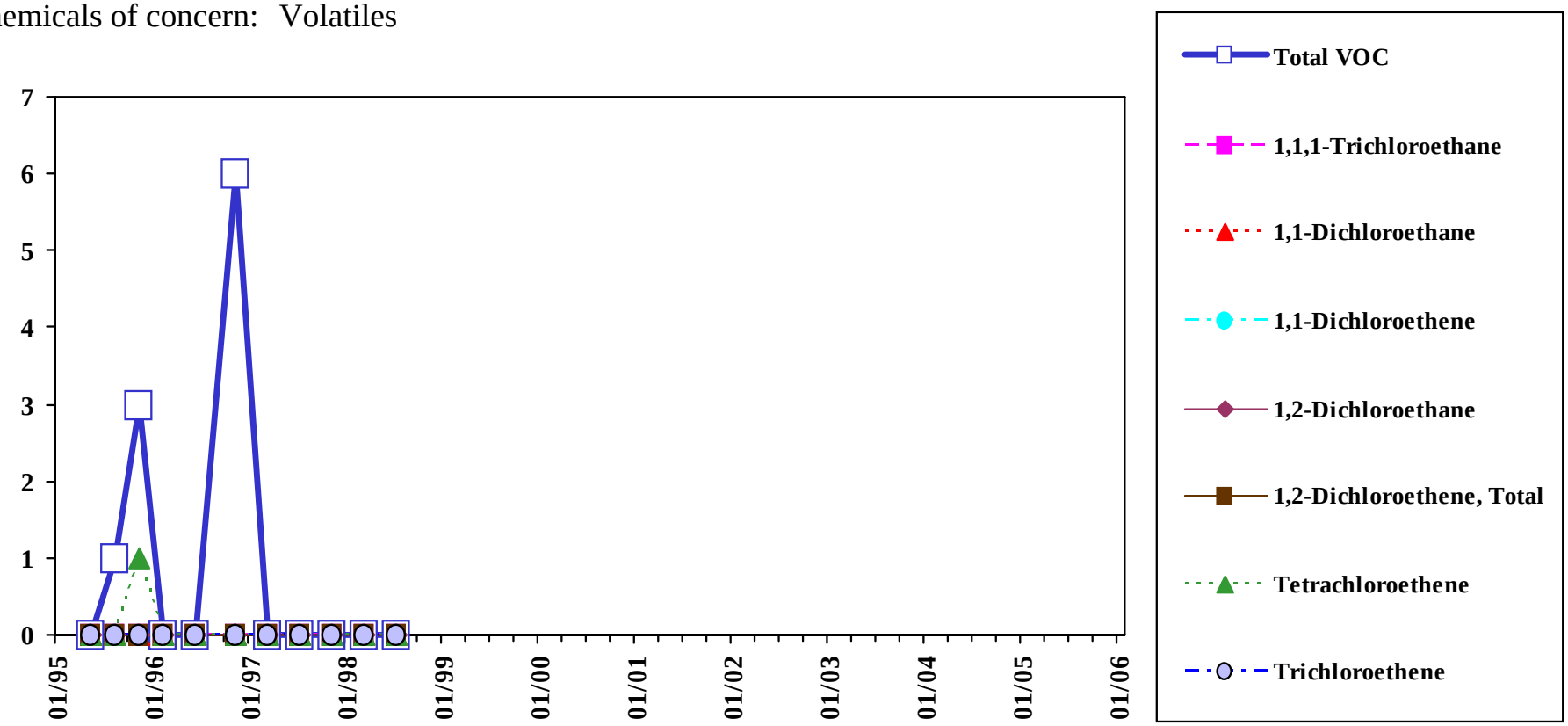
Sample Location:

MW-229B

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

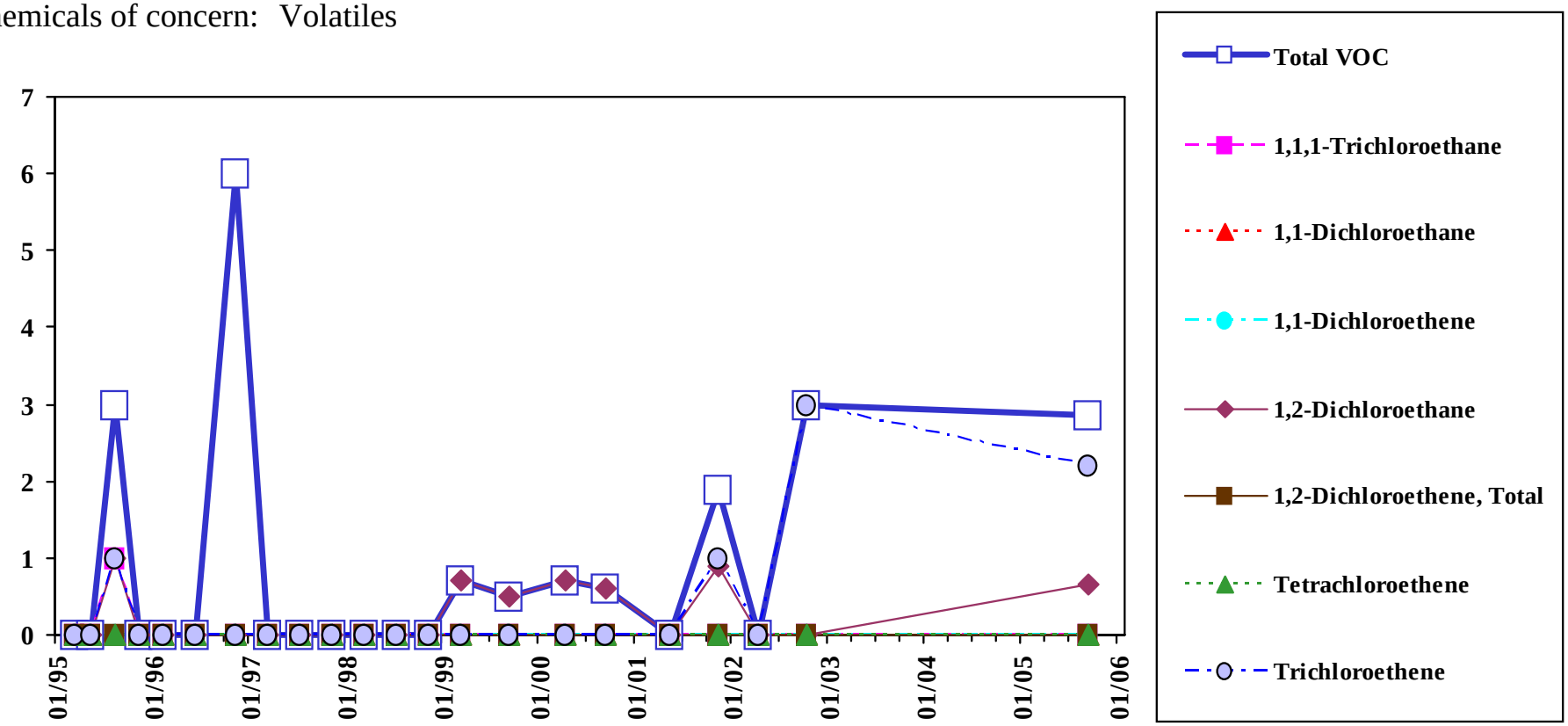
Sample Location:

MW-230A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

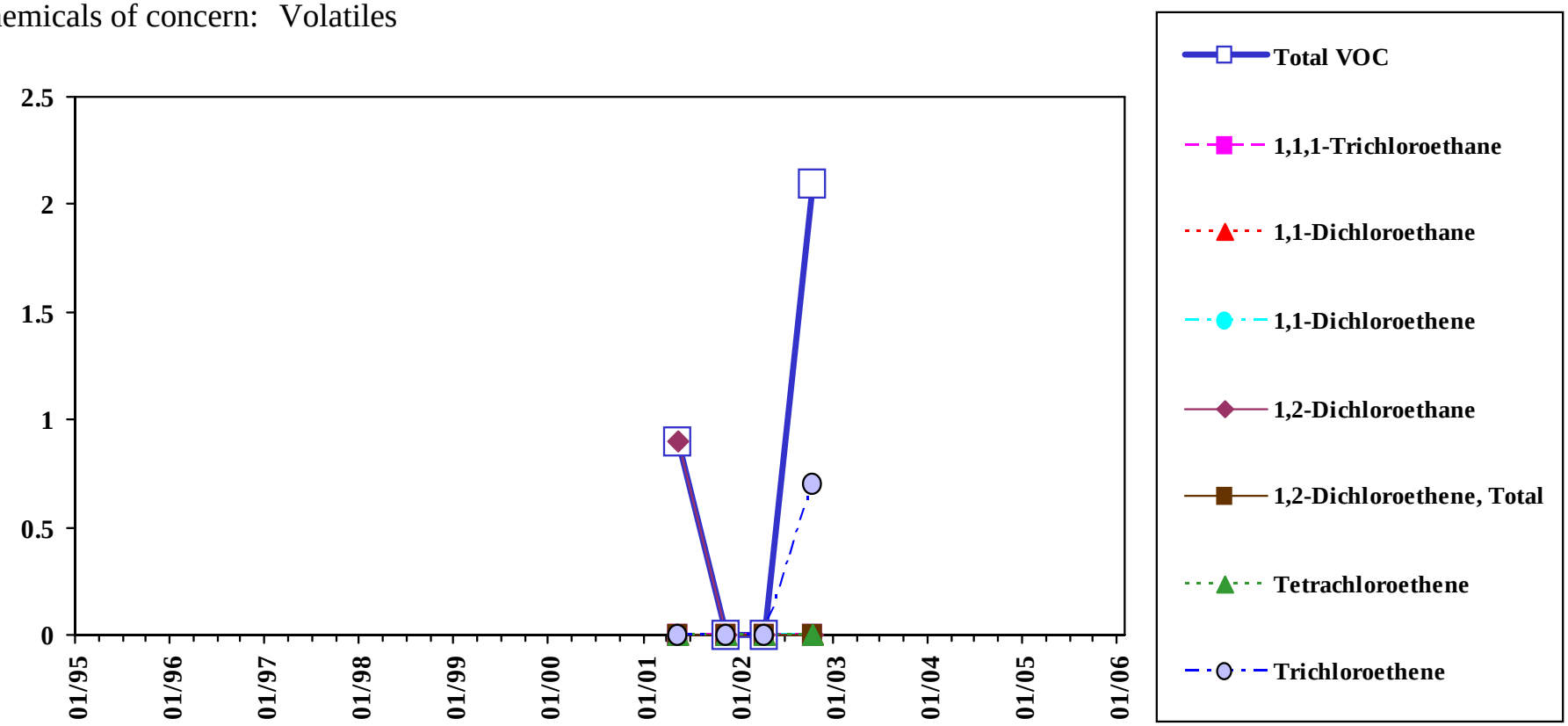
Sample Location:

MW-230A

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

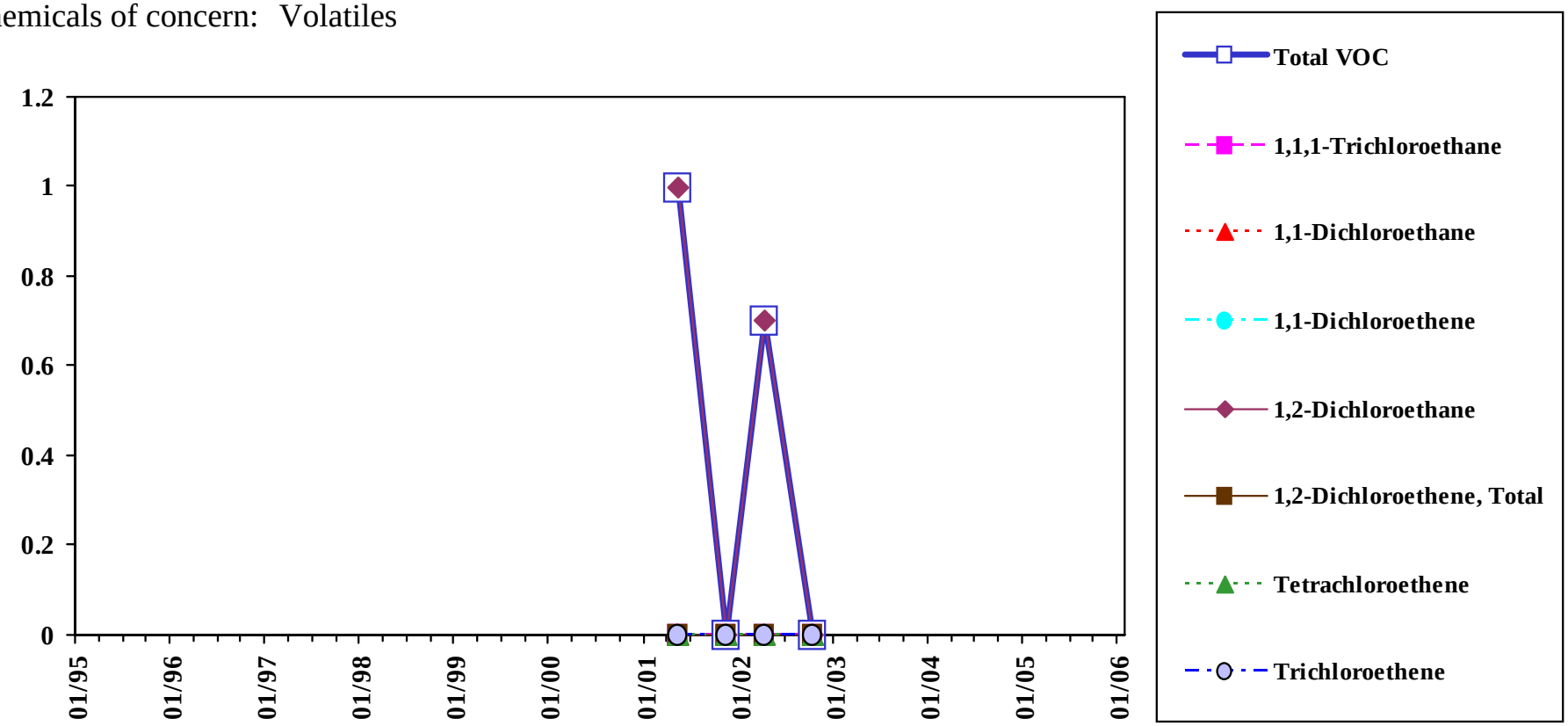
Sample Location:

MW-230A

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

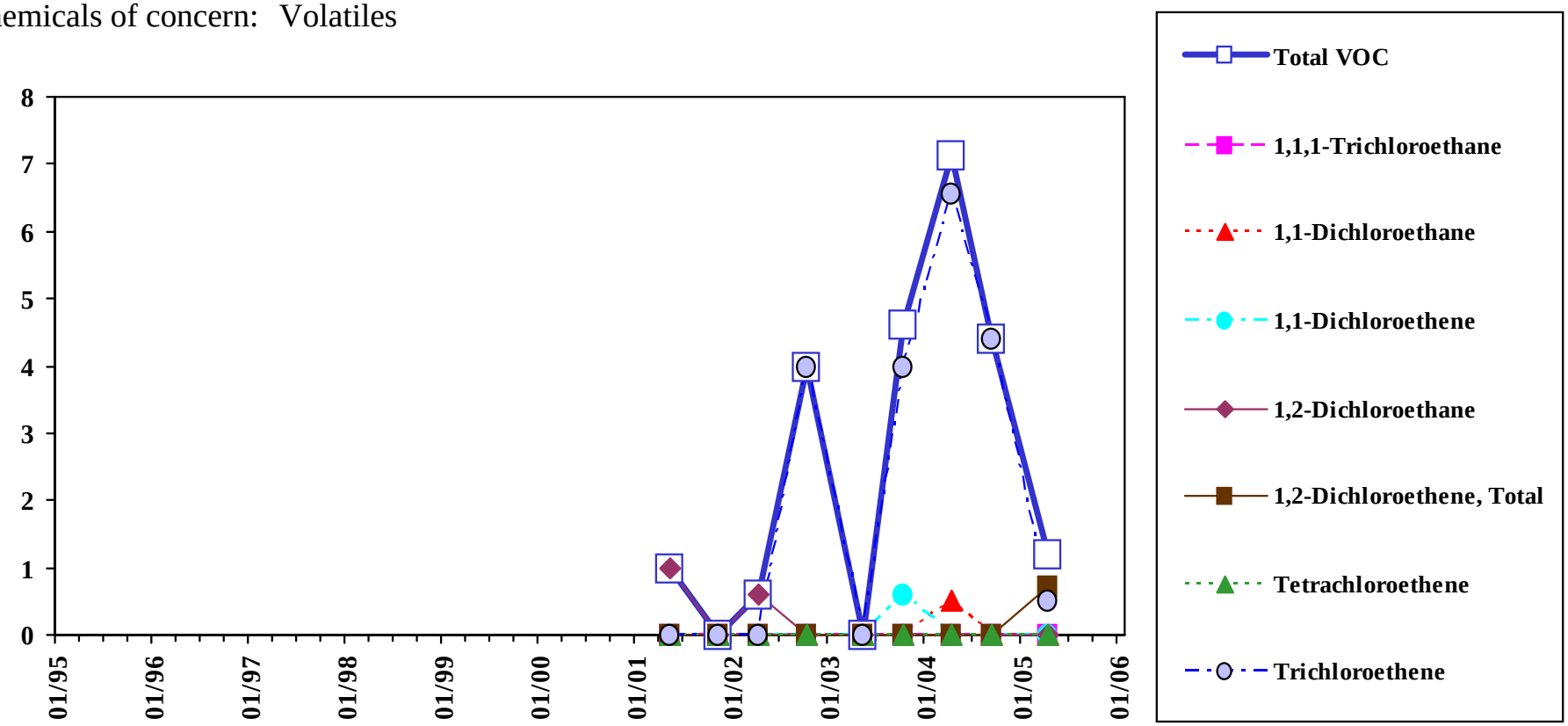
Sample Location:

MW-230A

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

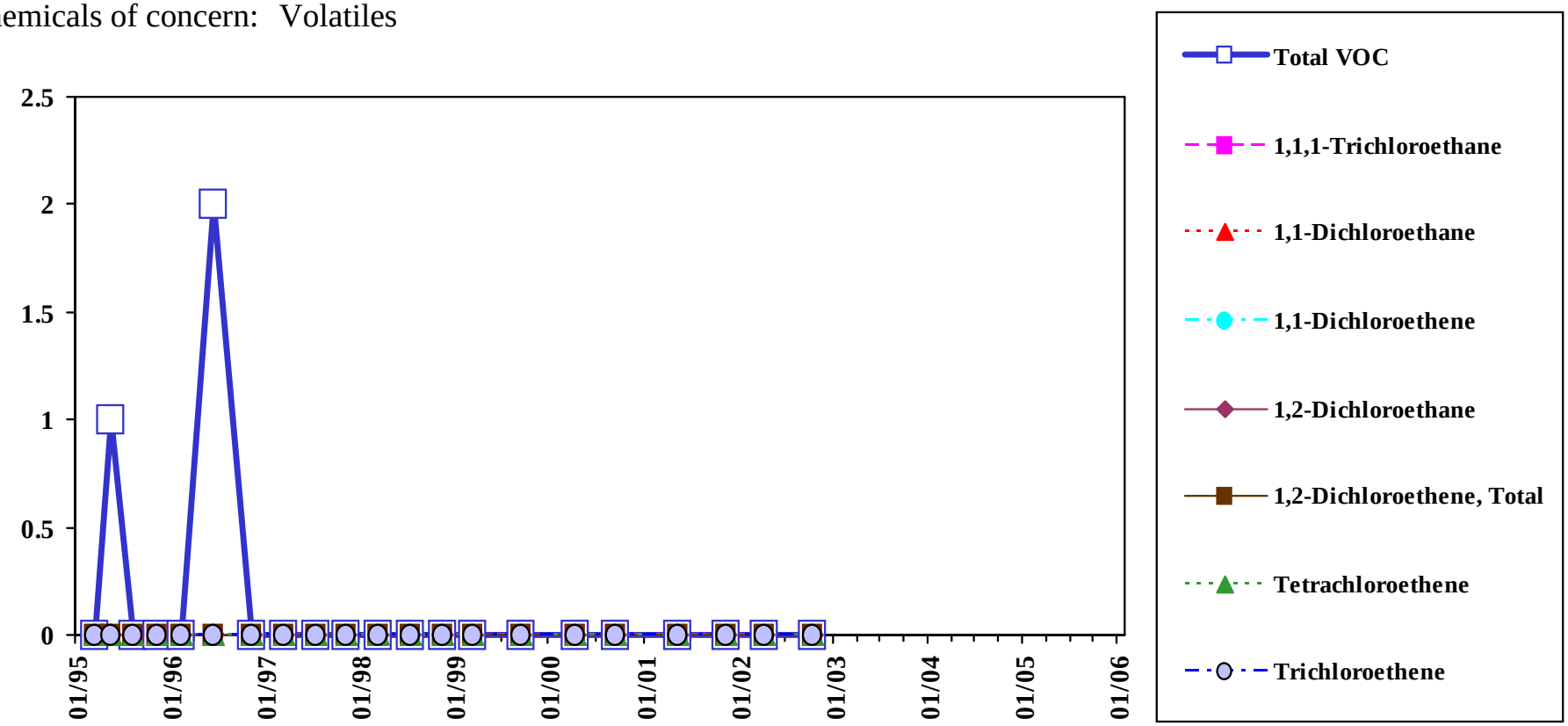
Sample Location:

MW-231A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

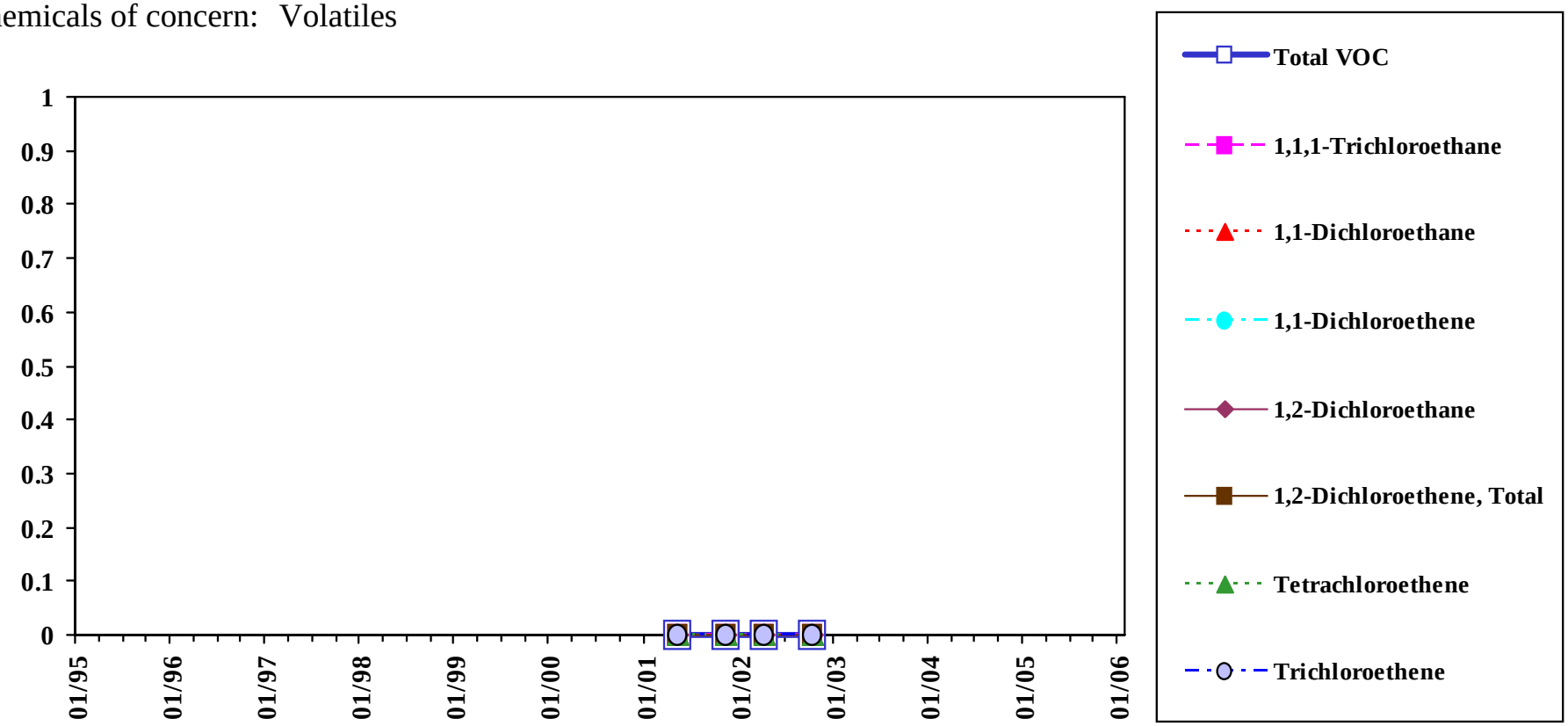
Sample Location:

MW-231A

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

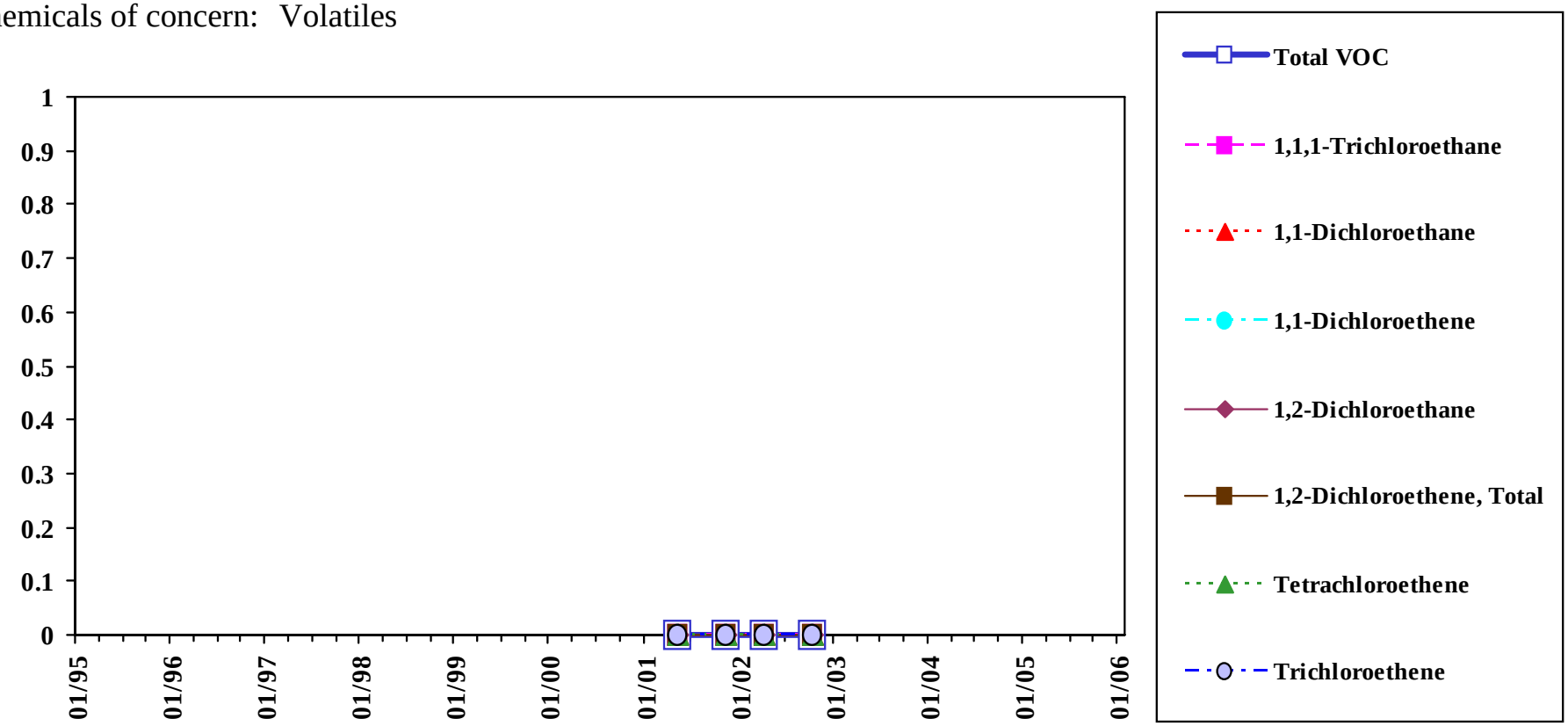
Sample Location:

MW-231A

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

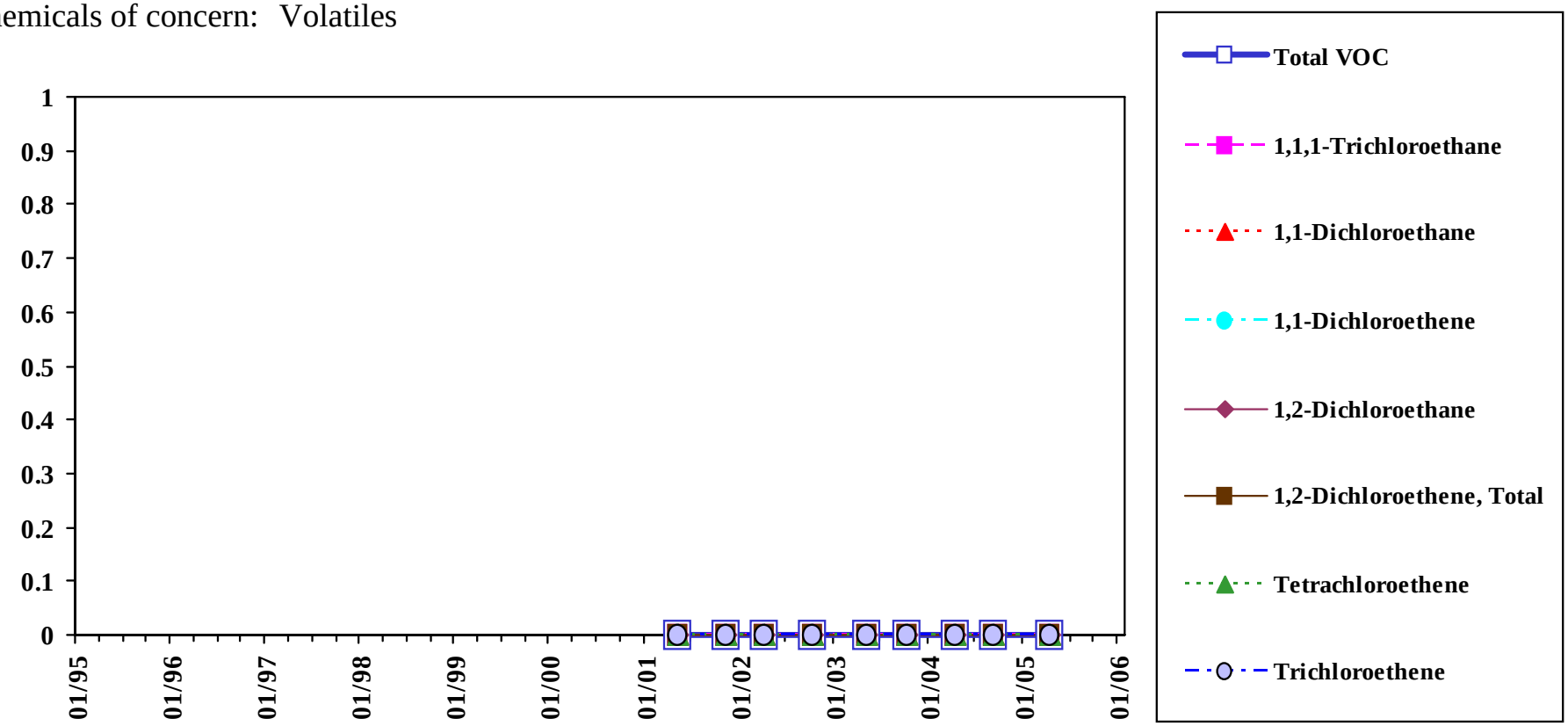
Sample Location:

MW-231A

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

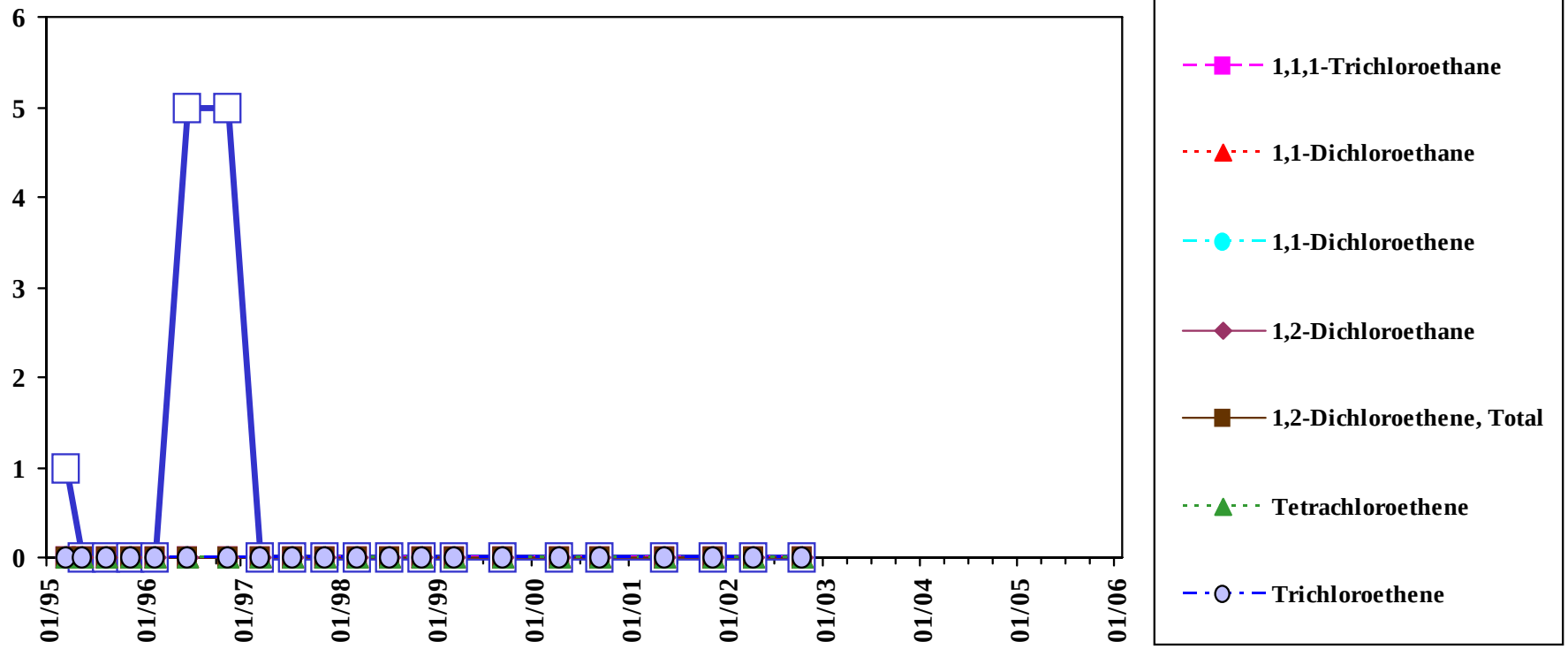
Sample Location:

MW-231B

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

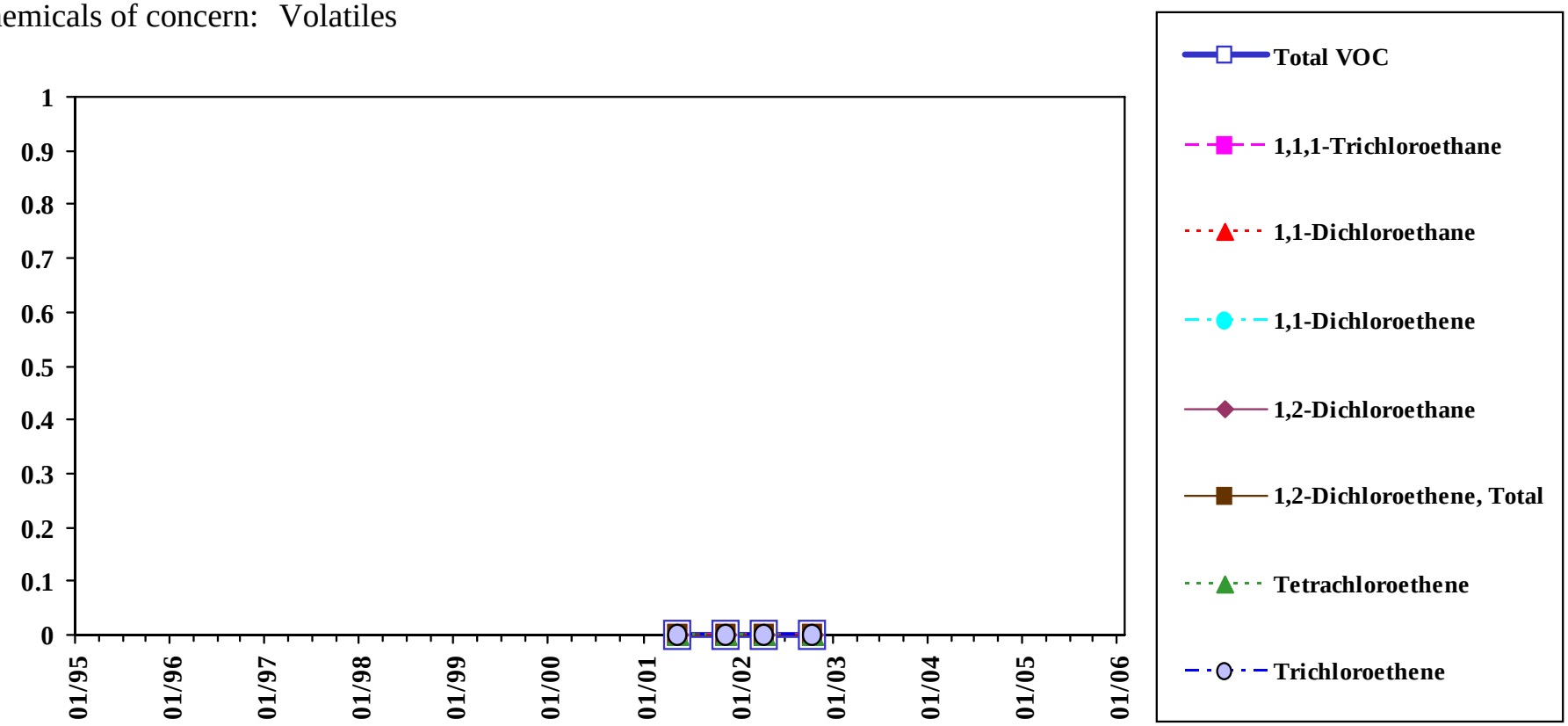
Sample Location:

MW-231B

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

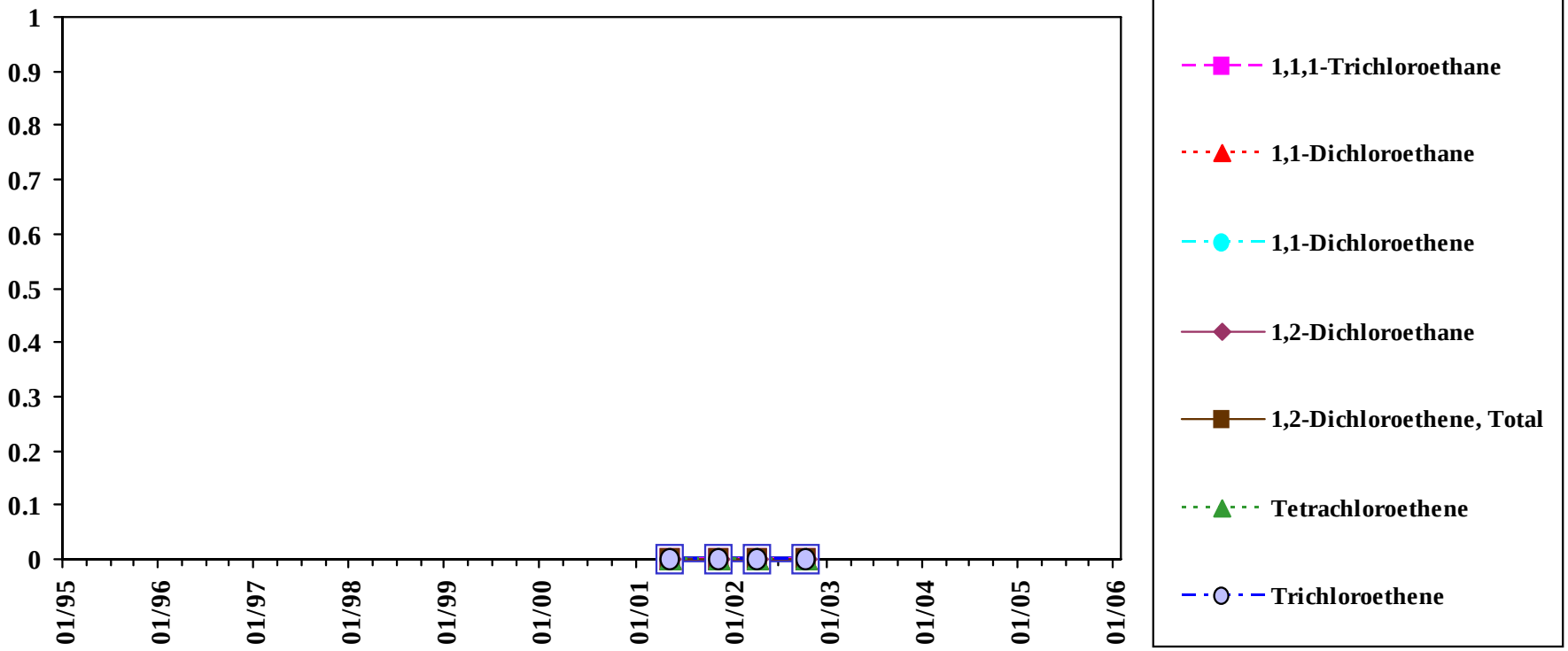
Sample Location:

MW-231B

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

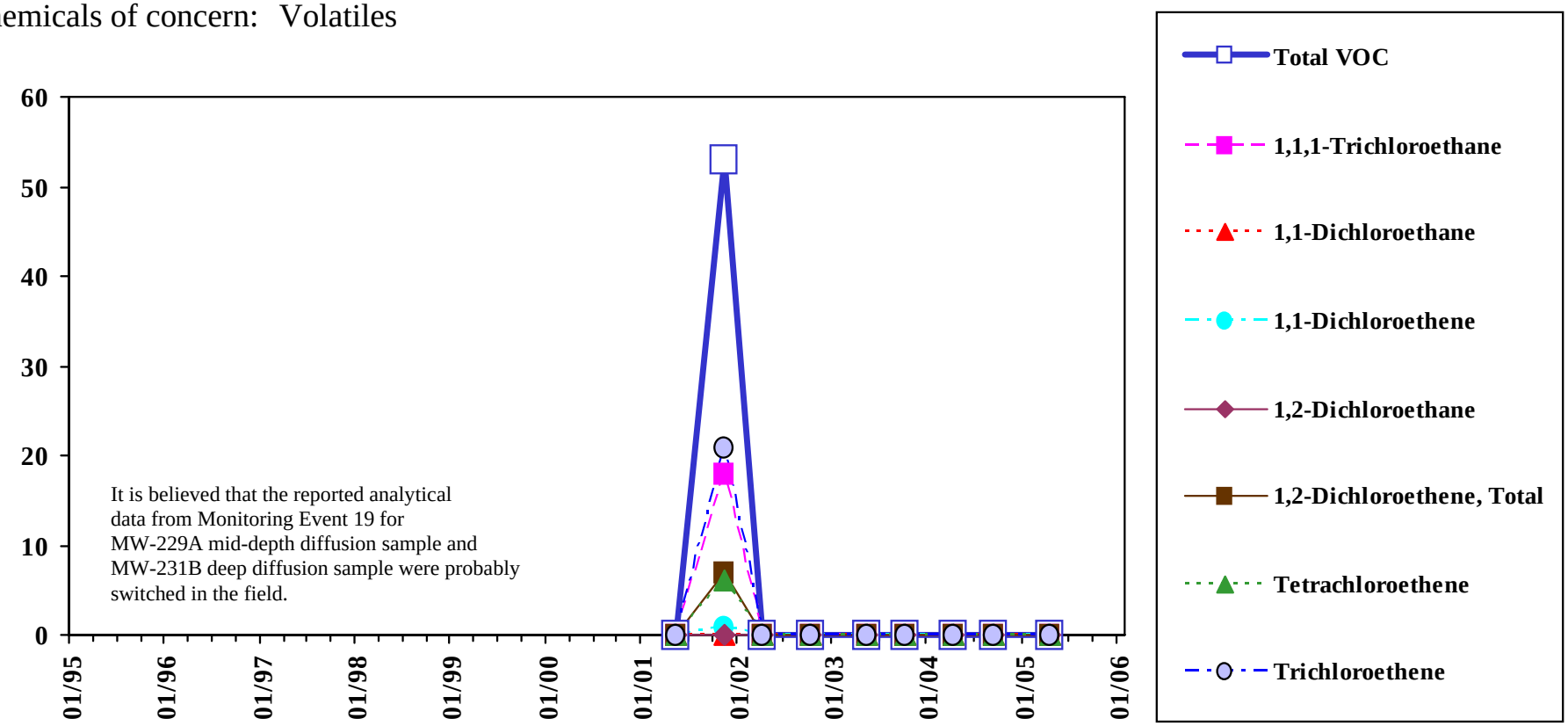
Sample Location:

MW-231B

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

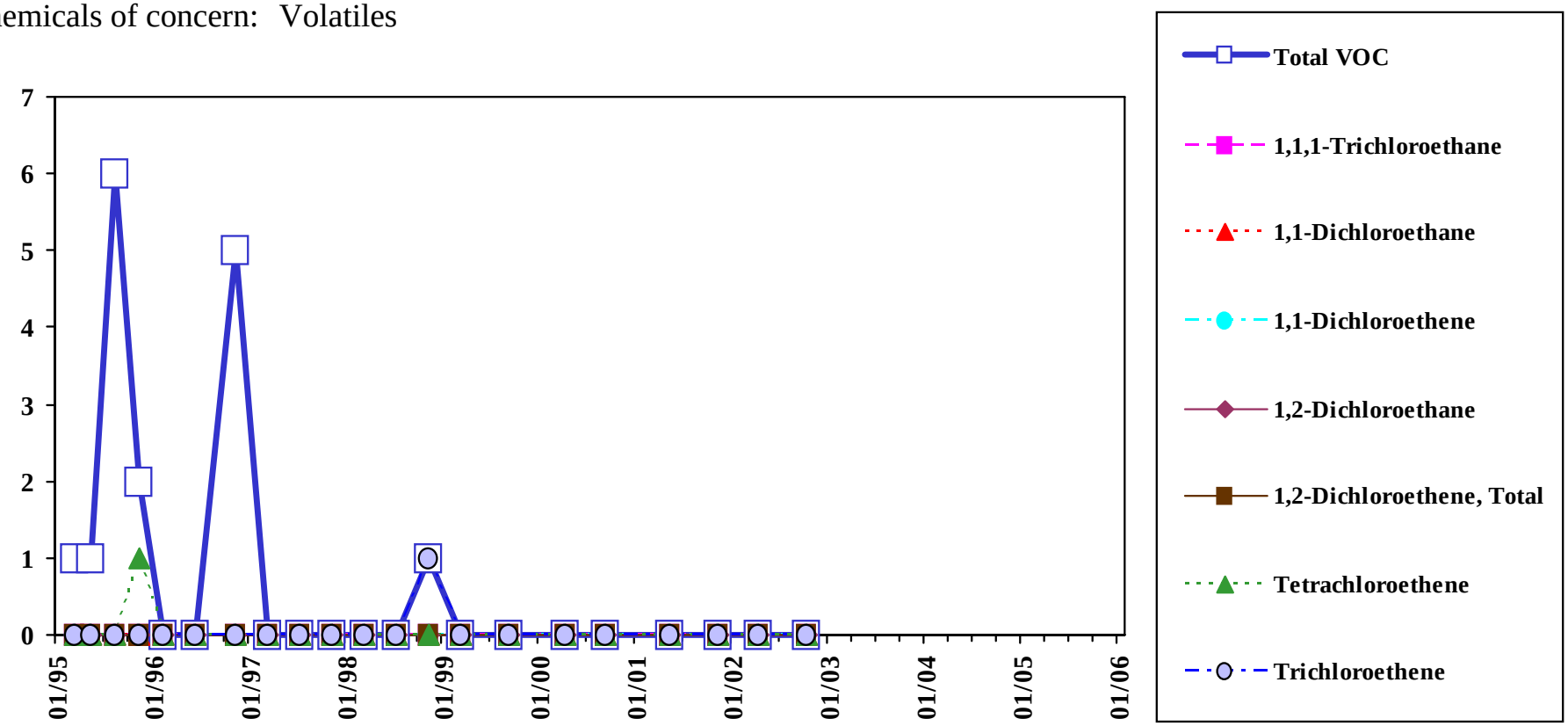
Sample Location:

MW-303

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

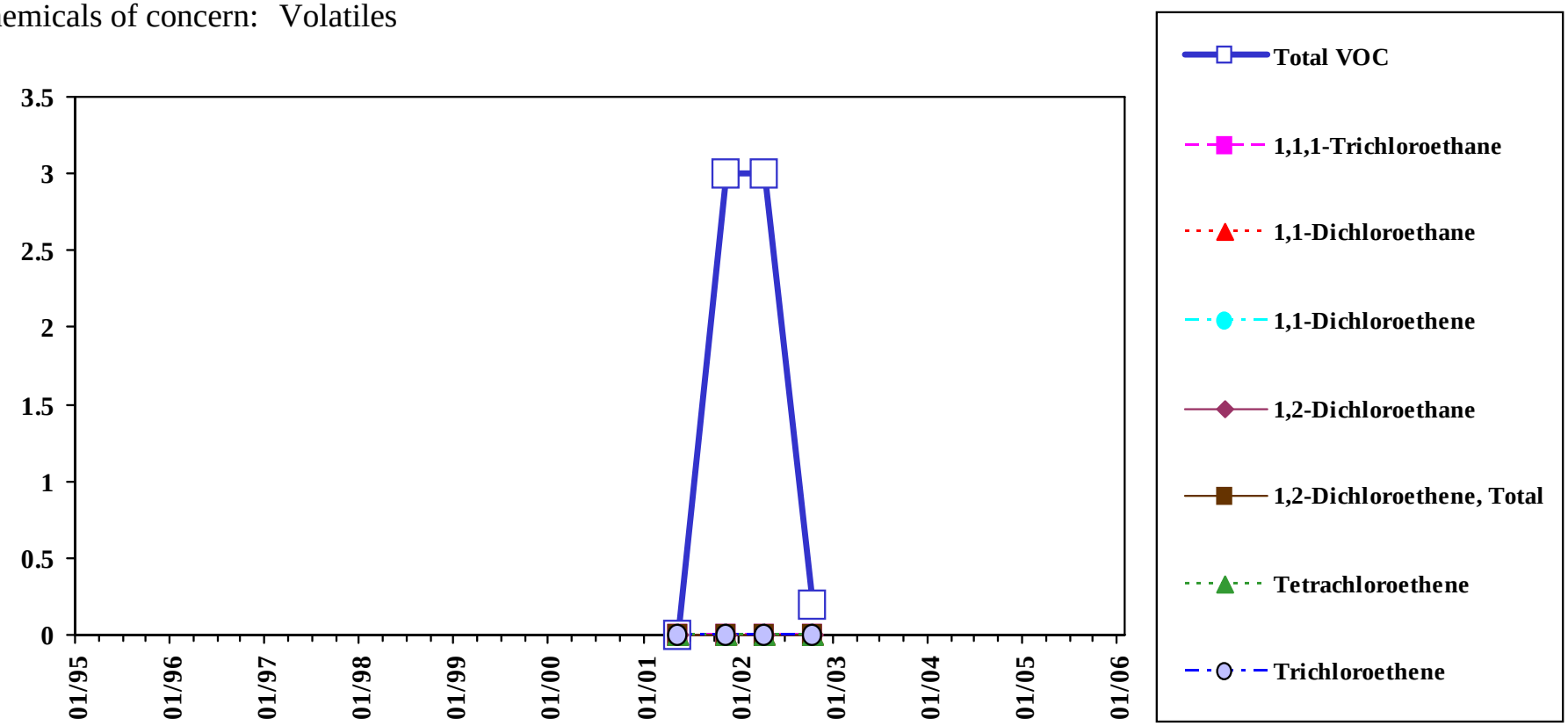
Sample Location:

MW-303

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

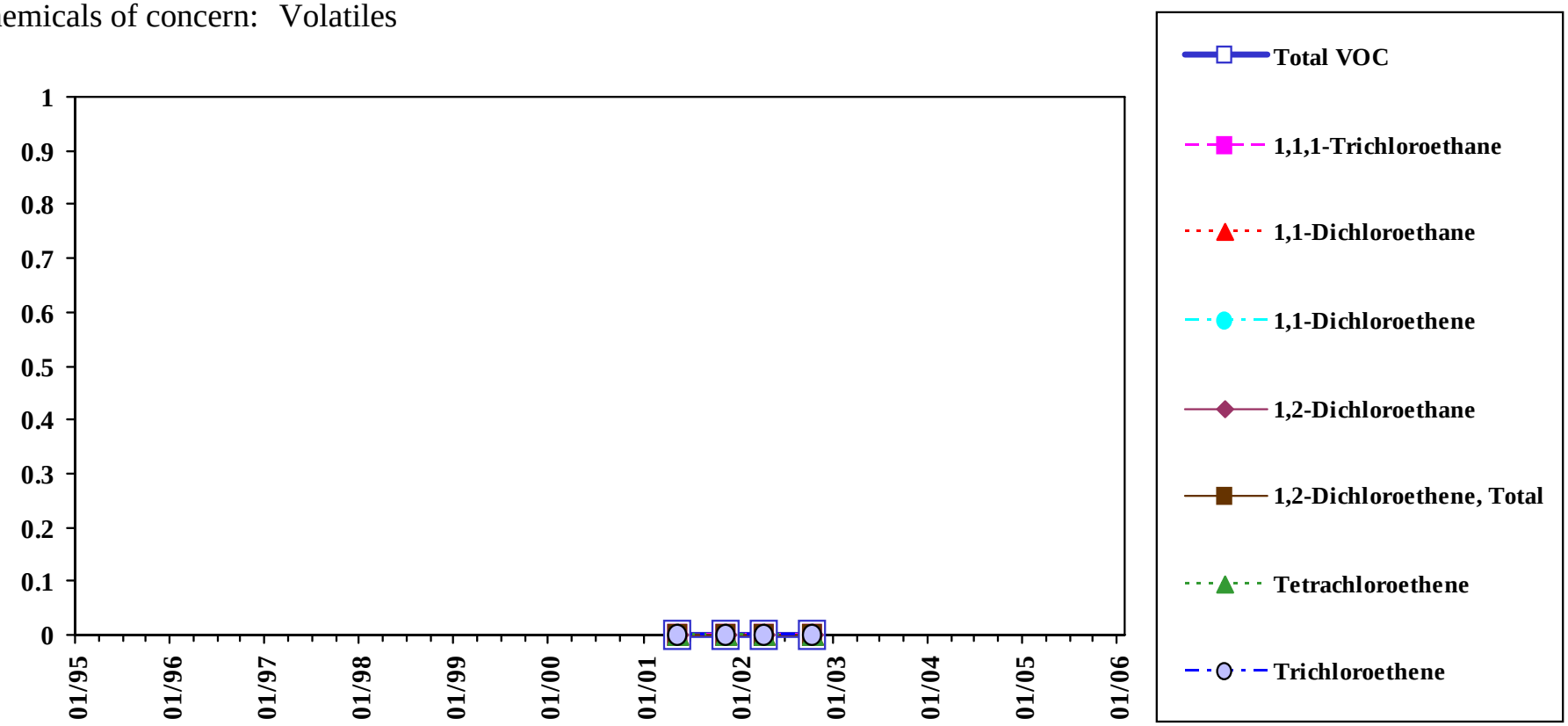
Sample Location:

MW-303

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

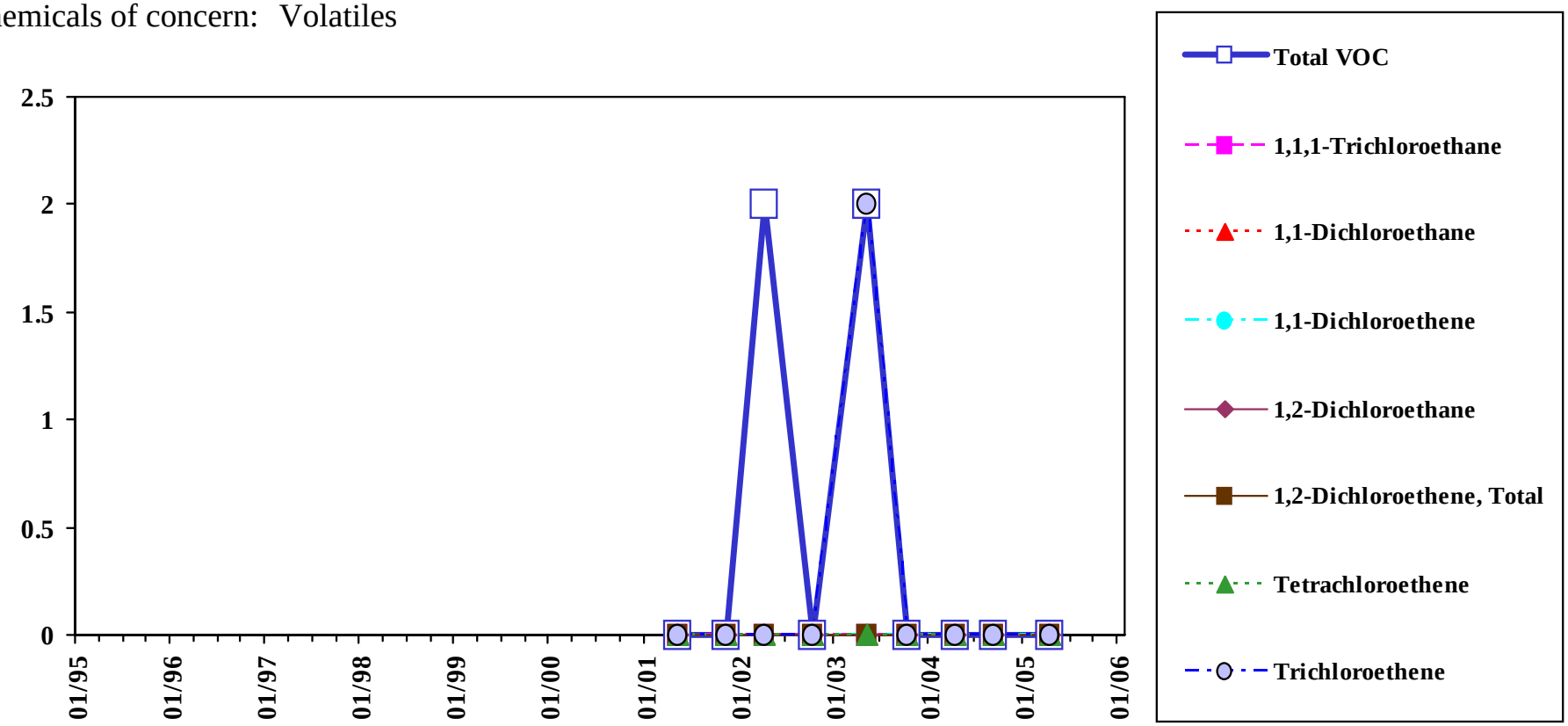
Sample Location:

MW-303

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

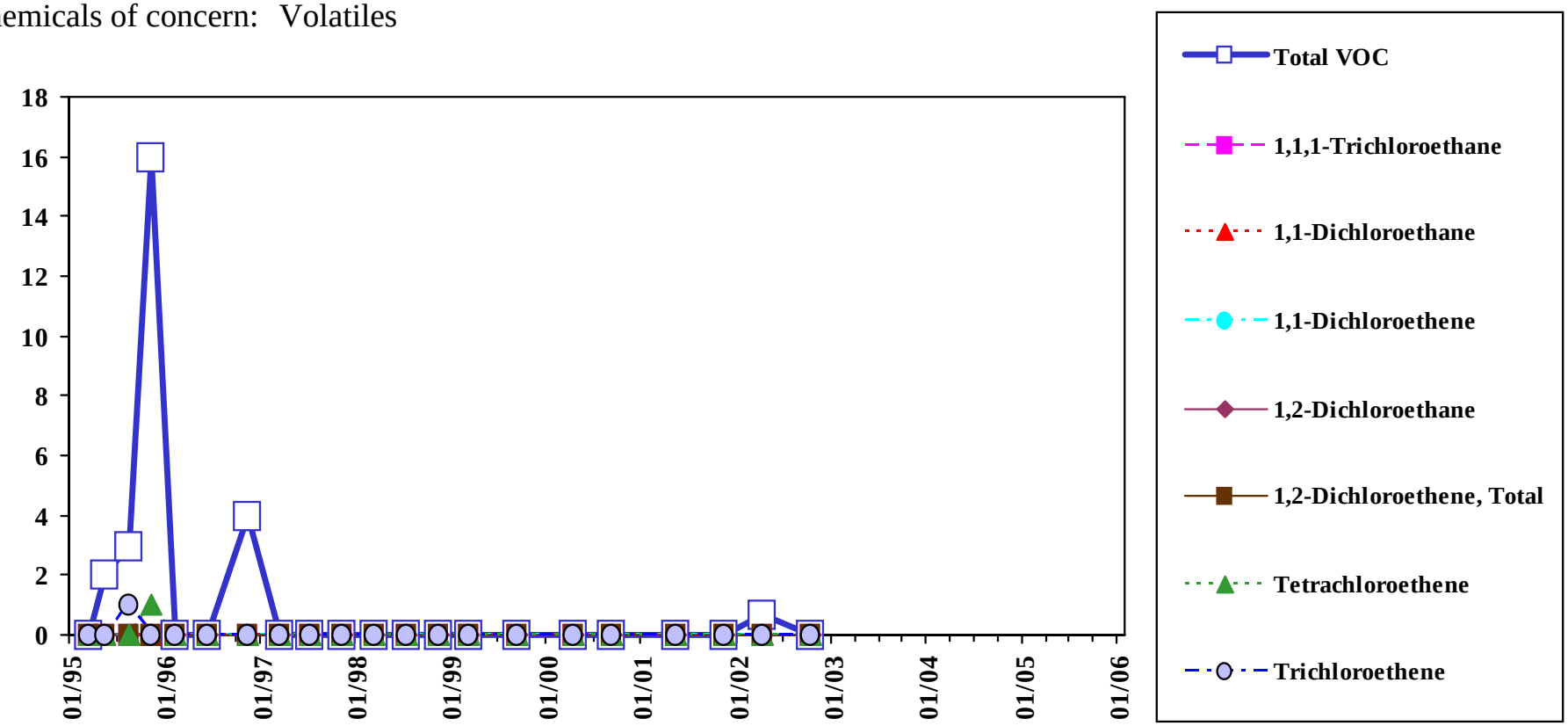
Sample Location:

MW-305

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

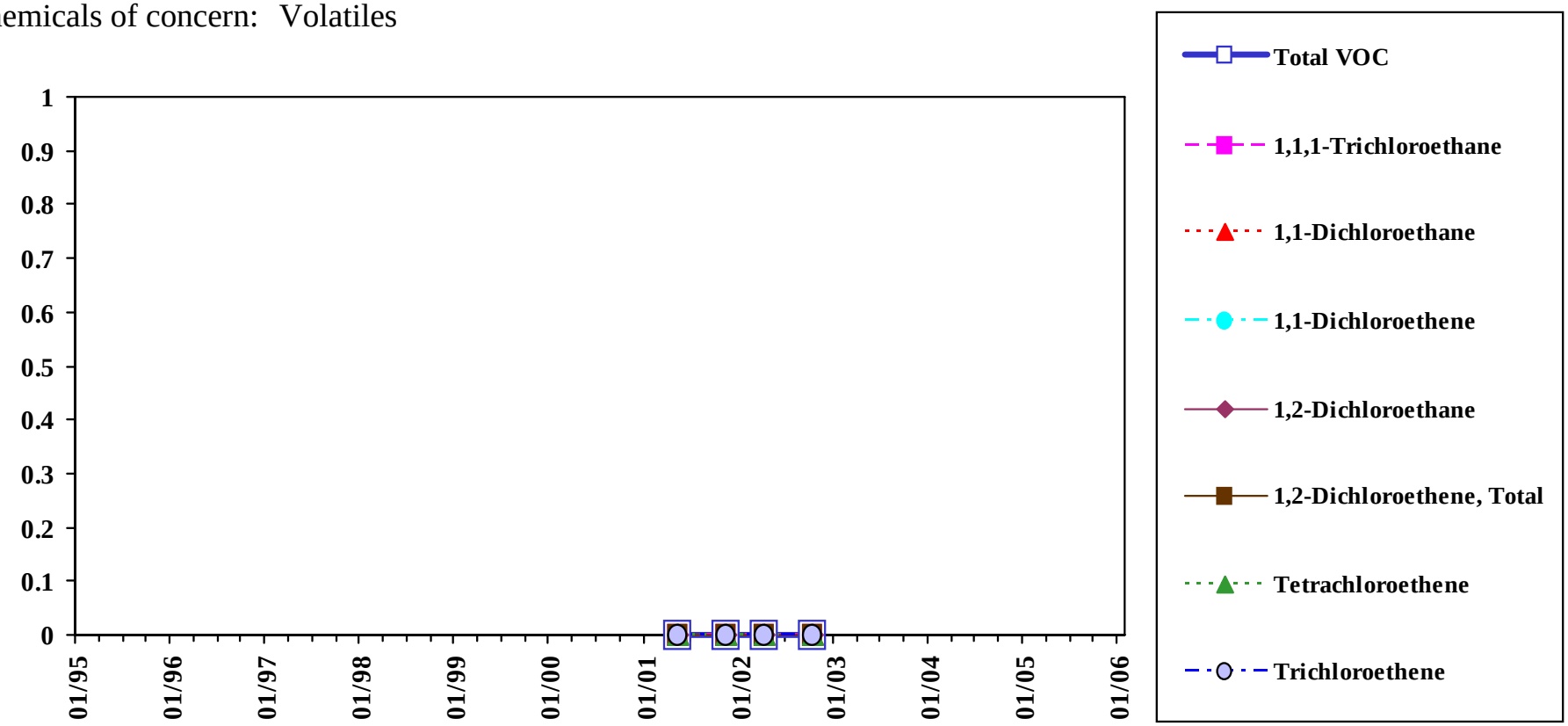
Sample Location:

MW-305

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

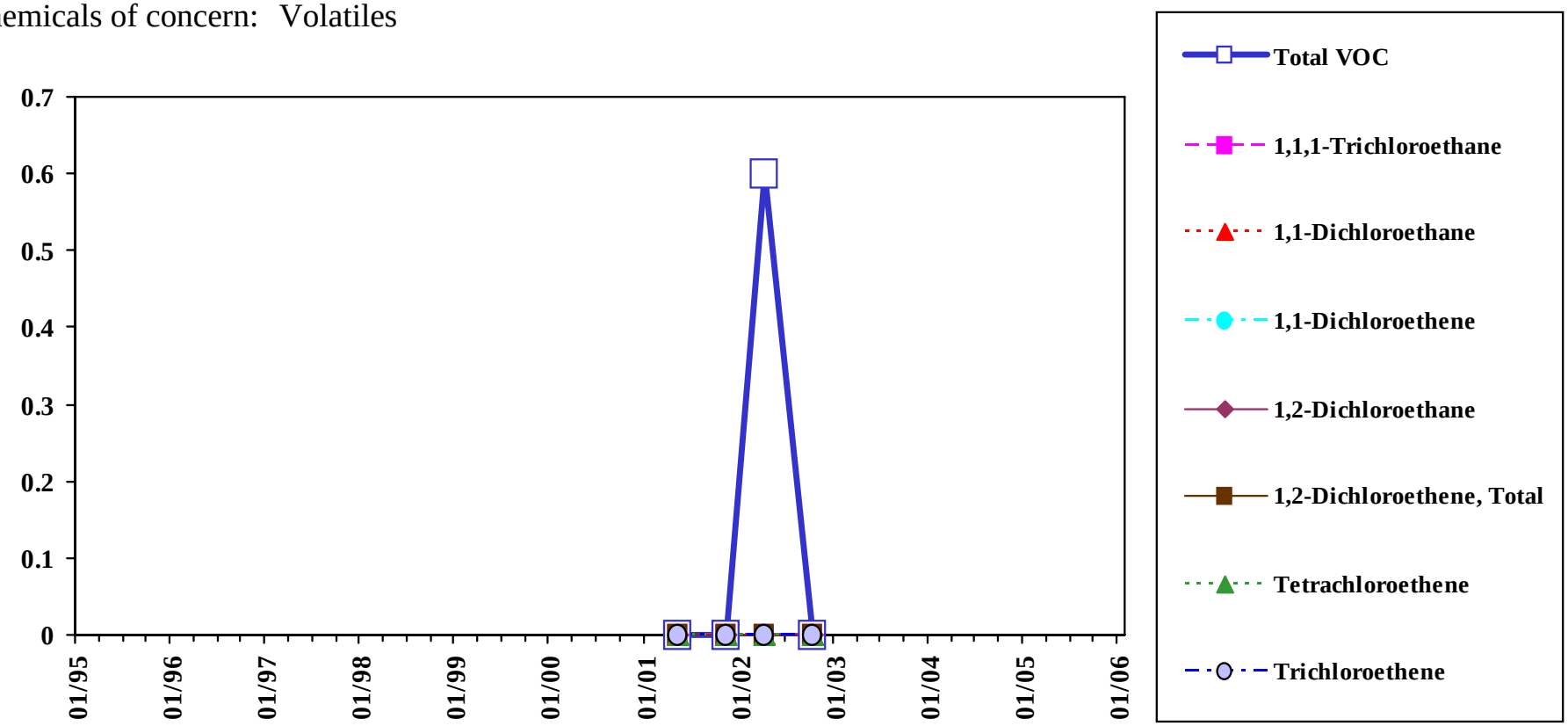
Sample Location:

MW-305

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

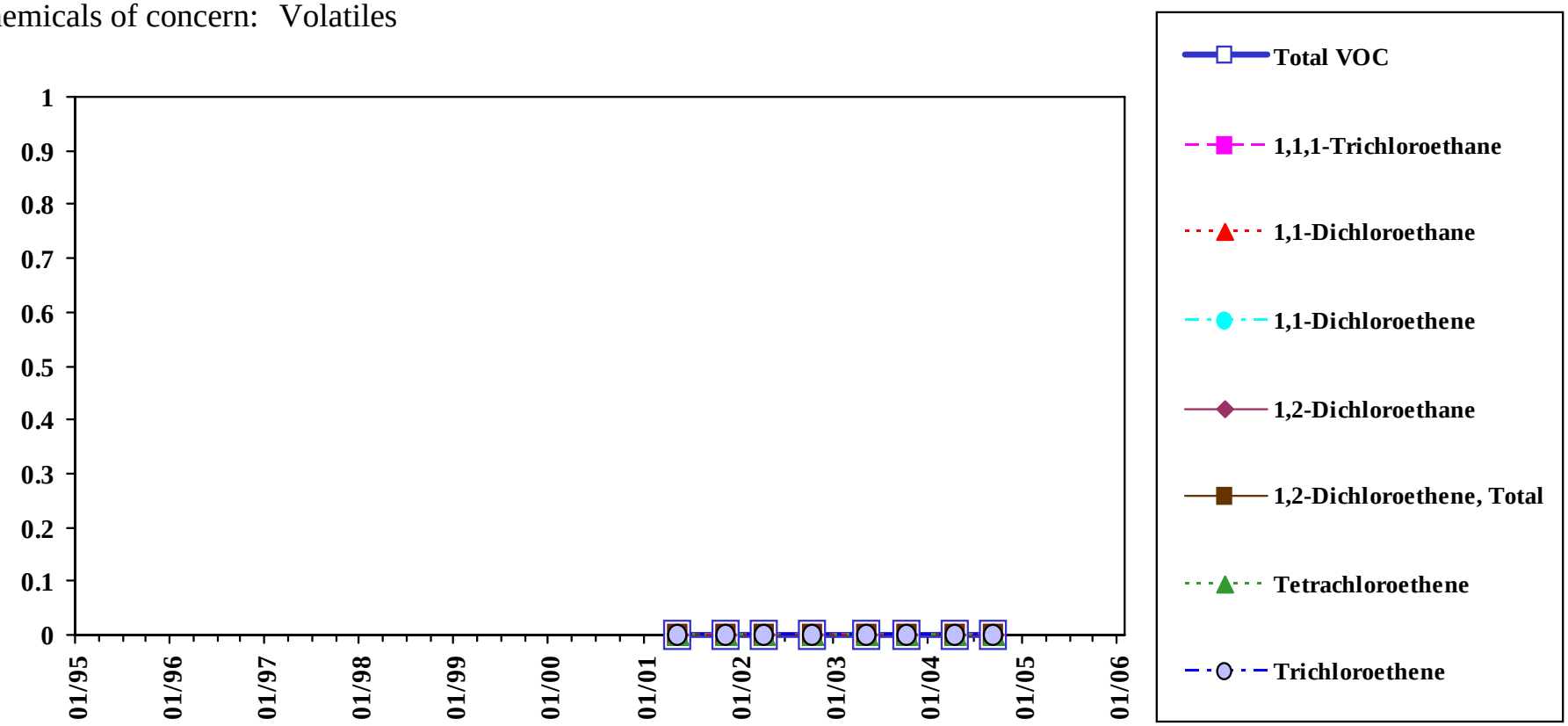
Sample Location:

MW-305

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

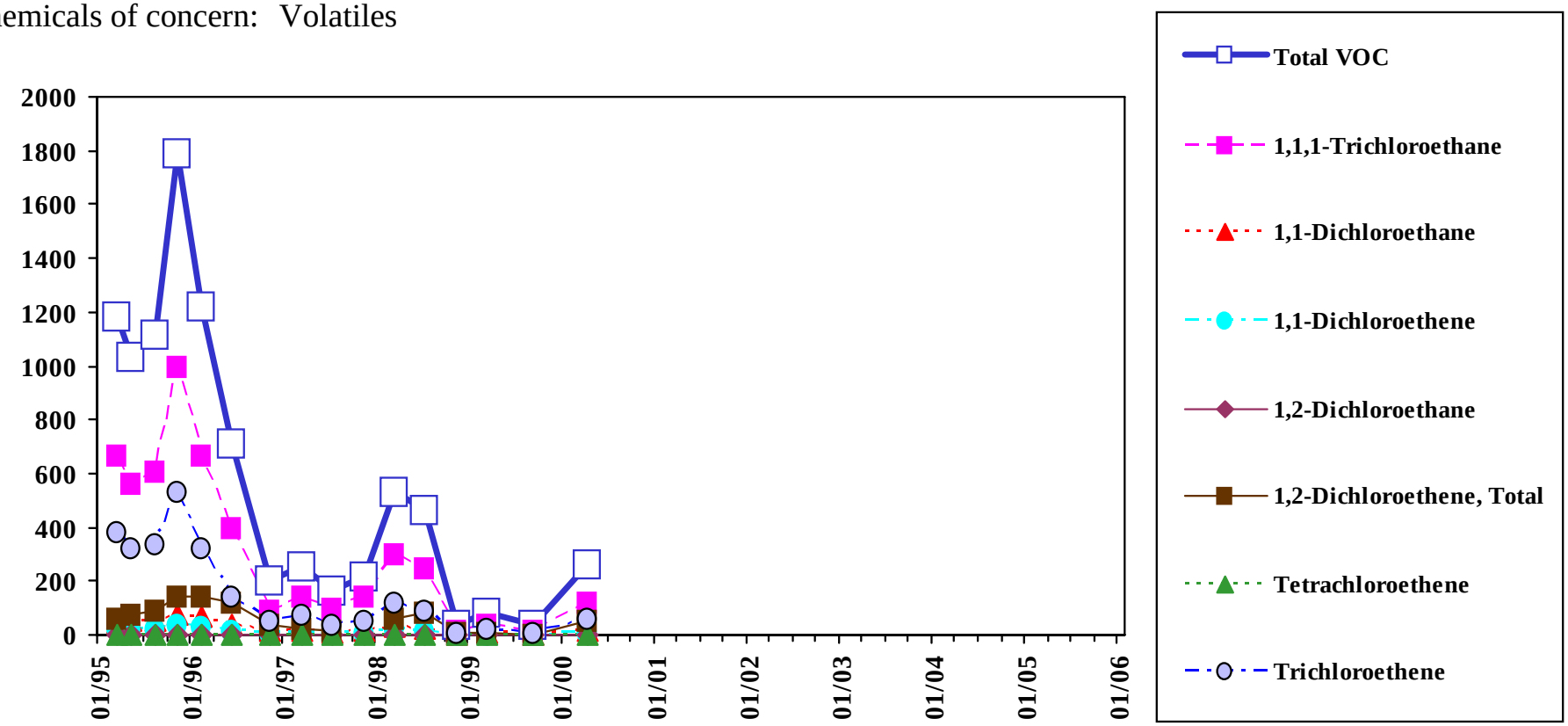
Sample Location:

MW-306

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

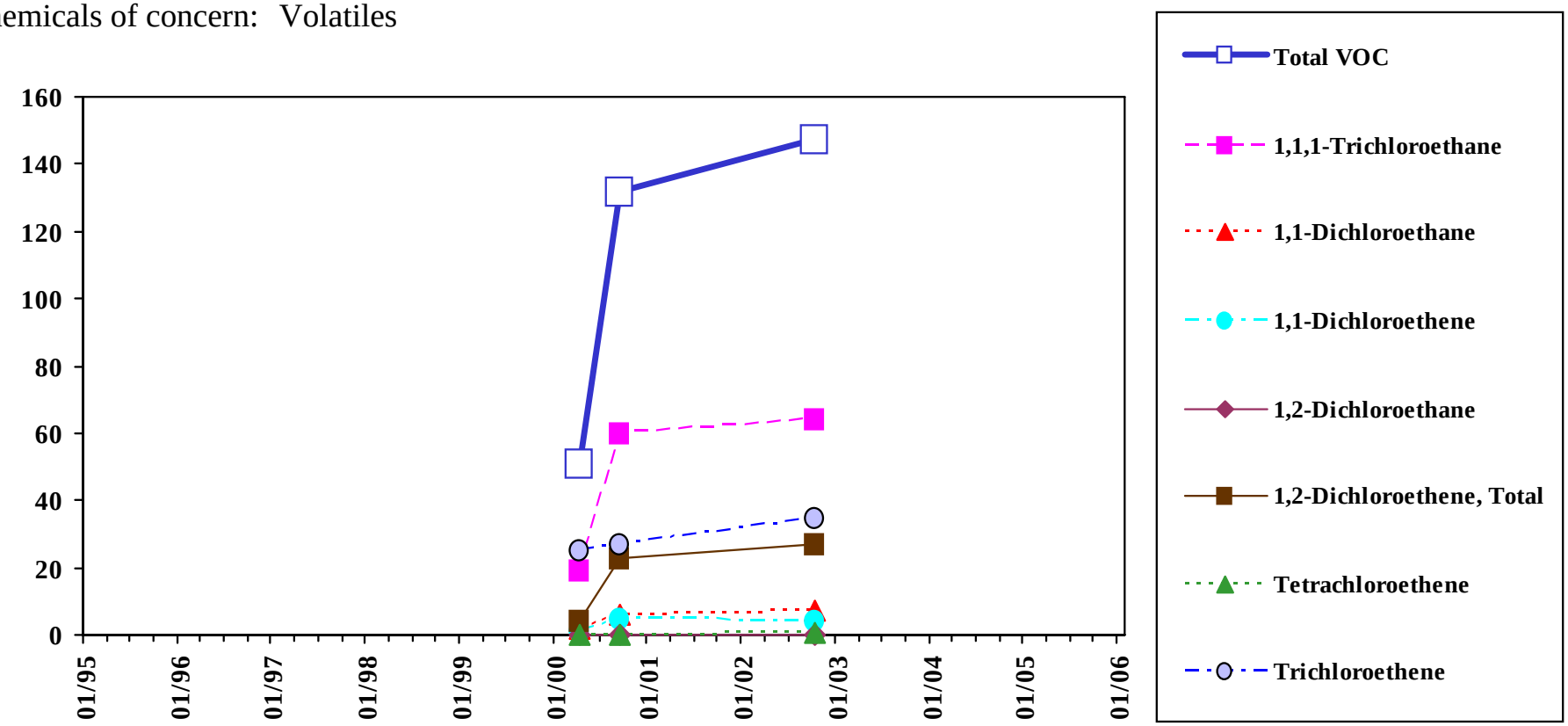
Sample Location:

MW-306

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

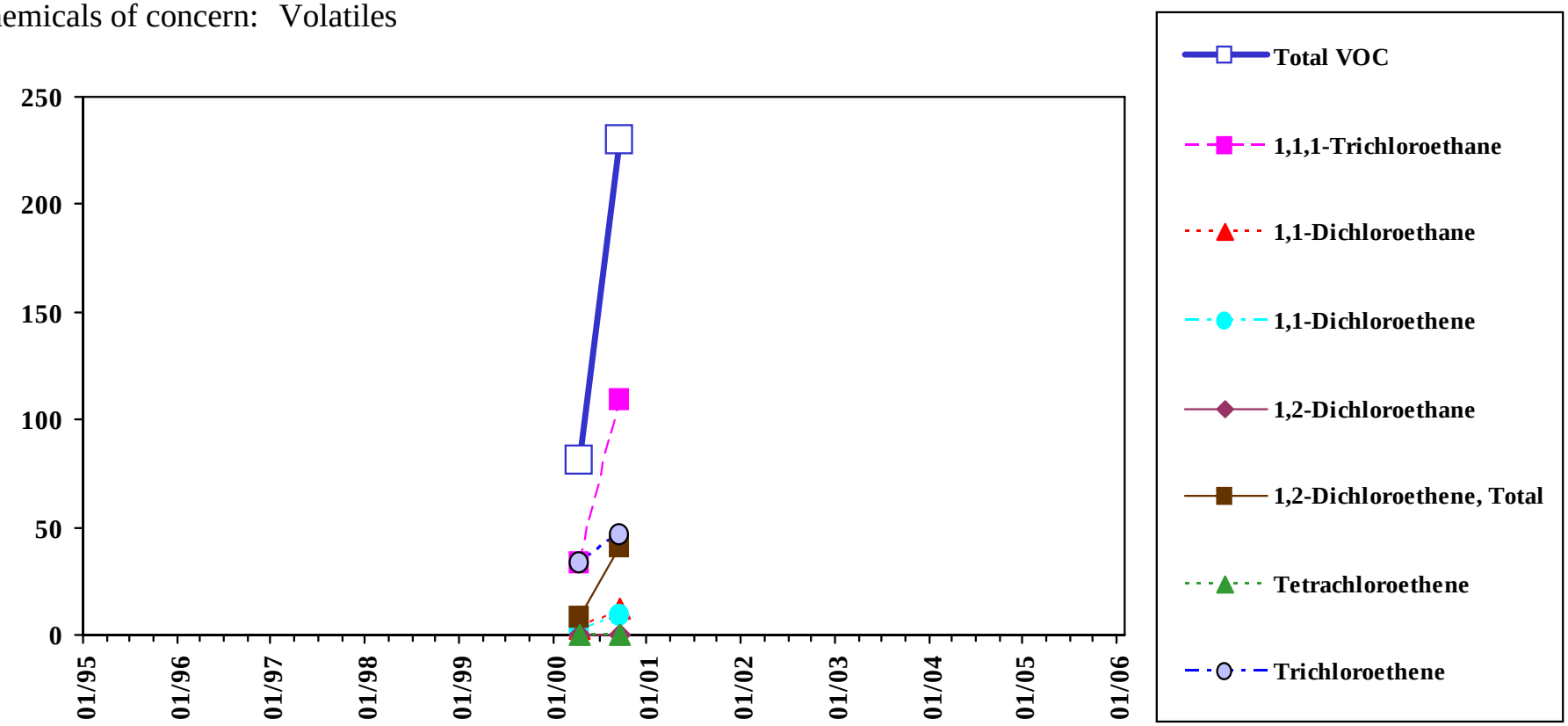
Sample Location:

MW-306

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

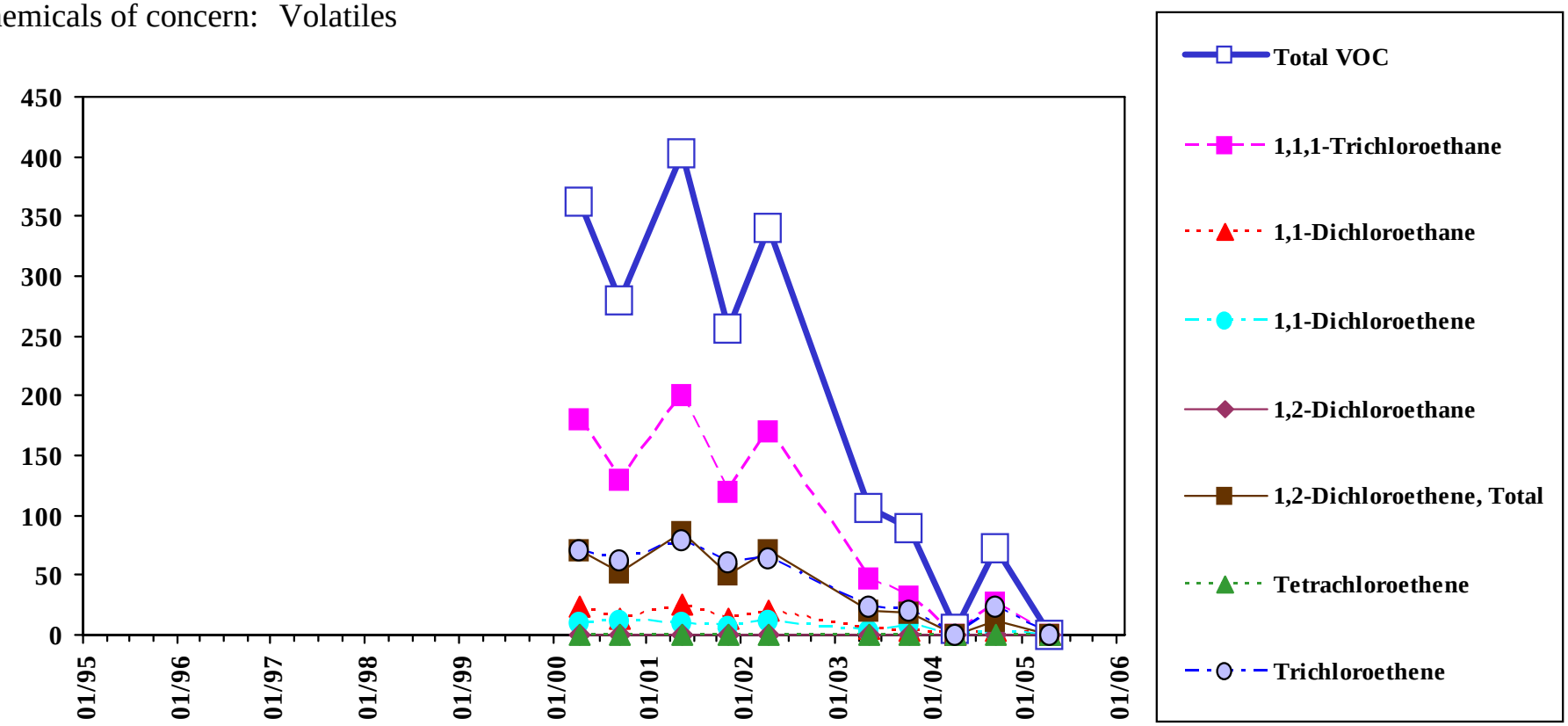
Sample Location:

MW-306

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

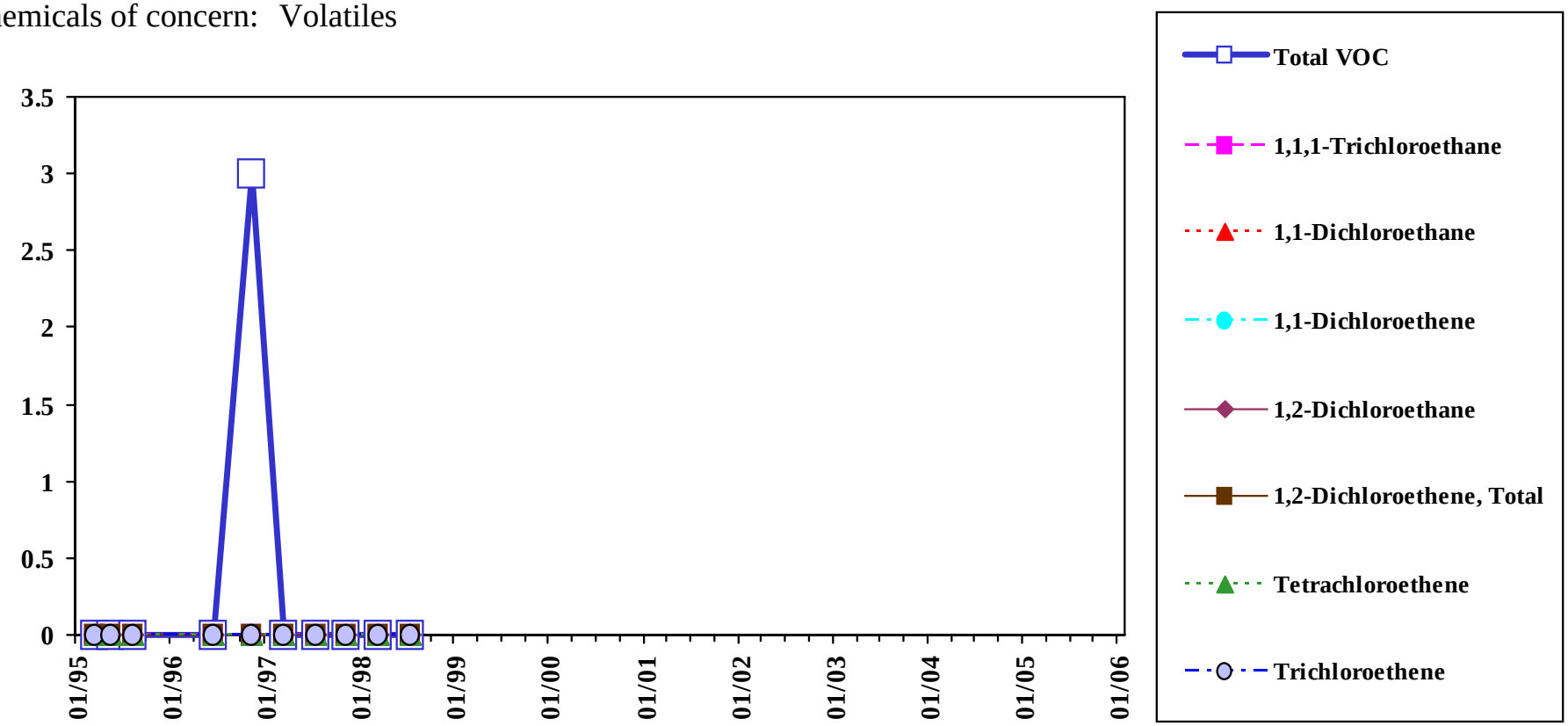
Sample Location:

MW-307

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

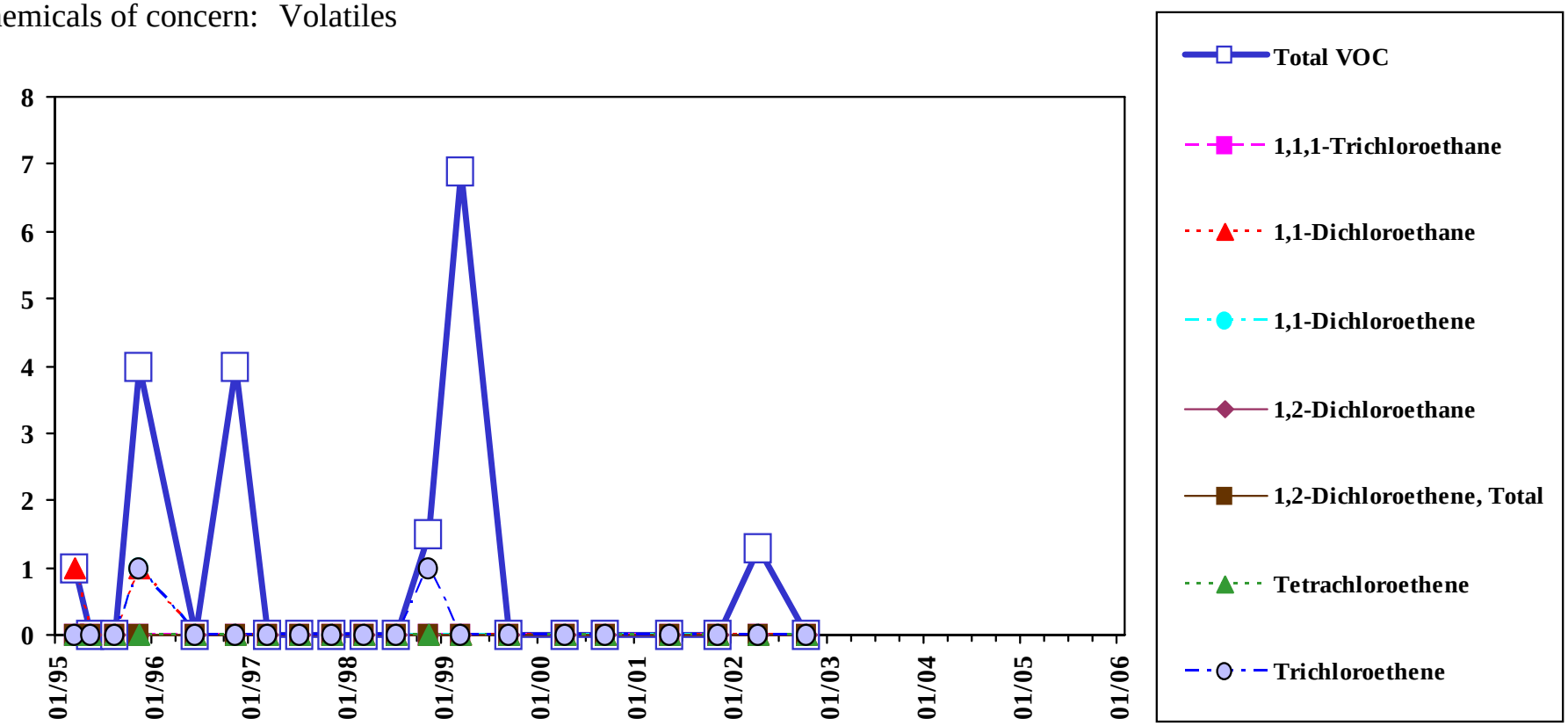
Sample Location:

MW-308

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

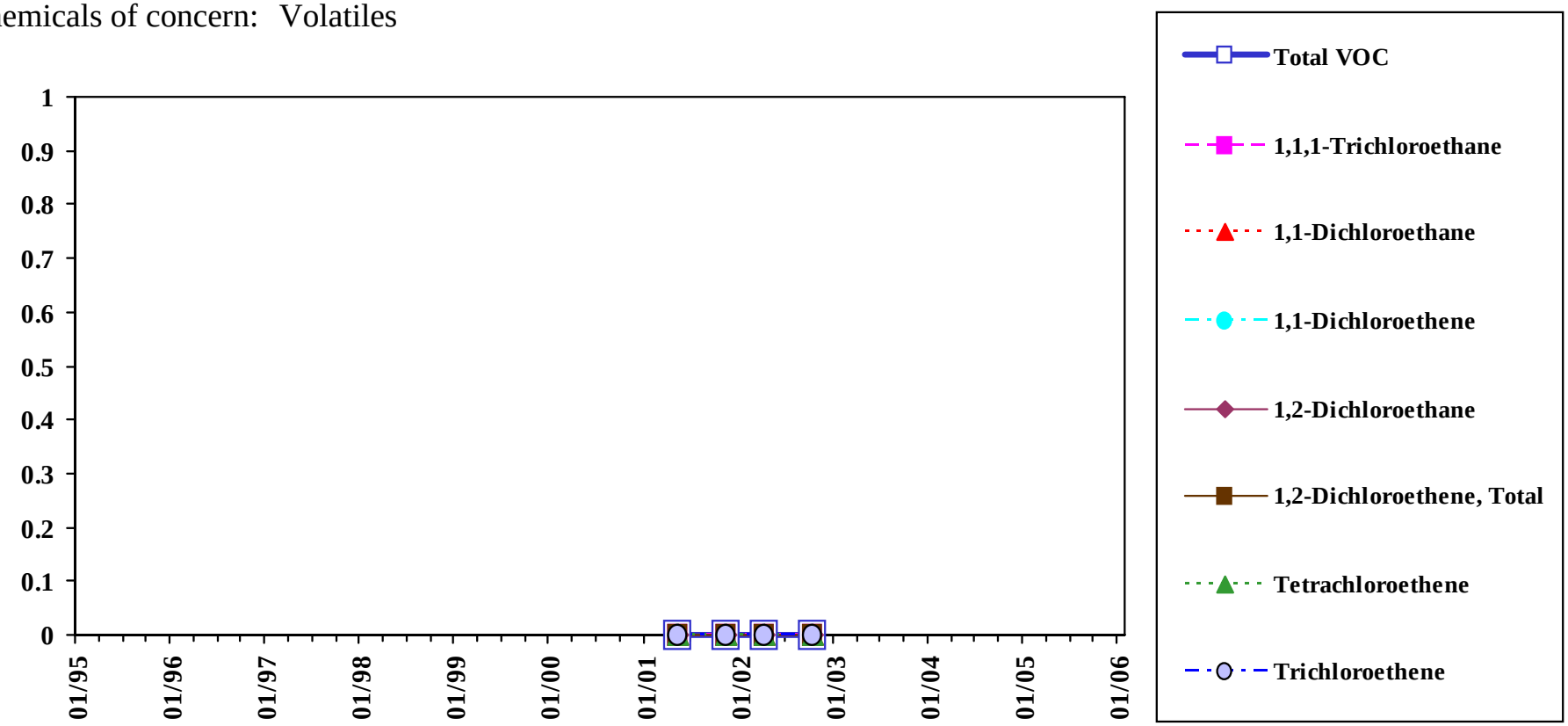
Sample Location:

MW-308

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

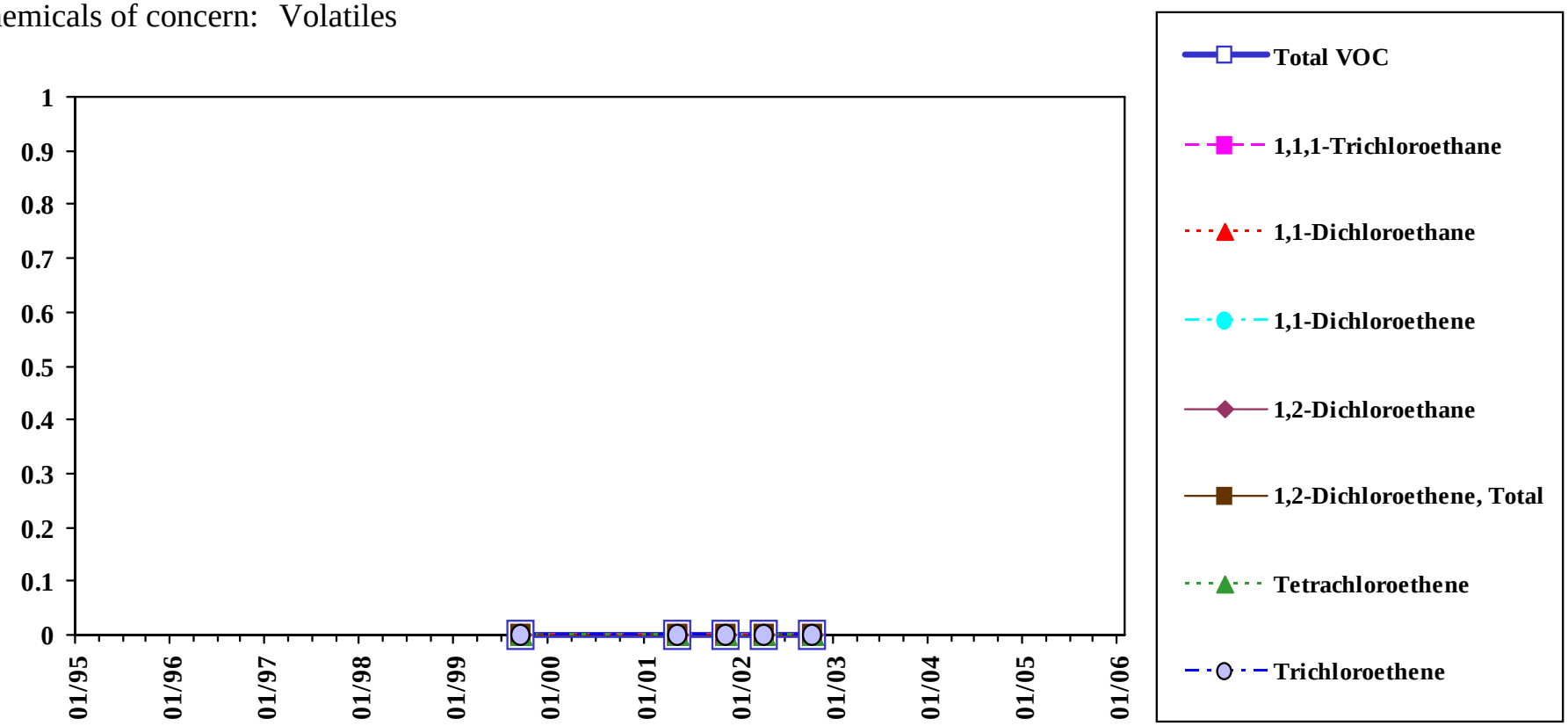
Sample Location:

MW-308

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

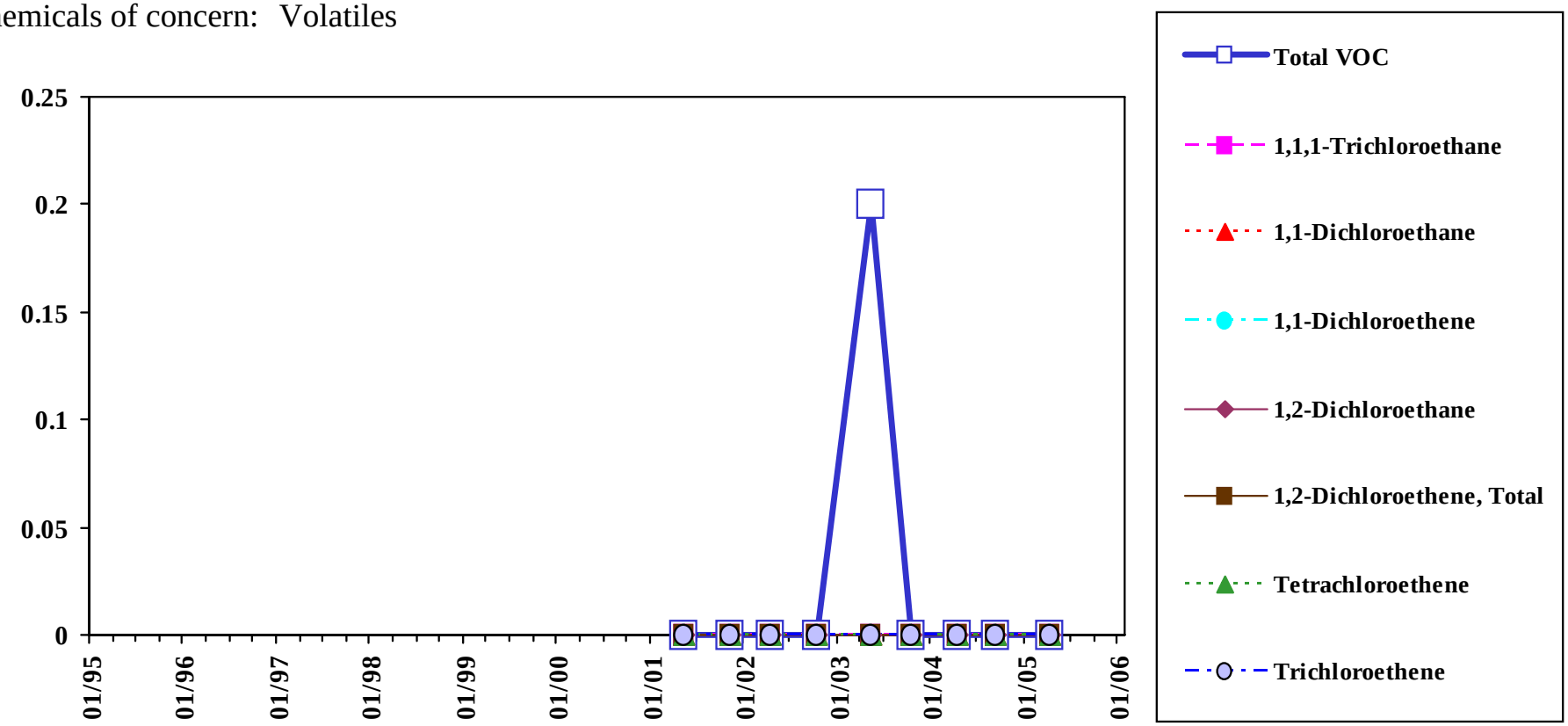
Sample Location:

MW-308

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

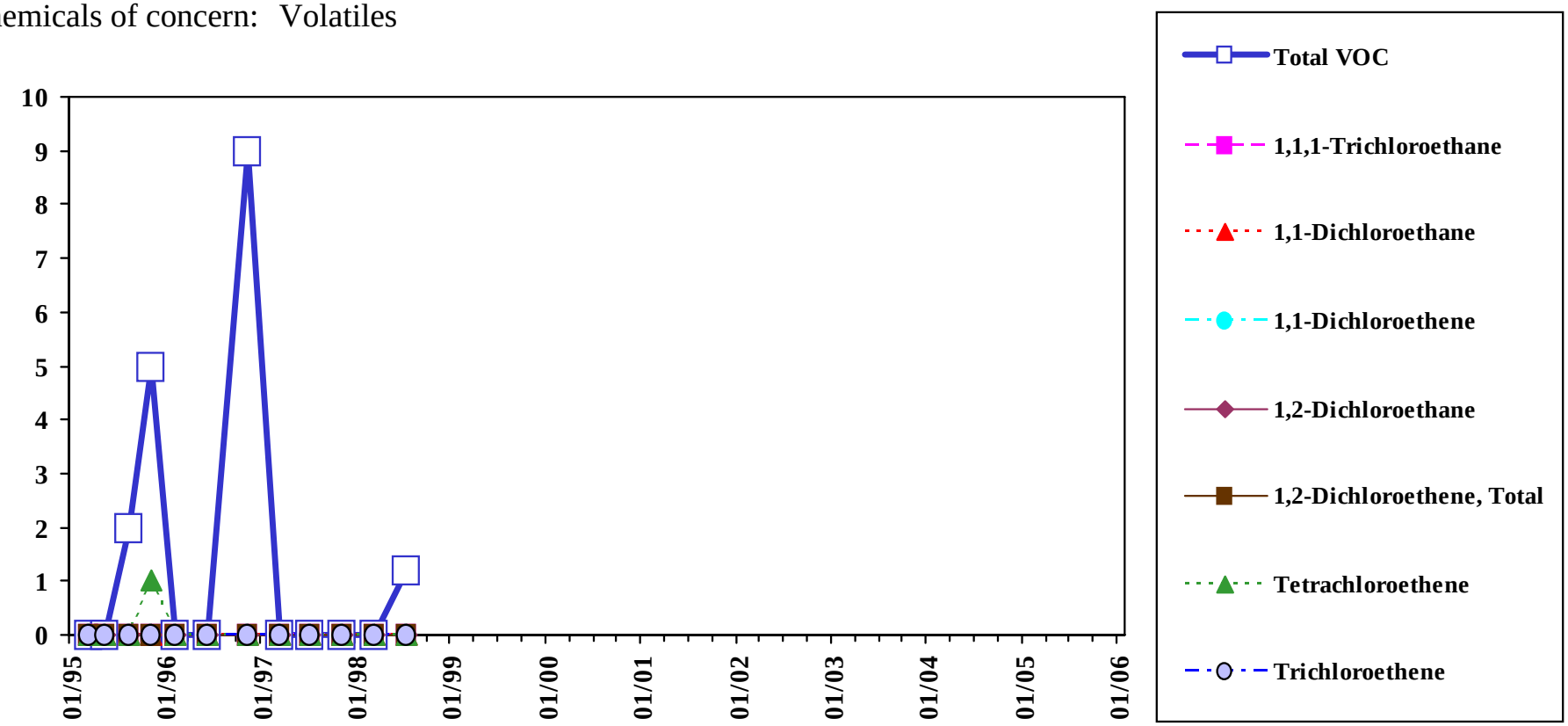
Sample Location:

MW-309A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

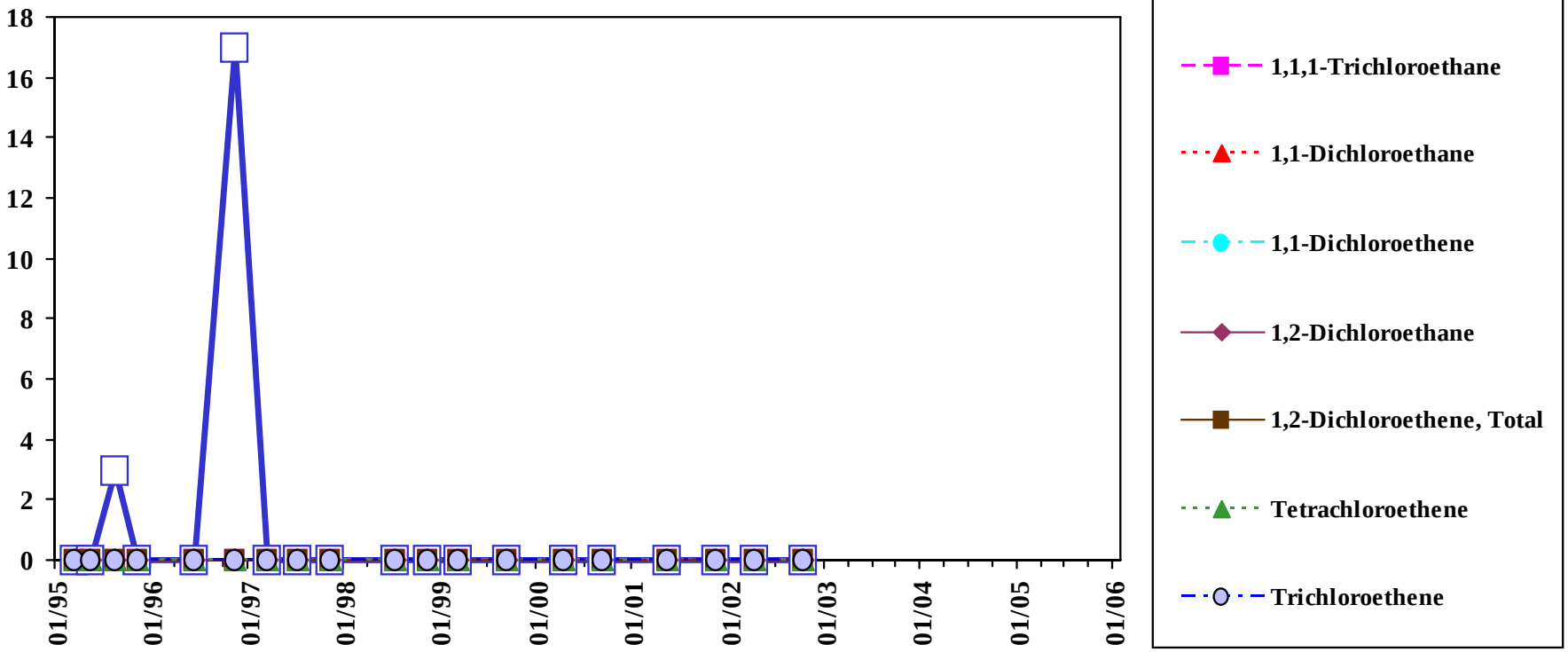
Sample Location:

MW-309B

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

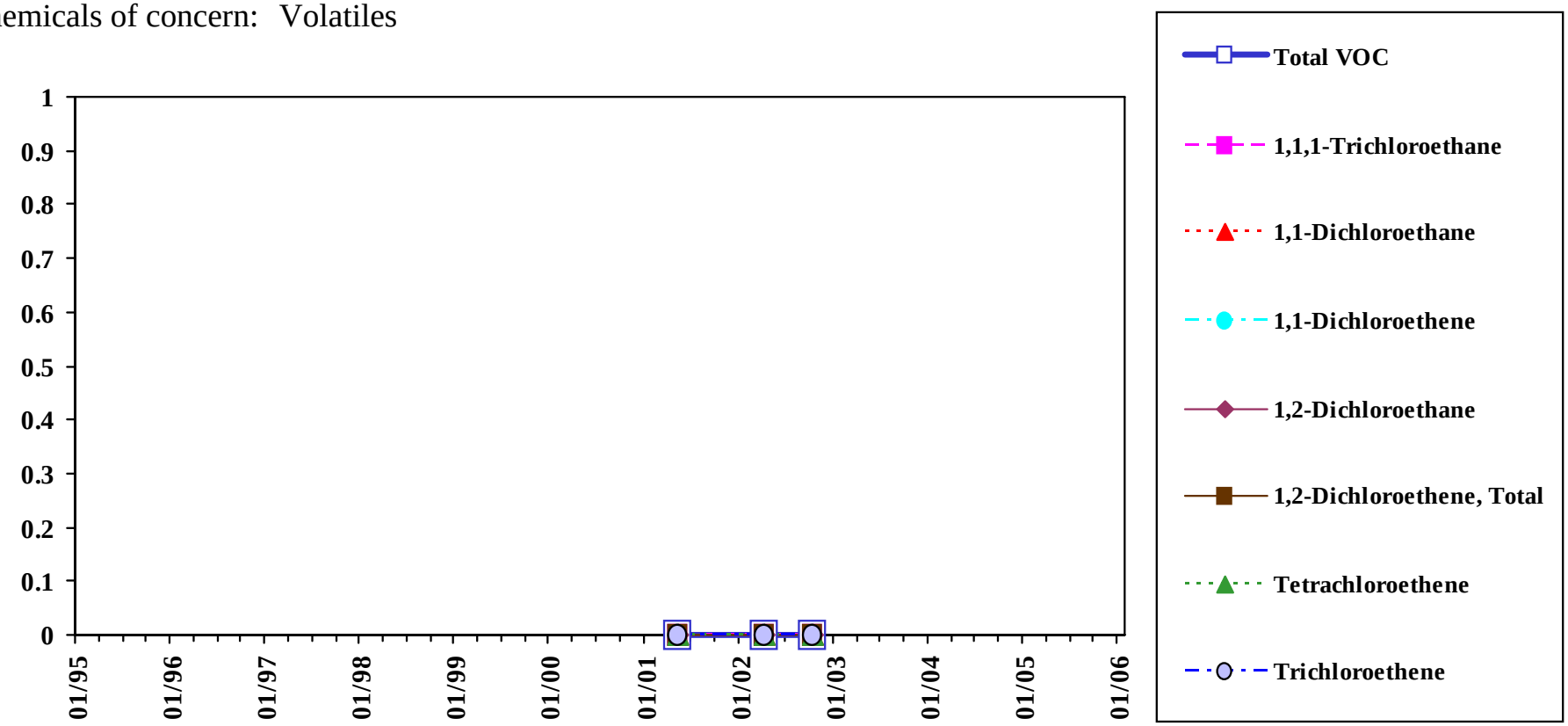
Sample Location:

MW-309B

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

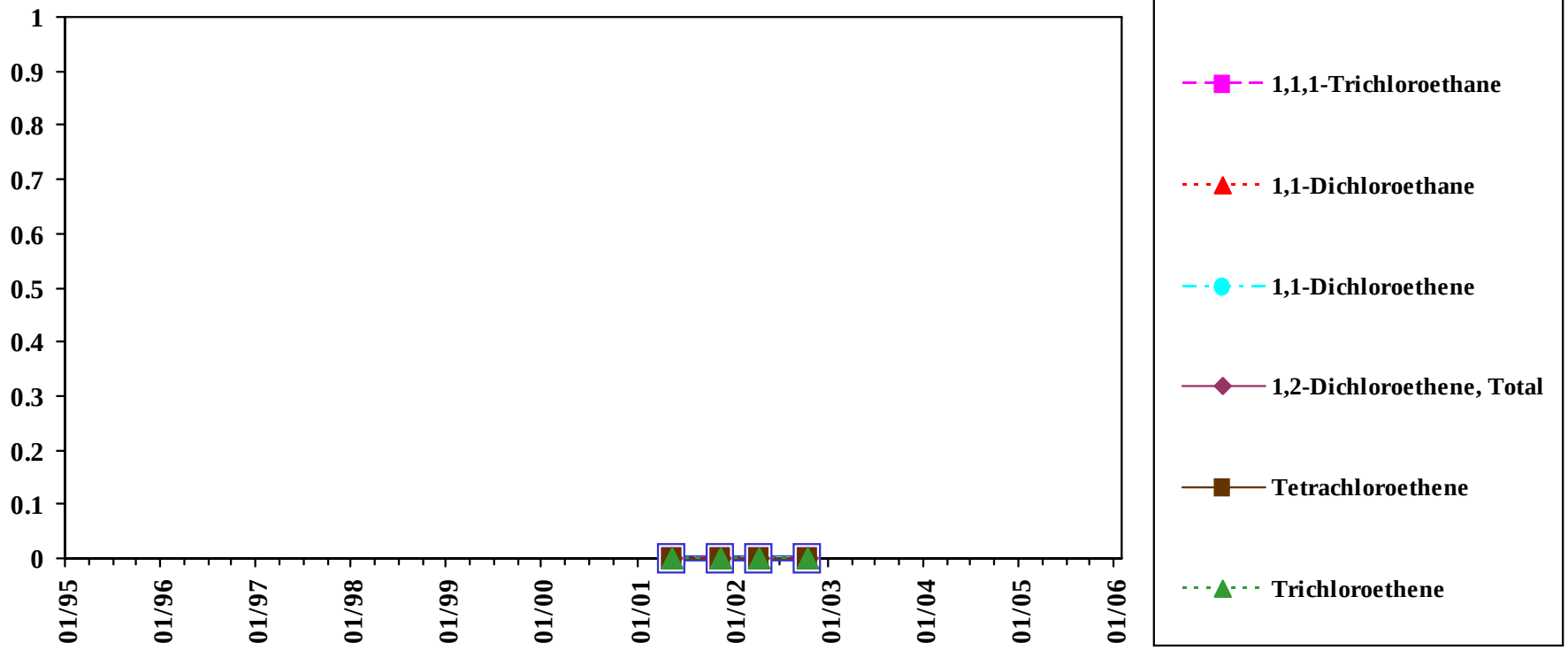
Sample Location:

MW-309B

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

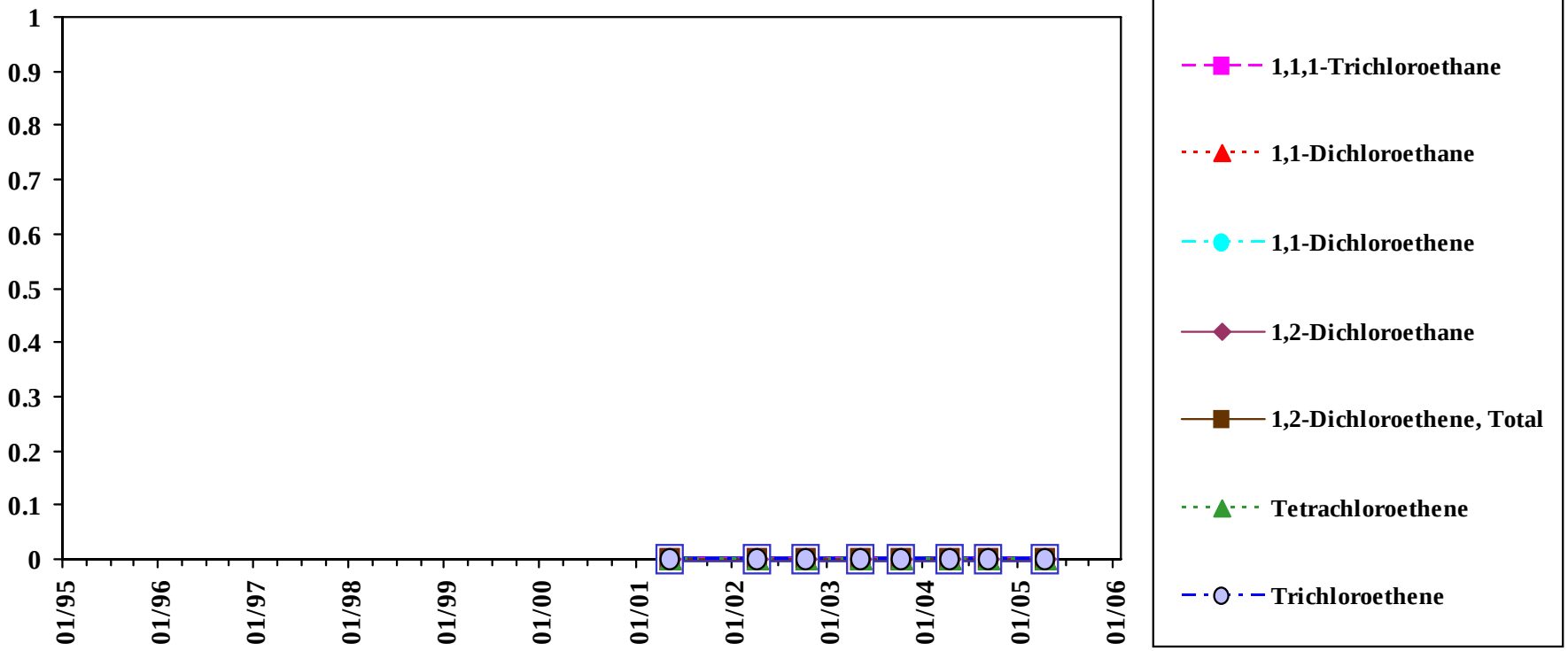
Sample Location:

MW-309B

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

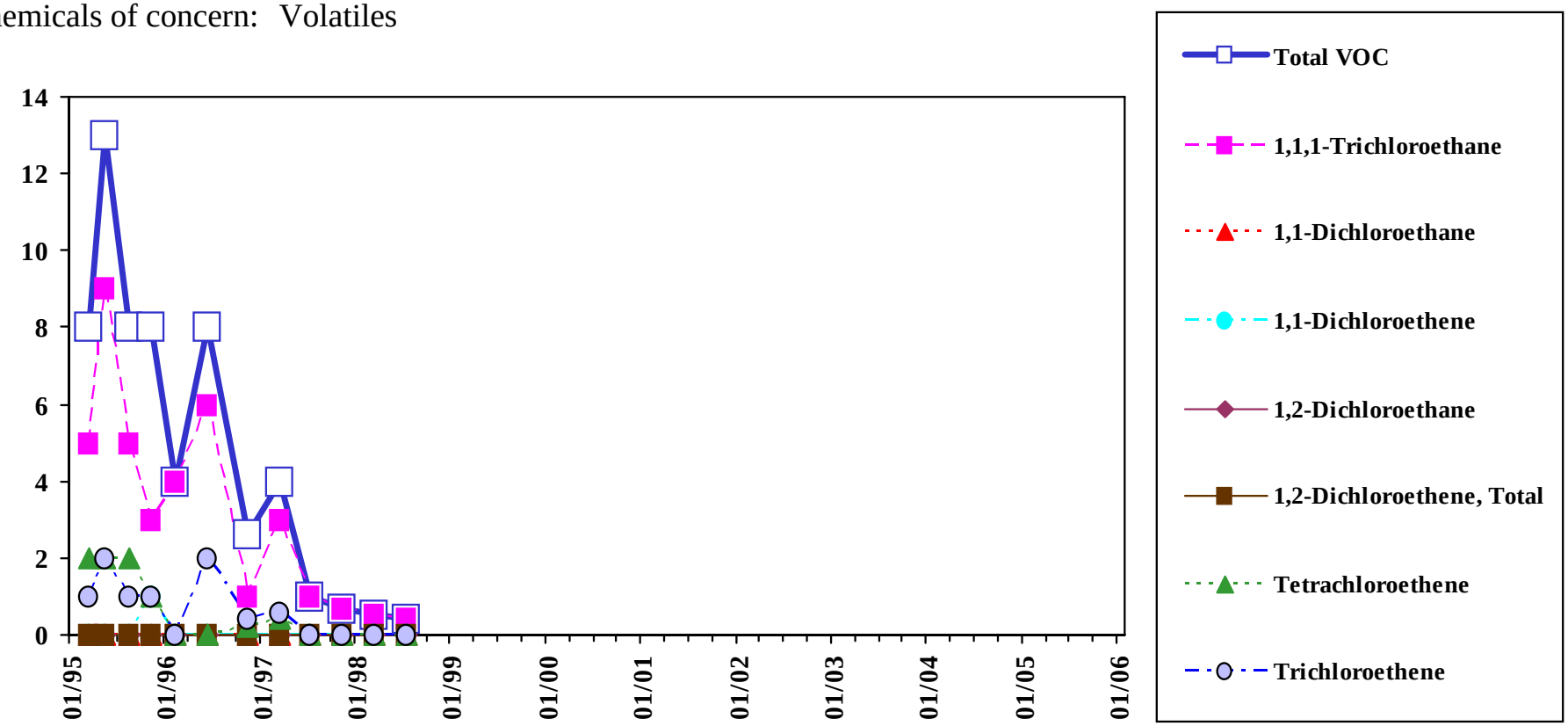
Sample Location:

MW-310

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

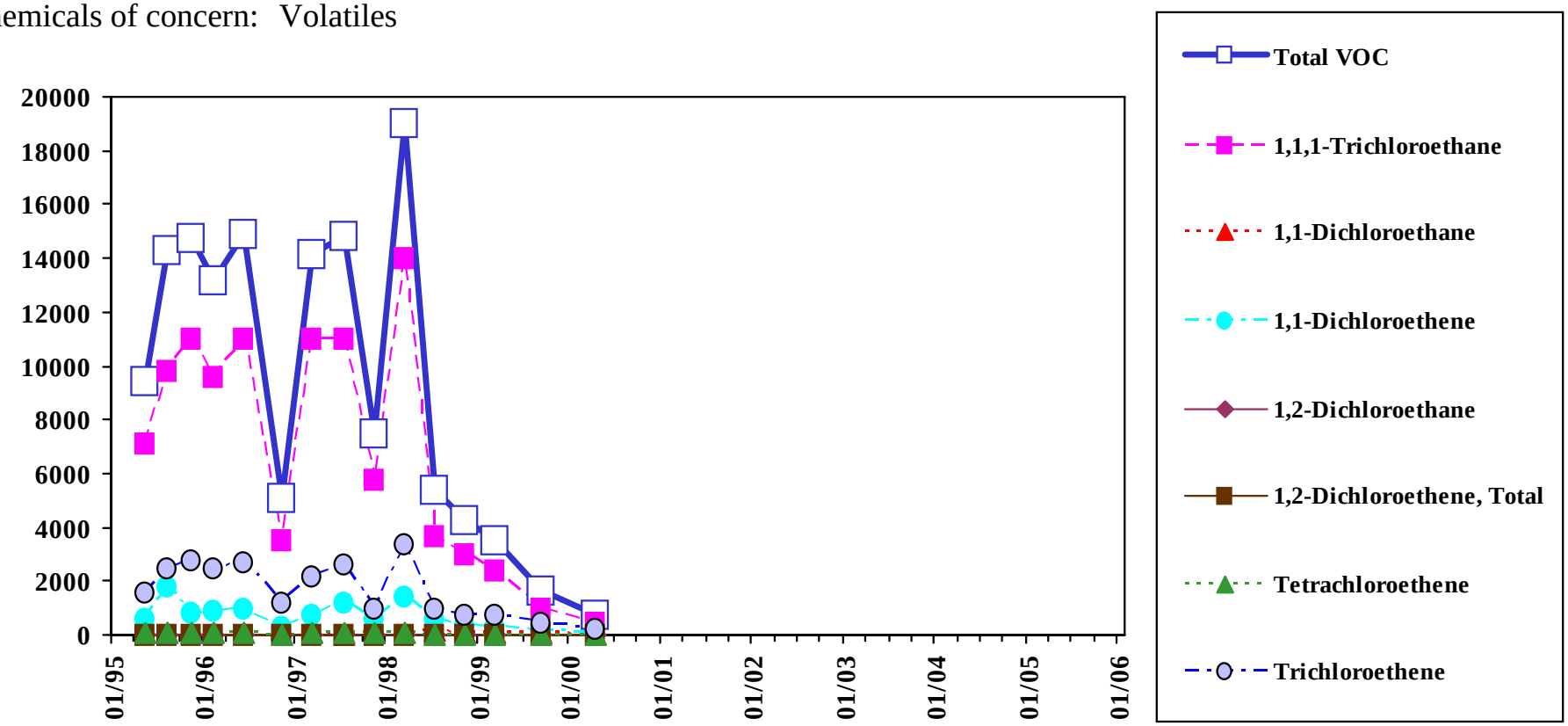
Sample Location:

MW-311

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

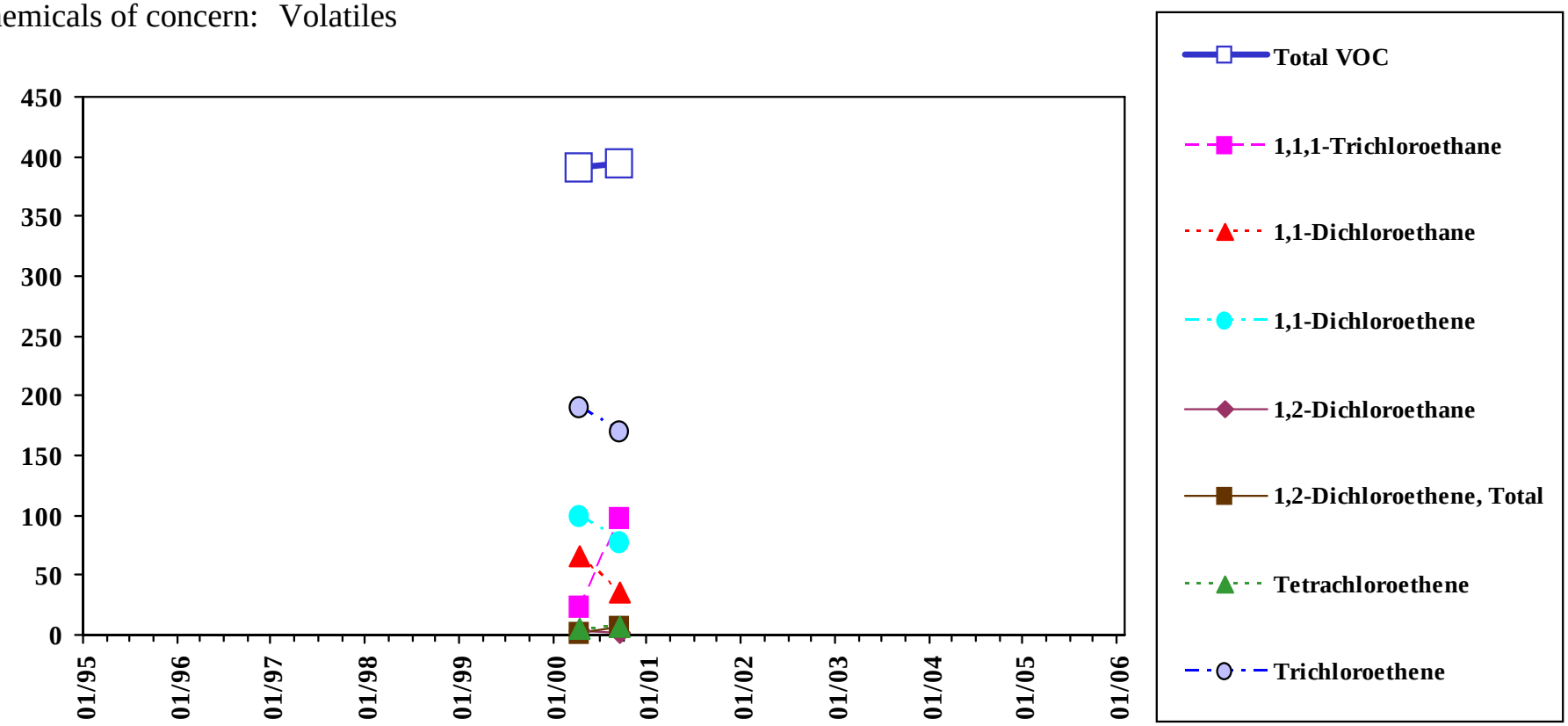
Sample Location:

MW-311

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

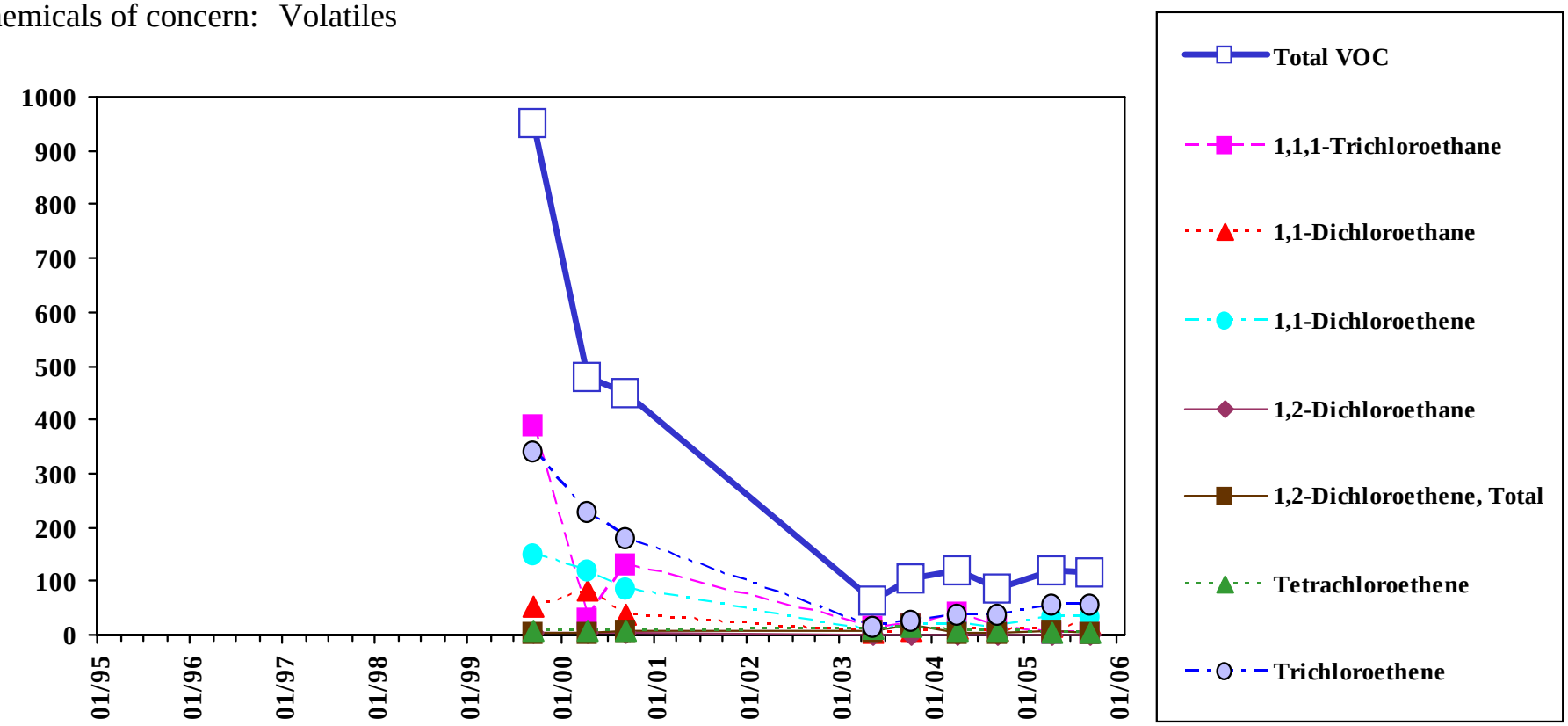
Sample Location:

MW-311

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

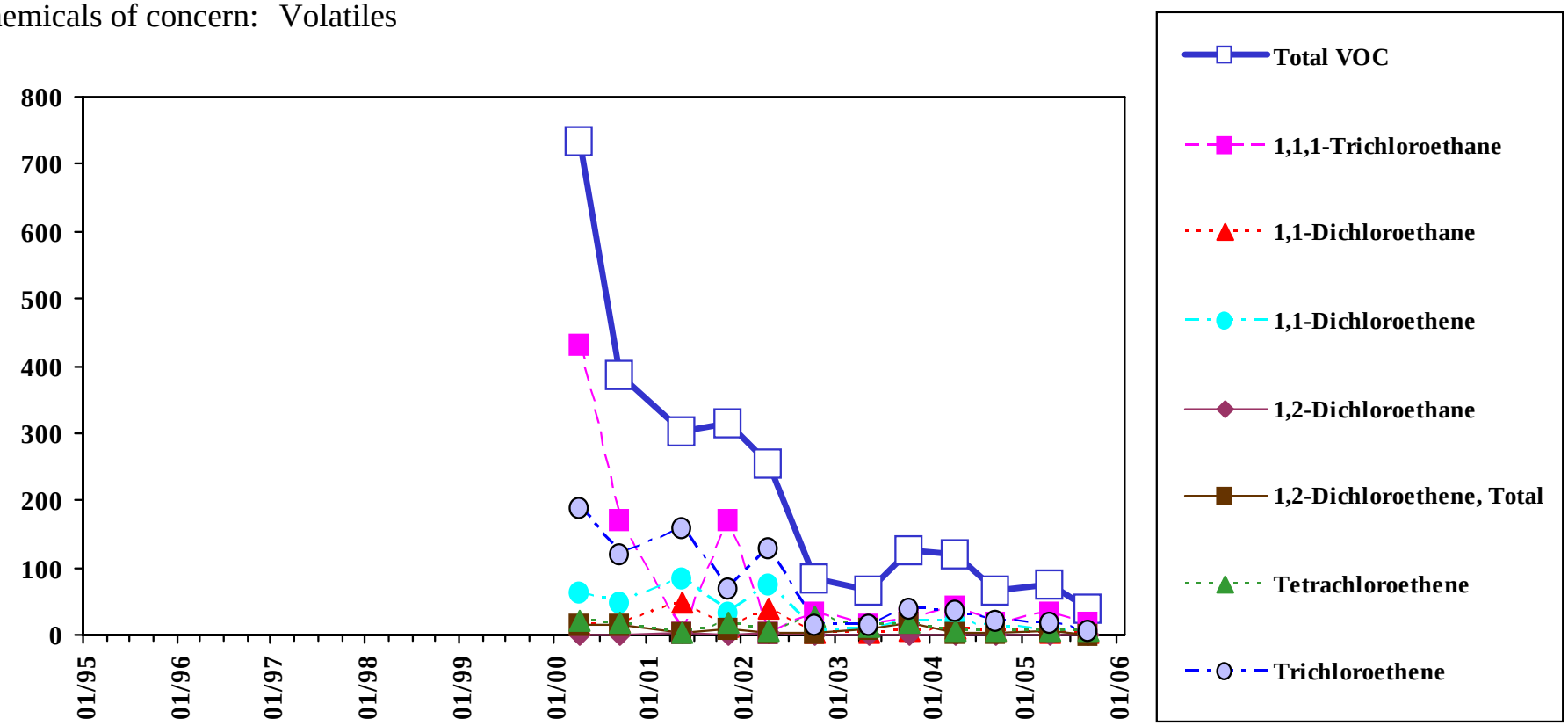
Sample Location:

MW-311

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

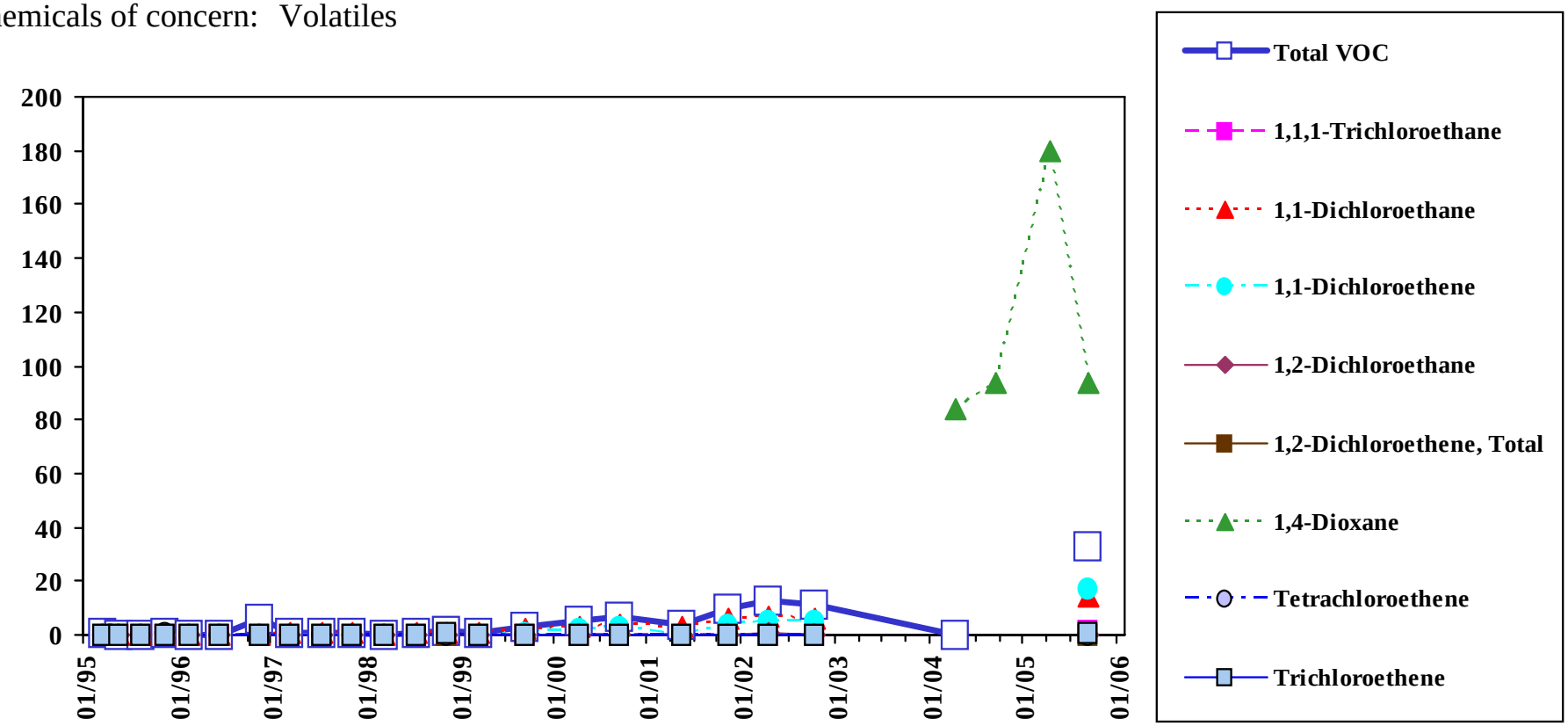
Sample Location:

MW-313

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

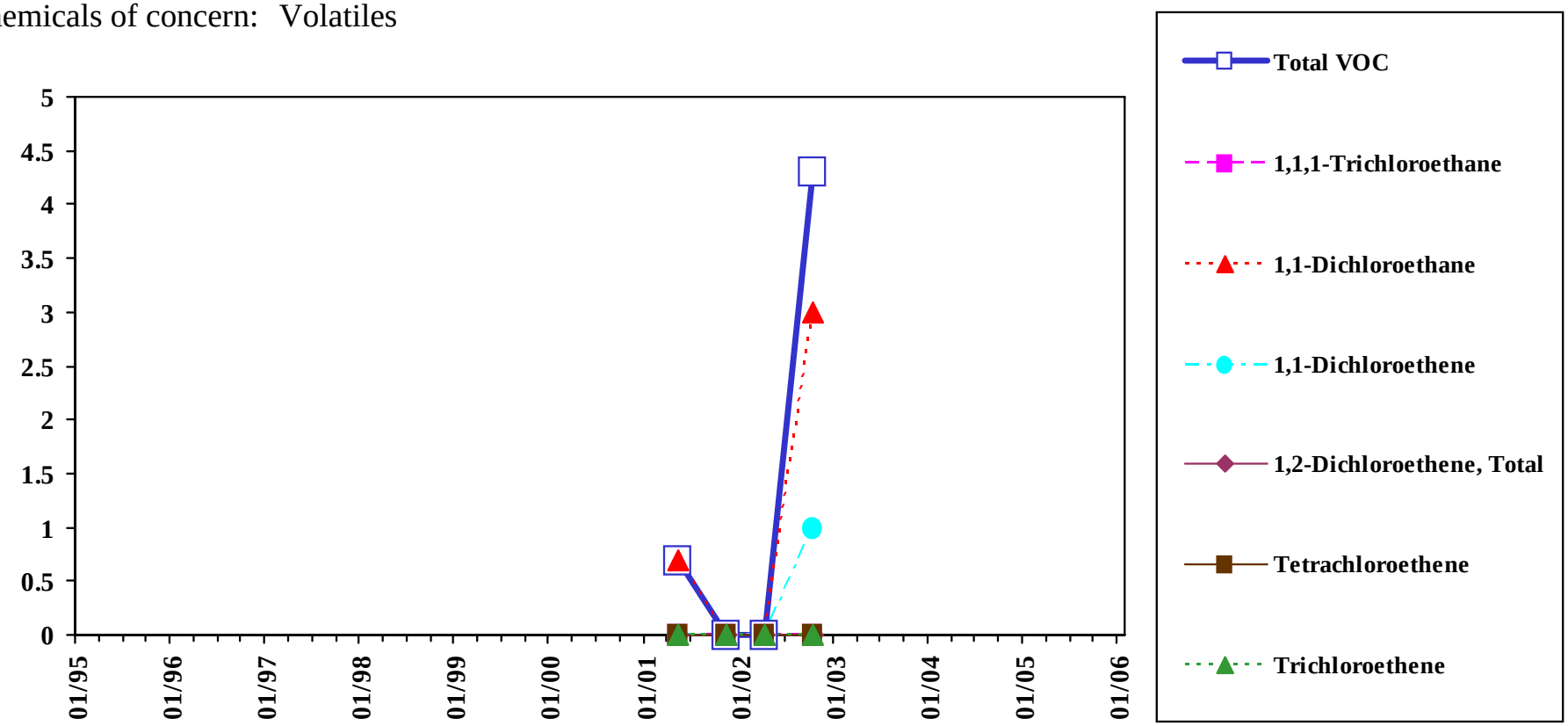
Sample Location:

MW-313

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

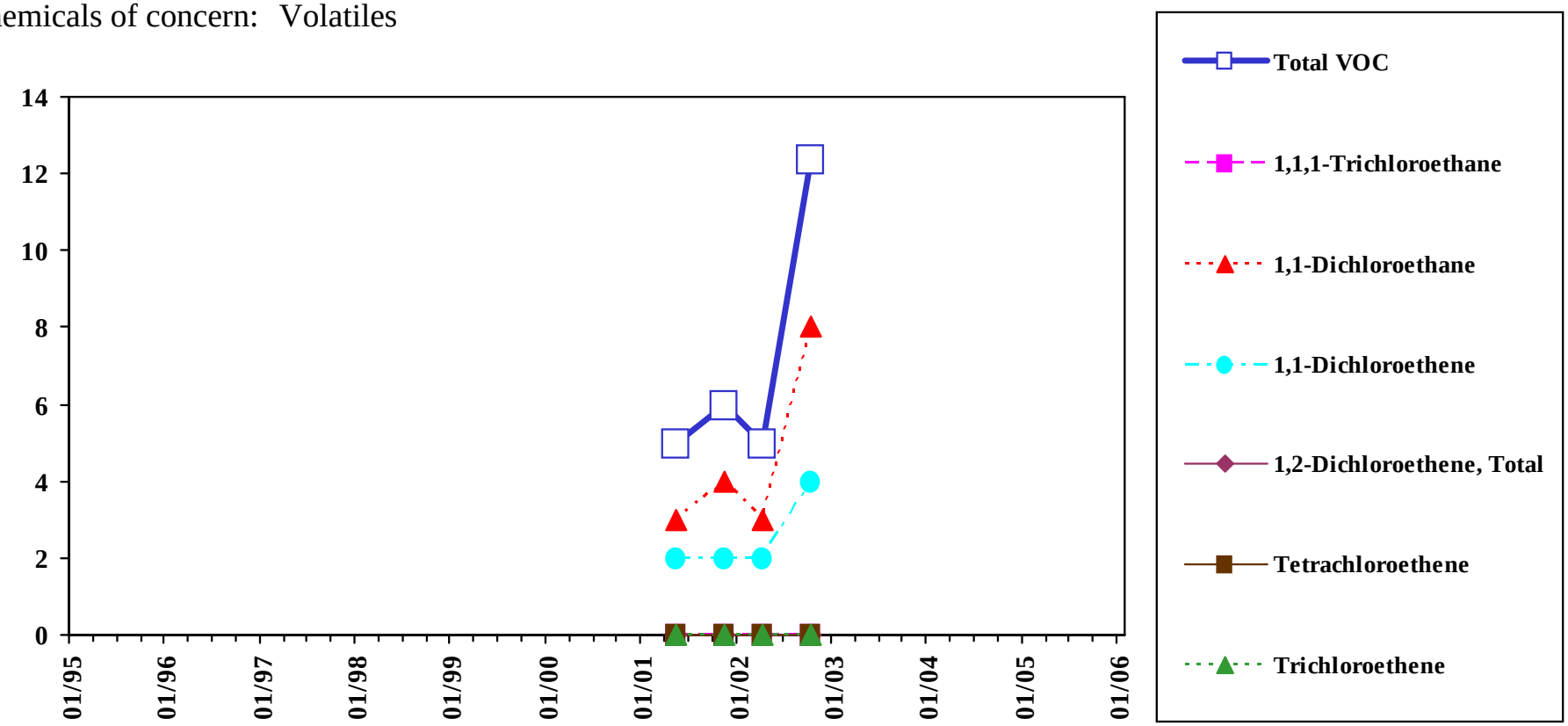
Sample Location:

MW-313

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

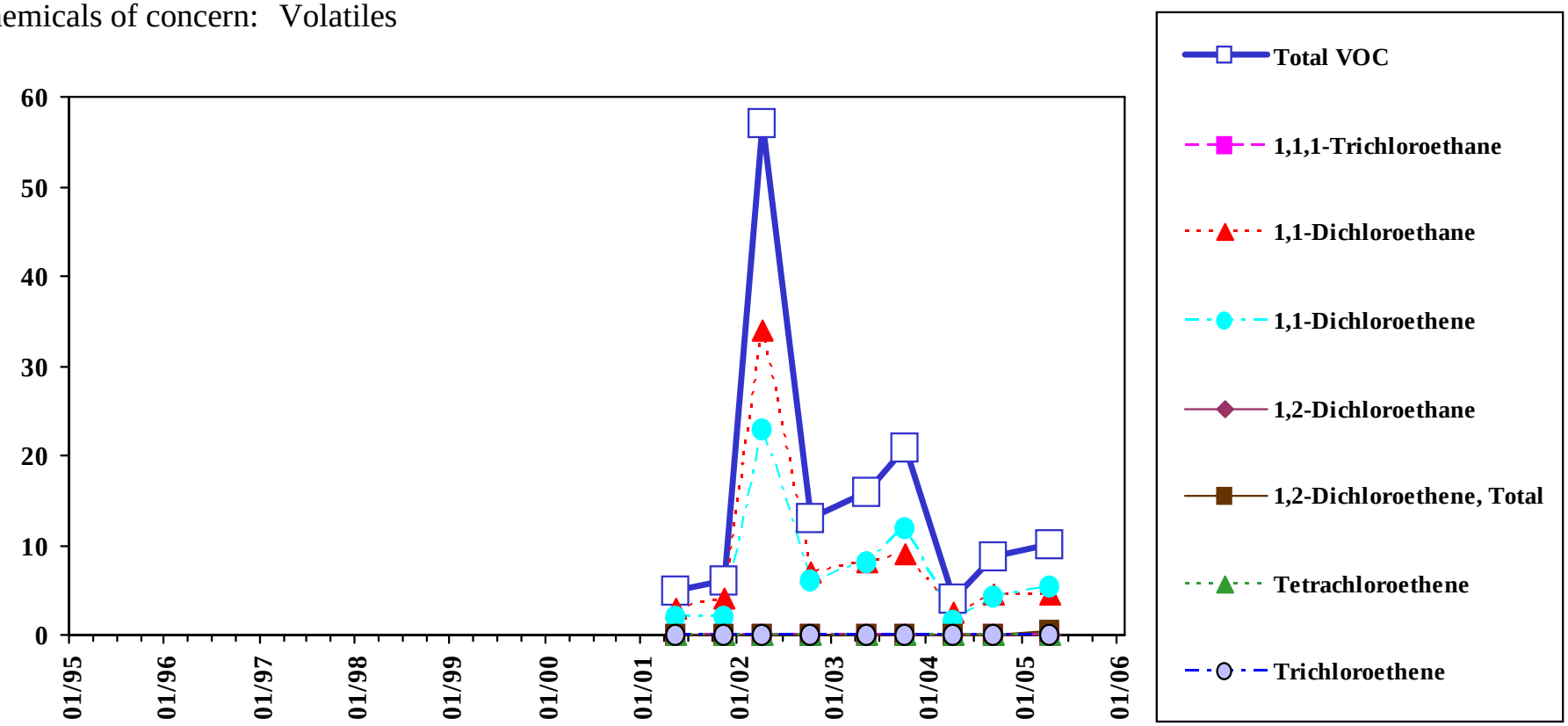
Sample Location:

MW-313

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

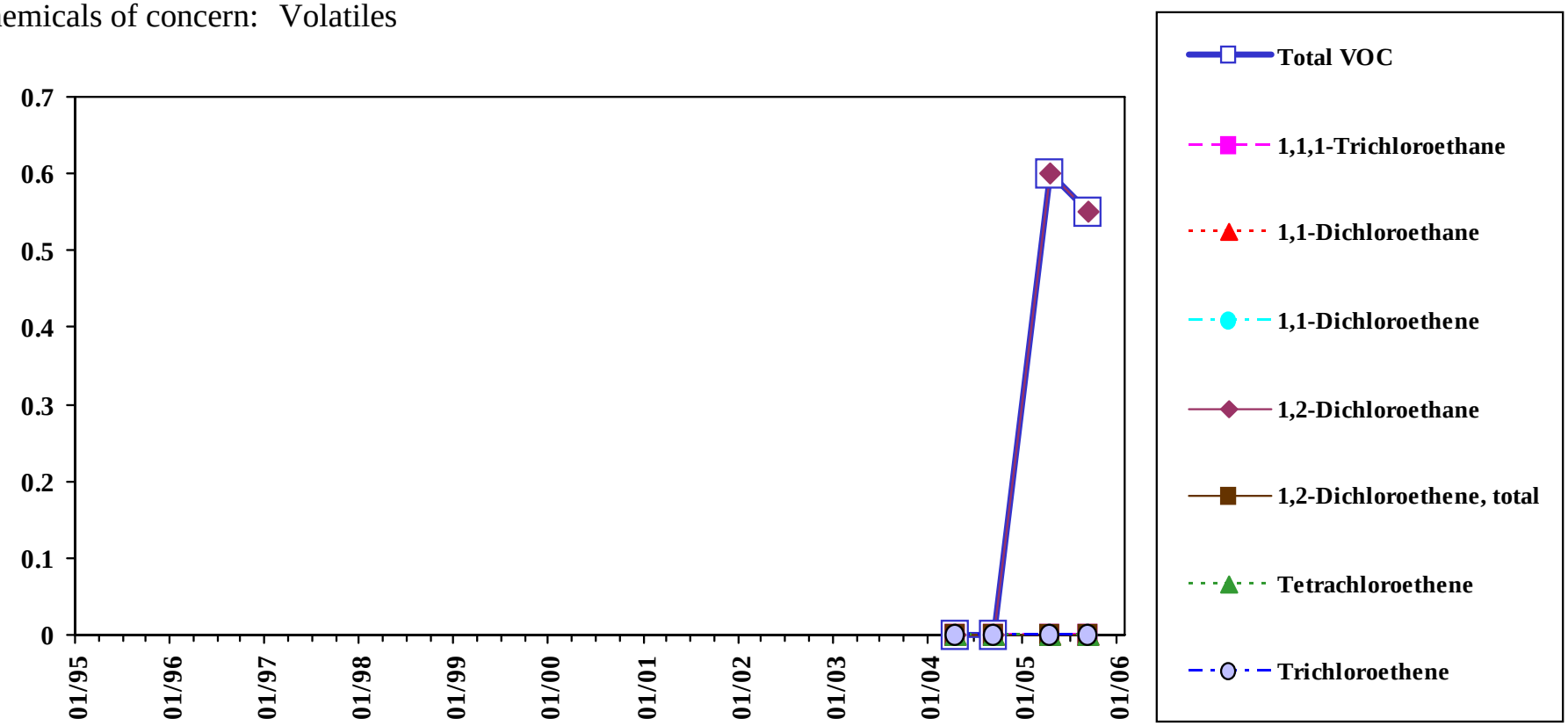
Sample Location:

MW-315A

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

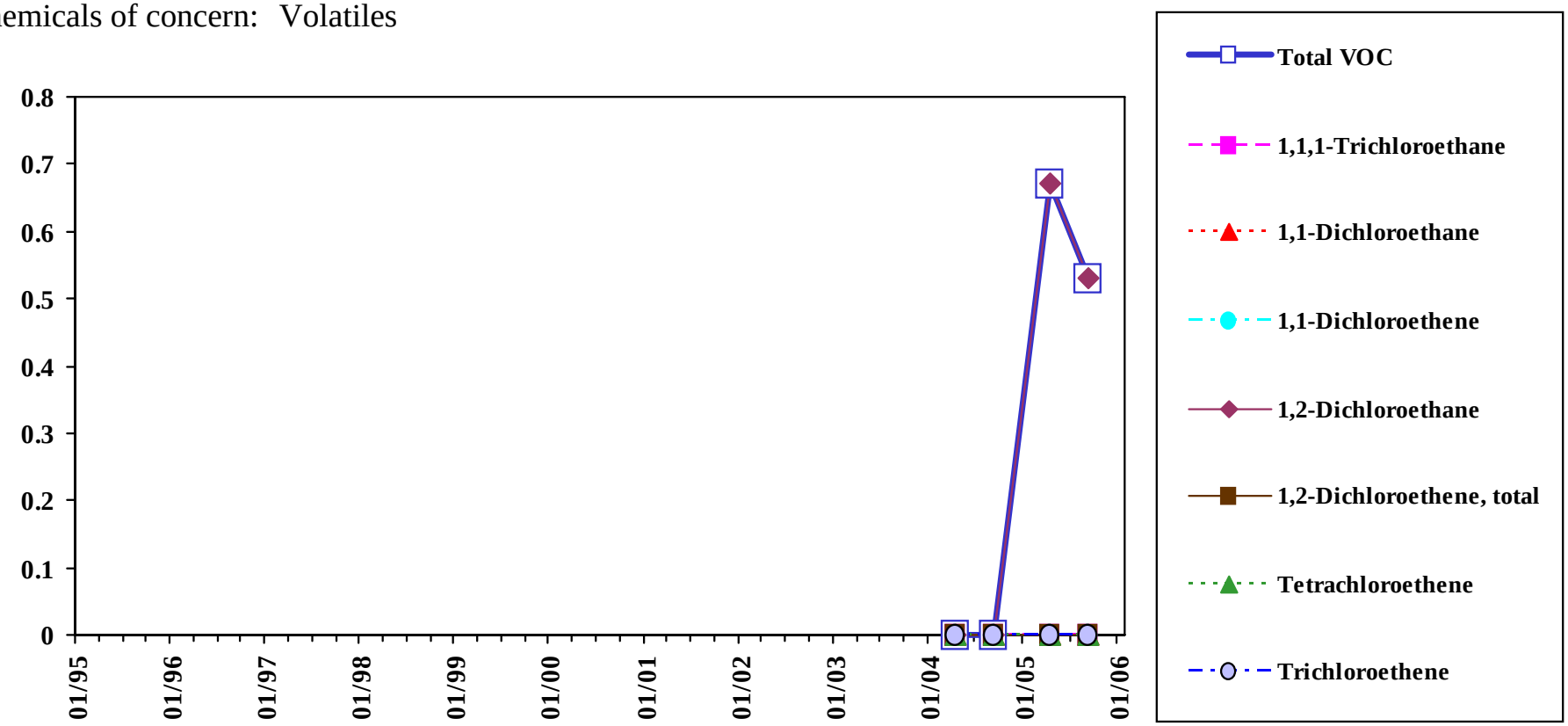
Sample Location:

MW-315A

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

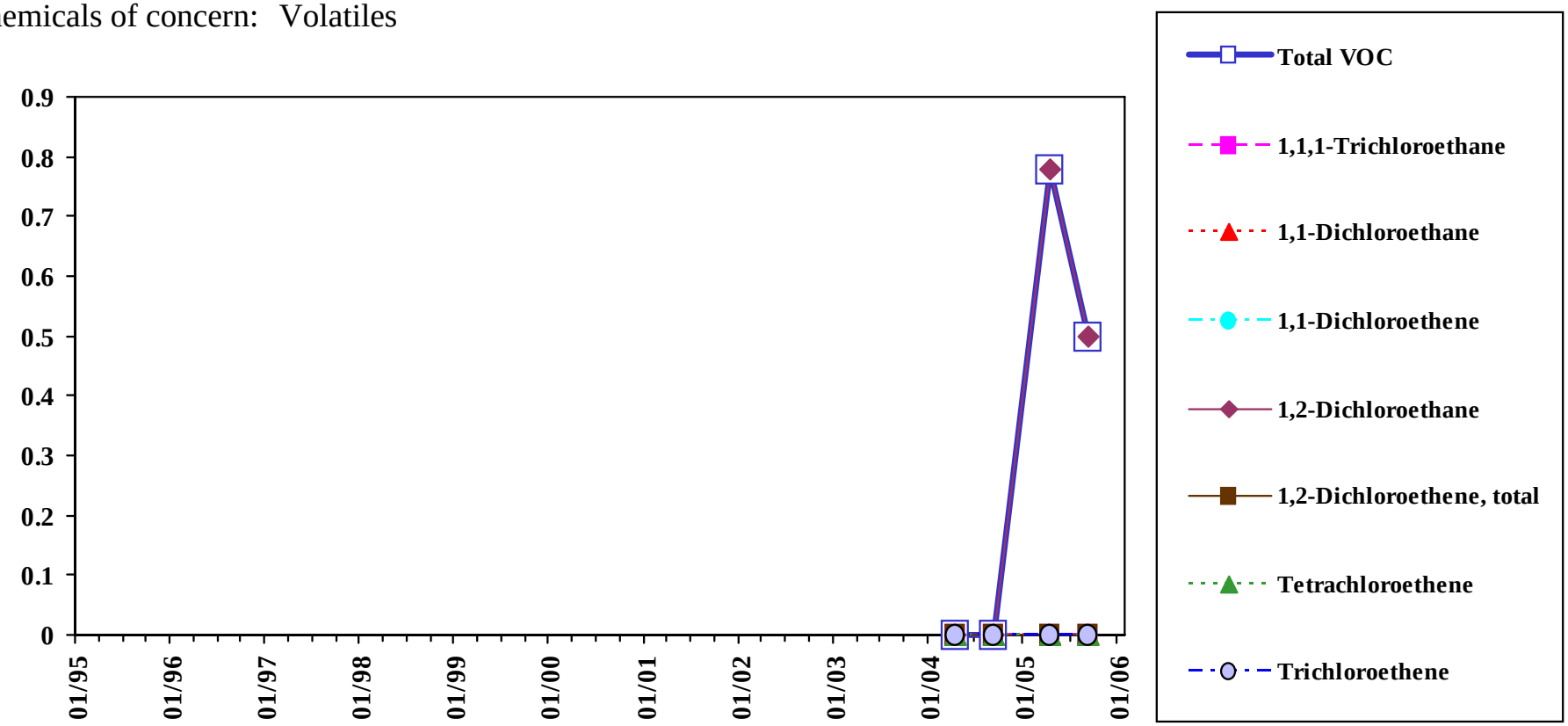
Sample Location:

MW-315A

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

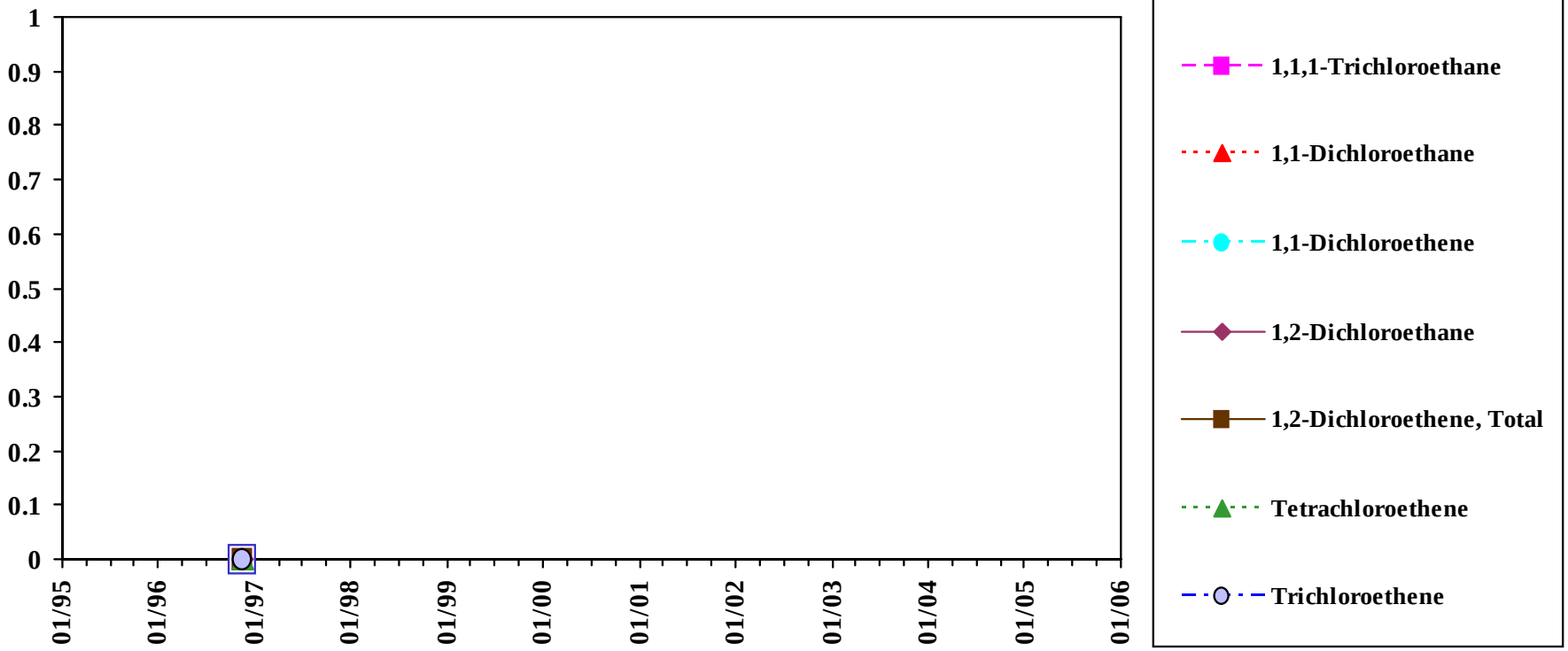
Sample Location:

MW-316A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

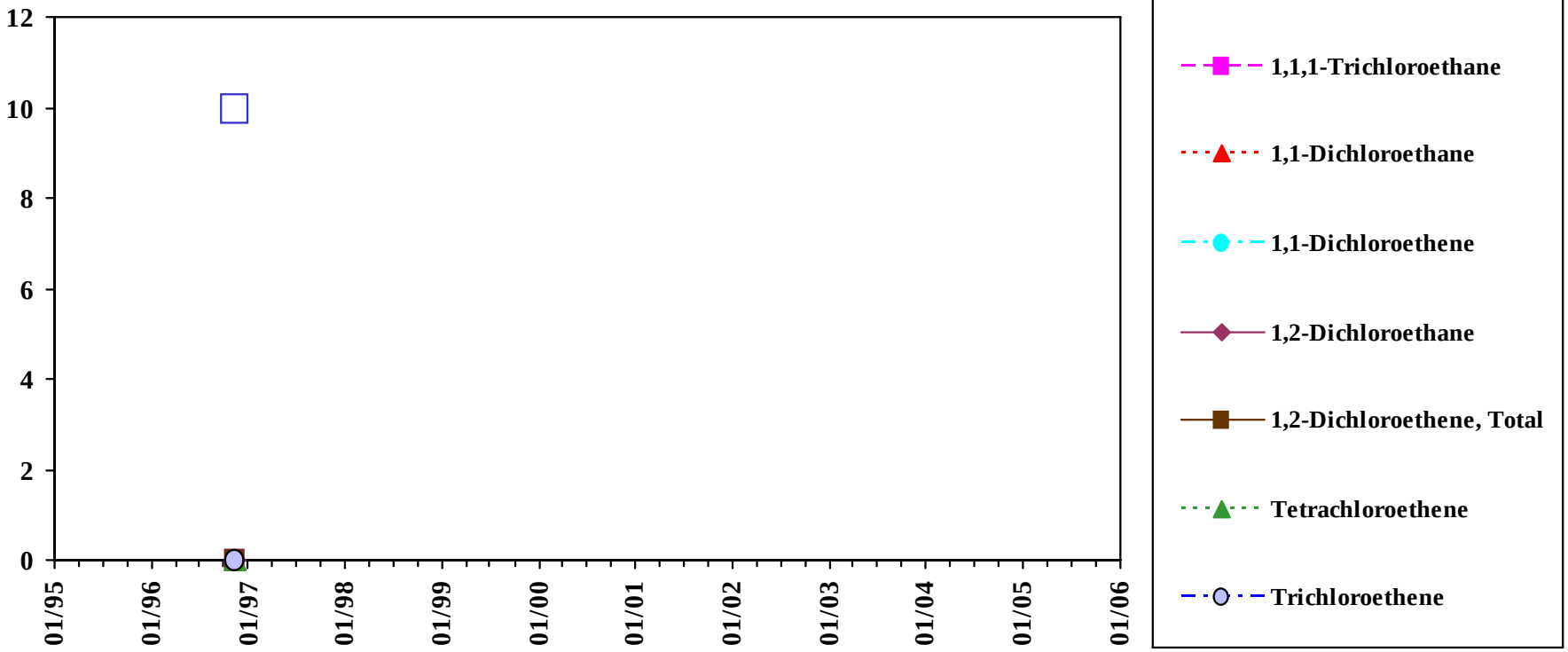
Sample Location:

MW-316B

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

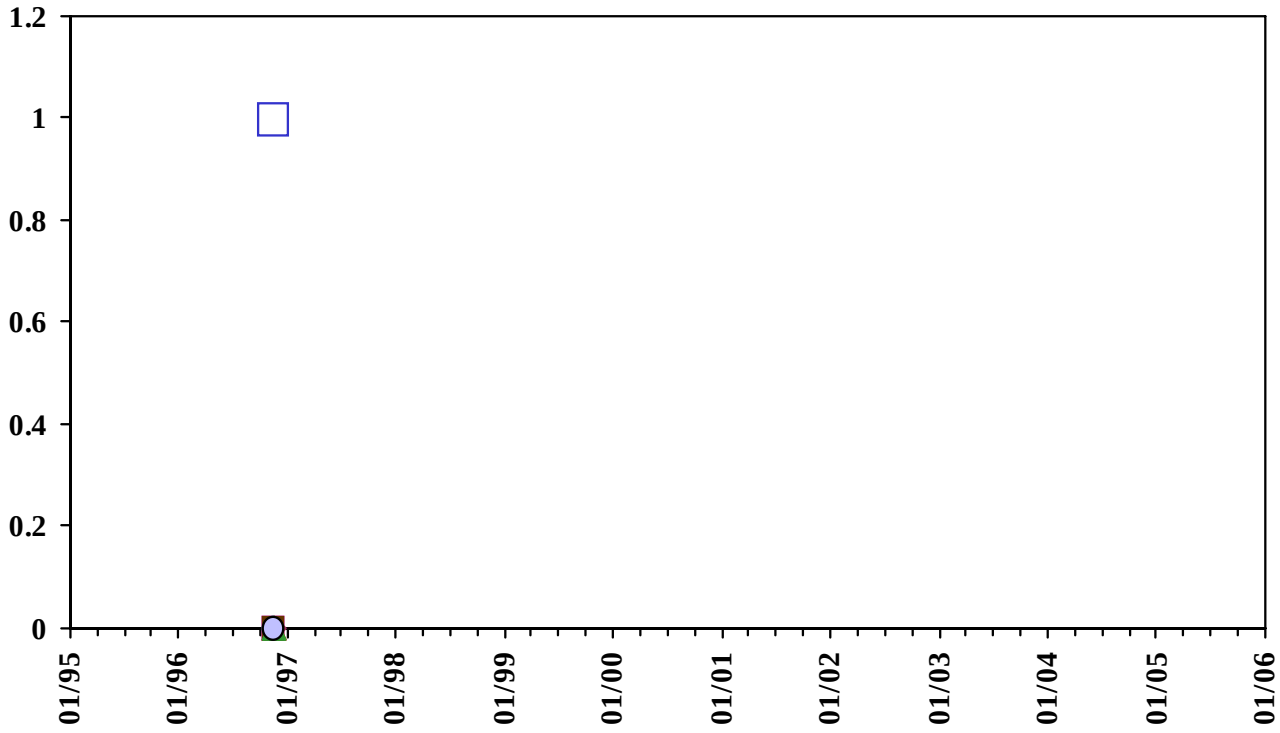
Sample Location:

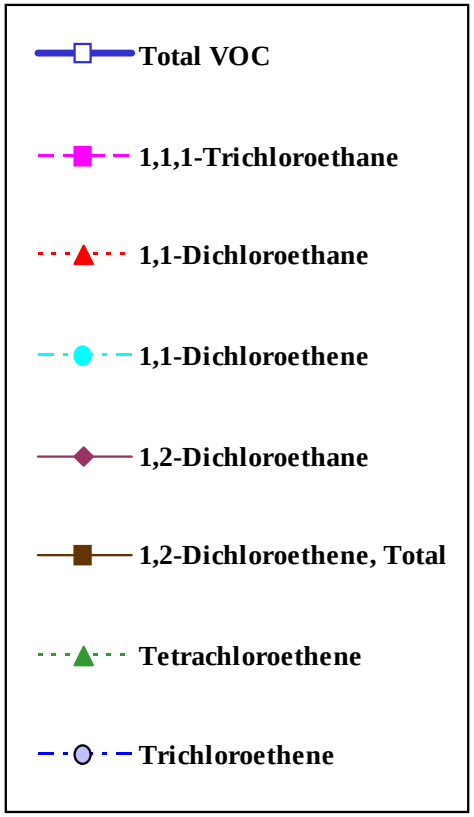
MW-317A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles





Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

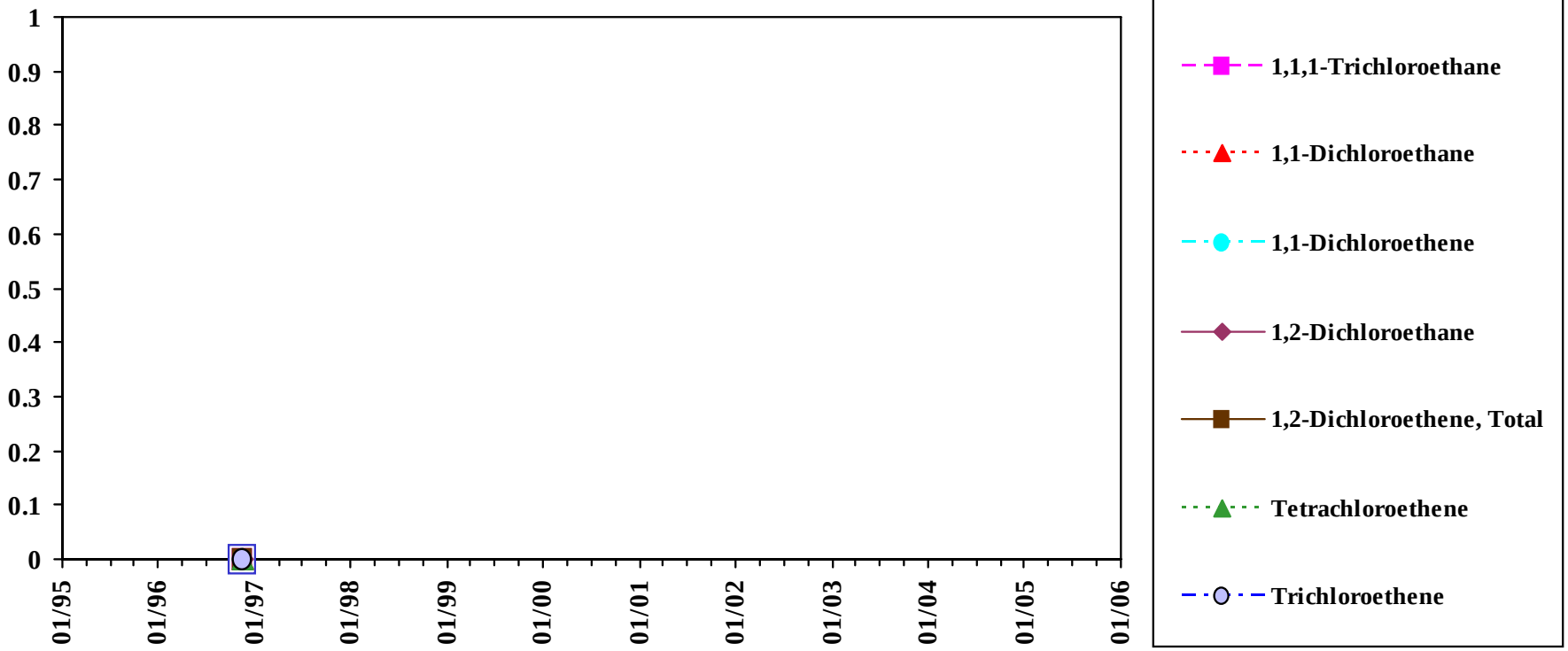
Sample Location:

MW-317B

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

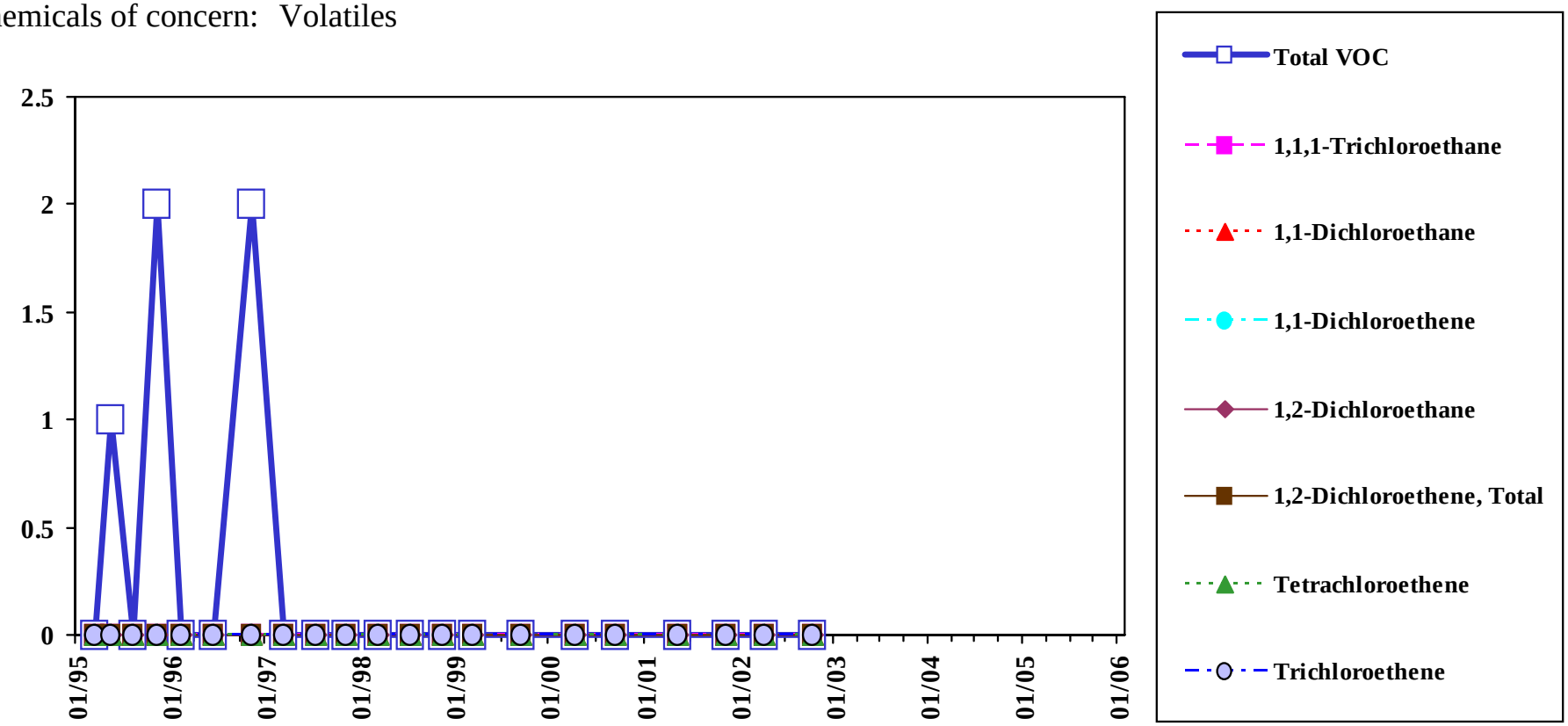
Sample Location:

MW-318

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

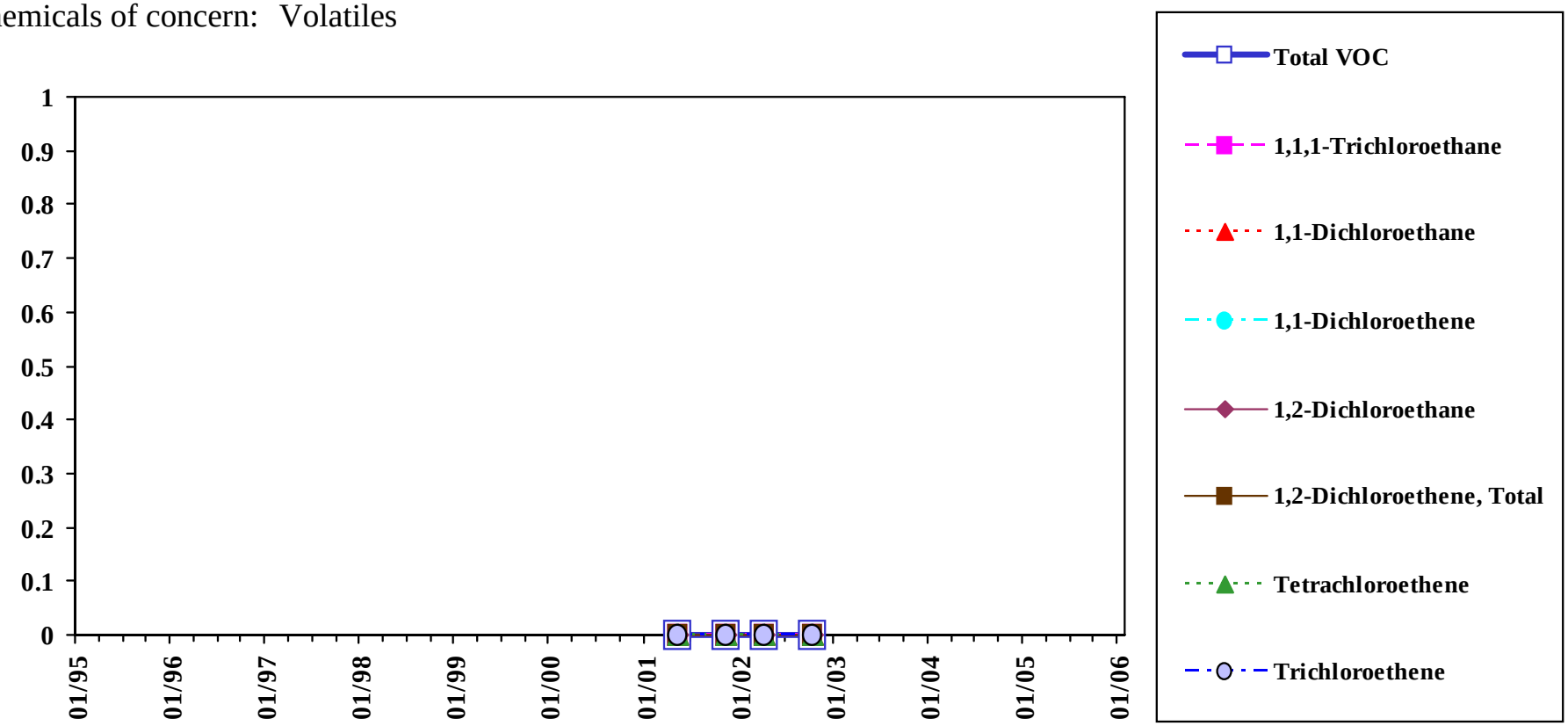
Sample Location:

MW-318

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

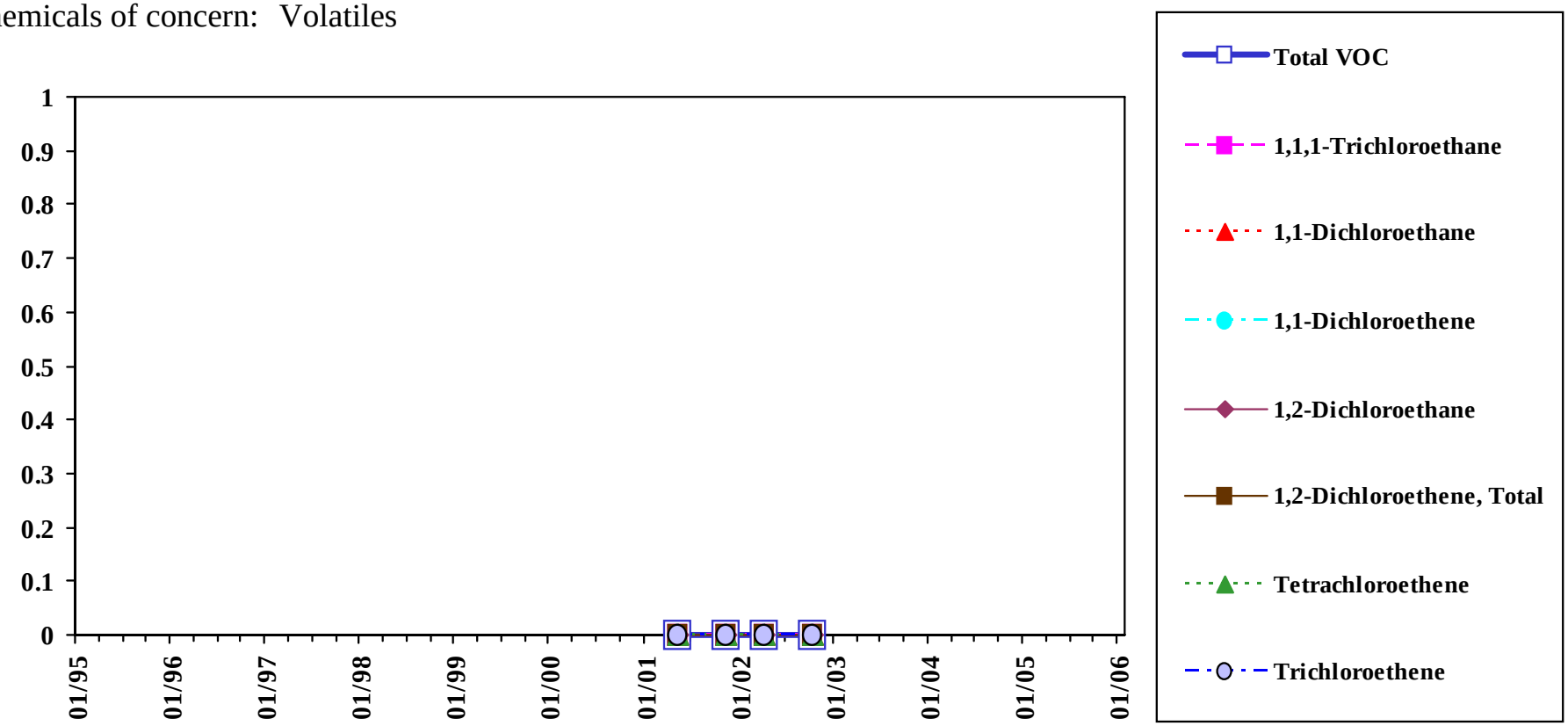
Sample Location:

MW-318

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

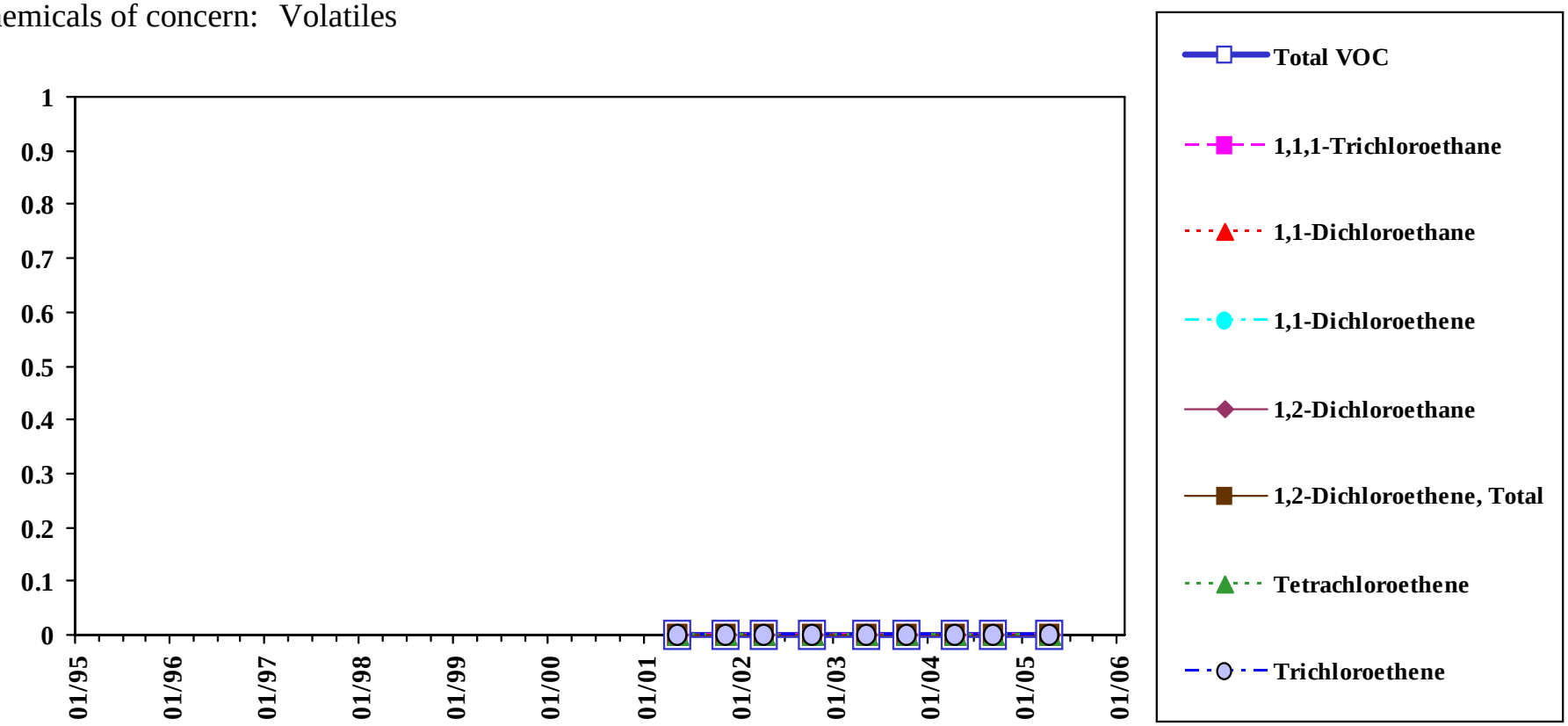
Sample Location:

MW-318

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

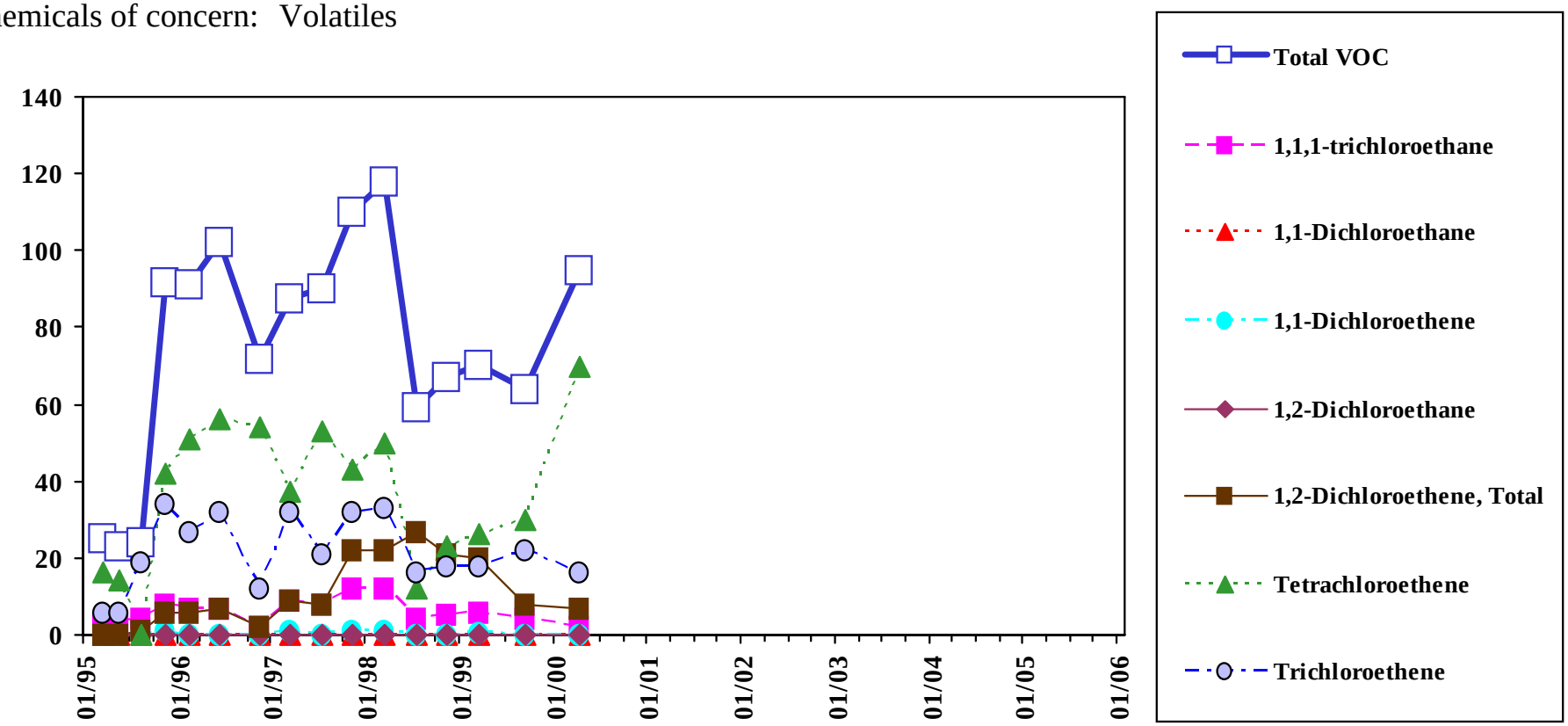
Sample Location:

MW-319

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

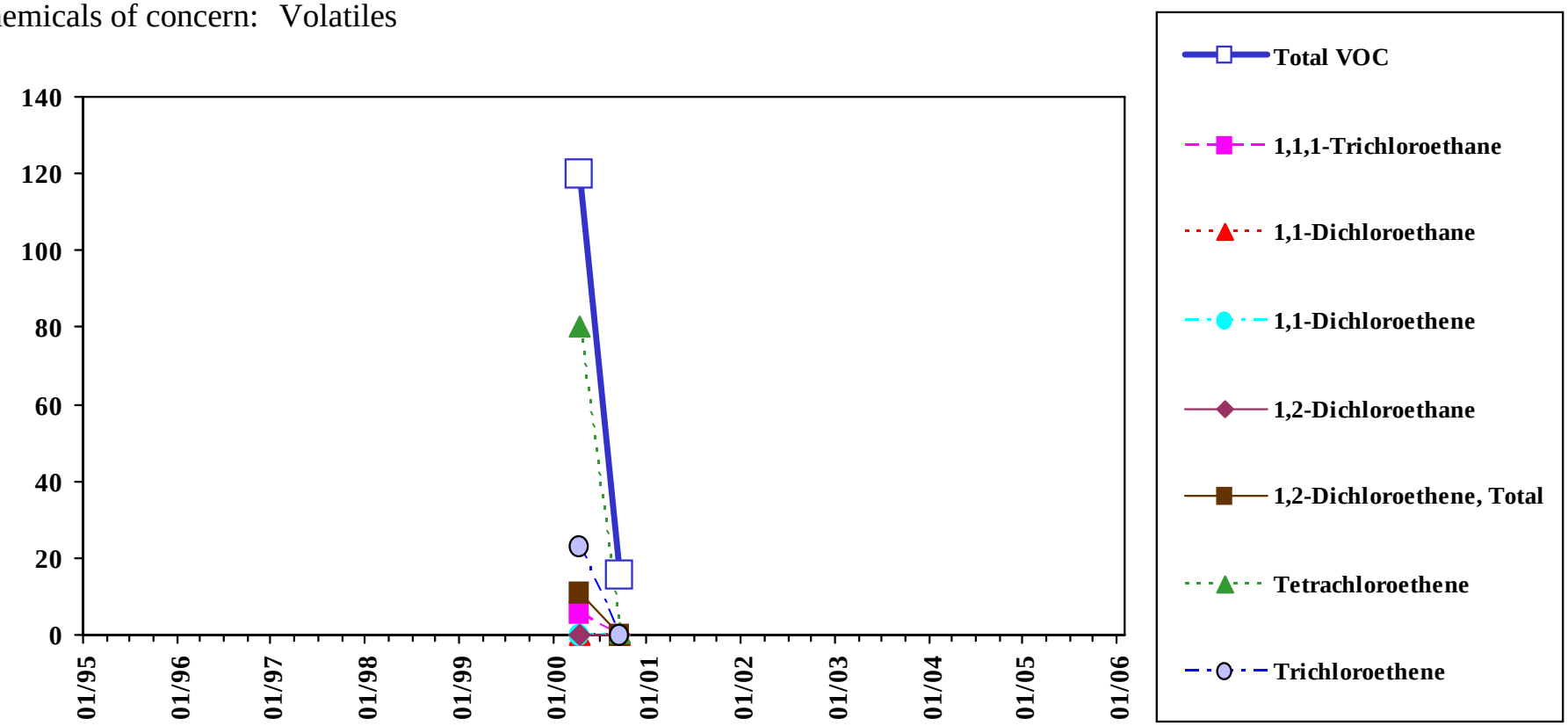
Sample Location:

MW-319

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

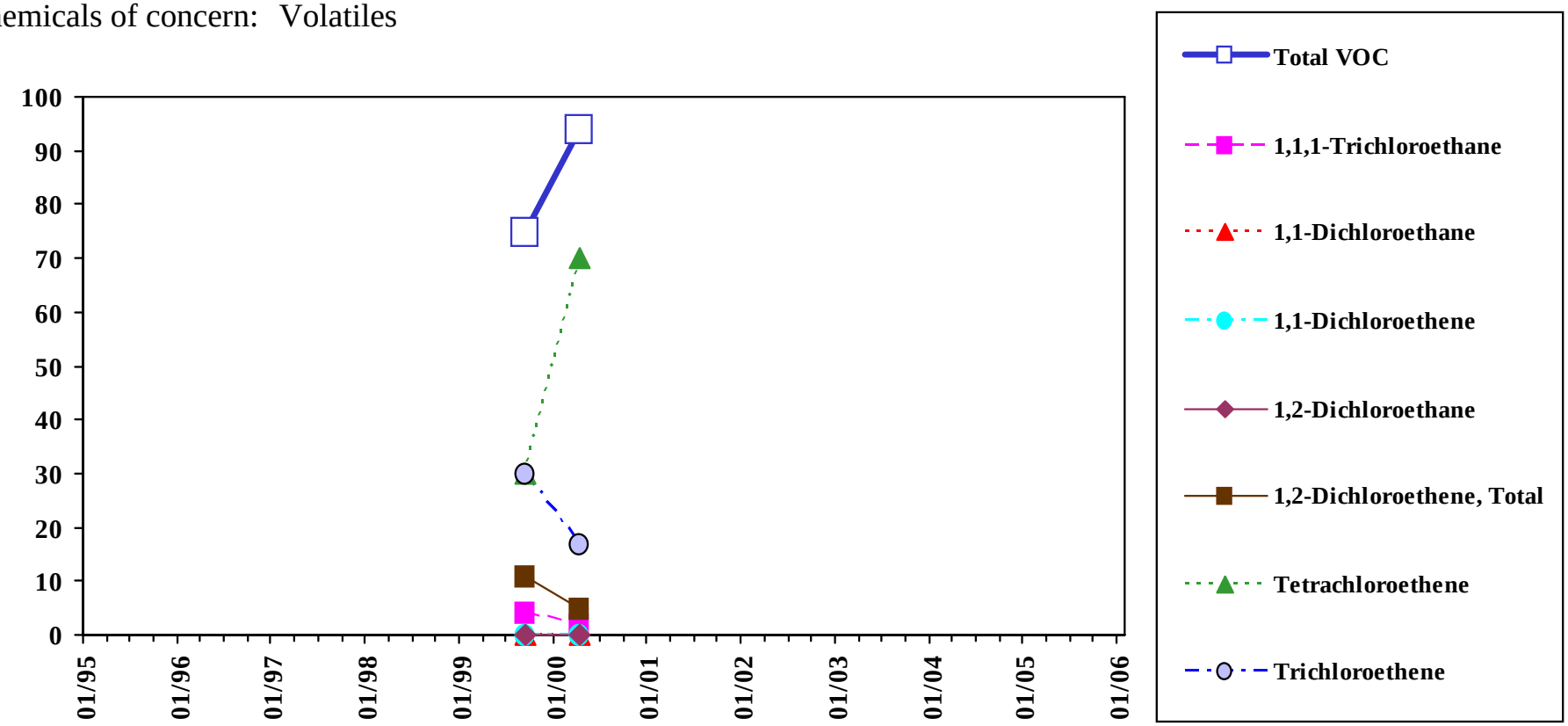
Sample Location:

MW-319

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

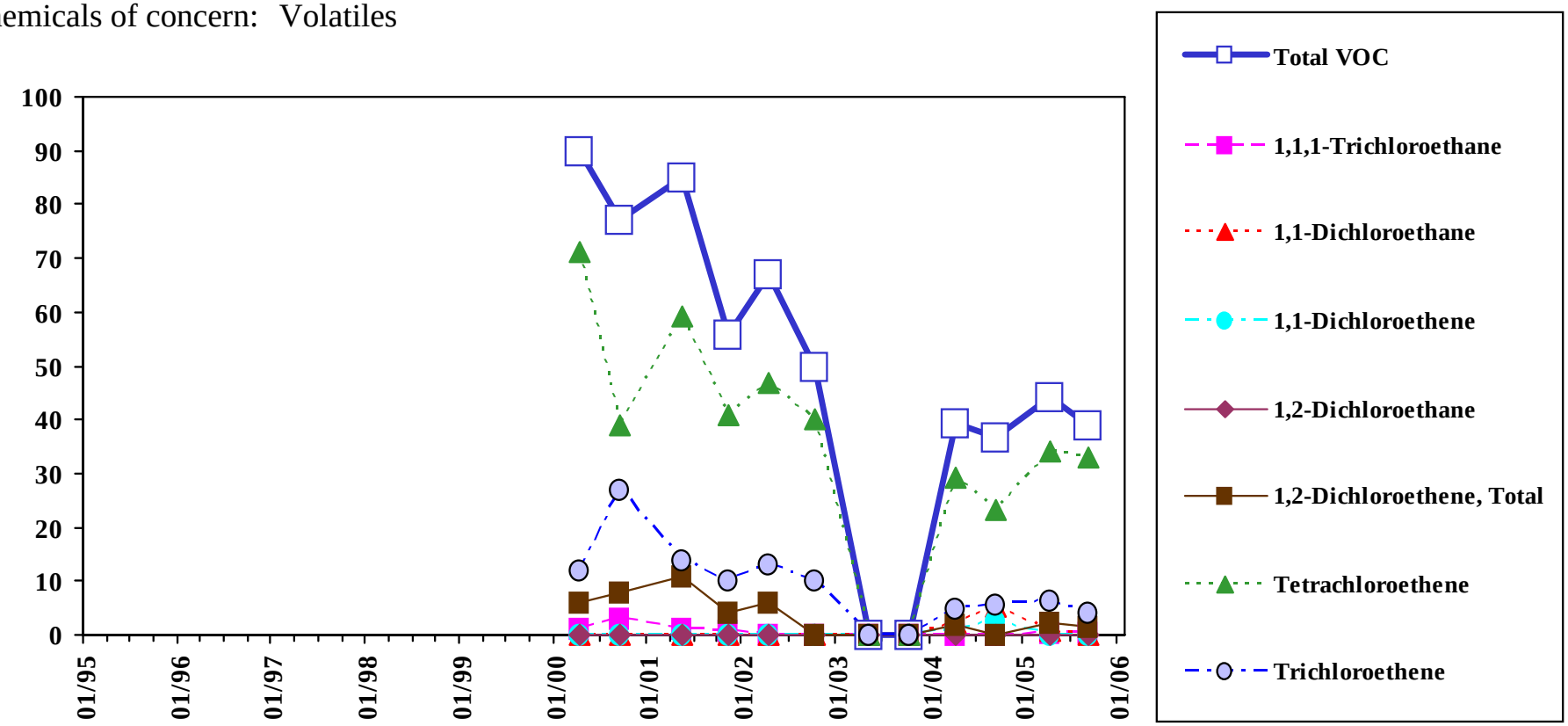
Sample Location:

MW-319

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

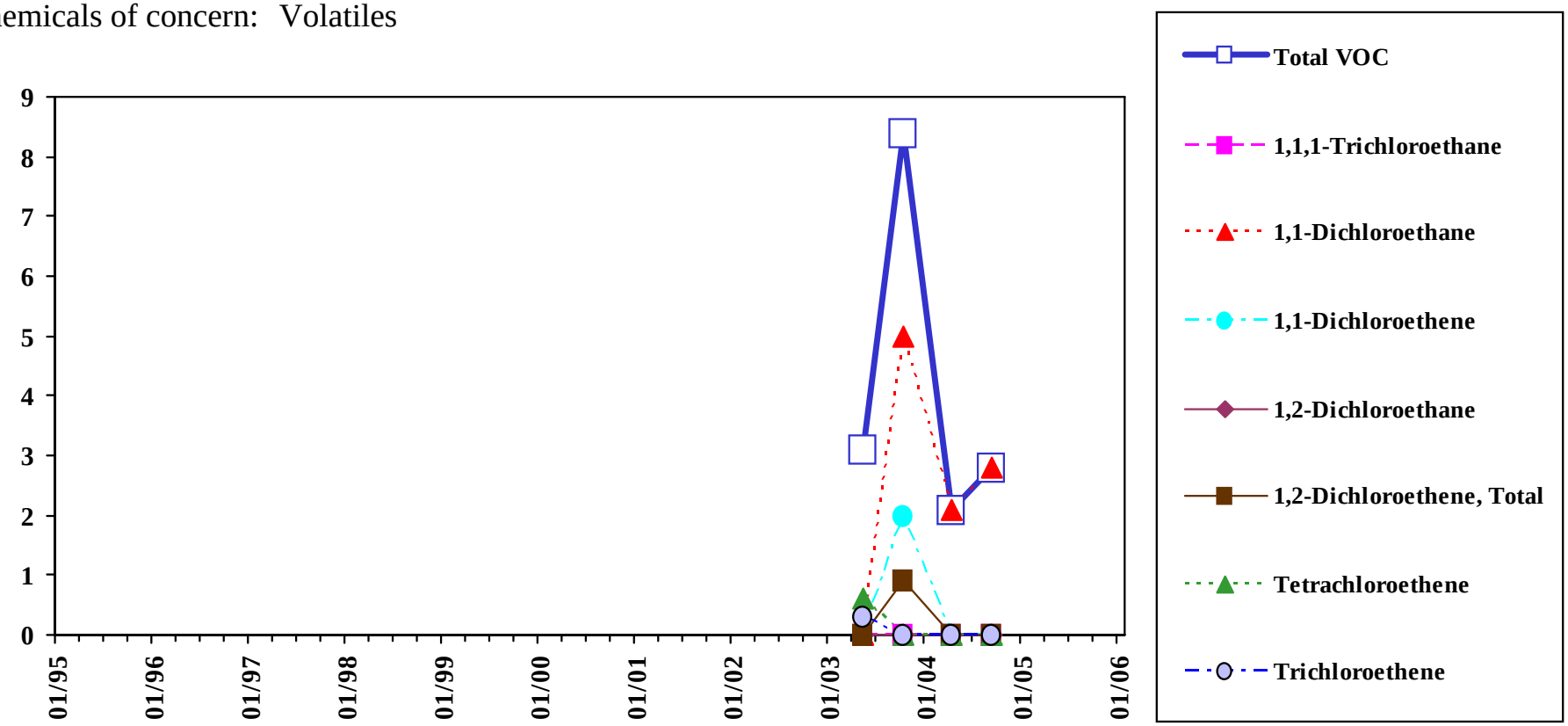
Sample Location:

MW-323

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

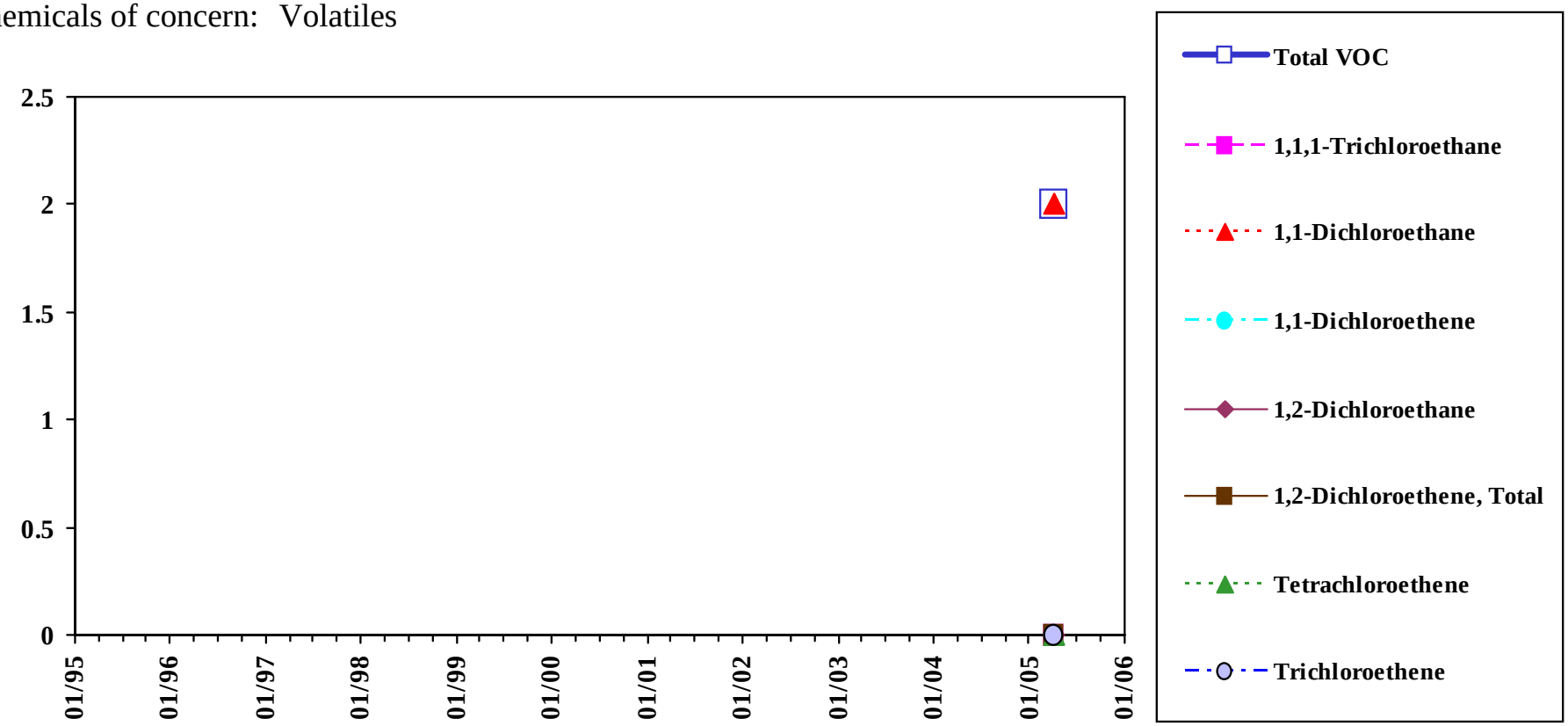
Sample Location:

MW-323

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

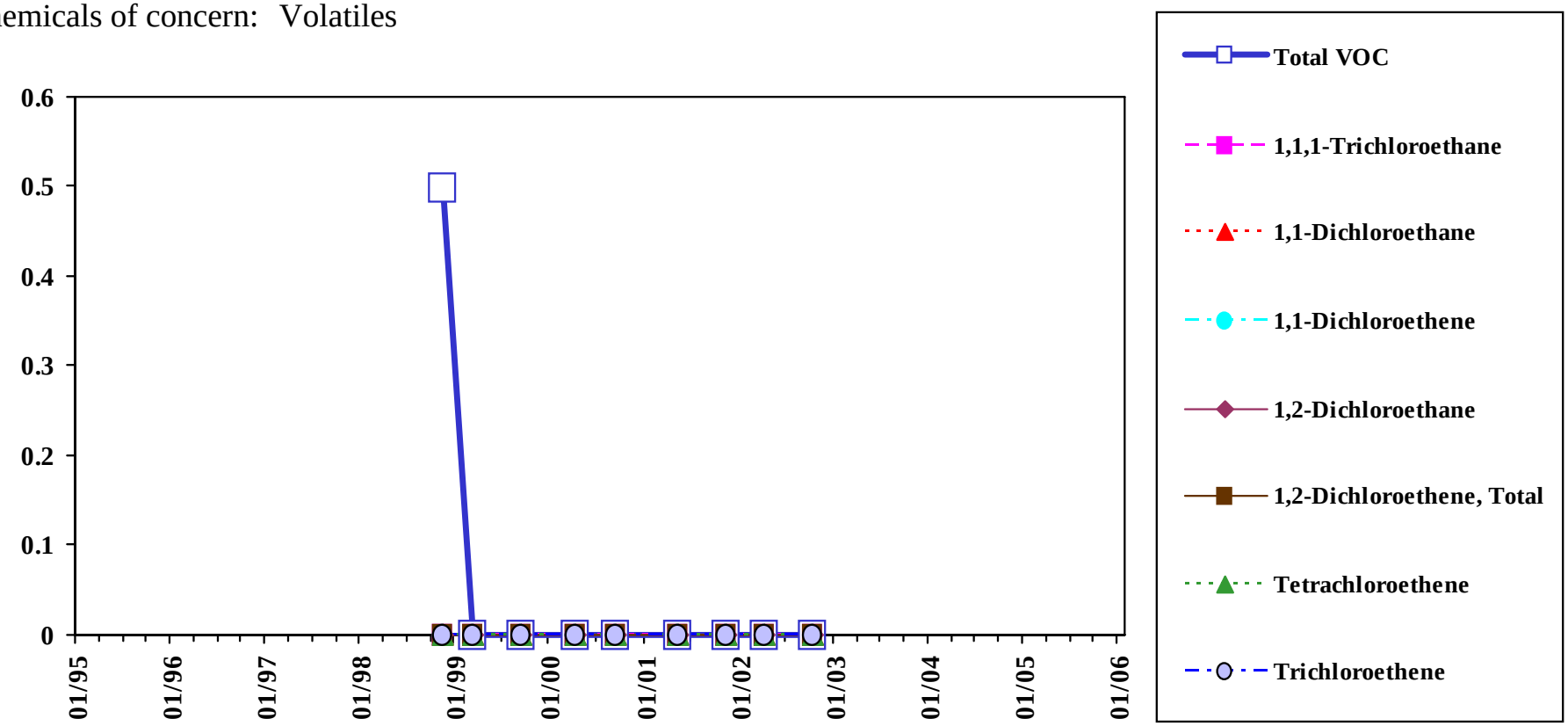
Sample Location:

MW-330

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

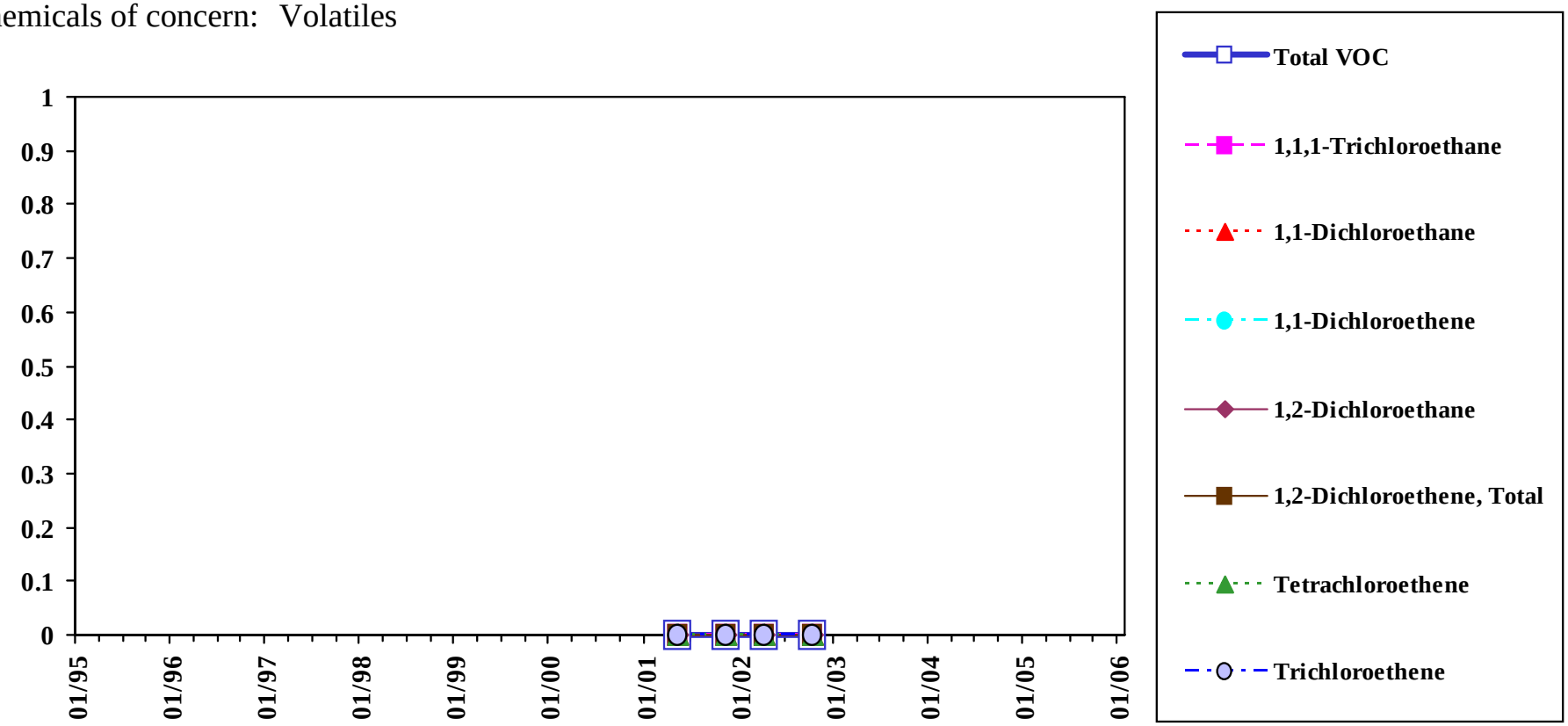
Sample Location:

MW-330

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

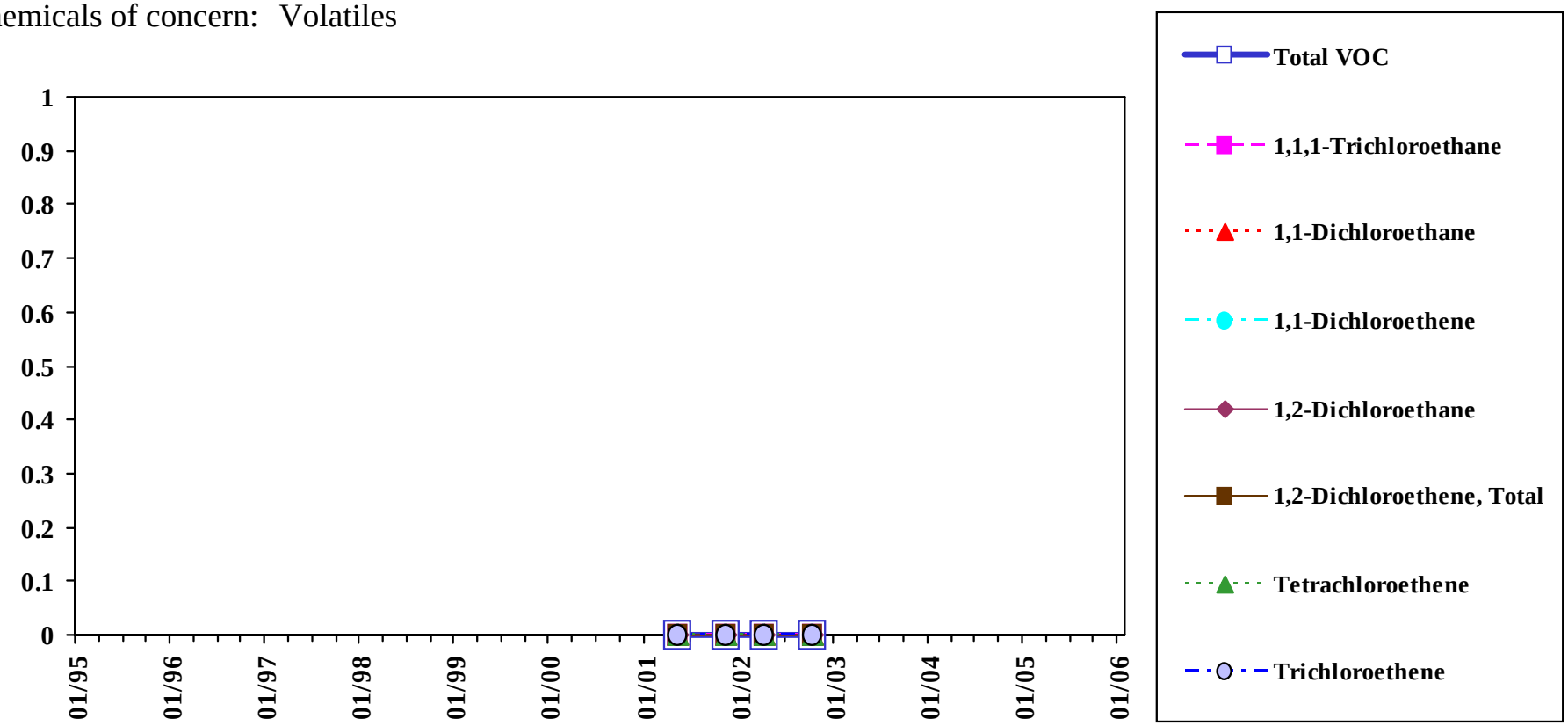
Sample Location:

MW-330

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

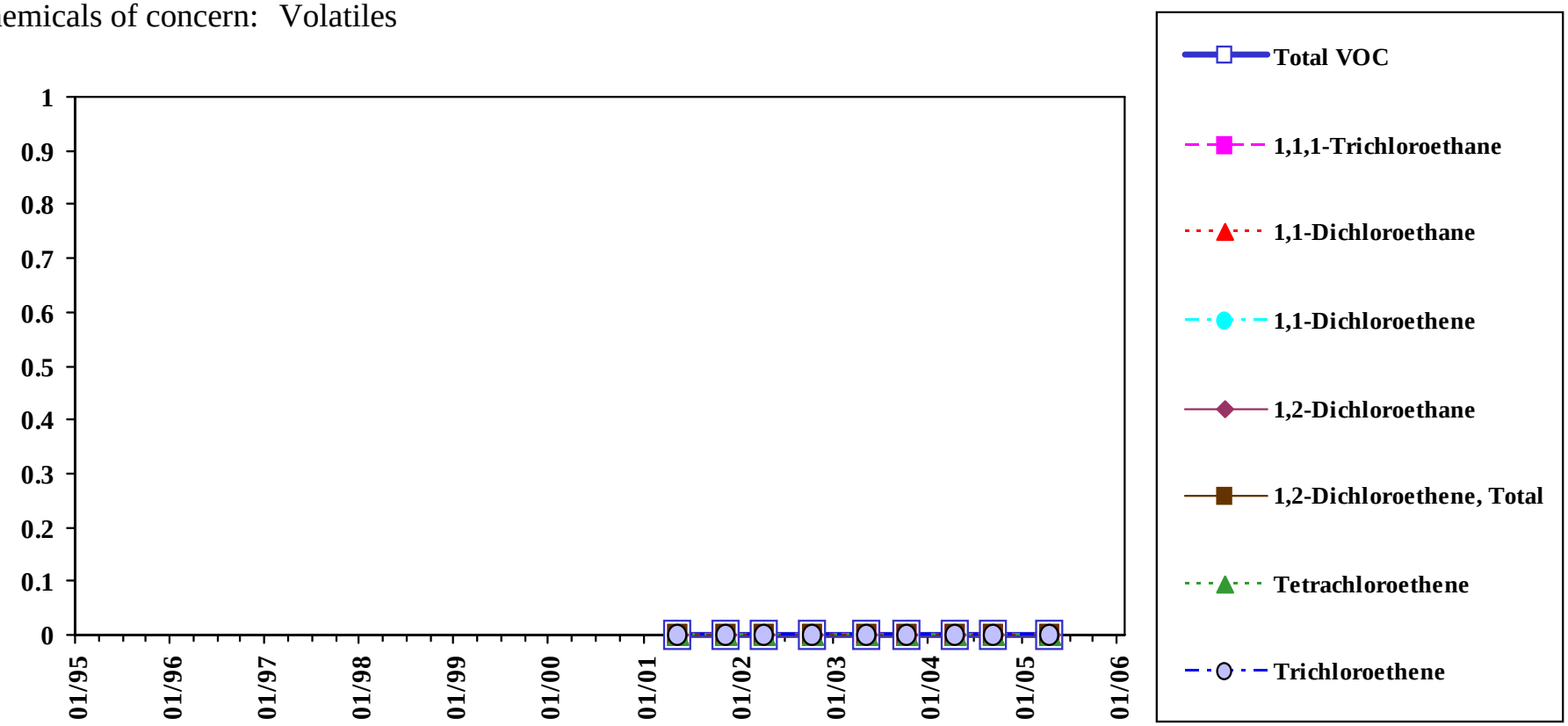
Sample Location:

MW-330

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

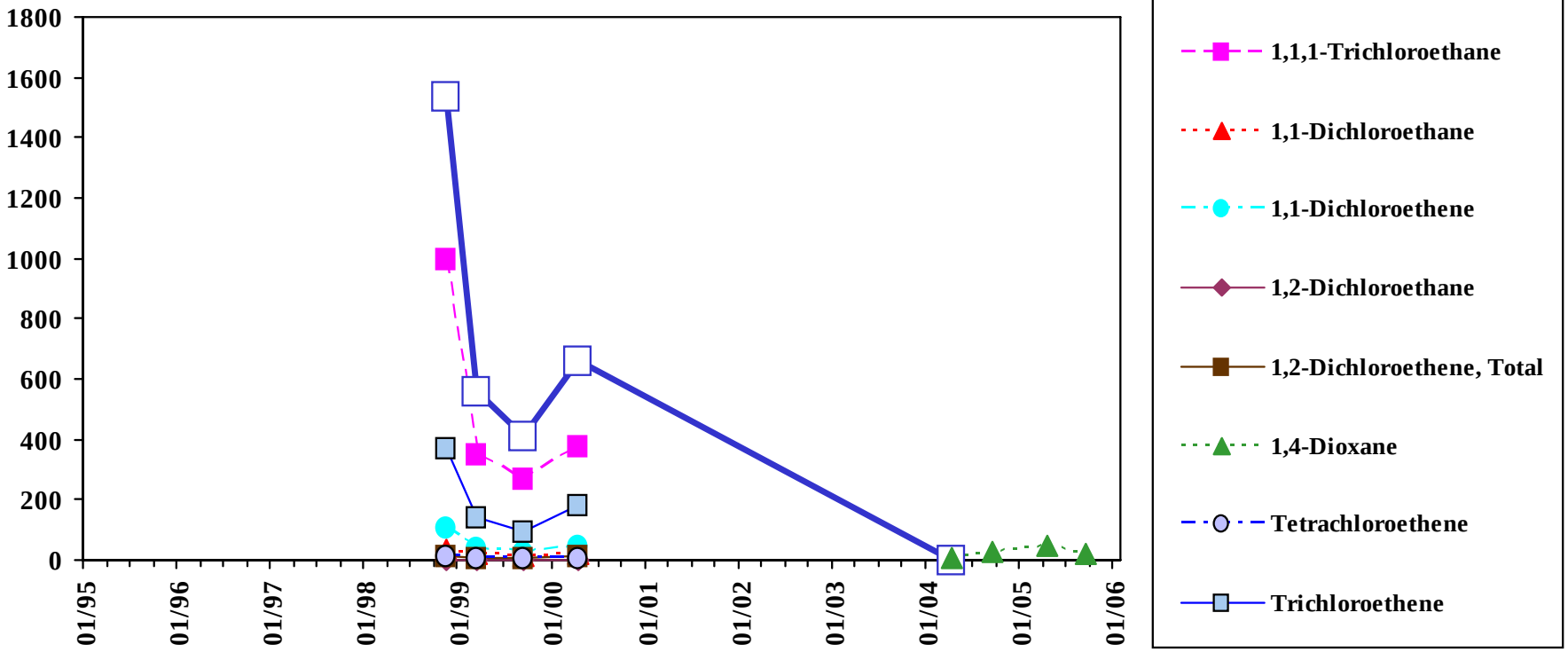
Sample Location:

MW-331

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

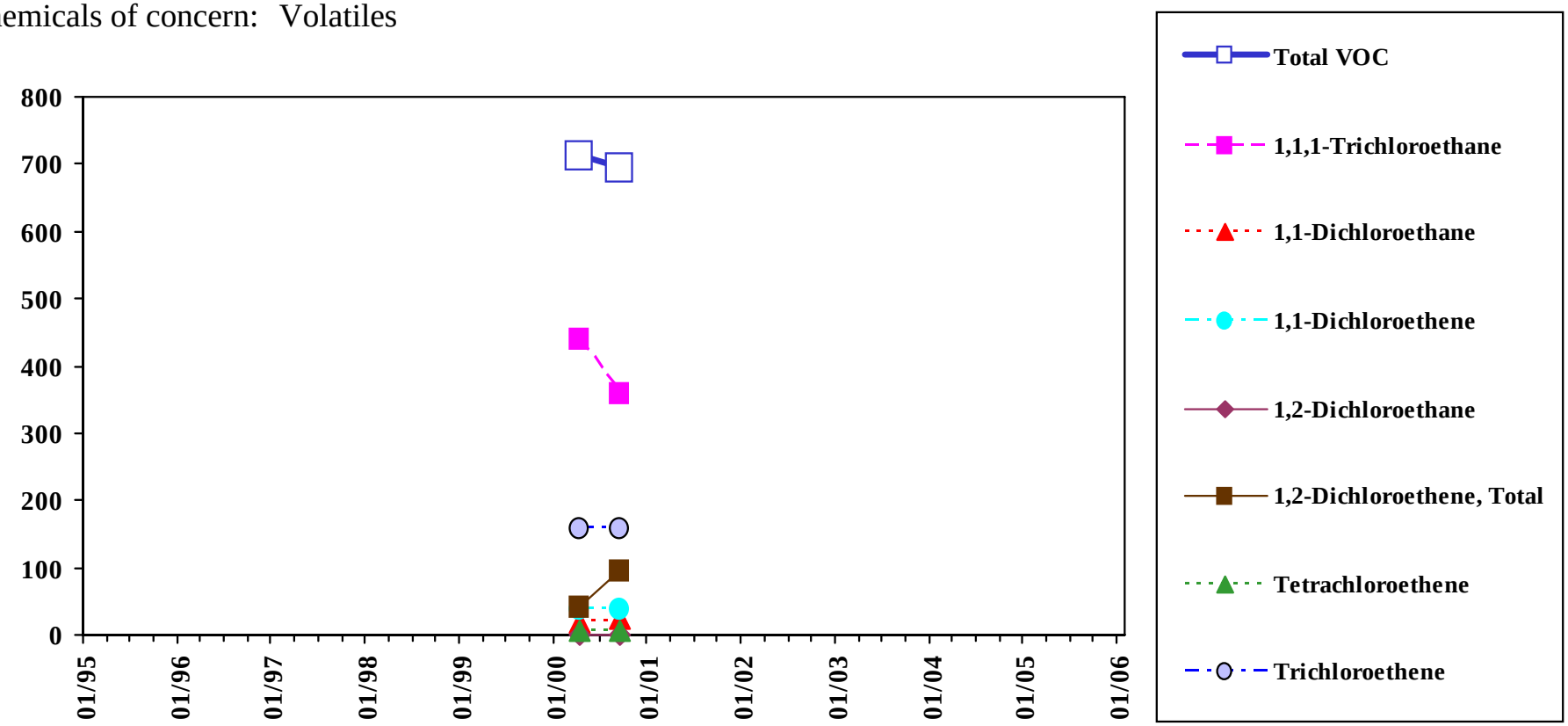
Sample Location:

MW-331

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

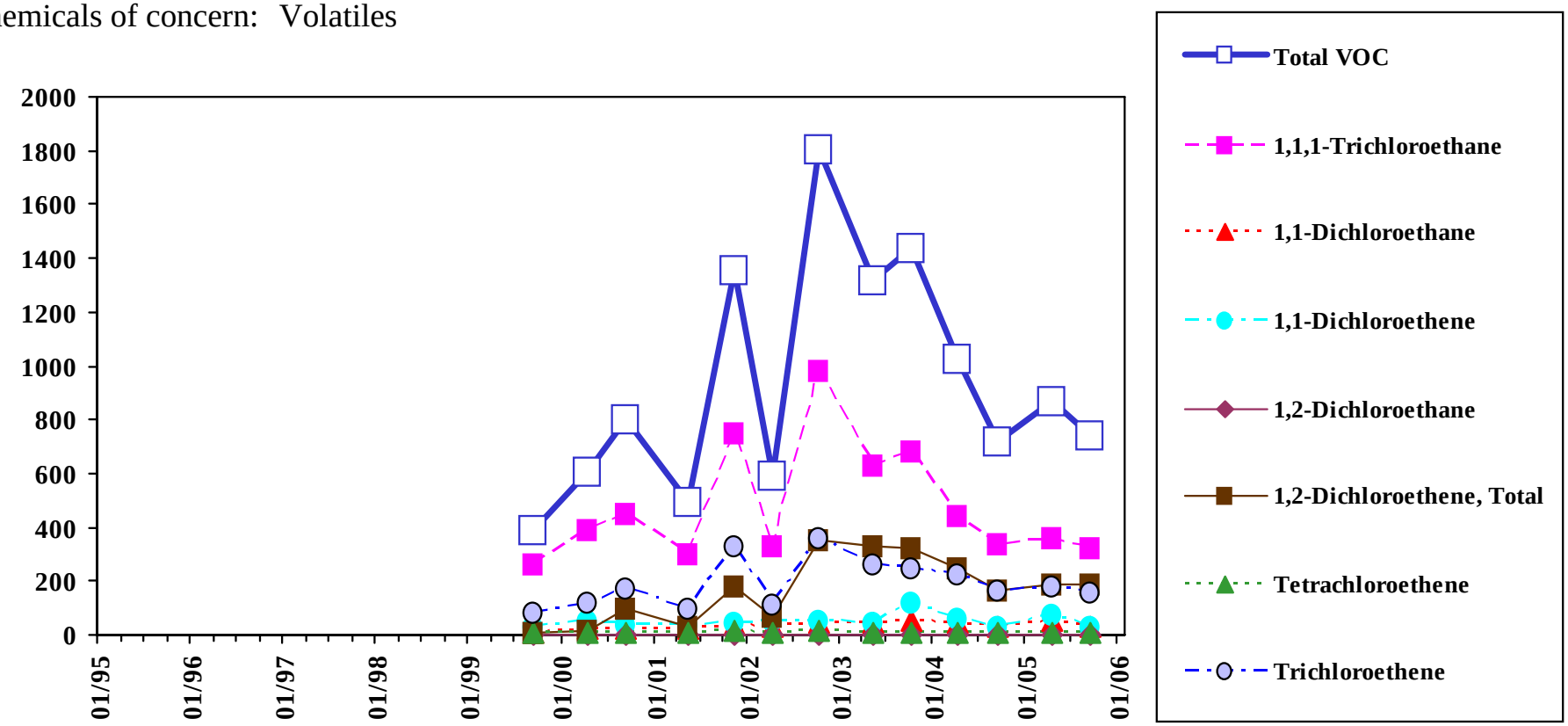
Sample Location:

MW-331

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

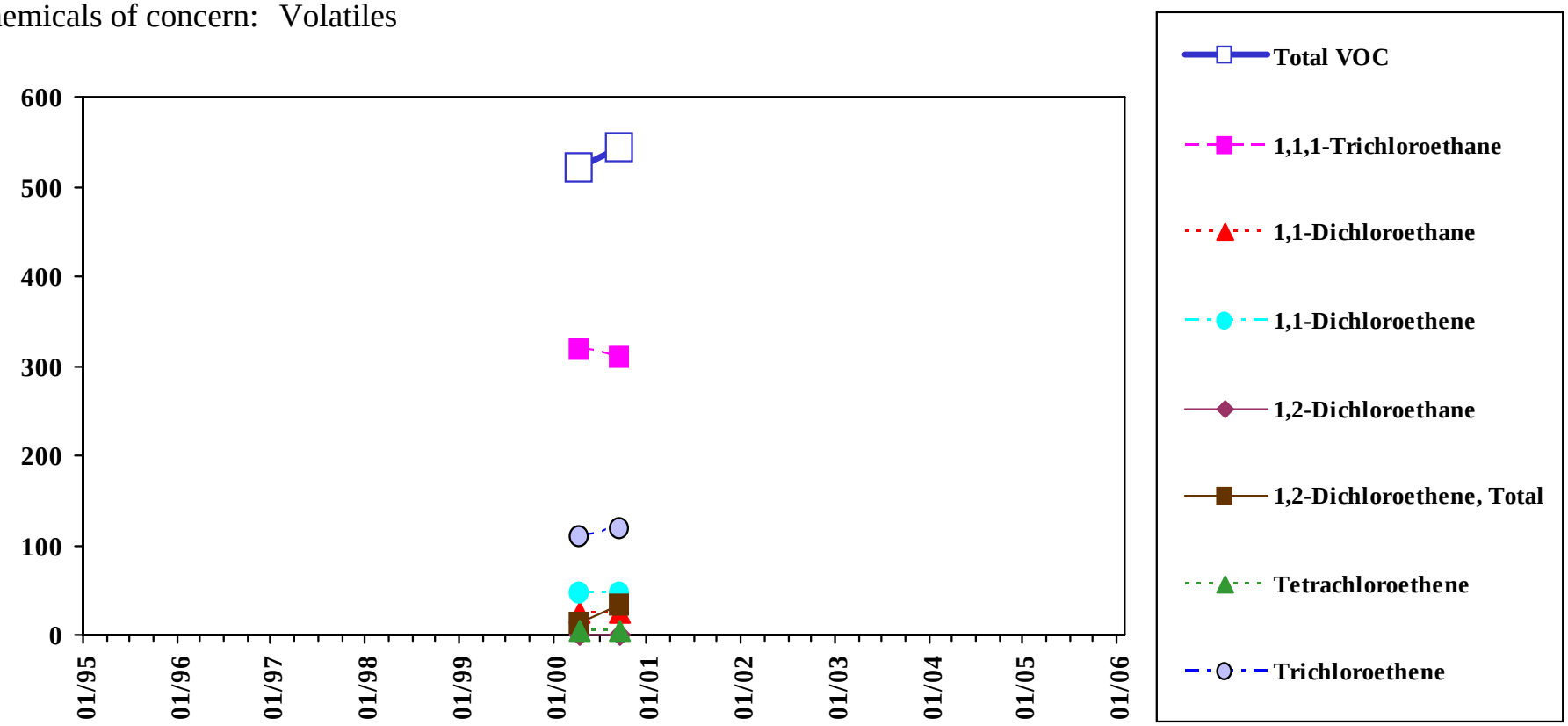
Sample Location:

MW-331

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

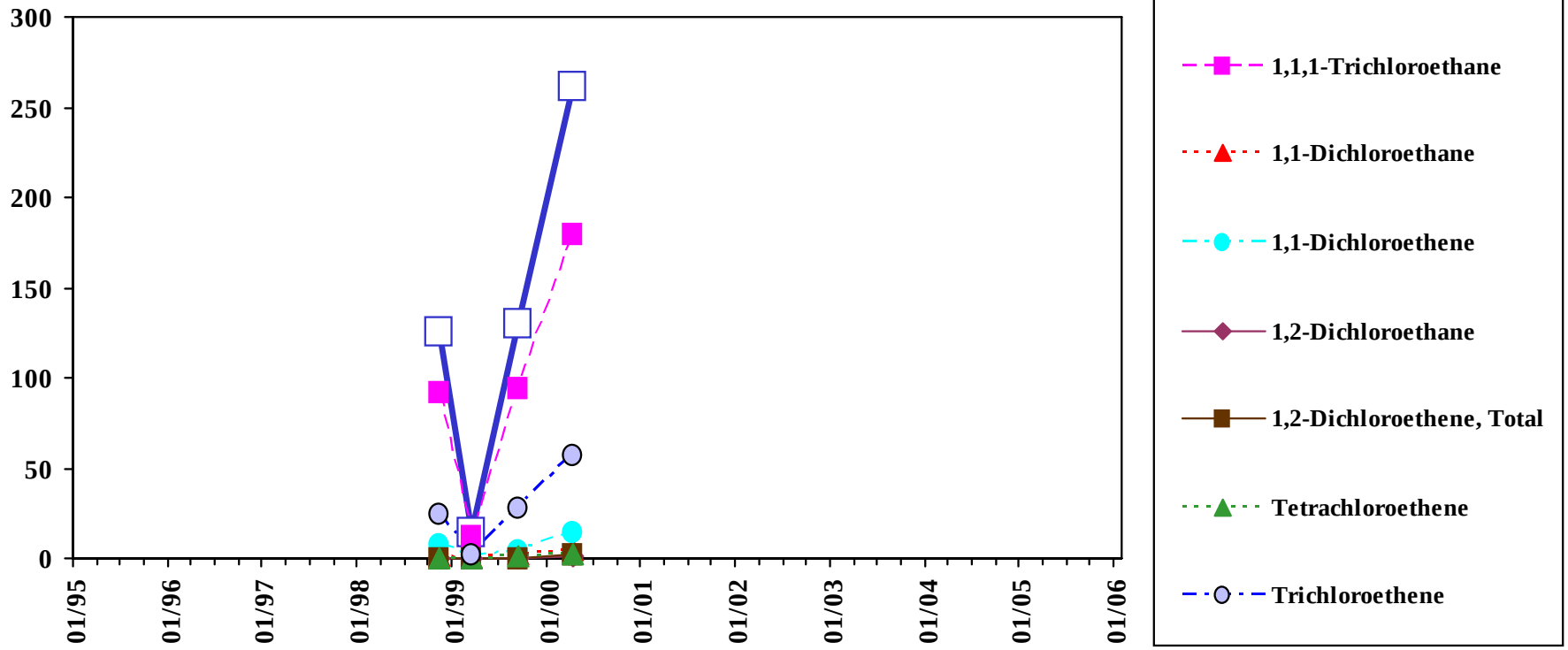
Sample Location:

MW-332

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

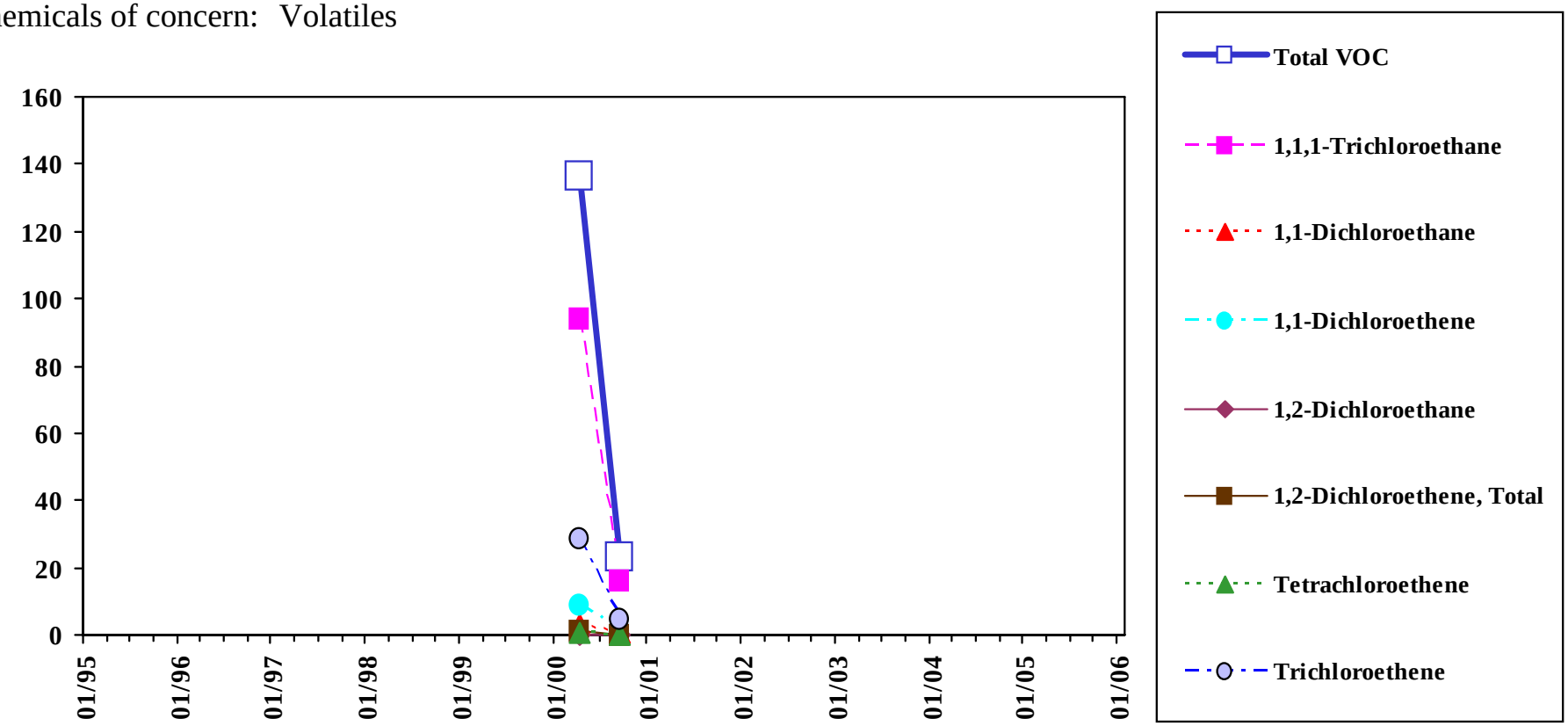
Sample Location:

MW-332

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

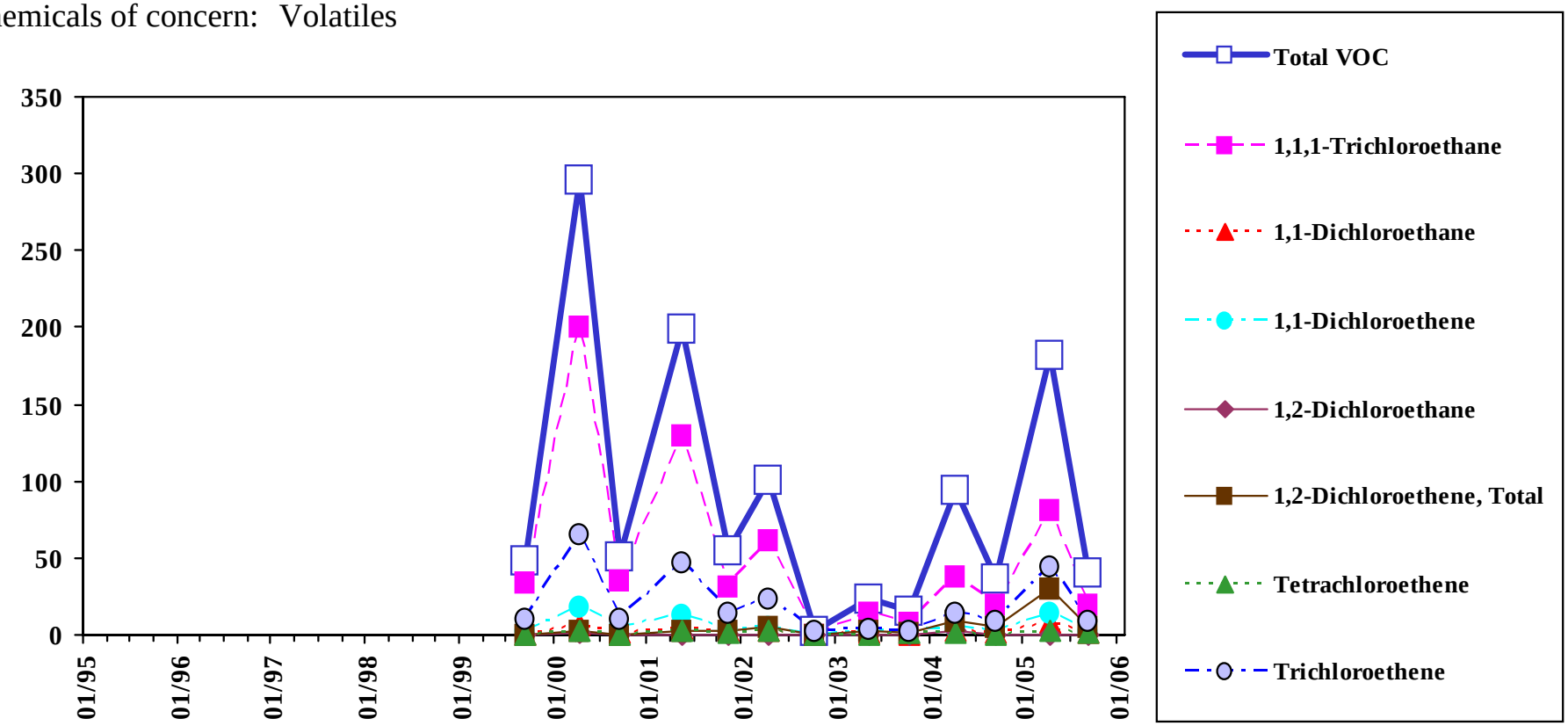
Sample Location:

MW-332

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

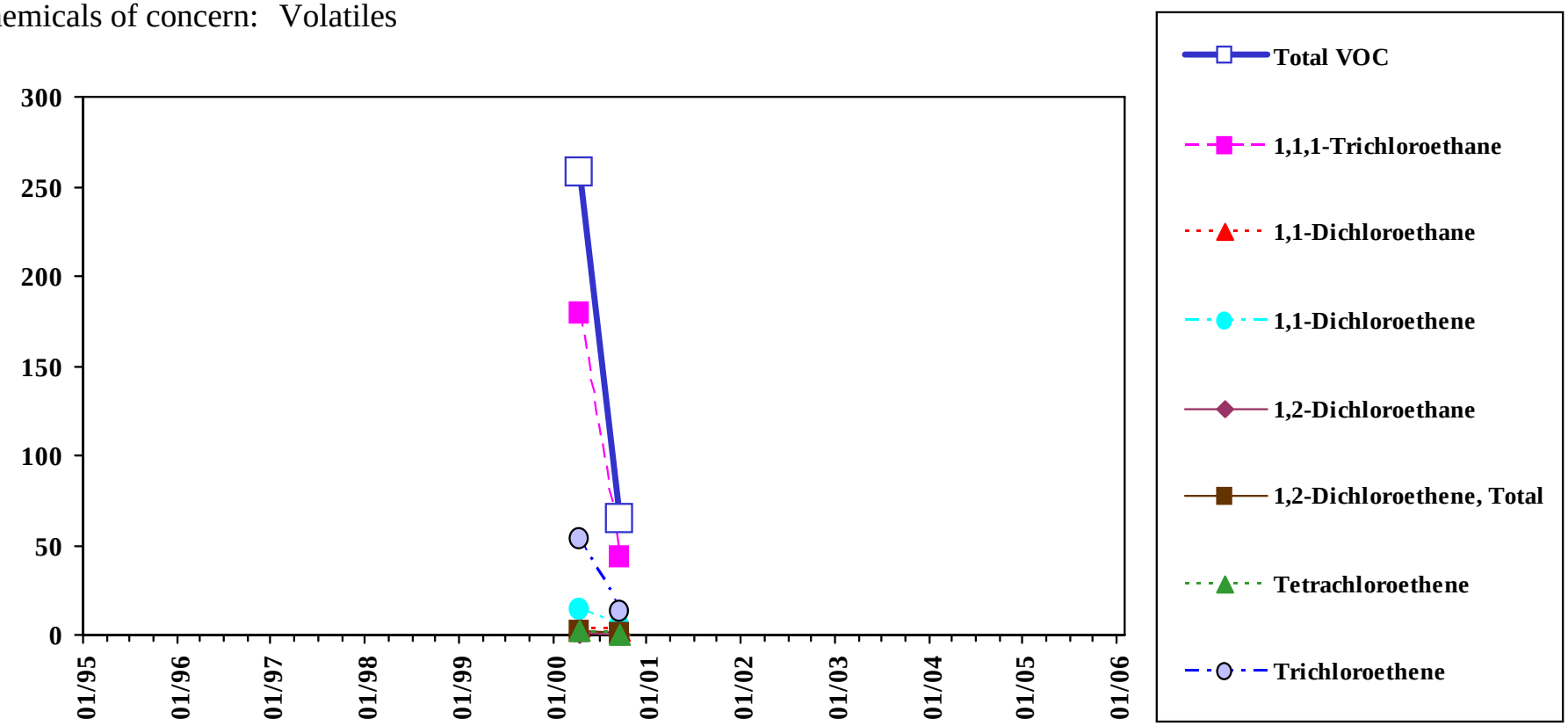
Sample Location:

MW-332

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

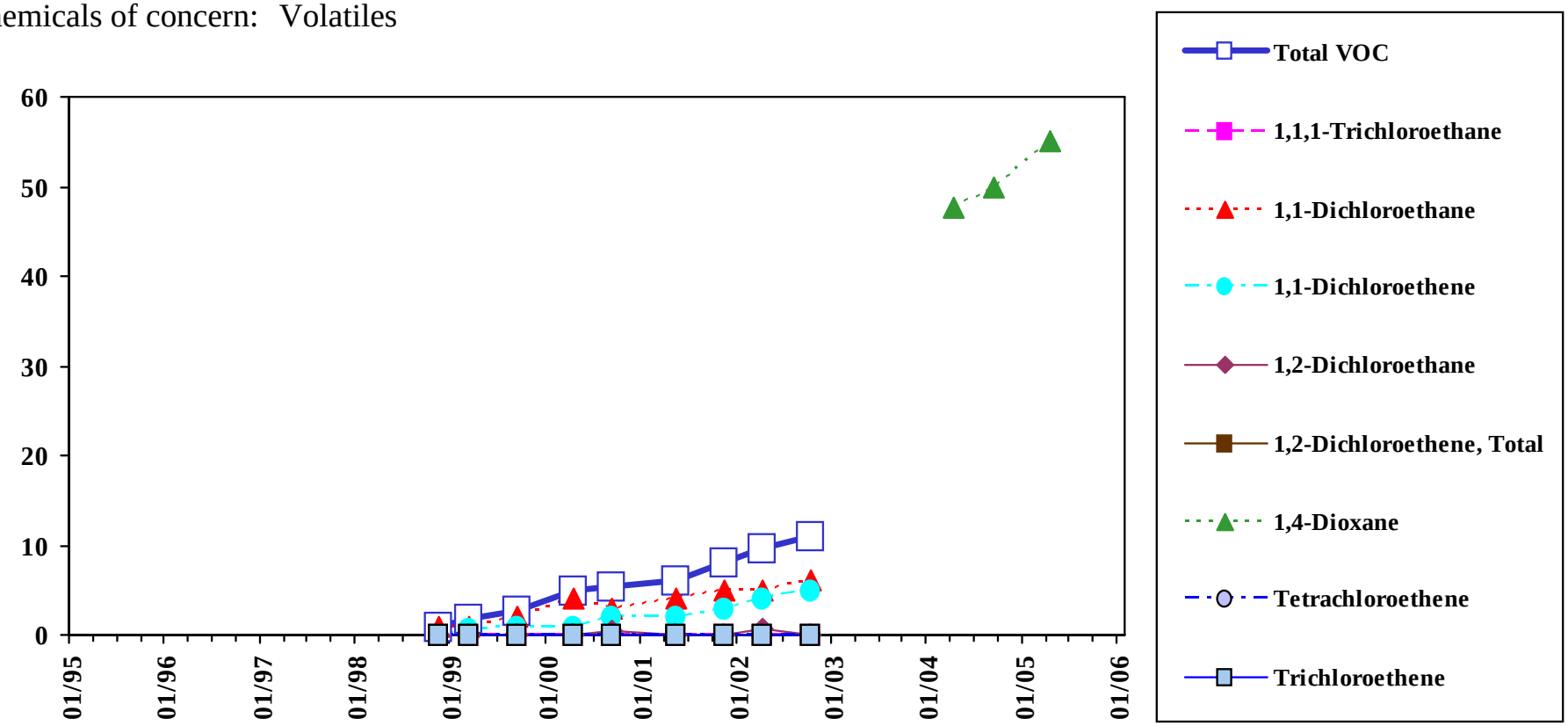
Sample Location:

MW-333

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

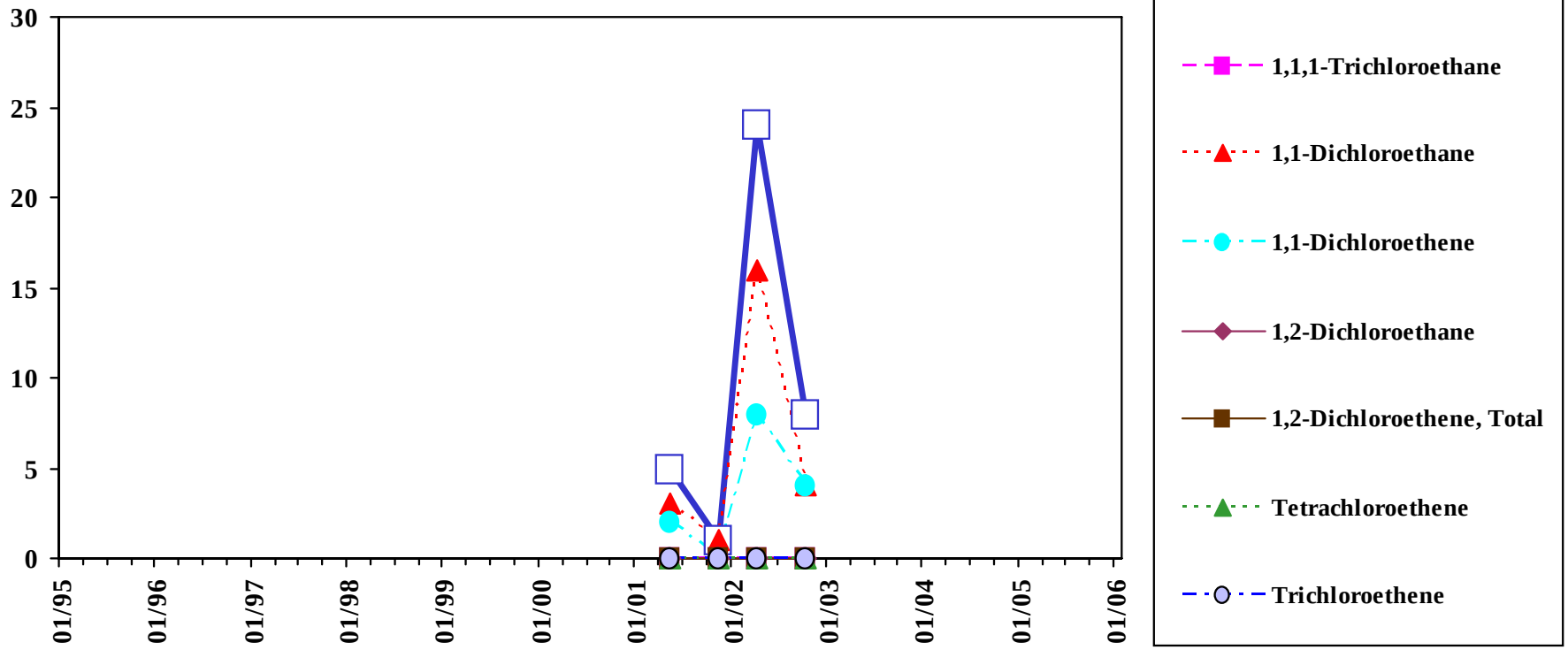
Sample Location:

MW-333

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

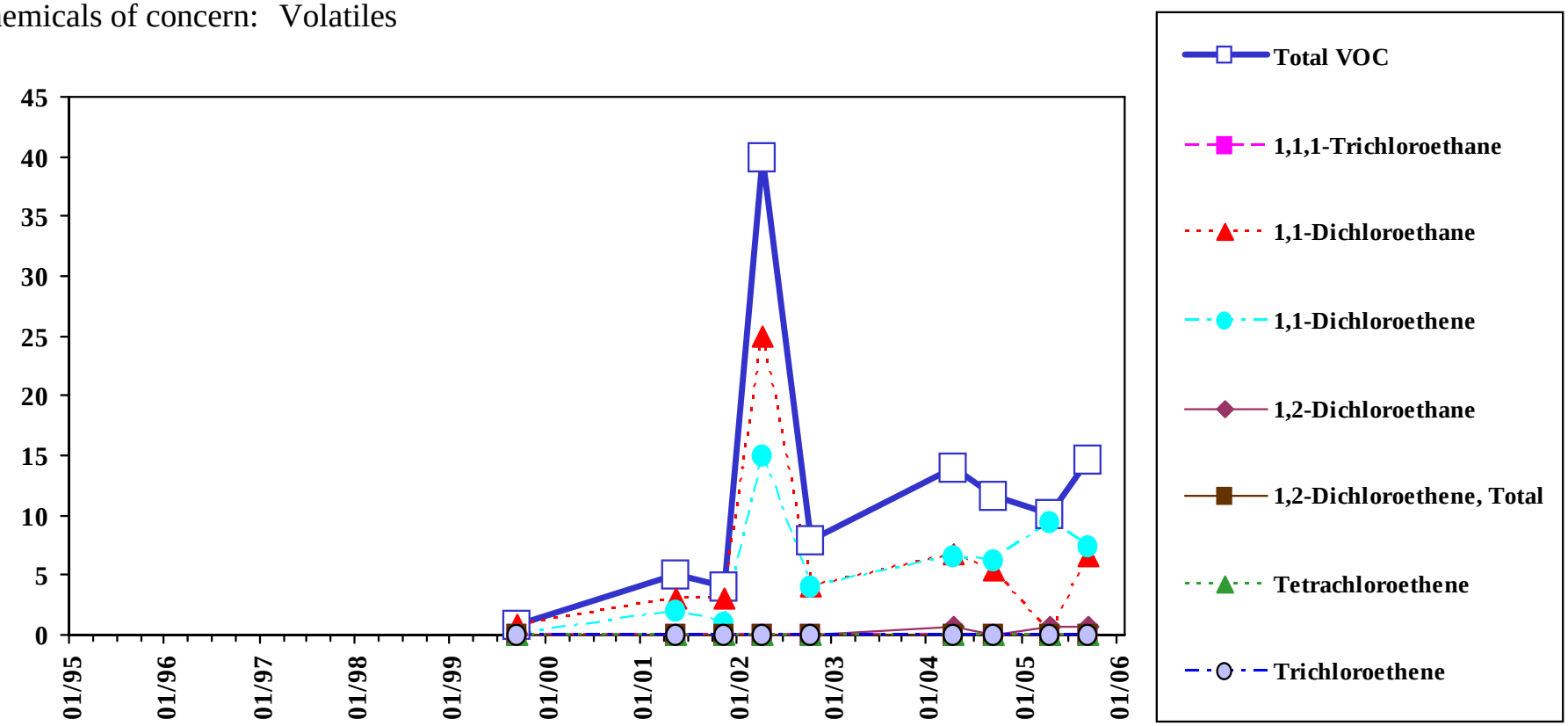
Sample Location:

MW-333

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

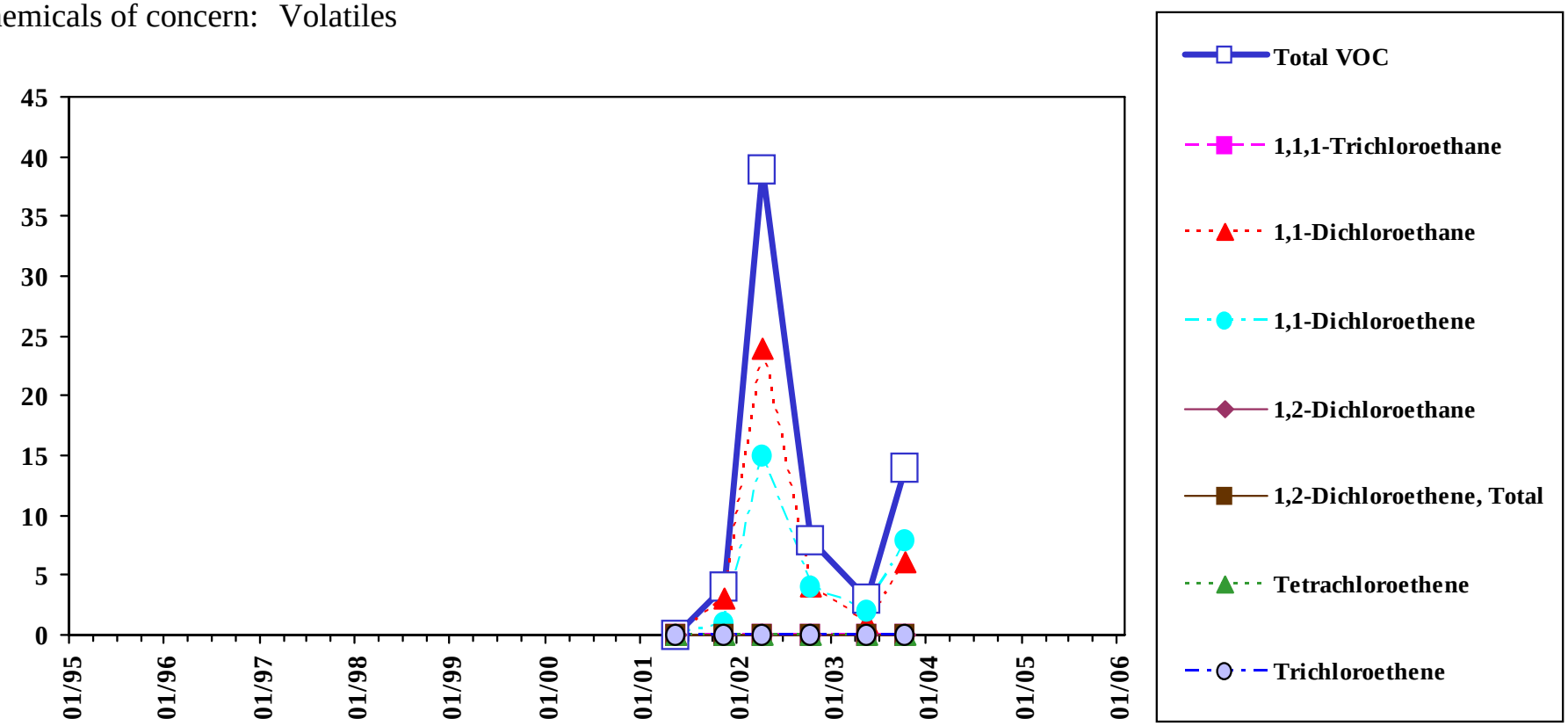
Sample Location:

MW-333

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

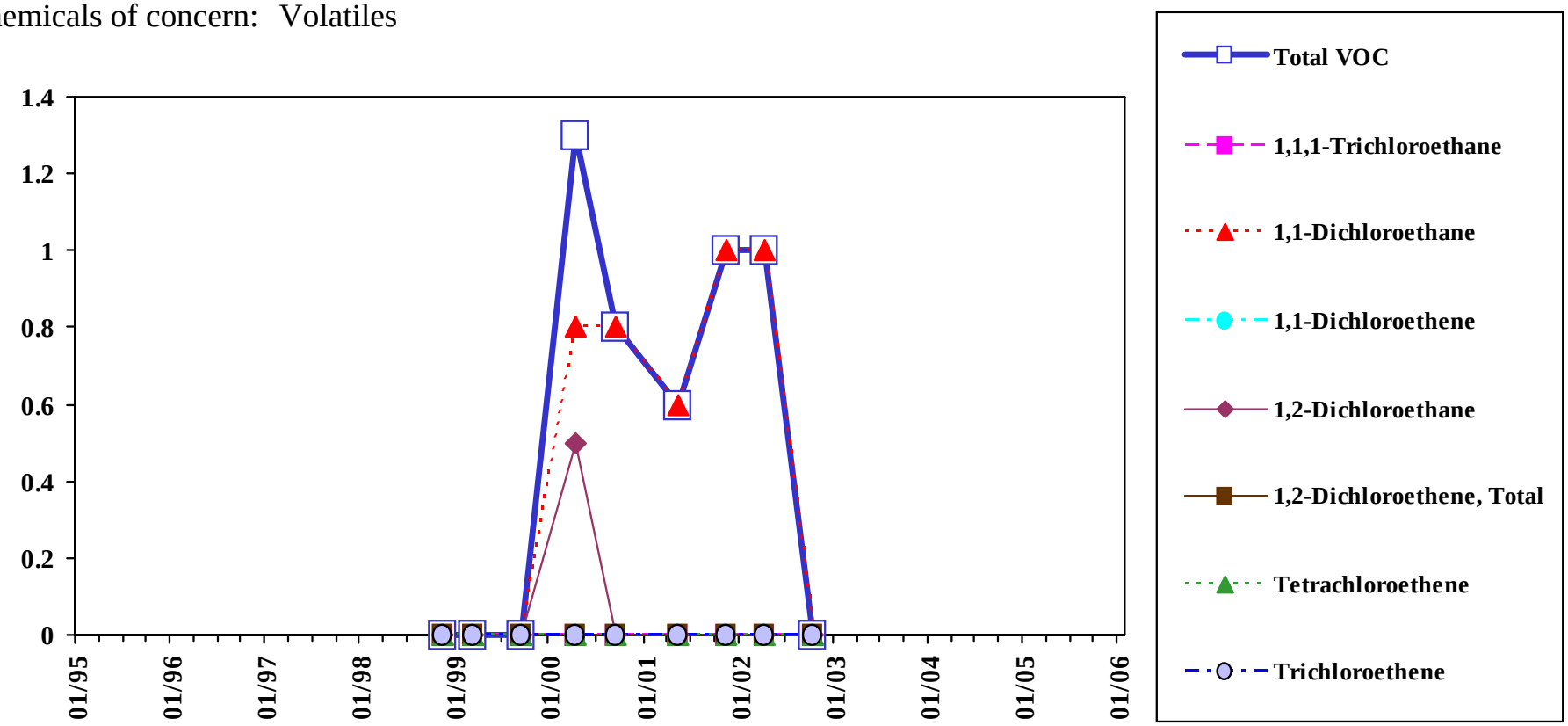
Sample Location:

MW-334

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

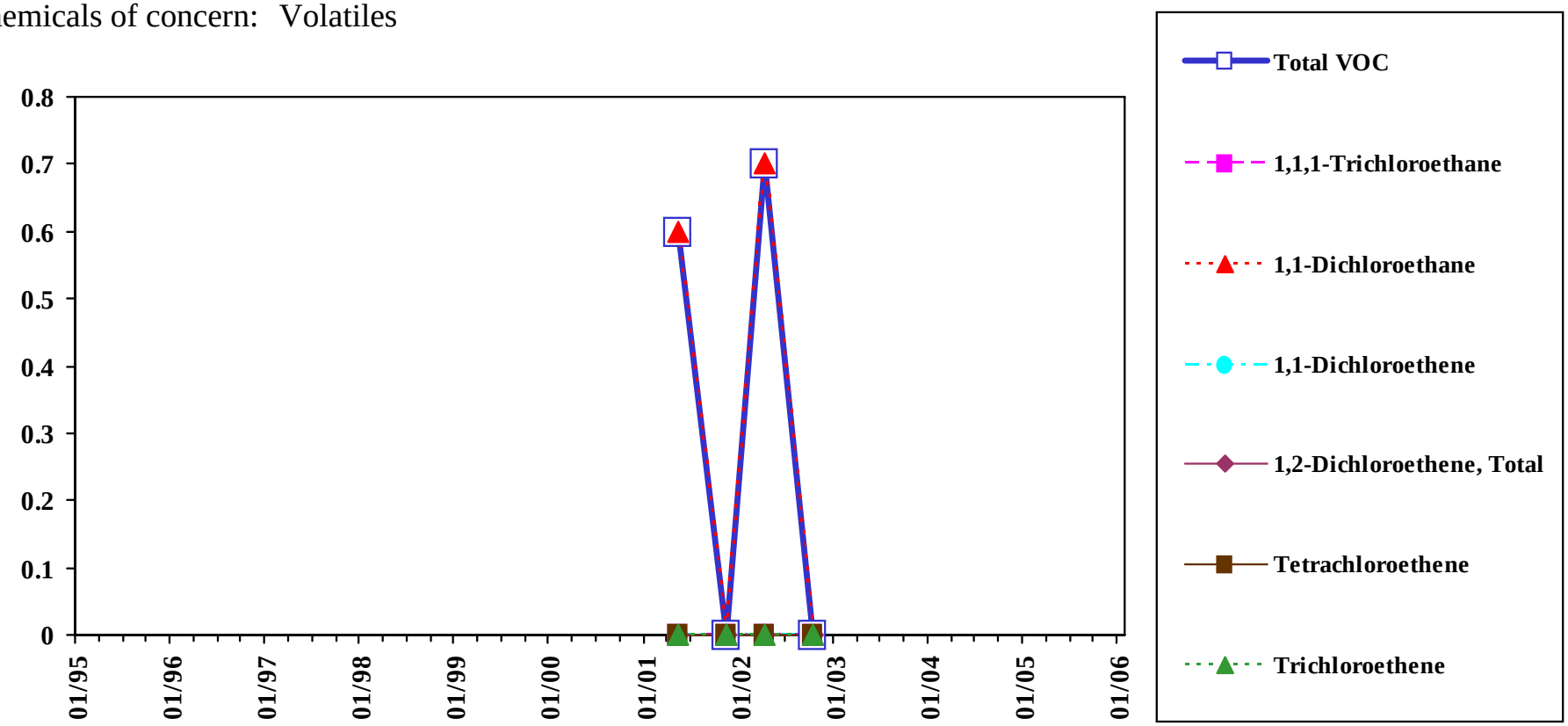
Sample Location:

MW-334

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

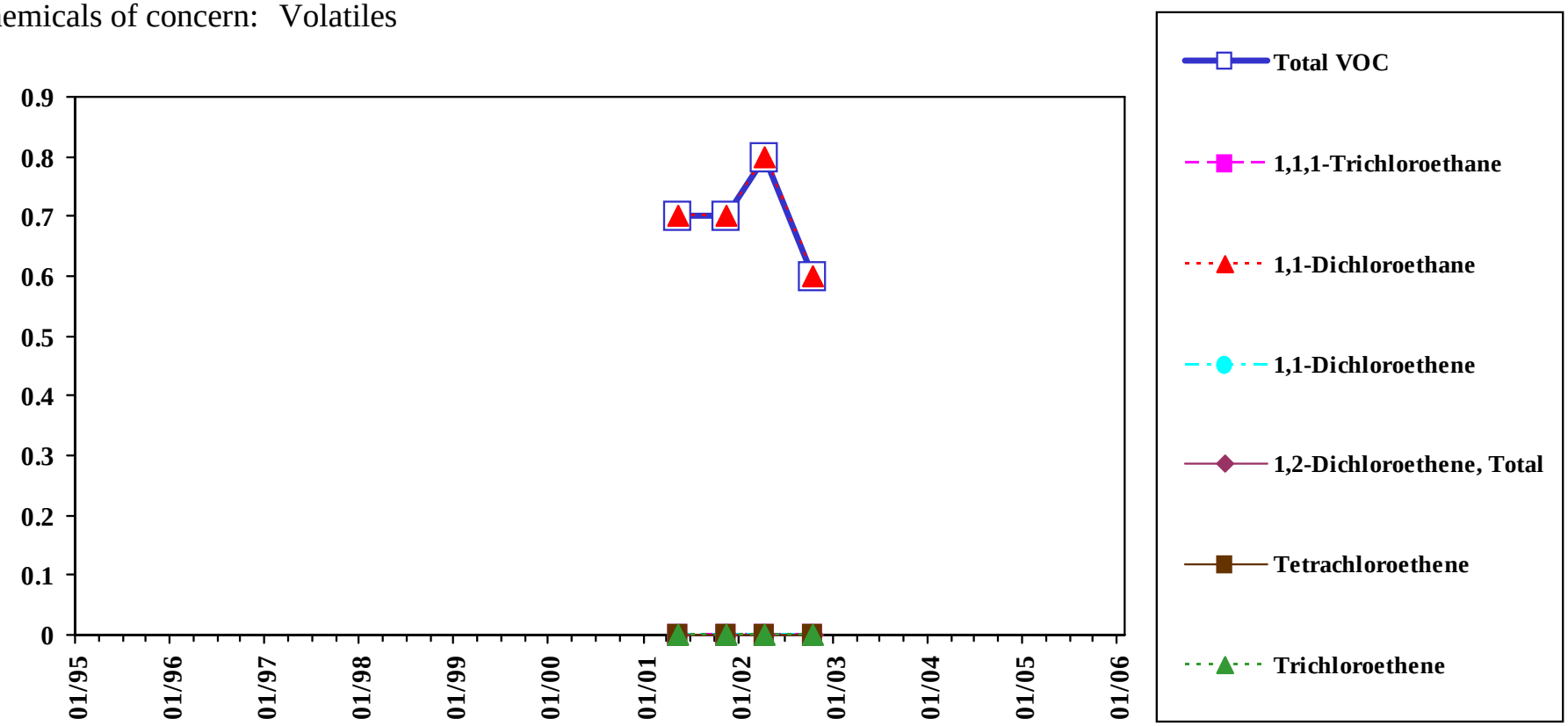
Sample Location:

MW-334

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

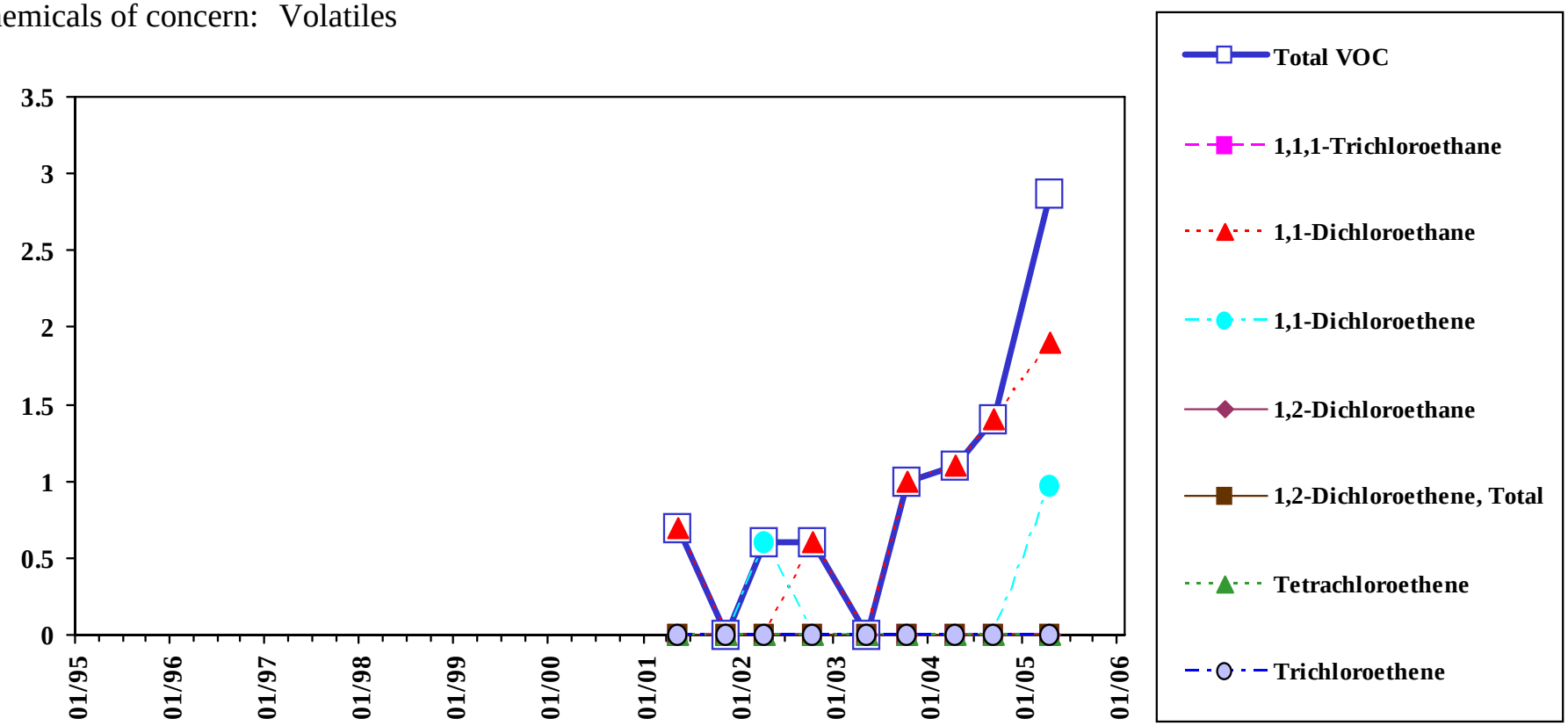
Sample Location:

MW-334

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

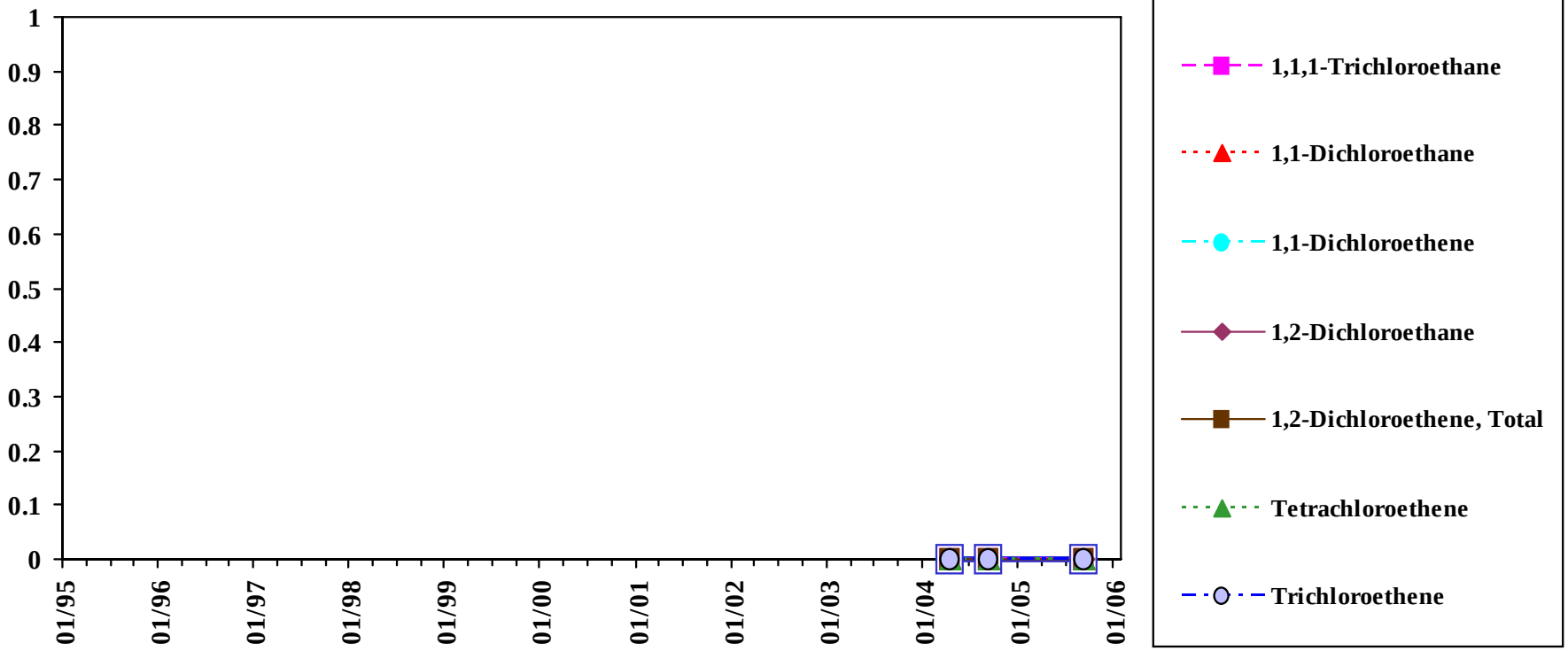
Sample Location:

MW-335

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

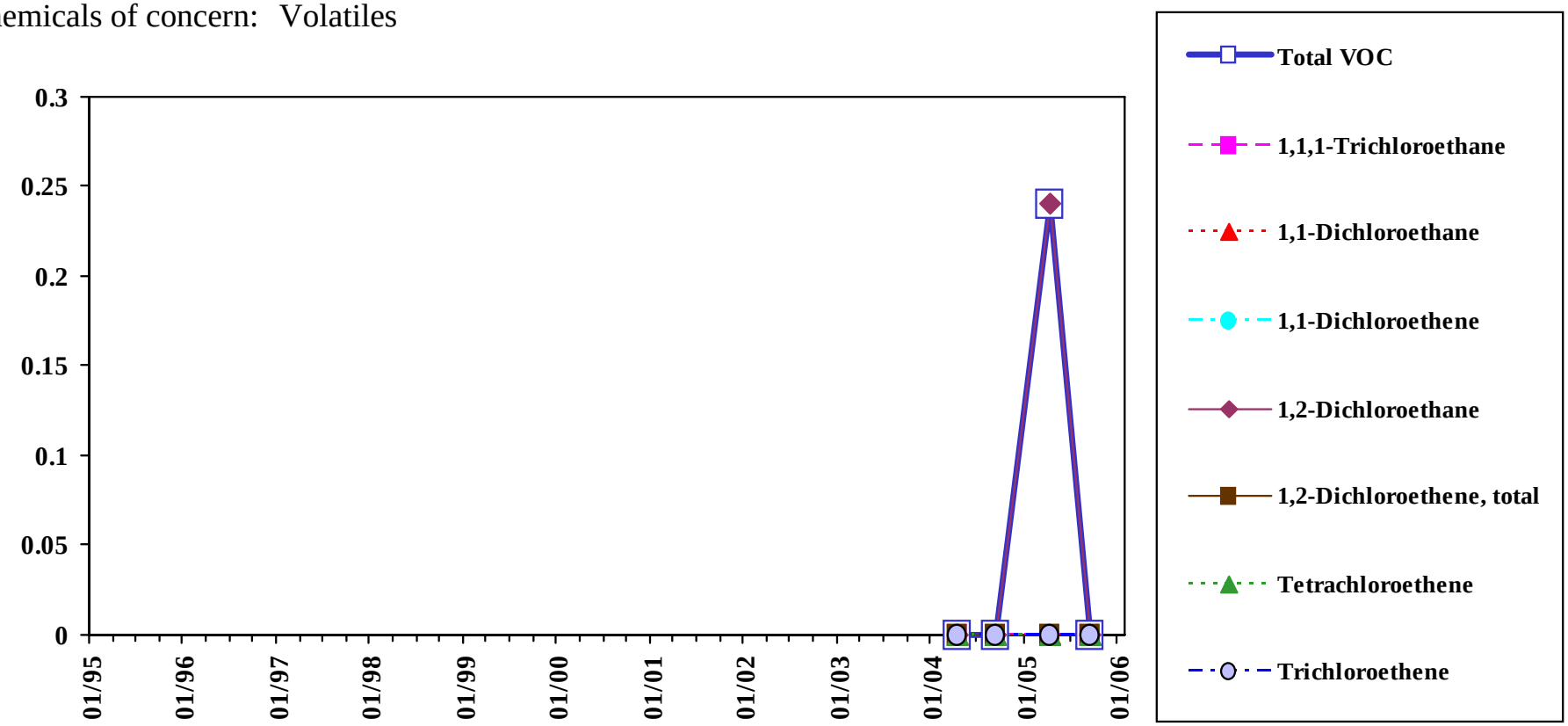
Sample Location:

MW-335

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

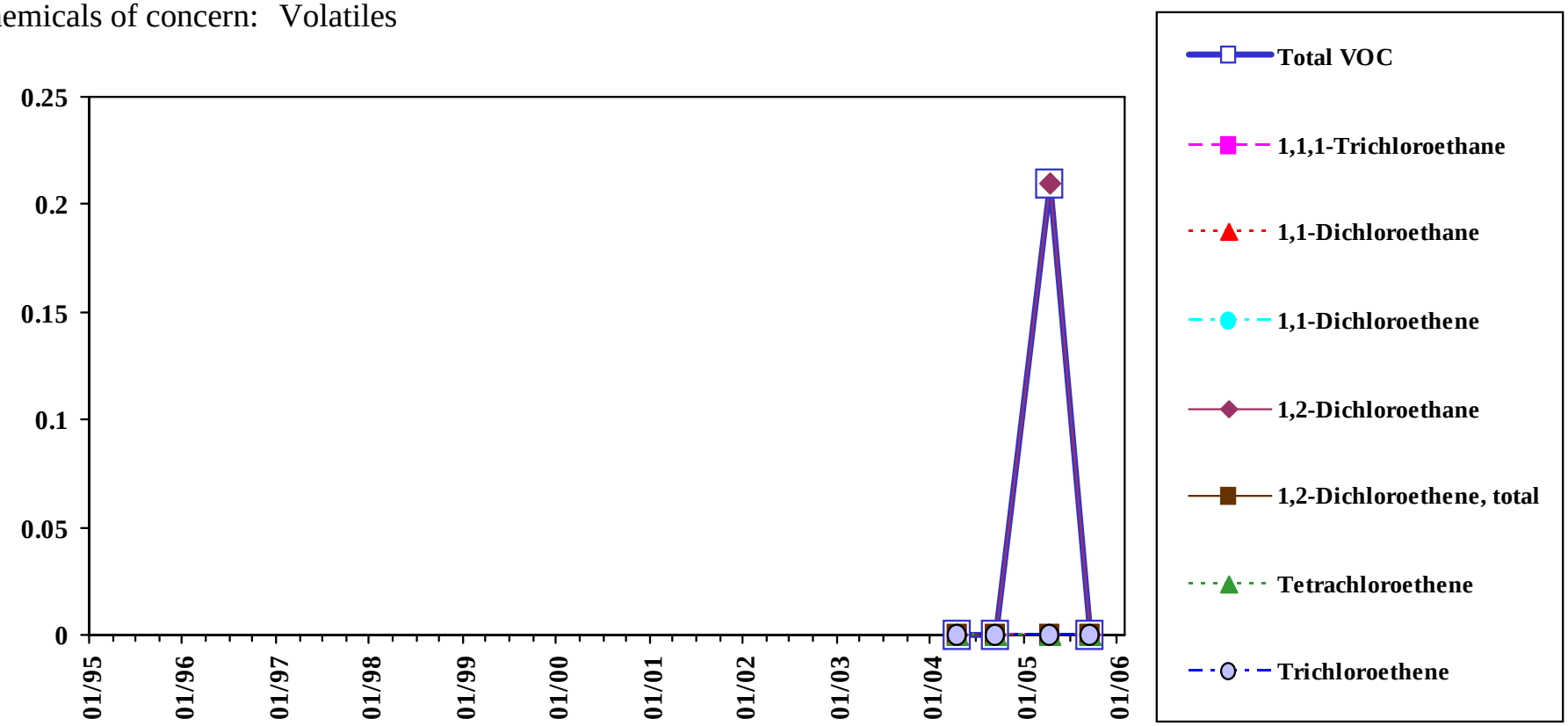
Sample Location:

MW-335

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

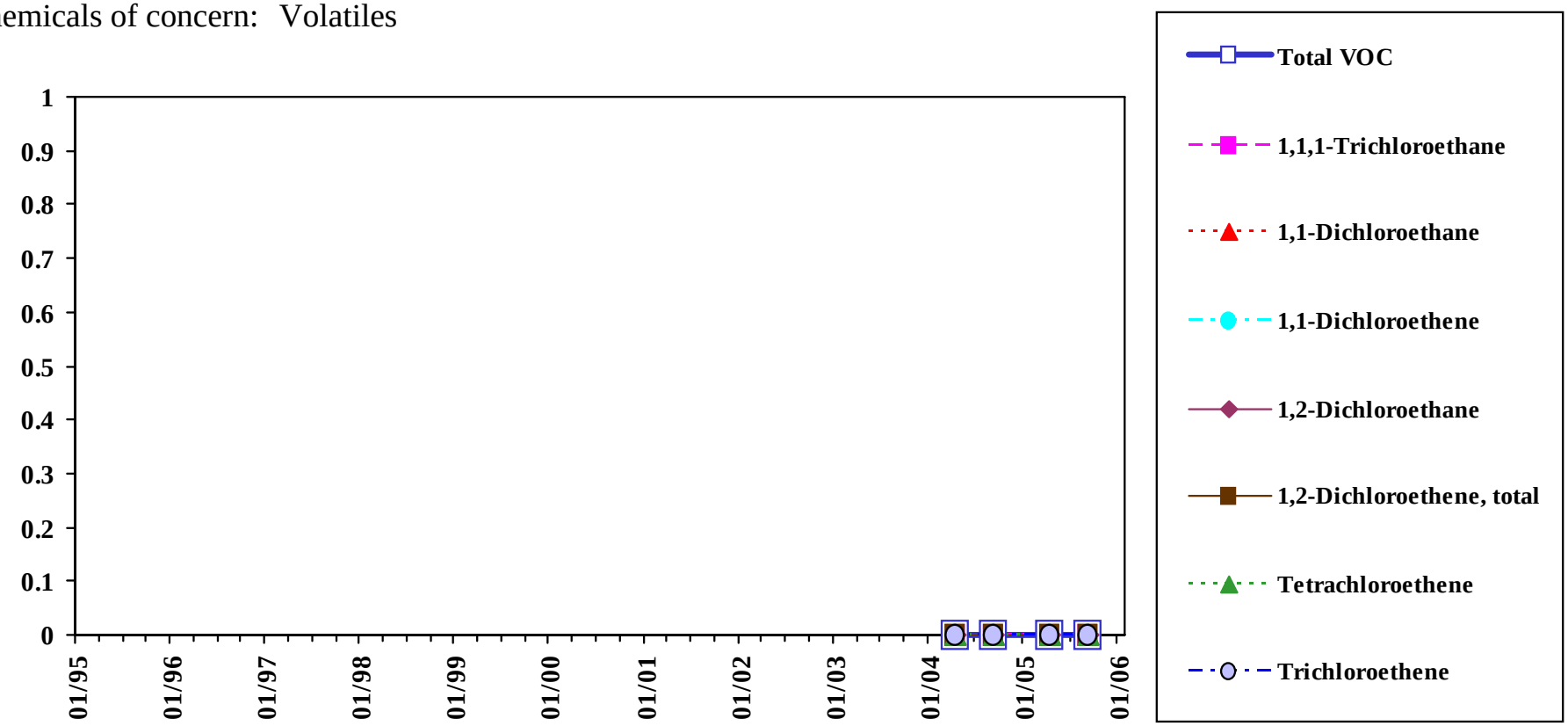
Sample Location:

MW-335

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

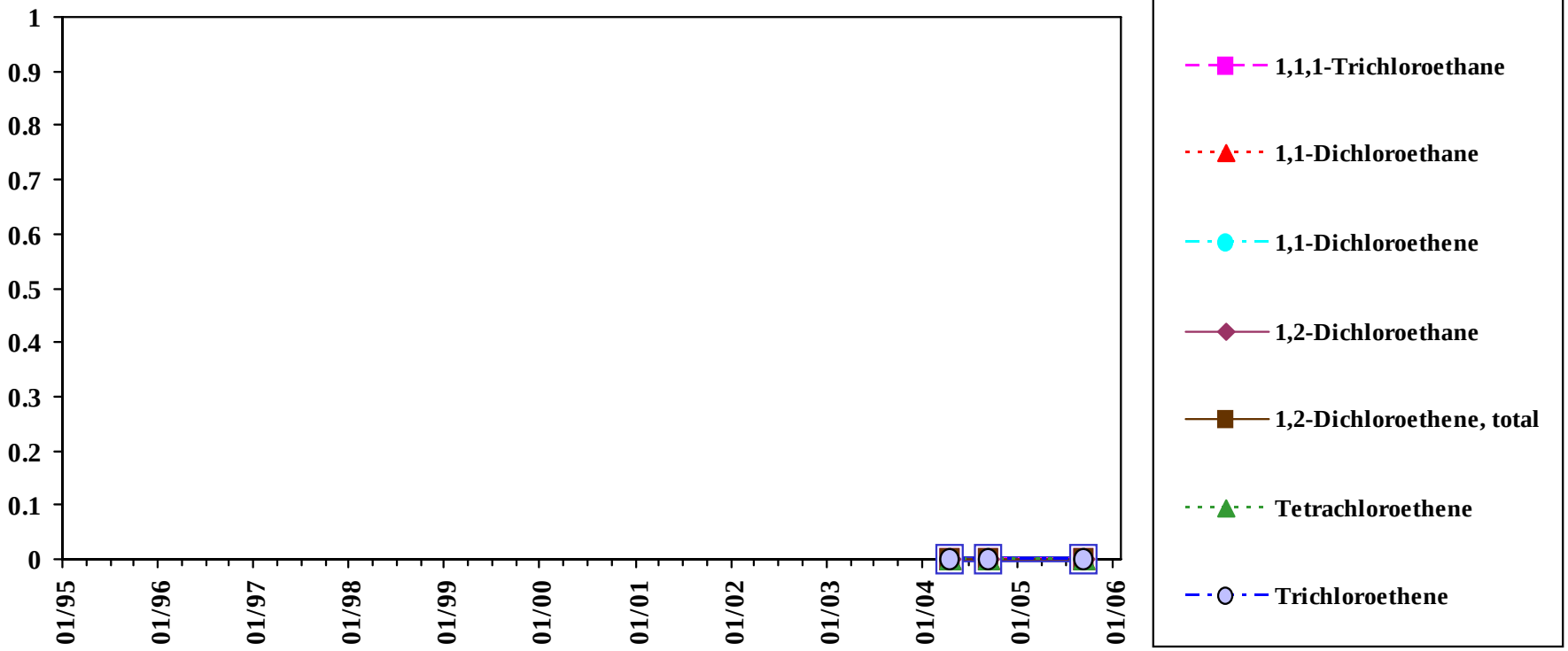
Sample Location:

MW-336

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

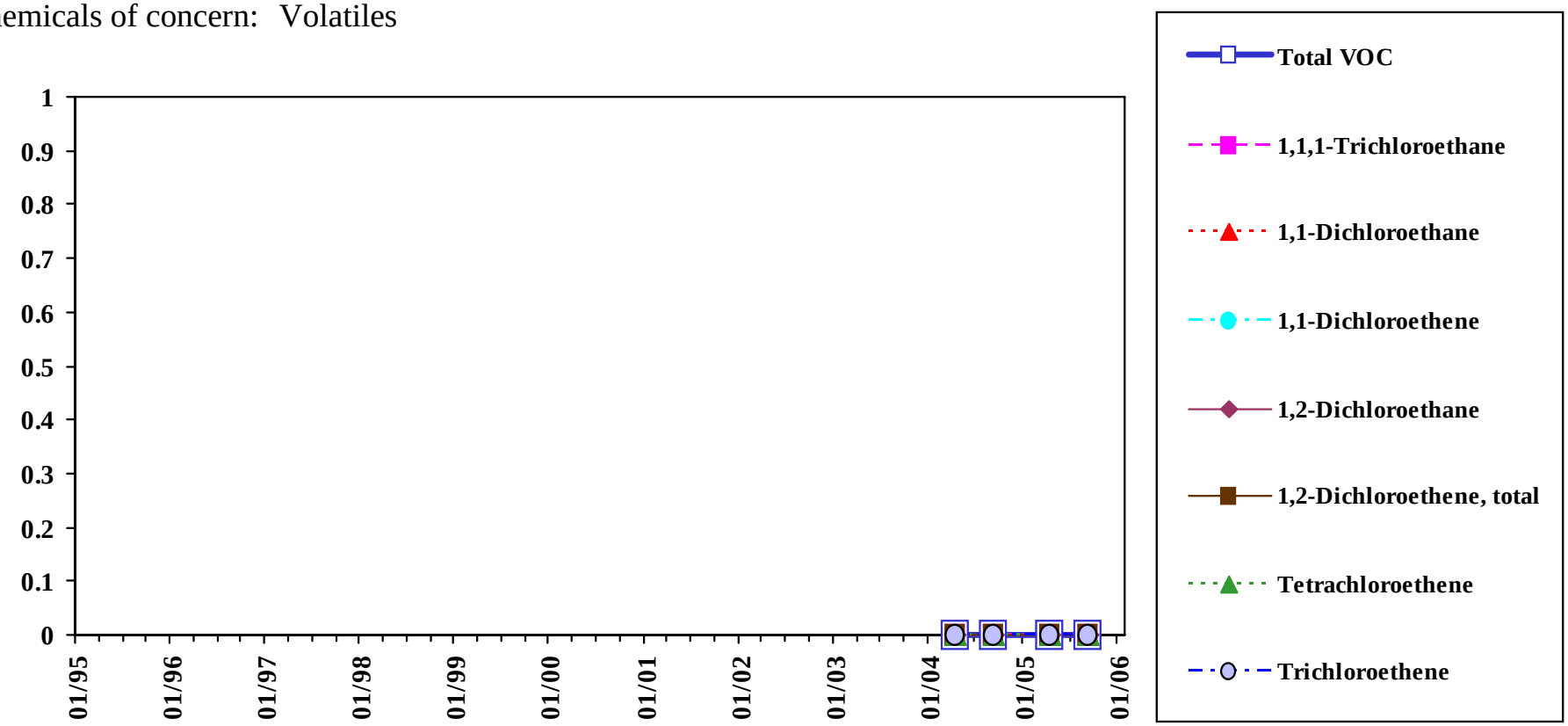
Sample Location:

MW-336

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

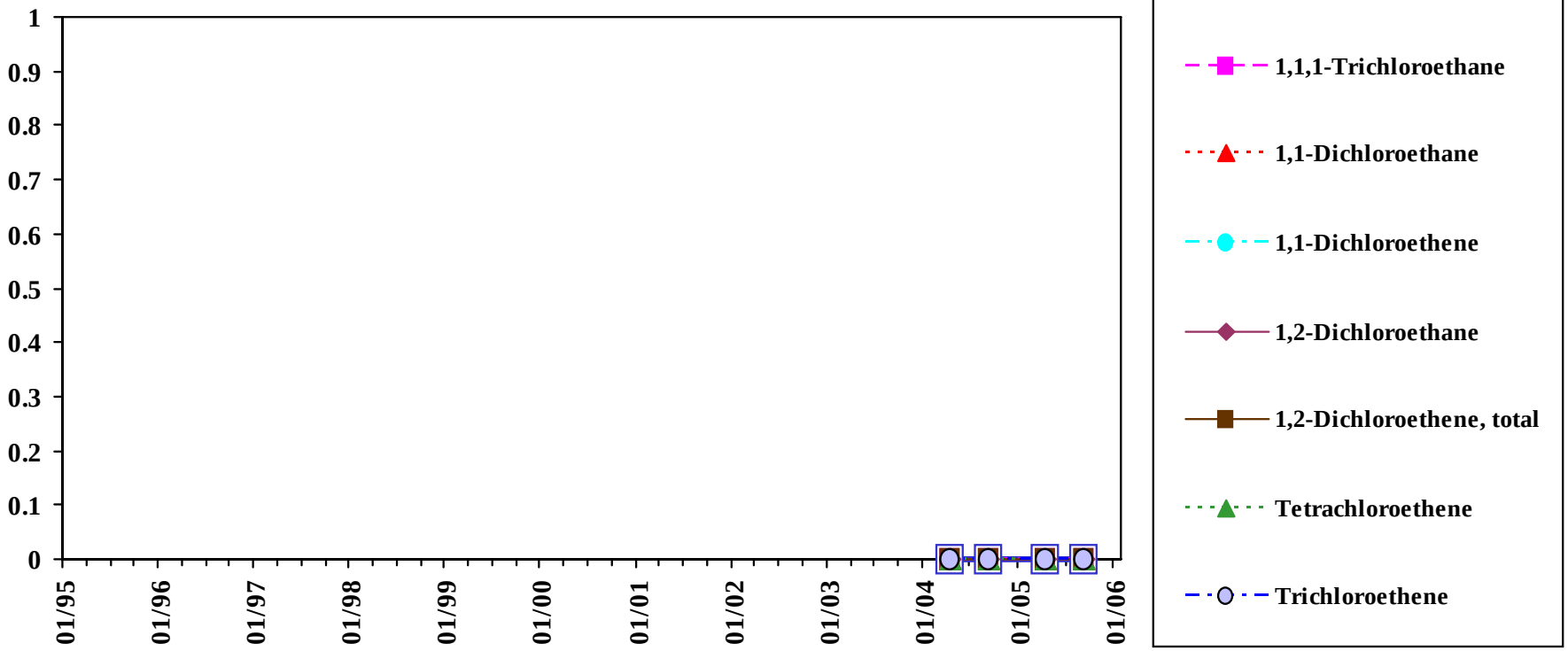
Sample Location:

MW-336

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

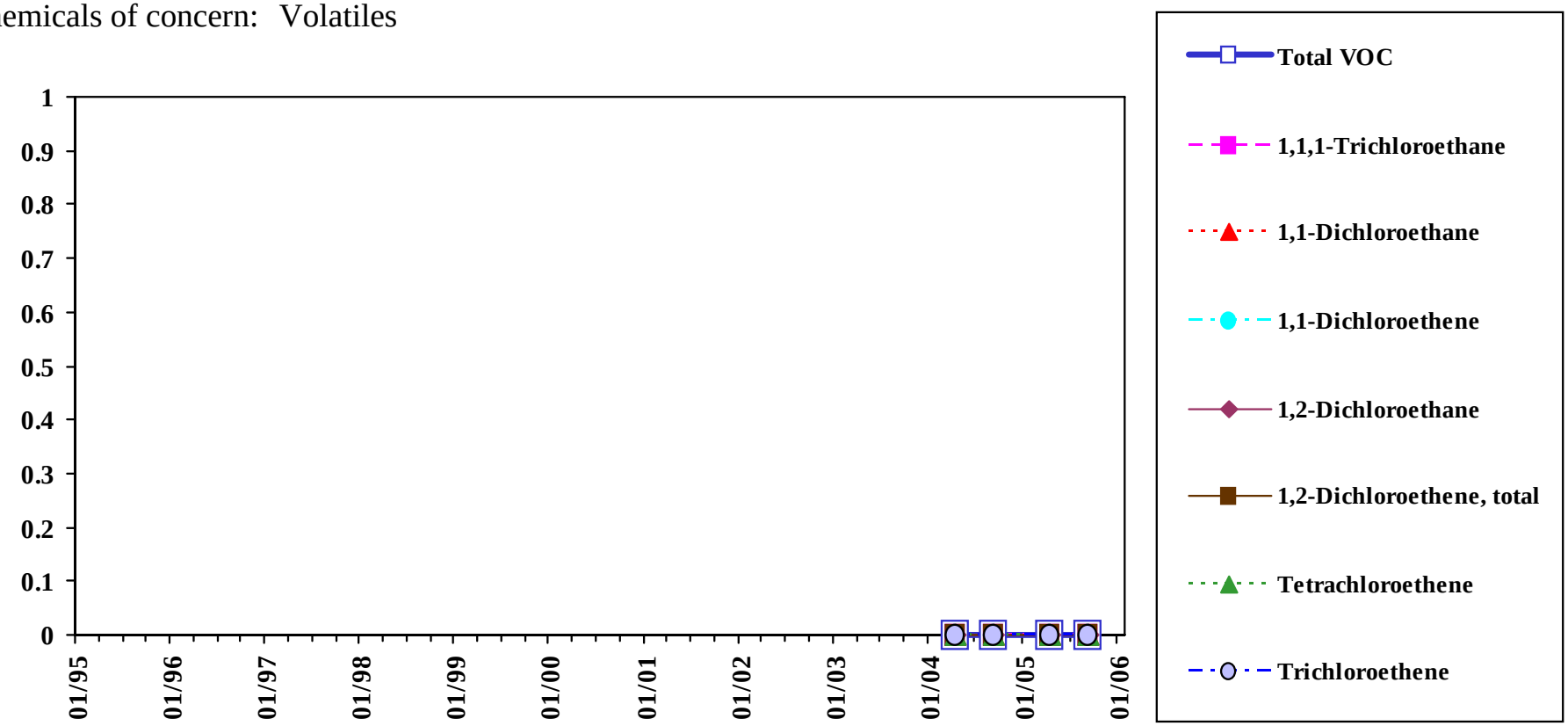
Sample Location:

MW-336

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

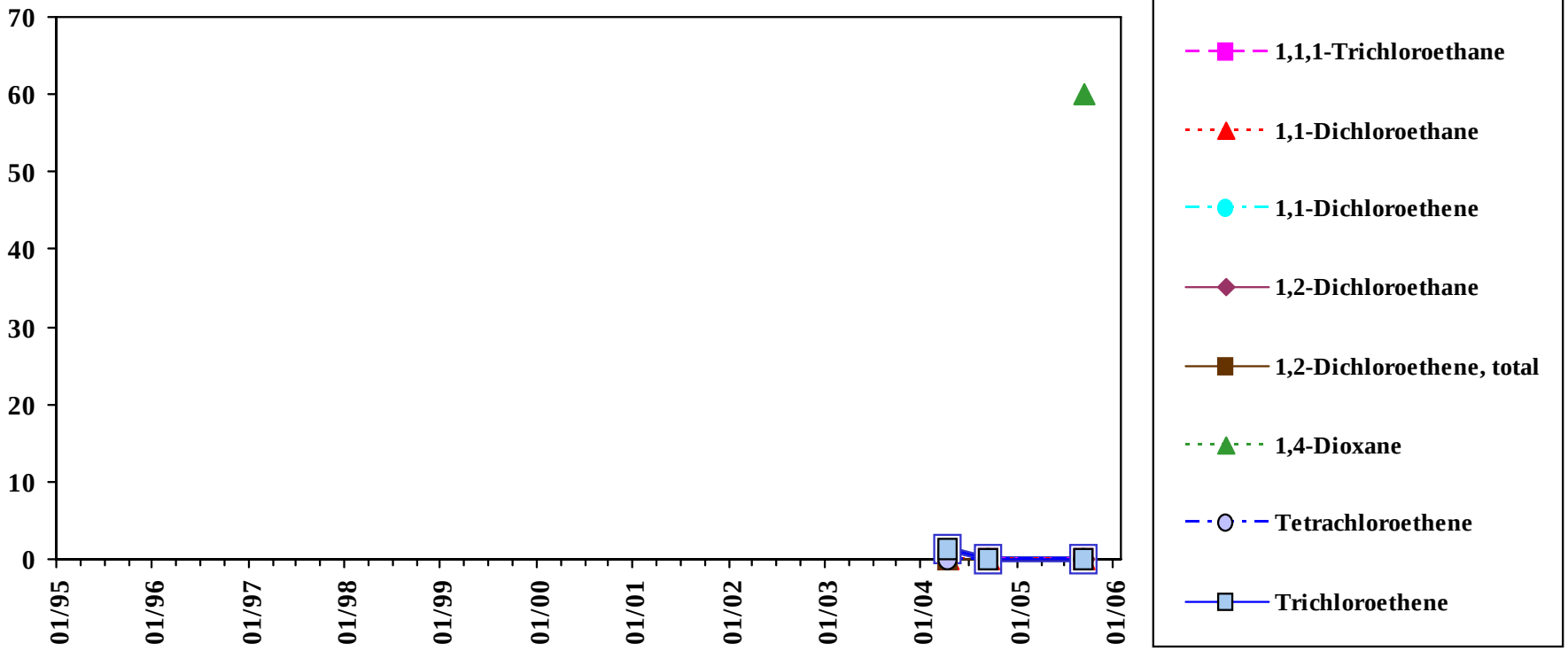
Sample Location:

MW-337

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

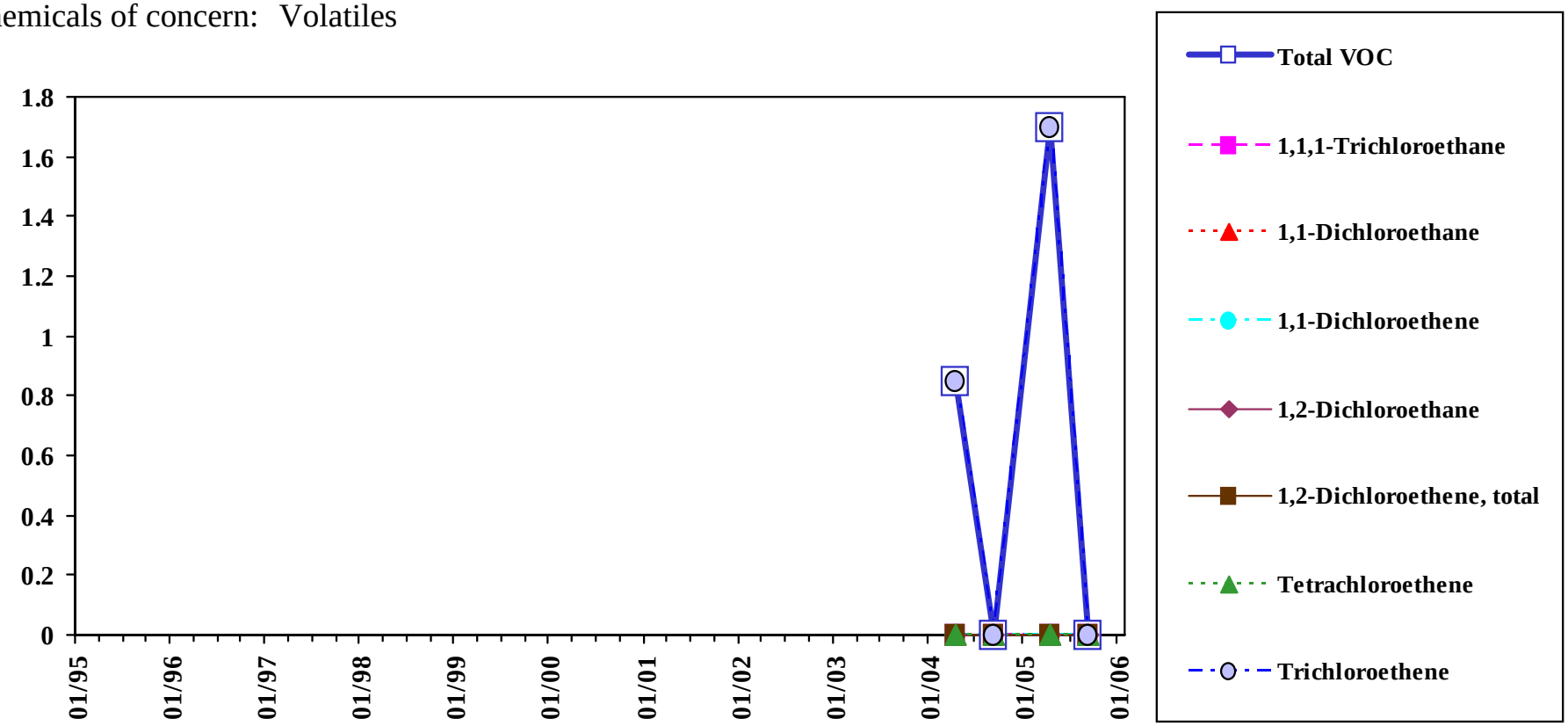
Sample Location:

MW-337

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

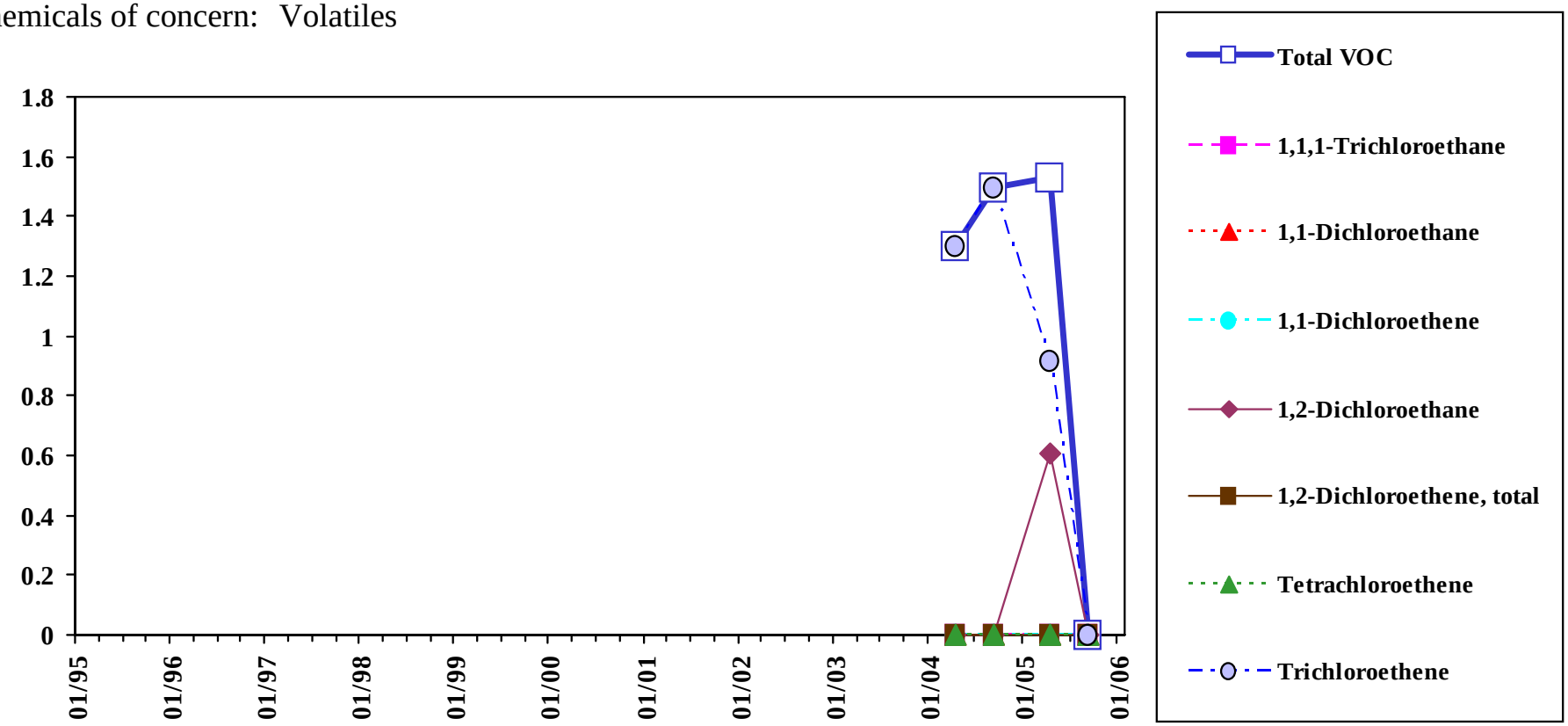
Sample Location:

MW-337

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

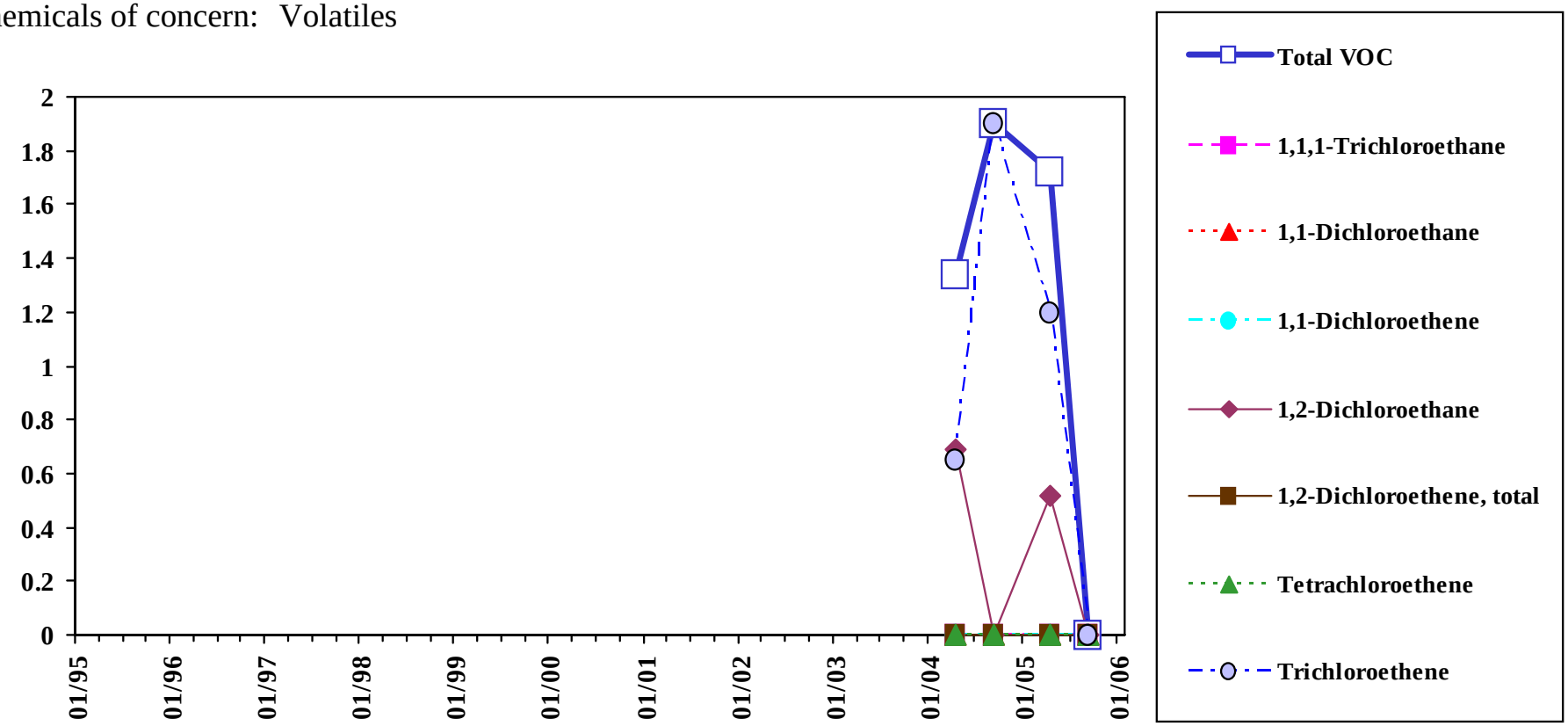
Sample Location:

MW-337

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

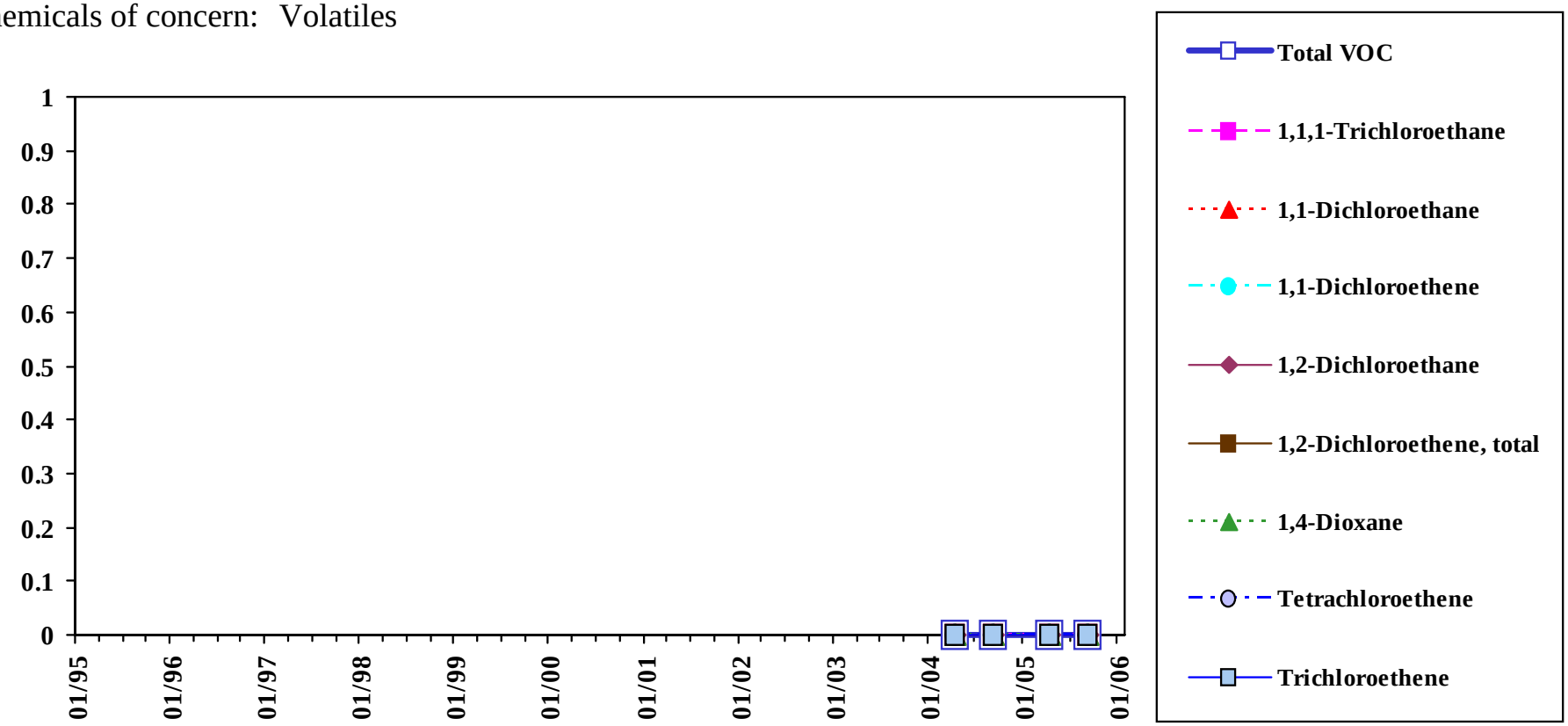
Sample Location:

MW-338A

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

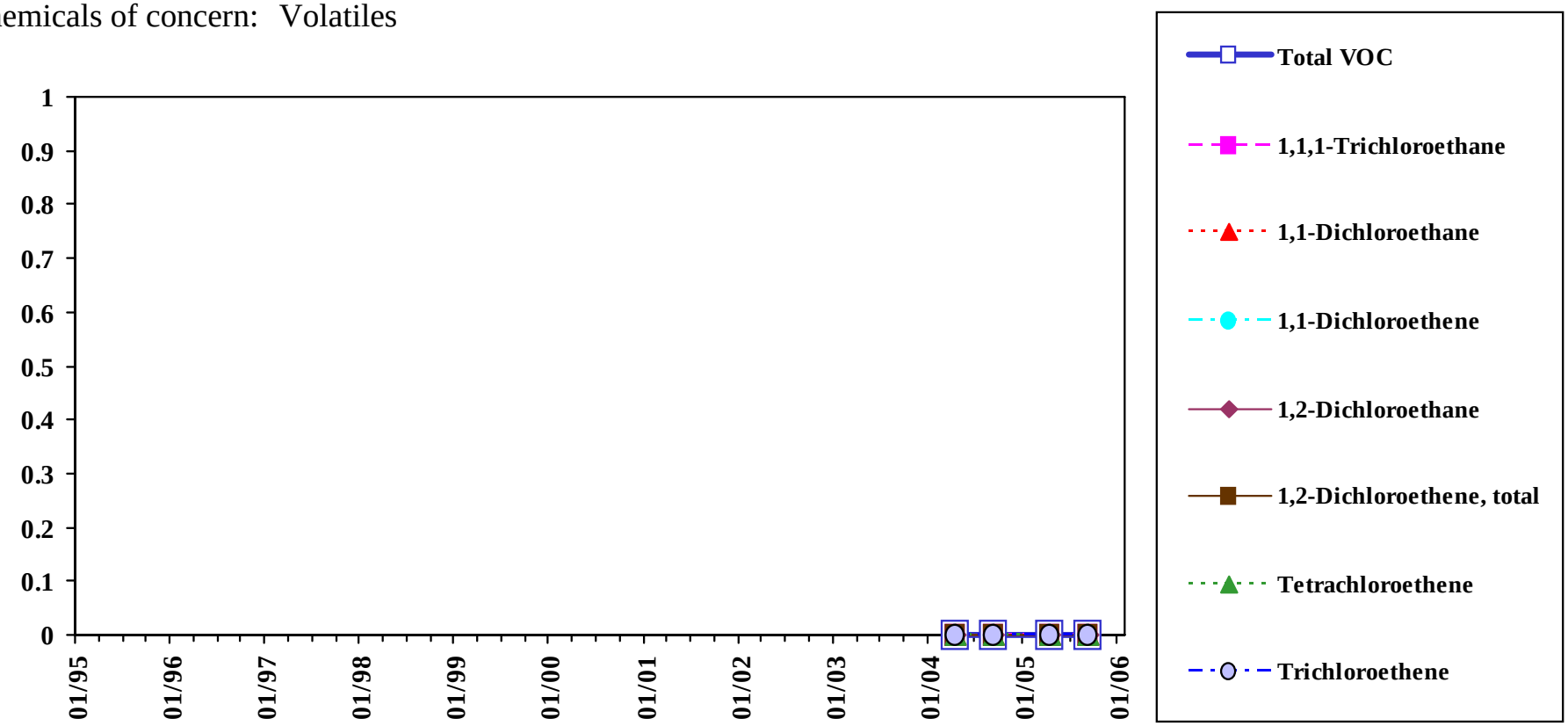
Sample Location:

MW-338A

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

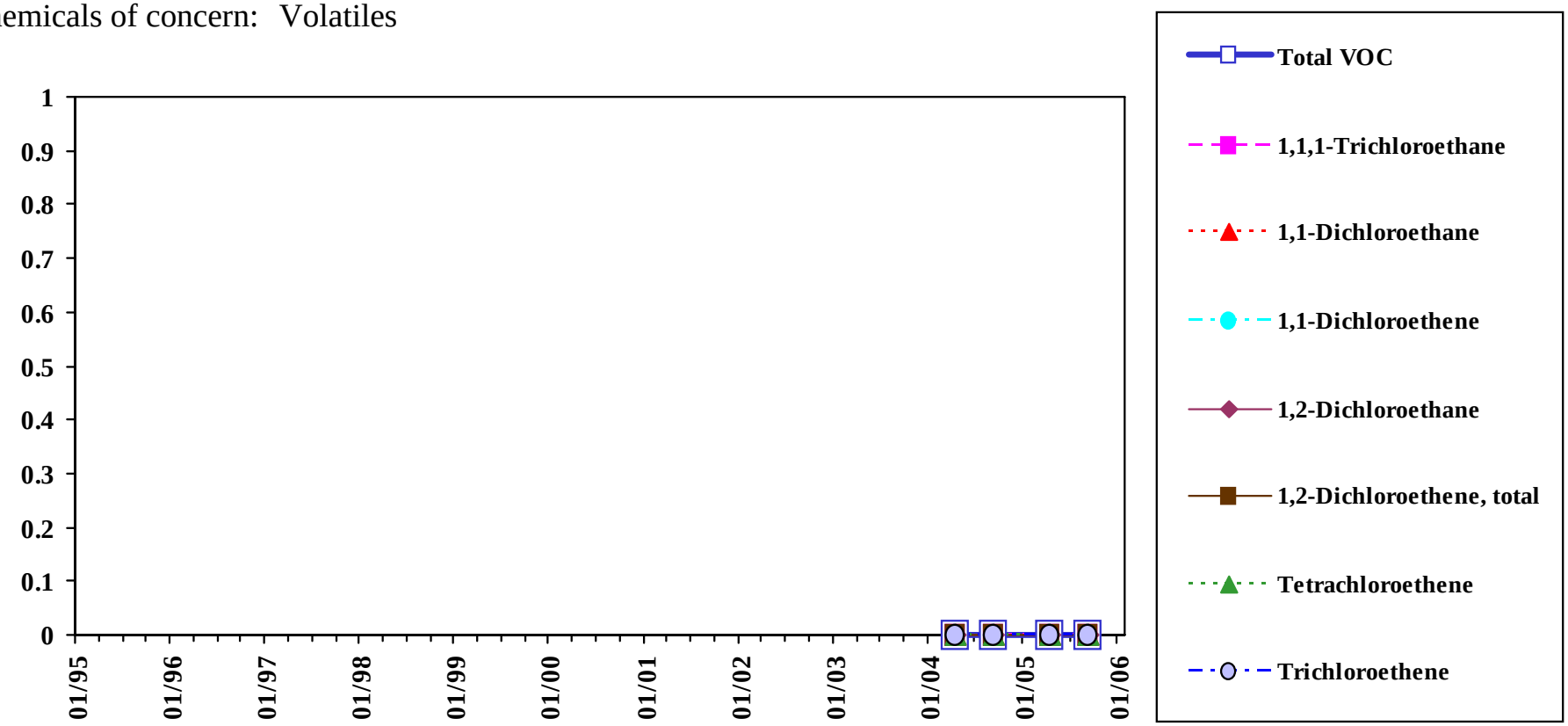
Sample Location:

MW-338A

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

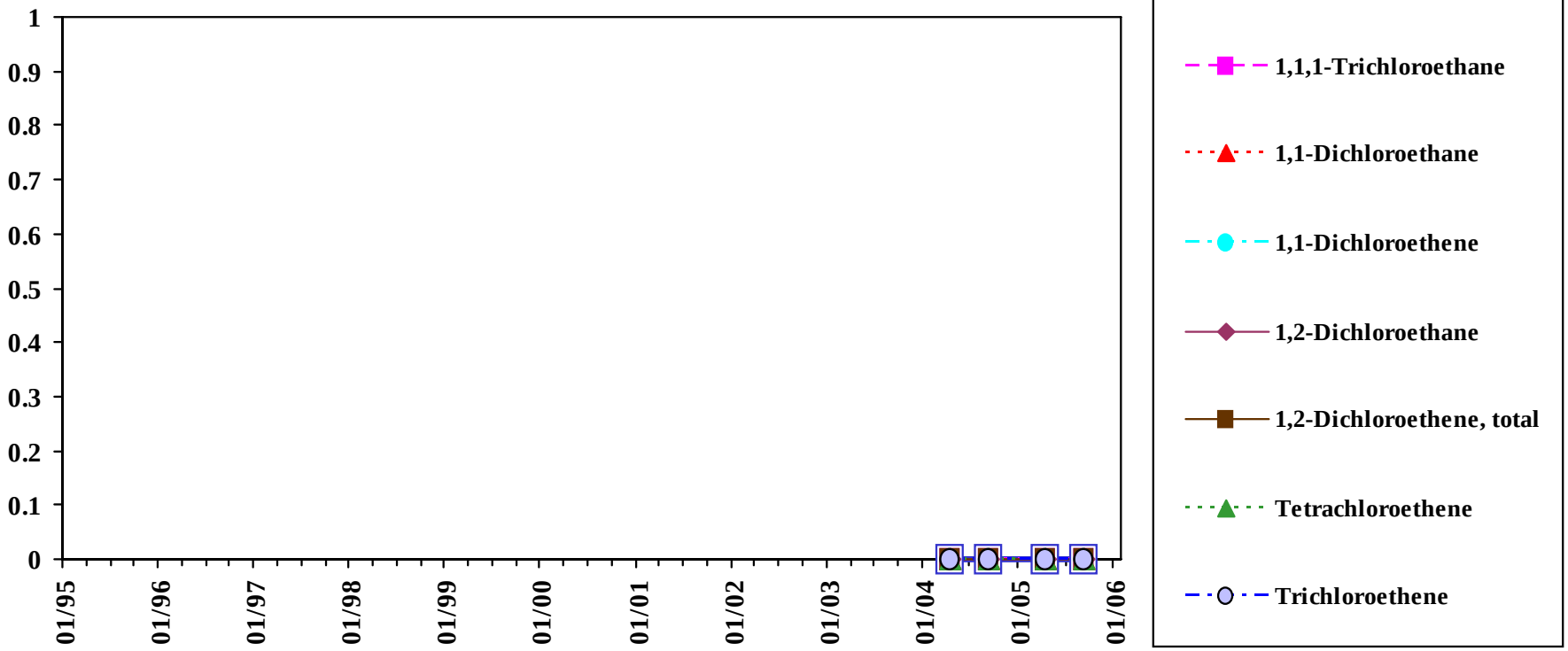
Sample Location:

MW-338A

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

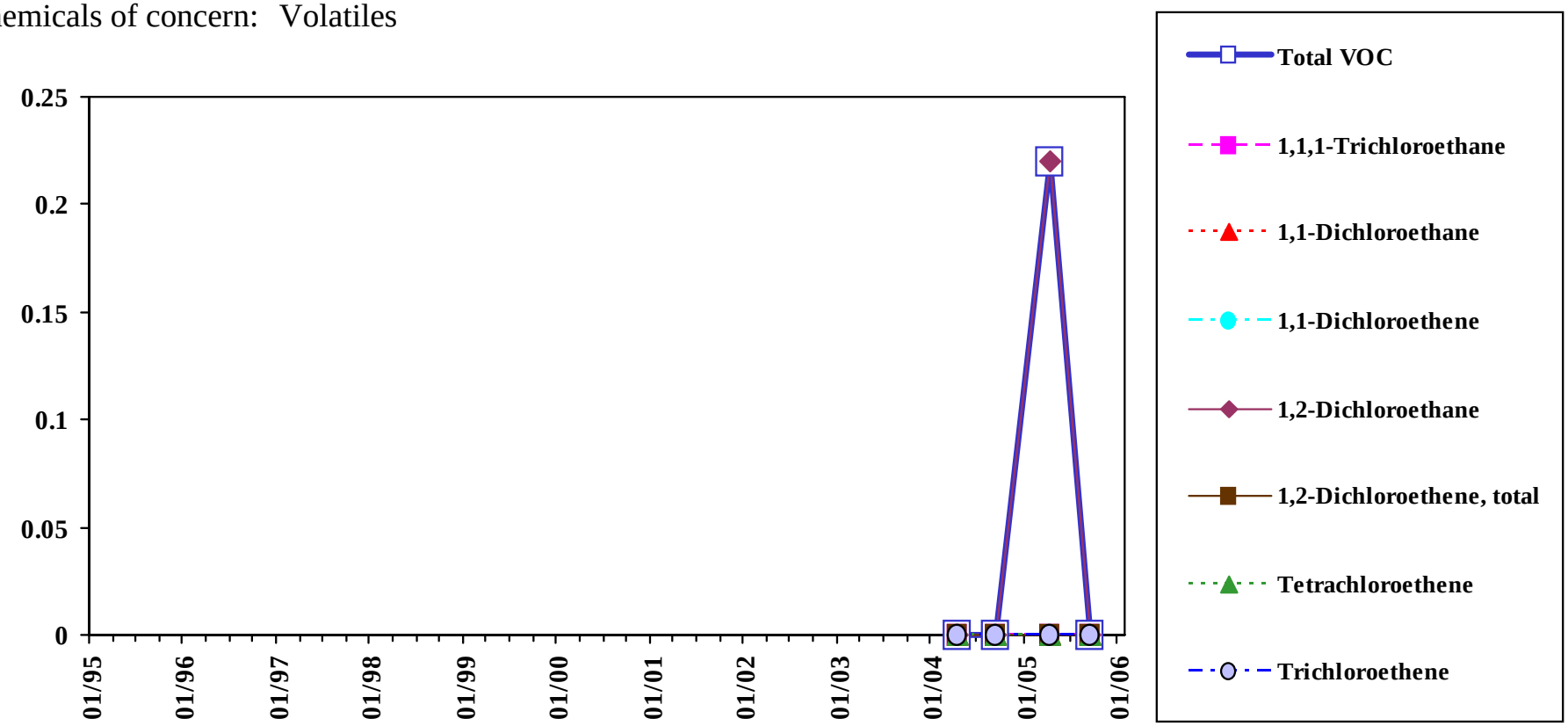
Sample Location:

MW-338B

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

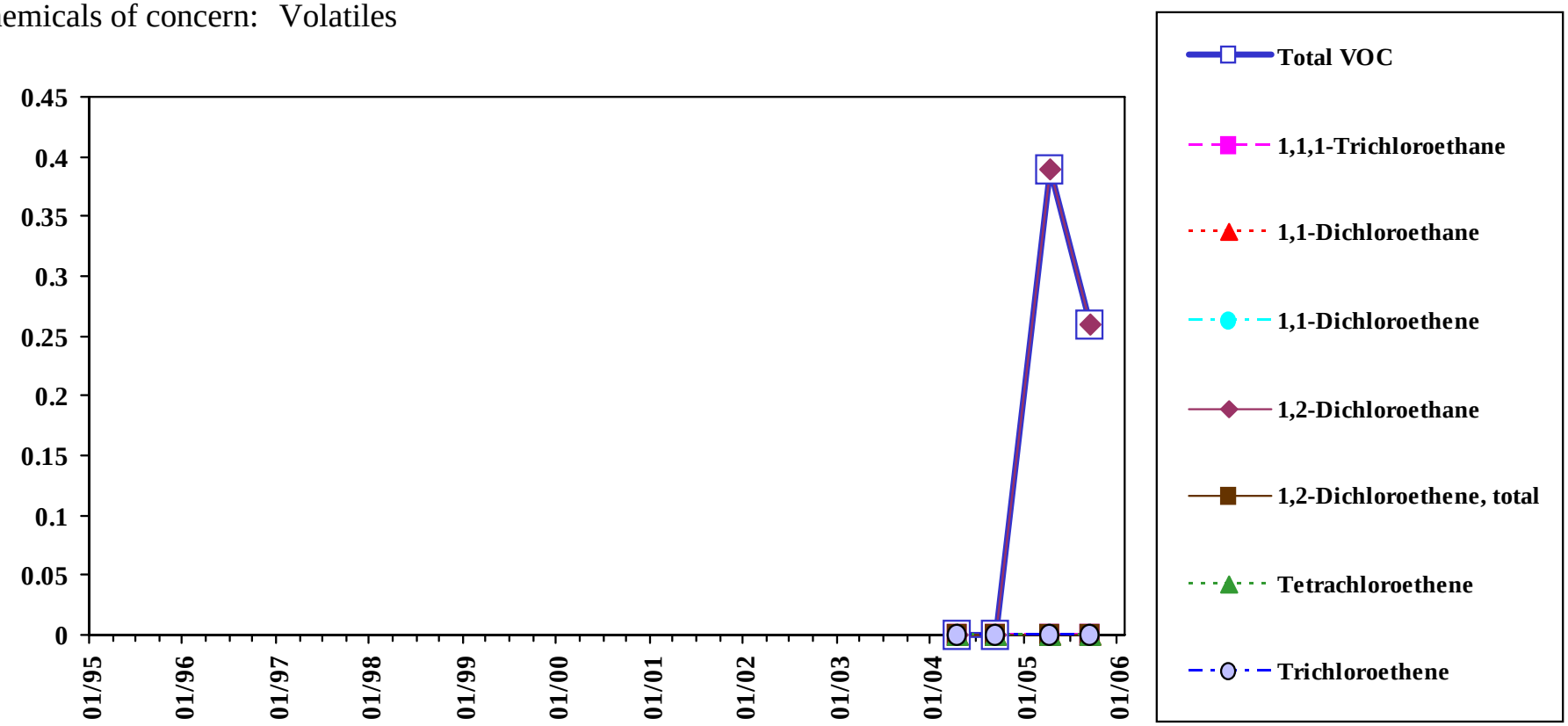
Sample Location:

MW-338B

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

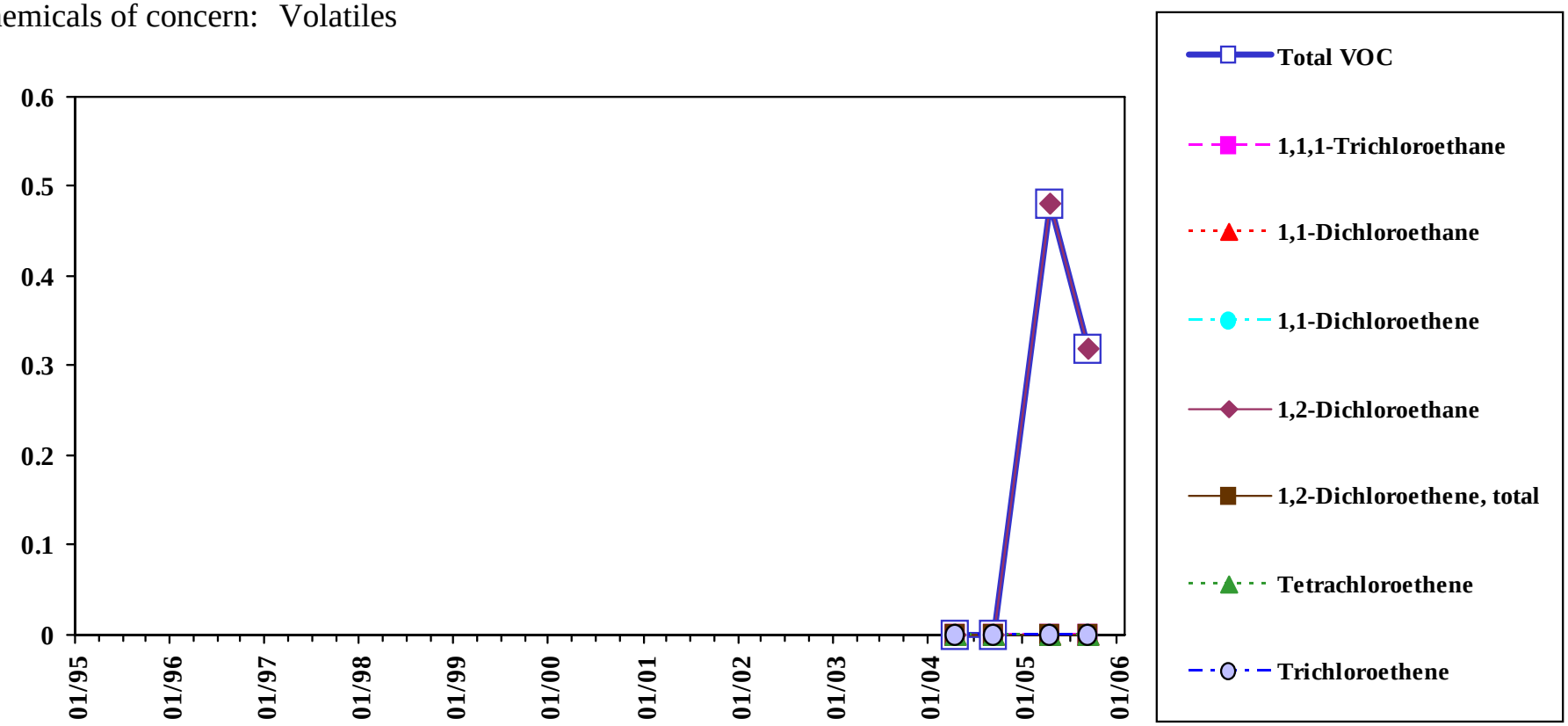
Sample Location:

MW-338B

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

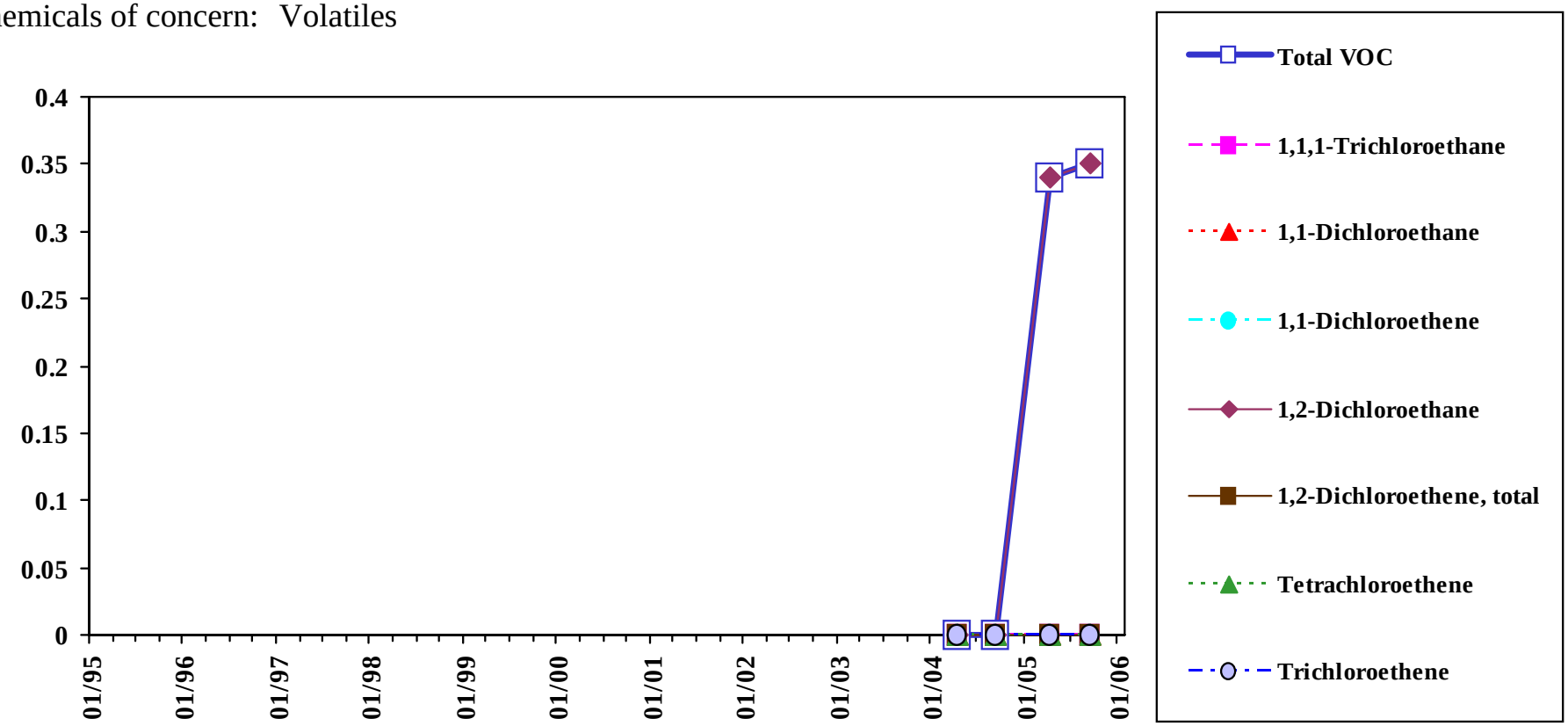
Sample Location:

MW-338B

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

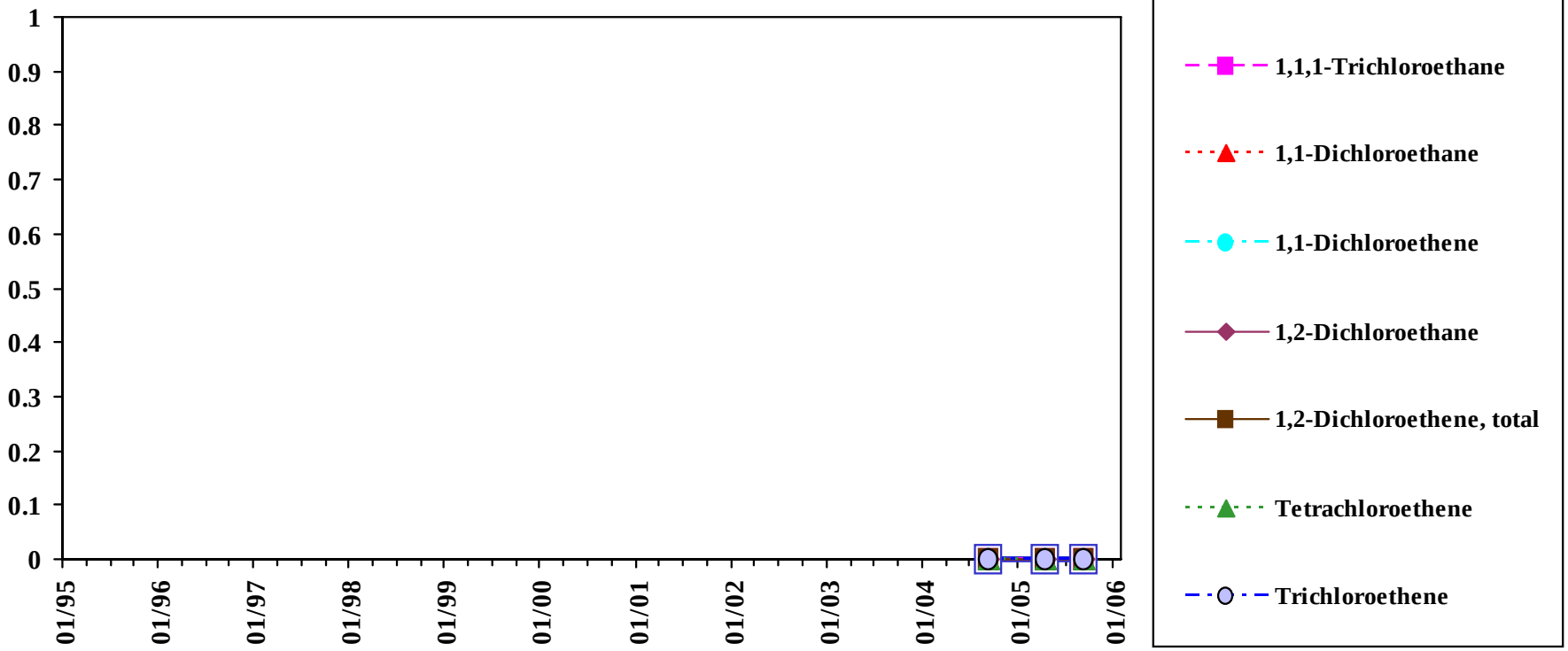
Sample Location:

MW-338C

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

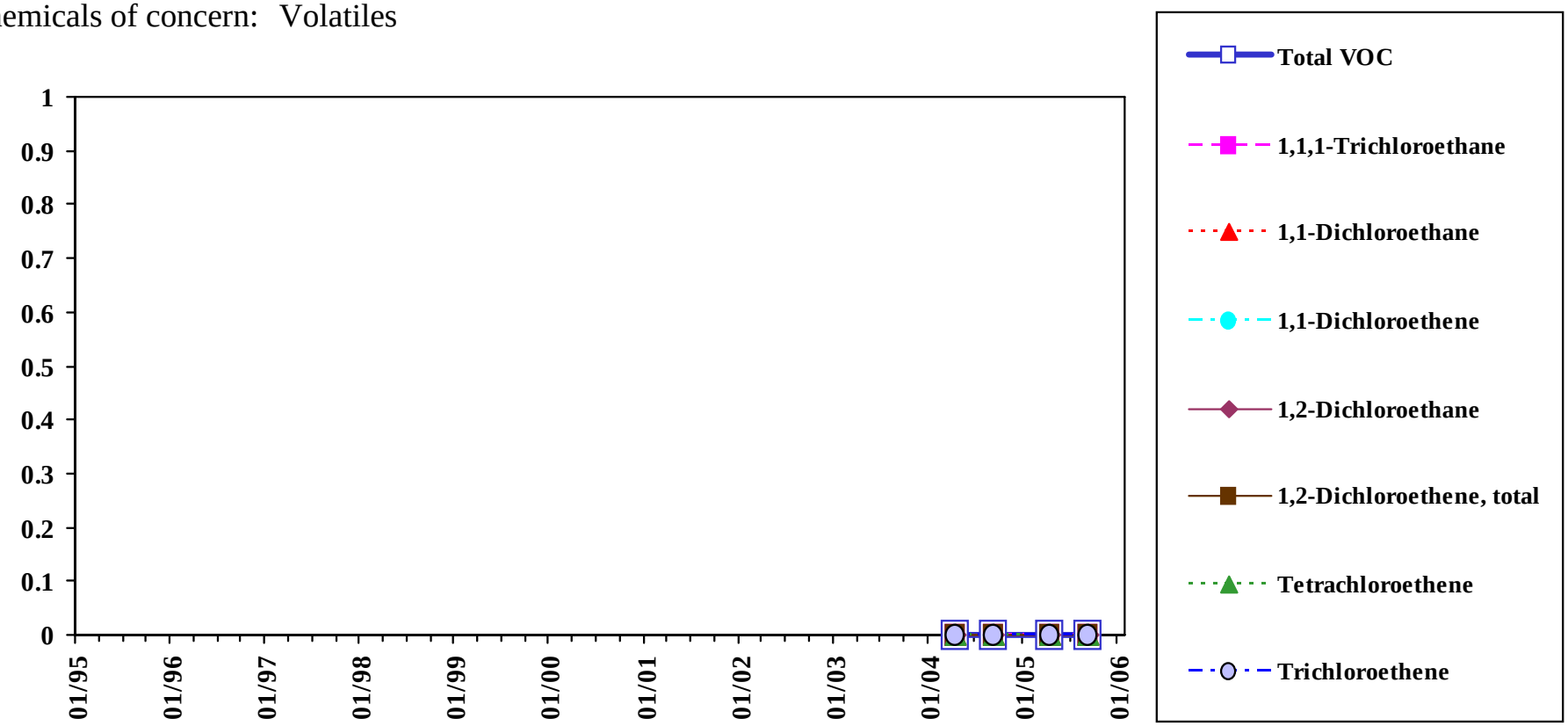
Sample Location:

MW-338C

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

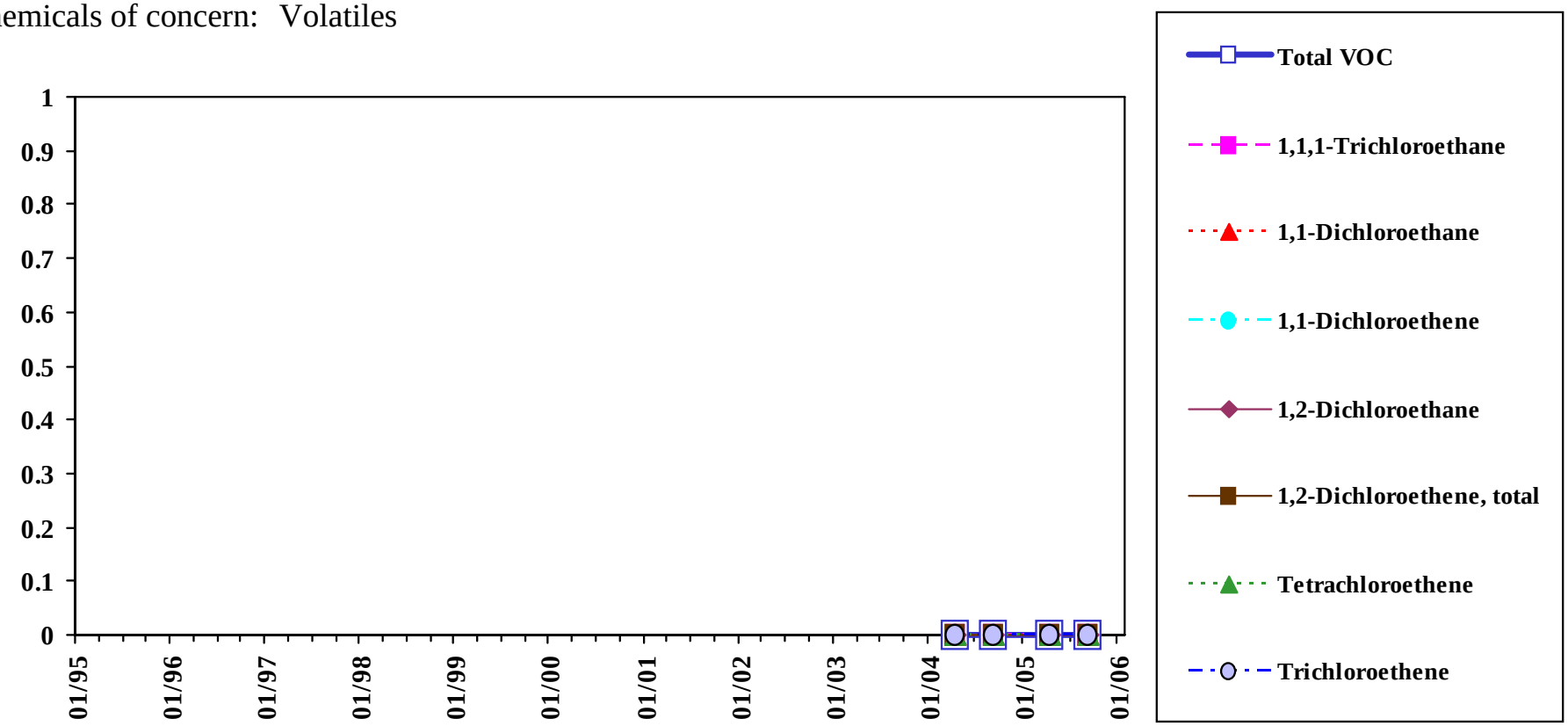
Sample Location:

MW-338C

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

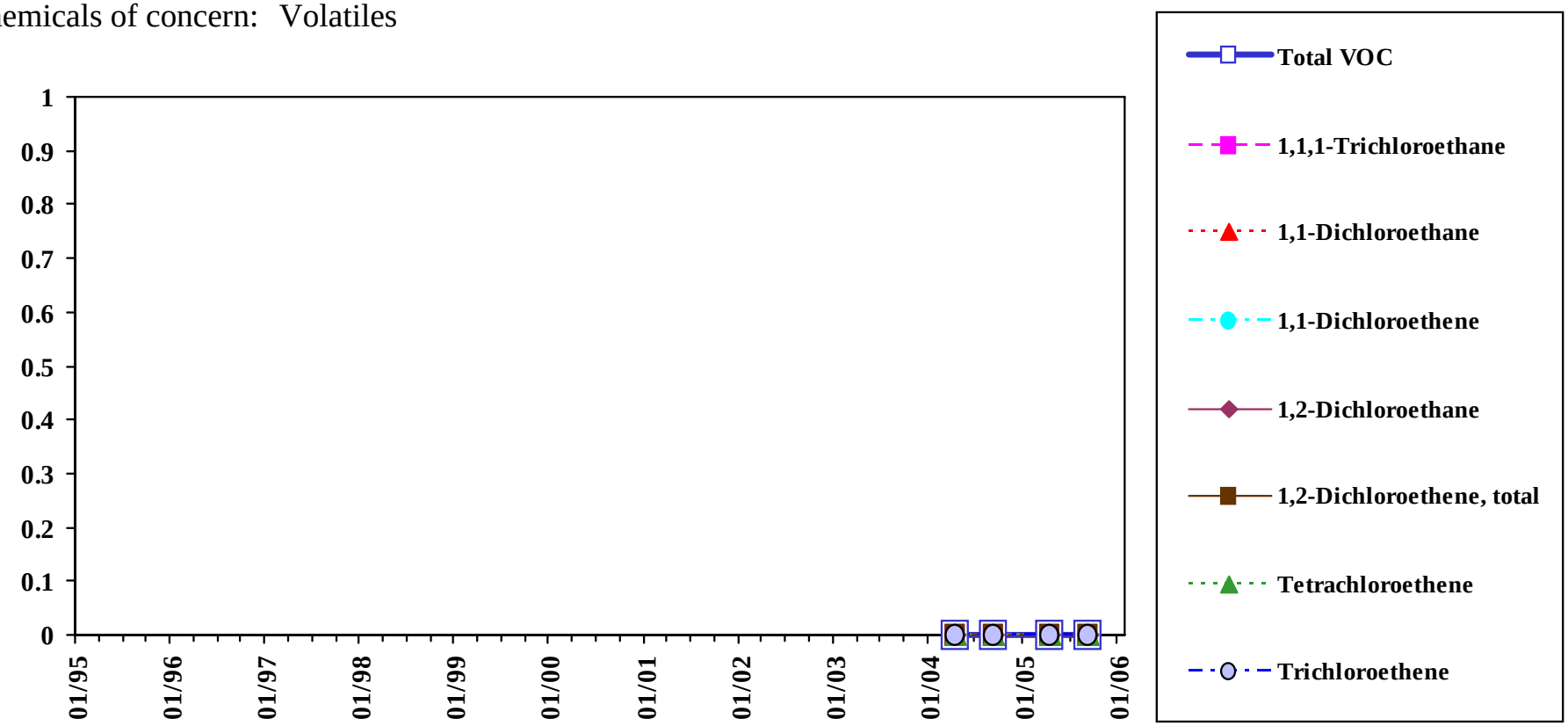
Sample Location:

MW-338C

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

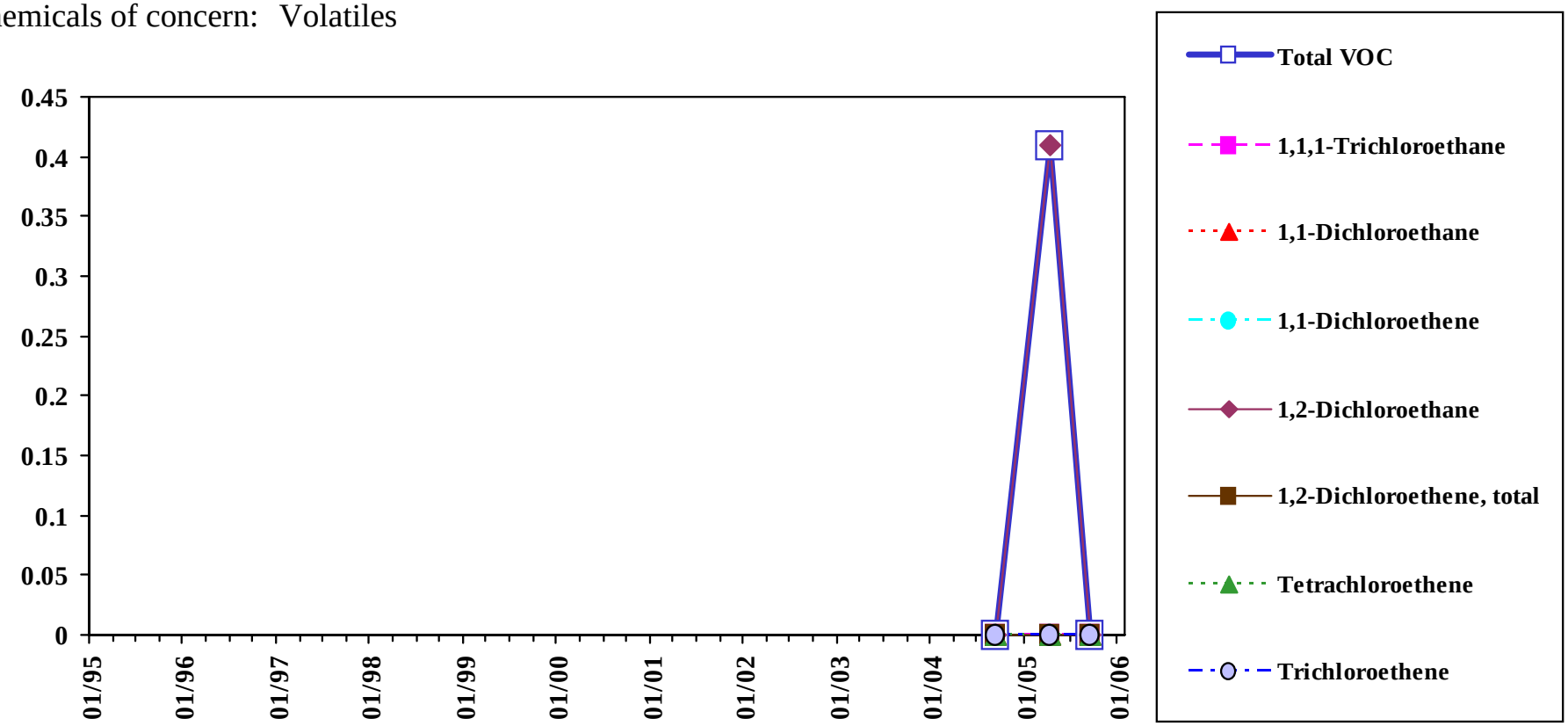
Sample Location:

MW-339

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

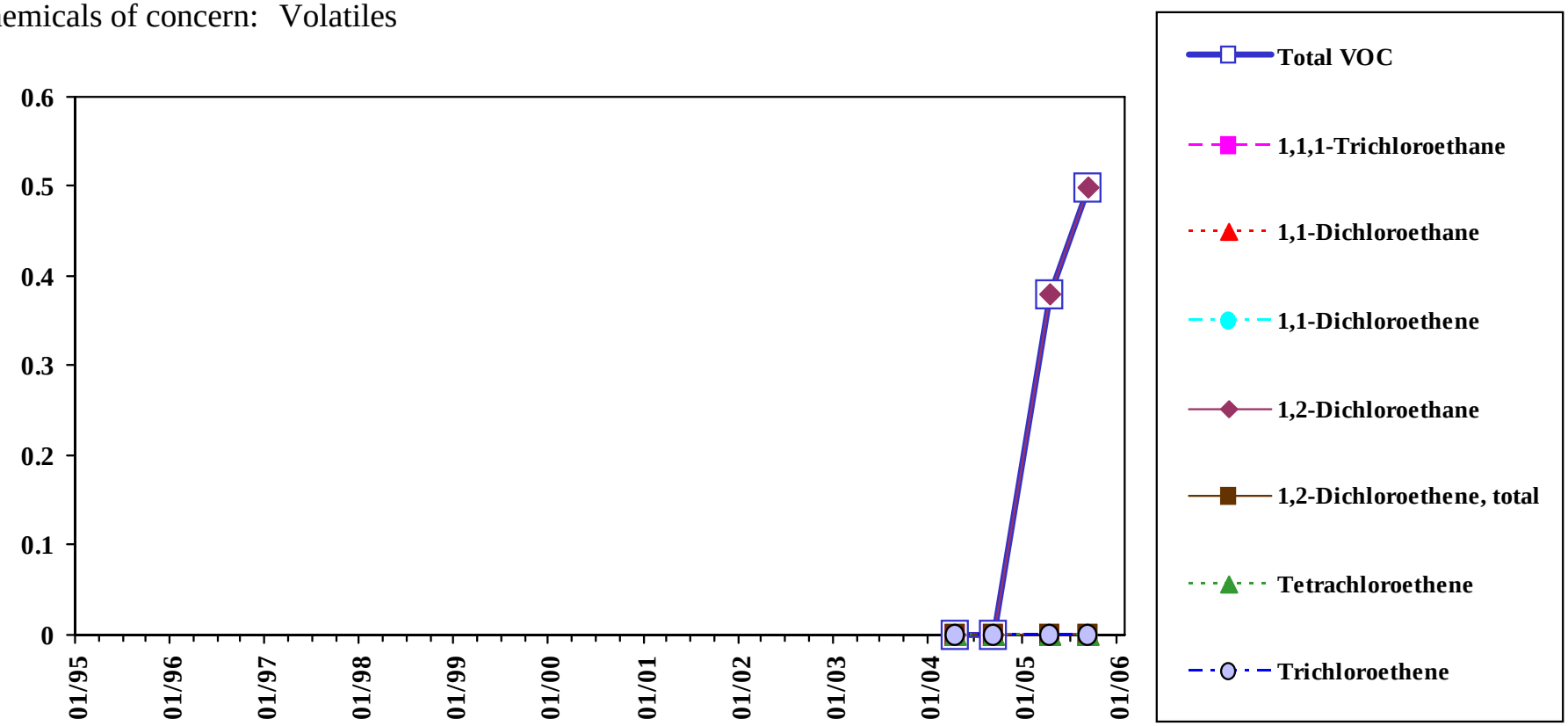
Sample Location:

MW-339

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

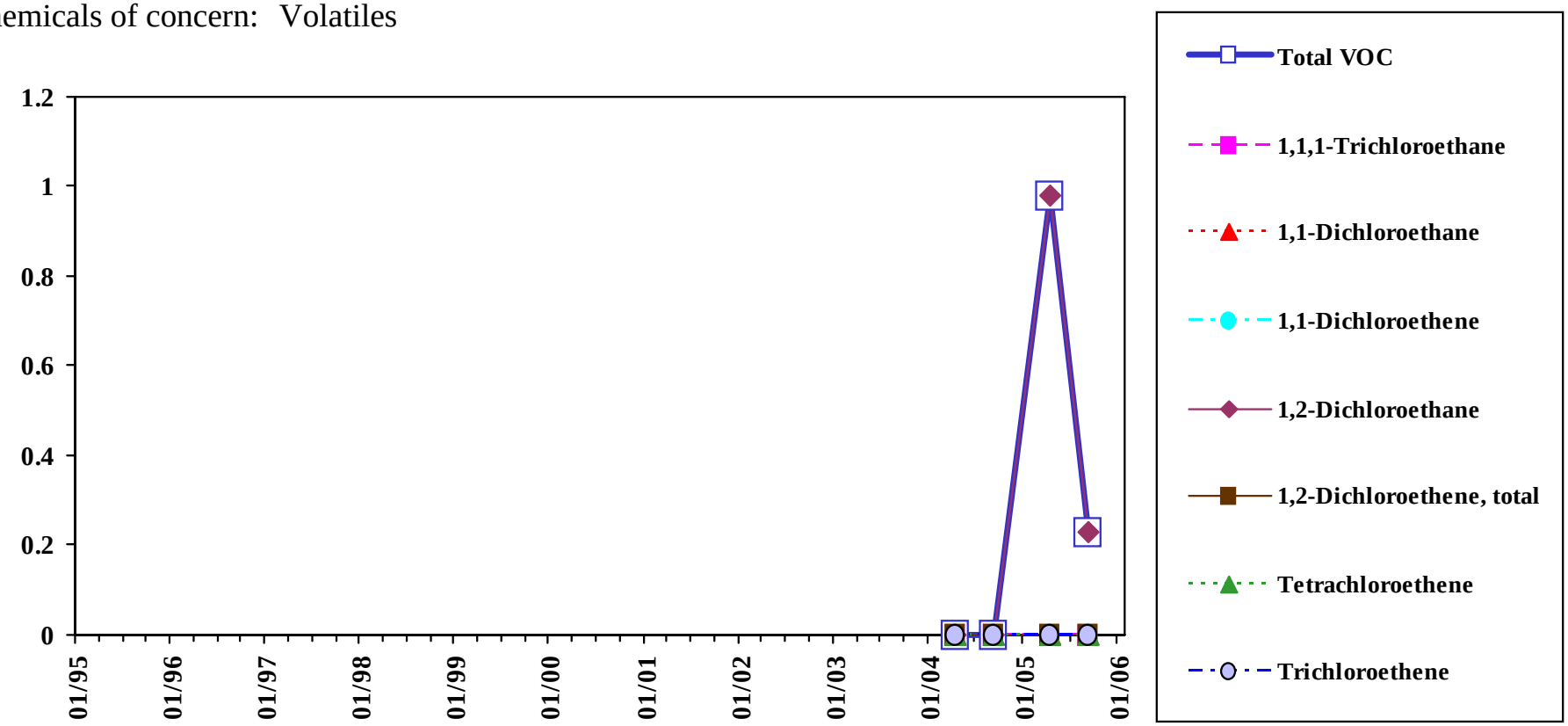
Sample Location:

MW-339

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

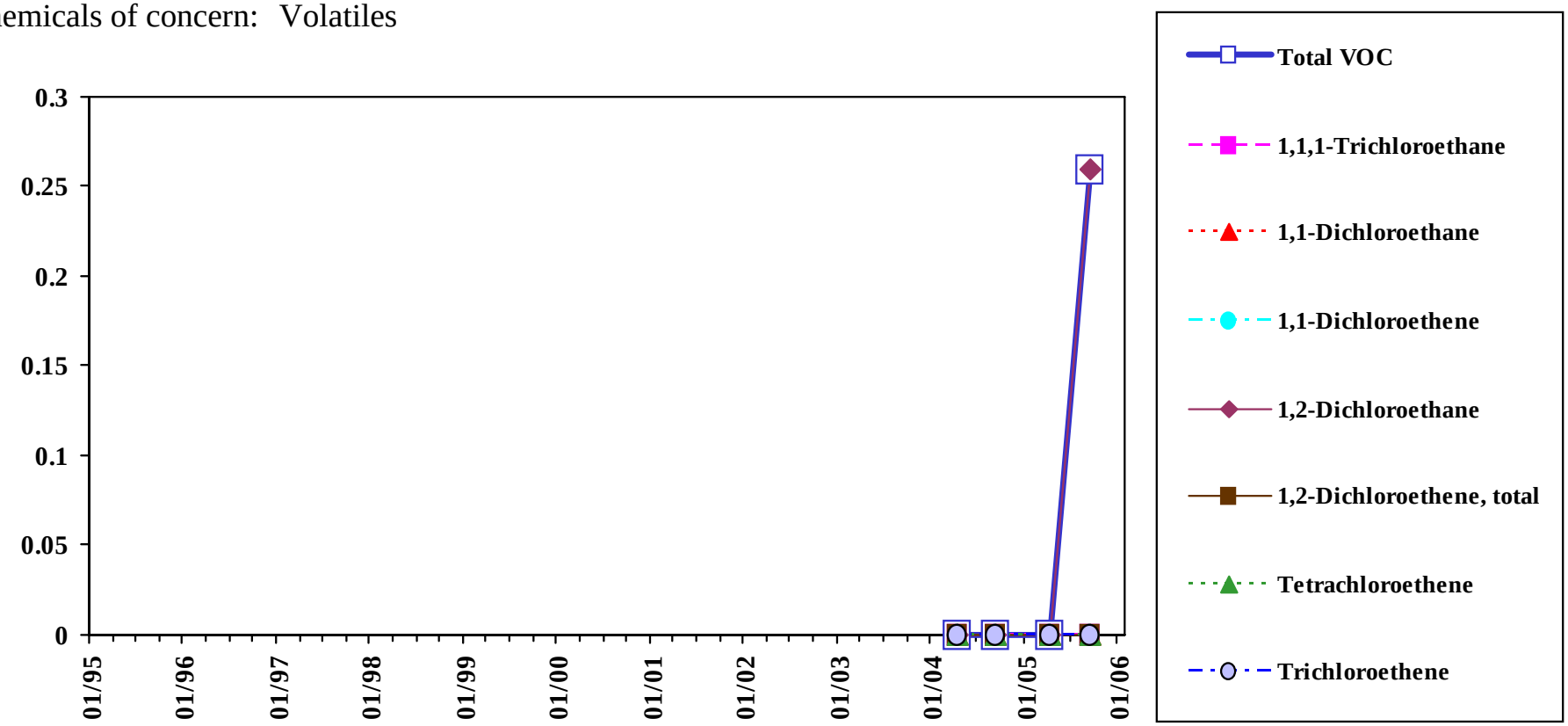
Sample Location:

MW-339

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/l

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

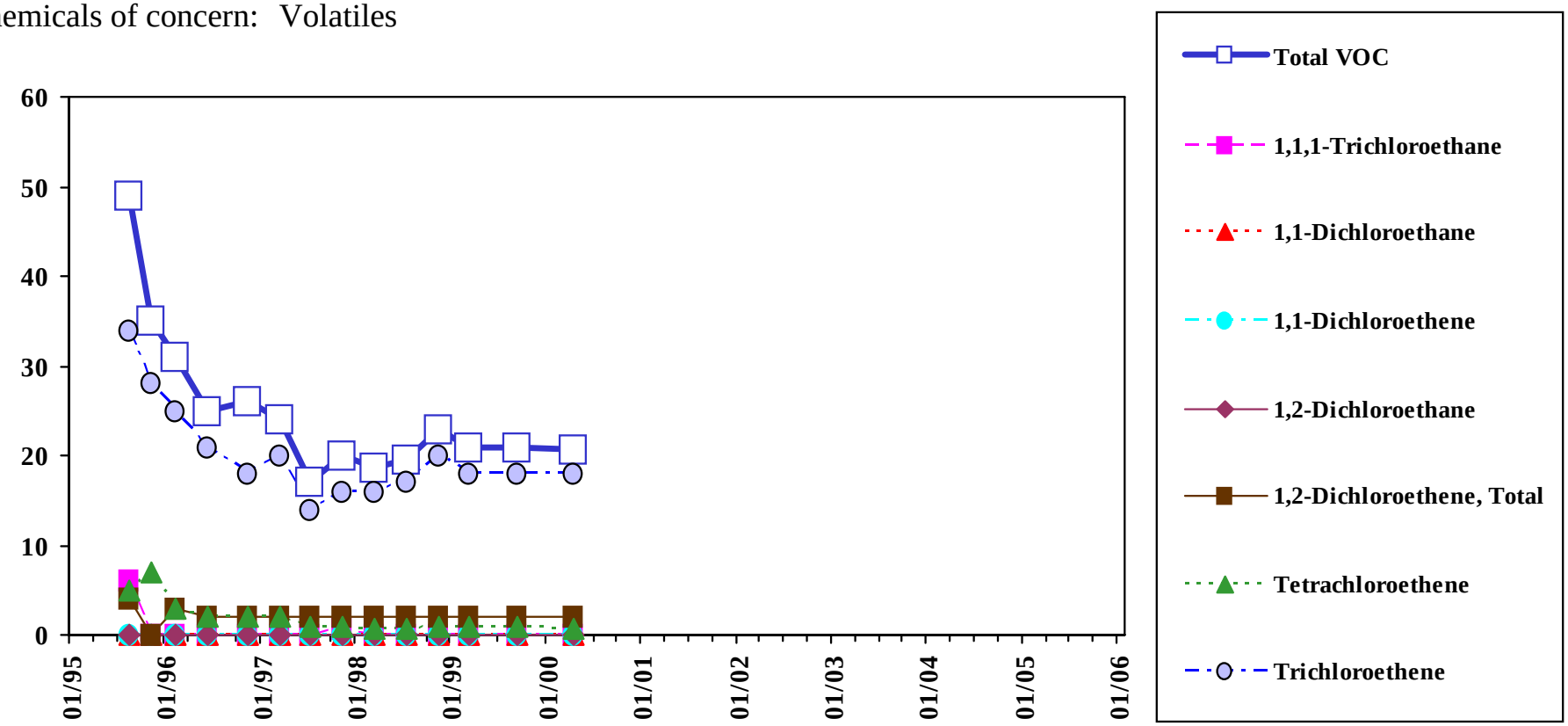
Sample Location:

MW-NASB-212

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

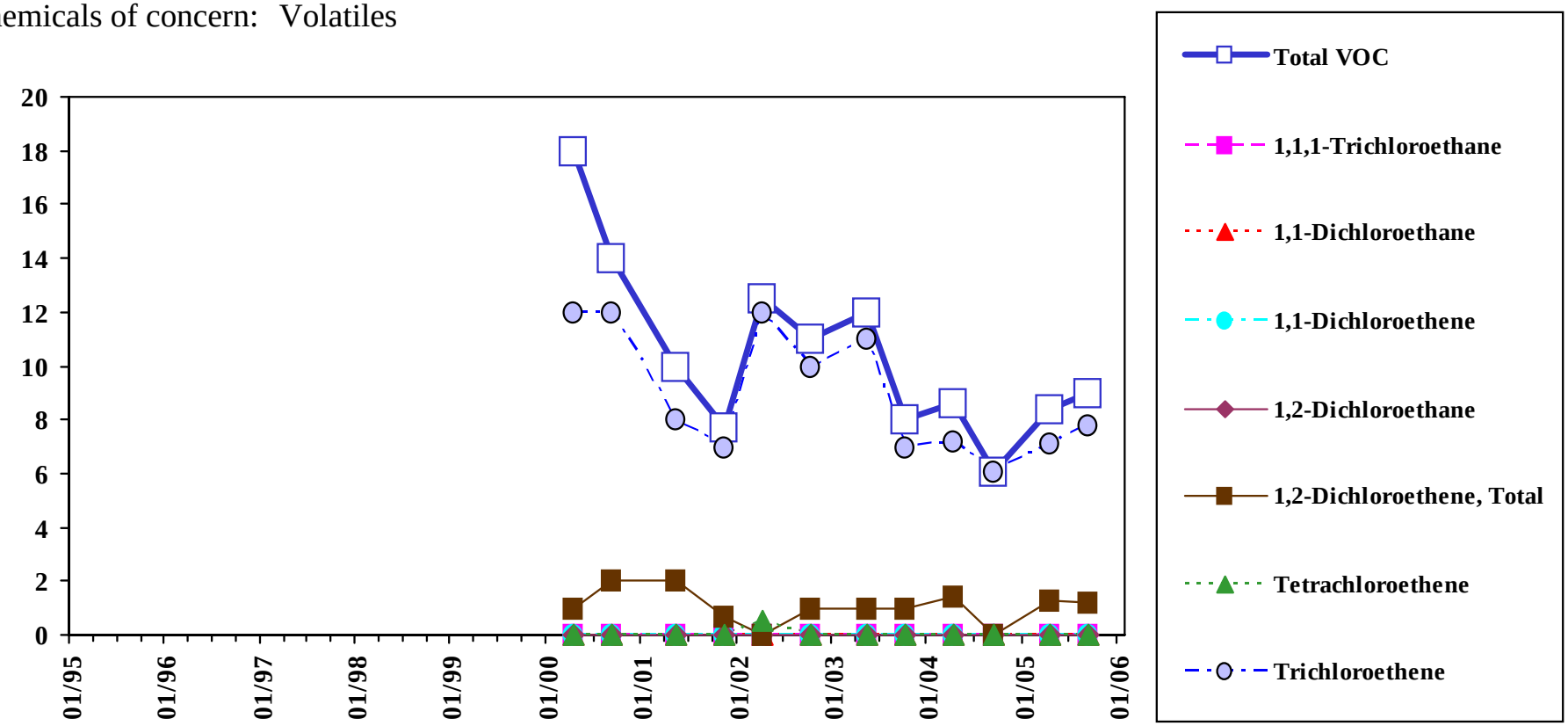
Sample Location:

MW-NASB-212

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

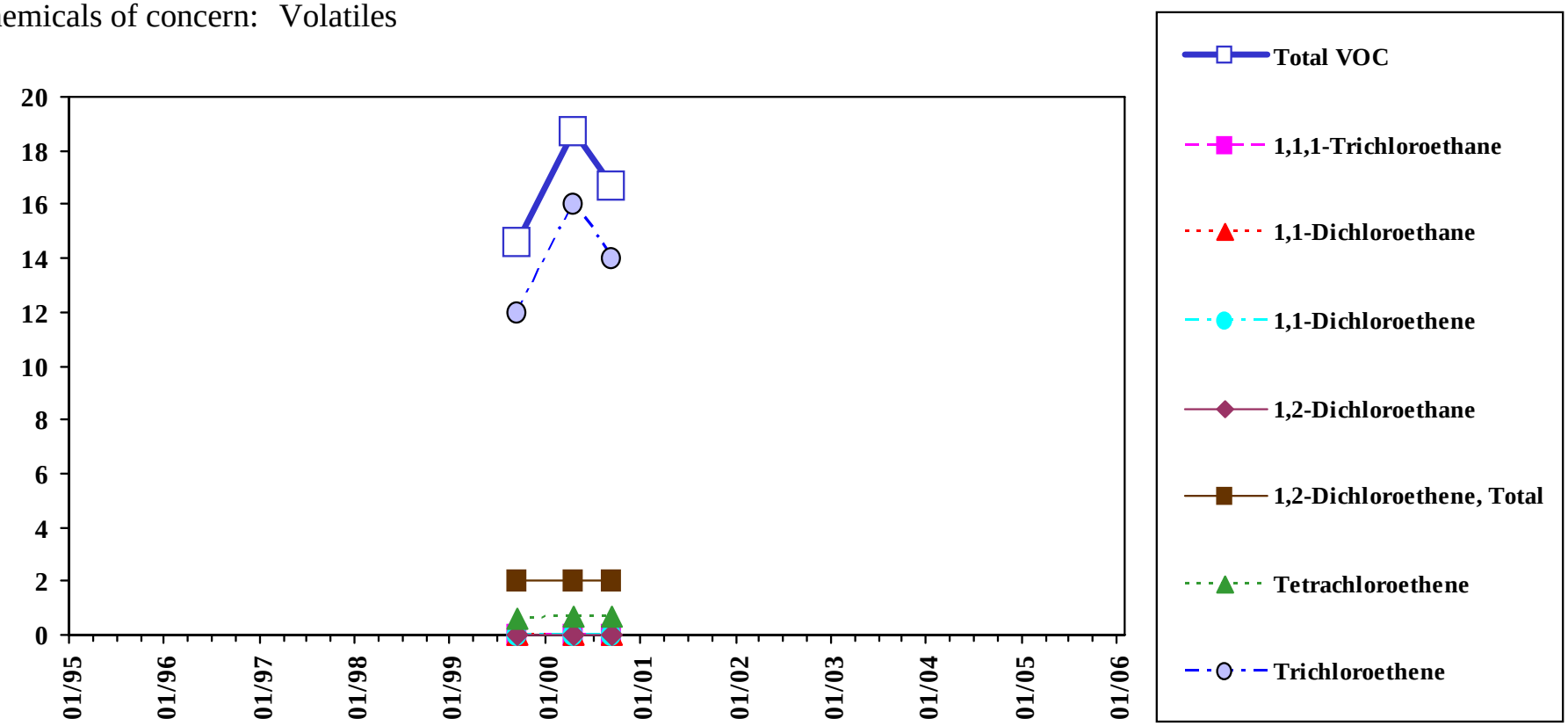
Sample Location:

MW-NASB-212

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

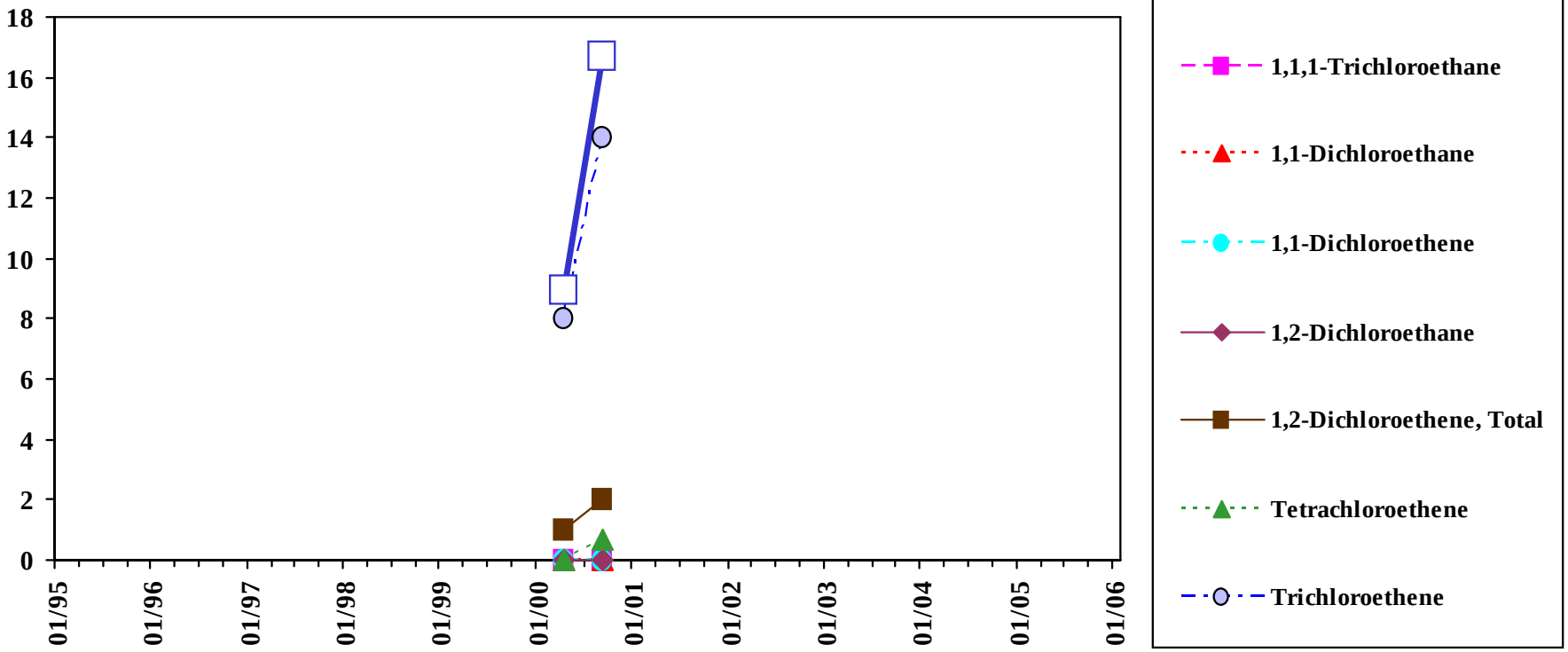
Sample Location:

MW-NASB-212

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

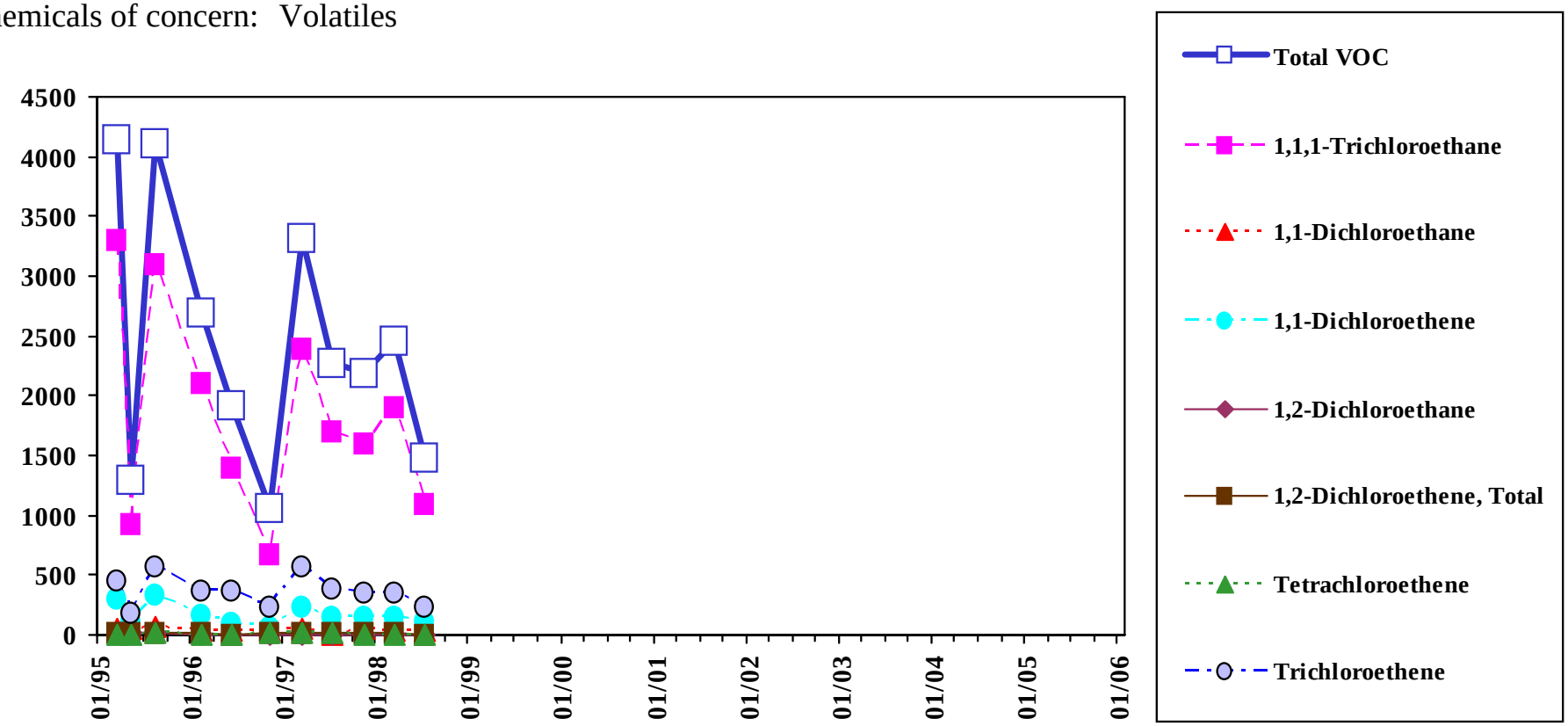
Sample Location:

P-105

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

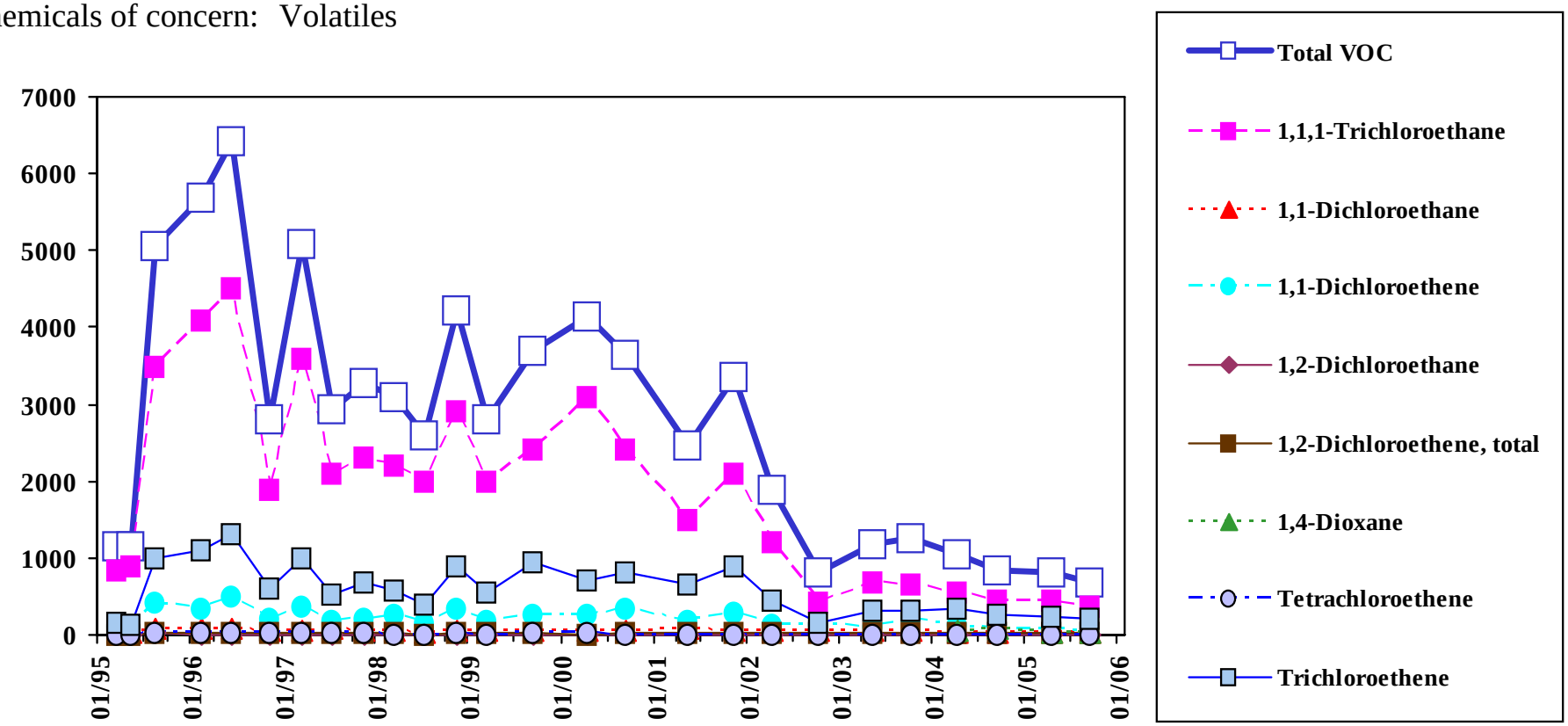
Sample Location:

P-106

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

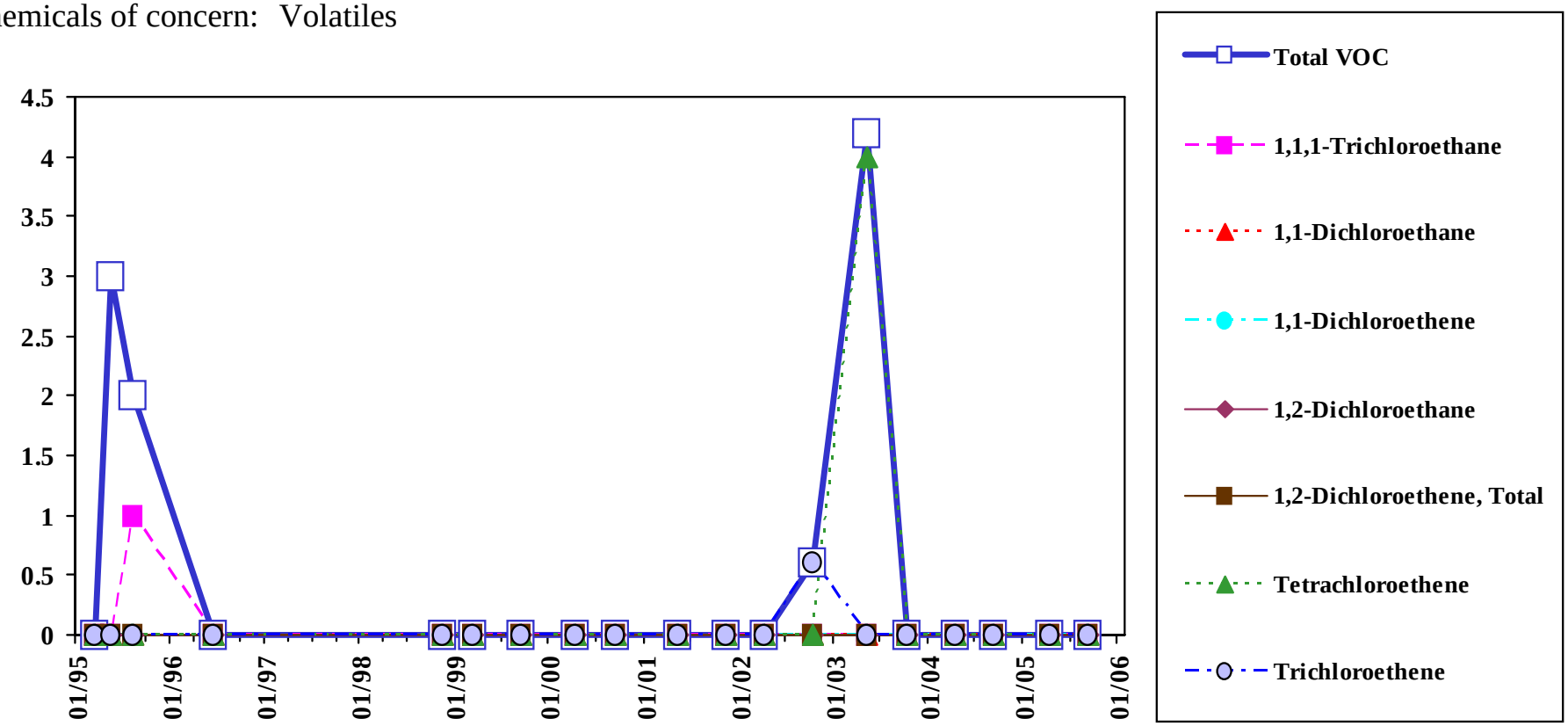
Sample Location:

P-111

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

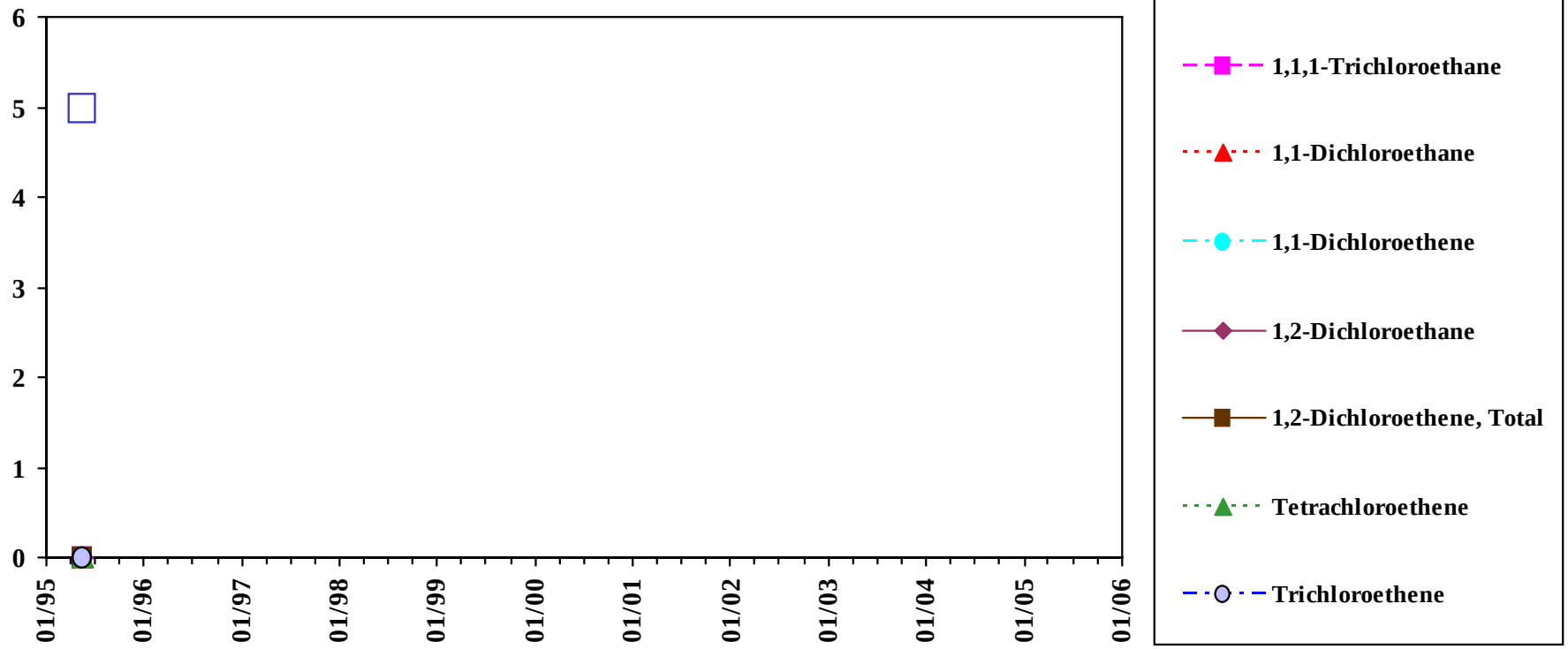
Sample Location:

P-112

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

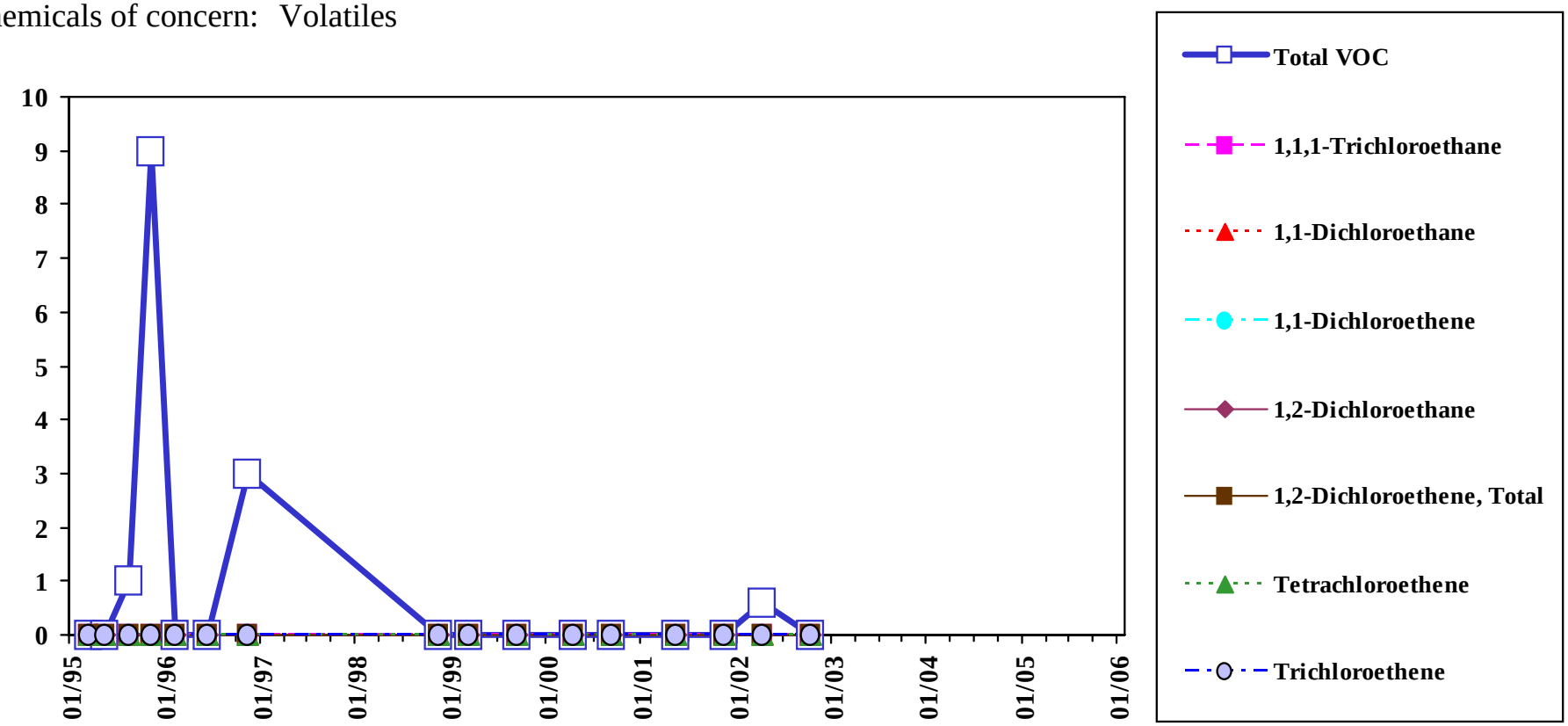
Sample Location:

P-132

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

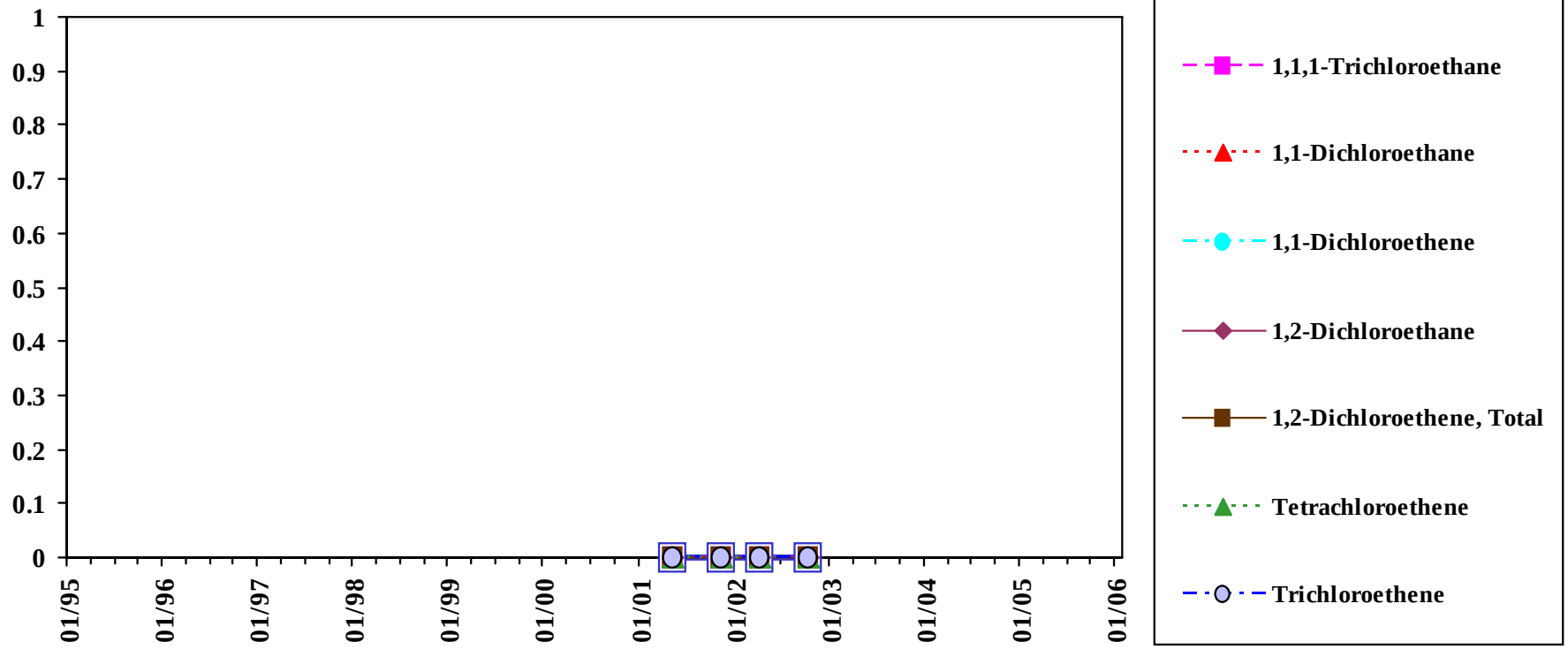
Sample Location:

P-132

Shallow Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

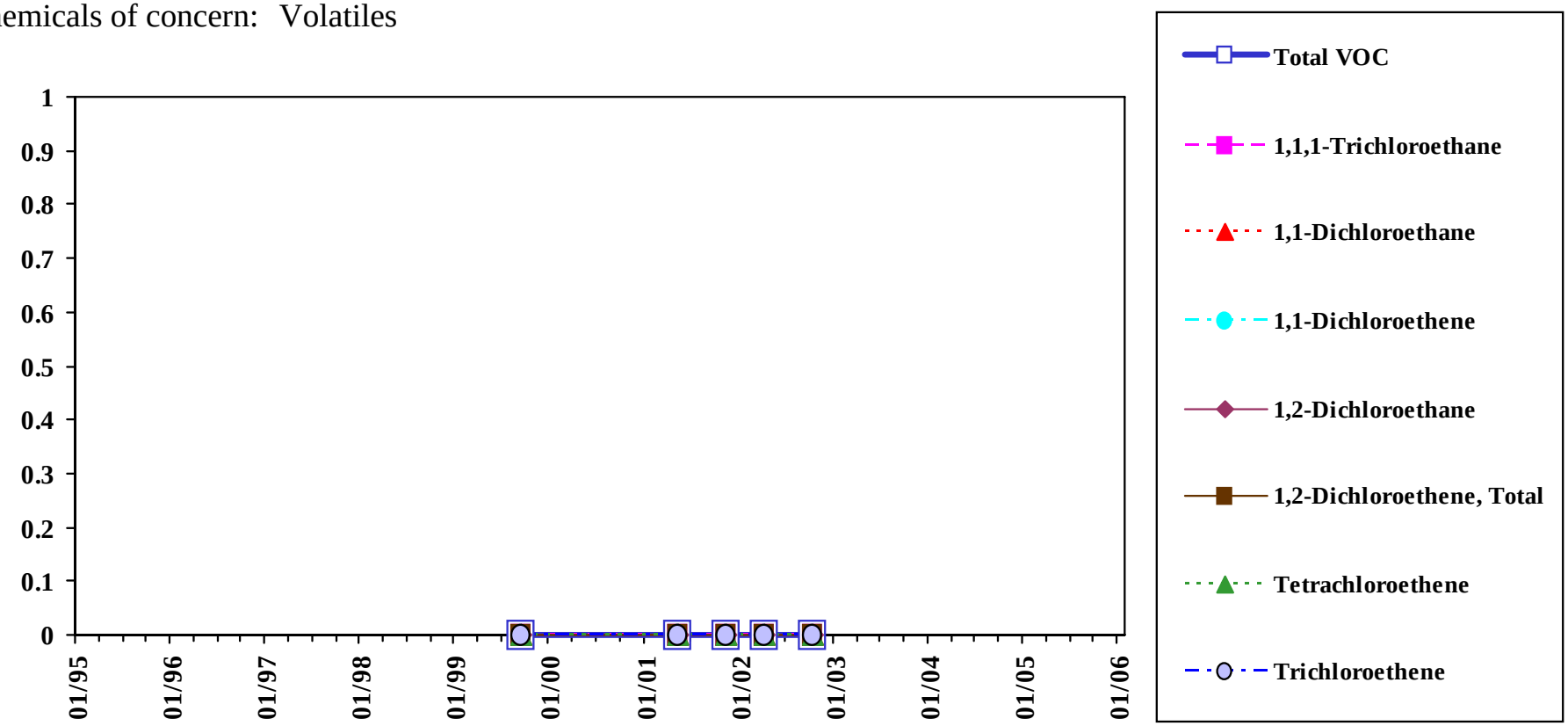
Sample Location:

P-132

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

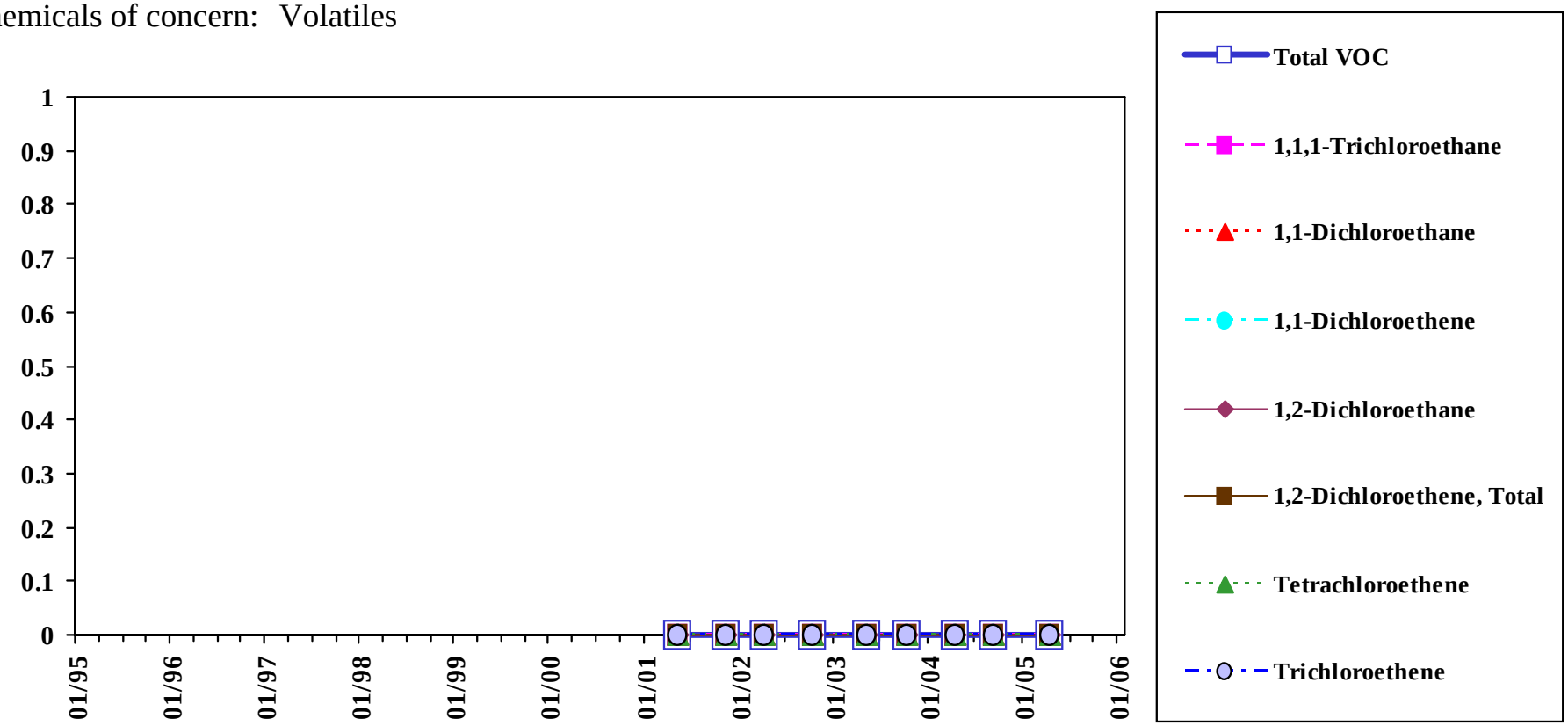
Sample Location:

P-132

Deep Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Sample concentration units: µg/L

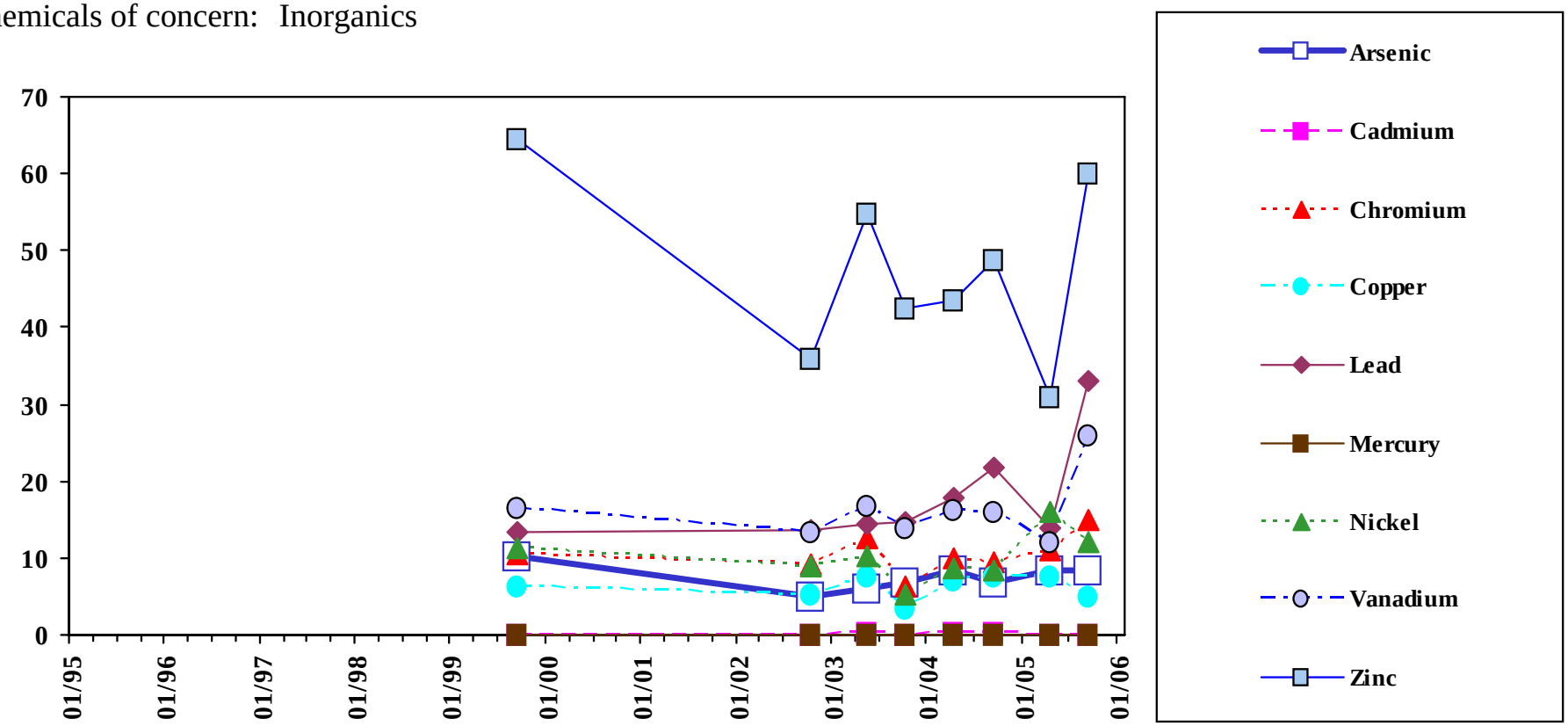
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

Sample Location:

SED-11

Eastern Plume Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

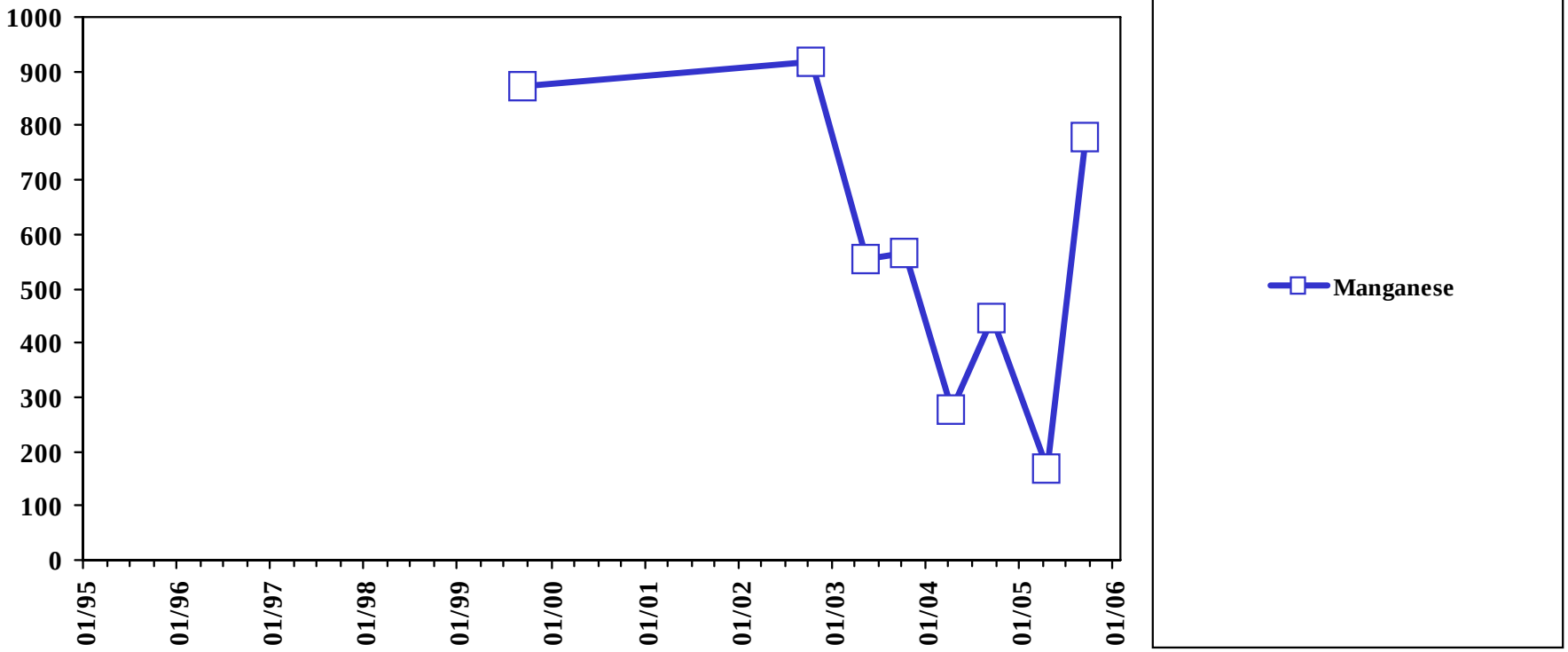
Sample concentration units: mg/Kg

Sample Location:

SED-11

Eastern Plume
Sediment

Chemicals of concern: Inorganics



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

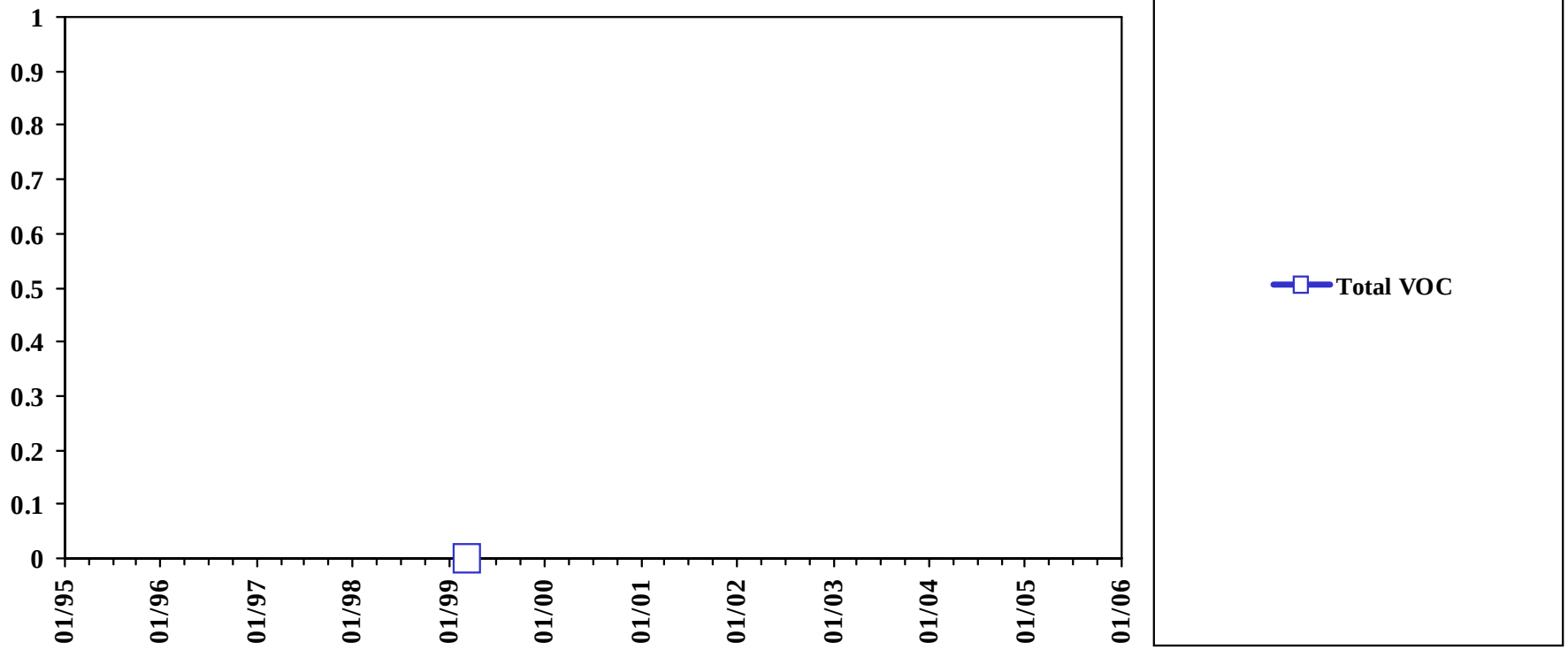
Sample concentration units: mg/Kg

Sample Location:

SEEP-06

Eastern Plume
Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

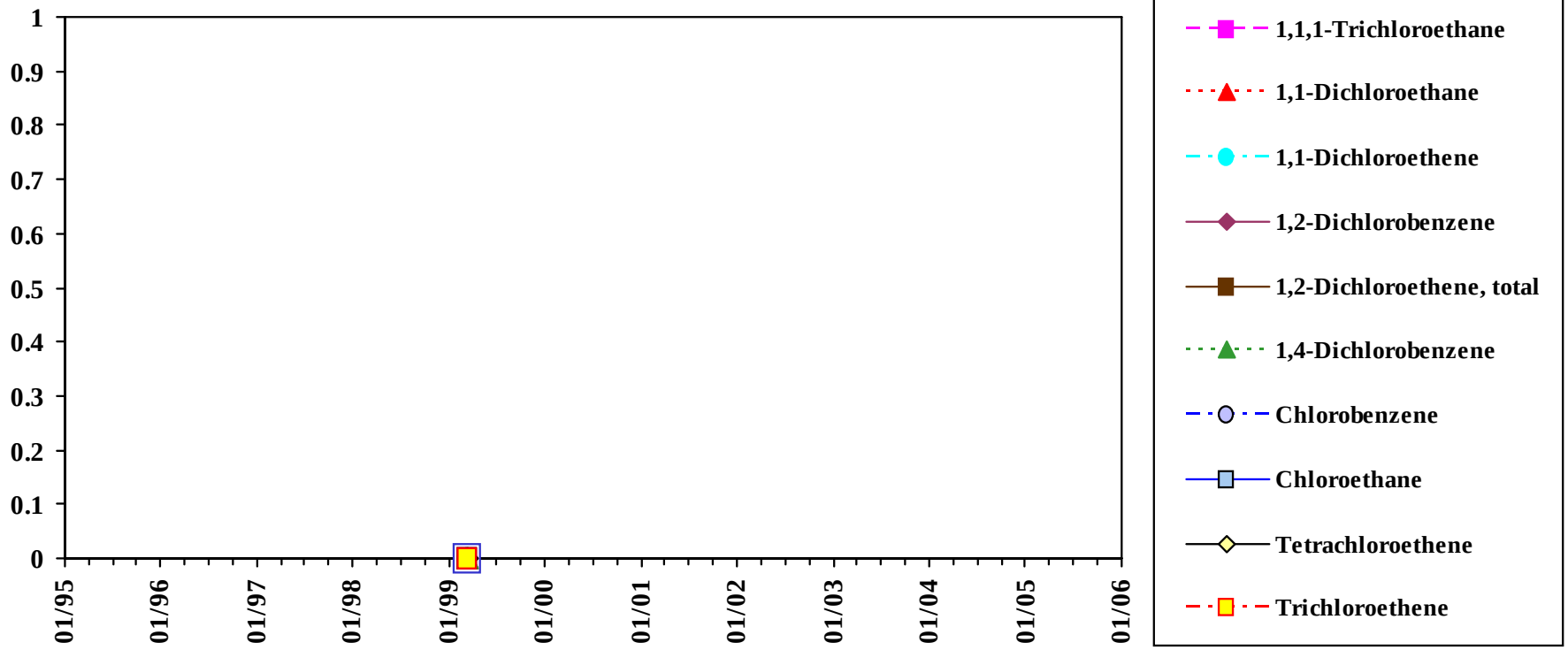
Sample Location:

SEEP-07

Eastern Plume

Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

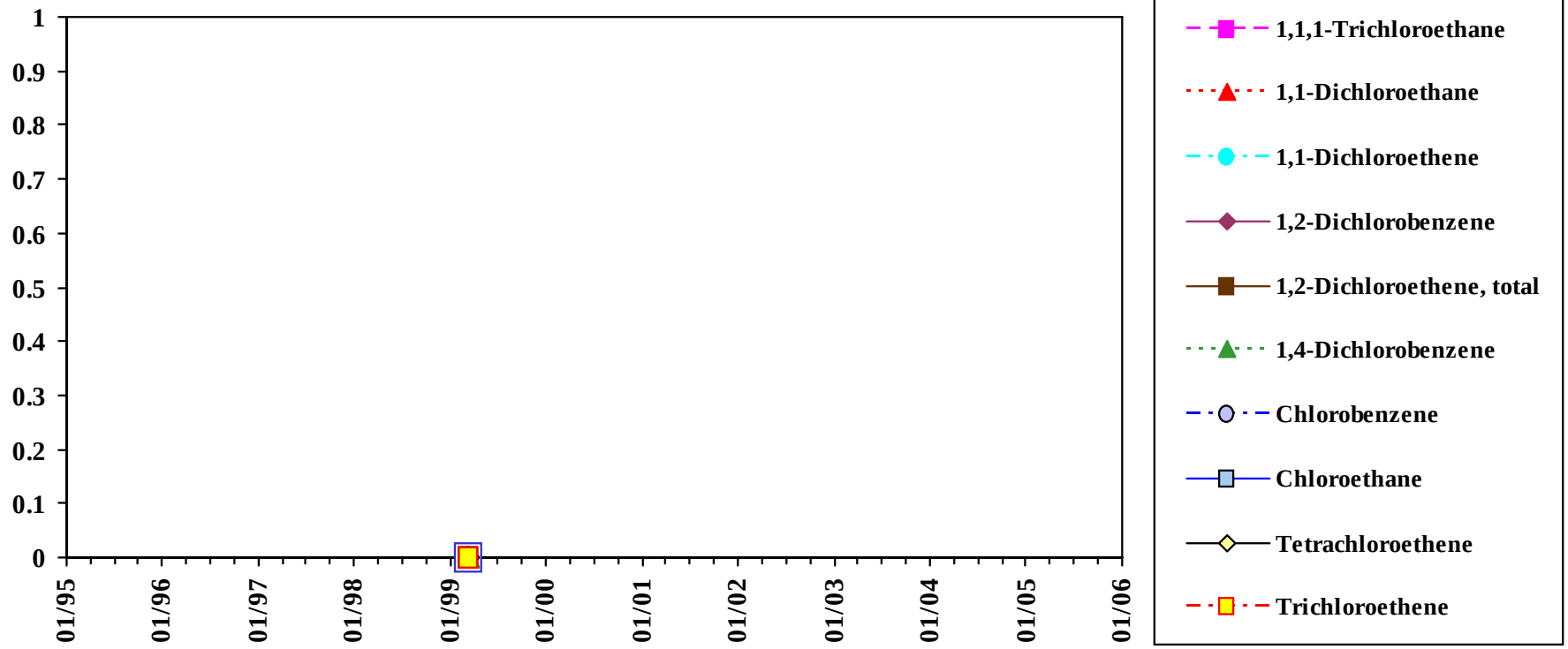
Sample Location:

SEEP-08

Eastern Plume

Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

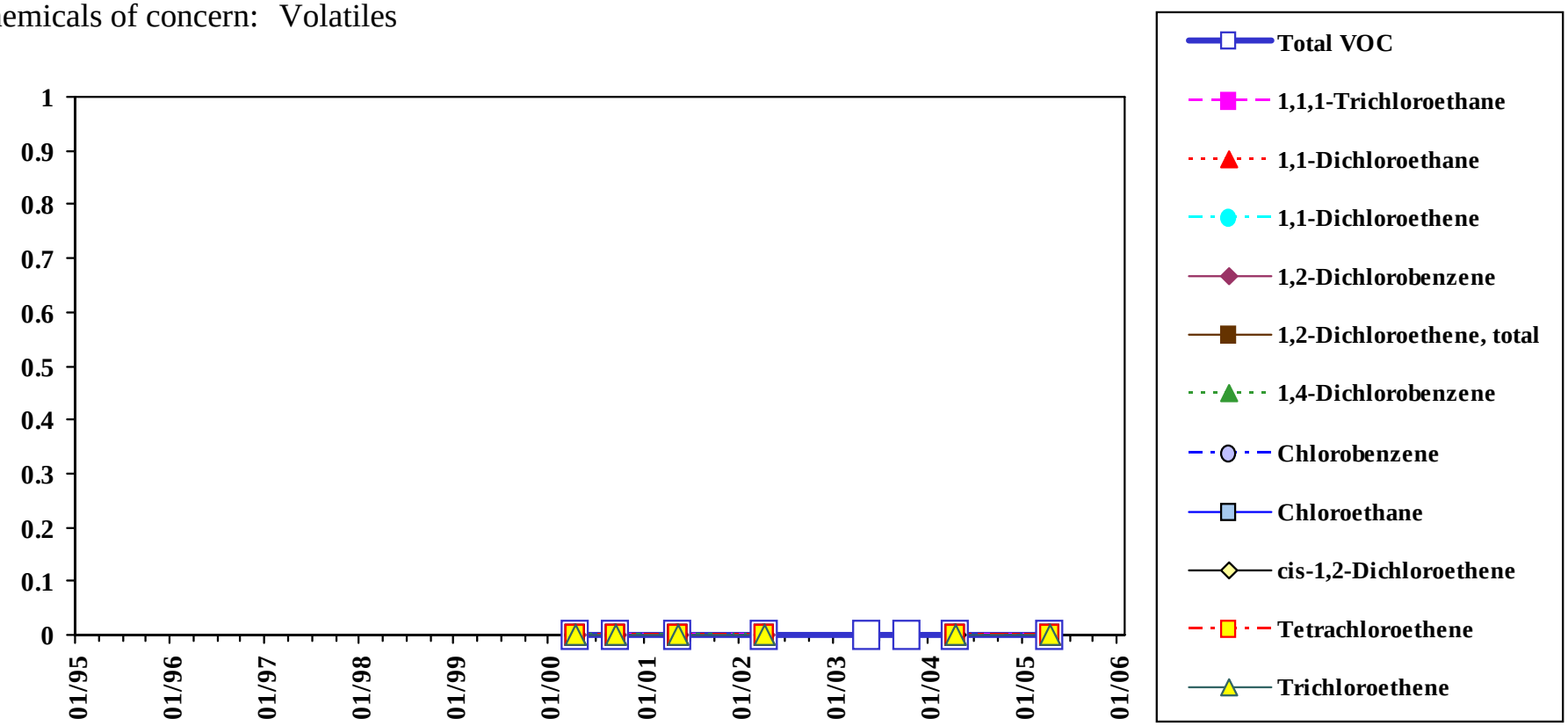
Sample Location:

SEEP-10

Eastern Plume

Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

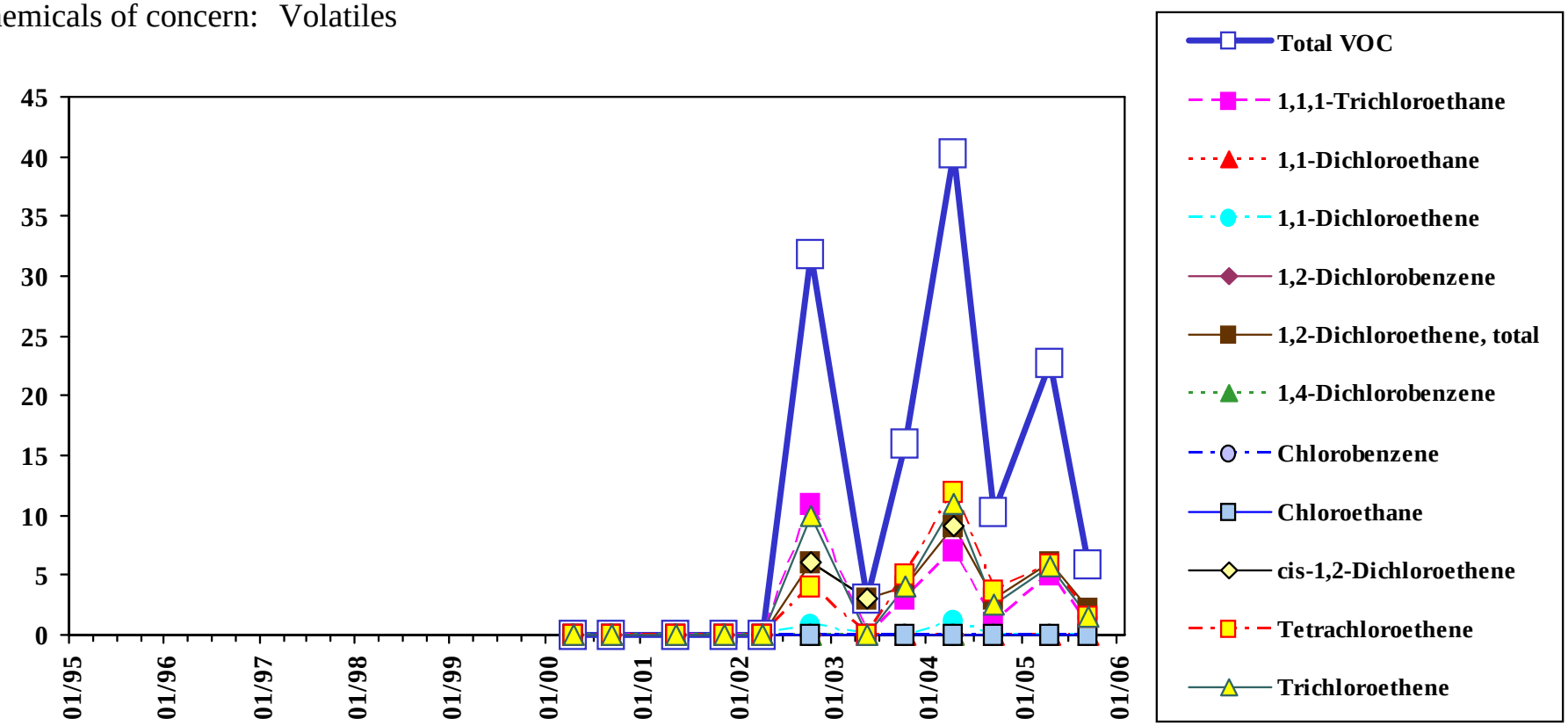
Sample Location:

SEEP-11

Eastern Plume

Leachate

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

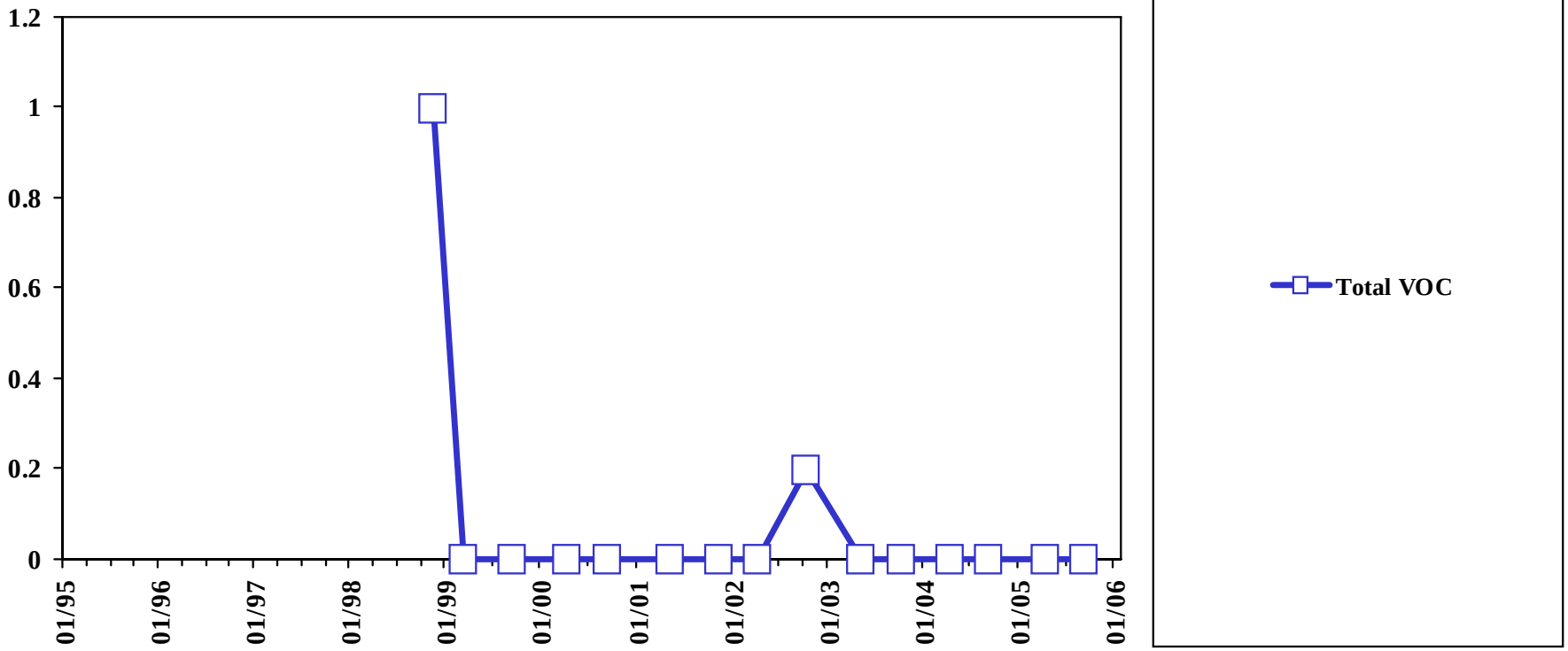
Sample Location:

SW-10

Eastern Plume

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

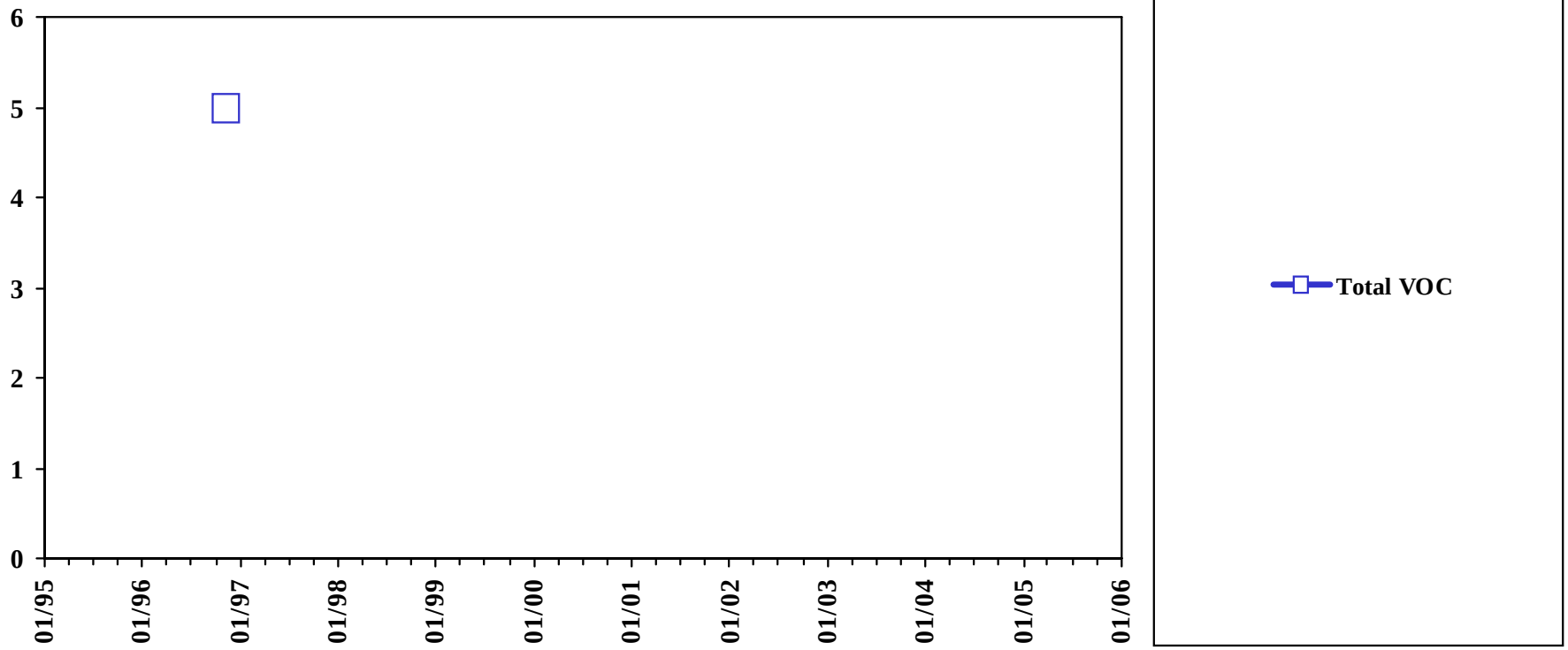
Sample Location:

SW-100

Eastern Plume

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

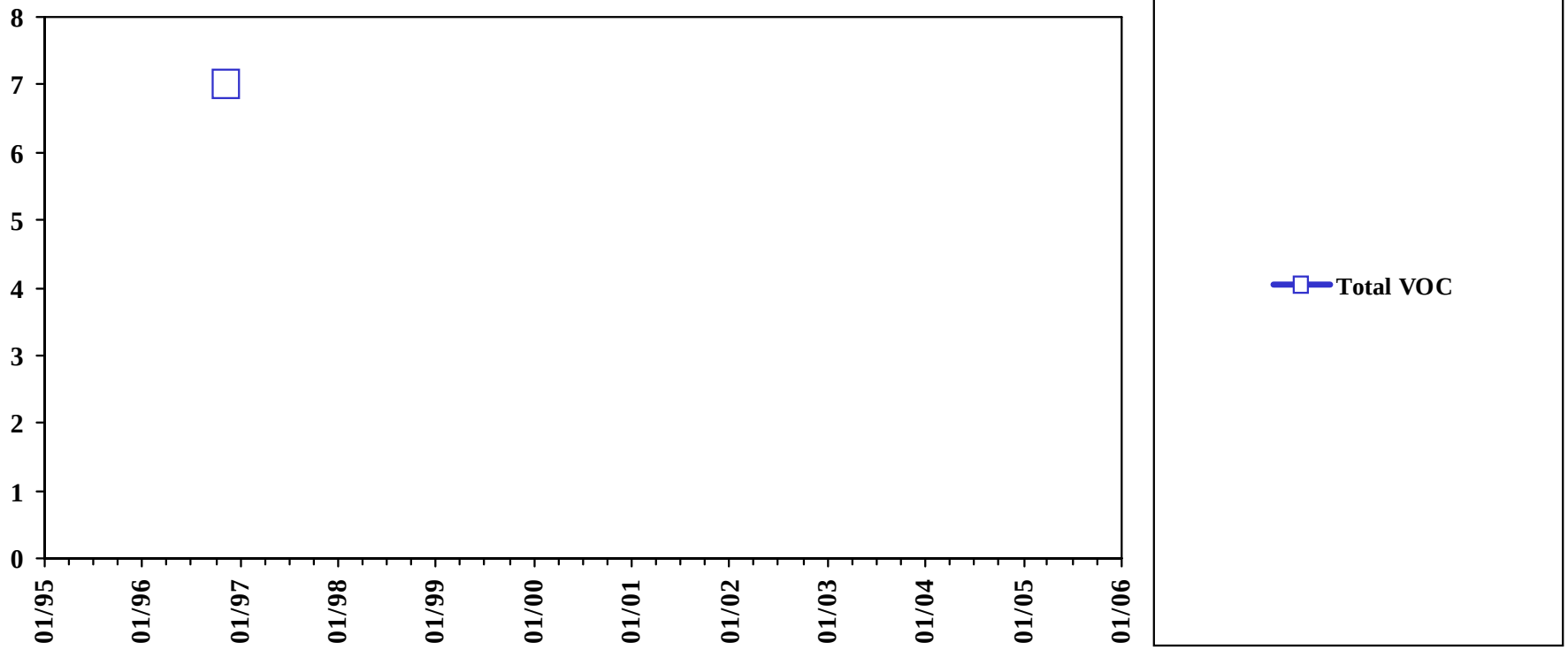
Sample Location:

SW-101

Eastern Plume

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

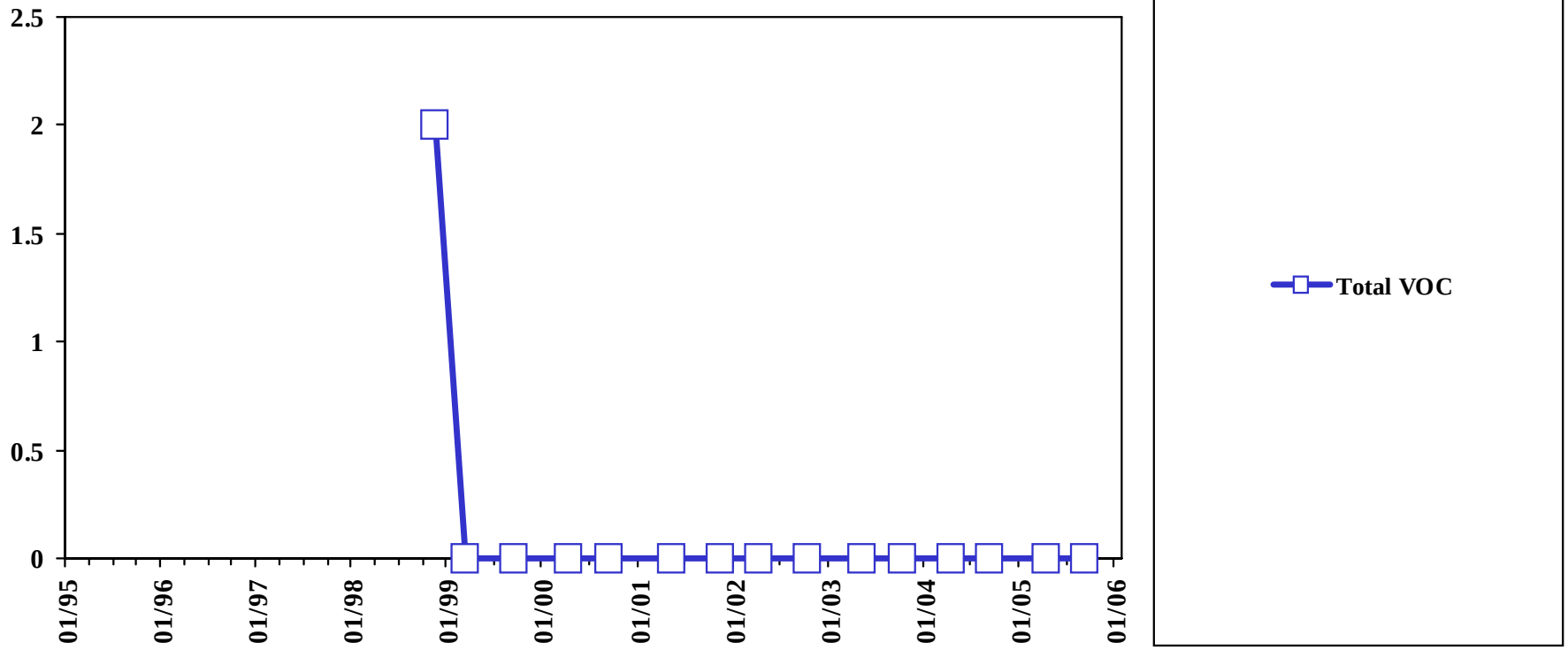
Sample Location:

SW-11

Eastern Plume

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

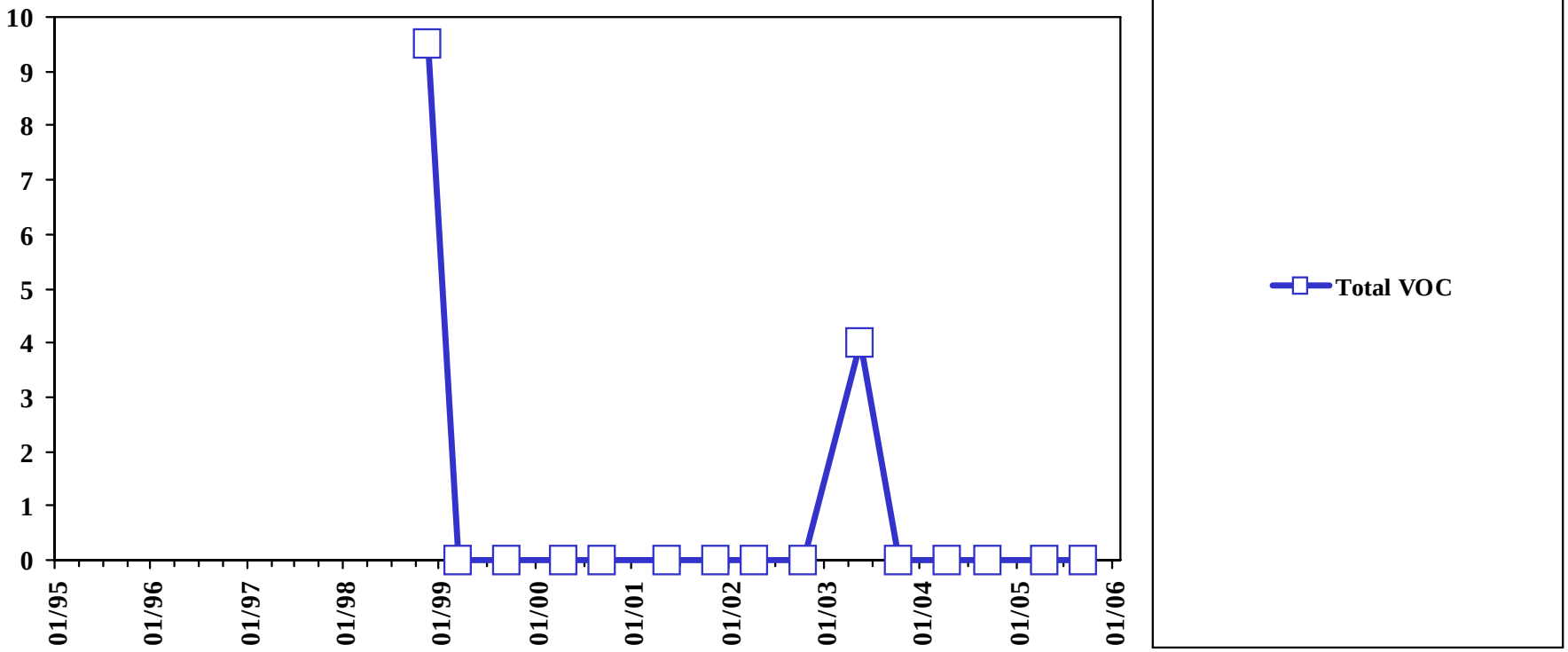
Sample Location:

SW-12

Eastern Plume

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

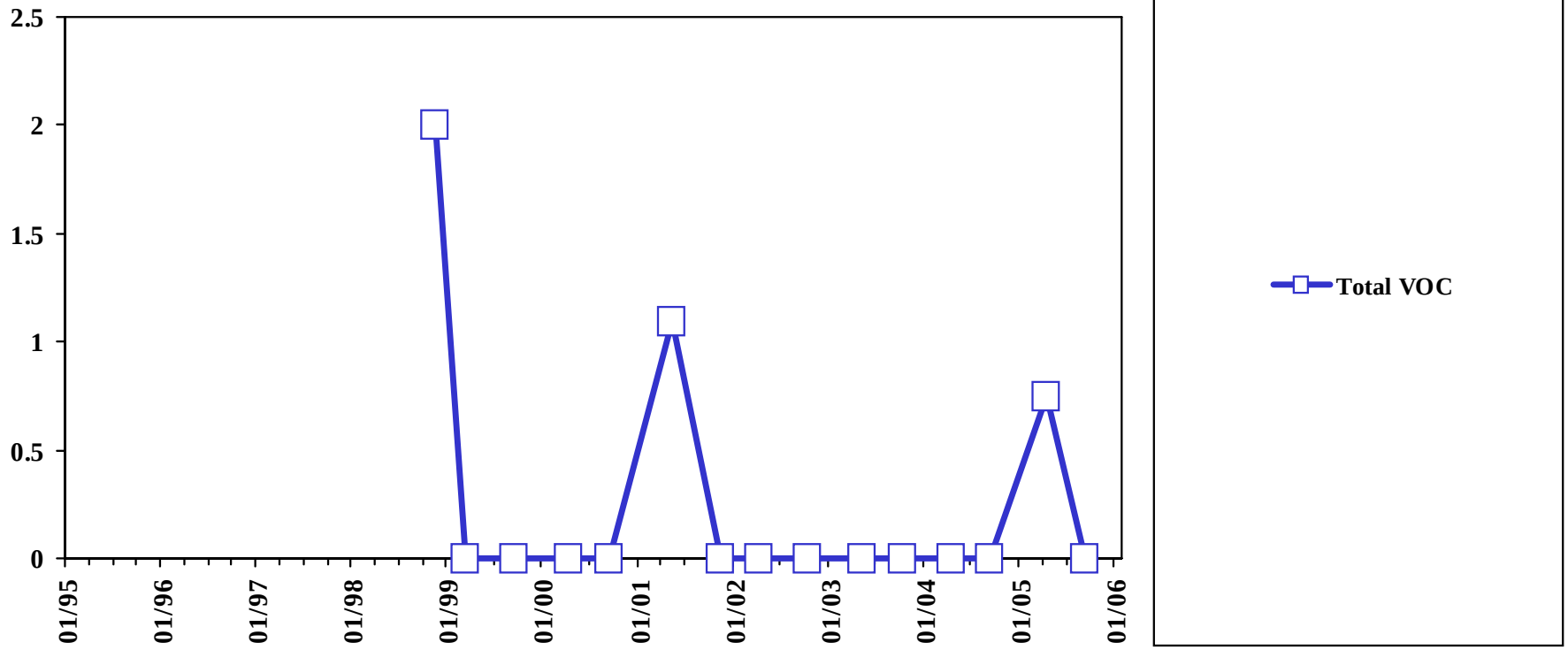
Sample Location:

SW-13

Eastern Plume

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

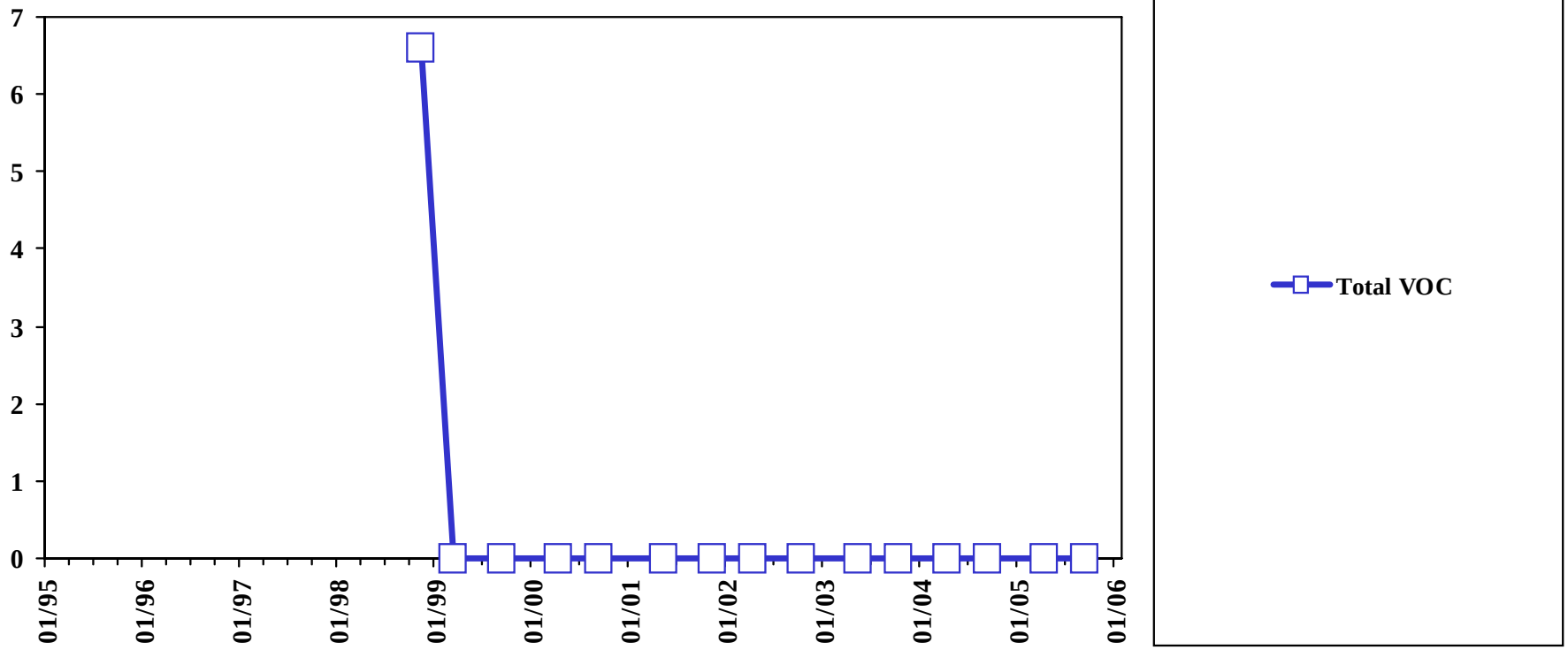
Sample Location:

SW-14

Eastern Plume

Surface water

Chemicals of concern: Volatiles



Analyte concentrations less than the sample detection limit are plotted as zero concentration on this chart.

Total VOC is the sum of all detected VOC except Methylene Chloride, Acetone, 2-Butanone, and 1,4-Dioxane.

Sample concentration units: µg/L

APPENDIX D

Analytical Data Quality Review

APPENDIX D

ANALYTICAL DATA QUALITY REVIEW

D.1 INTRODUCTION

This project utilized both field and analytical laboratory quality control measures to ensure that the data quality objectives presented in the project-specific Long Term Monitoring Plan (LTMP) Quality Assurance Project Plan (QAPP) (EA 2000a)[1] and the data quality objectives in the project-specific Monitored Natural Attenuation (MNA) Technical Letter (2004) were met.

The sampling program consisted of 96 aqueous samples (of which 15 were field duplicates) (groundwater, surface water, leachate seep, aqueous diffusion, 1,4 dioxane survey samples, and natural attenuation parameter samples) collected from Sites 1 and 3 and Eastern Plume, and 18 sediment samples (of which 3 were field duplicates) collected from Sites 1 and 3 and Eastern Plume. For the combined analyses for these sites, the laboratory was provided with all field samples, which included the following field quality control samples; 5 trip blanks. Field sample duplicates and trip blanks were collected at the frequency required by the QAPP. All samples were provided to Northeast Laboratory (Waterville, Maine) a NELAC and NAVFAC approved laboratory for analysis. MNA methane, ethene, and ethane samples were sent to Air Toxics Laboratory (Folsom, California), which is a NAVFAC and NELAC approved laboratory.

Analytical quality control was reviewed for compliance against the measurement performance criteria for precision and accuracy for each sample and analysis type, including field sample duplicates, as presented in the LTMP QAPP. Analytical precision for organics was based upon the relative percent difference (RPD) of the matrix spike/matrix spike duplicates (MS/MSD), and analytical precision for inorganics was based upon the laboratory replicate RPD. Accuracy for organics was based upon the reported spike recoveries for the laboratory control samples (LCS), MS/MSD, and surrogate system monitoring compound (SMC) recoveries (for organic analysis), and LCS and MS recoveries (for inorganic analysis).

The ability of the laboratory to extract organic compounds was confirmed by the recoveries of the surrogate spikes. MS/MSD and surrogate spike recoveries measure the effect of the sample matrix and extraction on organic sample preparation and measurement methodology. Post digestion spikes, matrix spikes, or serial dilutions are used to measure the effect of the inorganic sample matrix on preparation and measurement methodology. During the MS/MSD process, known quantities of target compounds are spiked into the sample matrix, and recoveries are used to measure potential bias due to matrix effects. The MS/MSD RPD or laboratory replicate RPD is used to determine analytical precision, and the field duplicate RPD is used to determine overall precision. The accuracy of the LCS spike recoveries is used in conjunction with MS/MSD when evaluating organic analyses.
Field completeness was quantified by reviewing the scheduled number of samples to the number of samples actually collected. Data completeness was quantified by determining the ratio of the number of non-rejected analyte measurements to the total number of analyte measurements.

For clarity, the following terms are defined for use throughout this appendix:

- ***Method Detection Limit -*** Refers to the minimum concentration that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero. The method detection limits for aqueous media are summarized in Appendix B.

- ***Practical Quantitation Limit -*** Defined as the lowest concentration that can be reasonably achieved within specified units of precision and accuracy during routine laboratory operating conditions.

- ***Method Reporting Limit*** - Defined as the Project Quantitation Limit adjusted for any necessary sample dilutions, percent moisture, sample volume deviations, and/or extract/digestate volume deviations.

- ***Measurement Performance Criteria***-- Define the acceptable performance for the data quality indicators- accuracy and precision. The LTMP QAPP specifies the project measurement performance criteria (MPC) for LCS, surrogates, MS/MSD, and MS/MSD RPD quality control checks.

- ***Precision*** - Precision is evaluated by comparing the relative percent difference (RPD) of the MS/MSD or laboratory replicate sample pairs to the QAPP RPD limits. If the RPD is outside the measurement performance criteria, the positive detect or non-detect is qualified for the affected compound in the unspiked sample (U.S. EPA 1996). The overall precision is determined by comparing the field duplicate RPD to the QAPP RPD limits.

- ***Accuracy***-- Accuracy is evaluated by comparing MS/MSD recoveries, surrogate spike recoveries, and LCS recoveries to QAPP MPC.

D.2 LABORATORY ANALYTICAL QUALITY CONTROL PROGRAM

Aqueous samples collected from the monitoring wells, leachate seeps, and surface water were analyzed for LTMP (2000a EA) Target Compound List VOCs by EPA SW-846 Method 8260B and for LTMP (2000a EA) Target Analyte List by EPA SW-846 6010B/7000 Methods. In addition Site 1&3 leachate seep samples and the Site Eastern Plume sediment sample were also analyzed for LTMP (2000a EA) Target Compound List pesticides by EPA SW-846 Method 8081A. The quality control measures specified in the EPA SW-846 methodology (MS/MSD, surrogates, and LCS), as well as those in the QAPP, were performed at the proper frequency by the laboratory and established proper analytical quality control. Aqueous samples collected from monitoring wells and piezometers were analyzed for MNA parameters (EA Technical Letter 2004) by the following methods: EPA Region 1 SOP for methane, ethane, and ethene (also known as VSK-175) (EPA 2001), alkalinity (EPA 310.1), chloride((EPA 325.3), EPA SW-846 6010 for MNA metals (arsenic, iron, and manganese), nitrate/nitrite (EPA 353.2), nitrite (EPA 354.1), sulfate (EPA 375.4), and total organic carbon (EPA 415.1). Per technical meetings between stakeholders ECC was directed to collect 1,4 dioxane water samples. This 1,4 dioxane survey was completed by collecting and analyzing by EIA SOP-VOADIOX1 water from four

select monitoring wells, one piezometer, and one treatment plant effluent sample. The range of results for the accuracy and precision data quality objectives are discussed in the subsections below.

D.2.1 LABORATORY ACCURACY EVALUATION

D.2.1.1 Evaluating Matrix Spike/Matrix Spike Duplicate Recoveries for Accuracy

Generally, no action is taken based on the MS/MSD data alone to qualify an entire sample delivery group. The qualification is limited to the unspiked sample associated with the MS/MSD. However, professional judgment may be used to qualify samples across a particular sample delivery group (i.e., all associated samples).

- If the spike recovery is greater than the upper control limit, then the positive detects are estimated and the non-detects are not impacted for the affected compounds in the unspiked sample.
- If the spike recovery is greater than or equal to 10 percent, but less than the lower control limit, then the positive detects are estimated and the non-detects are estimated for the affected compounds in the unspiked sample.
- If the spike recovery is less than 10 percent, then the positive detects are estimated and the non-detects are rejected for the affected compounds in the unspiked sample.
- If the matrix spike is not greater than four times the analyte level detected in the field sample, then matrix spike recoveries are not used to evaluate matrix interference.

D.2.1.2 Evaluating Surrogate Recoveries for Accuracy

- If the surrogate recovery is greater than the upper limit, all positive detects are estimated and the non-detects are not effected (U.S. EPA 1996).
- If the surrogate recovery is greater than or equal to 10 percent, but less than the lower control limit, then all positive detects are estimated and all non-detects are estimated.
- If the surrogate recovery is less than 10 percent, then the positive detects are estimated and all non-detects are rejected.

D.2.1.3 Evaluating Laboratory Control Sample Recoveries for Accuracy

- If the LCS recovery is greater than the upper control limit, the positive detects are estimated and the non-detects are not affected (U.S. EPA 1996).
- If the LCS recovery is greater than or equal to 10 percent, but less than the lower control limit, the positive detects are estimated and the non-detects are estimated.
- If the LCS recovery is less than 10 percent, the positive detects are estimated and the non-detects are rejected.

D.2.1.4 Evaluating Laboratory Method Blanks for Accuracy

- Method blank results should have no detects greater than the MRL.

D.2.2 LABORATORY ACCURACY ASSESSMENT

D.2.2.1 LTMP, MNA, and 1,4 Dioxane Survey Volatile Organic Compounds

Surrogates:
The methane, ethane, and ethene analysis method VSK-175 does not require surrogate analysis.

The surrogate recoveries for 1,4 dioxane analysis were within MPC.

The leachate seep, surface water, and monitoring well surrogate recoveries were within established control limits for VOC analysis by 8260B.

VOC analysis method 8260B surrogate 4-bromofluorobenzene (4-BFB) recovery was below the lower control limit in sediment sample BN-1&3-27-LT9, which resulted in sample detects and non-detects being qualified as estimated (J or UJ).

Surrogates 4-BFB and toluene-D8 recoveries were below the lower control limit in dilution analysis of groundwater samples BN-1&3-27-P106 and BN-EP-27-XD7, which resulted in 1,1,1-trichloroethane and trichloroethene detects being qualified as estimated (J). Remaining compounds were utilized from the undiluted analyses with acceptable surrogate recoveries.

The VOC analysis method 8260B surrogate 1,2 dichloroethane-D4 exceeded the upper control limit in seep and surface water samples BN-1&3-27-SEEP1, BN-1&3-27-SEEP3, BN-1&3-27-SEEP5, BN-1&3-27-SW8, BN-1&3-27-SW09, BN-EP-27-SW-14, and BN-1&3-27-SEEP9, which resulted in sample detects being qualified as estimated (J).

Three surrogates were used to measure the ability of the laboratory to purge the target analytes from the environmental samples. QAPP surrogate dibromofluoromethane was not spiked. The surrogate control limits for the samples identified in the QAPP and used for data assessment were identical.

MS/MSD:
The groundwater MS/MSD recoveries were within the established control limits for ethane, ethene, and methane. All the results are usable as reported.

The treatment plant MS/MSD recoveries were within established control limits of MPC for 1,4-dioxane. The ground water MS/MSD performed using samples BN-EP-27-P106 and BN-EP27-MW313 were not evaluated since the concentrations of 1,4-Dioxane in the native samples were greater than four times the spike amount.

The surface water sample MS/MSD recoveries were within the established control limits except for acetone with 0% recovery. Acetone detection in sample BN-EP-27-SW13 was qualified J. The treatment plant sample MS/MSD recoveries were within the established control limits and the results are usable as reported for all VOCs.

The monitoring well sample MS/MSD recoveries for VOCs were within the established control limits except for the recoveries below the lower control limit for acetone, methylene chloride,

1,1-dichloroethene and tetrachloroethene in the MS/MSD analyses of sample BN-EP-27-MW338CS and 1,1-dichloroethene and 1,1,1-trichloroethane recoveries below the lower control limit in the MS/MSD analyses of MS/BN-EP-27-P106. The native sample concentration of 1,1,1-trichloroethane was greater than four times the spike amount in sample BN-EP-27-P106. Acetone, methylene chloride, 1,1-dichloroethene, and tetrachloroethene non-detects in sample BN-EP-27-MW338CS were qualified as non-detect with estimated detection limit (UJ) and 1,1-dichloroethene detect in sample BN-EP-27-P106 was qualified as estimated (J).

The sediment sample MS recoveries were above the upper control limits for 27 of the spiked compounds in the MS and all spiked compounds in the MSD. In the native sample BN-1&3-27-LT9, the all detects were qualified as estimated (J).

The treatment plant and seep water MS/MSD recoveries were within established control limits.

LCS:

The monitoring well and piezometer LCS recoveries were within the established control limits for methane, ethane, ethene by method VSK-175 and the results are usable as reported. Laboratory accuracy based upon the LCS results is acceptable for methane, ethane, and ethene.

The monitoring well and treatment plant effluent LCS recoveries were within the established control limits for 1,4-diozane method, and the results are usable as reported. Laboratory accuracy based upon the LCS is acceptable for the 1,4-dioxane method.

The groundwater LCS recoveries applicable to several samples were below the lower control limits of MPC for tetrachloroethne. Tetrachloroethene qualified UJ in samples BN-EP-27-MW315AS, BN-EP-27-MW315AM, BN-EP-27-MW315AP, BN-EP-27-MW338, BN-EP-27-MW338BS, BN-EP-27-MW338BM, BN-EP-27-MW338BD, BN-EP-27-MW339, BN-EP-27-MW339S and BN-EP-27-MW338CS.

The groundwater LCS recoveries applicable to several samples were above the upper control limits of MPC for acetone, methylene chloride, and tetrachloroethene. All of the applicable results for methylene chloride were non-detects and were not qualified due to high LCS recoveries. However, the tetrachloroethene detections in samples BN-EP-27-MW205 and BN-EP-27-XD7 and acetone in sample BN-EP-27-MW212S and BN-EP-27-MW-QS1were qualified as estimated (J) due to high LCS recoveries.

The surface water LCS recoveries were below the lower control limits for methylene chloride. And was qualified as non-detect with estimated detection limit (UJ) in samples BN-EP-27-SW12, BN-EP-27-SW13, BN-EP-27-SW14, BN-EP-27-SW-XD16, BN-1&3-27-SW8, BN-1&3-27-SW9 due to low LCS recoveries.

BN-EP-17-MW-QS1: LCS %R > UCL for acetone, methylene chloride and 1,2-dichloroethene in LCS and 1,1-dichloroethene, carbon disulfide, hexachlorobutadiene in LCSD. Only acetone was detected and acetone qualified J.

Sediment MS/MSD recoveries for chloroethane was below the established control limits. Chloromethane was qualified (UJ) in samples BN-1&3-27-LT1, BN-1&3-27L-T3, BN-1&3-27-LT4, BN-1&3-27-LT9, BN-1&3-27-XD13.

The seep water LCS recoveries were below the lower control limits for methylene chloride and was qualified as UJ in samples BN-1&3-SEEP1, BN-1&3-SEEP3, BN-1&3-SEEP5, BN-1&3-SW8, BN-1&3-SW9, BN-1&3-SEEP9, BN-EP-27-SEEP11, and BN-EP-27-SEEP-XD15.

The groundwater LCS recoveries applicable to several samples were below the lower control limits of MPC for tetrachloroethne. Tetrachloroethene qualified UJ in samples BN-EP-27-MW315AS, BN-EP-27-MW315AM, BN-EP-27-MW315AP, BN-EP-27-MW338, BN-EP-27-MW338BS, BN-EP-27-MW338BM, BN-EP-27-MW338BD, BN-EP-27-MW339, BN-EP-27-MW339S and BN-EP-27-MW338CS.

Method Blanks:
Method blanks for methane, ethane, and ethene and the monitoring well and treatment plant method blanks for 1,4-dioxane method blanks were non-detects were non-detects, and sample results are representative of the sampled environment.

The VOC method blanks for all aqueous samples were non-detects for all analytes, and all results are usable as reported, except for methylene chloride in monitoring well water samples and hexachlorobutadiene in one monitoring well water sample. Monitoring well water sample results for methylene chloride in samples BN-EP-27-MW338BS, BN-EP-27-MW-338BM, BN-EP-27-338BD, BN-EP-27-MW339, BN-EP-27-MW339S, BN-EP-26-MW-QS1 were qualified as non-detect (U). Monitoring well water sample result for hexachlorobutadiene in sample BN-EP-27-MW-338A-S was qualified as non-detect (U).

The VOC method blank associated with the sediment samples were all non-detects except for chloromethane in the method blank applicable to sediment samples in Sites 1 and 3. Detections in samples BN-1&3-25-LT5 and BN-1&3-27-XD13 were qualified as non-detects (U) due to method blank contamination.

D.2.2.2 LTMP and MNA Target Analyte List Metals

MS/MSD:
The MS samples were analyzed at the correct frequency, and the accuracy control limits used to evaluate the data were taken from the QAPP. The LTMP groundwater, surface water, and leachaate seep and MNA groundwater seep MS recoveries were within the established control limits with the following exceptions:

MNA groundwater matrix spike result for MNA metal iron was not within the control limits but the native iron concentration in the sample was greater than four times the spike amount.

Sediment matrix spike recoveries for barium, sodium, lean, silver, antimony and zinc were below the lower control limit with silver antimony and zinc recoveries below 30%. Silver and

antimony non-detects were qualified as unusable (R), sodium nondetect was qualified UJ and barium, chromium, lead, and zinc detects were qualified as estimated (J) in sample BN-EP-27-SED11.

Seep matrix spike recoveries for nickel and silver were below the lower control limit with silver recovery at 0%. Silver was qualified as unusable (R) and nickel was qualified as a nondetect with estimated detection limit (UJ) in sample BN-1&3-27-SEEP9.

Surface water matrix spike recoveries were below the lower control limits for silver and zinc. Silver was qualified UJ and Zn was qualified J in sample BN-1&3-27-SW4.

Leachate sediment MS/MSD recoveries were below the control limits for nearly all metals. The majority of the metals were present in the sample with native level greater than four times the spike amount. Antimony had 0% recovery in one of the sediment MS/MSD. Antimony was qualified R in sample BN-1&3-27-LT6 and sodium and antimony were qualified UJ in sample BN-1&3-27-SED19.

MS/MSD had a recovery below the control limit for aluminum and was qualified UJ in sample 1+3 Dev1.

LCS:

The LCS samples were analyzed at the correct frequency and the accuracy limits used to evaluate the data were taken from the QAPP. LTMP and MNA aqueous sample data have acceptable accuracy based on review of the LCS accuracy.

LCS recoveries for monitoring well water samples were above the upper control limit for iron. Iron was qualified estimated (J) in samples BN-EP-27-MW335, BN-EP-27-MW336, BN-EP-27-337, BN-EP27-MNAXD2, BN-EP-27-MW338, BN-EP-27-MW339, BN-EP-27-MW338C, BN-EP-27-MW338A, BN-EP-27-P106, BN-EP-27-MW224, BN-EP-27-MW315A, BN-EP-27-MW313, BN-EP-27-MW333, BN-EP-27-MW334, BN-EP-27-MNAXD1, BN-EP-27-P111, BN-EP-27-MW331, BN-1&3-27-MW217B, BN-EP-27-MW-QS1, and 1+3 Dev1.

Sediment LCS recoveries were below the lower control limits for silver and above the upper control limits for aluminum. Silver was qualified UJ and aluminum was qualified J in samples BN-EP-27-SED11 and BN-EP-27-SED-XD17.

LCS recoveries for seep water and surface water samples were below the established lower control limits for silver, beryllium and cobalt and above the upper control limits for aluminum and, iron, and zinc. Aluminum detects in samples BN-1&3-27-SEEP3 and BN-1&3-27-SEEP4, iron detects in samples BN-1&3-27-SEEP1, BN-1&3-27-SEEP3, BN-1&3-27-SEEP4, BN-1&3-27-SEEP5, BN-1&3-27-SEEP9, BN-1&3-27-XD11, BN-1&3-27-SW4, BN-1&3-27-SW7, BN-1&3-27-SW8, BN-1&3-27-SW9, BN-1&3-27-SW15, BN-1&3-27-SW16, and BN-1&3-27-XD12, and zinc detects in samples BN-1&3-27-SEEP4, BN-1&3-27-SEEP5, BN-1&3-27-SW4, SW7, BN-1&3-27-SW8, BN-1&3-27-SW9, BN-1&3-27-XD12, BN-1&3-27-SW15 were qualified as estimated (J). Silver non-detects in samples BN-1&3-27-SEEP1, BN-1&3-27-SEEP3, BN-1&3-27-SEEP4, BN-1&3-27-SEEP5, BN-1&3-27-SEEP9, BN-1&3-27-XD11, BN-

1&3-27-SW4, BN-1&3-27-SW7, BN-1&3-27-SW9, BN-1&3-27-SW15, BN-1&3-27-SW16, BN-1&3-27-XD12 and beryllium and cobalt non-detects in samples BN-1&3-27-SEEP1, BN-1&3-27-SEEP3, BN-1&3-27-SEEP5, BN-1&3-27-SEEP9, BN-1&3-27-XD11, BN-1&3-27-SW4, BN-1&3-27-SW7, BN-1&3-27-SW9, BN-1&3-27-SW15, BN-1&3-27-SW16, BN-1&3-27-XD12 were qualified as non-detects with estimated detection limit (UJ). Beryllium and cobalt detects in sample SEEP4 were qualified as estimated (J).

LCS recoveries for LTMP sediment samples were below the established lower control limit for silver, potassium, sodium, and selenium and above the upper control limit for aluminum and iron. Silver, sodium, and selenium in sediment samples BN-1&3-27-LT1, BN-1&3-27-LT3, BN-1&3-27-LT4, BN-1&3-27-LT5, BN-1&3-27-LT9, BN-1&3-27-XD13, BN-1&3-27-SED15, BN-1&3-27-SED16, BN-1&3-27-SED17, BN-1&3-27-SED9, BN-1&3-27-SED18, BN-1&3-27-SED19, BN-1&3-27-XD17 and potassium in sediment samples BN-1&3-27-LT4, BN-1&3-27-LT5, BN-1&3-27-LT9, BN-1&3-27-XD13 were qualified as non-detects with estimated detection limit (UJ). Potassium detects in samples BN-1&3-27-LT1, BN-1&3-27-LT3, BN-1&3-27-SED9, BN-1&3-27-SED15, BN-1&3-27-SED16, BN-1&3-27-SED17, BN-1&3-27-SED18, BN-1&3-27-SED19, BN-1&3-27-XD17 were qualified as estimated (J). Aluminum and iron detect were qualified as estimated (J) in samples BN-1&3-27-LT1, BN-1&3-27-LT3, BN-1&3-27-LT4, BN-1&3-27-LT5, BN-1&3-27-LT9, BN-1&3-27-XD13, BN-1&3-27-SED19, BN-1&3-27-XD17, BN-1&3-27-SED17, BN-1&3-27-SED9, BN-1&3-27-SED15, BN-1&3-27-SED16, BN-1&3-27-SED18.

LCS recoveries for sediment samples were below the established control limits for silver and above the established control limits for aluminum. Silver non-detects were qualified with estimated detection limits (UJ) in sample BN-EP-27-SED11, BN-EP-27-SED-XD17. Aluminum detects were qualified as estimated (J) in samples BN-EP-27-SED11, BN-EP-27-SED-XD17

Method Blanks:
Groundwater, MNA, seep water, and surface water method blanks were non-detect for all reported metals except for a zinc detect in one aqueous blank. Zinc was qualified as non-detect (U) in sample 1+3 Dev 1. Several detects were present in in sediment method blank had detects, but all associated field sample results were greater than 5 times the method blank level. All samples are representative of the sampled environment.

D.2.2.3 LTMP Pesticides

Surrogates:
Two surrogates were used to measure the ability of the laboratory to extract the target compounds from the environmental field samples. The control limits identified in the QAPP and evaluated by the laboratory were the same for the two surrogates. The sediment and seep monitoring sample surrogate recoveries were within the limits of measurement performance criteria. Sample extraction was acceptable and without bias for the samples.

MS/MSD:

All compounds, except hexachlorobenzene, were used to assess the MS/MSD recoveries. The MS/MSD recovery limits stated in the QAPP were the same as used to evaluate the pesticide data. All MS/MSD recoveries for sediment and seep samples were within the limits specified in the QAPP.

LCS:
All of the LTMP QAPP pesticide compounds, except for hexachlorobenzene, were used to assess the LCS recoveries. All LCS recoveries applicable to the sediment and seep samples were within the established control limits, as specified in the QAPP.

Method Blanks:
Associated method blanks for seep water and sediment samples were non-detect for pesticides. No apparent cross-contamination in the laboratory for the aqueous samples analyzed.

D.2.2.4 MNA Parameters

MNA parameters include all the water quality analytical methods, alkalinity, chloride, nitrate/nitrite, nitrite, sulfate, and total organic carbon, used to evaluate the potential for biodegradation within the Eastern Plume. Quality control samples as applicable to these methods were validated per the method SOPs and the data quality objectives in the MNA Technical Letter (EA 2004).

MS/MSD:
Matrix spike recoveries were within the limits of the applicable analytical methods

LCS:
LCS recoveries were within the limits of the applicable analytical methods.
Method Blank;
All method blanks were non-detect for the applicable analytical methods except alkalinity. However, the concentrations in the applicable samples were at levels greater than five times the blank level. The sample results are representative of the sampled environment.

D.2.3 LABORATORY PRECISION EVALUATION

D.2.3.1 LTMP, MNA, and 1,4 Dioxane Survey Volatile Organic Compounds

MS/MSD or laboratory duplicate RPDs were used to evaluate laboratory precision for VOCs. The control limits identified in the LTMP QAPP were used to evaluate the data.

MS/MSD analyses were performed for MNA methane, ethene, and ethane samples and all MS/MSD RPDs were within MPC.

1,4 Dioxane MS/MSD RPD exceeded 20% for field sample BN-EP-27-MW313. The precision for this sample is low, and 1,4-dioxane was qualified as estimated (J) in this sample. In addition to MS/MSD analysis, LCS/LCSD sets were analyzed. All LCS/LCSD RPDs were within MPC.

MS/MSD for groundwater sample BN-EP-27-MW337 had MS/MSD RPDs greater than 20% for all compounds. All detects are qualified as estimated (J) and all non-detects are qualified as non-detect with estimated detection limits(UJ) in sample BN-EP-27-MW337. The LCS/LCSD analyzed with this sample showed that the laboratory precision was adequate for all compounds except for methylene chloride and tetrachloroethene. MS/MSD RPD for groundwater sample BN-EP-27-MW337S had an RPD greater than 20% for hexachlorobutadiene and was qualified UJ. MS/MSD RPD for sample BN-EP-27-P106 was greater than 20% for trichloroethene and was qualified J.

MS/MSD for leachate water sample BN-EP-27-SEEP11 and surface water sample BN-EP-27-SW13 had RPD exceeding 20% for majority of the target compounds. All detects are qualified as estimated (J) and all non-detects are qualified as non-detect with estimated detection limits (UJ) in samples BN-EP-27-SEEP11 and BN-EP-27-SW13. The LCS/LCSD showed that the laboratory precision was adequate for all compounds. This VOC was qualified as estimated (J) in sample BN-1&3-27-SEEP9.

MS/MSD for groundwater sample BN-1&3-27-MW217BS had RPDs greater than 20% for chloromethane, vinyl chloride carbon disulfide, and chlorobenzene and detects were qualified as estimated (J) and non-detects are qualified as non-detect with estimated detection limits (UJ) in sample BN-1&3-27-MW217BS.

MS/MSD for BN-1&3-27-LT9 had RPDs greater than 20% for all comounds. All detects are qualified J and all non-detects are qualified UJ in this sample. The LCS/LCSD analyzed with this sample showed that the laboratory precision was adequate for all compounds.

D.2.3.2 LTMP and MNA Target Analyte List Metals

Laboratory Replicate

All LTMP TAL and MNA TAL metals were used to quantify the laboratory duplicate RPD. The control limits identified in the QAPP for aqueous and sediment duplicate replicate RPDs for LTMP QAPP Target Analyte List and MNA metals were used. All laboratory replicates were within MPC with the following exception: iron qualified J sample BN-EP-27-P106. Arsenic, barium, cobalt, manganese, lead, vanadium and zinc qualified J in sample BN-1&3-27-SED11, zinc qualified J in sample BN-1&3-27-SW4, cobalt, lead, and zinc qualified J in sample BN-1&3-27-LT9, zinc qualified UJ in sample BN-1&3-27-SEEP9, and barium and copper qualified J in sample BN-1&3-27-SED19.

Matrix Spike/Matrix Spike Duplicate

All LTMP and MNA TAL metals were used to quantify the MS/MSD RPD. The control limits identified in the QAPP were used determining for aqueous and sediment replicate RPDs for LTMP QAPP Target Analyte List and MNA metals. All water water matrix MS/MSD RPDs were acceptable.

MS/MSD RPDs for sediment sample BN-1&3-27-SED19 exceeded MPC for chromium, manganese, sodium and lead, and these detects were qualified as estimated (J). MS/MSD RPDs

for sediment sample BN-1&3-27-LT9 exceeded the MPC for copper and zinc, and these detects were qualified as estimated (J).

D.2.3.3 LTMP Pesticides

All LTMP QAPP pesticide compounds were used to assess the MS/MSD RPD, except for hexachlorobenzene. The control limits identified in the QAPP were the same as those evaluated by the laboratory.

The MS/MSD RPD was within MPC for the analysis of seep water samples. The MS/MSD RPD was above the MPC for alpha-BHC, gamma-BHC, heptachlor epoxide, endosulfan II, and methoxychlor which were qualified UJ in sediment sample BN-EP-27-SED11.

The MS/MSD RPDs were above the MPC for all compounds in MS/MSD analyzed for BN-1&3-27-SED19. All compounds were qualified as non-detects with estimated detection limit (UJ) in sample BN-1&3-27-SED19.

D.2.3.4 MNA Parameters

For all applicable methods the laboratory replicate precision was within limits, and the laboratory precision is acceptable.

D.3 FIELD SAMPLING PROGRAM QUALITY CONTROL

Field sampling quality control was acceptable and conducted according to the LTMP (EA 2001a and 2000a). Field duplicate samples were collected for LTMP groundwater, surface water, leachate seep sediment, and leachate seep, MNA parameters, and the 1,4 dioxane survey. Field duplicates were and analyzed for the same parameters as the field samples to determine field sampling precision and overall precision. The potential for cross-contamination of volatile organics during sample storage and shipment was assessed by trip blanks which were shipped with each sample cooler containing aqueous VOC samples, except for one sample cooler. The LTMP trip blanks were analyzed for volatile organic compounds (VOCs) by EPA SW-846 Method 8260B, and the 1,4 dioxane survey tripblanks were analyzed for 1,4 dioxane. Tripblanks were also collected and analyzed for methane, ethane and ethene.

D.3.1 FIELD PRECISION EVALUATION

Duplicate field samples were collected during the LTMP monitoring well groundwater sampling program, leachate seep sediment sampling program, and leachate seep sampling program, during the MNA sampling program, and during the 1,4-dioxane survey. The sample locations of the field duplicate samples were not identified to the laboratory. The precision measurements for all detected analytes in the field duplicate-field sample pair that have concentrations reported above twice the MRL are presented in the tables below.

D.3.1.1 Field Duplicate Sample Precision Evaluation

Field duplicate samples are used to evaluate the overall precision of both the field and laboratory. EPA Region 1 criteria for evaluating field duplicates were used to review the field duplicates collected and analyzed during the sampling event.

- Field sample and field duplicate sample results greater than twice the MRL were evaluated and the a relative percent difference (RPD) between the field sample and corresponding field duplicate FD RPD was calculated for sample results greater than twice the MRL..
- A detection greater than the MRL in one but non-detect in another sample of the field duplicate pair were qualified as estimated for detections and non-detect results were qualified as estimated non-detect.
- The difference between the field sample concentration and the field duplicate sample concentrations was calculated for FD pair results with detections.
- The overall precision was evaluated as being acceptable if the Relative Percent Difference (RPD) between the field duplicate and the field sample results are less than 30 percent for aqueous samples and less than 50 percent for solid samples..

D.3.1.2 Field Precision Assessment

Eighteen field samples and corresponding field duplicate samples, listed in the table below, were collected during LTMP and MNA parameter monitoring well sampling and the 1,4 dioxane survey. The following table shows groundwater analytes detected in the field sample and corresponding field duplicate sample. The aqueous field duplicate RPD criterion is 30% and the sediment FD RPD criterion is 50%.

Field Duplicate pairs for VOCs - Method 8260B

Field Sample	Field Duplicate	Matrix
BN-EP-27-MW338CS	BN-EP-27-MW-XD1	Groundwater
BN-EP-27-MW337	BN-EP-27-MNAXD2	Groundwater
BN-EP-17-MW337S	BN-EP-27-MW-XD2	Groundwater
BN-EP-27-MW230A	BN-EP-27-MWXD3	Groundwater
BN-EP-27-P106	BN-EP-25-XD7	Groundwater
BN-EP-27-P111	BN-EP-27-XD2	Groundwater
BN-EP-27-SW13	BN-EP-27-SW-XD16	Surface water
BN-EP-27-COMB EFFLUENT	BN-EP-27-XD8	Treatment Plant Effluent
BN-EP-27-SW13	BN-EP-27-XD16	Surface water
BN-EP-27-SEEP11	BN-EP-27-SEEP-XD15	Seepwater
BN-EP-27-SW12	BN-EP-27-XD5	Surface water
BN-1&3-27-MW217BS	BN-1&3-25-MW-XD10	Groundwater
BN-1&3-27-LT9	BN-1&3-27-XD13	Sediment
BN-1&3-27-SW4	BN-1&3-25-XD12	Surface water
BN-1&3-27-SEEP9	BN-1&3-25-XD11	Seepwater

Field Duplicate pair for 1,4-dioxane - Method 8260BSIM (EPASOP-VOADIOX1)

Field Sample	Field Duplicate	Matrix
BN-EP-27-MW313	BN-EP-27-XD4	Groundwater
BN-EP-27-COMB EFFLUENT	BN-EP-27-XD8	Treatment Plant Effluent

Field Duplicate pairs for MNA Parameters

Field Sample	Field Duplicate	Matrix
BN-EP-27-MW337	BN-EP-27-MNAXD2	Groundwater
BN-EP-27-MW313	BN-EP-MNAXD1	Groundwater

Field Duplicate pairs for Pesticides - Method 8081A

Field Sample	Field Duplicate	Matrix
BN-EP-27-SED11	BN-EP-27-SED-XD17	Sediment
BN-1&3-27-SEEP9	BN-1&3-27-XD11	Seep water
BN-1&3-27-SED19	BN-1&3-27-XD17	Sediment

Field Duplicate pairs for Metals

Field Sample	Field Duplicate	Matrix
BN-EP-27-MW337	BN-EP-27-MNAXD2	Groundwater
BN-EP-27-MW313	BN-EP-27-MNAXD1	Groundwater
BN-EP-27-SED11	BN-EP-27-SED-XD17	Sediment
BN-1&3-27-LT9	BN-1&3-27-XD13	Sediment
BN-1&3-27-SEEP9	BN-1&3-27-XD11	Seep water
BN-1&3-27-SED19	BN-1&3-27-XD17	Sediment
BN-1&3-27-SW4	BN-1&3-27-SWXD12	Surface water

The following table shows groundwater field duplicate sets with analytes detected in the field sample and/or in the corresponding field duplicate sample.

Analyte	Units	BN-EP-27-MW313	BN-EP-27-MNAXD1	FD RPD (%)	Difference
Methane	µg/mL	0.052	0.013	**120**	0.038
Alkalinity	mg/L	77	66	10.5	11
Total Organic Carbon	mg/L	1.0	1.5	**40**	0.5
Chloride	mg/L	23	20	14	3
Sulfate	mg/L	3.6	4	10.5	0.4
Arsenic Total	µg/L	10	10	0	0
Iron Total	µg/L	2000	1600	22.2	400
Manganese Total, ppb	µg/L	140	240	**52.6**	100
Analyte	**Units**	**BN-EP-27-P106**	**BN-EP-27-XD7**	**FD RPD (%)**	**Difference**
1,1,1-Trichloroethane	µg/L	360	320	11.8	40
1,1,2-Trichloroethane	µg/L	0.65	0.67	3.0	0.02
1,1-Dichloroethane	µg/L	23	21	9.1	2
1,1-Dichloroethene	µg/L	64	61	4.8	3
Acetone1,2-Dichloroethane	µg/L	0.79	0.73	7.9	0.06
1,2-Dichloroethene (total)	µg/L	14	13	7.4	1
Chloroform	µg/L	0.35	0.32	9.0	0.03
Tetrachloroethene	µg/L	5.6	6.3	11.8	0.7
Trichloroethene	µg/L	220	190	14.6	30
Analyte	**Units**	**BN-EP-27-MW313**	**BN-EP-27-MW-XD4**	**FD RPD (%)**	**Difference**
1,4 Dioxane	µg/L	94	99	5.2	5
Analyte	**Units**	**BN-EP-27-MW337S**	**BN-EP-27-MW-XD2**	**FD RPD (%)**	**Difference**
1,2-Dichloroethane	µg/L	ND	0.46	NC	NC
Trichloroethene	µg/L	ND	1.5	NC	NC
Analyte	**Units**	**BN-EP-27-MW337**	**BN-EP-27-MNAXD2**	**FD RPD (%)**	**Difference**
1,2-Dichloroethane	µg/L	ND	0.59	NC	NC
Trichloroethene	µg/L	ND	1.3	NC	NC
Alkalinity	mg/L	47	47	0	0
Chloride	mg/L	11	11	0	0
Sulfate	mg/L	4.2	5.1	19.4	0.9
Iron	µg/L	1200	1200	0	0
Manganese	µg/L	890	1000	11.6	110
Analyte	**Units**	**BN-1&3-27-MW217B**	**BN-1&3-27-MW-XD10**	**FD RPD (%)**	**Difference**
Benzene	µg/L	0.33	ND	NC	NC
Chlorobenzene	µg/L	1.6	1.7	6.1	0.1
Analyte	**Units**	**BN-1&3-27-MW230A**	**BN-1&3-27-MWXD3**	**FD RPD (%)**	**Difference**
1,1-Dichloroethane	µg/L	ND	0.51	NC	NC
1,2-Dichloroethane	µg/L	0.66	0.93	**34.0**	0.27
Acetone	µg/L	ND	3.3	NC	NC
Trichloroethene	µg/L	2.2	1.9	14.6	0.3

NOTE: NC: not calculated – one result was non-detect or the analyte level was less than twice the MRL.
Results in bold indicate an exceedence of the field duplicate RPD (30%) precision data quality objective for analytes with concentration greater than twice the MRL.

The overall precision is acceptable for LTMP, MNA parameter, and 1,4 dioxane monitoring well sampling and analysis for LTMP VOCs and metals, 1,4 dioxane, and MNA parameters, except for methane, manganese, and total organic carbon in one duplicate pair and 1,2-dichloroethane in one duplicate pair. All other results had field duplicate RPDs within established limits.

Two seep field duplicate pairs were collected for analysis. The following table shows seep water analytes detected in field sample and/or in the corresponding field duplicate sample. The field duplicate RPD criteria are 30%. As shown, the overall sampling and analysis precision is acceptable for seep water.

Analyte	Units	BN-EP-27-SEEP11	BN-EP-27-SEEP-XD15	FD RPD (%)	Difference
1,1,1-Trichloroethane	µg/L	0.6	0.5	18.2	0.1
1,2-Dichloroethene (total)	µg/L	2.2	1.9	14.6	0.3
Acetone	µg/L	3.8	ND	NC	NC
Tetrachloroethene	µg/L	1.6	1.4	13.3	0.2
Trichloroethene	µg/L	1.5	1.4	6.9	0.1
Analyte	**Units**	**BN-1&3-27-SEEP9**	**BN-1&3-27-XD11**	**FD RPD (%)**	**Difference**
1,1-Dichloroethane	µg/L	5.1	5.4	5.7	0.3
Chloroethane	µg/L	1.6	1.5	6.5	0.1
Arsenic Total	µg/L	0.04	0.04	0	0
Calcium Total	µg/L	ND	52	NC	NC
Iron Total	µg/L	29	35	18.8	6
Magnesium Total	µg/L	ND	5.1	NC	NC
Manganese Total	µg/L	1.6	1.8	11.8	0.2
Potassium Total	µg/L	7.6	7.8	2.6	0.2
Sodium Total	µg/L	17	18	5.7	1

One leachate sediment field duplicate set was collected and analyzed. The following table shows leachate sediment analytes detected in field sample and/or in the corresponding field duplicate sample. The field duplicate RPD criteria are 50%.

Analyte	Units	BN-1&3-27-LT9	BN-1&3-27-XD13	FD RPD (%)	Difference
1,1,2-Trichloroethane	µg/kg	7.8	2	**118**	5.8
1,1-Dichloroethane	µg/kg	480	40	**169**	440
1,2-Dichlorbenzene	µg/kg	840	350	**82.3**	490
1,2-Dichloroethene (total)	µg/kg	8.3	ND	NC	NC
1,3-Dichlorbenzene	µg/kg	32	29	9.8	3
1,4-Dichlorobenzene	µg/kg	760	290	**89.5**	470
2-Butanone	µg/kg	640	89	**151**	551
4-Methyl-2-pentanone	µg/kg	39	ND	NC	NC
Acetone	µg/kg	12000	1600	**153**	10400

Analyte	Units	BN-1&3-27-LT9	BN-1&3-27-XD13	FD RPD (%)	Difference
Benzene	µg/kg	14	ND	NC	NC
Carbon Disulfide	µg/kg	720	97	**152**	623
Chlorobenzene	µg/kg	67	13	**135**	54
Chloroethane	µg/kg	160	ND	NC	NC
Chloromethane	µg/kg	26	ND	NC	NC
Ethylbenzene	µg/kg	15	5	**100**	10
Methylene Chloride	µg/kg	540	400	29.8	140
Styrene	µg/kg	15	5.5	**92.7**	9.5
Tetrachloroethene	µg/kg	12	ND	NC	NC
Toluene	µg/kg	63	15	**123**	48
Trichloroethene	µg/kg	8.8	2.5	**111**	6.3
Xylenes (total)	µg/kg	66	20	**107**	46
Aluminum Total	mg/Kg	8600	7300	16.4	1300
Arsenic Total	mg/Kg	140	100	33.3	40
Barium Total	mg/Kg	120	53	**77.5**	67
Calcium Total	mg/Kg	9000	8100	10.5	900
Chromium Total	mg/Kg	13	11	16.7	2
Cobalt Total	mg/Kg	85	64	28.2	21
Iron Total	mg/Kg	110000	85000	25.6	25000
Lead Total Solid	mg/Kg	22	17	25.6	5
Magnesium Total	mg/Kg	2200	1900	14.6	300
Manganese Total	mg/Kg	3400	1300	**89.4**	2100
Nickel Total	mg/Kg	20	20	0	0
Zinc Total	mg/Kg	ND	5	NC	NC

NOTE: NC: not calculated – one result was non-detect or the analyte level was less than twice the MRL.
Results in bold indicate an exceedence of the field duplicate RPD (50%) precision data quality objective for analytes with concentration greater than twice the MRL

The overall precision is acceptable for LTMP sediment sampling and analysis for LTMP VOCs and metals, except for 1,1,2-trichloroethane, 1,1-dichloroethane, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 2-butanone, acetone, carbon disulfide, chlorobenzene, ethylbenzene, styrene, toluene, trichloroethene, barium and manganese. All other results had field duplicate RPDs within established limits.

Two field samples and corresponding field duplicate samples were collected during LTMP surface water sample collection. The following table shows surface water analytes detected field sample and/or in the corresponding field duplicate sample. The field duplicate RPD criteria are 30%.

Analyte	Units	BN-EP-27-SW13	BN-EP-27-SW-XD16	FD RPD (%)	Difference
Acetone	ug/L	71	34	**70.5**	37

Analyte	Units	BN-EP-27-SW12	BN-EP-27-XD5	FD RPD (%)	Difference
Acetone		19	5.7	**108**	13.3
Tetrachloroethene		ND	0.34	NC	NC
Trichloroethene		ND	10	NC	NC
Analyte	**Units**	**BN-1&3-27-SW4**	**BN-1&3-27-SWXD12**	**FD RPD (%)**	**Difference**
Calcium Total	ug/L	9.9	10	1.0	0.1
Iron Total	ug/L	0.99	0.87	12.9	0.12
Manganese Total	ug/L	0.22	0.21	4.7	0.01
Sodium Total	ug/L	16	17	6.1	1
Zinc Total	ug/L	0.03	0.04	28.6	0.01

NOTE: NC: not calculated – one result was non-detect or the analyte level was less than twice the MRL.
Results in bold indicate an exceedence of the field duplicate RPD (30%) precision data quality objective for analytes with concentration greater than twice the MRL

All analyte results in the Field Duplicate sample and the field sample RPDs were less than 30%, except for acetone in two field duplicate pair. Overall precision for the LTMP VOC and LTMP TAL metal surface water sample is acceptable.

One field sample and a corresponding field duplicate sample were collected during LTMP treatment plant effluent water sampling.

Compound	Units	BN-EP-27-COMB EFFLUENT	BN-EP-27- XD8	RPD%	Difference
1,4 Dioxane	ug/L	12	11	8.7	1

NOTE: NC: not calculated – one result was non-detect or the analyte level was less than twice the MRL.
Results in bold indicate an exceedence of the field duplicate RPD (30%) precision data quality objective for analytes with concentration greater than twice the MRL

All analyte results in the FD sample and the field sample were non-detect, except for acetone and 1,4 dioxane. Overall precision for the LTMP VOC treatment plant effluent sample is acceptable, except for acetone and 1,4 dioxane.

One field sample and a corresponding field duplicate sample were collected during LTMP sediment sample collection. The following table shows sediment detects in the field sample and/or in the corresponding field duplicate sample. The field duplicate RPD criterion is 50%.

Analyte	Units	BN-EP-27-SED11	BN-EP-27-XD17	FD RPD (%)	Difference
Aluminum Total	mg/Kg	8700	5300	48.6	3400
Arsenic Total	mg/Kg	8.5	4.9	**53.7**	3.6
Barium Total	mg/Kg	56	25	**76.5**	31
Calcium Total	mg/Kg	1400	1000	33.3	400
Chromium Total	mg/Kg	15	7.9	**62.0**	7.1
Cobalt Total	mg/Kg	9	ND	NC	NC
Copper Total	mg/Kg	4.9	2	**84.1**	2.9
Iron Total	mg/Kg	43000	14000	**101.8**	29000

Analyte	Units	BN-EP-27-SED11	BN-EP-27-XD17	FD RPD (%)	Difference
Lead Total Solid	mg/Kg	33	9.1	**113.5**	23.9
Magnesium Total	mg/Kg	2500	1600	43.9	900
Manganese Total	mg/Kg	780	390	**66.7**	390
Nickel Total	mg/Kg	12	6	**66.7**	6
Potassium Total	mg/Kg	940	620	41.0	320
Vanadium Total	mg/Kg	26	13	**66.7**	13
Zinc Total	mg/Kg	60	23	**89.2**	37
Analyte	**Units**	**BN-1&3-27-SED19**	**BN-1&3-27-XD17**	**FD RPD (%)**	**Difference**
Aluminum Total	mg/Kg	2300	2800	19.6	500
Arsenic Total	mg/Kg	1.8	1.8	0	0
Barium Total	mg/Kg	26	14	**60.0**	12
Calcium Total	mg/Kg	610	430	34.6	180
Chromium Total	mg/Kg	3.7	4.5	19.5	0.8
Copper Total	mg/Kg	2.8	6.7	**82.1**	3.9
Iron Total	mg/Kg	5900	6200	5.0	300
Lead Total	mg/Kg	2.7	3	10.5	0.3
Magnesium Total	mg/Kg	850	1100	25.6	250
Manganese Total	mg/Kg	93	90	3.3	3
Nickel Total	mg/Kg	3.6	4.5	22.2	0.9
Potassium Total	mg/Kg	280	360	25.0	80
Vanadium Total	mg/Kg	6.7	7	4.4	0.3
Zinc Total	mg/Kg	13	15	14.3	2

NOTE: NC: not calculated – one result was non-detect or the analyte level was less than twice the MRL.
Results in bold indicate an exceedence of the field duplicate RPD (50%) precision data quality objective for analytes with concentration greater than twice the MRL

The overall precision is acceptable for sediment sampling and analysis except for barium and copper in two field duplicates and arsenic, chromium, iron, lead, manganese, nickel, vanadium, and zinc in one field duplicate.

D.3.2 FIELD ACCURACY EVALUATION

D.3.2.1 Rinsate Blanks

Rinsate blanks were not collected during this monitoring event.

D.3.2.2 Trip Blanks

Tripblanks were shipped with all sample coolers containing LTMP VOCs, MNA methane, ethane, and ethene, and 1,4-dioxane survey samples, except for two sample cooler containing groundwater, surface water, seep, and sediment samples.

Four tripblanks applicable to aqueous VOC, 1,4-dioxane, and MNA methane, ethane, and ethene were collected and analyzed during the monitoring event. Tripblanks with similar preservatives (i.e. sodium bisulfate and methanol) used for sediment VOCs samples were not collected during this sampling event.

Two sample coolers were shipped without a tripblank.

D.3.3 Field Accuracy Assessment

Field accuracy is determined by trip blank results for cross-contamination during sampling and shipment. Methylene chloride was detected in a tripblank shipped with VOC samples. However, none of the applicable samples had methylene chloride detection. Source of the methylene chloride detect in the trip blank could not be determined. Field accuracy is acceptable for all compounds.

D.4 OVERALL EVALUATION OF DATA AND USABILITY RECOMMENDATION

The following is a summary table of the findings for the data quality review performed and discussed in detail in this appendix:

Data Quality Review		Holding Time	Field/Method Blank Contamination	Precision		Accuracy			Completeness	
				Laboratory	Field	Surro-gate	MS/MSD	LCS	Analytical	Field
Aqueous Matrix	VOC	J/UJ	B	J	J	J	J/UJ	J/UJ	100%	100%
	Metals	✓	B	J	J/UJ	NA	J/UJ/R	J/UJ	99.7%	100%
	1,4 Dioxane	✓	✓	J	✓	✓	✓	✓	100%	100%
	Methane, ethene, & ethane	✓	✓	✓	J	NA	✓	✓	100%	100%
	MNA Parameters	✓	✓	✓	✓	NA	✓	J	100%	100%
	Pesticides	✓	✓	✓	✓	✓	✓	✓	100%	100%
Sediment Matrix	VOC	✓	✓	✓	J	✓	J/UJ	✓	80.6%*	100%
	Metals	✓	✓	J	J	NA	J/UJ/R	J/UJ	99.1	100%
	Pesticides	✓	✓	UJ	✓	✓	UJ	✓	100%	100%

NOTE:
VOC = Volatile organic compound.
✓ = The data are usable as reported based on the data quality review of this quality measurement.
B = The data have been affected by field blank/laboratory contamination; false-positives may exist.
UJ = The analyte was not detected above the sample reporting limit, and the reporting limit is approximate
J = The data are usable;, however, some analyte concentrations should be considered estimates of the true concentrations.
NA = The quality measurement does not apply to this matrix or analytical methodology.
R = Some of the analytes are considered unusable due to quality control criteria.
* = VOC for select compounds have unacceptably low bias (R) and for all VOCs due to low IS recoveries.

Field samples collected and analyzed as part of Monitoring Event 27 were validated against and found to meet the data quality objectives established in the Long-Term Monitoring Plan (EA 2000a) QAPP for data usability, as qualified during data validation with the exception of all

aqueous 1,1,2,2 trichloroethane and bromoform non-detects and select non-detect for acetone and methylene chloride.

D.5 COMPLETENESS

The planned field samples and the corresponding quality control samples (duplicate) were collected, resulting in a percent field completeness of 100 percent.

MNA parameters, pesticides, metals, 1,4 dioxane, methane, ethane, and ethene analytes were reviewed for method and QAPP compliance, and the data were determined to meet completeness requirements, because no data were rejected for this sampling event. Therefore, the percent analytical completeness for these field samples is 100 percent.

The VOC analytical completeness for sediment matrix is 80.1 percent which is does not meet the QAPP completeness goal of 95 percent. The combined sediment and aqueous VOC analytical completeness 98.6 percent, which is greater than the QAPP completeness criteria of 95 percent.

D.6 METHOD DETECTION LIMITS FOR AQUEOUS ANDSEDIMENT SAMPLES

Appendix B provides the method detection limit for aqueous and sediment samples. The method detection limit represents the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero.

APPENDIX E

Field Monitoring and Sampling Forms

APPENDIX E.1

Sites 1 and 3

Field Monitoring and Sampling Forms

FIELD RECORD OF WELL GAUGING

Project Name:	NASB, ME LTM Sites 1 & 3	Weather:	cloudy/ cool	Gauge Date:	9/14/2005
Project Number:	5700.007.012.610	Sounding Method:	Slope Indicator	Gauge Time:	0900-1200
ECC Personnel:	MAC/ PL	Equipment:			

Well Identification Number	Well Lock Status	Stick Up or F.M.	Well Physical Condition	VOC Concentrations Ambient Air (ppm)	VOC Concentrations Well Mouth (ppm)	Protective Casing Elevation (ft)	PVC Casing Elevation (ft)	Well Diameter (inches)	Total Depth of Well (ft)	Depth to Water (ft)	Depth to to Liquid (ft)	Water Table Elevation (ft)	Dedicated Pump
Sites 1 & 3													
MW-201R	Good	Stick Up	Good	ND	ND		58.88	2	49.68	12.64	ND	46.24	
MW-202A	Good	Stick Up	Good	ND	ND		52.4	2	Pump	22.69	ND	29.71	Yes
MW-203	Good	Stick Up	Good	ND	ND		52.75	2	Pump	31.06	ND	21.69	Yes
MW-204	Good	Stick Up	Good	ND	ND		50.5	2	Pump	29.48	ND	21.02	Yes
MW-210B	Good	Stick Up	Good	ND	ND		54.72	2	40.85	27.92	ND	26.80	
MW-211B	Good	Stick Up	Good	ND	ND		65.44	2	35.87	33.92	ND	31.52	
MW-215R	Good	Stick Up	Good	ND	ND		62.26	2	Pump	31.61	ND	30.65	Yes
MW-217B	Good	Stick Up	Good	ND	ND		61.25	2	PDB	29.88	ND	31.37	PDB
MW-234R	Good	Stick Up	Good	ND	ND		68.55	2	59.10	37.65	ND	30.90	
MW-240	Good	Stick Up	Good	ND	ND		52.21	2	Pump	30.30	ND	21.91	Yes
MW-2101	Good	Stick Up	Good	ND	ND		61.05	2	Pump	11.95	ND	49.10	Yes
MW-216A	Good	Stick Up	Good	ND	ND		71.17	2	47.75	39.64	ND	31.53	
MW-217A	Good	Stick Up	Loose	ND	ND		61.78	2	10.39	31.39	ND	30.39	Yes
MW-218	Good	Stick Up	Good	ND	ND		54.16	2	Pump	33.71	ND	16.92	Yes
MW-219	Good	Stick Up	Good	ND	ND		51.87	2	Pump	29.42	ND	22.45	Yes
MW-220	Good	Stick Up	Good	ND	ND		47.2	2	51.43	25.05	ND	22.15	
MW-232A	Good	Stick Up	Good	ND	ND		71.18	2	34.78	30.05	ND	41.13	
MW-233R	Good	Stick Up	Good	ND	ND		63.94	2	38.72	33.08	ND	30.86	
MW-210A	Good	Stick Up	Good	ND	ND		52.17	2	100+	17.47	ND	34.70	
MW-210R	Good	Stick Up	Good	ND	ND		55.9	2	100+	20.41	ND	35.49	
MW-211A	Sticky	Stick Up	Good	ND	ND		65.59	2	100+	24.50	ND	41.09	
EW-6	Good	Vault	Good	ND	ND		57.74	6	59.93	23.07	ND	34.67	
EW-7	Good	Vault	Good	ND	ND		51.13	6	48.90	24.53	ND	26.60	
EP-16	Good	Stick Up	Good	ND	ND		58.92	2	59.52	31.91	ND	27.01	
EP-17	Good	Stick Up	Good	ND	ND		69.73	2	42.70	38.37	ND	31.36	
EP-18	Good	Stick Up	Good	ND	ND		68.58	2	38.93	37.24	ND	31.34	
EP-19	Good	Stick Up	Good	ND	ND		68.22	2	46.59	37.11	ND	31.11	
EP-20	Good	Stick Up	Good	ND	ND		69.55	2	47.25	38.21	ND	31.34	

Comments: Total depth of wells not measured this round. Data presented is carried over from prior gauging round.

EASTERN PLUME MONITORING WELL GAUGING SUMMARY FOR SEPT 2005

Well Designation	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of well riser)	Depth to Water (ft below top of well riser)	Groundwater Elevation (ft MSL)
Shallow Monitoring Wells				
MW-105B	24.55	21.91	8.66	15.89
MW-106	51.26	37.27	19.25	32.01
MW-206B	42.77	27.17	16.90	25.87
MW-207B	22.9	9.21	7.39	15.51
MW-209	54.84	32.38	21.76	33.08
MW-222	57.43	45.34	23.42	34.01
MW-223	53.71	42.61	21.14	32.57
MW-224	57.63	46.01	22.60	35.03
MW-225B	46.25	42	17.50	28.75
MW-229B	30.08	33.14	15.62	14.46
MW-231B	46.31	37.99	23.72	22.59
MW-307	62.7	22.21	15.51	47.19
MW-313	21.39	37.47	8.58	12.81
MW-318	24.28	25.14	6.68	17.6
MW-332	25.33	21.03	4.37	20.96
MW-1104	60.09	27.55	8.92	51.17
Deep Monitoring Wells				
MW-105A	24.19	47.75	0.68	23.51
MW-205	45.99	79	22.22	23.77
MW-206A	43.02	74.36	16.43	26.59
MW-207AR	23.42	(a)	artesian	23.42
MW-208	49.4	102.8	17.14	32.26
MW-225A	45.95	76.03	15.94	30.01
MW-229A	33.83	64.97	11.99	21.84
MW-230A	36.32	81.49	13.85	22.47
MW-231A	45.41	61.19	19.78	25.63
MW-303	44.28	72.75	11.51	32.77
MW-305	43.09	53.51	13.29	29.8
MW-306	52.12	56.98	14.90	37.22
MW-310	53.39	73.25	25.40	27.99
MW-311	21.48	56.25	3.53	17.95
MW-312	35.97	71.15	11.50	24.47
MW-319	40.16	72.6	9.48	30.68
MW-330	35.71	36.36	3.67	32.04
MW-331	30.54	56.23	artesian	30.54
MW-333	27.25	42.85	10.13	17.12
MW-334	30.93	47.8	10.2	20.73
MW-335				

(a) MW-207AR has not been sounded for total depth.
NOTE: MSL = Mean sea level.

EASTERN PLUME (continued)
MONITORING WELL GAUGING SUMMARY FOR SEPT 2005

Well	Well Riser	Depth to Well Bottom	Depth to Water	Groundwater
Deep Monitoring Wells (continued)				
MW-336		26	11.76	NA
MW-337		85	14.63	NA
MW-338A		91	0.65	NA
MW-338B		70	1.17	NA
MW-338C		52	2.94	NA
MW-339		72	2.25	NA
MW-315A		53.9	1.22	NA
MW-NASB-212	41.64	64.29	8.33	33.31
Bedrock Monitoring Wells				
MW-308	37.7	73.25	3.56	34.14
MW-309A	22.84	72.71	artesian	22.84
MW-309B	22.32	59.25	artesian	22.32
MW-316A	53.71	103.1	22.18	31.53
MW-316B	54.4	57.85	12.96	41.44
MW-317A	71.35	120.79	15.97	55.38
MW-317B	70.1	96.95	14.72	55.38
MW-323	55.9	39	14.26	41.64
Shallow P-Series Piezometers				
P-103	60.35	28.75	21.19	39.16
P-111	31.48	9.98	6.07	25.41
P-121	50.78	17.35	15.67	35.11
P-132	42.95	32.46	18.48	24.47
Deep P-Series Piezometers				
P-105	42.68	69.89	7.2	35.48
P-106	38.83	72.00	7.15	31.68
PZ-Series Piezometers				
PZ-1	47.88	57.91	24.26	23.62
PZ-2	39.66	55.28	18.1	21.56
PZ-6	33.14	54.85	13.73	19.41
PZ-11	53.66	40.40	23.00	30.66
Extraction Wells				
EW-01	25.34	99.66	7.56	17.78
EW-02A	22.27	66.00	37.46	-15.19
EW-04	37.13	69.37	13.12	24.01
EW-05A	37.63	82.00		37.63

EASTERN PLUME (continued)
MONITORING WELL GAUGING SUMMARY FOR SEPT 2005

Well Designation	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of well riser)	Depth to Water (ft below top of well riser)	Groundwater Elevation (ft MSL)
Deep EP-Series Piezometers				
EP-01	31.67	101.22	7.73	23.94
EP-02	29.74	99	5.95	23.79
EP-03	27.91	89.21	3.98	23.93
EP-04	32.59	91.11	3.72	28.87
EP-05	34.61	79.85	4.23	30.38
EP-06	40.14	83.51	10.18	29.96
EP-07	48.49	70.2	15.89	32.6
EP-08	47.31	80.38	14.51	32.8
EP-09	37.84	62.46	4.78	33.06
EP-10	37.78	57.73	4.53	33.25
EP-11	41.59	65.03	6.89	34.7
EP-12	49.38	69.61	14.24	35.14
EP-13	38.96	70.93	2.96	36
EP-14	43.46	80.05	7.55	35.91
EP-15	45.37	82.68	9.68	35.69
Surface Water Gauging Stations				
Well Designation	Gauging Point Elevation (ft MSL)		Depth to Water (ft below gauging point)	Surface Water Elevation (ft MSL)
GP-1A	25.39		2.76	28.15
GP-2A	23.92		1.62	25.54
GP-3B	31.15		Dry	31.15
GP-4A	17.68		1.34	19.02
GP-5B	12.09		2.7	14.79
GP-6A	7.46		1.48	8.94

Note: Replaced GP-6A- still needs to be surveyed.

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: S 1+3
Location: NASB, Brunswick, ME
Well ID: MW-217B

Date: 9/14/05
Sampler: MAC
PID Reading:

Well Construction: 2" PVC
Depth to water: 29.88
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	016-0417AA
YSI	600XL	05H2025 AA

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
1408	10.21	6.40	793	0.29	-210.9

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1317	BN-1+3-27-217B-S		7	HCL	VOC
					MS/MSD
—	BN-1+3-27-XD10		2	HCL	VOC

Comments MSD has only 1 vial, sample + MS each have 2

Mark A. Co
Signature

9/14/05
Date

Page ____ of ____

ECC

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9.19.05 14:45

Site: 1&3
Sample Location ID: SW 15
ECC Personnel: Dave C, Sue W

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (✓) Stream ( ) River ( ) Seep

Water Depth: 6"-12"	Dissolved Oxygen (mg/L): 9.67
Velocity of Water: 3 sec per foot	ORP (mV) 54.1
Temperature (C): 16.32	Specific Conductance (uS/cm°): 176
pH (units): 6.78	Turbidity (NTU) 3.59

Sample Observations:
( ) Odor None
( ) Color Clear
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (✓) Organic ( ) Gravel ( ) Clay ( ) Silt (✓) Sand ( ) Other ____

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor None
( ) Color brown
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix: Aqueous	Matrix: Solid	Preservative	Number of Containers
BN-1&3-27-SW15	SW15	9/19/05 14:45	X		HNO_3	1
BN-1&3-27 SED 15	SW15	9/19/05 14:50		X	None	3

Notes / Comments:

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FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9-19-05

Site: 1&3
Sample Location ID: SEEP 1
ECC Personnel: Dave C, Sue W.

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (X) Seep

Water Depth: 1"	Dissolved Oxygen (mg/L): 3.15
Velocity of Water: 0	ORP (mV) 61
Temperature (C): 13.29	Specific Conductance (uS/cm^c): 548
pH (units): 6.45	Turbidity (NTU) 6

Sample Observations:
( ) Odor NO
( ) Color clear
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (X) Organic ( ) Gravel ( ) Clay ( ) Silt (X) Sand ( ) Other

Type of Samp. Collected: (X) Discrete ( ) Composite

Sample Observations:
( ) Odor NO
( ) Color Brown, Black
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN 1&3:27-SEEP 1	LT-1	9-19-05/10:15	X		HCL	3
BN 1&3:27 SEEP 1	LT-1	9-19-05/10:15	X		HNO3	1
BN 1&3:27 SEEP 1	LT-1	9/19/05 10:15	X		None	2
BN 1&3:27-LT-1	LT-1	9/19/05 10:20		X	Na2S2O3	3
BN-1&3:27-LT-1	LT-1	9/19/05 10:20		X	MEOH	1
~~Notes / Comments:~~						
BN-1&3:27-LT-1	LT-1			X	None	1

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FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: Sites 1+5
Project Number: 5700.007
Sample Location ID: Seep 5
Date / Time: 9/19/05 1205
ECC Personnel:

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (X) Seep PZ SW

Water Depth: 1/2" PZ SW	Dissolved Oxygen (mg/L): 1.95 / 2.87
Velocity of Water: /	ORP (mV) -58.9 / -22.3
Temperature (C): 12.50 / 15.54	Specific Conductance (uS/cm°): 520 / 398
pH (units): 6.29 / 6.23	Turbidity (NTU) 16 / 55

Sample Observations:
( ) Odor
(X) Color Rusty sheen on surface.
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (X) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
(X) Color Rusty sheen, very little mineral soil
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-1+3-27-L15	Seep 5	9/19/05 1210		X	MeOH/Na2	5
BN-1+3-27-Seep5	Seep 5	9/19/05	X		HCL, HNO3	6

Notes / Comments:
Pumped liquid sample from a depression in the mud - PZ didn't have sufficient water to sample. Took WQ parameters from PZ + surface water

Sed Samples - TCL VOC, TAL Metals, Total Solids
Water Samples - TCL VOC, TAL Metals, Pesticides

Page 1 of 1

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: S143
Project Number: 5700.007
Sample Location ID: Seep 9
Date / Time: 9/19/05 1020
ECC Personnel: PL/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (X) Seep

Water Depth:	—	Dissolved Oxygen (mg/L):	PZ 4.66 / SW 0.64
Velocity of Water:	200 ml/min	ORP (mV)	-69.4 / -34.6
Temperature (C):	PZ 13.22 / SW 13.38	Specific Conductance (uS/cm°):	241 / 371
pH (units):	6.41 / 6.42	Turbidity (NTU)	26 / 27

Sample Observations:
( ) Odor
( ) Color
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (X) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other _____

Type of Samp. Collected: (X) Discrete ( ) Composite

Sample Observations:
( ) Odor
(X) Color Brown, very little mineral soil
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers	
BN-143-27-SSeep9	Seep9	9/19/05 1020	x		HCl, HNO3	6	MS/MSD
BN-143-27-LT9	LT-9	9/19/05 1020		x	MeOH/Na2	5	MS/MSD
BN-143-27-XD-11	LT-9 Seep	9/19/05 —	x		HCl, HNO3	6	
BN 143-27-XD-13	LT9 Sed	9/19/05 —		x	MEOH/Na2	5	

Notes / Comments:
Pumped from piezometer to poly container for WQ parameters
Only able to collect a 1-L from PZ Before it ran Dry.
Collected sample from S.W. (High turbidity unavoidable)
Collected WQ Parameters from Both PZ and SW

A20 Samples - TCL VOC, TAL Metals, Pesticides
Sed Samples - TCL VOC, TAL Metals, Total Solids

Page 1 of 1

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site:
Project Number: 5700.007
Sample Location ID:
Date / Time: 9/19/05 1340
ECC Personnel:

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (X) Stream ( ) River ( ) Seep

Water Depth: 18"	Dissolved Oxygen (mg/L): 9.10
Velocity of Water: 6"/sec	ORP (mV) -10.2
Temperature (C): 17.37	Specific Conductance (uS/cm^c): 69
pH (units): 6.90	Turbidity (NTU) 2.8

Sample Observations:
( ) Odor
(X) Color very clear
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt (X) Sand ( ) Other _____

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
(X) Color lt tan
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-193-27-SED9	SW-9	9/18/05 1345		x	–	3
BN-193-27-SW9	SW-9	9/18/05 1345	x		HCL/HNO3	4

Notes / Comments:

SW sample analyzed for TCLVOC + TAL Metals.
Sed sample analyzed for TOC, TAL Metals + Pesticides, + grain size.

Page 1 of 1

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site:
Project Number: 5700.007
Sample Location ID:
Date / Time: 9/19/05 1400
ECC Personnel: MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (✓) Stream ( ) River ( ) Seep

Water Depth: 12"	Dissolved Oxygen (mg/L): 9.08
Velocity of Water: 12"/sec	ORP (mV) 33.2
Temperature (C): 17.12	Specific Conductance (uS/cm^c): 74
pH (units): 6.91	Turbidity (NTU) 4.6

Sample Observations:
( ) Odor
(X) Color Clear
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other _____

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
( ) Color
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-1~~B3~~-27-SW 8	SW-8	9/19/05 1405	X		HCl	3
BN-1~~B3~~-27-SW 8	SW-8	9/19/05 1405	X		HNO_3	1

Notes / Comments:

Page____ of ____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site:
Project Number: 5700.007
Sample Location ID:
Date / Time: 9/19/05 1430
ECC Personnel: MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River ( ) Seep

Water Depth:	Dissolved Oxygen (mg/L):
Velocity of Water:	ORP (mV)
Temperature (C):	Specific Conductance (uS/cm^c):
pH (units):	Turbidity (NTU)

Sample Observations:
( ) Odor
( ) Color
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt (X) Sand ( ) Other _____

Type of Samp. Collected: (X) Discrete ( ) Composite

Sample Observations:
( ) Odor
(X) Color Tan
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-103-27-Sed 19	Sed 19	9/19/05		X	4°C	3
BN-103-27-Sed MS	Sed 19	9/19/05		X	4°C	3
BN-103-27-Sed 19 MSD	Sed 19	9/19/05		X	4°C	3
BN-103-XD 07	Sed 19	9/19/05		X	4°C	3

Notes / Comments:
MS - MSD & Duplicate Collected @ Sed 19

Page ____ of ____

ECC

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9.19.05 11:00

Site: 1&3
Sample Location ID: LT.4
ECC Personnel: Dave C, Sue W

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (✓) Seep

Water Depth: 0	Dissolved Oxygen (mg/L): 7.74
Velocity of Water: 0	ORP (mV) 67
Temperature (C): 14.46	Specific Conductance (uS/cm^c): 777
pH (units): 6.46	Turbidity (NTU) 100

Sample Observations:
( ) Odor None
( ) Color nearly clear
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (✓) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other ____

Type of Samp. Collected: (✓) Discrete ( ) Composite

Sample Observations:
( ) Odor None
( ) Color brown/black
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix: Aqueous	Matrix: Solid	Preservative	Number of Containers
BN.1&3.27 SEEP4	1&3	9/19/05 11:00	X		HCL	3
BN.1&3.27 SEEP4	1&3	9/19/05 11:00	X		HNO3	1
BN.1&3.27.SEEP4	1&3	9/19/05 11:00	X		None	2
BN.1&3.27.LT.4	1&3	9/19/05 11:05		X	Na2S2O3	3
BN.1&3.27.LT.4	1&3	9/19/05 11:05		X	MeOH	1
BN.1&3.27.LT4	1&3	9/19/05 11:05		X	None	1

~~Notes / Comments:~~

sample from piezometer - No surface water

Page ____ of ____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9/19/05 11:30

Site: 1&3
Sample Location ID: LT-3
ECC Personnel: Dave C Sue W

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (✓) Seep

Water Depth: 0-1/2"	Dissolved Oxygen (mg/L): 6.6% 0.49
Velocity of Water: 0 still	ORP (mV) 35.7
Temperature (C): 15.55	Specific Conductance (uS/cm°): 706
pH (units): 6.64	Turbidity (NTU) 128

Sample Observations:
( ) Odor None
( ) Color orange
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (✓) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other ____

Type of Samp. Collected: (✓) Discrete ( ) Composite

Sample Observations:
( ) Odor None
( ) Color brown/black
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-1&3-27-SEEP 3	1&3	9/19/05 11:30	X		HCL	3
BN-1&3-27-SEEP 3	1&3	9/19/05 11:30	X		HNO3	1
BN-1&3-27-SEEP 3	1&3	9/19/05 11:30	X		None	2
BN-1&3-27-LT 3	1&3	9/19/05 11:35		X	Na2S2O3	3
BN-1&3-27-LT 3	1&3	9/19/05 11:35		X	MeOH	1
Notes / Comments:						
BN-1&3-27-LT 3	1&3	9/19/05 11:35		X	None	1

Page ____ of ____

ECC

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB/MELTM
Project Number: 5700.007
Date / Time: 9.19.05 14:35

Site: 163
Sample Location ID: SED 17
ECC Personnel: Dave C Sue W

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (✓) Stream ( ) River ( ) Seep

Water Depth:	Dissolved Oxygen (mg/L):
Velocity of Water:	ORP (mV)
Temperature (C):	Specific Conductance (uS/cm^c):
pH (units):	Turbidity (NTU)

Sample Observations:
( ) Odor
( ) Color
( ) Other

SEDIMENT / ~~LEACHATE SEEP~~ SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt (✓) Sand ( ) Other

Type of Samp. Collected: (✓) Discrete ( ) Composite

Sample Observations:
( ) Odor None
( ) Color brown
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix: Aqueous	Matrix: Solid	Preservative	Number of Containers
BN-163-27-SED17	SED17	9/19/05 14:35		X	NO	3

Notes / Comments:

Page ____ of ____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9·19·05 15:15

Site: 193
Sample Location ID: SED 18
ECC Personnel:

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River ( ) Seep

Water Depth:	Dissolved Oxygen (mg/L):
Velocity of Water:	ORP (mV)
Temperature (C):	Specific Conductance (uS/cm^c):
pH (units):	Turbidity (NTU)

Sample Observations:
( ) Odor
( ) Color
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (✓) Organic ( ) Gravel ( ) Clay ( ) Silt (✓) Sand ( ) Other ____

Type of Samp. Collected: (✓) Discrete ( ) Composite

Sample Observations:
(✓) Odor None
(✓) Color brown
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix: Aqueous	Matrix: Solid	Preservative	Number of Containers
BN·193·27·SED 18	SED 18	9/19/05 15:15		X		3

Notes / Comments:

Page ____ of ____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9.19.05 15:00

Site:
Sample Location ID:
ECC Personnel: Dave C Sue W

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (✓) Stream ( ) River ( ) Seep

Water Depth: 6-18"	Dissolved Oxygen (mg/L): 9.94
Velocity of Water: 3sec per foot	ORP (mV) 53.6
Temperature (C): 16.79	Specific Conductance (uS/cm^c): 171
pH (units): 6.86	Turbidity (NTU) 3

Sample Observations:
(✓) Odor None
(✓) Color Clear
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt (✓) Sand ( ) Other

Type of Samp. Collected: (✓) Discrete ( ) Composite

Sample Observations:
(✓) Odor None
(✓) Color brown
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix: Aqueous	Matrix: Solid	Preservative	Number of Containers
BN.183.27.SW16	SW16	9/19/05 15:00	X		HNO_3	1
BN.183.27.SED16	SW16	9/19/05 15:05		X	None	3

Notes / Comments:

Page ____ of ____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9.19.05 14:20

Site: 1&3
Sample Location ID: SW 4
ECC Personnel: Dave C, Sue W.

SURFACE WATER / ~~LEACHATE SEEP~~ INFORMATION

Type of S.W. (✓) Stream ( ) River ( ) Seep

Water Depth: 6-10"	Dissolved Oxygen (mg/L): 0.59
Velocity of Water: 3 sec per foot	ORP (mV) -17.6
Temperature (C): 16.65	Specific Conductance (uS/cm^c): 221
pH (units): 6.75	Turbidity (NTU) 6

Sample Observations:
() Odor NO
() Color Clear
() Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other ____

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
( ) Color
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix: Aqueous	Matrix: Solid	Preservative	Number of Containers
BN-1&3-27-SW04	SW 04	9/19/05 14:20	X		HCL	3
BN-1&3-27-SW04	SW 04	9/19/05 14:20	X		HNO_3	1
" MS/MSD				same as above		
"						
BN-1&3-27-XD12	SW 04	9/19/05 0:00	X			

Notes / Comments:

Page 1 of 1

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site:
Project Number: 5700.007
Sample Location ID: SW-7
Date / Time: 9/19/05 1420
ECC Personnel: MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (x) Stream ( ) River ( ) Seep

Water Depth: 12"	Dissolved Oxygen (mg/L): 8.98
Velocity of Water: 6"/sec	ORP (mV) 47.1
Temperature (C): 16.63	Specific Conductance (uS/cm^c): 70
pH (units): 6.83	Turbidity (NTU) 3.5

Sample Observations:
( ) Odor
(x) Color Clear
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other _____

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
( ) Color
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-1Q3-27-SW-7	SW-7	9/19/05 1430	X		HCl	3
BN-1Q3-27-SW-7	SW-7	9/19/05 1430	X		HNO_3	1

Notes / Comments:

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Sites 143
Location: NASB, Brunswick, ME
Well ID: MW-217B

Date: 9/14/05
Sampler: MAC/PL
PID Reading:

Start Time: 1420 End Time:
Well Construction:
Depth to water: 29.88
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01G0417AA
YSI	600XL	05H2025AA
LaMotte	2020	2523-1501

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
1422	-	50	30.21	13.56	6.36	799	1.96	-68.1	150	
1427	.25	50	30.12	15.08	6.36	803	1.22	-80.4	140	
1432	.50	50	30.17	16.90	6.38	824	1.19	-98.7	120	
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1535	BN-143-27-217B		3	HCL	VOC
	"		1	HNO_3	TAL Metals

Comments 1435 - Ran out of water - shut pump down for recharge + sampled

Signature

9/14/05
Date

Page ____ of ____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9/19/05 11:30

Site: 1&3
Sample Location ID: LT-3
ECC Personnel: Dave C Sue W

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (✓) Seep

Water Depth: 0-1/2"	Dissolved Oxygen (mg/L): 6.67 0.49
Velocity of Water: 0 still	ORP (mV) 35.7
Temperature (C): 15.55	Specific Conductance (uS/cm^c): 706
pH (units): 6.64	Turbidity (NTU) 128

Sample Observations:
( ) Odor None
( ) Color orange
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (✓) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other ____

Type of Samp. Collected: (✓) Discrete ( ) Composite

Sample Observations:
( ) Odor None
( ) Color brown/black
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-1&3-27-SEEP3	1&3	9/19/05 11:30	X		HCL	3
BN-1&3-27-SEEP 3	1&3	9/19/05 11:30	X		HNO3	1
BN-1&3-27-SEEP 3	1&3	9/19/05 11:30	X		None	2
BN-1&3-27-LT3	1&3	9/19/05 11:35		X	Na2S2O3	3
BN-1&327-LT3	1&3	9/19/05 11:35		X	MeOH	1
Notes / Comments:						
BN-1&3-27-LT3	1&3	9/19/05 11:35		X	None	1

Page ____ of ____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9.19.05 11:00

Site: 1 & 3
Sample Location ID: LT.4
ECC Personnel: Dave C, Sue W

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (✓) Seep

Water Depth: 0	Dissolved Oxygen (mg/L): 7.74
Velocity of Water: 0	ORP (mV) 67
Temperature (C): 14.46	Specific Conductance (uS/cm°): 777
pH (units): 6.46	Turbidity (NTU) 100

Sample Observations:
( ) Odor None
( ) Color nearly clear
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (✓) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other

Type of Samp. Collected: (✓) Discrete ( ) Composite

Sample Observations:
( ) Odor None
( ) Color brown/black
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix: Aqueous	Matrix: Solid	Preservative	Number of Containers
BN.1&3.27 SEEP 4	1&3	9/19/05 11:00	X		HCL	3
BN.1&3.27 SEEP 4	1&3	9/19/05 11:00	X		HNO3	1
BN.1&3.27.SEEP 4	1&3	9/19/05 11:00	X		None	2
BN.1&3.27.LT.4	1&3	9/19/05 11:05		X	Na2S2O3	3
BN.1&3.27.LT.4	1&3	9/19/05 11:05		X	MeOH	1
BN.1&3.27.LT 4	1&3	9/19/05 11:05		X	None	1

Notes / Comments:

sample from piezometer. No surface water

APPENDIX E.2

Eastern Plume

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-NASB-212

Date: 9-16-05
Sampler: David C.
PID Reading: 0.0ppm

Well Construction: 2" PVC
Depth to water: 8.45'
Well Depth: 67.11'
Water Column: 58.66'

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	05H1390 AA
YSI	600XLM	05H2025 AD
Solinst	water meter	26279

Time	Temp (celsius)	pH (STD)	SPC uS/cm^C	DO (mg/L)	ORP (mV)	
1325	8.38	6.89	348	0.09	-30	S

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1320	BN-EP-27-MW212-S	40ml vial	2	HCl	VOC
00:00	BN-EP-27-MW-XDS	40ml vial	2	HCl	VOC

Comments

Signature

9-16-05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: EP
Location: NASB, Brunswick, ME
Well ID: MW-311

Date: 9/16/05
Sampler: P Lynch
PID Reading:

Well Construction: 2" PVC
Depth to water: 12.68
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1060AG
YSI	600 XL M-D	05H2025AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
0955	8.02	6.63	513	0.24	-69.2

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
9:45	BN-EP-27 MW 311M	40ml VOA	2	HCl	TCL VOC
9:50	BN-EP-27 MW 311D	40ml VOA	2	HCl	TCL VOC

Comments

Signature

9/16/05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E P
Location: NASB, Brunswick, ME
Well ID: MW 332

Date: 9/16/05
Sampler: P Lynch
PID Reading:

Well Construction: 2" PVC
Depth to water: 10.41'
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1060 AG
YSI	600XLM-0	05H2025 AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm^{c}	DO (mg/L)	ORP (mV)
9:35	9.86	5.82	134	6.73	130.3

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
9:30	BN-EP-27-MW332M	40ml VOA	2	HCl	TCL VOC

Comments

Signature

9/16/05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-331

Date: 9.16.05
Sampler: David C.
PID Reading: 0.0ppm

Well Construction: 2" PVC
Depth to water: 0.0'
Well Depth: 55.15'
Water Column: 55.15'

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	0160417 AH
YSI	600XLM	05H2025 AA
Solinst	water meter	38176

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
10:00	☆ See	Comments			M

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
9:50	BN-EP-27-MW331-M	40ml vial	2	HCl	VOC

Comments

unable to collect Parameters due to well PVC Damage. YSI sonde will not fit in well, one foot into well there is an obstruction. Maybe from frost damage, this is an artisian well. (standing water between casing and ~~PVC~~ PVC freezing.)

Signature

9.16.05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 319

Date: 9-16-05
Sampler: Suzanne W
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 9.78
Well Depth: 72.07
Water Column: 62.29

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1390 AA
YSI	600 XLM	052025 AB
Solinst	water level	26279

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
11:09	8.23	6.22	361	0.02	198.7

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
~~11:00~~	~~BN.EP.MW3W~~				
11:00	BN.EP.27.MW319D	40 ml vial	3	HCL	TCL VOCs

Comments

Suzanne Whiteside
Signature

9-16-05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-224

Date: 9.15.05
Sampler: David C.
PID Reading: 0.0ppm

Well Construction: 2" PVC
Depth to water: 22.69'
Well Depth: 47.04'
Water Column: 24.35'

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	0160417 AH
YSI	600XLM	05H2025 AA
Solinst	water meter	38176

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	
12:40	8.45	5.96	67	11.13	129	M
~~12:45~~	DK					
~~12:50~~	DK					

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:35	BN-EP-27-MW224-M	40ml vial	2	HCl	VOC

Comments

Signature

9.15.05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E.P.
Location: NASB, Brunswick, ME
Well ID: MW-333

Date: 9/15/05
Sampler: MAC
PID Reading: —

Well Construction: 2" PVC
Depth to water: 9.91'
Well Depth: 42.74
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1390 AB
YSI	600 XL	05H2025 AE

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
0955	7.86	8.34	489	0.15	-172.9

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
0950	BN-EP-27-MW333M	40 ML	2	HCL	VOC

Comments

Mark A. Ca
Signature

9/15/05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E.P
Location: NASB, Brunswick, ME
Well ID: MW-313

Date: 9/15/05
Sampler: PL/MAC
PID Reading:

Well Construction: 2" PVC
Depth to water: 9.53'
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1060 AG
YSI	600XLM-O	05H2025 AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
9:41	7.90	8.38	568	0.21	-204.6

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
09:30	BN-EP27-MW313	2 40ML		HCL	VOC

Comments

Signature

9/15/05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-339

Date: 9.13.05
Sampler: David C.
PID Reading: 0.0ppm

Well Construction: 2" PVC
Depth to water: 2.26'
Well Depth: 74.75'
Water Column: 72.49'

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	05H1390 AA
YSI	600XLM	05H2025 AD
Solinst	water meter	26279

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	
1300	8.20	7.88	96	0.20	-94	S
1305	8.23	7.97	106	0.26	-101	M
1310	8.28	7.86	123	0.53	-86	D

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:55	BN-EP-27-MW339-S	40ml vial	2	HCl	VOC
12:55	BN-EP-27-MW339-M	40ml vial	2	HCl	VOC
12:55	BN-EP-27-MW339-D	40ml vial	2	HCl	VOC

Comments

Signature

9.13.05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-335

Date: 9.14.05
Sampler: David C.
PID Reading: 0.0ppm

Well Construction: 2" PVC
Depth to water: 18.11'
Well Depth: 89.08'
Water Column: 70.97'

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	05H1390 AA
YSI	600XLM	05H2025 AD
Solinst	water meter	38176

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	
9:25	7.75	7.35	222	0.15	-80	S
9:30	7.81	7.52	308	0.25	-91	M
9:35	7.85	7.65	351	0.56	-109	D

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
9:15	BN-EP-27-MW335-S	40ml vial	2	HCl	VOC
9:15	BN-EP-27-MW335-M	40ml vial	2	HCl	VOC
9:15	BN-EP-27-MW335-D	40ml vial	2	HCl	VOC

Comments

Signature

9.14.05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-336

Date: 9.14.05
Sampler: David C.
PID Reading: 0.0ppm

Well Construction: 2" PVC
Depth to water: 11.81'
Well Depth: 28.74'
Water Column: 16.93'

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1390 AA
YSI	600XLM	05H2025 AD
Solinst	water meter	38176

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	
12:35	7.61	5.86	35	9.74	234	S
12:30	7.35	6.04	39	9.45	217	M
12:25	7.39	6.17	43	9.03	204	D

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:15	BN-EP-27-MW336-S	40ml vial	2	HCl	VOC
12:15	BN-EP-27-MW336-M	40ml vial	2	HCl	VOC
12:15	BN-EP-27-MW336-D	40ml vial	2	HCl	VOC

Comments

Signature

9.14.05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 230 A

Date: 9-14-05
Sampler: Suzanne W.
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 13.90
Well Depth: 81.31
Water Column: 67.41

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1060 AG
YSI	600 XLM	05H2025 AB
Solinst	water level meter	26279

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
13:55	8.24	7.39	139	0.99	-78.5

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
13:30	BN-EP-27-MW-230A	40 ml vial	2	HCL	VOC
0:00	BN-EP-27-MW XD3	40 ml vial	2	HCL	VOC

Comments PDB Bag at Deep

Suzanne Whitesicle
Signature

9-14-05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 205

Date: 9.14.05
Sampler: Suzanne (W).
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 22.25
Well Depth: 76.81
Water Column: 54.56

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H 1060 AG
YSI	600 XLM	05H 2025 AB
Solinst water level		26279

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
14:40	8.45	7.57	198	3.69	-53

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
14:25	BN.EP.27.MW205	40 ml vial	2	HCL	VOC

Comments

Suzanne L Whiteside
Signature

9.14.05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 337

Date: 9-14-05
Sampler: Suzanne W.
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 14.67
Well Depth: 87.77
Water Column: 73.1

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1060AG
YSI	600 XLM	05H2025AB
Solinst	water level	26279

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	
9:55	8.62	7.47	154	0.56	-88.4	S
9:53	8.61	7.46	155	0.58	-99.6	M
9:51	8.67	7.40	157	0.82	-85.9	D

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
9:00	BNEP-MW337S	40 ml	2	HCL	VOC
9:00	BNEP-MW337M	↓	↓	↓	↓
9:00	BNEP-MW337D				
9:00	BNEP-MW337S MS/MSD				
9:00	BNEP-MWXD2	"	"	"	"

Comments

DUPLICATE TAKEN AT SHALLOW PDB

Suzanne Whiteside
Signature

9-14-05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-338A

Date: 10/3/05
Sampler: MAC
PID Reading: –

Well Construction: 2" PVC
Depth to water: 8.80
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02A0841AE
YSI	600 XL	01L0629AD
~~YSI~~ Lamotte	2020	6970-4598

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	
1450	8.40	8.36	1033	0.22	+163.0	D
1455	8.40	8.46	1010	0.15	-169.6	M
1505	8.33	8.51	0910	0.13	-176.0	S

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1500	BN-EP-27-MW-338AS	40ML	3	HCL	VOC
1500	BN-EP-27-MW-338AM	↓	↓	↓	↓
1500	BN-EP-27-MW-338AD	↓	↓	↓	↓

Comments Associated w/ trip blank ONEF-QT1

Signature

10/3/05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: 338 B

Date: 9-13-05
Sampler: Suzanne
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 1.08
Well Depth: 72.35
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	1050 MDS	05H1060 AG
YSI	600 XLM	05H2025AB
Solinst	water level	

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	
12:50	8.37	8.20	104	0.28	-134.3	S
12:47	8.45	8.20	104	0.33	-130.7	M
12:44	8.40	8.19	104	0.47	-122.9	D

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
11:00	BN-EP-27-MW338BS	40 ml vial	2	HCL	VOC
11:00	BN-EP-27-MW338BM	40 ml vial	2	HCL	VOC
11:00	BN-EP27-MW338BD	40 ml vial	2	HCL	VOC

Comments

Suzanne Whiteside
Signature

9-13-05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 315A

Date: 9.13.05
Sampler: Suzanne W.
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 2.08
Well Depth: ~~44.04~~
Water ~~Column~~: depth - 17.04
column - 74.96

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1060 A6
YSI	600 XLM	05H2025 AB
Solinst	Water level meter	

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	
15:26	8.19	8.11	143	0.25	-146.7	S
15:24	8.23	8.16	149	0.26	-148.9	M
15:22	8.31	8.22	171	0.30	-149.6	D

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
15:00	BNEP MW315AS	40 ml vial	2	HCL	VOC
15:00	BNEP MW 315AM	↓	↓	↓	↓
15:00	BNEP MW 315AD	↓	↓	↓	↓

Comments

Suzanne Whittacle
Signature

9.13.05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-338C

Date: 9.13.05
Sampler: David C.
PID Reading: 0.0 ppm

Well Construction: 2" PVC
Depth to water: 2.94'
Well Depth: 54.85'
Water Column: 51.91'

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	05H1390AA
YSI	600XLM	05H2025AD
Solinst	water meter	26279

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	
10:30	8.35	7.78	56	8.01	114	S
10:35	8.53	7.79	57	7.86	99.3	M
10:40	8.36	7.70	57	7.75	81.0	D

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
10:20	BN-EP-27-MW338C-S	40ml vial	2	HCl	VOC
10:20	BN-EP-27-MW338C-M	40ml vial	2	HCl	VOC
10:20	BN-EP-27-MW338C-D	40ml vial	2	HCl	VOC
10:20	BN-EP-27-MW338C-SMS	40ml vial	2	HCl	VOC
10:20	BN-EP-27-MW338C-SMSD	40ml vial	2	HCl	VOC
00:00	BN-EP-27-MW-XD1	40ml vial	2	HCl	VOC

Comments Field Duplicate obtained from Shallow PDB.

Signature

9.13.05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E. Plume
Date: 9/16/05
Location: NASB, Brunswick, ME
Sampler: MAC
Well ID: EW-5A
PID Reading:

Start Time: 1030 End Time:
Well Construction:
Depth to water: 14.91
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1390AB
YSI	600 XL	05H12025AE

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
1030			14.91	8.94	6.79	145	8.79	230.9		
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
10:35	BW-EP-27-EW5A	40 ml VOA	3	HCL	VOC

Comments

Mark A. Cu
Signature

9/16/05
Date

28.52
6.61
14.91

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E. Plume
Date: 9/16/05
Location: NASB, Brunswick, ME
Sampler: MAC
Well ID: EW-2A
PID Reading: —

Start Time: 0910 End Time:
Well Construction:
Depth to water: 37.59
Well Depth:
Water Column:
Total Volume Removed (L) 0

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1390 AB
YSI	600 XL	05H12025 AE

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
0915	—	—	37.59	8.22	7.53	101	3.54	49.8		
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
0925	BN-EP-27-EW-2A	40ML	3	HCL	VOC

Comments

Mark A. Co
Signature

9/16/05
Date

41.20
- 3.61
37.59

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: EP
Location: NASB, Brunswick, ME
Well ID: EW-1

Date: 9/16/05
Sampler: MAC
PID Reading:

Start Time: 10:05 **End Time:**
Well Construction:
Depth to water: ~~12.95~~ 8.99
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1390AB
YSI	600 XL	05H12025AE

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
10:15	–	–	8.99	9.08	6.63	95	8.21	196.7	–	–
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
10:10	BN-~~EP~~-27-EW1	40ml VOA	3	HCl	VOC

Comments

Signature

9/16/05
Date

12.95
- 3.96
8.99

Page ____ of ____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: E. Plume
Project Number: 5700.007
Sample Location ID: Seep 11
Date / Time:
ECC Personnel: PL/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (X) Seep

Water Depth: 1/2"	Dissolved Oxygen (mg/L): 4.56
Velocity of Water: Ø	ORP (mV) 203.3
Temperature (C): 11.07	Specific Conductance (uS/cm^c): 183
pH (units): 6.01	Turbidity (NTU) 60

Sample Observations:
( ) Odor
(X) Color Brown
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
( ) Color
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-EP-27-Seep11	Seep 11	9/16/05 1230	x		HCL	3

Notes / Comments: MS/MSD collected for VOCs only
VOCs only
BN-EP-27-Seep-XD 15 9/16/05 VOCs only
Took MS/MSD + Dupe @ this location because seep 10 was dry!

Page 1 of 1

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: E-Plume
Project Number: 5700.007
Sample Location ID: SW-10
Date / Time: 9/16/05 1240
ECC Personnel: PL/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (x) Stream ( ) River ( ) Seep

Water Depth: 2'	Dissolved Oxygen (mg/L): 8.54
Velocity of Water: 1/2 FPS	ORP (mV) ~~2~~ MAC 76.7
Temperature (C): 17.07	Specific Conductance (uS/cm°): 231
pH (units): 6.77	Turbidity (NTU) 4.6

Sample Observations:
( ) Odor
(x) Color Brownish
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
( ) Color
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-EP-27-SW10	SW-10	9/16/05 1245	x		HCL	3

Notes / Comments:
VOCs only

Page 1 of 1

ECC

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9/16/05 1345

Site: E. Plume
Sample Location ID: SW-13
ECC Personnel: PL/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River ( ) Seep

Water Depth: 6"	Dissolved Oxygen (mg/L): 8.14
Velocity of Water: 1/2 FPS	ORP (mV) 106.5
Temperature (C): 19.1C	Specific Conductance (uS/cm°): 175
pH (units): 7.08	Turbidity (NTU) 1.4

Sample Observations:
( ) Odor
( ) Color
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
( ) Color
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-EP-27-SW13	SW-13	9/16/05 1350	X		HCL	3 VOCs

Notes / Comments:
Collected MS/MSD on VOCs

BN-EP-27-SWXD16 - 3 40ML HCL VOCs only

Page 1 of 1

ECC

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Site: LF Plume
Sample Location ID: SW-11
Date / Time: 9/16/05 1300
ECC Personnel: PL/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (x) Stream ( ) River ( ) Seep

Water Depth: 1'	Dissolved Oxygen (mg/L): 9.67
Velocity of Water: 1/2 fps	ORP (mV) 96.5
Temperature (C): 17.28	Specific Conductance (uS/cm^c): 199
pH (units): 6.98	Turbidity (NTU) 4.6

Sample Observations:
( ) Odor
( ) Color
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt (x) Sand ( ) Other

Type of Samp. Collected: (x) Discrete ( ) Composite

Sample Observations:
( ) Odor
(x) Color Dark brown
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-EP-21-SW11		9/16/05 1310	x		HCL	3 VOC
		9/16/05 1310		x	—	3

Notes / Comments: MS/MSD/dupe on seds

Analyze seds for TOC, Metals/Pesticides, + Grainsize

BN-EP-27-SED-XD17

Page 1 of 1

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Project Number: 5700.007
Date / Time: 9/16/05 1320

Site: E. Plume
Sample Location ID: SW-14
ECC Personnel: PL/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (X) Stream ( ) River ( ) Seep

Water Depth: 9"	Dissolved Oxygen (mg/L): 8.41
Velocity of Water: 1 fps	ORP (mV) 162.1
Temperature (C): 19.05	Specific Conductance (uS/cm^c): 120
pH (units): 6.93	Turbidity (NTU) 1.4

Sample Observations:
( ) Odor
( ) Color
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other _____

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
( ) Color
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BW-EP-27-SW14	SW14	9/16/05 1330	X		HCL	3

Notes / Comments:
VOCs only

Page 1 of 1

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: E. Plume
Project Number: 5700.007
Sample Location ID: SW-12
Date / Time: 9/16/05 1315
ECC Personnel: PL/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (x) Stream ( ) River ( ) Seep

Water Depth:	6"	Dissolved Oxygen (mg/L):	9.61
Velocity of Water:	1 fps	ORP (mV)	127.6
Temperature (C):	17.96	Specific Conductance (uS/cm^c):	199
pH (units):	7.13	Turbidity (NTU)	1.4

Sample Observations:
( ) Odor
( ) Color Clear
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay ( ) Silt ( ) Sand ( ) Other _____

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
( ) Color
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-EP-27-SW12	SW-12	9/26/05 1320	X		HCL	3-VOC

Notes / Comments:

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: GWETS Comb. Effluent

Date: 9/16/05
Sampler: MAC
PID Reading:

Start Time: **End Time:**
Well Construction:
Depth to water:
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	05H1390AB
YSI	600XL	05A12025AE

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm^C	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
1055	—	—	—	13.35	7.38	197	10.64	221.6	0.2	
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1100	BN-EP-27-COMB EFFLUENT	40ML	~~3~~ 9 FJ	HCL	VOC MS/MSD
	"	40ML	~~3~~ 9 FJ	NONE	1,4-Dioxane MS/MSD

Comments

BN-EP-27-XD8 40ML 3 HCL VOC.
" 40ML 3 NONE 1,4 Dioxane

Mark A. Co
Signature

9/16/05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E. Plume
Date: 9/16/05
Location: NASB, Brunswick, ME
Sampler: MAC
Well ID: GWETS RAW INFLUENT
PID Reading: –

Start Time: 1115 End Time:
Well Construction:
Depth to water:
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	05H1390 AB
YSI	600XL	05H12025 AE

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
1115				11.41	657	197	8.40	201.7	1.9	
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1120	BN-EP-27-RAW Influent	40ML	3	HCL	VOC

Comments

Signature

9/16/05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: EastP. Lime
Location: NASB, Brunswick, ME
Well ID: P-111

Date: 9-16-05
Sampler: Suzanne W.
PID Reading: 0.0

Start Time: 9:43 End Time: 10:35
Well Construction: 3/4" PVC
Depth to water: 5.58
Well Depth: 9.85
Water Column: 4.27
Total Volume Removed (L) 6.3

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1390AA
YSI	600 XLM	05H2025AB
LaMotte turbidimeter		0978-4589
Geopump 2		07025
Solinst water level meter		

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm c	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
9:44	.1	125		17.01	7.39	154	7.23	98.2	519	cloudy
9:54	1.25	125		14.92	6.41	137	3.86	55.8	40	clear
10:04	1.25	125		15.29	6.42	136	3.21	52.1	13	clear
10:14	1.25	125		15.30	6.42	135	2.95	51.4	8	clear
10:24	1.25	125		15.38	6.42	134	2.56	50.8	7	clear
10:29	.6	125		15.55	6.42	136	2.41	48.7	6	clear
10:34	.6	125		15.46	6.42	135	2.39	48.2	5	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
10:35	BN-EP-27-P111	40 ml vial	3	HCL	TCL VOC
10:35	BN-EP27-P111	250 ml poly	1	None	Alk, Chl, Nit, Sulfate
10:35	BN-EP27-P111	500 ml poly	1	HNO_3	Metals
10:35	BN-EP 27-P111	500 ml poly	1	H_2SO_4	Nitrates & Nitrite
10:35	BN-EP27-P111	250 ml amber	1	H_2SO_4	TOC
0:00	BN-EP-27-XD6	40 ml vial	3	HCL	TCL VOC

Comments DR 890 Colorimeter 0.72 mg/L Ferrous Iron

Unable to gauge + sample 3/4" well. Water level meter did not fit

Suzanne Whiteside
Signature

9-16-05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: EP
Location: NASB, Brunswick, ME
Well ID: MW 313

Date: 9/15/05
Sampler: P Lynch
PID Reading:

Start Time: 9:15 **End Time:**
Well Construction: 2" PVC
Depth to water: 9.53'
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1060 AG
YSI	600XLM-O	05H2025 AB
LaMotte	2020	0970-4598
HACH	DR/890	030590025787

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
10:10	0	250	9.53	10.93	7.69	266	2.50	-102.3	59.7	
10:20	2.5	250	9.53	11.68	7.92	274	0.79	-154.6	175	
10:35	6.25	250	9.53	11.84	8.00	307	0.80	-166.8	333	
10:50	10.0	250	9.53	11.82	7.94	277	0.31	-183.5	100	
11:05		250	9.53	11.97	7.89	257	0.29	-180.4	55.1	
11:20	17.5	250	9.53	12.17	7.87	247	0.26	-171.3	25.8	
11:35		250	9.53	12.19	7.87	245	0.35	-174.1	18.9	
11:50		250	9.53	12.12	7.87	243	0.23	-178.4	19.5	
12:00		250	9.53	12.19	7.87	243	0.23	-179.4	24.4	
12:10	30	250	9.53	12.20	7.87	246	0.23	-178.9	19.3	
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:10	BN-EP-27-MW313	40ml VOA	2	HCl	~~Meth~~ ~~Eth~~ Eth
~~12:12~~	BN-EP-27-MW313	40ml VOA	3	4°C	1,4 Dioxane
MAC ~~12:14~~	BN-EP-27-MW313 MS	40ml VOA	3	4°C	1,4 Dioxane
~~12:16~~	BN-EP-27-MW313 MSD	40ml VOA	3	4°C	1,4 Dioxane
~~[illegible]~~	BN-EP-27-XD 4	40ml VOA	3	4°C	1,4 Dioxane
~~12:20~~	BN-EP-27-MW313	250 Poly	1	4°C	Alk, Cl-, NO_2, SO_4,
~~12:23~~	BN-EP-27 MW313	500 Poly	1	H_2SO_4	NO_2, NO_3
~~12:27~~	BN-EP-27 MW313	250 Amber	1	H_2SO_4	TOC
~~12:32~~	BN-EP-27 MW313	500 Poly	1	HNO_3	Fe, Mn, As

Comments

Fe = 0.42 mg/l ~~[illegible]~~

Signature

9/15/05
Date

Sample, MS+MSD @ 12:10 MAC

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: EP
Location: NASB, Brunswick, ME
Well ID: MW-333

Date: 9/15/05
Sampler: MAC
PID Reading: —

Start Time: 0955 **End Time:**
Well Construction:
Depth to water: 10.14
Well Depth: 42.74
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	05H1390AB
YSI	600XL	05H2025AE
Lamotte	2020	2523-1501

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm c	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
1017	—	200	10.14	10.77	7.56	262	3.71	-70.0	11	
1030	1.6	200	10.97	10.88	7.98	292	0.41	-170.0	90	
1045	4.6	200	10.84	11.64	7.97	305	0.52	-171.8	50	
1100	9.6	200	10.84	11.72	7.86	284	0.55	-172.7	30	
1130	19.6	200	10.84	12.02	7.76	244	0.33	-159.2	17	
1145	24.6	200	10.84	12.00	7.75	233	0.43	-162.6	17	
1200		200	10.84	12.02	7.75	228	0.49	-158.1	17	
1217		200		12.03	7.75	224	0.35	-164.6	13	
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1217	BN-EP-27-MW333	40ML	3	—	14 Dioxane
	"	250 Poly	1	—	Alk, Cl, NO_2, SO_4
	"	500 Poly	1	H_2SO_4	NO_2/NO_3
	"	40 ML	2	HCL	Methane/Ethane/Ethene
	"	250ML Amber	1	H_2SO_4	TOC
	"	500ml poly	1	HNO_3	Metals

Comments
BN-EP-27-MNAXD1 - MNA Parameters only

Mark A Co
Signature

9/15/05
Date

Ferrous Iron = 0.64 mg/L

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-334

Date: 9/15/05
Sampler: MAC/PL
PID Reading:

Start Time: 1310 End Time:
Well Construction:
Depth to water: 9.86
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1390 AB
YSI	600 XL	05H2025 AE
Lamotte	20/20	2523-1501

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
1320		100	9.86	13.55	7.84	188	3.82	-28.1	7.2	
1335		100	10.93	12.85	8.15	181	0.57	-182.8	130	
1345		100	10.97	12.95	8.16	182	0.63	-182.5	70	
1355		100	10.99	12.91	8.16	182	0.57	-184.6	32	
1405		100	11.00	12.96	8.17	182	0.52	-184.4	21	
1415		100	11:00	12.97	8.18	182	0.38	-194.4	20	
1435		100	11:00	13.06	8.17	182	0.40	-182.0	17	
1455		100	11:00	13.12	8.17	180	0.39	-181.3	14	
1510		100	11:00	13.09	8.17	180	0.39	-182.5	9	
1511		100	11.00	13.09	8.17	180	0.40	-181.6	9	
1512		100	11.00	13.10					8	
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1512	BN-EP-27-MW 334	40 ml	2	HCL	Ethane, Ethene
		500ML	1	H_2SO_4	NO_2, NO_3
		500ML	1	HNO_3	Fe, Mn, As
		250 ML Poly	1	—	Alk, Cl_2, NO_2, SO_4
		250 Amber	1	H_2SO_4	TOC

Comments

Signature

9/15/05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-224

Date: 9.15.05
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 1252 **End Time:** 1425
Well Construction: 2" PVC
Depth to water: 22.67'
Well Depth: 47.04'
Water Column: 24.37'
Total Volume Removed (L) 26.04

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01G0417 AH
YSI	600XLM	05H2025 AA
Lamotte	Turbidimeter	2505-15DI
Redi-Flo	Controller	243121

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
12:55	0.84	280	22.68	11.06	6.15	58	11.39	150	8	clear
1305	2.8	280	22.68	11.32	5.81	67	9.71	172	10	clear
1325	5.6	280	22.68	12.17	5.65	117	8.45	199	13	clear
1345	5.6	280	22.68	12.02	5.61	129	8.02	212	6	clear
1405	5.6	280	22.68	12.05	5.59	132	7.77	225	3	clear
1415	2.8	280	22.68	12.13	5.59	133	7.73	228	3	clear
1420	1.4	280	22.68	12.19	5.59	132	7.70	228	3	clear
1425	1.4	280	22.68	12.17	5.59	132	7.69	229	3	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1425	BN-EP-27-MW224	40ml vial	3	HCl	VOC
1425	BN-EP-27-MW224	500ml Poly	1	HNO_3	Total Fe, Mn, As
1425	BN-EP-27-MW224	250ml Poly	1	NONE	Alk, Chl, Nitrite, Sulfate
1425	BN-EP-27-MW224	500ml Poly	1	H_2SO_4	Nitrate, Nitrite
1425	BN-EP-27-MW224	40ml vial	2	HCl	Methane, Ethane, Ethene
1425	BN-EP-27-MW224	250ml Amber	1	H_2SO_4	TOC

Comments DR/890 Colorimeter = 0.00 mg/L Ferrous Iron

Signature

9.15.05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: ~~BN~~ P-106

Date: 9-15-05
Sampler: Suzanne W.
PID Reading: 0.0

Start Time: 10:15 **End Time:**
Well Construction: 3/4" PVC
Depth to water: 7.26
Well Depth: 69.48
Water Column: 62.22
Total Volume Removed (L) 28.7

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1390
YSI	600 XLM	05H2025
LaMotte turbidimeter		
Geopump 2		

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
10:16	.2	250		12.32	7.48	154	8.62	187.5	650	cloudy
10:20	2.5	250		9.71	7.06	127	8.35	225.8	170	cloudy
10:46	5	250		9.69	7.01	127	7.95	236.3	65	hazy
11:06	5	250		9.97	6.96	126	7.64	249.7	16	clear
11:26	5	250		10.10	6.96	126	7.63	256.8	9	clear
11:46	5	250		9.81	6.92	127	7.50	263.2	7	clear
12:06	4	200		9.80	6.93	127	7.46	263.7	6	clear
12:11	1	200		9.77	6.93	127	7.46	263.9	5	clear
12:16	1	200		9.78	6.92	127	7.46	264.0	5	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:17	BN-EP-27-P106	40 ml vial	3+2	HCL	TCL VOC & Meth Eth Ethe
12:17	BN-EP-27-P106	250 ml poly	1	None	Alk, Chl, Nit, Sulfate
12:17	BN-EP-27-P106	500 ml poly	1	HNO_3	Metals
12:17	BN-EP-27-P106	500 ml poly	1	H_2SO_4	Nitrate & Nitrite
12:17	BN-EP-27-P106	40 ml vial	3	None	1,4 Dioxane
12:17	BN-EP-27-P106	250 ml amber	1	H_2SO_4	TOC
12:17	BN-EP-27-P106 MS/MSD	40 ml	4	HCL	VOC
0:00	BN-EP-27-XP7	"	"	"	"

Comments Colorimeter DR/890 = 0.16 mg/L Ferrous Iron

3/4" well - no room for water level meter

Suzanne Whiteside
Signature

9-15-05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-331

Date: 9.16.05
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 10:05 **End Time:** 11:40
Well Construction: 2" PVC
Depth to water: 0.0'
Well Depth: 55.15'
Water Column: 55.15'
Total Volume Removed (L) 19.0

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01G0417 AH
YSI	600XLM	05H2025 AA
Lamotte	Turbidimeter	2533-1701
GeoPump²	Peristaltic	04493

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
10:10	1.0	200	0.0	10.63	6.51	291	5.37	153	170	cloudy
10:20	2.0	200	0.0	8.74	6.66	352	1.69	54	30	clear
10:40	4.0	200	0.0	8.60	6.61	368	0.71	52	4	clear
11:00	4.0	200	0.0	8.65	6.58	367	0.59	56	1	clear
11:20	4.0	200	0.0	8.67	6.35	387	0.71	73	0	clear
11:30	2.0	200	0.0	8.61	6.30	390	0.73	90	0	clear
11:35	1.0	200	0.0	8.64	6.29	390	0.72	92	0	clear
11:40	1.0	200	0.0	8.68	6.29	391	0.73	94	0	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
11:40	BN-EP-27-MW331	40ml vial	3	None	1,4 Dioxane
11:40	BN-EP-27-MW331	500ml Poly	1	HNO_3	Total Fe, Mn, As
11:40	BN-EP-27-MW331	250ml Poly	1	None	Alk, Chl, Nitrite, Sulfate
11:40	BN-EP-27-MW331	500ml Poly	1	H_2SO_4	Nitrate, Nitrite
11:40	BN-EP-27-MW331	40ml vial	2	HCl	Methane, Ethane, Ethene
11:40	BN-EP-27-MW331	250ml Amber	1	H_2SO_4	TOC

Comments

DR/890 colorimeter = 0.00 mg/L Ferrous Iron

This well is Artisian.

Signature

9.16.05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-315A

Date: 9.15.05
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 10:15 **End Time:** 12:20
Well Construction: 2" PVC
Depth to water: 0.80'
Well Depth: 77.07'
Water Column: 76.27'
Total Volume Removed (L) 28.75

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01G0417 AH
YSI	600XLM	05H2025 AA
Lamotte	Turbidimeter	2505-1501
Redi-Flo	Controller	243121

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
10:20	1.15	230	2.81	11.43	7.39	188	3.90	-52	7	clear
10:30	2.3	230	3.05	13.55	7.37	173	1.50	-95	56	cloudy
10:50	4.6	230	3.36	15.20	7.63	166	1.24	-93	66	cloudy
11:10	4.6	230	3.45	14.89	7.87	160	0.68	-103	56	cloudy
11:30	4.6	230	3.55	14.44	7.87	153	0.67	-115	34	clear
11:50	4.6	230	3.73	13.80	7.84	150	0.65	-109	33	clear
12:10	4.6	230	3.83	13.68	7.82	149	0.68	-113	21	clear
12:15	1.15	230	3.96	12.95	7.82	148	0.63	-117	20	clear
12:20	1.15	230	3.98	13.05	7.81	148	0.65	-122	19	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:20	BN-EP-27-MW315A	500ml Poly	1	HNO_3	Total Fe, Mn, As
12:20	BN-EP-27-MW315A	250ml Poly	1	None	Alk, Chl, Nitrite, Sulfate
12:20	BN-EP-27-MW315A	500ml Poly	1	H_2SO_4	Nitrate, Nitrite
12:20	BN-EP-27-MW315A	40ml vial	2	HCl	Methane, Ethane, Ethene
12:20	BN-EP-27-MW315A	250ml Amber	1	H_2SO_4	TOC

Comments DR/890 Colorimeter = 0.15 mg/L Ferrous Iron

Signature

9.15.05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-339

Date: 9.13.05
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 1321 **End Time:** 1525
Well Construction: 2" PVC
Depth to water: 2.24'
Well Depth: 74.75'
Water Column: 72.51'
Total Volume Removed (L) 35.41

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	05H1390 AA
YSI	600XLM	05H2025 AD
Lamotte	Turbidimeter	2505-1501
Redi-Flo	Controller	2139

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
1325	2.4	600	2.43	11.72	7.26	97	3.09	-53	55	cloudy
1335	2.75	275	2.41	11.20	7.93	100	0.53	-106	58	cloudy
1355	5.5	275	2.41	10.97	7.97	100	0.46	-114	27	clear
1415	5.5	275	2.42	10.78	8.06	95	0.30	-119	8	clear
1435	5.5	275	2.42	10.51	8.08	94	0.25	-125	3	clear
1455	5.5	275	2.42	10.52	8.11	94	0.22	-136	2	clear
1515	5.5	275	2.43	10.38	8.13	93	0.20	-140	1	clear
1520	1.38	275	2.43	10.32	8.12	93	0.19	-141	1	clear
1525	1.38	275	2.43	10.35	8.13	93	0.18	-142	1	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1525	BN-EP-27-MW339	40ml vial	3	HCl	VOC
1525	BN-EP-27-MW339	500ml Poly	1	HNO_3	Total FE, Mn, As
1525	BN-EP-27-MW339	250ml Poly	1	None	Alk, Chl, Nitrite, Sulfate
1525	BN-EP-27-MW339	500ml Poly	1	H_2SO_4	Nitrate, Nitrite
1525	BN-EP-27-MW339	40ml vial	2	HCl	Meth, Ethane, Ethene
1525	BN-EP-27-MW339	250ml Amber	1	H_2SO_4	TOC

Comments DR/890 Colorimeter = 0.13 mg/L Ferrous Iron

Signature

9.13.05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-338C

Date: 9.13.05
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 10:50 **End Time:** 12:35
Well Construction: 2" PVC
Depth to water: 2.96'
Well Depth: 54.85'
Water Column: 51.89'
Total Volume Removed (L) 32

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1390 AA
YSI	600XLM	05H2025 AD
Lamotte	Turbidimeter	2505-1501
Redi-Flo	Controller	2139

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
10:55	2.0	400	3.04	14.93	6.59	50	9.52	238	58	cloudy
11:05	3.0	300	3.02	11.68	7.32	53	8.17	239	101	cloudy
11:25	6.0	300	3.02	10.93	7.71	55	8.39	244	26	clear
11:45	6.0	300	3.02	11.06	7.81	55	8.44	247	9	clear
12:05	6.0	300	3.02	10.42	7.85	55	8.40	252	5	clear
12:25	6.0	300	3.02	10.71	7.85	55	8.30	254	3	clear
12:30	1.5	300	3.02	10.87	7.86	55	8.27	254	3	clear
12:35	1.5	300	3.02	10.56	7.86	55	7.86	255	3	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:35	BN-EP-27-MW338C	40ml vial	3	HCl	VOC
12:35	BN-EP-27-MW338C	500ml Poly	1	HNO_3	Total FE, Mn, As.
12:35	BN-EP-27-MW338C	250ml Poly	1	None	Alk, Chl, Nitrite, Sulfate
12:35	BN-EP-27-MW338C	500ml Poly	1	H_2SO_4	Nitrate, Nitrite
12:35	BN-EP-27-MW338C	40ml vial	2	HCl	Meth, Ethane, Ethene
12:35	BN-EP-27-MW338C	250ml Amber	1	H_2SO_4	TOC

Comments

DR/890 Colorimeter = 0.02 mg/L Ferrous Iron

Signature

9.13.05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-335

Date: 9.14.05
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 9:38 **End Time:** 11:40
Well Construction: 2" PVC
Depth to water: 18.10'
Well Depth: 89.08'
Water Column: 70.98'
Total Volume Removed (L) 34.7

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	05H1390 AA
YSI	600XLM	05H2025 AD
Lamotte	Turbidimeter	2505-1501
Redi-Flo	Controller	4632

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
9:40	1.0	500	18.21	10.19	7.29	213	3.51	-4	103	cloudy
9:50	4.0	400	18.19	9.99	7.47	302	0.56	-62	73	cloudy
10:00	2.7	270	18.16	10.27	7.44	301	0.45	-60	48	cloudy
10:20	5.4	270	18.16	10.37	7.44	301	0.31	-63	24	clear
10:40	5.4	270	18.17	10.40	7.46	299	0.27	-65	11	clear
11:00	5.4	270	18.17	10.47	7.48	297	0.23	-71	6	clear
11:20	5.4	270	18.17	10.44	7.49	297	0.21	-75	5	clear
11:30	2.7	270	18.17	10.48	7.50	297	0.21	-75	4	clear
11:35	1.35	270	18.17	10.53	7.51	297	0.21	-75	3	clear
11:40	1.35	270	18.17	10.49	7.50	298	0.21	-75	3	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
11:40	BN-EP-27-MW335	40ml vial	3	HCl	VOC
11:40	BN-EP-27-MW335	500ml Poly	1	HNO_3	Total Fe, Mn, As
11:40	BN-EP-27-MW335	250ml Poly	1	None	Alk, Chl, Nitrite Sulfate
11:40	BN-EP-27-MW335	500ml Poly	1	H_2SO_4	Nitrate, Nitrite
11:40	BN-EP-27-MW335	40ml vial	2	HCl	Methane, Ethane, Ethene
11:40	BN-EP-27-MW335	250ml Amber	1	H_2SO_4	TOC

Comments DR/890 Colorimeter = 0.32 mg/L Ferrous Iron

Signature

9.14.05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-336

Date: 9.14.05
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 1247 **End Time:** 1410
Well Construction: 2" PVC
Depth to water: 11.81'
Well Depth: 28.74'
Water Column: 16.93'
Total Volume Removed (L) 14.11

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	05H1390 AA
YSI	600XLM	05H2025 AD
Lamotte	Turbidimeter	2505-1501
Redi-Flo	Controller	4632

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
1250	0.51	170	11.82	9.53	6.15	58	11.40	227	37	cloudy
1300	1.7	170	11.83	9.93	5.93	39	10.43	205	30	clear
1320	3.4	170	11.83	9.27	5.96	39	10.21	229	4	clear
1340	3.4	170	11.83	9.22	5.96	40	10.16	242	1	clear
1400	3.4	170	11.83	9.07	5.96	40	10.18	251	1	clear
1405	0.85	170	11.83	9.09	5.95	39	10.13	254	0	clear
1410	0.85	170	11.83	8.99	5.96	40	10.15	255	0	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1410	BN-EP-27-MW336	40ml vial	3	HCl	VOC
1410	BN-EP-27-MW336	500ml Poly	1	HNO_3	Total Fe, Mn, As
1410	BN-EP-27-MW336	250ml Poly	1	None	Alk, Chl, Nitrite, Sulfate
1410	BN-EP-27-MW336	500ml Poly	1	H_2SO_4	Nitrate, Nitrite
1410	BN-EP-27-MW336	40ml vial	2	HCl	Methane, Ethane, Ethene
1410	BN-EP-27-MW336	250ml Amber	1	H_2SO_4	TOC

Comments DR/890 colorimeter = 0.00 mg/L Ferrous Iron

Signature

9.14.05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 337

Date: 9.14.05
Sampler: Suzanne W.
PID Reading: 0.0

Start Time: 10:16 **End Time:** 12:18
Well Construction: 2" PVC
Depth to water: 14.67
Well Depth: 87.77
Water Column: 73.1
Total Volume Removed (L) 38.8

Field Testing Equipment

Make	Model	Serial #
YSI 1050	MDS	05H 1060 AG
YSI 600	XLM	05H 2025 AB
LaMotte	turbidimeter	2533-1701
Grundfos	Rediflo	24:3121
Solinst	water level	26279

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
10:17	.3	325	14.98	10.93	7.53	157	3.13	-120.0	85	cloudy
10:27	3.25	325	14.92	10.34	7.47	156	0.49	-120.0	55	hazy
10:47	6.5	325	14.89	10.89	7.53	154	0.37	-133.9	19	clear
11:07	6.5	325	14.86	11.12	7.53	155	0.34	-134.7	10	clear
11:27	6.5	325	14.85	11.47	7.53	155	0.33	-137.6	38	clear
11:47	6.5	325	14.85	11.14	7.53	155	0.29	-137.2	15	clear
12:07	4.5	225	14.85	11:38	7.53	155	0.28	-140.7	10	clear
12:12	2.2	225	14.85	11:49	7.54	155	0.27	-140.6	9	clear
12:17	2.2	225	14.85	11:53	7.54	155	0.27	-140.6	8	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:18	BN EP-27-MW337	40 ml vial	3+2	HCL	TCL VOC, Meth, Eth Ethene
12:18	BN-EP-27-MW337	250 ml poly	1	HNO3	Metals
12:18	BN-EP-27-MW337	500 ml poly	1	H_2SO_4	Nitrate & Nitrite
12:18	BN-EP-27-MW337	250 ml poly	1	None	Alk, Chl, Nit, Sul,
12:18	BN-EP-27 MW337	250 ml Amber	1	H_2SO_4	TOC
12:18	BN-EP-27 MW337 MS/MSD				Same as above
0:00	BN-EP-27-MNAXD2				

Comments

Colorimeter DR/890 1.06 mg/L

Ferrous Iron

Suzanne M Whitesiede
Signature

9.14.05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: 338A

Date: 9-13-05
Sampler: Suzanne W.
PID Reading: 0.0

Start Time: 10:13 **End Time:** 12:15
Well Construction: 2" PVC
Depth to water: 0.65
Well Depth: 93.54
Water Column: 92.89
Total Volume Removed (L) 30.2

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1060 AG
YSI	600 XLM	05H2025 AB
LaMotte	turbidimeter	2533-1701
Grundfos	Rediflo	2/3121
Solinst	water level meter	

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
10:14	.2	250	0.80	11.44	6.92	8.813	3.63	35.1	95	cloudy
10:24	2.5	250	0.79	12.48	8.47	979	0.88	-124.9	130	cloudy
10:44	5	250	0.80	11.96	8.51	975	0.72	-137.7	90	cloudy
11:04	5	250	0.80	11.73	8.50	988	0.53	-141.0	50	hazy
11:24	5	250	0.80	11.63	8.51	964	0.43	-149.1	29	clear
11:44	5	250	0.80	11.72	8.51	965	0.44	-155.8	22	clear
12:04	5	250	0.80	11.73	8.52	963	0.39	-175.1	14	clear
12:09	1.25	250	0.80	11.74	8.53	959	0.39	-173.2		clear
12:14	1.25	250	0.80	11.75	8.54	960	0.39	-169.8		clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:15	BN-EP-27-MW338A	40 ml vial	3+2	HCL	TCL VOC, Meth/Eth/Eth
12:15	BN-EP-27 MW 338A	500 ml poly	1	HNO3	Total FE, Mn, As
12:15	BN-EP-27 MW 338A	500 ml poly	1	None	Alk, Chl, Nitrate, Sulfate
12:15	BN-EP-27 MW 338A	500 ml poly	1	H2SO4	Nitrate & Nitrite
12:15	BN-EP-27-MW 338A	40 ml vial	3	None	1,4 Dioxane
12:15	BN-EP-27 MW 338A	250 ml amber	1	H2SO4	TOC

12:15 sample time SW

Comments

12:15 sample time
Colorimeter DR890 - 0.01 mg/L
Ferrous Iron

Suzanne Whitehead
Signature

9.13.05
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: 338 B

Date: 9.13.05
Sampler: Suzanne
PID Reading: 0.0

Start Time: 13:04 **End Time:** 14:36
Well Construction: 2" PVC
Depth to water: 1.08
Well Depth: 72.35
Water Column: 71.27
Total Volume Removed (L) 24.95

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H1060 AG
YSI	600 XLM	05H2025AB
LaMotte	turbidimeter	2533-1701
Grundfos	rediflo	243121
Solinst	water level indicator	

Time	volume removed (liters)	Flow Rate (ml/min)	Depth To Water (ft)	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
13:05	.2	275	1.32	14.84	7.51	0.091	7.58	-107.4	31	hazy
13:15	2.75	275	1.58	10.87	8.16	102	0.29	-148.7	40	hazy
13:35	5.5	275	1.51	10.79	8.16	101	0.26	-151.6	20	clear
13:55	5.5	275	1.62	10:58	8.16	100	0.22	-159.1	14	clear
14:05	2.75	275	1.51	10.59	8.16	101	0.21	-159.1	10	clear
14:15	2.75	275	1.51	10.59	8.16	100	0.21	-159.3	9	clear
14:25	2.75	275	1.51	10.61	8.16	100	0.20	-160.1	6	clear
14:30	1.3	275	1.51	10.61	8.16	100	0.20	-160.6	5	clear
14:35	1.3	275	151	10.56	8.16	99	0.20	-160.7	5	clear
Acceptance Criteria:					10%	10%	10%	10%	<10	

2" screen volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
14:36	BN.EP.27.MW338B	40 ml vial	3	HCL	Tot. VOC
14:36	BN.EP.27.MW338B	500ml poly	1	HNO3	Total FE, MN, AS
14:36	BN.EP.27.MW338B	250ml poly	1	None	Alk, Chl, Nit, Sul,
14:36	BN.EP.27.MW 338B	500 ml poly	1	H2SO4	Nitrate & Nitrite
14:36	BN.EP27 MW338B	40 ml vial	2	HCL	Meth Eth Ethane
14:36	BN.EP27MW338B	250ml Ambel	1	H2SO4	TOC

14:36

Comments

DR/890 Colorimeter = 0.09 mg/L

Suzanne Whitside
Signature

9.13.05
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 205

Date: 9.14.05
Sampler: Suzanne (W).
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 22.25
Well Depth: 76.81
Water Column: 54.56

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	05H 1060 AG
YSI	600 XLM	05H 2025 AB
Solinst water level		26279

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
14:40	8.45	7.57	198	3.69	-53

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
14:25	BN.EP.27.MW205	40 ml vial	2	HCL	VOC

Comments

Suzanne L Whiteside
Signature

9.14.05
Date

APPENDIX F

Engineering Inspection Report

Project Name: NASB LTMP Event 27 | Project Number 5700.007.012.620 | Date 9/22/2005

Sites 1&3 Landfill Gas Monitoring

Weather 75/ sunny Barometer 1111.5 mbars

ECC Personnel: MAC

Equipment:GEM-500 Landfill GAS Monitor Calibration: CH4-50%, CO2- 35%

ID. No.	Labeled/ Capped	Probe/Vent Locked?		Casing Condition	Depth To Bottom	Pressure (In. H20)	% CH4	% O2	% CO2	Comments
G-4	Y/Y	Y		Good	NA	0.0	0.1	18.3	1.6	Sampler suction tube
G-5	Y/Y	Y		Good	NA	0.0	0.1	17.1	2.6	coupled directly to
G-6	Y/Y	Y		Good	NA	0.0	0.0	19.9	0.6	each Gas Probe
GV-01	Y/Y			Good	NA	0.0	0.1	18.9	1.5	Sampler suction
GV-02	Y/Y			Good	NA	0.0	0.1	15.1	4.4	tube inserted
GV-03	Y/Y			Good	NA	0.0	0.2	9.9	9.1	approximately
GV-04	Y/Y			Good	NA	0.0	0.1	13.8	5.6	2 feet down
GV-05	Y/Y			Good	NA	0.0	0.1	16.1	3.7	each Gas Vent
GV-06	Y/Y			Good	NA	0.0	0.1	20.1	0.2	
GV-07	Y/Y			Good	NA	0.0	0.1	19.3	0.8	
GV-08	Y/Y			Good	NA	0.0	0.1	20.2	0.2	
GV-09	Y/Y			Good	NA	0.0	0.1	17.9	1.6	
GV-10	Y/Y			Good	NA	0.0	0.1	17.1	2.3	
GV-11	Y/Y			Good	NA	0.0	0.1	20.6	0	
GV-12	Y/Y			Good	NA	0.0	0.1	17.5	2.8	
GV-13	Y/Y			Good	NA	0.0	0.0	20.3	0.2	
GV-14	Y/Y			Good	NA	0.0	0.0	20.7	0	

Rental instrument calibrated by Pine Environmental Services on 9/19/05

APPENDIX G

Analytical Report Form I Data Tables

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES 1& 3
SEPTEMBER 2005 SAMPLING ROUND 27 (SDG BNAS1&3)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITES 1 & 3 MONITORING EVENT 27

DATE: 3/28/2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Inorganic Analysis (1988), and

3. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Site 1& 3 and Eastern Plume LTMP QAPP (May 2000). The QAPP MPC and validation guideline exceedences are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Acronym or Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
%M	Percent moisture
%S	Percent solids
Ug/L	Microgram per liter
BD	Breakdown
BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verfication
COC	Chain of custody
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
LTMP	Long term monitoring plan
MeCl	Methylene chloride
MS	Matrix spike

Acronym or Abbreviation	Definition
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following:

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Northeast Laboratory
SDG #:__BNASS1&3
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Sites 1&3

# of SAMPLES/MATRIX: 1 MW & 1 MW FD
VALIDATION CONTRACTOR:__ECC
VALIDATOR'S NAME: Huison Chang
DV Completion Date: April 10, 2006
Date Sampled: September 14, 2005

ANALYTICAL DATA QUALITY SUMMARY

		VOC	Metals
1	Preservation and HT	O	O
2	Instrument Performance Check	O	O
3	Initial Calibration:	O	O
4	Continuing Calibration:	M	O
5	Blanks:	O	O
6	Surrogate Compounds:	O	-
7	Internal Standards	O	-
8	Matrix Spike/Matrix Spike Duplicate:	M	-
9	Sensitivity Check:	O	O
10	PE Samples- Accuracy Check	O	M
11	Target Compound Identification:	O	O
12	Compound Quantitation and Reported QLs	O	O
13	Tentatively Identified Compounds:	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-
15	Data Completeness	O	O
16	Overall Evaluation of Data:	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): None.

AREAS OF CONCERN: (M items):

VOC: ICV %Ds were above the MPC limit for chloromethane and vinyl chloride. Non-detects for these compounds were qualified UJ in all samples. CCV %Ds were above the MPC limit for 2-butanone and tetrachloroethene. Non-detects for these compounds were qualified UJ in all samples. High MS/MSD RPDs for chloromethane, vinyl chloride, carbon disulfide, and chlorobenzene.

Metals: LCS/LCS %Rs were above the MPC limits for Al, Fe, and K and %Rs were below the MPC for Ag. Ag non-detect was qualified UJ and Al and Fe detects were qualified J. High LCS/LCSD RPD for Fe resulted in J qualification.

COMMENTS:

Data Summary Table

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	1,2-Dichloroethane-d4	98	Y		0	76	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	4-Bromofluorobenzene	95	Y		0.14	86	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Benzene	0.33	Y	J	0.26	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Carbon Disulfide	1	N	UJ	0.27	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Chlorobenzene	1.6	Y	J	0.18	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Vinyl Chloride	1	N	UJ	0.43	1	ug/L
BN-1&3-27-MW217BS	AH10826	EPA 8260B	09/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	1,2-Dichloroethane-d4	97	Y		0	76	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	4-Bromofluorobenzene	94	Y		0.14	86	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Chlorobenzene	1.7	Y		0.18	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Vinyl Chloride	1	N	UJ	0.43	1	ug/L
BN-1&3-27-MW-XD10	AH10827	EPA 8260B	09/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	25	Aluminum Total	100	Y	J	0.0196	5	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	10	Arsenic Total	0.68	Y		0.0007158	0.1	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	1	Barium Total	0.37	Y		0.0015	0.2	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	1	Beryllium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	1	Cadmium Total	0.005	Y		0.0015	0.005	mg/L

Data Summary Table

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	10	Calcium Total	90	Y		0.153	50	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	10	Chromium Total	1.6	Y		0.0012	0.1	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	1	Cobalt Total	0.24	Y		0.0036	0.05	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	1	Copper Total	0.13	Y		0.0015	0.025	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	1	Iron Total	720	Y	J	0.0157	25	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	1	Lead Total	0.052	Y		0.0005564	0.003	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	10	Magnesium Total	55	Y		0.0902	50	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	10	Manganese Total	5.5	Y		0.0103	0.15	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	10	Nickel Total	1	Y		0.0015	0.4	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	10	Potassium Total	50	N	U	0.0584	50	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	10	Sodium Total	140	Y		0.2769	50	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	1	Vanadium Total	0.16	Y		0.0034	0.05	mg/L
BN-1&3-27-MW217B	AH10828	EPA 6010B	09/14/2005	L	10	Zinc Total	14	Y		0.0081	0.2	mg/L
BN-1&3-27-MW217B	AH10828	EPA 7041	09/14/2005	L	1	Antimony, Furnace-GW	0.015	Y		0.0009305	0.006	mg/L
BN-1&3-27-MW217B	AH10828	EPA 7470A	09/14/2005	L	1	Mercury by Cold Vapor GW	0.0002	Y		0.0002	0.0002	mg/L
BN-1&3-27-MW217B	AH10828	EPA 7740	09/14/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-MW217B	AH10828	EPA 7841	09/14/2005	L	1	Thallium, Furnace, Groundwater	0.012	Y		0.0004041	0.002	mg/L

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Metals 6010B/7041/7470A/7471A/7740/7841
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**Nitric Acid**	**Temp (^oC): 4.6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASS1&3**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-1&3-27-MW217B	AH10828

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	No field duplicate collected/analyzed with this SDG.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL and >IDL. No samples qualified.	X	-	
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blanks were non-detect for all metals.	X	-	
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	LCS %R's were < MPC for Ag and %Rs > MPC for Al, Fe, and K. Ag qualified UJ and Al & Fe qualified J. K is a non-detect. Laboratory accuracy is acceptable.	X	Ag non-detect was qualified UJ. Al & Fe detects qualified J.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
LCS/LCSD RPD	1) RPD<20%	All LCS/LCSD RPDs are within MPC except for Fe with high RPD. Fe detect qualified J. Laboratory precision is acceptable.	X	Fe detect was qualified J.	
MS Recovery	1) 75-125% ICP metals and Hg if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	No MS analyzed.	-	-	
MS/MSD RPD	MS/MSD RPD<20%	No MS/MSD analyzed.	-	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	No lab duplicate analyzed.	-	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	The sample diluted to bring results in calibration range.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ)	No negative blank detections. No samples qualified.	X	-	
Initial Cal Multipoint	1) Blank and 3 standards covering range of instrument. 2) high standard verification +/- %5 3) Hg 5-point calibration COD>0.99	All COD's > 0.99 in all initial calibration runs for all methods. No sample qualifications.	X	-	
Initial Calibration Blanks (ICB)	1) Ical blank after Ical 2) Results > QL; sample results <5X ; sample result U (nd) 3) Blank concentrations < project RLs 4) Sample results >5X blank level; no action 5) ABS >RL then J qualify data	No 6010B/Hg/Sb/Se/Tl ICB detections – no samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	1) CCB every 10 samples end of run 2) Blank concentrations < project RLs 3) Results > QL; sample results <5X ; sample result U 4) Sample results >5X blank level; no action ABS >RL then J qualify data.	No 6010B/Hg/Sb/Se/Tl CCB detections – no samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Serial Dilution	1) once per digestion batch 2) Not required per QAPP- no criteria provided. 3) %D<10% 4) %D not evaluated if element results is <50X IDL 5) J detects, UJ non-detects.	Serial dilution was analyzed for sample AH10828. Several %D> 10% but either the concentration < 50X IDL or the concentration in the undiluted analysis exceeded the upper calibration range. No samples qualified.	-	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J (if DL is <10 ug/l use 2X DL). 7) Absolute value of negative ICS-A response>DL and sample detects <5X ICS-A response: detects J, NDs as UJ 8) If the ICS-A is within limits, the ICS-AB may not be analyzed (USACE Shell)	Both ICS-A and ICS-AB %R's within MPC limits for all runs.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R) Hg 80-120%	6010B/Hg/ Se/Tl /Sb/ ICV %R's within MPC limits the initial calibration. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	6010B/Hg/Sb/ Se/Tl CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachment A-1)	NA	-	-	-
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
Tune Check	Within Method limits.	NA	-		

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Method 6010B for aqueous metals except for Se, Sb, Tl, and Hg. The LCS %R;s are within limits except low %Rs for Ag and high %Rs for Al, Fe, and K. The LCS/LCSD RPDs were within limits for all 6010 elements except for Fe with high RPD. Laboratory precision is acceptable. Hg. Se, Tl, and Sb analytical precision and accuracy within MPC limits. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: No field duplicate was collected/analyzed with this SDG.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

Cd and Hg result in EDD reported with “N” detect_flag. According to the Form I and the raw data indicated they are detects. “N” flag was change to “Y.”

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

VOCs 5030B/5035/8260B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl, MeOH, $NaHSO_4$**	**Cooler Temps (°C): 4.6**	**Northeast Laboratory-ME (NEL-ME)**	**NEL #: BNAS1&3**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-1&3-27-MW217BS	AH10826
BN-1&3-27-MW-XD10	AH10827 (Field Duplicate of AH10826)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures <6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	NA	-	-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	The aqueous method blank of 09/28/05 had a detect for hexachlorobutadiene at 0.45 ug/L. Hexachlorobutadiene was not detected in the samples. No samples were qualified. The aqueous method blank of 09/29/05 had detects for acetone, methylene chloride, and hexachlorobutadiene. Only QC samples were associated with this blank. No samples were qualified.	X	-	
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Trp blank BN-EP-27-QT2 (in SDG BNASEPB) was analyzed with no target compound detects. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <PQL/RL.	X	J for all samples with estimated results <MRL but >MDL.	
*TICs (if reported)	1) *verify library search for samples and blanks 2) verify TICs were not misreported compounds (different fraction or miss in search) 3) All TICs – J estimated 4) * verify blanks do not contain TIC peaks 5) * check TIC assignment spectra to STD spectra 6) *review blank and Samples for common lab contaminants	None Reported/not evaluated.	-	-	
Surrogates	1,2-Dichloroethane-d4 76-114% Dibromofluoromethane 86-118% Toluene-d8 88%-110% 4-BFB 86-115% *check raw data for surrogate (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	All surrogate recoveries were within the QAPP limits except for a high toluene-d8 %R in LCSD. No samples qualified. Note: QAPP surrogate dibromofluoromethane was not utilized.	X	-	
LCS Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	Methylene chloride and tetrachloroethene %Rs in the LCS and LCSD were above the MPC. These compounds were not detected in the samples. No samples were qualified.	X	-	
LCSD RPD	RPD=20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J-detects	LCSD RPD > 20% for methylene chloride. It was a nondetect and no samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*MS/MSD/unspike sample RSD	1) For unspiked compounds if reported, Non-MS spike compounds <50% RSD calculated MS/MSD/unspiked Qualification: >50% RSD J-detects 2)*recalculated the RPD (within 10% of lab)	NA	-	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	Native sample: AH10826. All %Rs within the MPC. No samples were qualified.	X	-	
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	MS/MSD RPDs RPDs > 20% for chloromethane, vinyl chloride, carbon disulfide, and chlorobenzene.	X	Chloromethane, vinyl chloride, carbon disulfide, non-detects were qualified UJ and chlorobenzene detect was qualifed J in sample 826.	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	Field samples and field duplicates collected/analyzed with this SDG: Field Duplicate Pairs Field sample 826 / Field duplicate 827 Benzene was detected in sample 826 below MRL. Chlorobenzene was detected in both samples with an RPD below 30%. Overall precision acceptable.	X	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) PFB = Pentafluorobenzene 9) FBZ = 1,4-difluorobenzene 10) CBZ = chlorobenzene-d5 11) DCB = 1,4 dichlorobenzene-d4 12)	The IS %Rs were acceptable for all aqueous samples.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRLs are less than LTMP QAPP MRLs. MRLS are less than MEG (except for vinyl chloride) and MCLs.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 (J –detects, R NDs) 5) RRF>0.05 all compounds 6) RRT < 0.06 units (all stds within 30 sec) 7) %RSD<15% for all non-CCCs or COD>0.99 *8) RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)/* 9) *verify that instrument parameters met method and that Ical and analysis used the same parameters 10) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 11) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 9/25/05: All RRFs, CCCs and SPCCs within MPC limits for all VOCs of concern. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Initial Cal (Linearity)	%RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 Qualification for compounds with : %RSD>30% and RRF>0.05 – J detects, UJ - NDs %RSD<30% and RRF<0.05; -J detects, R - ND %RSD>30% and RRF<0.05: J detects, R - ND (see VOA/SVIII-4)	Instrument MS1 9/25/05: %RSD>15% but the COD>0.99. Bromomethane and methylene chloride calibration curve is linear. No samples qualified.	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	All %Ds within MPC limits except for chloromethane and vinyl chloride. All results for these compounds were qualified UJ for nondetects and J for detects.	X	Chloromethane and vinyl chloride non-detects were qualified UJ in samples 826 and 827.	
CCV	1) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 2) RRF all compounds > 0.05 3) CCC: (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC) %D<20% (or all analytes if no CCCs reported). 4) Qualification-J detects, R or UJ NDs 5) *verify same instrument and parameters 6) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 7) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 8) *IS RRT<0.06 units (30 sec) 9) * IS area -50 % to 100 % of last ICAL 10) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 11) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/28/05: 2-Butanone and tetrachloroethene have %Ds>MPC		2-Butanone and PCE non-detects qualified UJ in samples sample 826 and 827.	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The aqueous results are usable for making project decisions, as qualified. All aqueous LCS/MS/MSD recoveries were within MPC limits except methylene chloride and tetrachloroethene in LCS/LCSD with %Rs above the MPC limits. The laboratory precision is acceptable with the exception of chloromethane, vinyl chloride, carbon disulfide, and	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		chlorobenzene MS/MSD RPDs above the MPC limits. ICV: Chloromethane and vinyl chloride were qualified UJ for non-detects in all samples due to high %Ds in ICV. CCV: 2-Butanone and tetrachloroethene were qualified UJ for non-detects in all samples due to %Ds > MPC. Method blank had a detect for hexachlorobutadien but it is not detected the samples. The reports MRLs and MDLs provide adequate sensitivity to support evaluation against MEG and MCLs for all compounds except vinyl chloride. Sampling Error Evaluation : Trip blank was non-detect for all target VOCs. No apparent field cross contamination. Field duplicate was collected and analyzed as part of this SDG. Field sample 826/field duplicate 827 Benzene was detected in the field sample at concentration below MRL. Chlorobenzene was detected in both samples with an RPD of 6.0%. Overall precision is acceptable.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet___X__. Sample Quantitation Calculations (TIER III only):

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES 1& 3
SEPTEMBER 2005 SAMPLING ROUND 27 (SDG BNAS1&3A)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITES 1 & 3 MONITORING EVENT 27

DATE: 3/28/2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Inorganic Analysis (1988), and

3. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Site 1& 3 and Eastern Plume LTMP QAPP (May 2000). The QAPP MPC and validation guideline exceedences are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Acronym or Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
%M	Percent moisture
%S	Percent solids
Ug/L	Microgram per liter
BD	Breakdown
BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verfication
COC	Chain of custody
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
LTMP	Long term monitoring plan
MeCl	Methylene chloride
MS	Matrix spike

Acronym or Abbreviation	Definition
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following:

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Northeast Laboratory
SDG #:__BNASS1&3A
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Sites 1&3

# of SAMPLES/MATRIX: 8 MW & 1 MW FD, 4 Seep & 1 Seep FD, 5 leachate & 1 leachate FD, 4 surface water & 1 surface water field duplicate;
VALIDATION CONTRACTOR:__ECC
VALIDATOR'S NAME: Guru Ranganathan & Jackson Kiker
DV Completion Date:_ August 15, 2005.
Date Sampled__4, 20, & 21 April 2005.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	Pesticides	Metals
1	Preservation and HT	M	O	O
2	Instrument Performance Check	O	O	M
3	Initial Calibration:	O	O	O
4	Continuing Calibration:	M	O	O
5	Blanks:	M	O	M
6	Surrogate Compounds:	M	O	-
7	Internal Standards	Z	O	-
8	Matrix Spike/Matrix Spike Duplicate:	M	O	Z
9	Sensitivity Check:	O	O	M
10	PE Samples- Accuracy Check	M	O	M
11	Target Compound Identification:	O	O	O
12	Compound Quantitation and Reported QLs	M	O	O
13	Tentatively Identified Compounds:	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	-
15	Data Completeness	O	O	O
16	Overall Evaluation of Data:	M	O	M

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items):

VOC: All non-detect results in samples AH11056 and AH11060 were rejected due to low IS %Rs (<20%). Nondetects results for bromoform, chlorobenzene, ethylbenzene, styrene in sample AH11055 were rejected due to low IS %Rs. Non-detect results for 1,1,2,2-Tetrachloroethane, and bromoform in sample AH11061 were rejected due to low IS %Rs.

Metals: Antimony in sample AH11060 and silver in sample AH11062 were rejected due to 0% MS recoveries.

AREAS OF CONCERN: (M items):

VOC: Chloromethane in samples AH11055, AH11056, AH11057, AH11061 were qualified U as method blank contamination. Acetone in samples AH11055, AH11056, AH11060 and AH11061 and 2-hexanone in sample AH11056 were qualified J because the concentrations exceeded the upper calibration range.
All detects in sample AH11060 were qualified J due to high surrogate recovery. Methylene chloride was qualified UJ for non-detect and J for detect in samples AH11051, AH11052, AH11053, AH11058, AH11059, AH11062, and AH11077 due to LCS/LCSD %R < MPC. Chloroethane was qualified UJ for non-detects and J for detects in sample AH11054, AH11055, AH11056, AH11057, AH11060, AH11061 due to LCS/LCSD %R < MPC. All detects in sample AH11060 were qualified J due to MS/MSD %Rs > UCL for all compounds. All compounds in sample AH11054 and AH11057 were qualified UJ for non-detects and J for detects due to IS %Rs < 50% but >20% for all internal standards. Other than rejected compounds listed above, non-detects were qualified UJ and detects were qualified J in sample AH11055 due to low IS %Rs. All detects were qualified J in sample AH11056 and AH11060 due to low IS %Rs. (Non-detects were rejected. See above)
CCV: Methylene chloride was qualified UJ for non-detects and J for detects in samples AH11051, AH11052, AH11053, AH11058, AH11059, and AH11060 due to CCV %Ds > MPC. Acetone, 2-butanone, hexachlorobutadiene were qualified UJ for non-detects and J for detects in sample AH11077 due to CCV %Ds >MPC.

Metals: Sediment sample AH11056, AH11057, AH11060, and AH11061 has %solids < 30%. Past sample results were not rejected for low %solid ; therefore, results were not rejected for consistency with previous rounds. All results were qualified J or UJ.
Ag, Be, Co were qualified UJ or J in all aqueous matrix due to LCS %Rs < LCL. Al detects were qualified J in sample AH11052 and AH10066 due to high LCS %Rs. Fe detects in all aqueous matrix due to high LCS %R. Zn detects qualified J in samples AH11053, AH11058, AH11059, AH11066, AH11067, AH11068, AH11070 and AH11071 due to LCS %R > UCL. Ag, K, Na, Se non-detects were qualified UJ and detects qualified J in all solid matrix due to LCS %Rs <LCL. Al and Fe detects qualified J in all solid matrix due to high LCS %Rs.
Ag was rejected R and Ni qualified UJ in sample AH11062 due to low MS %Rs (0% for Ag). Ag was qualified UJ and Zn qualified J in sample AH11067. Sb was qualified R in sample AH11060 due to 0% R. Na and Sb qualified UJ in sample AH11064 due to MS %Rs < LCL. Cu and Zn in sample AH11060 and Cr, Mn, Na, and PB in sample AH11064 were qualified J due to high MSD RPD. Zn in sample AH11060, AH11062, AH11067, Co and Pb in sample AH11060, and Ba and Cu in sample AH11064 were qualified J or UJ due to high laboratory duplicate RPDs.

COMMENTS:

Data Summary Table

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.2	N	U	0.0196	0.2	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.01	N	U	0.0007158	0.01	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	10	Calcium Total	150	Y		0.153	50	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Iron Total	1.7	Y	J	0.0157	0.1	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Magnesium Total	10	Y		0.0902	5	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Manganese Total	0.23	Y		0.0103	0.015	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	2	Potassium Total	60	Y		0.0584	10	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Sodium Total	14	Y		0.2769	5	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 6010B	09/19/2005	L	1	Zinc Total	0.02	N	U	0.0081	0.02	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	2,4,5,6-Tetrachloro-m-xylene	122	Y		0	29	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	4,4-DDD	0.1	N	U	0.0059	0.1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	4,4-DDE	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	4,4-DDT	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Aldrin	0.05	N	U	0.0053	0.05	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Alpha-BHC	0.05	N	U	0.0142	0.05	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	alpha-chlordane	0.05	N	U	0.0166	0.05	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Beta-BHC	0.05	N	U	0.0078	0.05	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Chlordane	0.5	N	U	0.21	0.5	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Decachlorobiphenyl	116	Y		0	25	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Delta-BHC	0.05	N	U	0.0121	0.05	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Dieldrin	0.1	N	U	0.0149	0.1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Endosulfan I	0.05	N	U	0.0088	0.05	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Endosulfan II	0.1	N	U	0.0111	0.1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Endosulfan Sulfate	0.1	N	U	0.0116	0.1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Endrin	0.1	N	U	0.0062	0.1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Endrin Aldehyde	0.1	N	U	0.0075	0.1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Endrin Ketone	0.1	N	U	0.0068	0.1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Gamma-BHC (Lindane)	0.05	N	U	0.0073	0.05	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	gamma-chlordane	0.05	N	U	0.0074	0.05	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Heptachlor	0.05	N	U	0.0089	0.05	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Heptachlor Epoxide	0.05	N	U	0.0083	0.05	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Hexachlorobenzene	0.05	N	U	0	0.05	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Methoxychlor	0.5	N	U	0.0079	0.5	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8081	09/19/2005	L	1	Toxaphene	1	N	U	0.678	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	113	Y		0	76	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	87	Y		0.14	86	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L

Data Summary Table

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Toluene-d8	99	Y		0	88	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-SEEP1	AH11051	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	10	Aluminum Total	8	Y	J	0.0196	2	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.03	Y		0.0007158	0.01	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Barium Total	0.46	Y		0.0015	0.2	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	10	Calcium Total	140	Y		0.153	50	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Chromium Total	0.03	Y		0.0012	0.01	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Iron Total	160	Y	J	0.0157	10	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Lead Total	0.05	Y		0.0005564	0.003	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Magnesium Total	9.8	Y		0.0902	5	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	25	Manganese Total	42	Y		0.0103	0.38	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	2	Potassium Total	60	Y		0.0584	10	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	10	Sodium Total	50	N	U	0.2769	50	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 6010B	09/19/2005	L	1	Zinc Total	0.02	N	U	0.0081	0.02	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.017	Y		0.0009305	0.006	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0008	Y		0.0002	0.0002	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.022	Y		0.0004041	0.002	mg/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	2,4,5,6-Tetrachloro-m-xylene	121	Y		0	29	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	4,4-DDD	0.1	N	U	0.0059	0.1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	4,4-DDE	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	4,4-DDT	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Aldrin	0.05	N	U	0.0053	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Alpha-BHC	0.05	N	U	0.0142	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	apha-chlordane	0.05	N	U	0	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Beta-BHC	0.05	N	U	0.0078	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Chlordane	0.5	N	U	0.21	0.5	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Decachlorobiphenyl	71	Y		0	25	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Delta-BHC	0.05	N	U	0.0121	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Dieldrin	0.1	N	U	0.0149	0.1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Endosulfan I	0.05	N	U	0.0088	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Endosulfan II	0.1	N	U	0.0111	0.1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Endosulfan Sulfate	0.1	N	U	0.0116	0.1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Endrin	0.1	N	U	0.0062	0.1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Endrin Aldehyde	0.1	N	U	0.0075	0.1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Endrin Ketone	0.1	N	U	0.0068	0.1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Gamma-BHC (Lindane)	0.59	Y		0.0073	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	gamma-chlordane	0.05	N	U	0.0074	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Heptachlor	0.05	N	UJ	0.0089	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Heptachlor Epoxide	0.05	N	U	0.0083	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Hexachlorobenzene	0.05	N	U	0	0.05	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Methoxychlor	0.5	N	UJ	0.0079	0.5	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8081	09/19/2005	L	1	Toxaphene	1	N	U	0.678	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	0.83	Y	J	0.39	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	0.72	Y	J	0.2	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	0.48	Y	J	0.28	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	110	Y		0	76	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	89	Y		0.14	86	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Acetone	5.2	Y		4.14	5	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-SEEP3	AH11052	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.2	N	U	0.0196	0.2	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.03	Y		0.0007158	0.01	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	10	Calcium Total	53	Y		0.153	50	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	10	Iron Total	23	Y	J	0.0157	1	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Magnesium Total	11	Y		0.0902	5	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	10	Manganese Total	3.5	Y		0.0103	0.15	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Potassium Total	6.2	Y		0.0584	5	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Sodium Total	12	Y		0.2769	5	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 6010B	09/19/2005	L	1	Zinc Total	0.03	Y	J	0.0081	0.02	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	2,4,5,6-Tetrachloro-m-xylene	83	Y		0	29	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	4,4-DDD	0.1	N	U	0.0059	0.1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	4,4-DDE	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	4,4-DDT	0.1	N	U	0.0156	0.1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Aldrin	0.05	N	U	0.0053	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Alpha-BHC	0.05	N	U	0.0142	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	alpha-chlordane	0.05	N	U	0.0166	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Beta-BHC	0.05	N	U	0.0078	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Chlordane	0.5	N	U	0.21	0.5	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Decachlorobiphenyl	101	Y		0	25	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Delta-BHC	0.05	N	U	0.0121	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Dieldrin	0.1	N	U	0.0149	0.1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Endosulfan I	0.05	N	U	0.0088	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Endosulfan II	0.1	N	U	0.0111	0.1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Endosulfan Sulfate	0.1	N	U	0.0116	0.1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Endrin	0.1	N	U	0.0062	0.1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Endrin Aldehyde	0.1	N	U	0.0075	0.1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Endrin Ketone	0.1	N	U	0.0068	0.1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Gamma-BHC (Lindane)	0.05	N	U	0.0073	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	gamma-chlordane	0.05	N	U	0.0074	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Heptachlor	0.05	N	U	0.0089	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Heptachlor Epoxide	0.05	N	U	0.0083	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Hexachlorobenzene	0.05	N	U	0	0.05	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Methoxychlor	0.5	N	U	0.0079	0.5	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8081	09/19/2005	L	1	Toxaphene	1	N	U	0.678	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	109	Y		0	76	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	89	Y		0.14	86	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Acetone	9.3	Y		4.14	5	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-SEEP5	AH11053	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	10	Aluminum Total	3300	Y	J	0.0196	17	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	4.3	N	U	0.0018	4.3	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Arsenic Total	0.86	N	U	0.0007158	0.86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Barium Total	12	Y		0.0015	0.86	mg/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Beryllium Total	0.43	N	U	0.0015	0.43	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Cadmium Total	0.86	N	U	0.0015	0.86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Calcium Total	1100	Y		0.153	86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Chromium Total	5.7	Y		0.0012	0.86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Cobalt Total	9.9	Y		0.0036	4.3	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Copper Total	2.6	Y		0.0015	0.86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	10	Iron Total	5700	Y	J	0.0157	8.6	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Lead Total Solid	3.5	Y		0.0012	0.86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Magnesium Total	1300	Y		0.0902	86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Manganese Total	74	Y		0.0103	0.86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Nickel Total	11	Y		0.0015	0.86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Potassium Total	520	Y	J	0.0584	86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Selenium Total	4.3	N	UJ	0.26	4.3	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Silver Total	0.43	N	UJ	0.0012	0.43	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Sodium Total	86	N	UJ	0.2769	86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Thallium Total	4.3	N	U	0.01	4.3	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Vanadium Total	8.9	Y		0.0034	4.3	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 6010B	09/19/2005	S	1	Zinc Total	16	Y		0.0081	0.86	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 7471A	09/19/2005	S	1	Mercury Total	0.12	Y		0.000103	0.04	mg/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,1,1-Trichloroethane	14	Y	ZZZ	0.29	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,1,1-Trichloroethane	5	N	UJ	0.29	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,1,2,2-Tetrachloroethane	320	Y	ZZZ	0.39	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,1,2,2-Tetrachloroethane	5.2	Y	J	0.39	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,1,2-Trichloroethane	5	N	ZZZ	0.2	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,1,2-Trichloroethane	5	N	UJ	0.2	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,1-Dichloroethane	8.2	Y	ZZZ	0.28	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,1-Dichloroethane	5	N	UJ	0.28	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,1-Dichloroethene	5	N	ZZZ	0.32	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,1-Dichloroethene	5	N	UJ	0.32	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,2-Dichlorobenzene	17	Y	ZZZ	0.34	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,2-Dichlorobenzene	1.2	Y	J	0.34	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane	5	N	ZZZ	0.46	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane	5	N	UJ	0.46	5	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	95	Y	ZZZ	0	61	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	83	Y		0	61	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethene (total)	82	Y	ZZZ	0.26	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethene (total)	5	N	UJ	0.26	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,2-Dichloropropane	5	N	ZZZ	0.1	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,2-Dichloropropane	5	N	UJ	0.1	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,3-Dichlorobenzene	13	Y	ZZZ	0.17	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,3-Dichlorobenzene	0.78	Y	J	0.17	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,4-Dichlorobenzene	25	Y	ZZZ	0.23	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	1,4-Dichlorobenzene	5	N	UJ	0.23	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	2-Butanone	290	Y	ZZZ	0.42	10	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	2-Butanone	2	Y	J	0.42	10	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	2-Hexanone	5	N	ZZZ	2.42	10	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	2-Hexanone	10	N	UJ	2.42	10	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	165	Y	ZZZ	0.14	68	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	94	Y		0.14	68	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	4-Methyl-2-pentanone	33	Y	ZZZ	1.33	10	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	4-Methyl-2-pentanone	10	N	UJ	1.33	10	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Acetone	3800	Y	ZZZ	4.14	10	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Acetone	21	Y	J	4.14	10	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Benzene	5	N	ZZZ	0.26	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Benzene	5	N	UJ	0.26	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Bromodichloromethane	5	N	ZZZ	0.22	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Bromodichloromethane	5	N	UJ	0.22	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Bromoform	7.7	Y	ZZZ	0.37	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Bromoform	5	N	UJ	0.37	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Bromomethane	5	N	ZZZ	0.52	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Bromomethane	5	N	UJ	0.52	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Carbon Disulfide	180	Y	ZZZ	0.27	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Carbon Disulfide	3.5	Y	J	0.27	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Carbon Tetrachloride	5	N	ZZZ	0.27	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Carbon Tetrachloride	5	N	UJ	0.27	5	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Chlorobenzene	9.7	Y	ZZZ	0.18	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Chlorobenzene	5	N	UJ	0.18	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Chloroethane	5	N	ZZZ	1.52	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Chloroethane	5	N	UJ	1.52	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Chloroform	5	N	ZZZ	0.42	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Chloroform	5	N	UJ	0.42	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Chloromethane	5	N	ZZZ	0.38	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Chloromethane	5	N	UJ	0.38	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	cis-1,3-Dichloropropene	5	N	ZZZ	0.13	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	cis-1,3-Dichloropropene	5	N	UJ	0.13	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Dibromochloromethane	5	N	ZZZ	0.32	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Dibromochloromethane	5	N	UJ	0.32	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Ethylbenzene	14	Y	ZZZ	0.15	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Ethylbenzene	5	N	UJ	0.15	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Methylene Chloride	300	Y	ZZZ	1.05	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Methylene Chloride	1.3	Y	J	1.05	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Styrene	11	Y	ZZZ	0.15	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Styrene	5	N	UJ	0.15	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Tetrachloroethene	35	Y	ZZZ	0.55	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Tetrachloroethene	5	N	UJ	0.55	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Toluene	64	Y	ZZZ	0.15	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Toluene	0.9	Y	J	0.15	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Toluene-d8	114	Y	ZZZ	0	61	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Toluene-d8	96	Y		0	61	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	trans-1,3-Dichloropropene	8.1	Y	ZZZ	0.64	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	trans-1,3-Dichloropropene	5	N	UJ	0.64	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Trichloroethene	100	Y	ZZZ	0.28	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Trichloroethene	1.1	Y	J	0.28	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Vinyl Chloride	5	N	ZZZ	0.43	10	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Vinyl Chloride	10	N	UJ	0.43	10	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Xylenes (total)	50	Y	ZZZ	0.52	5	ug/Kg
BN-1&3-27-LT1	AH11054	EPA 8260B	09/19/2005	S	1	Xylenes (total)	5	N	UJ	0.52	5	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Aluminum Total	53000	Y	J	0.0196	420	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	10	N	U	0.0018	10	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Arsenic Total	11	Y		0.0007158	2.1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Barium Total	130	Y		0.0015	2.1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Beryllium Total	1	N	U	0.0015	1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Cadmium Total	2.1	N	U	0.0015	2.1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Calcium Total	6400	Y		0.153	210	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Chromium Total	17	Y		0.0012	2.1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Cobalt Total	10	N	U	0.0036	10	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Copper Total	2.1	N	U	0.0015	2.1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Iron Total	64000	Y	J	0.0157	210	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Lead Total Solid	16	Y		0.0012	2.1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Magnesium Total	1400	Y		0.0902	210	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Manganese Total	3000	Y		0.0103	2.1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Nickel Total	8.1	Y		0.0015	2.1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Potassium Total	370	Y	J	0.0584	210	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Selenium Total	10	N	UJ	0.26	10	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Silver Total	1	N	UJ	0.0012	1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Sodium Total	210	N	UJ	0.2769	210	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Thallium Total	10	N	U	0.01	10	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Vanadium Total	17	Y		0.0034	10	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 6010B	09/19/2005	S	1	Zinc Total	2.1	N	U	0.0081	2.1	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 7471A	09/19/2005	S	1	Mercury Total	1.3	Y		0.000103	0.094	mg/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,1,1-Trichloroethane	9	N	UJ	0.29	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,1,1-Trichloroethane	9	N	ZZZ	0.29	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,1,2,2-Tetrachloroethane	9	N	J	0.39	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,1,2,2-Tetrachloroethane	530	Y	ZZZ	0.39	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,1,2-Trichloroethane	15	Y	J	0.2	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,1,2-Trichloroethane	2800	Y	ZZZ	0.2	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,1-Dichloroethane	9	N	UJ	0.28	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,1-Dichloroethane	9	N	ZZZ	0.28	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,1-Dichloroethene	9	N	UJ	0.32	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,1-Dichloroethene	9	N	ZZZ	0.32	9	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,2-Dichlorobenzene	22	Y	J	0.34	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,2-Dichlorobenzene	190	Y	ZZZ	0.34	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,2-Dichloroethane	3.5	Y	J	0.46	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,2-Dichloroethane	9	N	ZZZ	0.46	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	94	Y		0	61	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	not detected	N	ZZZ	0	61	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,2-Dichloroethene (total)	15	Y	J	0.26	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,2-Dichloroethene (total)	9	N	ZZZ	0.26	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,2-Dichloropropane	9	N	UJ	0.1	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,2-Dichloropropane	9	N	ZZZ	0.1	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,3-Dichlorobenzene	7.4	Y	J	0.17	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,3-Dichlorobenzene	64	Y	ZZZ	0.17	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,4-Dichlorobenzene	37	Y	J	0.23	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	1,4-Dichlorobenzene	330	Y	ZZZ	0.23	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	2-Butanone	18	N	UJ	0.42	18	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	2-Butanone	18	N	ZZZ	0.42	18	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	2-Hexanone	53	Y	J	2.42	18	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	2-Hexanone	9400	Y	ZZZ	2.42	18	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	85	Y		0.14	68	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	185	Y	ZZZ	0.14	68	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	4-Methyl-2-pentanone	3.4	Y	J	1.33	18	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	4-Methyl-2-pentanone	510	Y	ZZZ	1.33	18	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Acetone	1100	Y	J	4.14	18	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Acetone	18	N	ZZZ	4.14	18	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Benzene	3.3	Y	J	0.26	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Benzene	9	N	ZZZ	0.26	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Bromodichloromethane	9	N	UJ	0.22	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Bromodichloromethane	9	N	ZZZ	0.22	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Bromoform	9	N	R	0.37	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Bromoform	9	N	ZZZ	0.37	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Bromomethane	9	N	UJ	0.52	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Bromomethane	9	N	ZZZ	0.52	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Carbon Disulfide	45	Y	J	0.27	9	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Carbon Disulfide	9	N	ZZZ	0.27	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Carbon Tetrachloride	9	N	UJ	0.27	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Carbon Tetrachloride	9	N	ZZZ	0.27	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Chlorobenzene	9	N	R	0.18	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Chlorobenzene	660	Y	ZZZ	0.18	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Chloroethane	9	N	UJ	1.52	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Chloroethane	9	N	ZZZ	1.52	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Chloroform	9	N	UJ	0.42	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Chloroform	9	N	ZZZ	0.42	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Chloromethane	8	Y	UJ	0.38	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Chloromethane	9	N	ZZZ	0.38	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	cis-1,3-Dichloropropene	9	N	UJ	0.13	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	cis-1,3-Dichloropropene	9	N	ZZZ	0.13	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Dibromochloromethane	9	N	UJ	0.32	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Dibromochloromethane	9	N	ZZZ	0.32	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Ethylbenzene	9	N	R	0.15	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Ethylbenzene	56	Y	ZZZ	0.15	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Methylene Chloride	5.2	Y	J	1.05	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Methylene Chloride	9	N	ZZZ	1.05	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Styrene	9	N	R	0.15	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Styrene	58	Y	ZZZ	0.15	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Tetrachloroethene	5.5	N	J	0.55	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Tetrachloroethene	1200	Y	ZZZ	0.55	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Toluene	3.4	Y	J	0.15	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Toluene	990	Y	ZZZ	0.15	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	1	Toluene-d8	90	Y		0	61	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	1	Toluene-d8	146	Y	ZZZ	0	61	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	trans-1,3-Dichloropropene	9	N	UJ	0.64	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	trans-1,3-Dichloropropene	9	N	ZZZ	0.64	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Trichloroethene	24	Y	J	0.28	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Trichloroethene	4300	Y	ZZZ	0.28	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Vinyl Chloride	4.8	Y	J	0.43	18	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Vinyl Chloride	18	N	ZZZ	0.43	18	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Xylenes (total)	6.3	Y	J	0.52	9	ug/Kg
BN-1&3-27-LT3	AH11055	EPA 8260B	09/19/2005	S	2	Xylenes (total)	270	Y	ZZZ	0.52	9	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Aluminum Total	7200	Y	J	0.0196	8.7	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	22	N	UJ	0.0018	22	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Arsenic Total	44	Y	J	0.0007158	4.4	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Barium Total	51	Y	J	0.0015	4.4	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Beryllium Total	2.2	N	UJ	0.0015	2.2	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Cadmium Total	4.4	N	UJ	0.0015	4.4	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Calcium Total	20000	Y	J	0.153	440	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Chromium Total	16	Y	J	0.0012	4.4	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Cobalt Total	54	Y	J	0.0036	22	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Copper Total	19	Y	J	0.0015	4.4	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	10	Iron Total	26000	Y	J	0.0157	44	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Lead Total Solid	130	Y	J	0.0012	4.4	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Magnesium Total	1100	Y	J	0.0902	440	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Manganese Total	66	Y	J	0.0103	4.4	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Nickel Total	170	Y	J	0.0015	4.4	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Potassium Total	440	N	UJ	0.0584	440	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Selenium Total	22	N	UJ	0.26	22	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Silver Total	2.2	N	UJ	0.0012	2.2	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Sodium Total	440	N	UJ	0.2769	440	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Thallium Total	22	N	UJ	0.01	22	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Vanadium Total	64	Y	J	0.0034	22	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 6010B	09/19/2005	S	1	Zinc Total	22	Y	J	0.0081	4.4	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 7471A	09/19/2005	S	1	Mercury Total	3.7	Y	J	0.000103	0.21	mg/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,1,1-Trichloroethane	22	N	R	0.29	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,1,1-Trichloroethane	30	N	ZZZ	0.29	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,1,2,2-Tetrachloroethane	22	N	R	0.39	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,1,2,2-Tetrachloroethane	30	N	ZZZ	0.39	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,1,2-Trichloroethane	22	N	R	0.2	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,1,2-Trichloroethane	30	N	ZZZ	0.2	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,1-Dichloroethane	22	N	R	0.28	22	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,1-Dichloroethane	30	N	ZZZ	0.28	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,1-Dichloroethene	22	N	R	0.32	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,1-Dichloroethene	30	N	ZZZ	0.32	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,2-Dichlorobenzene	61	Y	J	0.34	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,2-Dichlorobenzene	110	Y	ZZZ	0.34	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,2-Dichloroethane	22	N	R	0.46	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,2-Dichloroethane	30	N	ZZZ	0.46	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	63	Y		0	61	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	161	Y	ZZZ	0	61	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,2-Dichloroethene (total)	4.6	Y	J	0.26	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,2-Dichloroethene (total)	30	N	ZZZ	0.26	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,2-Dichloropropane	22	N	R	0.1	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,2-Dichloropropane	30	N	ZZZ	0.1	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,3-Dichlorobenzene	43	Y	J	0.17	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,3-Dichlorobenzene	92	Y	ZZZ	0.17	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	1,4-Dichlorobenzene	700	Y	J	0.23	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	1,4-Dichlorobenzene	1000	Y	ZZZ	0.23	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	2-Butanone	280	Y	J	0.42	45	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	2-Butanone	620	Y	ZZZ	0.42	61	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	2-Hexanone	1200	Y	J	2.42	45	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	2-Hexanone	61	N	ZZZ	2.42	61	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	102	Y		0.14	68	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	82	Y	ZZZ	0.14	68	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	4-Methyl-2-pentanone	66	Y	J	1.33	45	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	4-Methyl-2-pentanone	61	N	ZZZ	1.33	61	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Acetone	9200	Y	J	4.14	45	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Acetone	14000	Y	ZZZ	4.14	61	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Benzene	15	Y	J	0.26	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Benzene	11	Y	ZZZ	0.26	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Bromodichloromethane	22	N	R	0.22	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Bromodichloromethane	30	N	ZZZ	0.22	30	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Bromoform	22	N	R	0.37	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Bromoform	30	N	ZZZ	0.37	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Bromomethane	22	N	R	0.52	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Bromomethane	30	N	ZZZ	0.52	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Carbon Disulfide	230	Y	J	0.27	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Carbon Disulfide	11	Y	ZZZ	0.27	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Carbon Tetrachloride	22	N	R	0.27	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Carbon Tetrachloride	30	N	ZZZ	0.27	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Chlorobenzene	32	Y	J	0.18	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Chlorobenzene	34	Y	ZZZ	0.18	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Chloroethane	22	N	R	1.52	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Chloroethane	30	N	ZZZ	1.52	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Chloroform	7	Y	J	0.42	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Chloroform	30	N	ZZZ	0.42	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Chloromethane	31	Y	R	0.38	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Chloromethane	53	Y	ZZZ	0.38	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	cis-1,3-Dichloropropene	22	N	R	0.13	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	cis-1,3-Dichloropropene	30	N	ZZZ	0.13	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Dibromochloromethane	22	N	R	0.32	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Dibromochloromethane	30	N	ZZZ	0.32	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Ethylbenzene	22	N	R	0.15	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Ethylbenzene	38	Y	ZZZ	0.15	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Methylene Chloride	190	Y	J	1.05	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Methylene Chloride	1100	Y	ZZZ	1.05	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Styrene	22	N	R	0.15	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Styrene	26	Y	ZZZ	0.15	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Tetrachloroethene	38	Y	J	0.55	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Tetrachloroethene	23	Y	ZZZ	0.55	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Toluene	86	Y	J	0.15	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Toluene	140	Y	ZZZ	0.15	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	1	Toluene-d8	97	Y		0	61	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	1	Toluene-d8	98	Y	ZZZ	0	61	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	trans-1,3-Dichloropropene	22	N	R	0.64	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	trans-1,3-Dichloropropene	30	N	ZZZ	0.64	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Trichloroethene	22	N	R	0.28	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Trichloroethene	30	N	ZZZ	0.28	30	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Vinyl Chloride	45	N	R	0.43	45	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Vinyl Chloride	61	N	ZZZ	0.43	61	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	4	Xylenes (total)	120	Y	J	0.52	22	ug/Kg
BN-1&3-27-LT4	AH11056	EPA 8260B	09/19/2005	S	6	Xylenes (total)	140	Y	ZZZ	0.52	30	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Aluminum Total	2700	Y	J	0.0196	9.1	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	23	N	UJ	0.0018	23	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Arsenic Total	740	Y	J	0.0007158	460	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Barium Total	78	Y	J	0.0015	4.6	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Beryllium Total	2.3	N	UJ	0.0015	2.3	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Cadmium Total	4.6	N	UJ	0.0015	4.6	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Calcium Total	7400	Y	J	0.153	460	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Chromium Total	4.6	N	UJ	0.0012	4.6	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Cobalt Total	63	Y	J	0.0036	23	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Copper Total	4.6	N	UJ	0.0015	4.6	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Iron Total	260000	Y	J	0.0157	460	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Lead Total Solid	24	Y	J	0.0012	4.6	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Magnesium Total	740	Y	J	0.0902	460	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Manganese Total	2000	Y	J	0.0103	4.6	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Nickel Total	31	Y	J	0.0015	4.6	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Potassium Total	460	N	UJ	0.0584	460	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Selenium Total	23	N	UJ	0.26	23	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Silver Total	2.3	N	UJ	0.0012	2.3	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Sodium Total	460	N	UJ	0.2769	460	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Thallium Total	23	N	UJ	0.01	23	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Vanadium Total	23	N	UJ	0.0034	23	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 6010B	09/19/2005	S	1	Zinc Total	4.6	N	UJ	0.0081	4.6	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 7471A	09/19/2005	S	1	Mercury Total	0.2	N	UJ	0.000103	0.2	mg/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,1,1-Trichloroethane	23	N	UJ	0.29	23	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,1,1-Trichloroethane	23	N	ZZZ	0.29	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,1,2,2-Tetrachloroethane	23	N	UJ	0.39	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,1,2,2-Tetrachloroethane	23	N	ZZZ	0.39	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,1,2-Trichloroethane	23	N	UJ	0.2	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,1,2-Trichloroethane	23	N	ZZZ	0.2	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,1-Dichloroethane	23	N	UJ	0.28	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,1-Dichloroethane	23	N	ZZZ	0.28	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,1-Dichloroethene	23	N	UJ	0.32	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,1-Dichloroethene	23	N	ZZZ	0.32	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,2-Dichlorobenzene	23	Y	J	0.34	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,2-Dichlorobenzene	100	Y	ZZZ	0.34	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,2-Dichloroethane	23	N	UJ	0.46	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,2-Dichloroethane	23	N	ZZZ	0.46	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	87	Y		0	61	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	117	Y	ZZZ	0	61	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,2-Dichloroethene (total)	23	N	UJ	0.26	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,2-Dichloroethene (total)	23	N	ZZZ	0.26	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,2-Dichloropropane	23	N	UJ	0.1	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,2-Dichloropropane	23	N	ZZZ	0.1	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,3-Dichlorobenzene	16	Y	J	0.17	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,3-Dichlorobenzene	76	Y	ZZZ	0.17	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,4-Dichlorobenzene	440	Y	J	0.23	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	1,4-Dichlorobenzene	1500	Y	ZZZ	0.23	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	2-Butanone	38	Y	J	0.42	46	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	2-Butanone	160	Y	ZZZ	0.42	46	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	2-Hexanone	46	N	UJ	2.42	46	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	2-Hexanone	46	N	ZZZ	2.42	46	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	81	Y		0.14	68	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	63	N	ZZZ	0.14	68	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	4-Methyl-2-pentanone	46	N	UJ	1.33	46	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	4-Methyl-2-pentanone	46	N	ZZZ	1.33	46	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Acetone	870	Y	J	4.14	46	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Acetone	3300	Y	ZZZ	4.14	46	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Benzene	23	N	UJ	0.26	23	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Benzene	5.6	Y	ZZZ	0.26	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Bromodichloromethane	23	N	UJ	0.22	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Bromodichloromethane	23	N	ZZZ	0.22	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Bromoform	23	N	UJ	0.37	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Bromoform	23	N	ZZZ	0.37	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Bromomethane	23	N	UJ	0.52	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Bromomethane	23	N	ZZZ	0.52	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Carbon Disulfide	5.4	Y	J	0.27	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Carbon Disulfide	84	Y	ZZZ	0.27	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Carbon Tetrachloride	23	N	UJ	0.27	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Carbon Tetrachloride	23	N	ZZZ	0.27	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Chlorobenzene	2.6	Y	J	0.18	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Chlorobenzene	5.6	Y	ZZZ	0.18	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Chloroethane	23	N	UJ	1.52	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Chloroethane	23	N	ZZZ	1.52	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Chloroform	23	N	UJ	0.42	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Chloroform	23	N	ZZZ	0.42	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Chloromethane	12	Y	UJ	0.38	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Chloromethane	31	Y	ZZZ	0.38	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	cis-1,3-Dichloropropene	23	N	UJ	0.13	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	cis-1,3-Dichloropropene	23	N	ZZZ	0.13	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Dibromochloromethane	23	N	UJ	0.32	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Dibromochloromethane	23	N	ZZZ	0.32	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Ethylbenzene	23	N	UJ	0.15	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Ethylbenzene	4.6	Y	ZZZ	0.15	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Methylene Chloride	23	N	UJ	1.05	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Methylene Chloride	59	Y	ZZZ	1.05	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Styrene	23	N	UJ	0.15	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Styrene	4.9	Y	ZZZ	0.15	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Tetrachloroethene	23	N	UJ	0.55	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Tetrachloroethene	23	N	ZZZ	0.55	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Toluene	4.6	Y	J	0.15	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Toluene	66	Y	ZZZ	0.15	23	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	1	Toluene-d8	88	Y		0	61	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	1	Toluene-d8	78	Y	ZZZ	0	61	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	trans-1,3-Dichloropropene	23	N	UJ	0.64	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	trans-1,3-Dichloropropene	23	N	ZZZ	0.64	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Trichloroethene	23	N	UJ	0.28	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Trichloroethene	23	N	ZZZ	0.28	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Vinyl Chloride	46	N	UJ	0.43	46	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Vinyl Chloride	46	N	ZZZ	0.43	46	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Xylenes (total)	23	N	UJ	0.52	23	ug/Kg
BN-1&3-27-LT5	AH11057	EPA 8260B	09/19/2005	S	5	Xylenes (total)	17	Y	ZZZ	0.52	23	ug/Kg
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.2	N	U	0.0196	0.2	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.01	N	U	0.0007158	0.01	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Calcium Total	10	Y		0.153	5	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Iron Total	0.96	Y	J	0.0157	0.1	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Magnesium Total	5	N	U	0.0902	5	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Manganese Total	0.24	Y		0.0103	0.015	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Potassium Total	5	N	U	0.0584	5	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Sodium Total	16	Y		0.2769	5	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-SW8	AH11058	EPA 6010B	09/19/2005	L	1	Zinc Total	0.03	Y	J	0.0081	0.02	mg/L
BN-1&3-27-SW8	AH11058	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-SW8	AH11058	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-SW8	AH11058	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SW8	AH11058	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	110	Y		0	76	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	89	Y		0.14	86	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Toluene-d8	99	Y		0	88	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-SW8	AH11058	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.2	N	U	0.0196	0.2	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.01	N	U	0.0007158	0.01	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Calcium Total	9.6	Y		0.153	5	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Iron Total	1	Y	J	0.0157	0.1	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Magnesium Total	5	N	U	0.0902	5	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Manganese Total	0.22	Y		0.0103	0.015	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Potassium Total	5	N	U	0.0584	5	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Sodium Total	14	Y		0.2769	5	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-SW9	AH11059	EPA 6010B	09/19/2005	L	1	Zinc Total	0.02	Y	J	0.0081	0.02	mg/L
BN-1&3-27-SW9	AH11059	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-SW9	AH11059	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-SW9	AH11059	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SW9	AH11059	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	108	Y		0	76	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	92	Y		0.14	86	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-SW9	AH11059	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Aluminum Total	8600	Y	J	0.0196	10	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	26	N	R	0.0018	26	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Arsenic Total	140	Y	J	0.0007158	5.3	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Barium Total	120	Y	J	0.0015	5.3	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Beryllium Total	2.6	N	UJ	0.0015	2.6	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Cadmium Total	5.3	N	UJ	0.0015	5.3	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Calcium Total	9000	Y	J	0.153	530	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Chromium Total	13	Y	J	0.0012	5.3	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Cobalt Total	85	Y	J	0.0036	26	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Copper Total	5.3	N	UJ	0.0015	5.3	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Iron Total	110000	Y	J	0.0157	530	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Lead Total Solid	22	Y	J	0.0012	5.3	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Magnesium Total	2200	Y	J	0.0902	530	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Manganese Total	3400	Y	J	0.0103	5.3	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Nickel Total	20	Y	J	0.0015	5.3	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Potassium Total	530	N	UJ	0.0584	530	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Selenium Total	26	N	UJ	0.26	26	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Silver Total	2.6	N	UJ	0.0012	2.6	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Sodium Total	530	N	UJ	0.2769	530	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Thallium Total	26	N	UJ	0.01	26	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Vanadium Total	26	Y	J	0.0034	26	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 6010B	09/19/2005	S	1	Zinc Total	5.3	N	UJ	0.0081	5.3	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 7471A	09/19/2005	S	1	Mercury Total	0.24	N	UJ	0.000103	0.24	mg/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,1,1-Trichloroethane	26	N	R	0.29	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,1,1-Trichloroethane	28	N	ZZZ	0.29	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,1,2,2-Tetrachloroethane	26	N	R	0.39	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,1,2,2-Tetrachloroethane	28	N	ZZZ	0.39	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,1,2-Trichloroethane	7.8	Y	J	0.2	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,1,2-Trichloroethane	28	N	ZZZ	0.2	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,1-Dichloroethane	480	Y	J	0.28	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,1-Dichloroethane	1900	Y	ZZZ	0.28	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,1-Dichloroethene	26	N	R	0.32	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,1-Dichloroethene	28	N	ZZZ	0.32	28	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,2-Dichlorobenzene	840	Y	J	0.34	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,2-Dichlorobenzene	810	Y	ZZZ	0.34	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,2-Dichloroethane	26	N	R	0.46	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,2-Dichloroethane	28	N	ZZZ	0.46	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	82	Y		0	61	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	2111	Y	ZZZ	0	61	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,2-Dichloroethene (total)	8.3	Y	J	0.26	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,2-Dichloroethene (total)	21	Y	ZZZ	0.26	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,2-Dichloropropane	26	N	R	0.1	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,2-Dichloropropane	28	N	ZZZ	0.1	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,3-Dichlorobenzene	32	Y	J	0.17	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,3-Dichlorobenzene	42	Y	ZZZ	0.17	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	1,4-Dichlorobenzene	760	Y	J	0.23	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	1,4-Dichlorobenzene	740	Y	ZZZ	0.23	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	2-Butanone	640	Y	J	0.42	52	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	2-Butanone	9100	Y	ZZZ	0.42	56	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	2-Hexanone	52	N	R	2.42	52	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	2-Hexanone	56	N	ZZZ	2.42	56	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	128	Y		0.14	68	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	259	Y	ZZZ	0.14	68	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	4-Methyl-2-pentanone	39	Y	J	1.33	52	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	4-Methyl-2-pentanone	140	Y	ZZZ	1.33	56	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Acetone	12000	Y	J	4.14	52	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Acetone	19000	Y	ZZZ	4.14	56	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Benzene	14	Y	J	0.26	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Benzene	220	Y	ZZZ	0.26	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Bromodichloromethane	26	N	R	0.22	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Bromodichloromethane	28	N	ZZZ	0.22	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Bromoform	26	N	R	0.37	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Bromoform	28	N	ZZZ	0.37	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Bromomethane	26	N	R	0.52	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Bromomethane	28	N	ZZZ	0.52	28	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Carbon Disulfide	720	Y	J	0.27	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Carbon Disulfide	3600	Y	ZZZ	0.27	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Carbon Tetrachloride	26	N	R	0.27	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Carbon Tetrachloride	28	N	ZZZ	0.27	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Chlorobenzene	67	Y	J	0.18	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Chlorobenzene	87	Y	ZZZ	0.18	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Chloroethane	160	Y	J	1.52	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Chloroethane	28	N	ZZZ	1.52	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Chloroform	26	N	R	0.42	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Chloroform	28	N	ZZZ	0.42	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Chloromethane	26	N	R	0.38	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Chloromethane	740	Y	ZZZ	0.38	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	cis-1,3-Dichloropropene	26	N	R	0.13	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	cis-1,3-Dichloropropene	28	N	ZZZ	0.13	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Dibromochloromethane	26	N	R	0.32	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Dibromochloromethane	28	N	ZZZ	0.32	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Ethylbenzene	15	Y	J	0.15	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Ethylbenzene	75	Y	ZZZ	0.15	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Methylene Chloride	540	Y	J	1.05	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Methylene Chloride	9600	Y	ZZZ	1.05	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Styrene	15	Y	J	0.15	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Styrene	43	Y	ZZZ	0.15	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Tetrachloroethene	12	Y	J	0.55	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Tetrachloroethene	100	Y	ZZZ	0.55	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Toluene	63	Y	J	0.15	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Toluene	690	Y	ZZZ	0.15	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	1	Toluene-d8	101	Y		0	61	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	1	Toluene-d8	55	Y	ZZZ	0	61	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	trans-1,3-Dichloropropene	26	N	R	0.64	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	trans-1,3-Dichloropropene	28	N	ZZZ	0.64	28	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Trichloroethene	8.8	Y	J	0.28	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Trichloroethene	28	N	ZZZ	0.28	28	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Vinyl Chloride	52	N	R	0.43	52	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Vinyl Chloride	56	N	ZZZ	0.43	56	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	5	Xylenes (total)	66	Y	J	0.52	26	ug/Kg
BN-1&3-27-LT9	AH11060	EPA 8260B	09/19/2005	S	6	Xylenes (total)	350	Y	ZZZ	0.52	28	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Aluminum Total	7300	Y	J	0.0196	8.3	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	21	N	UJ	0.0018	21	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Arsenic Total	100	Y	J	0.0007158	4.2	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Barium Total	53	Y	J	0.0015	4.2	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Beryllium Total	2.1	N	UJ	0.0015	2.1	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Cadmium Total	4.2	N	UJ	0.0015	4.2	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Calcium Total	8100	Y	J	0.153	420	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Chromium Total	11	Y	J	0.0012	4.2	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Cobalt Total	64	Y	J	0.0036	21	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Copper Total	4.2	N	UJ	0.0015	4.2	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	10	Iron Total	85000	Y	J	0.0157	42	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Lead Total Solid	17	Y	J	0.0012	4.2	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Magnesium Total	1900	Y	J	0.0902	420	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Manganese Total	1300	Y	J	0.0103	4.2	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Nickel Total	20	Y	J	0.0015	4.2	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Potassium Total	420	N	UJ	0.0584	420	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Selenium Total	21	N	UJ	0.26	21	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Silver Total	2.1	N	UJ	0.0012	2.1	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Sodium Total	420	N	UJ	0.2769	420	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Thallium Total	21	N	UJ	0.01	21	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Vanadium Total	21	N	UJ	0.0034	21	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 6010B	09/19/2005	S	1	Zinc Total	5	Y	J	0.0081	4.2	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 7471A	09/19/2005	S	1	Mercury Total	0.18	N	UJ	0.000103	0.18	mg/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,1,1-Trichloroethane	24	N	UJ	0.29	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,1,1-Trichloroethane	22	N	ZZZ	0.29	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,1,2,2-Tetrachloroethane	24	N	R	0.39	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,1,2,2-Tetrachloroethane	22	N	ZZZ	0.39	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,1,2-Trichloroethane	2	Y	J	0.2	24	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,1,2-Trichloroethane	22	N	ZZZ	0.2	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,1-Dichloroethane	40	Y	J	0.28	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,1-Dichloroethane	61	Y	ZZZ	0.28	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,1-Dichloroethene	24	N	UJ	0.32	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,1-Dichloroethene	22	N	ZZZ	0.32	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,2-Dichlorobenzene	350	Y	UJ	0.34	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,2-Dichlorobenzene	1300	Y	ZZZ	0.34	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,2-Dichloroethane	24	N	UJ	0.46	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,2-Dichloroethane	22	N	ZZZ	0.46	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	89	Y		0	61	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	230	Y	ZZZ	0	61	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,2-Dichloroethene (total)	24	N	UJ	0.26	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,2-Dichloroethene (total)	22	N	ZZZ	0.26	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,2-Dichloropropane	24	N	UJ	0.1	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,2-Dichloropropane	22	N	ZZZ	0.1	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,3-Dichlorobenzene	29	Y	J	0.17	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,3-Dichlorobenzene	37	Y	ZZZ	0.17	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	1,4-Dichlorobenzene	290	Y	J	0.23	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	1,4-Dichlorobenzene	1100	Y	ZZZ	0.23	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	2-Butanone	89	Y	J	0.42	47	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	2-Butanone	220	Y	ZZZ	0.42	43	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	2-Hexanone	47	N	UJ	2.42	47	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	2-Hexanone	43	N	ZZZ	2.42	43	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	84	Y	J	0.14	68	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	56	N	ZZZ	0.14	68	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	4-Methyl-2-pentanone	47	N	UJ	1.33	47	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	4-Methyl-2-pentanone	5.7	Y	ZZZ	1.33	43	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Acetone	1600	Y	J	4.14	47	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Acetone	4400	Y	ZZZ	4.14	43	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Benzene	24	N	UJ	0.26	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Benzene	22	N	ZZZ	0.26	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Bromodichloromethane	24	N	UJ	0.22	24	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Bromodichloromethane	22	N	ZZZ	0.22	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Bromoform	24	N	R	0.37	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Bromoform	22	N	ZZZ	0.37	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Bromomethane	24	N	UJ	0.52	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Bromomethane	22	N	ZZZ	0.52	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Carbon Disulfide	97	Y	J	0.27	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Carbon Disulfide	440	Y	ZZZ	0.27	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Carbon Tetrachloride	24	N	UJ	0.27	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Carbon Tetrachloride	22	N	ZZZ	0.27	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Chlorobenzene	13	Y	J	0.18	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Chlorobenzene	18	Y	ZZZ	0.18	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Chloroethane	19	Y	UJ	1.52	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Chloroethane	21	Y	ZZZ	1.52	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Chloroform	24	N	UJ	0.42	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Chloroform	22	N	ZZZ	0.42	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Chloromethane	15	Y	U	0.38	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Chloromethane	13	Y	ZZZ	0.38	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	cis-1,3-Dichloropropene	24	N	UJ	0.13	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	cis-1,3-Dichloropropene	22	N	ZZZ	0.13	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Dibromochloromethane	24	N	UJ	0.32	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Dibromochloromethane	22	N	ZZZ	0.32	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Ethylbenzene	5	Y	J	0.15	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Ethylbenzene	5.7	Y	ZZZ	0.15	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Methylene Chloride	400	Y	J	1.05	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Methylene Chloride	88	Y	ZZZ	1.05	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Styrene	5.5	Y	J	0.15	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Styrene	22	N	ZZZ	0.15	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Tetrachloroethene	24	N	UJ	0.55	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Tetrachloroethene	22	N	ZZZ	0.55	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Toluene	15	Y	J	0.15	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Toluene	21	Y	ZZZ	0.15	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	1	Toluene-d8	86	Y		0	61	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	1	Toluene-d8	60	N	ZZZ	0	61	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	trans-1,3-Dichloropropene	24	N	UJ	0.64	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	trans-1,3-Dichloropropene	22	N	ZZZ	0.64	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Trichloroethene	2.5	Y	J	0.28	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Trichloroethene	22	N	ZZZ	0.28	22	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Vinyl Chloride	47	N	UJ	0.43	47	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Vinyl Chloride	43	N	ZZZ	0.43	43	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	5	Xylenes (total)	20	Y	J	0.52	24	ug/Kg
BN-1&3-27-XD13	AH11061	EPA 8260B	09/19/2005	S	4	Xylenes (total)	27	Y	ZZZ	0.52	22	ug/Kg
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.2	N	U	0.0196	0.2	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.04	Y		0.0007158	0.01	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	10	Calcium Total	50	N	U	0.153	50	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	10	Iron Total	29	Y	J	0.0157	1	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Magnesium Total	5	N	U	0.0902	5	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Manganese Total	1.6	Y		0.0103	0.015	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	UJ	0.0015	0.04	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Potassium Total	7.6	Y		0.0584	5	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	R	0.0012	0.01	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Sodium Total	17	Y		0.2769	5	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 6010B	09/19/2005	L	1	Zinc Total	0.02	N	UJ	0.0081	0.02	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	2,4,5,6-Tetrachloro-m-xylene	83	Y		0	29	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	4,4-DDD	0.1	N	U	0.0059	0.1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	4,4-DDE	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	4,4-DDT	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Aldrin	0.05	N	U	0.0053	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Alpha-BHC	0.05	N	U	0.0142	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	alpha-chlordane	0.05	N	U	0.0166	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Beta-BHC	0.05	N	U	0.0078	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Chlordane	0.5	N	U	0.21	0.5	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Decachlorobiphenyl	110	Y		0	25	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Delta-BHC	0.05	N	U	0.0121	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Dieldrin	0.1	N	U	0.0149	0.1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Endosulfan I	0.05	N	U	0.0088	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Endosulfan II	0.1	N	U	0.0111	0.1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Endosulfan Sulfate	0.1	N	U	0.0116	0.1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Endrin	0.1	N	U	0.0062	0.1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Endrin Aldehyde	0.1	N	U	0.0075	0.1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Endrin Ketone	0.1	N	U	0.0068	0.1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Gamma-BHC (Lindane)	0.05	N	U	0.0073	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	gamma-chlordane	0.05	N	U	0.0074	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Heptachlor	0.05	N	UJ	0.0089	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Heptachlor Epoxide	0.05	N	U	0.0083	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Hexachlorobenzene	0.05	N	U	0	0.05	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Methoxychlor	0.5	N	UJ	0.0079	0.5	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8081	09/19/2005	L	1	Toxaphene	1	N	U	0.678	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	5.1	Y		0.28	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	113	Y		0	76	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	89	Y		0.14	86	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Chloroethane	1.6	Y		1.52	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Toluene-d8	100	Y		0	88	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-SEEP9	AH11062	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.2	N	U	0.0196	0.2	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.04	Y		0.0007158	0.01	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	10	Calcium Total	52	Y		0.153	50	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	10	Iron Total	35	Y	J	0.0157	1	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Magnesium Total	5.1	Y		0.0902	5	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Manganese Total	1.8	Y		0.0103	0.015	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Potassium Total	7.8	Y		0.0584	5	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Sodium Total	18	Y		0.2769	5	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-XD11	AH11063	EPA 6010B	09/19/2005	L	1	Zinc Total	0.02	N	U	0.0081	0.02	mg/L
BN-1&3-27-XD11	AH11063	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-XD11	AH11063	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-XD11	AH11063	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-XD11	AH11063	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	2,4,5,6-Tetrachloro-m-xylene	84	Y		0	29	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	4,4-DDD	0.1	N	U	0.0059	0.1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	4,4-DDE	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	4,4-DDT	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Aldrin	0.05	N	U	0.0053	0.05	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Alpha-BHC	0.05	N	U	0.0142	0.05	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	alpha-chlordane	0.05	N	U	0.0166	0.05	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Beta-BHC	0.05	N	U	0.0078	0.05	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Chlordane	0.5	N	U	0.21	0.5	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Decachlorobiphenyl	89	Y		0	25	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Delta-BHC	0.05	N	U	0.0121	0.05	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Dieldrin	0.1	N	U	0.0149	0.1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Endosulfan I	0.05	N	U	0.0088	0.05	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Endosulfan II	0.1	N	U	0.0111	0.1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Endosulfan Sulfate	0.1	N	U	0.0116	0.1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Endrin	0.1	N	U	0.0062	0.1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Endrin Aldehyde	0.1	N	U	0.0075	0.1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Endrin Ketone	0.1	N	U	0.0068	0.1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Gamma-BHC (Lindane)	0.05	N	U	0.0073	0.05	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	gamma-chlordane	0.05	N	U	0.0074	0.05	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Heptachlor	0.05	N	UJ	0.0089	0.05	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Heptachlor Epoxide	0.05	N	U	0.0083	0.05	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Hexachlorobenzene	0.05	N	U	0	0.05	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Methoxychlor	0.5	N	UJ	0.0079	0.5	ug/L
BN-1&3-27-XD11	AH11063	EPA 8081	09/19/2005	L	1	Toxaphene	1	N	U	0.678	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	5.4	Y		0.28	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	110	Y		0	76	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	89	Y		0.14	86	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Chloroethane	1.5	Y		1.52	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-XD11	AH11063	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	10	Aluminum Total	2300	Y	J	0.0196	1.7	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	4.2	N	UJ	0.0018	4.2	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Arsenic Total	1.8	Y		0.0007158	0.84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Barium Total	26	Y	J	0.0015	0.84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Beryllium Total	0.42	N	U	0.0015	0.42	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Cadmium Total	0.84	N	U	0.0015	0.84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Calcium Total	610	Y		0.153	84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Chromium Total	3.7	Y	J	0.0012	0.84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Cobalt Total	4.2	N	U	0.0036	4.2	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Copper Total	2.8	Y	J	0.0015	0.84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	10	Iron Total	5900	Y	J	0.0157	8.4	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Lead Total Solid	2.7	Y	J	0.0012	0.84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Magnesium Total	850	Y		0.0902	84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Manganese Total	93	Y	J	0.0103	0.84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Nickel Total	3.6	Y		0.0015	0.84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Potassium Total	280	Y	J	0.0584	84	mg/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Selenium Total	4.2	N	UJ	0.26	4.2	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Silver Total	0.42	N	UJ	0.0012	0.42	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Sodium Total	84	N	UJ	0.2769	84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Thallium Total	4.2	N	U	0.01	4.2	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Vanadium Total	6.7	Y		0.0034	4.2	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 6010B	09/19/2005	S	1	Zinc Total	13	Y		0.0081	0.84	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 7471A	09/19/2005	S	1	Mercury Total	0.041	N	U	0.000103	0.041	mg/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	1	2,4,5,6-Tetrachloro-m-xylene	106	Y		0	18	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	4,4-DDD	130	N	UJ	0.0059	130	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	4,4-DDE	26	N	UJ	0.0156	26	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	4,4-DDT	130	N	UJ	0.0156	130	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Aldrin	13	N	UJ	0.0053	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Alpha-BHC	13	N	UJ	0.0142	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	1	alpha-Chlordane	13	N	UJ	0.0166	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Beta-BHC	13	N	UJ	0.0078	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Chlordane	130	N	UJ	0.21	130	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	1	Decachlorobiphenyl	99	Y		0	25	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Delta-BHC	13	N	UJ	0.0121	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Dieldrin	26	N	UJ	0.0149	26	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Endosulfan I	13	N	UJ	0.0088	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Endosulfan II	26	N	UJ	0.0111	26	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Endosulfan Sulfate	260	N	UJ	0.0116	260	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Endrin	26	N	UJ	0.0062	26	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Endrin Aldehyde	130	N	UJ	0.0075	130	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Endrin Ketone	130	N	UJ	0.0068	130	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Gamma-BHC (Lindane)	13	N	UJ	0.0073	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	1	gamma-Chlordane	13	N	UJ	0.0074	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Heptachlor	13	N	UJ	0.0089	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Heptachlor Epoxide	13	N	UJ	0.0083	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	1	Hexachlorobenzene	13	N	UJ	0	13	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Methoxychlor	130	N	UJ	0.0079	130	ug/Kg
BN-1&3-27-SED19	AH11064	EPA 8081	09/19/2005	S	6	Toxaphene	130	N	UJ	0.678	130	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	10	Aluminum Total	2800	Y	J	0.0196	17	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	4.3	N	U	0.0018	4.3	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Arsenic Total	1.8	Y		0.0007158	0.87	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Barium Total	14	Y	J	0.0015	0.87	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Beryllium Total	0.43	N	U	0.0015	0.43	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Cadmium Total	0.87	N	U	0.0015	0.87	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Calcium Total	430	Y		0.153	86	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Chromium Total	4.5	Y		0.0012	0.87	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Cobalt Total	4.3	N	U	0.0036	4.3	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Copper Total	6.7	Y	J	0.0015	0.87	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	10	Iron Total	6200	Y	J	0.0157	8.7	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Lead Total Solid	3	Y		0.0012	0.87	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Magnesium Total	1100	Y		0.0902	86	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Manganese Total	90	Y		0.0103	0.87	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Nickel Total	4.5	Y		0.0015	0.87	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Potassium Total	360	Y	J	0.0584	86	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Selenium Total	4.3	N	UJ	0.26	4.3	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Silver Total	0.43	N	UJ	0.0012	0.43	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Sodium Total	86	N	UJ	0.2769	86	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Thallium Total	4.3	N	U	0.01	4.3	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Vanadium Total	7	Y		0.0034	4.3	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 6010B	09/19/2005	S	1	Zinc Total	15	Y		0.0081	0.87	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 7471A	09/19/2005	S	1	Mercury Total	0.038	N	U	0.000103	0.038	mg/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	1	2,4,5,6-Tetrachloro-m-xylene	75	Y		0	18	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	4,4-DDD	130	N	U	0.0059	130	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	4,4-DDE	26	N	U	0.0156	26	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	4,4-DDT	130	N	UJ	0.0156	130	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Aldrin	13	N	U	0.0053	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Alpha-BHC	13	N	U	0.0142	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	1	alpha-Chlordane	13	N	U	0.0166	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Beta-BHC	13	N	U	0.0078	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Chlordane	130	N	U	0.21	130	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	1	Decachlorobiphenyl	89	Y		0	25	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Delta-BHC	13	N	U	0.0121	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Dieldrin	26	N	U	0.0149	26	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Endosulfan I	13	N	U	0.0088	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Endosulfan II	26	N	U	0.0111	26	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Endosulfan Sulfate	260	N	U	0.0116	260	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Endrin	26	N	U	0.0062	26	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Endrin Aldehyde	130	N	U	0.0075	130	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Endrin Ketone	130	N	U	0.0068	130	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Gamma-BHC (Lindane)	13	N	U	0.0073	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	1	gamma-Chlordane	13	N	U	0.0074	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Heptachlor	13	N	U	0.0089	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Heptachlor Epoxide	13	N	U	0.0083	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	1	Hexachlorobenzene	13	N	U	0	13	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Methoxychlor	130	N	UJ	0.0079	130	ug/Kg
BN-1&3-27-XD17	AH11065	EPA 8081	09/19/2005	S	6	Toxaphene	130	N	U	0.678	130	ug/Kg
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Aluminum Total	50	Y	J	0.0196	20	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.03	Y		0.0007158	0.01	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	Y	J	0.0015	0.005	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	10	Calcium Total	120	Y		0.153	50	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	10	Chromium Total	0.43	Y		0.0012	0.1	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.39	Y	J	0.0036	0.05	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Copper Total	0.03	Y		0.0015	0.025	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Iron Total	150	Y	J	0.0157	10	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Lead Total	0.039	Y		0.0005564	0.003	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Magnesium Total	11	Y		0.0902	5	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	10	Manganese Total	2.6	Y		0.0103	0.15	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	10	Nickel Total	0.79	Y		0.0015	0.4	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	2	Potassium Total	26	Y		0.0584	10	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Sodium Total	8.7	Y		0.2769	5	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.07	Y		0.0034	0.05	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 6010B	09/19/2005	L	1	Zinc Total	0.03	Y	J	0.0081	0.02	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0012	Y		0.0002	0.0002	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	2,4,5,6-Tetrachloro-m-xylene	86	Y		0	29	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	4,4-DDD	0.1	N	U	0.0059	0.1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	4,4-DDE	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	4,4-DDT	0.1	N	U	0.0156	0.1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Aldrin	0.05	N	U	0.0053	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Alpha-BHC	0.05	N	U	0.0142	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	alpha-chlordane	0.05	N	U	0.0166	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Beta-BHC	0.05	N	U	0.0078	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Chlordane	0.5	N	U	0.21	0.5	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Decachlorobiphenyl	101	Y		0	25	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Delta-BHC	0.05	N	U	0.0121	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Dieldrin	0.1	N	U	0.0149	0.1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Endosulfan I	0.05	N	U	0.0088	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Endosulfan II	0.1	N	U	0.0111	0.1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Endosulfan Sulfate	0.1	N	U	0.0116	0.1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Endrin	0.1	N	U	0.0062	0.1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Endrin Aldehyde	0.1	N	U	0.0075	0.1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Endrin Ketone	0.1	N	U	0.0068	0.1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Gamma-BHC (Lindane)	0.05	N	U	0.0073	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	gamma-chlordane	0.05	N	U	0.0074	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Heptachlor	0.05	N	U	0.0089	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Heptachlor Epoxide	0.05	N	U	0.0083	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Hexachlorobenzene	0.05	N	U	0	0.05	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Methoxychlor	0.5	N	U	0.0079	0.5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP4	AH11066	EPA 8081	09/19/2005	L	1	Toxaphene	1	N	U	0.678	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	112	Y		0	76	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	86	N	U	0.14	86	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Acetone	3.8	N	U	4.14	5	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1.2	Y		1.05	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Toluene-d8	96	Y		0	88	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-SEEP4	AH11066	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.2	N	U	0.0196	0.2	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.01	N	U	0.0007158	0.01	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Calcium Total	9.9	Y		0.153	5	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Iron Total	0.99	Y	J	0.0157	0.1	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Magnesium Total	5	N	U	0.0902	5	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Manganese Total	0.22	Y		0.0103	0.015	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Potassium Total	5	N	U	0.0584	5	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Sodium Total	16	Y	J	0.2769	5	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-SW4	AH11067	EPA 6010B	09/19/2005	L	1	Zinc Total	0.03	Y	J	0.0081	0.02	mg/L
BN-1&3-27-SW4	AH11067	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-SW4	AH11067	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-SW4	AH11067	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SW4	AH11067	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	103	Y		0	76	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Toluene-d8	98	Y		0	88	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-SW4	AH11067	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.2	N	U	0.0196	0.2	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.01	N	U	0.0007158	0.01	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Calcium Total	10	Y		0.153	5	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Iron Total	0.87	Y	J	0.0157	0.1	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Magnesium Total	5	N	U	0.0902	5	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Manganese Total	0.21	Y		0.0103	0.015	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Potassium Total	5	N	U	0.0584	5	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Sodium Total	17	Y		0.2769	5	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-XD12	AH11068	EPA 6010B	09/19/2005	L	1	Zinc Total	0.04	Y	J	0.0081	0.02	mg/L
BN-1&3-27-XD12	AH11068	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-XD12	AH11068	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-XD12	AH11068	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-XD12	AH11068	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	108	Y		0	76	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	89	Y		0.14	86	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-XD12	AH11068	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	10	Aluminum Total	3000	Y	J	0.0196	18	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	4.4	N	U	0.0018	4.4	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Arsenic Total	1.9	Y		0.0007158	0.88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Barium Total	31	Y		0.0015	0.88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Beryllium Total	0.44	N	U	0.0015	0.44	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Cadmium Total	0.88	N	U	0.0015	0.88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Calcium Total	580	Y		0.153	88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Chromium Total	4.6	Y		0.0012	0.88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Cobalt Total	4.4	N	U	0.0036	4.4	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Copper Total	0.88	N	U	0.0015	0.88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	10	Iron Total	7400	Y	J	0.0157	8.8	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Lead Total Solid	3	Y		0.0012	0.88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Magnesium Total	1200	Y		0.0902	88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Manganese Total	710	Y		0.0103	0.88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Nickel Total	5.5	Y		0.0015	0.88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Potassium Total	390	Y	J	0.0584	88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Selenium Total	4.4	N	UJ	0.26	4.4	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Silver Total	0.44	N	UJ	0.0012	0.88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Sodium Total	88	N	UJ	0.2769	88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Thallium Total	4.4	N	U	0.01	4.4	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Vanadium Total	8	Y		0.0034	4.4	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 6010B	09/19/2005	S	1	Zinc Total	18	Y		0.0081	0.88	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 7471A	09/19/2005	S	1	Mercury Total	0.042	N	U	0.000103	0.042	mg/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	1	2,4,5,6-Tetrachloro-m-xylene	92	Y		0	18	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	4,4-DDD	90	N	U	0.0059	90	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	4,4-DDE	18	N	U	0.0156	18	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	4,4-DDT	90	N	UJ	0.0156	90	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Aldrin	9	N	U	0.0053	9	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Alpha-BHC	9	N	U	0.0142	9	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	1	alpha-Chlordane	9	N	U	0.0166	9	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Beta-BHC	9	N	U	0.0078	9	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Chlordane	90	N	U	0.21	90	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	1	Decachlorobiphenyl	103	Y		0	25	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Delta-BHC	9	N	U	0.0121	9	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Dieldrin	18	N	U	0.0149	18	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Endosulfan I	9	N	U	0.0088	9	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Endosulfan II	18	N	U	0.0111	18	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Endosulfan Sulfate	180	N	U	0.0116	180	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Endrin	18	N	U	0.0062	18	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Endrin Aldehyde	90	N	U	0.0075	90	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Endrin Ketone	90	N	U	0.0068	90	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Gamma-BHC (Lindane)	9	N	U	0.0073	9	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	1	gamma-Chlordane	9	N	U	0.0074	9	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Heptachlor	9	N	U	0.0089	9	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Heptachlor Epoxide	9	N	U	0.0083	9	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	1	Hexachlorobenzene	9	N	U	0	9	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Methoxychlor	90	N	UJ	0.0079	90	ug/Kg
BN-1&3-27-SED17	AH11069	EPA 8081	09/19/2005	S	4	Toxaphene	90	N	U	0.678	90	ug/Kg
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.2	N	U	0.0196	0.2	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.01	N	U	0.0007158	0.01	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Calcium Total	9.4	Y		0.153	5	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Iron Total	0.76	Y	J	0.0157	0.1	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Magnesium Total	5	N	U	0.0902	5	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Manganese Total	0.14	Y		0.0103	0.015	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Potassium Total	5	N	U	0.0584	5	mg/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Sodium Total	18	Y		0.2769	5	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-SW15	AH11070	EPA 6010B	09/19/2005	L	1	Zinc Total	0.03	Y	J	0.0081	0.02	mg/L
BN-1&3-27-SW15	AH11070	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-SW15	AH11070	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-SW15	AH11070	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SW15	AH11070	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.12	N	U	0.0196	0.2	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.01	N	U	0.0007158	0.01	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Calcium Total	10	Y		0.153	5	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Iron Total	0.92	Y	J	0.0157	0.1	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Magnesium Total	5	N	U	0.0902	5	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Manganese Total	0.23	Y		0.0103	0.015	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Potassium Total	5	N	U	0.0584	5	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Sodium Total	17	Y		0.2769	5	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-SW7	AH11071	EPA 6010B	09/19/2005	L	1	Zinc Total	0.02	Y	J	0.0081	0.02	mg/L
BN-1&3-27-SW7	AH11071	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-SW7	AH11071	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-SW7	AH11071	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SW7	AH11071	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethane-d4	104	Y		0	76	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Toluene	1	N	U	0.15	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Toluene-d8	100	Y		0	88	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-SW7	AH11071	EPA 8260B	09/19/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Aluminum Total	77000	Y	J	0.0196	210	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	5.4	N	U	0.0018	5.4	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Arsenic Total	4.4	Y		0.0007158	1.1	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Barium Total	56	Y		0.0015	1.1	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Beryllium Total	0.54	N	U	0.0015	0.54	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Cadmium Total	1.1	N	U	0.0015	1.1	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Calcium Total	1600	Y		0.153	110	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Chromium Total	17	Y		0.0012	1.1	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Cobalt Total	7.2	Y		0.0036	5.4	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Copper Total	5.1	Y		0.0015	1.1	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Iron Total	180000	Y	J	0.0157	110	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Lead Total Solid	11	Y		0.0012	1.1	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Magnesium Total	3800	Y		0.0902	110	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Manganese Total	570	Y		0.0103	1.1	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Nickel Total	12	Y		0.0015	1.1	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Potassium Total	1500	Y	J	0.0584	110	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Selenium Total	5.4	N	UJ	0.26	5.4	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Silver Total	0.54	N	UJ	0.0012	0.54	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Sodium Total	110	N	UJ	0.2769	110	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Thallium Total	5.4	N	U	0.01	5.4	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Vanadium Total	24	Y		0.0034	5.4	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 6010B	09/19/2005	S	1	Zinc Total	51	Y		0.0081	1.1	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 7471A	09/19/2005	S	1	Mercury Total	0.048	N	U	0.000103	0.048	mg/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	1	2,4,5,6-Tetrachloro-m-xylene	94	Y		0	18	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	4,4-DDD	130	N	U	0.0059	130	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	4,4-DDE	26	N	U	0.0156	26	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	4,4-DDT	130	N	UJ	0.0156	130	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Aldrin	13	N	U	0.0053	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Alpha-BHC	13	N	U	0.0142	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	1	alpha-Chlordane	13	N	U	0.0166	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Beta-BHC	13	N	U	0.0078	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Chlordane	130	N	U	0.21	130	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	1	Decachlorobiphenyl	100	Y		0	25	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Delta-BHC	13	N	U	0.0121	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Dieldrin	26	N	U	0.0149	26	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Endosulfan I	13	N	U	0.0088	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Endosulfan II	26	N	U	0.0111	26	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Endosulfan Sulfate	260	N	U	0.0116	260	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Endrin	26	N	U	0.0062	26	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Endrin Aldehyde	130	N	U	0.0075	130	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Endrin Ketone	130	N	U	0.0068	130	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Gamma-BHC (Lindane)	13	N	U	0.0073	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	1	gamma-Chlordane	13	N	U	0.0074	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Heptachlor	13	N	U	0.0089	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Heptachlor Epoxide	13	N	U	0.0083	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	1	Hexachlorobenzene	13	N	U	0	13	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Methoxychlor	130	N	UJ	0.0079	130	ug/Kg
BN-1&3-27-SED9	AH11072	EPA 8081	09/19/2005	S	6	Toxaphene	130	N	U	0.678	130	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Aluminum Total	6200	Y	J	0.0196	180	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	4.4	N	U	0.0018	4.4	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Arsenic Total	1.2	Y		0.0007158	0.88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Barium Total	32	Y		0.0015	0.88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Beryllium Total	0.44	N	U	0.0015	0.44	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Cadmium Total	0.88	N	U	0.0015	0.88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Calcium Total	770	Y		0.153	88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Chromium Total	10	Y		0.0012	0.88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Cobalt Total	4.4	N	U	0.0036	4.4	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Copper Total	5.8	Y		0.0015	0.88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Iron Total	15000	Y	J	0.0157	88	mg/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Lead Total Solid	4	Y		0.0012	0.88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Magnesium Total	2700	Y		0.0902	88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Manganese Total	140	Y		0.0103	0.88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Nickel Total	8.1	Y		0.0015	0.88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Potassium Total	1500	Y	J	0.0584	88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Selenium Total	4.4	N	UJ	0.26	4.4	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Silver Total	0.44	N	UJ	0.0012	0.44	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Sodium Total	88	N	UJ	0.2769	88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Thallium Total	4.4	N	U	0.01	4.4	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Vanadium Total	16	Y		0.0034	4.4	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 6010B	09/19/2005	S	1	Zinc Total	21	Y		0.0081	0.88	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 7471A	09/19/2005	S	1	Mercury Total	0.04	N	U	0.000103	0.04	mg/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	1	2,4,5,6-Tetrachloro-m-xylene	98	Y		0	18	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	4,4-DDD	140	N	U	0.0059	140	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	4,4-DDE	27	N	U	0.0156	27	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	4,4-DDT	140	N	UJ	0.0156	140	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Aldrin	14	N	U	0.0053	14	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Alpha-BHC	14	N	U	0.0142	14	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	1	alpha-Chlordane	14	N	U	0.0166	14	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Beta-BHC	14	N	U	0.0078	14	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Chlordane	140	N	U	0.21	140	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	1	Decachlorobiphenyl	100	Y		0	25	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Delta-BHC	14	N	U	0.0121	14	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Dieldrin	27	N	U	0.0149	27	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Endosulfan I	14	N	U	0.0088	14	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Endosulfan II	27	N	U	0.0111	27	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Endosulfan Sulfate	270	N	U	0.0116	270	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Endrin	27	N	U	0.0062	27	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Endrin Aldehyde	140	N	U	0.0075	140	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Endrin Ketone	140	N	U	0.0068	140	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Gamma-BHC (Lindane)	14	N	U	0.0073	14	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	1	gamma-Chlordane	14	N	U	0.0074	14	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Heptachlor	14	N	U	0.0089	14	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Heptachlor Epoxide	14	N	U	0.0083	14	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	1	Hexachlorobenzene	14	N	U	0	14	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Methoxychlor	140	N	UJ	0.0079	140	ug/Kg
BN-1&3-27-SED15	AH11073	EPA 8081	09/19/2005	S	7	Toxaphene	140	N	U	0.678	140	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	10	Aluminum Total	3500	Y	J	0.0196	14	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	3.5	N	U	0.0018	3.5	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Arsenic Total	2	Y		0.0007158	0.7	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Barium Total	18	Y		0.0015	0.7	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Beryllium Total	0.35	N	U	0.0015	0.35	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Cadmium Total	0.7	N	U	0.0015	0.7	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Calcium Total	550	Y		0.153	70	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Chromium Total	4.4	Y		0.0012	0.7	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Cobalt Total	3.5	N	U	0.0036	3.5	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Copper Total	0.7	N	U	0.0015	0.7	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	10	Iron Total	8800	Y	J	0.0157	7	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Lead Total Solid	2.7	Y		0.0012	0.7	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Magnesium Total	1100	Y		0.0902	70	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Manganese Total	330	Y		0.0103	0.7	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Nickel Total	4.4	Y		0.0015	0.7	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Potassium Total	360	Y	J	0.0584	70	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Selenium Total	3.5	N	UJ	0.26	3.5	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Silver Total	0.35	N	UJ	0.0012	0.35	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Sodium Total	70	N	UJ	0.2769	70	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Thallium Total	3.5	N	U	0.01	3.5	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Vanadium Total	7.2	Y		0.0034	3.5	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 6010B	09/19/2005	S	1	Zinc Total	13	Y		0.0081	0.7	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 7471A	09/19/2005	S	1	Mercury Total	0.036	N	U	0.000103	0.036	mg/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	1	2,4,5,6-Tetrachloro-m-xylene	102	Y		0	18	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	4,4-DDD	120	N	U	0.0059	120	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	4,4-DDE	25	N	U	0.0156	25	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	4,4-DDT	120	N	U	0.0156	120	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Aldrin	12	N	U	0.0053	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Alpha-BHC	12	N	U	0.0142	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	1	alpha-Chlordane	12	N	U	0.0166	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Beta-BHC	12	N	U	0.0078	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Chlordane	120	N	U	0.21	120	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	1	Decachlorobiphenyl	105	Y		0	25	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Delta-BHC	12	N	U	0.0121	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Dieldrin	25	N	U	0.0149	25	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Endosulfan I	12	N	U	0.0088	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Endosulfan II	25	N	U	0.0111	25	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Endosulfan Sulfate	250	N	U	0.0116	250	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Endrin	25	N	U	0.0062	25	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Endrin Aldehyde	120	N	U	0.0075	120	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Endrin Ketone	120	N	U	0.0068	120	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Gamma-BHC (Lindane)	12	N	U	0.0073	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	1	gamma-Chlordane	12	N	U	0.0074	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Heptachlor	12	N	U	0.0089	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Heptachlor Epoxide	12	N	U	0.0083	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	1	Hexachlorobenzene	12	N	U	0	12	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Methoxychlor	120	N	U	0.0079	120	ug/Kg
BN-1&3-27-SED16	AH11074	EPA 8081	09/19/2005	S	6	Toxaphene	120	N	U	0.678	120	ug/Kg
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Aluminum Total	0.2	N	U	0.0196	0.2	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Arsenic Total	0.01	N	U	0.0007158	0.01	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Barium Total	0.2	N	U	0.0015	0.2	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Beryllium Total	0.005	N	UJ	0.0015	0.005	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Cadmium Total	0.005	N	U	0.0015	0.005	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Calcium Total	9.4	Y		0.153	5	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Chromium Total	0.01	N	U	0.0012	0.01	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Cobalt Total	0.05	N	UJ	0.0036	0.05	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Copper Total	0.025	N	U	0.0015	0.025	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Iron Total	0.87	Y	J	0.0157	0.1	mg/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Lead Total	0.003	N	U	0.0005564	0.003	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Magnesium Total	5	N	U	0.0902	5	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Manganese Total	0.18	Y		0.0103	0.015	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Nickel Total	0.04	N	U	0.0015	0.04	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Potassium Total	5	N	U	0.0584	5	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Silver Total	0.01	N	UJ	0.0012	0.01	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Sodium Total	16	Y		0.2769	5	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Vanadium Total	0.05	N	U	0.0034	0.05	mg/L
BN-1&3-27-SW16	AH11075	EPA 6010B	09/19/2005	L	1	Zinc Total	0.02	N	U	0.0081	0.02	mg/L
BN-1&3-27-SW16	AH11075	EPA 7041	09/19/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
BN-1&3-27-SW16	AH11075	EPA 7470A	09/19/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0002	0.0002	mg/L
BN-1&3-27-SW16	AH11075	EPA 7740	09/19/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
BN-1&3-27-SW16	AH11075	EPA 7841	09/19/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	10	Aluminum Total	4000	Y	J	0.0196	20	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Antimony Total Solid	5.1	N	U	0.0018	5.1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Arsenic Total	2.5	Y		0.0007158	1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Barium Total	29	Y		0.0015	1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Beryllium Total	0.51	N	U	0.0015	0.51	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Cadmium Total	1	N	U	0.0015	1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Calcium Total	900	Y		0.153	100	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Chromium Total	8.9	Y		0.0012	1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Cobalt Total	5.1	N	U	0.0036	5	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Copper Total	2.3	Y		0.0015	1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	10	Iron Total	8900	Y	J	0.0157	10	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Lead Total Solid	6	Y		0.0012	1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Magnesium Total	2000	Y		0.0902	100	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Manganese Total	240	Y		0.0103	1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Nickel Total	7.7	Y		0.0015	1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Potassium Total	820	Y	J	0.0584	100	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Selenium Total	5.1	N	UJ	0.26	5	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Silver Total	0.51	N	UJ	0.0012	0.51	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Sodium Total	100	N	UJ	0.2769	100	mg/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Thallium Total	5.1	N	U	0.01	5.1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Vanadium Total	14	Y		0.0034	5.1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 6010B	09/19/2005	S	1	Zinc Total	25	Y		0.0081	1	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 7471A	09/19/2005	S	1	Mercury Total	0.051	N	U	0.000103	0.051	mg/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	1	2,4,5,6-Tetrachloro-m-xylene	90	Y		0	18	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	4,4-DDD	130	N	U	0.0059	130	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	4,4-DDE	26	N	U	0.0156	26	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	4,4-DDT	130	N	UJ	0.0156	130	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Aldrin	13	N	U	0.0053	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Alpha-BHC	13	N	U	0.0142	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	1	alpha-Chlordane	13	N	U	0.0166	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Beta-BHC	13	N	U	0.0078	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Chlordane	130	N	U	0.21	130	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	1	Decachlorobiphenyl	97	Y		0	25	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Delta-BHC	13	N	U	0.0121	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Dieldrin	26	N	U	0.0149	26	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Endosulfan I	13	N	U	0.0088	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Endosulfan II	26	N	U	0.0111	26	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Endosulfan Sulfate	260	N	U	0.0116	260	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Endrin	26	N	U	0.0062	26	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Endrin Aldehyde	130	N	U	0.0075	130	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Endrin Ketone	130	N	U	0.0068	130	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Gamma-BHC (Lindane)	13	N	U	0.0073	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	1	gamma-Chlordane	13	N	U	0.0074	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Heptachlor	13	N	U	0.0089	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Heptachlor Epoxide	13	N	U	0.0083	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	1	Hexachlorobenzene	13	N	U	0	13	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Methoxychlor	130	N	UJ	0.0079	130	ug/Kg
BN-1&3-27-SED18	AH11076	EPA 8081	09/19/2005	S	6	Toxaphene	130	N	U	0.678	130	ug/Kg
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethane-d4	91	Y		0	76	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	4-Bromofluorobenzene	101	Y		0.14	86	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Acetone	5	N	U	4.14	5	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Benzene	1	N	U	0.26	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Bromoform	1	N	U	0.37	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Chloroform	1	N	U	0.42	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Styrene	1	N	U	0.15	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Toluene	1	N	U	0.15	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Toluene-d8	105	Y		0	88	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-1&3-27-QT1	AH11077	EPA 8260B	09/19/2005	S	1	Xylenes (total)	1	N	U	0.52	1	ug/L

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Metals 6010B/7041/7470A/7471A/7740/7841
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous & Solid**	**Nitric Acid**	**Temp (^oC): 5.1, 4.6, 3.7, 4.3^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNAS1&3A**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-1&3-27-SEEP1	AH11051
BN-1&3-27-SEEP3	AH11052
BN-1&3-27-SEEP5	AH11053
BN-1&3-27-LT1	AH11054
BN-1&3-27-LT3	AH11055
BN-1&3-27-LT4	AH11056
BN-1&3-27-LT5	AH11057
BN-1&3-27-SW8	AH11058
BN-1&3-27-SW9	AH11059
BN-1&3-27-LT9	AH11060
BN-1&3-27-XD13	AH11061 (Field Duplicate of AH11060)
BN-1&3-27-SEEP9	AH11062
BN-1&3-27-XD11	AH11063 (Field Duplicate of AH11062)
BN-1&3-27-SED19	AH11064
BN-1&3-27-XD17	AH11065 (Field Duplicate of AH11064)
BN-1&3-27-SEEP4	AH11066
BN-1&3-27-SW4	AH11067
BN-1&3-27-XD12	AH11068 (Field Duplicate of AH11067)
BN-1&3-27-SED17	AH11069
BN-1&3-27-SW15	AH11070
BN-1&3-27-SW7	AH11071
BN-1&3-27-SED9	AH11072
BN-1&3-27-SED15	AH11073
BN-1&3-27-SED16	AH11074
BN-1&3-27-SW16	AH11075
BN-1&3-27-SED18	AH11076

Note: Samples are described below in the data worksheets by reference to the last two digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6^oC. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	Field Sample / Field Duplicate 60 / 61 62 / 63 64 / 65 67 / 68 FD pair 60/61: RPDs > 30% for As, Ba, and Mn. FD pair 64/65: RPDs > 50 % for Ba, Cu. FD pair 62/63 & FD pair 67/68: All RPDs < 30%.	X	As, Ba, Mn qualified J in samples 60 and 61. Ba, Cu qualified J in samples 64, 65.	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	Samples 56, 57, 60, and 61 has %Solids <30%. Past sample results were not qualified as R due to low percent solids. Sample non-detects will be qualified as UJ and the sensitivity will be evaluated.	X	Detects qualified J and non-detects qualified UJ.	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL and >IDL. No samples qualified.	X	-	
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X ; sample result U (nd) 3) Sample results >5X blank level; no action	Aqueous preparation blanks were non-detect for all metals. Solid preparation blank had detects for Al and Fe. All sample results > 5X blank. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	All LCS %R's were within MPC, except for the following: W-LCS 092105: Ag, Be, and Co %R < LCL. Al, Fe, Zn LCS %R>UCL. S-LCS 092105: Ag, K, Na, Se %Rs < LCL. Al and Fe LCS %R>UCL. All Se, Sb, Tl, Hg LCS %R's within limits. Laboratory accuracy is acceptable.	X	Ag, Be, & Co nondetects qualified UJ and detects qualified J in all aqueous samples. Al detects qualified in samples 52 & 66. Fe detects qualified in all aqueous samples. Zn detects qualified J in samples	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
				53, 58, 59, 66, 67, 68, 70, & 71. Ag, K, Na, Se nondetects qualified UJ and detects qualified J in all solid samples. Al and Fe detectss qualified J in all solid samples.	
LCS/LCSD RPD	1) RPD<20%	All 6010B/Hg/Sb/ LCS/LCSD RPDs are within MPC except Zn in W-LCS/LCSD and Al in S-LCS/LCSD. Detects for Zn in aqueous and Al in solid matrix were qualified J. Laboratory precision is acceptable	X	. Detects for Zn in aqueous and Al in solid matrix were qualified J.	
MS Recovery	1) 75-125% ICP metals and Hg if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	Four MS/MSD analysis performed: Seep Matrix: Field sample AH11062 used for MS/MSD. Ag & Ba had 0% recoveries. Ba spike amount < DL. Fe, K, Mn were not evaluated since the sample level greater than than 4X the spike amount. Al, Mg, and Zn %R's > UCL but Al and Zn were nondetects. Ni %R < LCL. Sb, Tl, Se, & Hg MS/MSD %R's within limits. Surface water: Field samples AH11067 Ag and Zn have MS %R<LCL. K, Mg, Mn, & Na %Rs > UCL. Sb, Tl, Se, & Hg MS %R's within limits. Leachate sediment Field sample: AH11060. MS/MSD %R<UCL for nearly all metals, except for Co, Pb, Tl, V, and As with MS/MSD %R>LCL. The metal level in the field sample was greater than 4X the spike level for Al, Fe, & Mn. Sb had 0% recoveries which was confirmed by PDS. All other PDS %Rs were acceptable indicating matrix interference in the sediment matrix. Matrix interference in the sediment matrix and sample heterogeneity	X	Ag qualified R and Ni nondetect qualified UJ in samples 62. Ag nondetect qualified UJ and Zn detect qualified J in sample 67. Sb was qualified R in sample 60. Na and Sb qualified UJ in sample 64.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
		Field samples AH11064 MS/MSD %R<UCL for nearly all metals. The metal levels in the field sample were greater than 4X the spike level for Al, Fe, & Mn. Low recoveries for Na and Sb were confirmed by PDS. All other PDS %Rs were acceptable indicating matrix interference in the sediment matrix and sample heterogeneity. Hg MS %R's within limits. No apparent matrix bias.			
MS/MSD RPD	MS/MSD RPD<20%	Four MS/MSD analyses performed: Seep Matrix: Field sample AH11062 used for MS/MSD RPD. All RPDs within limits except for Se. Laboratory precision is acceptable. Surfacewater matrix: Field sample AH11067 used for MS/MSD. All RPDs within limits. Laboratory precision is acceptable. Leachate sediment: Field sample AH11060 used for MS/MSD MS/MSD RPD > MPC for Cu and Zn. Sediment: Field sample AH11064 used for MS/MSD. RPD >MPC for Cr, Mn, Na, Pb. All Se. Sb, Tl, Hg MS/MSD RPDs within limits. Laboratory precision is acceptable. The sediment matrix is heterogeneous, which accounts for the MS/MSD RPDs.	X	Cu and Zn qualified J in sample 60. Cr, Mn, Na, Pb qualified J in sample 64.	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Four lab replicate analysis performed: Seep Matrix; Field sample: AH11062 used for lab replicate. All RPDs within limits except Zn. Laboratory precision is acceptable. Surface water: Field samples AH11067 used for lab replicate. All RPDs within limits, except for Zn. Laboratory precision is acceptable. Leachate sediment; Field sample AH11060 used for lab replicate. All RPDs within limits, except for Co, Pb, and Zn. Laboratory precision is acceptable.	X	Zn qualified UJ in sample 62. Zn qualified J in samples 67. Co, Pb, and Zn qualified J in sample 60. Ba and Cu qualified J in sample 64.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
		Field sample AH11064 used for lab replicate. All RPDs within limits, except Ba &Cu. Laboratory precision is acceptable. The matrix in sample 616 (leachate sediment) is heterogeneous, which accounts for the MS/MSD RPDs.			
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Select samples diluted to bring results in calibration range. Sediment samples had elevated MRL's due to low % solids.	-	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ)	No negative blank detections. No samples qualified.	X	-	-
Initial Cal Multipoint	1) Blank and 3 standards covering range of instrument. 2) high standard verification +/- %5 3) Hg 5-point calibration COD>0.99	ICP-AES samples. All COD's > 0.99 in all initial calibration runs for all methods. No sample qualifications. Se,Tl, Sb, Hg ICaL within limits.	X	-	
Initial Calibration Blanks (ICB)	1) Ical blank after Ical 2) Results > QL; sample results <5X ; sample result U (nd) 3) Blank concentrations < project RLs 4) Sample results >5X blank level; no action 5) ABS >RL then J qualify data	No 6010B/Hg/Sb/Se/Tl ICB detections – no samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	1) CCB every 10 samples end of run 2) Blank concentrations < project RLs 3) Results > QL; sample results <5X ; sample result U 4) Sample results >5X blank level; no action ABS >RL then J qualify data.	No 6010B/Hg/Sb/Se/Tl CCB detections – no samples qualified.	X	-	
Serial Dilution	1) once per digestion batch 2) Not required per QAPP- no criteria provided. 3) %D<10% 4) %D not evaluated if element results is <50X IDL 5) J detects, UJ non-detects.	Seep matrix – sample AH11053 Ca, Fe & Mn %D>10%. Sample results exceeded upper calibration limit; not evaluated. Serial dilution not analyzed for other matrices.	X	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J (if DL is <10 ug/l use 2X DL). 7) Absolute value of negative ICS-A response>DL and sample detects <5X ICS-A response: detects J, NDs as UJ 8) If the ICS-A is within limits, the ICS-AB may not be analyzed (USACE Shell)	Both ICS-A and ICS-AB %R's within MPC limits for all runs	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R) Hg 80-120%	6010B/Hg/ Se/Tl /Sb/ ICV %R's within MPC limits the initial calibration. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	6010B/Hg/Sb/ Se/Tl CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachment A-1)	Four PDS analysis performed: Seep Matrix: Field sample AH11062. Ni %R < LCL.. Surface water: Field samples AH11067 Zn %R<LCL. K, Mg, %Rs > UCL. Leachate sediment Field sample: AH11060. Sb %R <LCL. Field samples AH11064 Na and Sb %R<LCL.	X	Ni nondetect qualified UJ in sample 62. Zn detect qualified J in sample 67. Sb was qualified UJ in sample 60. Na and Sb qualified UJ in sample 64.	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
Tune Check	Within Method limits.	NA	-		
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Method 6010B; Sediments and aqueous metals except for Se, Sb, Tl, and Hg. Laboratory accuracy is acceptable for all metals, except for Ag, Be, & Co (low bias), Al & Fe (potential high bias) in water	X	-	-

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
		matrix. For the sediment matrix, low bias for Ag, K and high bias for Fe. PDS %R<LCL and MS %R<LCL for Ni in Seep; Zn in surface water, Sb in leachate sediments, and Na and Sb in sediments. Matrix interference in the sediment matrix and sample heterogeneity Laboratory precision is acceptable as determined by the laboratory duplicate and LCS/LCSD RPD & the MS/MSD RPD for all metals, except, Al which had low precision in LCS/LCSD analyses. Matrix interference in the sediment matrix and sample heterogeneity is attributable to the high RPDs in the sediment matrix MS/MSDs and lab duplicates. . Hg. Se, Tl, and Sb analytical precision and accuracy were acceptable. Solid preparation blank; Al & Fe detected – sample concentration > 5x blank. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Field Sample Field Duplicate 60 61 62 63 64 65 67 68 FD pair 60/61: RPDs > 30% for As, Ba, and Mn. FD pair 64/65: RPDs > 50 % for Ba, Cu. FD pair 62/63 and FD pair 67/68: All RPDs < 30%. Overall precision is acceptable.			

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):
EDD disprepancies:

- AH11059 (Zn), AH11060 (V), AH11066 (Be), AH11071 (Al), AH11075 (Ba) were detects but with “N” detect_flag. These were changed to “Y” detect_flag.
- Mn in AH11075 was reported with U lab qualifier but according to the Form I and the raw data, it was a detect. “U” was removed.
- Co and Se in sample AH11076 were nondetects but had “Y” detect_flag. They were changed to “N”.

ECC Region I Data Review Worksheet (rv 3) **Pesticides 3510C/3545/8081A**
Project:NAS Brunswick Sites 1&3 ECC Job No. 5700 **Review Criteria: Sites 1, 3 & EP QAPP & USEPA Region I Tier II Guidance**

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous and Solid**	**None**	**Temp (^oC): 5.1, 4.6, 3.7, 4.3^oC**	**Northeast Laboratory, ME**	**NEL # BNAS1&3A**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-1&3-27-SEEP1	AH11051
BN-1&3-27-SEEP3	AH11052
BN-1&3-27-SEEP5	AH11053
BN-1&3-27-SEEP9	AH11062
BN-1&3-27-XD11	AH11063 (field duplicate for AH11062)
BN-1&3-27-SED19	AH11064
BN-1&3-27-XD17	AH11065 (field duplicate for AH11064)
BN-1&3-27-SEEP4	AH11066
BN-1&3-27-SED17	AH11072
BN-1&3-27-SED9	AH11073
BN-1&3-27-SED16	AH11074
BN-1&3-27-SED18	AH11076

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	MEASUREMENT PERFORMANCE CRITERIA (MPC)	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures < 6 ^oC. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 days to extract (14 days for solids) and 40 days to analysis J –detects, UJ or R – nondetects (function of time)	Dates collected: September, 19, 2005. Date extracted: September 21 & 23, 2005. Date analyzed: September 29, 30, & October 11 & 13, 2005. All samples extracted and analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	%soilds > 30% in all sediment samples.	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Attached data summary table. No results >MDL but <PQL/RL or exceeding upper calibration range.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG.	-	-	

REVIEW ITEMS	MEASUREMENT PERFORMANCE CRITERIA (MPC)	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
Surrogates	Surrogate acceptance limits not specified in the LTMP. Use laboratory statistical limits. TMX 30-150% DCB 30-150% Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	All surrogate recoveries within MPC limits. No sample qualifications.	X	-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab)	There were no detects in the method blanks. No sample qualifications.	X	-	
LCS Recovery	1) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects Attachment A-2 LTMP; Gamma-BHC (Lindane) 56-123% Heptachlor 40-131% Aldrin 40-120% Dieldrin 52-126% Endrin 56-121% 4,4'-DDT 38-127%	All LCS recoveries within MPC limits. No sample qualifications.	X	-	-
MS/MSD Recovery	1) QAPP limits (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL J detects, UJ -NDs >UCL J detects Attachment A-2 LTMP; Gamma-BHC (Lindane) 56-123% Heptachlor 40-131% Aldrin 40-120% Dieldrin 52-126% Endrin 56-121% 4,4'-DDT 38-127%	Native samples – AH11062 & AH11064. AH11062 MS/MSD: Recoveries within MPC limits except delta-BHC %R above MPC. No sample qualification. AH11064 MS/MSD: Recoveries < MPC for all compounds except beta-BHC, delta-BHC, methoxychlor in MS and >MPC for 4,4-DDT and Methoxychlor in MSD.	X	All but beta-BHC, delta-BHC qualified UJ in sample AH11064.	-
MS/MSD RPD	MS/MSD RPD per QAPP Attachment A-2 Gamma-BHC (Lindane) <15% Heptachlor <20% Aldrin <22% Dieldrin <18% Endrin <21% 4,4'-DDT <27% J –detects in MS sample UJ-non detects	Native samples –AH11062 & AH11064. AH11062 MS/MSD: All RPDs within MPC. AH11064MS/MSD: All RPD's above MPC All nondetects qualified UJ.	X	All nondetects qualified UJ in sample AH11064.	
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5%, symmetrical peakshape. GPC check with interferants. Good surrogate recovery, GPC blank check – no carryover.(VOA/SV-IX-I6). Sulfur and High MW compounds removed. SW-846 clean-up not required	NA	-	-	
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	No samples qualified.	X	-	

REVIEW ITEMS	MEASUREMENT PERFORMANCE CRITERIA (MPC)	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
Field Dup RPD	1) RPD ≤ 50% soil and <30% waters for Results >2X PQL (FD pair only) J-detects (both > X PQL) 2) If one >2X PQL, other ND, J-detections, UJ non-detect Other conditions use judgement	Field Duplicate pairs – Seep Water duplicate pair: AH11062/AH11063 All results non-detects in both samples. No sample qualifications. Sediment duplicate pair: AH11064/AH11065 All results non-detects in both samples. No sample qualifications.	X		
DDT Degradation check	Degradation Breakdown (BD) Check every 12 hours and prior to sample analysis. DDT Breakdown: <15% for all checks associated with samples. Endrin Breakdown: <15% for check prior to sample analysis. If BD>15% J detects Endrin/DDT.	Instrument: 5890S. Endrin and DDT breakdown within MPC limits for all EVAL standard associated with samples. No sample qualifications.	X	-	
Initial Cal (Linearity)	Correct calibration stds %RSD < 20% use average RF for calibration %RSD> 20% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20% for all target analytes, with no analyte %RSD>40%	Instrument: 5890S. Dates: September 29 and October 4, 11, & 13, 2005. COD >0.99 for both columns. No sample qualifications.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	No second source ICV analyzed. See CCVs.	-	-	
CCV	1) QAPP: 15% of initial calib. Curve (85%-115%) . J qualify data. 2) Qualification-J detects, R or UJ NDs	Instrument: 5890S. CCV: September 30, 2005: heptachlor and methyxychlor %Ds above MPC on both columns. (52, 62, 63) CCV: October 13, 2005: 4,4'-DDT and methoxychlor %Ds above MPC on both columns. (65, 69, 72, 73, 76) All other %D's were within MPC limits in one or both columns.	X	Heptachlor and methoxychlor were qualified UJ in samples 52, 62, and 63. DDT and methoxychlor were qualified UJ in sample 65, 69, 72, 73, 76.	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP 2) %D <25% primary and secondary column identification and quantitation 3) Target compounds by 8081 Lindane PQL 0.05 ug/L MCL/MEG 0.2 4,4' DDT PQL 0.02 ug/L MEG/0.83	There were no detects in any samples. No sample qualifications.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory results, as qualified, are usable for making project decisions. All surrogate, LCS, MS/MSD were within MPC limits except except delta-BHC %R above MPC in MS and MSD of AH11062 and beta-BHC, delta-BHC, methoxychlor in MS and for 4,4-DDT and Methoxychlor in MSD of AH11064. The laboratory precison for aqueous matrix was acceptable. The precision for sediment matrix was poor with RPDs for all compounds above the QC limits.	X	-	-

REVIEW ITEMS	MEASUREMENT PERFORMANCE CRITERIA (MPC)	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
		ICAL, ICV and CCV are within MPC limits for all samples. No field duplicate was collected/analyzed for this SDG.			

*(Tier III check items) Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

VOCs 5030B/5035/8260B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous and solid**	**HCl, MeOH, $NaHSO_4$**	**Cooler Temps (°C): 5.1, 4.6, 3.7, 4.3**	**Northeast Laboratory-ME (NEL-ME)**	**NEL # BNAS1&3A**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-1&3-27-SEEP1	AH11051
BN-1&3-27-SEEP3	AH11052
BN-1&3-27-SEEP5	AH11053
BN-1&3-27-LT1	AH11054
BN-1&3-27-LT1 (re-analysis)	AH11054
BN-1&3-27-LT3	AH11055
BN-1&3-27-LT3 (re-analysis)	AH11055
BN-1&3-27-LT4	AH11056
BN-1&3-27-LT4 (re-analysis)	AH11056
BN-1&3-27-LT5	AH11057
BN-1&3-27-LT5 (re-analysis)	AH11057
BN-1&3-27-SW8	AH11058
BN-1&3-27-SW9	AH11059
BN-1&3-27-LT9	AH11060
BN-1&3-27-LT9 (re-analysis)	AH11060
BN-1&3-27-XD13	AH11061(Field Duplicate of AH11060)
BN-1&3-27-XD13 (re-analysis)	AH11061
BN-1&3-27-SEEP9	AH11062
BN-1&3-27-XD11	AH11063 (Field Duplicate of AH11062)
BN-1&3-27-SEEP4	AH11066
BN-1&3-27-SW4	AH11067
BN-1&3-27-XD12	AH11068 (Field Duplicate of AH11067)
BN-1&3-27-SW7	AH11071
BN-1&3-27-QT1	AH11077

Note: Samples are described below in the data worksheets by reference to the last two digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures <6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	.	
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time except for re-analyses of samples 60 and 61. These samples were not utilized. The original analyses were retained as the better analyses. No samples qualified.	X	-	
% Solids	30%<Solids: if no sample weight adjustment		X	.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Check (SOLIDS)	made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R				
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	The aqueous method blanks of 09/30/05 and 10/01/05 had a detect for hexachlorobutadiene at 0.56 abd 0.61 ug/L. Hexachlorobutadiene was not detected in the samples. No samples were qualified. The solid method blank of 10/30/05 had a detect for chloromethane at 1.75 ug/kg. The solid method blank of 10/4/05 had detects for 2-butanone, MIBK, toluene, 2-hexanone, tetrachloroethene, xylenes, 1,3-DCB, 1,4-DCB, 1,2-DCB and hexachlorobutadiene. This method blank was associated with re-analyses of samples 60 and 61 which were not retained.	X	Chloromethane in sample 55, 56, 57, and 61 were qualified U.	
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Trp blank BN-EP-27-QT1 was analyzed with no target compound detects. No samples qualified.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <PQL/RL and detects > upper cal range.	X	J for all samples with estimated results <MRL but >MDL and detects > upper cal range.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*TICs (if reported)	1) *verify library search for samples and blanks 2) verify TICs were not misreported compounds (different fraction or miss in search) 3) All TICs – J estimated 4) * verify blanks do not contain TIC peaks 5) * check TIC assignment spectra to STD spectra 6) *review blank and Samples for common lab contaminants	None Reported/not evaluated	-	-	
Surrogates	1,2-Dichloroethane-d4 76-114% Dibromofluoromethane 86-118% Toluene-d8 88%-110% 4-BFB 86-115% *check raw data for surrogate (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	All surrogate recoveries were within the QAPP limits except for a high BFB %R in sample AH11060. All detects in this sample were qualified J. Surrogate recoveries in several samples were outside the QAPP limits; however, these samples were not utilized. Note: QAPP surrogate dibromofluoromethane was not utilized.	X	All detects in sample 60 were qualified J.	
LCS Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	LCS/LCSD 9/30/05: All %Rs were within the QAPP limits. No samples were qualified. LCS/LCSD 10/1/05: Methylene chloride %R was below the limits and tetrachloroethene %Rs were above the limits in LCSD. LCS/LCSD 10/2/05: Methylene chloride %R was below the limits and tetrachloroethene %Rs were above the limits in LCSD. SLCS/LCSD 10/3/05: Chloroethane %Rs were below the limits in the LCS and LCSD. .	X	MeCl qualified UJ for non-detect and J for detect in sample 51, 52, 53, 58, 59, 62, and 77. Chloroethane was qualified UJ for non-detects and J for detects in samples 54, 55, 56, 57, 60, and 61.	
LCSD RPD	RPD=20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J-detects	LCSD 09/30/05: RPDs >20% for chloromethane, vinyl chloride, and methylene chloride. LCSD 10/1/05: RPDs >20% for trans-1,2-dichloroethene, tetrachloroethene. LCSD 10/2/05: RPDs > 20% for acetone, methylene chloride, tetrachloroethene. These compounds were not detected in the	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		associated samples and no samples qualified.. SLCSD 10/3/05: All RPDs were below 20%. No samples were qualified. SLCSD 10/5/05: RPD > 20% for acetone. Associated samples were re-analyses of samples 60 and 61 which were not utilized. No samples were qualified.			
*MS/MSD/un spike sample RSD	1) For unspiked compounds if reported, Non-MS spike compounds <50% RSD calculated MS/MSD/unspiked Qualification: >50% RSD J-detects 2)*recalculated the RPD (within 10% of lab)	NA	-	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	Native sample: AH11062. All %Rs within the MPC. No samples were qualified. Native sample: AH1067: All %Rs within the MPC. No samples were qualified. Native sample: AH11060: 27 of 38 MS %Rs and all MSD %Rs were above UCL.	X	All detects in AH11060 were qualified J.	
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	Native sample: AH11062. All RPDs within the MPC. No samples were qualified. Native sample: AH1067: No MSD analysis was performed due to a laboratory error.. Native sample: AH11060: All RPDs were above the MPC.	X	All compounds in sample AH11060 were qualified UJ for non-detects and J for detects.	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one	Field samples and field duplicates collected/analyzed with this SDG: Field Duplicate Pairs <u>Field sample60 / Field duplicate 61</u> RPDs > 50% for 1,1,2-TCA, 1,1-DCA, 1,2-DCB, 1,4-DCB, 2-butanone, acetone, carbon disulfide, chlorobenzene, chloroethane, chloromethane, ethylbenzene, MeCl, styrene, PCE, toluene, TCE, and xylenes.	X	1,1,2-TCA, 1,1-DCA, 1,2-DCB, 1,4-DCB, 2-butanone, acetone, carbon disulfide, chlorobenzene, chloroethane, chloromethane, ethylbenzene, MeCl, styrene,	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	compound and the PQL	Field sample62 / Field duplicate 63 All RPDs < 30% Overall precision acceptable for Seep water matrix. Field sample67 / Field duplicate 68 There were no detects in either sample. Overall precision acceptable for SW matrix.		PCE, toluene, TCE, and xylenes qualified in sample 60 and 61.	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 2) RRT<0.06 (30 sec) 3) IS>100% J-detects 4) IS<20%CCV NDs – R 5) IS>20%CCV <50%CCV NDs – UJ, J detects 6) *check for IS transcription errors 7) PFB = Pentafluorobenzene 8) FBZ = 1,4-difluorobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all aqueous samples. AH11054: All four IS %Rs < 20%. Sample re-analyzed with slight improvement but all four IS %Rs < 50%. AH11055: All four IS %Rs < 50%with CBZ and DCB %Rs < 20%. The reanalysis showed all four IS %Rs <20%. AH11056: All four IS %Rs <20% in both original and re-analysis. AH11057: CBZ and DCB %Rs < 50%. The re-analysis showed all four IS %Rs < 20%. AH11060: All four IS %Rs < 20% in both original and re-analysis. AH11061: All four IS %Rs <50% with CBZ and DCB %Rs < 20%. All four IS %Rs <20% in the re-analysis.	X	All compounds in sample 54 (re-analysis) were qualified UJ for non-detects and J for detects. Nondetect chlorobenzene, ethylbenzene, styrene, and bromoform were rejected R. All other compounds in sample 55 were qualified UJ for non-detects and J for detects. All detects were qualified J and non-detects rejected R in sample 56. Detects were qualified J and non-detects qualified UJ in sample 57. All detects were qualified J and non-detects rejected R in sample 60.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
				Non-detect chlorobenzene, ethylbenzene, styrene, bromoform, xylenes, 1,2-DCB, 1,3-DCB, 1,4-DCB were qualified R. All other detects were qualified J and non-detects qualified UJ in sample 61. Non-detects rejected in 61.	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRLs are less than LTMP QAPP MRLs. MRLS are less than MEG (except for vinyl chloride) and MCLs.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 (J –detects, R NDs) 5) RRF>0.05 all compounds 6) RRT < 0.06 units (all stds within 30 sec) 7) %RSD<15% for all non-CCCs or COD>0.99 *8) RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)/* 9) *verify that instrument parameters met method and that Ical and analysis used the same parameters 10) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 11) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration	Instrument MS1 9/25/05: All RRFs, CCCs and SPCCs within MPC limits for all VOCs of concern. No samples were qualified 10/3/05: All RRFs, CCCs, and SPCCs within MPC limits for VOCs of concern. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	of one std. Must agree within 10% of lab (option if information is in data package)				
Initial Cal (Linearity)	%RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 Qualification for compounds with : %RSD>30% and RRF>0.05 – J detects, UJ - NDs %RSD<30% and RRF<0.05; -J detects, R - ND %RSD>30% and RRF<0.05: J detects, R - ND (see VOA/SVIII-4)	Instrument MS1 9/25/05: %RSD>15% but the COD>0.99. bromomethane and methylene chloride calibration curve is linear. No samples were qualified 10/3/05: %RSD > 15% but the COD >0.99 for bromomethane, acetone, and methylene chloride. Calibration curve is linear. No samples were qualified.	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	All %Ds within MPC limits.	X	-	
CCV	1) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 2) RRF all compounds > 0.05 3) CCC: (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC) %D<20% (or all analytes if no CCCs reported). 4) Qualification-J detects, R or UJ NDs 5) *verify same instrument and parameters 6) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 7) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 8) *IS RRT<0.06 units (30 sec) 9) * IS area -50 % to 100 % of last ICAL 10) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 11) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/30/05: All %Ds within MPCs. 10/1/05: Methylene chloride has %D >MPC. 10/2/05: Acetone, 2-butanone, and hexachlorobutadiene have %Ds>MPC. 10/3/05: All %Ds within MPCs. 10/4/05: Chloromethane, chloroethane, methylene chloride, 2-butanone, trans-1,3-dichloropropene, tetrachloroethene, styrene, hexachlorobutadiene. No samples were qualified since the associated samples were re-analyses of samples which were not utilized.		MeCl was qualified UJ for non-detects and J for detects in samples 51, 52, 53, 58, 59, and 62. Acetone, 2-butanone, hexachlorobutadiene were qualified J for detects and UJ for non-detects in sample 77.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Several samples were re-analyzed due to poor IS performance with little or no improvement. The matrix interference is indicated for sediment matrix. Two samples were All aqueous LCS/MS/MSD with the following exception: ICVs: Since a separate ICV was not analyzed, LCS was evaluated as ICV. Chloromethane and vinyl chloride were qualified UJ for non-detects in all samples due to high %Ds in ICV. CCVs: 2-Butanone and tetrachloroethene were qualified UJ for non-detects in all samples due to %Ds > MPC. Aqueous method blanks had low level detects for hexachlorobutadiene which was not present in any of the associated aqueous samples. Soil method blank had a detect for chloromethane which was qualified as U in sample 54, 55, 56, 57, and 61. The reports MRLs and MDLs provide adequate sensitivity to support evaluation against MEG and MCLs for all compounds except vinyl chloride. Sampling Error Evaluation : Trip blank was non-detect for all target VOCs. No apparent field cross-contamination. Field Duplicate Pairs <u>Field sample60 / Field duplicate 61</u> RPDs > 50% for 1,1,2-TCA, 1,1-DCA, 1,2-DCB, 1,4-DCB, 2-butanone, acetone, carbon disulfide, chlorobenzene, chloroethane, chloromethane, ethylbenzene, MeCl, styrene, PCE, toluene, TCE, and xylenes. Matrix interference was noted and probable heterogeneity for sediment matrix. Also the high RPDs were attributable to extremely poor IS performance in one which artificially inflated the results. <u>Field sample62 / Field duplicate 63</u> All RPDs < 30% Overall precision acceptable for Seep water matrix. <u>Field sample67 / Field duplicate 68</u> There were no detects in either sample.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		Overall precision acceptable for SW matrix.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES 1& 3
SEPTEMBER 2005 SAMPLING ROUND 27 (SDG BNAS1&3B)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITES 1 & 3 MONITORING EVENT 27

DATE: 3/28/2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Inorganic Analysis (1988), and

3. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Site 1& 3 and Eastern Plume LTMP QAPP (May 2000). The QAPP MPC and validation guideline exceedences are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Acronym or Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
%M	Percent moisture
%S	Percent solids
Ug/L	Microgram per liter
BD	Breakdown
BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verfication
COC	Chain of custody
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
LTMP	Long term monitoring plan
MeCl	Methylene chloride
MS	Matrix spike

Acronym or Abbreviation	Definition
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following:

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Northeast Laboratory
SDG #:__BNASS1&3B
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Sites 1&3

# of SAMPLES/MATRIX: 1;
VALIDATION CONTRACTOR:__ECC
VALIDATOR'S NAME: Huison Chang
DV Completion Date:_ April 12, 2006.
Date Sampled__October 25, 2005.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	Metals
1	Preservation and HT	O	O
2	Instrument Performance Check	O	O
3	Initial Calibration:	O	O
4	Continuing Calibration:	M	O
5	Blanks:	O	M
6	Surrogate Compounds:	O	-
7	Internal Standards	O	-
8	Matrix Spike/Matrix Spike Duplicate:	-	M
9	Sensitivity Check:	O	O
10	PE Samples- Accuracy Check	O	O
11	Target Compound Identification:	O	O
12	Compound Quantitation and Reported QLs	O	O
13	Tentatively Identified Compounds:	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-
15	Data Completeness	O	O
16	Overall Evaluation of Data:	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items):

AREAS OF CONCERN: (M items):

VOC:. ICV: Chloromethane, vinylchloride and carbon disulfide qualified UJ in sample AH13064 due to high ICV %Ds.
CCV: Non-detect for 2-butanone was qualified UJ and detect for acetone was qualified J s due to high CCV %D.

Metals: Al qualified UJ due to MS/MSD/PDS %Rs < MPC.

COMMENTS:

Data Summary Table

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Aluminum Total	0.2	N	UJ	0.1706	0.2	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Arsenic Total	0.01	N	U	0.0206	0.01	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Barium Total	0.2	N	U	0.0068	0.2	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Beryllium Total	0.005	N	U	0.0053	0.005	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Cadmium Total	0.005	N	U	0.0048	0.005	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	10	Calcium Total	100	Y		1.1504	50	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Chromium Total	0.01	N	U	0.011	0.01	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Cobalt Total	0.05	N	U	0.0261	0.05	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Copper Total	0.025	N	U	0.0112	0.025	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Iron Total	1.8	Y	J	0.0428	0.1	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Lead Total	0.003	N	U	0.0155	0.003	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	2	Magnesium Total	25	Y		0.5872	10	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	10	Manganese Total	3.2	Y		0.0053	0.15	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Nickel Total	0.04	N	U	0.0094	0.04	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	2	Potassium Total	11	Y		0.3041	10	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Silver Total	0.01	N	U	0.0126	0.01	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	2	Sodium Total	28	Y		1.51	10	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Vanadium Total	0.05	N	U	0.0293	0.05	mg/L
1 + 3 Dev 1	AH13064	EPA 6010B	10/25/2005	L	1	Zinc Total	0.02	Y	U	0.0566	0.02	mg/L
1 + 3 Dev 1	AH13064	EPA 7041	10/25/2005	L	1	Antimony, Furnace-GW	0.006	N	U	0.0009305	0.006	mg/L
1 + 3 Dev 1	AH13064	EPA 7470A	10/25/2005	L	1	Mercury by Cold Vapor GW	0.0002	N	U	0.0000002	0.0002	mg/L
1 + 3 Dev 1	AH13064	EPA 7740	10/25/2005	L	1	Selenium Furnace GW	0.005	N	U	0.0013299	0.005	mg/L
1 + 3 Dev 1	AH13064	EPA 7841	10/25/2005	L	1	Thallium, Furnace, Groundwater	0.002	N	U	0.0004041	0.002	mg/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	1,1,1-Trichloroethane	0.45	Y	J	0.29	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	1,1-Dichloroethane	10	Y		0.28	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	1,2-Dichloroethane	0.25	Y	J	0.46	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	1,2-Dichloroethane-d4	112	Y		0	76	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	4-Bromofluorobenzene	89	Y		0.14	86	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Acetone	7.5	Y	J	4.14	5	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Carbon Disulfide	1	N	UJ	0.27	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Chloroethane	2.9	Y		1.52	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Chloroform	0.85	Y	J	0.42	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Toluene-d8	96	Y		0	88	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Vinyl Chloride	1	N	UJ	0.43	1	ug/L
1 + 3 Dev 1	AH13064	EPA 8260B	10/25/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Metals 6010B/7041/7470A/7471A/7740/7841
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**Nitric Acid**	**Temp (^oC): 3.2 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASS1&3B**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
1+3 Dev 1	AH13064

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No sample qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	Sample analyzed within holding time. No sample qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	No field duplicate collected/analyzed with this SDG.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	X	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL and >IDL. No samples qualified.	X	-	
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blank had a detect for Zn at 0.03 mg/L. Zn was qualified U in sample 64.	X	Zn was qualified U in sample 64.	
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	All LCS %R's were within MPC except Al, Fe, and Zn with %Rs > UCL. Fe detect was qualified J. Al and Zn were nondetects. Laboratory accuracy is acceptable.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
LCS/LCSD RPD	1) RPD<20%	All LCS/LCSD RPDs are within MPC except Zn with high RPD. No samples qualified. Laboratory precision is acceptable.	X	-	
MS Recovery	1) 75-125% ICP metals and Hg if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	MS/MSD analyzed on sample 64. Recoveries were not evaluated for Ca, Fe, Mg, Mn, and Na due to native concentration > 4X the spike amount. Ba was not recovered but the spike amount was less than RL. Al had %R <MPC% recovery in the MSD and verified by low PDS recovery. Al was qualified J in the sample.	-	Al qualified UJ in sample 64.	
MS/MSD RPD	MS/MSD RPD<20%	All MS/MSD RPDs were within MPC. No samples qualified.	-	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Laboratory replicate RPD within MPC. No sample qualified.	-	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	The sample diluted to bring results in calibration range.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ)	No negative blank detections. No samples qualified.	X	-	
Initial Cal Multipoint	1) Blank and 3 standards covering range of instrument. 2) high standard verification +/- %5 3) Hg 5-point calibration COD>0.99	All COD's > 0.99 in all initial calibration runs for all methods. No sample qualifications.	X	-	
Initial Calibration Blanks (ICB)	1) Ical blank after Ical 2) Results > QL; sample results <5X ; sample result U (nd) 3) Blank concentrations < project RLs 4) Sample results >5X blank level; no action 5) ABS >RL then J qualify data	No 6010B/Hg/Sb/Se/Tl ICB detections – no samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	1) CCB every 10 samples end of run 2) Blank concentrations < project RLs 3) Results > QL; sample results <5X ; sample result U 4) Sample results >5X blank level; no action ABS >RL then J qualify data.	No 6010B/Hg/Sb/Se/Tl CCB detections – no samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Serial Dilution	1) once per digestion batch 2) Not required per QAPP- no criteria provided. 3) %D<10% 4) %D not evaluated if element results is <50X IDL 5) J detects, UJ non-detects.	Mn, and Fe >%D, but the sample No sample qualified. Fe <50X IDL and Mn concentration above the linear range in the undiluted analysis. No samples qualified.	X	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J (if DL is <10 ug/l use 2X DL). 7) Absolute value of negative ICS-A response>DL and sample detects <5X ICS-A response: detects J, NDs as UJ 8) If the ICS-A is within limits, the ICS-AB may not be analyzed (USACE Shell)	Both ICS-A and ICS-AB %R's within MPC limits for all runs.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R) Hg 80-120%	6010B/Hg/ Se/Tl /Sb/ ICV %R's within MPC limits the initial calibration. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	6010B/Hg/Sb/ Se/Tl CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachment A-1)	PDS %R < MPC for Al. Al. qualified UJ.	-	Al qualified UJ in sample 64.	-
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
Tune Check	Within Method limits.	NA	-		

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Method 6010B for aqueous metals except for Se, Sb, Tl, and Hg. The LCS/MS/MSD/PDS %R;s are within limits except for Al with low %R in MS/MSD/PDS. Laboratory accuracy is acceptable. The LCS/LCSD RPDs were within limits for all 6010 elements. Laboratory and precision is acceptable as determined by the laboratory duplicate and LCS/LCSD RPD for all metals. Hg. Se, Tl, and Sb analytical precision and accuracy within MPC limits. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: No field duplicate analyzed.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick Sites 1&3 ECC Job No. 5700

VOCs 5030B/5035/8260B
Review Criteria: Site 1&3/EP QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous and solid**	**HCl, MeOH, $NaHSO_4$**	**Cooler Temps (°C): 1.4**	**Northeast Laboratory-ME (NEL-ME)**	**NEL # BNAS1&3**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
1+3 Dev 1	AH13064

Note: Samples are described below in the data worksheets by reference to the last two digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures <6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	.	
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R		X	-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	The aqueous method blank of 11/08/05 had a detect for hexachlorobutadiene at 1.15 ug/L. Hexachlorobutadiene was not detected in the sample. No sample was qualified.	X	-	
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	No tripblank was included with the sample.	-	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq	Not collected/analyzed with this SDG.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)				
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <PQL/RL .	X	J for all samples with estimated results <MRL but >MDL.	
*TICs (if reported)	1) *verify library search for samples and blanks 2) verify TICs were not misreported compounds (different fraction or miss in search) 3) All TICs – J estimated 4) * verify blanks do not contain TIC peaks 5) * check TIC assignment spectra to STD spectra 6) *review blank and Samples for common lab contaminants	None Reported/not evaluated	-	-	
Surrogates	1,2-Dichloroethane-d4 76-114% Dibromofluoromethane 86-118% Toluene-d8 88%-110% 4-BFB 86-115% *check raw data for surrogate (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	All surrogate recoveries were within the QAPP limits. No samples qualified. Note: QAPP surrogate dibromofluoromethane was not utilized.	X	-	
LCS Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	Chloromethane %Rs in LCS and LCSD; and vinyl chloride and carbon disulfide %Rs in LCSD were above the MPC. These compounds were not detected in the samples. No samples were qualified.	X	-	
LCSD RPD	RPD=20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J-detects	All RPDs <20%. No samples were qualified..	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*MS/MSD/unspike sample RSD	1) For unspiked compounds if reported, Non-MS spike compounds <50% RSD calculated MS/MSD/unspiked Qualification: >50% RSD J-detects 2)*recalculated the RPD (within 10% of lab)	NA		-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	No MS/MSD performed for this SDG.	-	-	
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	No MS/MSD performed for this SDG.	-	-.	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	No field duplicate collected for this SDG.	-	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	them).				
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) PFB = Pentafluorobenzene 9) FBZ = 1,4-difluorobenzene 10) CBZ = chlorobenzene-d5 11) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all aqueous samples.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRLs are less than LTMP QAPP MRLs. MRLS are less than MEG (except for vinyl chloride) and MCLs.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 (J –detects, R NDs) 5) RRF>0.05 all compounds 6) RRT < 0.06 units (all stds within 30 sec) 7) %RSD<15% for all non-CCCs or COD>0.99 *8) RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)/* 9) *verify that instrument parameters met method and that Ical and analysis used the same parameters 10) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 11) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 9/25/05: All RRFs, CCCs and SPCCs within MPC limits for all VOCs of concern. No samples qualified	X	-	
Initial Cal (Linearity)	%RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 Qualification for compounds with : %RSD>30% and RRF>0.05 – J detects, UJ - NDs	Instrument MS1 9/25/05: %RSD>15% but the COD>0.99 Acetone, methylene chloride, carbon tetrachloride, and 1,1,2,2-tetrachloroethane calibration curve is linear. No samples qualified	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	%RSD<30% and RRF<0.05; -J detects, R - ND %RSD>30% and RRF<0.05: J detects, R - ND (see VOA/SVIII-4)				
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	All %Ds within MPC limits except for chloromethane, vinyl chloride, and carbon disulfide. All results for these compounds were qualified UJ.	X	Chloromethane, vinyl chloride, and carbon disulfide non-detects were qualified UJ.	
CCV	1) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 2) RRF all compounds > 0.05 3) CCC: (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC) %D<20% (or all analytes if no CCCs reported). 4) Qualification-J detects, R or UJ NDs 5) *verify same instrument and parameters 6) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 7) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 8) *IS RRT<0.06 units (30 sec) 9) * IS area -50 % to 100 % of last ICAL 10) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 11) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/28/05: 2-butanone and acetone have %Ds>MPC		Non-detect for 2-butanone was qualified UJ and detect for acetone was qualified J.	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The aqueous results are usable for making project decisions, as qualified. All aqueous LCS/LCSD recoveries were within MPC limits except chloromethane, vinyl chloride, and carbon disulfide with %Rs above the MPC limits. As they were non-detects, sample was not qualified. ICV: Chloromethane, vinyl chloride, and carbon disulfide were qualified UJ for non-detects in all samples due to high %Ds in ICV. CCV: 2-Butanone and acetone were qualified UJ for non-detects in the sample due to %Ds > MPC.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		Method blank had a detect for hexachlorobutadien but it was not detected the sample. The reports MRLs and MDLs provide adequate sensitivity to support evaluation against MEG and MCLs for all compounds except vinyl chloride. Sampling Error Evaluation : Trip blank was not included with this SDG. No field duplicate was collected as part of this SDG.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

.

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES 1& 3
SEPTEMBER 2005 SAMPLING ROUND 27 (SDG BNAS1&3)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITES 1 & 3 MONITORING EVENT 27

DATE: 3/28/2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Inorganic Analysis (1988), and

3. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Site 1& 3 and Eastern Plume LTMP QAPP (May 2000). The QAPP MPC and validation guideline exceedences are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Acronym or Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
%M	Percent moisture
%S	Percent solids
Ug/L	Microgram per liter
BD	Breakdown
BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verfication
COC	Chain of custody
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
LTMP	Long term monitoring plan
MeCl	Methylene chloride
MS	Matrix spike

Acronym or Abbreviation	Definition
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following:

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Northeast Laboratory
SDG #:__BNASS1&3
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Sites 1&3

# of SAMPLES/MATRIX: 3 Water
VALIDATION CONTRACTOR:__ECC
VALIDATOR'S NAME: Huison Chang
DV Completion Date: April 10, 2006
Date Sampled: October 3, 2005

ANALYTICAL DATA QUALITY SUMMARY

		VOC
1	Preservation and HT	O
2	Instrument Performance Check	O
3	Initial Calibration:	O
4	Continuing Calibration:	M
5	Blanks:	M
6	Surrogate Compounds:	O
7	Internal Standards	O
8	Matrix Spike/Matrix Spike Duplicate:	-
9	Sensitivity Check:	O
10	PE Samples- Accuracy Check	O
11	Target Compound Identification:	O
12	Compound Quantitation and Reported QLs	O
13	Tentatively Identified Compounds:	-
14	Semivolatile/Pesticide/PCB Cleanup:	-
15	Data Completeness	O
16	Overall Evaluation of Data:	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): None.

AREAS OF CONCERN: (M items):

VOC: Hexachlorobutadiene was detected in the method blank and was qualified U in sample AH110704. ICV %Ds were above the MPC limit for chloromethane. Non-detects for these compounds were qualified UJ in all samples. CCV %Ds were above the MPC limit for bromomethane. Non-detects for these compounds were qualified UJ in all samples.

COMMENTS:

Data Summary Table

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	1,2-Dichloroethane-d4	103	Y		0	76	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	4-Bromofluorobenzene	104	Y		0.14	86	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Hexachlorobutadiene	1.4	Y	U	0.27	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Toluene-d8	108	Y		0	88	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW-338A-S	AH11704	EPA 8260B	10/03/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	1,2-Dichloroethane-d4	106	Y		0	76	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	4-Bromofluorobenzene	105	Y		0.14	86	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Toluene-d8	109	Y		0	88	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW-338A-M	AH11705	EPA 8260B	10/03/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	1,2-Dichloroethane-d4	106	Y		0	76	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	4-Bromofluorobenzene	104	Y		0.14	86	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Acetone	5	N	U	4.14	5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Toluene-d8	107	Y		0	88	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW-338A-D	AH11706	EPA 8260B	10/03/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

VOCs 5030B/5035/8260B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous and solid**	**HCl, MeOH, $NaHSO_4$**	**Cooler Temps (°C): 5.0**	**Northeast Laboratory-ME (NEL-ME)**	**NEL # BNASEP1003**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-338AS	AH11704
BN-EP-27-MW-338A-M	AH11705
BN-EP-27-MW-338A-D	AH11706

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures <6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R		X	.	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	The aqueous method blank of 10/17/05 had a detect for hexachlorobutadiene at 1.7 ug/L. Hexachlorobutadiene in sample 704 was qualified.	X	Hexachlorobutadiene in sample 704 was qualified U.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	No trpblank was included with the samples for this SDG.	-	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. No detects in the samples.	X	-	
*TICs (if reported)	1) *verify library search for samples and blanks 2) verify TICs were not misreported compounds (different fraction or miss in search) 3) All TICs – J estimated 4) * verify blanks do not contain TIC peaks 5) * check TIC assignment spectra to STD spectra 6) *review blank and Samples for common lab contaminants	None Reported/not evaluated.	-	-	
Surrogates	1,2-Dichloroethane-d4 76-114% Dibromofluoromethane 86-118% Toluene-d8 88%-110% 4-BFB 86-115% *check raw data for surrogate (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	All surrogate recoveries were within the QAPP limits. No samples qualified. Note: QAPP surrogate dibromofluoromethane was not utilized.	X	-	
LCS Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All LCS/LCSD %Rs were within MPC limits. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
LCSD RPD	RPD=20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J-detects	Hexachlorobutadiene had an RPD above 20%. It was a nondetect and no samples were qualified.	X	-	
*MS/MSD/unspike sample RSD	1) For unspiked compounds if reported, Non-MS spike compounds <50% RSD calculated MS/MSD/unspiked Qualification: >50% RSD J-detects 2)*recalculated the RPD (within 10% of lab)	NA		-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	No MS/MSD analyzed for this SDG.	-	-	
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	No MS/MSD analyzed for this SDG.	-	-	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	No field duplicates collected/analyzed with this SDG.	-	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) PFB = Pentafluorobenzene 9) FBZ = 1,4-difluorobenzene 10) CBZ = chlorobenzene-d5 11) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all aqueous samples.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRLs are less than LTMP QAPP MRLs. MRLS are less than MEG (except for vinyl chloride) and MCLs.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 (J –detects, R NDs) 5) RRF>0.05 all compounds 6) RRT < 0.06 units (all stds within 30 sec) 7) %RSD<15% for all non-CCCs or COD>0.99 *8) RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)/* 9) *verify that instrument parameters met method and that Ical and analysis used the same parameters 10) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 11) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 10/07/05: All RRFs, CCCs and SPCCs within MPC limits for all VOCs of concern. No samples qualified	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Initial Cal (Linearity)	%RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 Qualification for compounds with : %RSD>30% and RRF>0.05 – J detects, UJ - NDs %RSD<30% and RRF<0.05; -J detects, R - ND %RSD>30% and RRF<0.05: J detects, R - ND (see VOA/SVIII-4)	Instrument MS1 9/25/05: %RSD>15% but the COD>0.99. Bromomethane and methylene chloride calibration curve is linear. No samples qualified.	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	All %Ds within MPC limits except for chloromethane. All results for this compounds were qualified UJ for nondetects.	X	Chloromethane non-detects were qualified UJ in all samples.	
CCV	1) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 2) RRF all compounds > 0.05 *3)* CCC: (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC) %D<20% (or all analytes if no CCCs reported). 4) Qualification-J detects, R or UJ NDs 5) *verify same instrument and parameters 6) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 7) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 8) *IS RRT<0.06 units (30 sec) 9) * IS area -50 % to 100 % of last ICAL 10) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 11) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 10/17/05: All %Ds within MPC limits except for bromomethane. All results for this compounds were qualified UJ for nondetects		Bromomethane non-detects were qualified UJ in all samples.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The aqueous results are usable for making project decisions, as qualified. All aqueous LCS/LCSD recoveries were within MPC limits. ICV: Chloromethane %Ds >MPC. CCV: Bromomethane %Ds > MPC. Method blank had a detect for hexachlorobutadiene. The reports MRLs and MDLs provide adequate sensitivity to support evaluation against MEG and MCLs for all compounds except vinyl chloride. Sampling Error Evaluation : No Trip blank was analyzed with this SDG. No field duplicate was collected and analyzed as part of this SDG.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

.

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES 1& 3 AND EP
SEPTEMBER 2005 SAMPLING ROUND 27 (SDG BNASEPA)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE 1&3 AND EP MONITORING EVENT 27

DATE: 3/28/2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Inorganic Analysis (1988), and

3. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Site 1& 3 and Eastern Plume LTMP QAPP (May 2000). The QAPP MPC and validation guideline exceedences are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Acronym or Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
%M	Percent moisture
%S	Percent solids
Ug/L	Microgram per liter
BD	Breakdown
BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verfication
COC	Chain of custody
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
LTMP	Long term monitoring plan
MeCl	Methylene chloride
MS	Matrix spike

Acronym or Abbreviation	Definition
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following:

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Northeast Laboratory
SDG #: BNASEPA
EPA-NE DV TIER LEVEL: II
SITE NAME: NAS Brunswick – Sites 1&3 and EP

# of SAMPLES/MATRIX: VOC(16 MW, 1TB, & 1 MW FD), MNA (4 samples), 1,4-Dioxane (1 MW, 1TB), Methane(4 MW, 1 TB)
VALIDATION CONTRACTOR: ECC
VALIDATOR'S NAME: Huison Chang
DV Completion Date: April 10, 2006.
Date Sampled: September 13, 2005.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	MNA Ground Water Quality	Methane, Ethane, Ethene (ATL)	1,4-Dioxane	MNA Metals
1	Preservation and HT	O	O	M	O	O
2	Instrument Performance Check	O	O	O	O	O
3	Initial Calibration:	O	O	O	O	O
4	Continuing Calibration:	M	O	O	O	O
5	Blanks:	M	O	O	O	O
6	Surrogate Compounds:	O	O	O	O	-
7	Internal Standards	O	O	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	O	O	-	-	M
9	Sensitivity Check:	O	O	M	O	O
10	PE Samples- Accuracy Check	M	O	O	O	M
11	Target Compound Identification:	O	O	O	O	O
12	Compound Quantitation and Reported QLs	O	O	O	O	O
13	Tentatively Identified Compounds:	-	-	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	-	-	-
15	Data Completeness	O	O	O	O	O
16	Overall Evaluation of Data:	O	O	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): None.

AREAS OF CONCERN: (M items):

VOC: Methylene chloride was deteced in the method blank and was qualified U in samples AH10731, AH10732, AH10733, AH10734, and AH10735. Low LCSD recovery for tetrachloroethene. Tetrachloroethene was qualified UJ in samples AH10727, AH10728, AH10729, AH10730, AH10731, AH10732, AH10733, AH10734,

AH10735, and AH10739. MS/MSD recoveries for acetone, methylene chloride, 1,2-dichloroethene, and tetrachloroethene were < LCL. The analytes were qualified UJ in sample AH10739.

ICV: 2-Butanone, tetrachloroethene, hexachlorobutadiene in samples AH10727, AH10728, AH10729, AH10730, AH10731, AH10732, AH10733, AH10734, AH10735, and AH10739 were qualified UJ due to high ICV %D.

CCV: 2-Butanone, 1,2-dichloroethene, acetone, methylene chloride, tetrachloroethene in samples AH10727, AH10728, AH10729, AH10730, AH10731, AH10732, AH10733, AH10734, AH10735, and AH10739 were qualified UJ due to high CCV %D. Chloromethane, actone, 2-butanone, tetrachloroethene, hexachlorobutadiene and bromomethane in sample 36, 37, 38, 39, 40, 41, 42, 43, and 44 were qualified UJ due to high CCV %D.

Methane, Ethane, Ethene: Sample AH10743 was received with headspace. Sample qualified with J for detect and UJ for non-detect. Sensitivity: MRL is equal to or less than MNA scoring criteria; however, sensitivity does not meet MNA Technical letter requirements.

Metals: LCS %R>UCL for Fe. LCS/LCSD RPD > MPC for Fe. Fe was qualified J in samples AH10730, AH10734, AH10738, and AH10743.

COMMENTS:

Data summary table

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	0.55	Y	J	0.46	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane-d4	100	Y		0	76	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	4-Bromofluorobenzene	96	Y		0.14	86	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW315AS	AH10727	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	0.53	Y	J	0.46	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	100	Y		0	76	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	95	Y		0.14	86	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW315AM	AH10728	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	0.5	Y	J	0.46	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	103	Y		0	76	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	94	Y		0.14	86	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	99	Y		0	88	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW315AD	AH10729	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	103	Y		0	76	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	95	Y		0.14	86	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW338B	AH10730	EPA 310.1	9/13/2005	L	1	Alkalinity	34	Y		0.35	5	mg/L
BN-EP-27-MW338B	AH10730	EPA 6010B	9/13/2005	L	1	Arsenic Total,ppb	3	Y		0.0067	2.3	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 9056	9/13/2005	L	1	Chloride	8	Y		0.21	1	mg/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 6010B	9/13/2005	L	1	Iron Total, ppb	450	Y	J	0.0062	25	ug/L
BN-EP-27-MW338B	AH10730	EPA 6010B	9/13/2005	L	1	Manganese Total, ppb	350	Y		0.0031	2	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 353.2	9/13/2005	L	1	Nitrate/Nitrite Total	0.1	N	U	0.006	0.1	mg/l
BN-EP-27-MW338B	AH10730	EPA 9056	9/13/2005	L	1	Nitrite-N	0.2	N	U	0.295	0.2	mg/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338B	AH10730	EPA 300	9/13/2005	L	1	Sulfate	4.9	Y		0.11	1	mg/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	99	Y		0	88	ug/L
BN-EP-27-MW338B	AH10730	EPA 415.1	9/13/2005	L	1	Total Organic Carbon	1	N	U	0.343	1	mg/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW338B	AH10730	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	0.26	Y	J	0.46	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	105	Y		0	76	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	95	Y		0.14	86	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	Y	U	1.05	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	99	Y		0	88	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW338BS	AH10731	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	0.32	Y	J	0.46	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	104	Y		0	76	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	96	Y		0.14	86	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1.1	Y	U	1.05	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	100	Y		0	88	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW338BM	AH10732	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	0.35	Y	J	0.46	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	100	Y		0	76	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	96	Y		0.14	86	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	Y	U	1.05	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	99	Y		0	88	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW338BD	AH10733	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	104	Y		0	76	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	97	Y		0.14	86	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW339	AH10734	EPA 310.1	9/13/2005	L	1	Alkalinity	33	Y		0.35	5	mg/L
BN-EP-27-MW339	AH10734	EPA 6010B	9/13/2005	L	1	Arsenic Total,ppb	2.3	N	U	0.0067	2.3	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW339	AH10734	EPA 9056	9/13/2005	L	1	Chloride	7.3	Y		0.21	1	mg/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW339	AH10734	EPA 6010B	9/13/2005	L	1	Iron Total, ppb	450	Y	J	0.0062	25	ug/L
BN-EP-27-MW339	AH10734	EPA 6010B	9/13/2005	L	1	Manganese Total, ppb	330	Y		0.0031	2	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	Y	U	1.05	1	ug/L
BN-EP-27-MW339	AH10734	EPA 353.2	9/13/2005	L	1	Nitrate/Nitrite Total	0.1	N	U	0.006	0.1	mg/l
BN-EP-27-MW339	AH10734	EPA 9056	9/13/2005	L	1	Nitrite-N	0.2	N	U	0.295	0.2	mg/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339	AH10734	EPA 300	9/13/2005	L	1	Sulfate	3.6	Y		0.11	1	mg/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	100	Y		0	88	ug/L
BN-EP-27-MW339	AH10734	EPA 415.1	9/13/2005	L	1	Total Organic Carbon	1	N	U	0.343	1	mg/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW339	AH10734	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	0.5	Y	J	0.46	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	102	Y		0	76	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	96	Y		0.14	86	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	Y	U	1.05	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	100	Y		0	88	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW339S	AH10735	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	0.23	Y	J	0.46	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	111	Y		0	76	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	86	N		0.14	86	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	88	N		0	88	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW339M	AH10736	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	0.26	Y	J	0.46	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	111	Y		0	76	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	87	Y		0.14	86	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	89	Y		0	88	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW339D	AH10737	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	108	Y		0	76	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	97	Y		0.14	86	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW338C	AH10738	EPA 310.1	9/13/2005	L	1	Alkalinity	20	Y		0.35	5	mg/L
BN-EP-27-MW338C	AH10738	EPA 6010B	9/13/2005	L	1	Arsenic Total,ppb	5	Y		0.0067	2.3	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 9056	9/13/2005	L	1	Chloride	3.9	Y		0.21	1	mg/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 6010B	9/13/2005	L	1	Iron Total, ppb	240	Y	J	0.0062	25	ug/L
BN-EP-27-MW338C	AH10738	EPA 6010B	9/13/2005	L	1	Manganese Total, ppb	7	Y		0.0031	2	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 353.2	9/13/2005	L	1	Nitrate/Nitrite Total	0.1	N	U	0.006	0.1	mg/l
BN-EP-27-MW338C	AH10738	EPA 9056	9/13/2005	L	1	Nitrite-N	0.2	N	U	0.295	0.2	mg/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 300	9/13/2005	L	1	Sulfate	3.3	Y		0.11	1	mg/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	90	Y		0	88	ug/L
BN-EP-27-MW338C	AH10738	EPA 415.1	9/13/2005	L	1	Total Organic Carbon	1	Y		0.343	1	mg/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW338C	AH10738	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	100	Y		0	76	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	UJ	0.26	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	95	Y		0.14	86	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	99	Y		0	88	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW338CS	AH10739	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	107	Y		0	76	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	99	Y		0.14	86	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	90	Y		0	88	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW338CM	AH10740	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	103	Y		0	76	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	103	Y		0.14	86	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	90	Y		0	88	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW338CD	AH10741	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	105	Y		0	76	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	96	Y		0.14	86	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	88	N		0	88	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW-XD1	AH10742	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1.027027	1,2-Dichloroethane-d4	99	Y		0	76	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	1,4 Dioxane	1	N	U	0.49	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	1,4-Dioxane-d8	107	Y		0	60	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1.1025641	4-Bromofluorobenzene	97	Y		0.14	86	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Acetone	12	Y		4.14	5	ug/L
BN-EP-27-MW338A	AH10743	EPA 310.1	9/13/2005	L	1	Alkalinity	290	Y		0.35	5	mg/L
BN-EP-27-MW338A	AH10743	EPA 6010B	9/13/2005	L	1	Arsenic Total,ppb	60	Y		0.0067	2.3	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 9056	9/13/2005	L	10	Chloride	124	Y		0.21	10	mg/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 6010B	9/13/2005	L	1	Iron Total, ppb	810	Y	J	0.0062	25	ug/L
BN-EP-27-MW338A	AH10743	EPA 6010B	9/13/2005	L	1	Manganese Total, ppb	41	Y		0.0031	2	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 353.2	9/13/2005	L	1	Nitrate/Nitrite Total	0.1	N	U	0.006	0.1	mg/l
BN-EP-27-MW338A	AH10743	EPA 9056	9/13/2005	L	1	Nitrite-N	0.2	N	U	0.295	0.2	mg/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 300	9/13/2005	L	1	Sulfate	1	N		0.11	1	mg/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1.0352941	Toluene-d8	90	Y		0	88	ug/L
BN-EP-27-MW338A	AH10743	EPA 415.1	9/13/2005	L	1	Total Organic Carbon	3	Y		0.343	1	mg/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW338A	AH10743	EPA 8260B	9/13/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1.027027	1,2-Dichloroethane-d4	103	Y		0	76	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	1,4 Dioxane	1	N	U	0.49	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	1,4-Dioxane-d8	98	Y		0	60	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1.1025641	4-Bromofluorobenzene	95	Y		0.14	86	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1.0352941	Toluene-d8	88	Y		0	88	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-QT1	AH10744	EPA 8260B	9/13/2005	S	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW338B (AH10730)	0509325-01A	VSK-175	9/13/2005	WG	1	Methane	0.01	N	U	0.0029	0.01	uG/mL
BN-EP-27-MW338B (AH10730)	0509325-01A	VSK-175	9/13/2005	WG	1	Ethane	0.01	N	U	0.0024	0.01	uG/mL
BN-EP-27-MW338B (AH10730)	0509325-01A	VSK-175	9/13/2005	WG	1	Ethene	0.01	N	U	0.0023	0.01	uG/mL
BN-EP-27-MW339 (AH10734)	0509325-02A	VSK-175	9/13/2005	WG	1	Methane	0.01	N	U	0.0029	0.01	uG/mL
BN-EP-27-MW339 (AH10734)	0509325-02A	VSK-175	9/13/2005	WG	1	Ethane	0.01	N	U	0.0024	0.01	uG/mL
BN-EP-27-MW339 (AH10734)	0509325-02A	VSK-175	9/13/2005	WG	1	Ethene	0.01	N	U	0.0023	0.01	uG/mL
BN-EP-27-MW338A (AH10743)	0509325-03A	VSK-175	9/13/2005	WG	1	Methane	0.33	Y	J	0.0029	0.01	uG/mL
BN-EP-27-MW338A (AH10743)	0509325-03A	VSK-175	9/13/2005	WG	1	Ethane	0.01	N	UJ	0.0024	0.01	uG/mL
BN-EP-27-MW338A (AH10743)	0509325-03A	VSK-175	9/13/2005	WG	1	Ethene	0.01	N	UJ	0.0023	0.01	uG/mL
BN-EP-27-MW338C (AH10738)	0509325-04A	VSK-175	9/13/2005	WG	1	Methane	0.01	N	U	0.0029	0.01	uG/mL
BN-EP-27-MW338C (AH10738)	0509325-04A	VSK-175	9/13/2005	WG	1	Ethane	0.01	N	U	0.0024	0.01	uG/mL
BN-EP-27-MW338C (AH10738)	0509325-04A	VSK-175	9/13/2005	WG	1	Ethene	0.01	N	U	0.0023	0.010	uG/mL
BN-EP-27-QT1 (AH10744) Trip Bl	0509325-05A	VSK-175	9/13/2005	WG	1	Methane	0.01	N	U	0.0029	0.01	uG/mL
BN-EP-27-QT1 (AH10744) Trip Bl	0509325-05A	VSK-175	9/13/2005	WG	1	Ethane	0.01	N	U	0.0024	0.01	uG/mL
BN-EP-27-QT1 (AH10744) Trip Bl	0509325-05A	VSK-175	9/13/2005	WG	1	Ethene	0.01	N	U	0.0023	0.01	uG/mL

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**Nitric Acid**	**Temp (^oC): 6.0 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEPA**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW338	AH10730
BN-EP-27-MW339	AH10734
BN-EP-27-MW338C	AH10738
BN-EP-27-MW338A	AH10743

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No sample qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	No field duplicate collected/analyzed.	-	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No samples qualified.	X	-	
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blank was non-detect for all MNA metals. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	All LCS %R's were within MPC except for Fe, which exceeded the UCL. Laboratory accuracy is acceptable.	X	Fe qualified J in all samples.	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
LCS/LCSD RPD	1) RPD<20%	All LCS/LCSD RPDs are within MPC except for Fe with high RPD.	X	Fe qualified J in all samples.	
MS Recovery	1) 75-125% ICP metals and Hg if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	No MS/MSD analyzed.	-	-	
MS/MSD RPD	MS/MSD RPD<20%	No MS/MSD analyzed.	-	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	No laboratory duplicate analyzed.	-	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Dilution Factor = 1 for all samples. No project action limits for metals. The MRLs were within the MNS technical letter requirements except for Mn (MRL = 2.5). The Mn IDL is less than the MNA technical Letter MRL. Sensitivity is acceptable.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ)	No negative blank detections. No samples qualified.	X	-	
Initial Cal Multipoint	1) Blank and 3 standards covering range of instrument. 2) high standard verification +/- %5 3) Hg 5-point calibration COD>0.99	All COD's > 0.99 in all initial calibration runs for all methods. No sample qualifications.	X	-	
Initial Calibration Blanks (ICB)	1) Ical blank after Ical 2) Results > QL; sample results <5X ; sample result U (nd) 3) Blank concentrations < project RLs 4) Sample results >5X blank level; no action 5) ABS >RL then J qualify data	No ICB detects – no samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	1) CCB every 10 samples end of run 2) Blank concentrations < project RLs 3) Results > QL; sample results <5X ; sample result U 4) Sample results >5X blank level; no action ABS >RL then J qualify data.	No CCB detects – no samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Serial Dilution	1) once per digestion batch 2) Not required per QAPP- no criteria provided. 3) %D<10% 4) %D not evaluated if element results is <50X IDL 5) J detects, UJ non-detects.	Not analyzed.	-	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J (if DL is <10 ug/l use 2X DL). 7) Absolute value of negative ICS-A response>DL and sample detects <5X ICS-A response: detects J, NDs as UJ 8) If the ICS-A is within limits, the ICS-AB may not be analyzed (USACE Shell)	Both ICS-A and ICS-AB %R's within MPC limits for all runs. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R) Hg 80-120%	All ICV %R's within MPC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	All CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachment A-1)	No PDS analyzed.	-	-	-
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
Tune Check	Within Method limits.	NA	-		

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The laboratory accuracy is acceptable. Fe LCS/LCSD %Rs exceeded the UCL. Laboratory precision is acceptable except Fe with LCS/LCSD RPD above the limit. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: No field duplicate analyzed.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

VOCs 5030B/5035/8260B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous and solid**	**HCl, MeOH, $NaHSO_4$**	**Cooler Temps (°C): 6.0**	**Northeast Laboratory-ME (NEL-ME)**	**NEL # BNASEPA**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW315AS	AH10727
BN-EP-27-MW315AM	AH10728
BN-EP-27-MW315AP	AH10729
BN-EP-27-MW338	AH10730
BN-EP-27-MW338BS	AH10731
BN-EP-27-MW338BM	AH10732
BN-EP-27-MW338BD	AH10733
BN-EP-27-MW339	AH10734
BN-EP-27-MW339S	AH10735
BN-EP-27-MW339M	AH10736
BN-EP-27-MW339D	AH10737
BN-EP-27-MW338C	AH10738
BN-EP-27-MW338CS	AH10739
BN-EP-27-MW338CM	AH10740
BN-EP-27-MW338CD	AH10741
BN-EP-27-MW-XD1	AH10742 (Field Duplicate of AH10739)
BN-EP-27-MW338A	AH10743
BN-EP-27-QT1	AH10744

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	.	
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	NA	X	.	

ECC Region I Data Review Worksheet (rv 3) **VOCs 5030B/5035/8260B**
Project: NAS Brunswick ECC Job No. 5700 **Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	The aqueous method blank of 09/20/05 had a detect for methylene chloride at 2.8 ug/L. The aqueous method blank of 09/26/05 had a detect for hexachlorobutadiene. This compound was not detected in the samples. No samples were qualified.	X	MeCl detects were qualified U in samples 731, 732, 733, 734, & 735.	
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Trip blank BN-EP-27-QT1 was analyzed with no target compound detects. No samples qualified.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <PQL/RL	X	J for all samples with estimated results <MRL but >MDL.	
*TICs (if reported)	1) *verify library search for samples and blanks 2) verify TICs were not misreported compounds (different fraction or miss in search) 3) All TICs – J estimated 4) * verify blanks do not contain TIC peaks 5) * check TIC assignment spectra to STD spectra 6) *review blank and Samples for common lab contaminants	None Reported/not evaluated.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Surrogates	1,2-Dichloroethane-d4 76-114% Dibromofluoromethane 86-118% Toluene-d8 88%-110% 4-BFB 86-115% *check raw data for surrogate (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	All surrogate recoveries were within the QAPP limits. No samples qualified. Note: QAPP surrogate dibromofluoromethane was not utilized.	X	-	
LCS Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	LCS/LCSD 9/20/05: Tetrachloroethene %R in the LCSD was below the MPC. This compound was qualified UJ. LCS/LCSD 09/26/05: LCSD %Rs were above the MPC limits for Methylene chloride and tetrachloroethene. No samples were qualified as they were non-detects.	X	PCE was qualified UJ in samples 727, 728, 729, 730, 731, 732, 733, 734, 735, and 739.	
LCSD RPD	RPD=20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J-detects	LCS/LCSD 9/20/05: Acetone, methylene chloride, and hexachlorobutadiene had RPDs above 20%. They were non-detects and no samples were qualified. LCS/LCSD 09/26/05: Methylene chloride and tetrachloroethene had RPDs above 20%. They were non-detects and no samples were qualified.	X	-	
*MS/MSD/unspike sample RSD	1) For unspiked compounds if reported, Non-MS spike compounds <50% RSD calculated MS/MSD/unspiked Qualification: >50% RSD J-detects 2)*recalculated the RPD (within 10% of lab)	NA		-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	Native sample: AH10739. All %Rs <LCL for acetone, methylene chloride, trans-1,2-DCE, and tetrachloroethene in both Ms and MSD.	X	Acetone, MeCl, 1,2-DCE, and PCE non-detects qualified UJ in sample 739.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	All RPDs < 20%. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	Field samples and field duplicates collected/analyzed with this SDG: Field Duplicate Pairs Field sample 739 / Field duplicate 742 Ther were no VOC detected in either sample. Overall precision acceptable.	X	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) PFB = Pentafluorobenzene 9) FBZ = 1,4-difluorobenzene 10) CBZ = chlorobenzene-d5 11) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all aqueous samples.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRLs are less than LTMP QAPP MRLs. MRLS are less than MEG (except for vinyl chloride) and MCLs.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 (J –detects, R NDs) 5) RRF>0.05 all compounds 6) RRT < 0.06 units (all stds within 30 sec) 7) %RSD<15% for all non-CCCs or COD>0.99 *8) RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)/* 9) *verify that instrument parameters met method and that Ical and analysis used the same parameters 10) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 11) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 9/20/05: All RRFs, CCCs and SPCCs within MPC limits for all VOCs of concern. No samples qualified 9/25/05: All RRFs, CCCs and SPCCs within MPC limits for all VOCs of concern. No samples qualified	X	-	
Initial Cal (Linearity)	%RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 Qualification for compounds with : %RSD>30% and RRF>0.05 – J detects, UJ - NDs %RSD<30% and RRF<0.05; -J detects, R - ND %RSD>30% and RRF<0.05: J detects, R - ND (see VOA/SVIII-4)	Instrument MS1 9/20/05: %RSD>15% but the COD>0.99. Acetone, methylene chloride, tetrachloroethene, hexachlorobutadiene calibration curve is linear. No samples qualified 9/25/05: %RSD>15% but the COD>0.99. Bromomethane and methylene chloride calibration curve is linear. No samples qualified	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	Instrument MS1 9/20/05: All %Ds within MPC limits except for 2-butanone, tetrachloroethene, and hexachlorobutadiene. All results for these compounds were qualified UJ for non-detects. 09/26/05: All %Ds within MPC. No samples qualified.	X	2-butanone, PCE, and hexachlorobutadiene were qualified UJ in samples 27, 28, 29, 30, 31, 32, 33, 34, 35, and 39.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
CCV	1) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 2) RRF all compounds > 0.05 3) CCC: (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC) %D<20% (or all analytes if no CCCs reported). 4) Qualification-J detects, R or UJ NDs 5) *verify same instrument and parameters 6) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 7) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 8) *IS RRT<0.06 units (30 sec) 9) * IS area -50 % to 100 % of last ICAL 10) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 11) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/20/05: 2-butanone, trans-1,2-dichloroethene, acetone, methylene chloride, and tetrachloroethene have %Ds>MPC. 09/26:05: Chloromethane, acetone, 2-butanone, tetrachloroethene, hexachlorobutadiene, and bromomethane have %Ds>MPC.		2-Butanone, trans-1,2-DCE, acetone, MeCl, and PCE non-detects qualified UJ in samples 27, 28, 29, 30, 31, 32, 33, 34, 35, and 39. Chloromethane, acetone, 2-butanone, PCE, hexachlorobutadiene, and bromomethane nondetects were qualified UJ in samples 36, 37, 38, 40, 41, 42, 43, and 44.	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The aqueous results are usable for making project decisions, as qualified. All aqueous LCS/MS/MSD recoveries were within MPC limits with the following exceptions: LCSD PCE %R < MPC limit and MS/MSD %Rs < LCL for acetone, MeCl, 1,2-DCE, and PCE. Laboratory precision was acceptable with RPD within limits except methylene chloride, hexachlorobutadiene, and tetrachloroethene which did not result in qualifications. ICV: %Ds for 2-Butanone, PCE and hexachlorobutadiene were high resulting resulting in qualification (UJ) for non-detects in samples 727, 728, 729, 730, 731, 732,733, 734, 735, and 739. CCV: 2-Butanone, trans-1,2-DCE, acetone, MeCl, and PCE %D > MPC resulting in qualifications of samples 727, 728, 729, 730, 731, 732, 733, 734, 735, and 739. Chloromethane, acetone, 2-butanone, PCE, hexachlorobutadiene, and bromomethane nondetects were qualified UJ in samples 736, 737, 738, 740, 741, 742, 743, and 744 due to %Ds > MPC. Method blank had a detect for methylene chloride. All MeCl detects qualified U.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		The reports MRLs and MDLs provide adequate sensitivity to support evaluation against MEG and MCLs for all compounds except vinyl chloride. Sampling Error Evaluation : Trip blank was non-detect for all target VOCs. No apparent field cross contamination. Field duplicate was collected and analyzed as part of this SDG. Field sample 739/field duplicate 742 There were no target VOC compounds detected in either sample. Overall precision is acceptable.			

* Tier III review items only.
Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Laboratory omitted "U" laboratory qualifier on all compounds in sample AH10740 on Form I and EDD. EDD was revised.
1,2-Dichloroethane detects in samples 727, 728, 729, 731, 732, 733, 735, 736, and 737 had "N" detect_flag in the EDD. Detect_flag was changed to "Y."
Methylene chloride detects in sample 731, 733, 734, 735 had "N" detect_flag in the EDD. Detect_flag was changed to "Y."

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ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030B/5035/8260BSIM 1,4-Dioxane Review Criteria: Region I Tier II Guidance and EIASOP-VOADIOX1(5/21/03)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**None**	**Cooler Temps (°C): 6.0**	**Northeast Laboratory-ME (NEL-ME)**	**NEL SDG# BNASEPA**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW338A	AH10743
BN-EP-27-QT1	AH10744

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6°C 3) Unpreserved 4) No headspace	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	.	
Holding Time	1) 14 Days to analysis, 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	X	-	
Surrogates	Surrogate: 1,4-dioxane-d8 (60-140%) *check raw data for surrogated (recalculate 10% of them). *Transcription errors Qualification: >UCL, J- detects %R <10% J-detects, R-NDs %R>10% but <70% J-detects, UJ-NDs	All surrogate recoveries were within the QC limits. No samples were qualified.		-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	The aqueous method blank of 09/19/05 did not have a detect for 1,4-dioxane. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Trip blank BN-EP-27-QT1 was analyzed with no target compound detect. No samples qualified.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	No detects in the samples.	X	-	
LCS Recovery	1) 1,4-Dioxane 60-140% 2) 10% and <LCL% J detects, UJ –NDs 3) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All recoveries were within the MPC. No samples were qualified.	X	-	
LCSD RPD	RPD ≤ 20% (aq) No a method specific check. J-detects	The LCS/LCSD RPD < 20%. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD Recovery	1) 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 4) * Recalucate the %R (within 10% of lab)	No MS/MSD analyzed.	-	-	
MS/MSD RPD	RPD ≤ 20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	No MS/MSD analyzed.	-	-	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 5) *Recalculate the concentrations for one compound and the PQL	No field duplicate collected/analyzed with this SDG.	-	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) FBZ = 1,4-difluorobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all samples.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	The MRL is 1.00 ppb(ug/L) which is consistent with the EPA Region I method. Sensitivity is acceptable.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)				
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) RRF criteria not part of method. This VOC falls under the *RRF exclusion of Section (IV-8) Tier II guidance.* 4) %RSD<30% Qualification for compounds with : %RSD>30% J detects, UJ -NDs %RSD<30% J detects, R - ND %RSD>30%: J detects, R - ND	Instrument MS1 9/19/05: %RSD <30%. No samples qualified	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	Instrument MS1 9/19/05: %D within MPC limits. No samples qualified	X	-	
CCV	1) %D<30% 2) before analysis and every 12 hours. 3) Qualification-J detects, R or UJ NDs 4) *verify same instrument and parameters 5) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 6) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 7) *IS RRT<0.06 units (30 sec) 8) * IS area -50 % to 100 % of last ICAL 9) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/19/05 and 09/20/05: %Ds <30%. No samples qualified.		-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Laboratory accuracy is acceptable. Laboratory precision is acceptable The aqueous results are usable for making project decisions. All aqueous LCS/LCSD recoveries were within MPC limits. Sampling Error Evaluation : Trip blank was non-detect for 1,4-Dioxane. No apparent cross-contamination noted. Field duplicate was not collected and analyzed as part of this SDG.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

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ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030/Region I Methane SOP aka VSK-175
Review Criteria: Region I Tier II Guidance and VSL-175 SOP(EPA2001)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**Cooler Temps (°C): 6.0 at NEL, 4.4 at ATL**	**Air Toxic Laboratory (ATL), Folsom, CA**	**ATL SDG: 05009325 NEL #: BNASEPA**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW338	0509325-01A (AH10730)
BN-EP-27-MW339	0509325-02A (AH10734)
BN-EP-27-MW338C	0509325-04A (AH10738)
BN-EP-27-MW338A	0509325-03A (AH10743)
BN-EP-27-QT1	0509325-05A (AH10744)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. NEL subcontracted analysis to ATL. Samples were received at ATL with with custody seals intact. Unbroken Chain of Custody. Sample 743 was received with head space > 5mm. Sample 743 qualified J or UJ.	X	Sample 743 qualified J for detect and UJ for non-detects.	
Holding Time	1) 14 Days to analysisJ –detects, UJ or R –nondetects (function of time) 2) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	NA	-	.	
Lab Blanks (method blanks)	1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	Associated method blank was non-detect. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < MRL 2) TGT analytes <Lab QL (contact lab) - for soils indicate cross matrix TB (X rules apply to raw data) 3) MeCl & Acetone < 5 4) >RL report sample level U 5) <RL report PQL as U	Trip blank BN-EP-27-QT1 was analyzed with no target compound detects. No samples qualified.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Detects > RL. No samples qualified.	X	-	
LCS/ LFB Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 6) *Recalculate the concentrations for one compound in the LCS 7) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All LCS %Rs are within MPC limits. No samples qualified.	X	-	
Laboratory Duplicate	RPD<20%	Duplicate analyzed for sample 738. Both samples non-detects. No samples qualifed.	X	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	No MS/MSD analyzed.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	No MS/MSD analyzed.	-	-	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	Field duplicate not analyzed.	-	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	The VSL-175 MRL is 10 ug/L, which has been met by this analytical method. No project action limits are specified for these parameters. However, 1ug/L was established as a monitored natural attenuation parameter for these VOCs. For this analysis the MDLs are greater than 1 ug/L. Methane: 2.9 ug/L Ethane: 2.4 ug/L Ethene: 2.3 ug/L Poject sensitivity does not meet the MNA technical letter criteria. The MRL is equal to or greater than the Weidemeir scoring criteria, as follows: Methane: 500 ug/L Etane: 10 ug/L Ethene: 10 ug/L Analytical sensitivity is adequate to address MNA evaluation, but not acceptable per the MNA technical letter.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) COD>0.995 3) Lowest gas standard S/N ratio >5 4) These VOC fall under the *RRF exclusions of Section (IV-8) Tier II guidance* as these VOCs have poor purge efficincies which is acknowledged in the method. 5) RF for ethane and ethane within 25% 6) RF for methane within 25% of ½ of the ethane/ethane average RF.	COD not determined. %RSD < 15%. No samples qualified.	X	-	
2nd Source ICV	The ICV is optional per method. %D<25% Qualification: J detects, R or UJ NDs	All %Ds < 25%within MPC. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
CCV	1) %D<20% 2) every 4 hours or 25 samples and at the end of the sample batch. 3) Qualification-J detects, R or UJ NDs 4) *verify same instrument and parameters 5) *Recalculate RR for one tgt cmpd associated with each IS. (within 10%) 6) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 7) *IS RRT<0.06 units (30 sec) 8) * IS area -50 % to 100 % of last ICAL 9) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	All CCV %Ds < 20%. No samples qualified.			
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Laboratory accuracy is acceptable. LCS %Rs within MPC limits. Sample matrix bias not determined, as MS/MSD was not analyzed. Laboratory precision is acceptable, with laboratory replicate RPDs within MPC limit. ICAL: within MPC. ICV: within MPC limits. CCV: within MPC limits. Sample results are usable as qualified, but the matrix bias has not been determined. Analytical sensitivity is acceptable for evaluation of MNA gases using the Weidemeier scoring criteria. The MNA VOCs have an MDL> the MNA technical letter requirement of quantitaion at 1.0 ppb. Sampling Error Evaluation : Trip blank was non-detect for all target VOCs. There is no apparent field cross contamination. Sample 743 had headspace > 5mm. Field duplicate was not analyzed	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3, NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**TOC-acid Nitrate/nitrite -acid**	**Temp (^oC): 6.0 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEPA**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW338	AH10730
BN-EP-27-MW339	AH10734
BN-EP-27-MW338C	AH10738
BN-EP-27-MW338A	AH10743

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation acceptable. No sample qualified.	X	-	
Holding Time	1) Alk- 14days, Cl–28 days, Fe(II) <24 hours, Nitrate/Nitrite–28 days, SO4–28 days, TOC–28 days & nitrite–2 days. Per methods 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	No field duplicate collected/analyzed.	-	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL and >IDL. No samples qualified.	X	-	
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blank was non-detect except alkalinity at 0.6mg/L All sample results > 5X the blank level. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3, NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	All LCS %R's were within MPC. Laboratory accuracy is acceptable.	X	-	
MS Recovery	1) 75-125% (if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	MS was analyzed for sulfate and nitrate using sample 743. %Rs within MPC. No samples qualified.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Laboratory duplicate analyzed for alkalinity, sulfate, and nitrate using sample 743 with RPDs within MPC. No samples qualified.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Sensitivity is acceptable per Table 1 of MNA report.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Initial Cal Multipoint	1) Within laboratory MPC.	Acceptable. No samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	1) Within laboratory MPC.	No CCB detects – no samples qualified.	X	-	
2nd Source ICV	1) Within laboratory MPC.	All ICV %R's within MPC limits. No samples qualified.	X	-	
CCV	1) Within laboratory MPC.	All CCV %R's within MPC limits except TOC with ending CCV %R > MPC. No samples qualified.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The laboratory accuracy is acceptable. Laboratory precision is acceptable. ICAL: COD within limits. ICV: in limits CCV: TOC > MPC. All others in limits Sampling Error Evaluation: No field duplicate analyzed.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

TOC detect in sample AH10738 had "N" detect_flag. It was changed to "Y" in the EDD.

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES 1& 3 AND EP
SEPTEMBER 2005 SAMPLING ROUND 27 (SDG BNASEPB)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE 1&3 AND EP MONITORING EVENT 27

DATE: 3/28/2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Inorganic Analysis (1988), and

3. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Site 1& 3 and Eastern Plume LTMP QAPP (May 2000). The QAPP MPC and validation guideline exceedences are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Acronym or Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
%M	Percent moisture
%S	Percent solids
Ug/L	Microgram per liter
BD	Breakdown
BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verfication
COC	Chain of custody
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
LTMP	Long term monitoring plan
MeCl	Methylene chloride
MS	Matrix spike

Acronym or Abbreviation	Definition
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following:

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Data Summary Table

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW335	AH10808	EPA 300	9/14/2005	L	1	Sulfate	3.5	Y		0.11	1	mg/L
BN-EP-27-MW335	AH10808	EPA 310.1	9/14/2005	L	1	Alkalinity	75	Y		0.35	5	mg/L
BN-EP-27-MW335	AH10808	EPA 353.2	9/14/2005	L	1	Nitrate/Nitrite Total	0.1	N	U	0.006	0.1	mg/l
BN-EP-27-MW335	AH10808	EPA 415.1	9/14/2005	L	1	Total Organic Carbon	1	N	U	0.343	1	mg/L
BN-EP-27-MW335	AH10808	EPA 6010B	9/14/2005	L	1	Arsenic Total,ppb	2.3	N	U	0.0067	2.3	ug/L
BN-EP-27-MW335	AH10808	EPA 6010B	9/14/2005	L	1	Iron Total, ppb	2400	Y	J	0.0062	25	ug/L
BN-EP-27-MW335	AH10808	EPA 6010B	9/14/2005	L	1	Manganese Total, ppb	220	Y		0.0031	2	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	99	Y		0	76	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	94	Y		0.14	86	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	UJ	0.27	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Toluene-d8	90	Y		0	88	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW335	AH10808	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW335	AH10808	EPA 9056	9/14/2005	L	1	Chloride	37	Y		0.21	1	mg/L
BN-EP-27-MW335	AH10808	EPA 9056	9/14/2005	L	1	Nitrite-N	0.2	N	U	0.295	0.2	mg/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	110	Y		0	76	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	113	Y		0.14	86	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Toluene-d8	91	Y		0	88	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW335S	AH10809	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	114	Y		0	76	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	104	Y		0.14	86	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Toluene-d8	95	Y		0	88	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW335M	AH10810	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	107	Y		0	76	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	89	Y		0.14	86	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Toluene-d8	92	Y		0	88	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW335D	AH10811	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW336	AH10812	EPA 300	9/14/2005	L	1	Sulfate	3.2	Y		0.11	1	mg/L
BN-EP-27-MW336	AH10812	EPA 310.1	9/14/2005	L	1	Alkalinity	6.9	Y		0.35	5	mg/L
BN-EP-27-MW336	AH10812	EPA 353.2	9/14/2005	L	1	Nitrate/Nitrite Total	0.1	N	U	0.006	0.1	mg/l
BN-EP-27-MW336	AH10812	EPA 415.1	9/14/2005	L	1	Total Organic Carbon	1	N	U	0.343	1	mg/L
BN-EP-27-MW336	AH10812	EPA 6010B	9/14/2005	L	1	Arsenic Total,ppb	2.3	N	U	0.0067	2.3	ug/L
BN-EP-27-MW336	AH10812	EPA 6010B	9/14/2005	L	1	Iron Total, ppb	100	Y	J	0.0062	25	ug/L
BN-EP-27-MW336	AH10812	EPA 6010B	9/14/2005	L	1	Manganese Total, ppb	7	Y		0.0031	2	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	110	Y		0	76	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	92	Y		0.14	86	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Toluene-d8	92	Y		0	88	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW336	AH10812	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW336	AH10812	EPA 9056	9/14/2005	L	1	Chloride	4.8	Y		0.21	1	mg/L
BN-EP-27-MW336	AH10812	EPA 9056	9/14/2005	L	1	Nitrite-N	0.2	N	U	0.295	0.2	mg/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	111	Y		0	76	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	92	Y		0.14	86	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Toluene-d8	91	Y		0	88	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW336S	AH10813	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	107	Y		0	76	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	94	Y		0.14	86	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Toluene-d8	92	Y		0	88	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW336M	AH10814	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	110	Y		0	76	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	91	Y		0.14	86	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Toluene-d8	93	Y		0	88	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW336D	AH10815	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW337	AH10816	EPA 300	9/14/2005	L	1	Sulfate	4.2	Y		0.11	1	mg/L
BN-EP-27-MW337	AH10816	EPA 310.1	9/14/2005	L	1	Alkalinity	47	Y		0.35	5	mg/L
BN-EP-27-MW337	AH10816	EPA 353.2	9/14/2005	L	1	Nitrate/Nitrite Total	0.1	N	U	0.006	0.1	mg/l
BN-EP-27-MW337	AH10816	EPA 415.1	9/14/2005	L	1	Total Organic Carbon	1	N	U	0.343	1	mg/L
BN-EP-27-MW337	AH10816	EPA 6010B	9/14/2005	L	1	Arsenic Total,ppb	2.3	N	U	0.0067	2.3	ug/L
BN-EP-27-MW337	AH10816	EPA 6010B	9/14/2005	L	1	Iron Total, ppb	1200	Y	J	0.0062	25	ug/L
BN-EP-27-MW337	AH10816	EPA 6010B	9/14/2005	L	1	Manganese Total, ppb	890	Y		0.0031	2	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	UJ	0.29	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	UJ	0.39	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	UJ	0.2	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	UJ	0.28	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	UJ	0.32	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	UJ	0.46	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	101	Y		0	76	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	UJ	0.26	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	UJ	0.1	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	UJ	2.42	5	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	96	Y		0.14	86	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	UJ	1.33	5	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Benzene	1	N	UJ	0.26	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	UJ	0.22	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	UJ	0.37	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	UJ	0.27	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	UJ	0.27	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	UJ	0.18	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	UJ	1.52	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	UJ	0.42	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	UJ	0.13	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	UJ	0.32	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	UJ	0.15	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	UJ	0.27	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Styrene	1	N	UJ	0.15	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Toluene	1	N	UJ	0.15	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Toluene-d8	90	Y		0	88	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	UJ	0.64	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	UJ	0.28	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	UJ	0.43	1	ug/L
BN-EP-27-MW337	AH10816	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW337	AH10816	EPA 9056	9/14/2005	L	1	Chloride	11	Y		0.21	1	mg/L
BN-EP-27-MW337	AH10816	EPA 9056	9/14/2005	L	1	Nitrite-N	0.2	N	U	0.295	0.2	mg/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	113	Y		0	76	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	91	Y		0.14	86	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	UJ	0.27	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Toluene-d8	94	Y		0	88	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW337S	AH10817	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	110	Y		0	76	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Toluene-d8	94	Y		0	88	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW337M	AH10818	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	114	Y		0	76	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Toluene-d8	95	Y		0	88	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW337D	AH10819	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	0.46	Y	J	0.46	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	85	Y		0	76	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	95	Y		0.14	86	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Trichloroethene	1.5	Y	J	0.28	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW-XD2	AH10820	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 300	9/14/2005	L	1	Sulfate	5.1	Y		0.11	1	mg/L
BN-EP-27-MNAXD2	AH10821	EPA 310.1	9/14/2005	L	1	Alkalinity	47	Y		0.35	5	mg/L
BN-EP-27-MNAXD2	AH10821	EPA 353.2	9/14/2005	L	1	Nitrate/Nitrite Total	0.1	N	U	0.006	0.1	mg/l
BN-EP-27-MNAXD2	AH10821	EPA 415.1	9/14/2005	L	1	Total Organic Carbon	1	N	U	0.343	1	mg/L
BN-EP-27-MNAXD2	AH10821	EPA 6010B	9/14/2005	L	1	Arsenic Total,ppb	2.3	N	U	0.0067	2.3	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 6010B	9/14/2005	L	1	Iron Total, ppb	1200	Y	J	0.0062	25	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 6010B	9/14/2005	L	1	Manganese Total, ppb	1000	Y		0.0031	2	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	0.59	Y	J	0.46	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	86	Y		0	76	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	95	Y		0.14	86	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Trichloroethene	1.3	Y	J	0.28	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MNAXD2	AH10821	EPA 9056	9/14/2005	L	1	Chloride	11	Y		0.21	1	mg/L
BN-EP-27-MNAXD2	AH10821	EPA 9056	9/14/2005	L	1	Nitrite-N	0.2	N	U	0.295	0.2	mg/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	13	Y		0.29	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1.7	Y		0.32	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	89	Y		0	76	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	8	Y		0.26	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	94	Y		0.14	86	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	3.4	Y	J	0.55	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Toluene-d8	100	Y		0	88	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Trichloroethene	19	Y	J	0.28	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW205	AH10822	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	0.66	Y	J	0.46	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	87	Y		0	76	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	94	Y		0.14	86	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Toluene-d8	96	Y		0	88	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Trichloroethene	2.2	Y	J	0.28	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW230A	AH10823	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethane	0.51	Y	J	0.28	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane	0.93	Y	J	0.46	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethane-d4	89	Y		0	76	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	4-Bromofluorobenzene	95	Y		0.14	86	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Acetone	3.3	Y	J	4.14	5	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Hexachlorobutadiene	1	N	UJ	0.27	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Toluene-d8	97	Y		0	88	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Trichloroethene	1.9	Y	J	0.28	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MWXD3	AH10824	EPA 8260B	9/14/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	1,2-Dichloroethane-d4	92	Y		0	76	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	4-Bromofluorobenzene	92	Y		0.14	86	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Toluene	1	N	U	0.15	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Toluene-d8	97	Y		0	88	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-QT2	AH10825	EPA 8260B	9/14/2005	S	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW335 (AH10808)	0509364-01A	VSK-175	09/14/05	WG	1.00	Methane	0.044	Y		0.0029	0.010	uG/mL
BN-EP-27-MW335 (AH10808)	0509364-01A	VSK-175	09/14/05	WG	1.00	Ethane	0.010	N	U	0.0024	0.010	uG/mL
BN-EP-27-MW335 (AH10808)	0509364-01A	VSK-175	09/14/05	WG	1.00	Ethene	0.010	N	U	0.0023	0.010	uG/mL
BN-EP-27-MW336 (AH10812)	0509364-02A	VSK-175	09/14/05	WG	1.00	Methane	0.010	N	U	0.0029	0.010	uG/mL
BN-EP-27-MW336 (AH10812)	0509364-02A	VSK-175	09/14/05	WG	1.00	Ethane	0.010	N	U	0.0024	0.010	uG/mL
BN-EP-27-MW336 (AH10812)	0509364-02A	VSK-175	09/14/05	WG	1.00	Ethene	0.010	N	U	0.0023	0.010	uG/mL
BN-EP-27-MW337(AH10816)	0509364-03A	VSK-175	09/14/05	WG	1.00	Methane	0.010	N	U	0.0029	0.010	uG/mL
BN-EP-27-MW337(AH10816)	0509364-03A	VSK-175	09/14/05	WG	1.00	Ethane	0.010	N	U	0.0024	0.010	uG/mL
BN-EP-27-MW337(AH10816)	0509364-03A	VSK-175	09/14/05	WG	1.00	Ethene	0.010	N	U	0.0023	0.010	uG/mL
BN-EP-27-MNAXD2 (AH10821)	0509364-04A	VSK-175	09/14/05	WG	1.00	Methane	0.010	N	U	0.0029	0.010	uG/mL
BN-EP-27-MNAXD2 (AH10821)	0509364-04A	VSK-175	09/14/05	WG	1.00	Ethane	0.010	N	U	0.0024	0.010	uG/mL
BN-EP-27-MNAXD2 (AH10821)	0509364-04A	VSK-175	09/14/05	WG	1.00	Ethene	0.010	N	U	0.0023	0.010	uG/mL
N-EP-27-QT2 (AH10825) Trip Bla	0509364-05A	VSK-175	09/14/05	WG	1.00	Methane	0.010	N	U	0.0029	0.010	uG/mL
N-EP-27-QT2 (AH10825) Trip Bla	0509364-05A	VSK-175	09/14/05	WG	1.00	Ethane	0.010	N	U	0.0024	0.010	uG/mL
N-EP-27-QT2 (AH10825) Trip Bla	0509364-05A	VSK-175	09/14/05	WG	1.00	Ethene	0.010	N	U	0.0023	0.010	uG/mL

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**Nitric Acid**	**Temp (^oC): 4.6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEPB**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW335	AH10808
BN-EP-27-MW336	AH10812
BN-EP-27-MW337	AH10816
BN-EP-27-MNAXD2	AH10821 (Field Duplicate of AH10816)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No sample qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	Field sample 816/Field duplicate 821 FD RPDs are within MPC. Overall sampling and analysis precision is acceptable.	-	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL or >IDL. No samples qualified.	X	-	
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blank was non-detect for all MNA metals. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	All LCS %R's were within MPC except for Fe, which exceeded the UCL. Laboratory accuracy is acceptable.	X	Fe qualified J in all samples.	
LCS/LCSD RPD	1) RPD<20%	All LCS/LCSD RPDs are within MPC except for Fe with high RPD.	X	Fe qualified J in all samples.	
MS Recovery	1) 75-125% ICP metals and Hg if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	Field sample AH10816 used for MS/MSD. MS and MSD %Rs within limits for As. Native Fe and Mn level > 4X the spike amount. No apparent matrix bias.	-	-	
MS/MSD RPD	MS/MSD RPD<20%	Field sample AH10816 used for MS/MSD. MS/MSD RPD < 20%. RPD within MPC. As. Laboratory precision is acceptable.	-	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Laboratory duplicate analysed for sample AH10816. RPD within MPC. Laboratory precision is acceptable.	-	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Dilution Factor = 1 for all samples. No project action limits for metals. The MRLs were within the MNS technical letter requirements except for Mn (MRL = 2.5). The Mn IDL is less than the MNA technical Letter MRL. Sensitivity is acceptable.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ)	No negative blank detections. No samples qualified.	X	-	
Initial Cal Multipoint	1) Blank and 3 standards covering range of instrument. 2) high standard verification +/- %5 3) Hg 5-point calibration COD>0.99	All COD's > 0.99 in all initial calibration runs for all methods. No sample qualifications.	X	-	
Initial Calibration Blanks (ICB)	1) Ical blank after Ical 2) Results > QL; sample results <5X ; sample result U (nd) 3) Blank concentrations < project RLs 4) Sample results >5X blank level; no action 5) ABS >RL then J qualify data	No ICB detects – no samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Continuing Calibration Blanks (CCB)	1) CCB every 10 samples end of run 2) Blank concentrations < project RLs 3) Results > QL; sample results <5X ; sample result U 4) Sample results >5X blank level; no action ABS >RL then J qualify data.	No CCB detects – no samples qualified.	X	-	
Serial Dilution	1) once per digestion batch 2) Not required per QAPP- no criteria provided. 3) %D<10% 4) %D not evaluated if element results is <50X IDL 5) J detects, UJ non-detects.	Not analyzed.	X	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J (if DL is <10 ug/l use 2X DL). 7) Absolute value of negative ICS-A response>DL and sample detects <5X ICS-A response: detects J, NDs as UJ 8) If the ICS-A is within limits, the ICS-AB may not be analyzed (USACE Shell)	Both ICS-A and ICS-AB %R's within MPC limits for all runs. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R) Hg 80-120%	All ICV %R's within MPC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	All CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachment A-1)	PDS was analyzed for sample AH10816. The PDS recovery for As within MPC limits. Native Fe and Mn levels > 4X the spike amount. No apparent matrix bias.	X	-	-

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
Tune Check	Within Method limits.	NA	-		
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The laboratory accuracy is acceptable except for Fe LCS/LCSD %Rs exceeded the UCL. Laboratory precision is acceptable except for Fe with LCS/LCSD RPD above the limit. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Field sample 816/ field duplicate 821 FD RPDs are within MPC. Overall sampling analysis precision is acceptable.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

VOCs 5030B/5035/8260B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous and solid**	**HCl, MeOH, $NaHSO_4$**	**Cooler Temps (°C): 4.6**	**Northeast Laboratory-ME (NEL-ME)**	**NEL # BNASEPB**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW33S	AH10808
BN-EP-27-MW335S	AH10809
BN-EP-27-MW335M	AH10810
BN-EP-27-MW335D	AH10811
BN-EP-27-MW336	AH10812
BN-EP-27-MW336S	AH10813
BN-EP-27-MW336M	AH10814
BN-EP-27-MW336D	AH10815
BN-EP-27-MW337	AH10816
BN-EP-27-MW337S	AH10817
BN-EP-27-MW337M	AH10818
BN-EP-27-MW337D	AH10819
BN-EP-27-MW-XD2	AH10820 (Field Duplicate of AH10817)
BN-EP-27-MNAXD2	AH10821 (Field Duplicate of AH10816)
BN-EP-27-MW205	AH10822
BN-EP-27-MW230A	AH10823
BN-EP-27-MWXD3	AH10824 (Field dupliate of AH10823)
BN-EP-27-QT2	AH10825

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	.	
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	NA	X	.	

ECC Region I Data Review Worksheet (rv 3) **VOCs 5030B/5035/8260B**
Project: NAS Brunswick ECC Job No. 5700 **Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	The aqueous method blanks (09/26/05, 09/27/05, 9/28/05) had a detect for hexachlorobutadiene at 1.29, 0.52, and 0.45 ug/L. This compound was not detected in the samples. No samples were qualified.	X	-	
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Trip blank BN-EP-27-QT2 was analyzed with no target compound detects. No samples qualified.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <PQL/RL .	X	J for all samples with estimated results <MRL but >MDL.	
*TICs (if reported)	1) *verify library search for samples and blanks 2) verify TICs were not misreported compounds (different fraction or miss in search) 3) All TICs – J estimated 4) * verify blanks do not contain TIC peaks 5) * check TIC assignment spectra to STD spectra 6) *review blank and Samples for common lab contaminants	None Reported/not evaluated	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Surrogates	1,2-Dichloroethane-d4 76-114% Dibromofluoromethane 86-118% Toluene-d8 88%-110% 4-BFB 86-115% *check raw data for surrogate (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	All surrogate recoveries were within the QAPP limits except for one high surrogate %R in LCSD analysis. No samples qualified. Note: QAPP surrogate dibromofluoromethane was not utilized.	X	-	
LCS Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	LCS/LCSD 09/26/05: LCSD %Rs were above the MPC limits for Methylene chloride and tetrachloroethene. No samples were qualified. LCS/LCSD 9/27/05: Tetrachloroethene %R in the LCSD was above the MPC. No samples were qualified. LCS/LCSD 9/28/05: Methylene chloride in the LCSD and tetrachloroethene in the LCS and LCSD had %Rs above the MPC. Tetrachloroethene was qualified J.	X	PCE was qualified J in sample 822.	
LCSD RPD	RPD=20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J-detects	LCS/LCSD 09/26/05: Methylene chloride and tetrachloroethene had RPDs above 20%. No samples were qualified LCS/LCSD 9/27/05: Tetrachloroethene RPD was 20%. No samples were qualified. LCS/LCSD 9/28/05: Methylene chloride RPD was above 20%. No samples were qualified.	X	-	
*MS/MSD/unspike sample RSD	1) For unspiked compounds if reported, Non-MS spike compounds <50% RSD calculated MS/MSD/unspiked Qualification: >50% RSD J-detects 2)*recalculated the RPD (within 10% of lab)	NA		-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	Native sample: AH10816. All %Rs were within the limits. No samples were qualified. Native sample: AH10817. All %Rs were within the limits. No samples were qualified.	X	-	
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	AH10816MS/MSD: 29 of 36 RPDs > 20%. All compounds in sample 16 qualified UJ. AH10817MS/MSD: Hexachlorobutadiene RPD > 20%.	X	All VOC compounds qualified UJ in sample 816. Hexachlorobutadiene qualified UJ in sample 817.	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	Field samples and field duplicates collected/analyzed with this SDG: Field Duplicate Pairs <u>Field sample 816 / Field duplicate 821</u> 1,2-Dichloroethane and trichloroethene were detected in sample 821 but were not present in 816. However, both detects were < MRL and the duplicate considered acceptable. <u>Field sample 817/Field duplicate 820</u> 1,2-Dichloroethane and trichloroethene were detected in sample 821 but were not present in 816. However, both detects were < MRL and the duplicate considered acceptable. <u>Field sample 823 / Field duplicate 824</u> 1,2-Dichloroethane and trichloroethene were detected in both samples. RPD for TCE <30%. RPD for 1,2-DCA >30% but concentratios<RL. Acetone and 1,1-DCA detected in sample 824 but were not present in 823. However, both detects were < MRL and the duplicate considered acceptable. Overall precision acceptable.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) PFB = Pentafluorobenzene 9) FBZ = 1,4-difluorobenzene 10) CBZ = chlorobenzene-d5 11) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all aqueous samples except one low IS (DCB) %R in sample 24. No re-analysis was run due to a laboratory error.	X	Hexachlorobutadiene was qualified UJ.	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRLs are less than LTMP QAPP MRLs. MRLS are less than MEG (except for vinyl chloride) and MCLs.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 (J –detects, R NDs) 5) RRF>0.05 all compounds 6) RRT < 0.06 units (all stds within 30 sec) 7) %RSD<15% for all non-CCCs or COD>0.99 *8) RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)/* 9) *verify that instrument parameters met method and that Ical and analysis used the same parameters 10) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 11) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration	Instrument MS1 9/25/05: All RRFs, CCCs and SPCCs within MPC limits for all VOCs of concern. No samples qualified	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	of one std. Must agree within 10% of lab (option if information is in data package)				
Initial Cal (Linearity)	%RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 Qualification for compounds with : %RSD>30% and RRF>0.05 – J detects, UJ - NDs %RSD<30% and RRF<0.05; -J detects, R - ND %RSD>30% and RRF<0.05: J detects, R - ND (see VOA/SVIII-4)	Instrument MS1 9/25/05: %RSD>15% but the COD>0.99. Bromomethane and methylene chloride calibration curve is linear. No samples qualified.	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	Instrument MS1 09/26/05: All %Ds within MPC. No samples qualified.	X	-	
CCV	1) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 2) RRF all compounds > 0.05 3) CCC: (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC) %D<20% (or all analytes if no CCCs reported). 4) Qualification-J detects, R or UJ NDs 5) *verify same instrument and parameters 6) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 7) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 8) *IS RRT<0.06 units (30 sec) 9) * IS area -50 % to 100 % of last ICAL 10) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 11) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/26:05: Chloromethane, acetone, 2-butanone, tetrachloroethene, hexachlorobutadiene, and bromomethane have %Ds>MPC. 09/27:05: Chloromethane and bromomethane have %Ds>MPC. 09/28:05: 2-butanone and tetrachloroethene have %Ds>MPC.	X	Chloromethane, acetone, 2-butanone, PCE, hexachlorobutadiene, and bromomethane nondetects were qualified UJ in samples 808 and 816. Chloromethane and bromomethane were qualified UJ in samples 809, 810, 811, 812, 813, 814, 815, 817, 818, & 819. 2-Butanone and PCE were qualified UJ for non-detects and J for detects in samples 820, 821,	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
				822, 823, 824, & 825	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The aqueous results are usable for making project decisions, as qualified. All aqueous LCS/MS/MSD recoveries were within MPC limits with the following exceptions: Methylene chloride, tetrachloroethene %Rs > MPC in all three LCSs. The laboratory precision was acceptable except for MS/MSD RPDs > MPC for 29 of the 36 analytes in 816MS/MSD. RPD MS/MSD %Rs. ICAL: in limits. ICV: in limits. CCVs: 09/26:05: Chloromethane, acetone, 2-butanone, tetrachloroethene, hexachlorobutadiene, and bromomethane have %Ds>MPC. 09/27:05: Chloromethane and bromomethane have %Ds>MPC. 09/28:05: 2-butanone and tetrachloroethene have %Ds>MPC. Method blank had a detect for methylene chloride. MeCl was qualified U in samples but it is not detected the samples. The reports MRLs and MDLs provide adequate sensitivity to support evaluation against MEG and MCLs for all compounds except vinyl chloride.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		Sampling Error Evaluation : Trip blank was non-detect for all target VOCs. No apparent field cross contamination. Field duplicate was collected and analyzed as part of this SDG. Field Duplicate Pairs Field sample 816 / Field duplicate 821 1,2-Dichloroethane and trichloroethene were detected in sample 821 but were not present in 816. However, both detects were < MRL and the duplicate considered acceptable. Field sample 817/Field duplicate 820 1,2-Dichloroethane and trichloroethene were detected in sample 821 but were not present in 816. However, both detects were < MRL and the duplicate considered acceptable. Field sample 823 / Field duplicate 824 1,2-Dichloroethane and trichloroethene were detected in both samples. RPD for TCE <30%. RPD for 1,2-DCA >30% but concentratios<RL. Acetone and 1,1-DCA detected in sample 824 but were not present in 823. However, both detects were < MRL and the duplicate considered acceptable. Overall precision acceptable.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

1,2-Dichloroethane detects had “N” detect_flag. It was changed to “Y” in samples AH10820, AH10821, AH10823, AH10824.

1,1-Dichloroethane detect in sample AH10824 had an “N” detect_flag. It was changed to “Y.”

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030/Region I Methane SOP aka VSK-175
Review Criteria: Region I Tier II Guidance and VSL-175 SOP(EPA2001)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**Cooler Temps (°C): 6.0 at NEL, 2.0 at ATL**	**Air Toxic Laboratory (ATL), Folsom, CA**	**ATL SDG: 0509364 NEL #: BNASEPB**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW335	0509364-01 (AH10808)
BN-EP-27-MW336	0509364-01 (AH10812)
BN-EP-27-MW337	0509364-01 (AH10816)
BN-EP-27-MNAXD2	0509364-01 (AH10821 FD of AH10816))
BN-EP-27-QT2	0509364-01 (AH10825)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. NEL subcontracted analysis to ATL. Samples were received at ATL with custody seals intact. Unbroken Chain of Custody.	X	-	
Holding Time	1) 14 Days to analysisJ –detects, UJ or R –nondetects (function of time) 2) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	.	
Lab Blanks (method blanks)	1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	Associated method blank was non-detect. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < MRL 2) TGT analytes <Lab QL (contact lab) - for soils indicate cross matrix TB (X rules apply to raw data) 3) MeCl & Acetone < 5 4) >RL report sample level U 5) <RL report PQL as U	Trip blank BN-EP-27-QT2 was analyzed with no target compound detects. No samples qualified.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Detects > RL. No samples qualified.	X	-	
LCS/ LFB Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 6) *Recalculate the concentrations for one compound in the LCS 7) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All LCS %Rs are within MPC limits. No samples qualified.	X	-	
Laboratory Duplicate	RPD<20%	No laboratory duplicate analyzed. See MS/MSD for laboratory precision.	-	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	MS/MSD analyzed using sample 816. All %Rs within the MPC. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	MS/MSD analyzed using sample 816. All RPDs within the MPC. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	Field duplicate was collected and analyzed. <u>Field sample 816/Field duplicate 821</u> There were no detects in either samples. Field sampling precision acceptable.	X	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	The VSL-175 MRL is 10 ug/L, which has been met by this analytical method. No project action limits are specified for these parameters. However, 1ug/L was established as a monitored natural attenuation parameter for these VOCs. For this analysis the MDLs are greater than 1 ug/L. Methane: 2.9 ug/L Ethane: 2.4 ug/L Ethene: 2.3 ug/L Poject sensitivity does not meet the MNA technical letter criteria. The MRL is equal to or greater than the Weidemeir scoring criteria, as follows: Methane: 500 ug/L Etane: 10 ug/L Ethene: 10 ug/L Analytical sensitivity is adequate to address MNA evaluation, but not acceptable per the MNA technical letter.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) COD>0.995 3) Lowest gas standard S/N ratio >5 4) These VOC fall under the *RRF exclusions of Section (IV-8) Tier II guidance* as these VOCs have poor purge efficincies which is acknowledged in the method. 5) RF for ethane and ethane within 25% 6) RF for methane within 25% of ½ of the ethane/ethane average RF.	COD not determined. %RSD < 15%. No samples qualified.	X	-	
2nd Source ICV	The ICV is optional per method. %D<25% Qualification: J detects, R or UJ NDs	Same as LCS. All %Ds < 25%within MPC. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
CCV	1) %D<20% 2) every 4 hours or 25 samples and at the end of the sample batch. 3) Qualification-J detects, R or UJ NDs 4) *verify same instrument and parameters 5) *Recalculate RR for one tgt cmpd associated with each IS. (within 10%) 6) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 7) *IS RRT<0.06 units (30 sec) 8) * IS area -50 % to 100 % of last ICAL 9) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	All CCV %Ds < 20%. No samples qualified.			
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Laboratory accuracy and precision are acceptable with all LCS/MS/MSD %Rs and RPDs within MPC limits. ICAL: within MPC. ICV: within MPC limits. CCV: within MPC limits. Analytical sensitivity is acceptable for evaluation of MNA gases using the Weidemeier scoring criteria. The MNA VOCs have an MDL> the MNA technical letter requirement of quantitaion at 1.0 ppb. Sampling Error Evaluation : Trip blank was non-detect for all target VOCs. There is no apparent field cross contamination. Field duplicate was collected and analyzed. <u>Field sample 816/Field uplicate 821</u> There were no detects in either samples. Field sampling precision acceptable.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3, NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**TOC-acid Nitrate/nitrite -acid**	**Temp (^oC): 4.6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEPB**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW335	AH10808
BN-EP-27-MW336	AH10812
BN-EP-27-MW337	AH10816
BN-EP-27-MNAXD2	AH10821 (Field Duplicate of AH10816)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation acceptable. No sample qualified.	X	-	
Holding Time	1) Alk- 14days, Cl–28 days, Fe(II) <24 hours, Nitrate/Nitrite–28 days, SO4–28 days, TOC–28 days & nitrite–2 days. Per methods 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	Field duplicate collected/analyzed. <u>Field sample 816/Field duplicate 821</u> Alkalinity, chloride, and sulfate RPDs < 30%. Field precision acceptable.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL and >IDL. No samples qualified.	X	-	
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blank was non-detect except alkalinity at 0.6mg/L. All sample results > 5X the blank level. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3, NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	All LCS %R's were within MPC. Laboratory accuracy is acceptable.	X	-	
MS Recovery	1) 75-125% (if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	MS was analyzed using sample 816. All %Rs within MPC. No samples qualified.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Laboratory duplicate analyzed for using sample 816 with RPDs within MPC. No samples qualified.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Sensitivity is acceptable per Table 1 of MNA report.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Initial Cal Multipoint	1) Within laboratory MPC.	Acceptable. No sample qualifications.	X	-	
Continuing Calibration Blanks (CCB)	1) Within laboratory MPC.	No CCB detects – no samples qualified.	X	-	
2nd Source ICV	1) Within laboratory MPC.	All ICV %R's within MPC limits. No samples qualified.	X	-	
CCV	1) Within laboratory MPC.	All CCV %R's within MPC limits except TOC with ending CCV %R > MPC. No samples qualified.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The laboratory accuracy is acceptable. Laboratory precision is acceptable. ICAL: COD within limits. ICV: in limits CCV: TOC > MPC. All others in limits Field duplicate collected/analyzed. <u>Field sample 816/Field duplicate 821</u> Alkalinity, chloride, and sulfate RPDs < 30%. Field precision acceptable.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

TOC detect in sample AH10738 had “N” detect_flag. It was changed to “Y” in the EDD.

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES EP
SEPTEMBER 2005 SAMPLING ROUND 27 (SDG BNASEPC)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE EP MONITORING EVENT 27

DATE: 3/28/2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Inorganic Analysis (1988), and

3. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Site 1& 3 and Eastern Plume LTMP QAPP (May 2000). The QAPP MPC and validation guideline exceedences are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Acronym or Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
%M	Percent moisture
%S	Percent solids
Ug/L	Microgram per liter
BD	Breakdown
BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verfication
COC	Chain of custody
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
LTMP	Long term monitoring plan
MeCl	Methylene chloride
MS	Matrix spike

Acronym or Abbreviation	Definition
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following:

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Northeast Laboratory
SDG #: BNASEPA
EPA-NE DV TIER LEVEL: II
SITE NAME: NAS Brunswick – Sites 1&3 and EP

# of SAMPLES/MATRIX: VOC(5 samples, 1TB, & 1 FD), MNA Metals(6 samples, 1FD), 1,4-Dioxane (3samples, 1TB, 1FD), Methane(6 samples, 1 TB, 1TB), Water Quality (5 samples, 1FD)
VALIDATION CONTRACTOR: ECC
VALIDATOR'S NAME: Huison Chang
DV Completion Date: April 10, 2006.
Date Sampled: September 15, 2005.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	MNA Ground Water Quality	Methane, Ethane, Ethene (ATL)	1,4-Dioxane	MNA Metals
1	Preservation and HT	O	O	O	O	O
2	Instrument Performance Check	O	O	O	O	O
3	Initial Calibration:	O	O	O	O	O
4	Continuing Calibration:	M	O	O	O	O
5	Blanks:	O	O	O	O	O
6	Surrogate Compounds:	M	O	O	O	-
7	Internal Standards	O	O	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	M	O	-	-	O
9	Sensitivity Check:	O	O	M	O	O
10	PE Samples- Accuracy Check	M	O	O	O	M
11	Target Compound Identification:	O	O	O	O	O
12	Compound Quantitation and Reported QLs	O	O	O	O	O
13	Tentatively Identified Compounds:	-	-	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	-	-	-
15	Data Completeness	O	O	O	O	O
16	Overall Evaluation of Data:	O	O	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): None.

AREAS OF CONCERN: (M items):

VOC: 1,1,1-Trichloroethane and trichloroethene were qualified J in samples AH10894 and AH10895 due to low surrogate recovery. Tetrachloroethene was qualified J in sample AH10895 due to high LCS/LCSD recoveries. 1,1-Dichloroethene was qualified J in sample AH10894 due to low MS/MSD recoveries. Trichloroethene was qualified J in sample AH10894 due to high MS/MSD RPD.

CCV: 2-Butanone, tetrachloroethene in sample AH10895, AH10896, and AH10897; methylene chloride in sample AH10894, AH10901, AH10905 and AH10905 were qualified J for detects and UJ for nondetects due to high CCV %D.

1,4-Dioxane: 1,4-Dioxane was qualified J in sample AH10894 due to high MS/MSD RPD.

Methane, Ethane, Ethene: Sensitivity: MRL is equal to or less than MNA scoring criteria; however, sensitivity does not meet MNA Technical letter requirements. Field duplicate RPD >30% for methane. Methane qualified J in samples AH10899 and AH10906.

Metals: LCS %R>UCL for Fe. LCS/LCSD RPD > MPC for Fe. Fe was qualified J in samples AH10894, AH10896, AH10898, AH10899, AH10902, AH10903, AH10906. LCS/LCSD RPD > 20% As, Fe, and Mn qualified J in samples AH10896, AH10898, AH10903, AH10906 and Fe qualified J in samples AH10894, AH10899. Laboratory duplicate RPD > 20% for Fe. Fe qualified J in sample AH10894.

Wet Chemistry: TOC was qualifiedJ in sample AH10899 and AH10906 due to high field duplicate RPD.

COMMENTS:

Analyte	Field Sample ID	Lab ID	Field Sample Result	Field Sample Qualifier	Field Duplicate ID	Laboratory ID	Analyte	Field Duplicate Result (ug/L)	Field Duplicate Qualifier	Result Units	FD RPD (%)
1,1,1-Trichloroethane	BN-EP-27-P106	AH10894	360		BN-EP-27-XD7	AH10895	1,1,1-Trichloroethane	320			11.76%
1,1,2-Trichloroethane	BN-EP-27-P106	AH10894	0.65	J	BN-EP-27-XD7	AH10895	1,1,2-Trichloroethane	0.67	J		3.03%
1,1-Dichloroethane	BN-EP-27-P106	AH10894	23		BN-EP-27-XD7	AH10895	1,1-Dichloroethane	21			9.09%
1,1-Dichloroethene	BN-EP-27-P106	AH10894	64	J	BN-EP-27-XD7	AH10895	1,1-Dichloroethene	61			4.80%
1,2-Dichloroethane	BN-EP-27-P106	AH10894	0.79	J	BN-EP-27-XD7	AH10895	1,2-Dichloroethane	0.73	J		7.89%
1,2-Dichloroethene (total)	BN-EP-27-P106	AH10894	14		BN-EP-27-XD7	AH10895	1,2-Dichloroethene (total)	13			7.41%
Chloroform	BN-EP-27-P106	AH10894	0.35	J	BN-EP-27-XD7	AH10895	Chloroform	0.32	J		8.96%
Tetrachloroethene	BN-EP-27-P106	AH10894	5.6		BN-EP-27-XD7	AH10895	Tetrachloroethene	6.3			11.76%
Trichloroethene	BN-EP-27-P106	AH10894	220	J	BN-EP-27-XD7	AH10895	Trichloroethene	190			14.63%
1,4 Dioxane	BN-EP-27-MW313		94		BN-EP-27-XD4	AH10900	1,4 Dioxane	99			5.18%
Arsenic Total,ppb	BN-EP-27-MW313	AH10899	10		BN-EP-27-MNAXD1	AH10906	Arsenic Total,ppb	10	J	ug/L	0.00%
Iron Total, ppb	BN-EP-27-MW313	AH10899	2000	J	BN-EP-27-MNAXD1	AH10906	Iron Total, ppb	1600	J	ug/L	22.22%
Manganese Total, ppb	BN-EP-27-MW313	AH10899	140	J	BN-EP-27-MNAXD1	AH10906	Manganese Total, ppb	240	J	ug/L	52.63%
Methane	BN-EP-27-MW313	0509392-04A	0.052	J	BN-EP-27-MNAXDI	0509392-08A	Methane	0.013	J	uG/mL	120.00%
Sulfate	BN-EP-27-MW313	AH10899	3.6		BN-EP-27-MNAXD1	AH10906	Sulfate	4		mg/L	10.53%
Alkalinity	BN-EP-27-MW313	AH10899	77		BN-EP-27-MNAXD1	AH10906	Alkalinity	66		mg/L	15.38%
Nitrate/Nitrite Total	BN-EP-27-MW313	AH10899	0.1	U	BN-EP-27-MNAXD1	AH10906	Nitrate/Nitrite Total	0.1	U	mg/L	NC
Total Organic Carbon	BN-EP-27-MW313	AH10899	1	J	BN-EP-27-MNAXD1	AH10906	Total Organic Carbon	1.5	J	mg/L	40.00%
Chloride	BN-EP-27-MW313	AH10899	23		BN-EP-27-MNAXD1	AH10906	Chloride	20		mg/L	13.95%
Nitrite-N	BN-EP-27-MW313	AH10899	0.2	U	BN-EP-27-MNAXD1	AH10906	Nitrite-N	0.2	U	mg/L	NC

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**Nitric Acid**	**Temp (^oC): 5.4 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEPC**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-P106	AH10894
BN-EP-27-MW224	AH10896
BN-EP-27-MW315A	AH10898
BN-EP-27-MW313	AH10899
BN-EP-27-MW333	AH10902
BN-EP-27-MW334	AH10903
BN-EP-27-MNAXD1	AH10906 (Field Duplicate of AH10899)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No sample qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	Field sample 899/Field duplicate 906 FD RPDs are within MPC except Mn with RPD > 30%. Overall sampling and analysis precision is acceptable.	X	Mn qualified J in sample 899 and 903.	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL or >IDL. No samples qualified.	X	-	
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blank was non-detect for all MNA metals. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	W-LCS/LCSD 9/19: Fe LCS %R > UCL. W-LCS/LCSD 9/26: Fe LCS/LCSD %Rs > UCL. Laboratory accuracy is acceptable.	X	Fe qualified J in all samples.	
LCS/LCSD RPD	1) RPD<20%	W-LCS/LCSD 9/19: All RPDs > 20%. Low laboratory precision. W-LCS/LCSD 9/26: LCS/LCSD RPDs are within MPC except for Fe with high RPD.	X	As, Fe, Mn qualified J in sample 896, 898, 903 & 906. Fe qualified J in samples 894 & 899.	
MS Recovery	1) 75-125% ICP metals and Hg if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	Field sample 894 and 899 used for MS/MSD. MS and MSD %Rs within limits except for Fe. Native Fe level > 4X the spike amount in both 894 and 899. No apparent matrix bias.	X	-	
MS/MSD RPD	MS/MSD RPD<20%	Field sample 894 and 899 used for MS/MSD. MS/MSD RPD < 20% except for As in 894MS/MSD. As nondetect and not qualified. Laboratory precision is acceptable.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Laboratory duplicate analyzed for sample 894 and 899. 899 LD RPD within MPC. 894 LD RPD > MPC for Fe. Laboratory precision is acceptable.	X	Fe qualififed J in sample 894.	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Dilution Factor = 1 for all samples. No project action limits for metals. The MRLs were within the MNS technical letter requirements except for Mn (MRL = 2.5). The Mn IDL is less than the MNA technical Letter MRL. Sensitivity is acceptable.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ)	No negative blank detections. No samples qualified.	X	-	
Initial Cal Multipoint	1) Blank and 3 standards covering range of instrument. 2) high standard verification +/- %5 3) Hg 5-point calibration COD>0.99	All COD's > 0.99 in all initial calibration runs for all methods. No sample qualifications.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Initial Calibration Blanks (ICB)	1) Ical blank after Ical 2) Results > QL; sample results <5X ; sample result U (nd) 3) Blank concentrations < project RLs 4) Sample results >5X blank level; no action 5) ABS >RL then J qualify data	No ICB detects – no samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	1) CCB every 10 samples end of run 2) Blank concentrations < project RLs 3) Results > QL; sample results <5X ; sample result U 4) Sample results >5X blank level; no action ABS >RL then J qualify data.	No CCB detects – no samples qualified.	X	-	
Serial Dilution	1) once per digestion batch 2) Not required per QAPP- no criteria provided. 3) %D<10% 4) %D not evaluated if element results is <50X IDL 5) J detects, UJ non-detects.	Not analyzed.	X	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J (if DL is <10 ug/l use 2X DL). 7) Absolute value of negative ICS-A response>DL and sample detects <5X ICS-A response: detects J, NDs as UJ 8) If the ICS-A is within limits, the ICS-AB may not be analyzed (USACE Shell)	Both ICS-A and ICS-AB %R's within MPC limits for all runs. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R) Hg 80-120%	All ICV %R's within MPC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	All CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachment A-1)	PDS was analyzed for samples 894 and 899. The PDS recovery for within MPC limits except Fe. Native Fe levels > 4X the spike amount. No apparent matrix bias.	-	-	-
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
Tune Check	Within Method limits.	NA	-		
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The laboratory accuracy is acceptable except for Fe LCS/LCSD %Rs exceeded the UCL. LCS/LCSD RPDs above the limit for all three metals in LCS/LCSD 9/19. Low laboratory precision. Laboratory precision for LCS/LCSD 9/26 is acceptable except for Fe with RPD above the limit. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Field sample 899/Field duplicate 906 FD RPDs are within MPC except Mn with RPD > 30%. Overall sampling and analysis precision is acceptable.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

VOCs 5030B/5035/8260B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl, MeOH, $NaHSO_4$**	**Cooler Temps (°C): 5.4**	**Northeast Laboratory-ME (NEL-ME)**	**NEL # BNASEPC**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-P106	AH10894
BN-EP-27-P106 (dilution analysis)	AH10894
BN-EP-27-XD7	AH10895 (Field Duplicate of AH10894)
BN-EP-27-XD7 (dilution analysis)	AH10895 (Field Duplicate of AH10894)
BN-EP-27-MW224	AH10896
BN-EP-27-MW224M	AH10897
BN-EP-27-MW333	AH10901
BN-EP-27-MW333M	AH10904
BN-EP-27-QT3	AH10905

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	.	
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	NA	X	.	

ECC Region I Data Review Worksheet (rv 3) **VOCs 5030B/5035/8260B**
Project: NAS Brunswick ECC Job No. 5700 **Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	Two aqueous method blanks (09/28/05, 10:27 & 22:52) had a detect for hexachlorobutadiene at 0.45 and 0.66 ug/L. This compound was not detected in the samples. No samples were qualified. One aqueous method blank (9/29/05) had detects for acetone and hexachlorobutadiene at 0.89 and 2.22 ug/L. This blank was associated with dilution analyses only. No samples were qualifed.	X	-	
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Trip blank BN-EP-27-QT3 was analyzed with no target compound detects. No samples qualified.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <PQL/RL.	X	J for all samples with estimated results <MRL but >MDL.	
*TICs (if reported)	1) *verify library search for samples and blanks 2) verify TICs were not misreported compounds (different fraction or miss in search) 3) All TICs – J estimated 4) * verify blanks do not contain TIC peaks 5) * check TIC assignment spectra to STD spectra 6) *review blank and Samples for common lab contaminants	None Reported/not evaluated	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Surrogates	1,2-Dichloroethane-d4 76-114% Dibromofluoromethane 86-118% Toluene-d8 88%-110% 4-BFB 86-115% *check raw data for surrogate (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	All surrogate recoveries were within the QAPP limits except for one low surrogate %R (tol) 894DL and two low surrogate %Rs (tol and BFB) in sample 895DL. Detects in these dilution analyses were qualified. Note: QAPP surrogate dibromofluoromethane was not utilized.	X	1,1,1-TCA and TCE were qualified J in dilution analysis of samples 894 and 895.	
LCS Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	LCS/LCSD 9/28/05 (14:03): Methylene chloride in the LCSD and tetrachloroethene in the LCS and LCSD had %Rs above the MPC. MeCl was not detected in the samples. Tetrachloroethene was qualified J. LCS/LCSD 9/28/05 (23:27): All %Rs within the MPC limits. LCS /LCSD 09/29/05: LCS %R was above the limit for acetone. Acetone was not detected. No samples were qualified.	X	PCE detect was qualified J in sample 895	
LCSD RPD	RPD=20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J-detects	LCS/LCSD 9/28/05 (14:03): Methylene chloride RPD was above 20%. No samples were qualified. LCS/LCSD 9/28/05 (23:27): RPDs above the limit for methylene chloride and hexachlorobutadiene. No samples were qualified. LCS /LCSD 09/29/05: RPDs above the limit for acetone, 2-hexanone, and hexachlorobutadiene. No samples were qualified.	X	-	
*MS/MSD/unspike sample RSD	1) For unspiked compounds if reported, Non-MS spike compounds <50% RSD calculated MS/MSD/unspiked Qualification: >50% RSD J-detects 2)*recalculated the RPD (within 10% of lab)	NA		-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	Native sample: AH10894. MS and MSD %Rs were below the limits for 1,1-dichloroethene and 1,1,1-trichloroethane. 1,1,1-TCA native concentration > 4X the spike level. 1,1-DCE qualified J in the native sample.	X	1,1-DCE qualified J in sample 894.	
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	AH10894MS/MSD: TCE RPD was above the limit. TCE qualified J in the native sample.	X	TCE was qualified J in sample 894.	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	Field samples and field duplicates collected/analyzed with this SDG: Field Duplicate Pairs Field sample 894 / Field duplicate 895 1,1-DCA, 1,2-DCA, 1,1-DCE, 1,2-DCE, 1,1,1-TCA, 1,1,2-TCA, chloroform, TCE, PCE were detected in both samples with RPDs < 30%. Overall precision acceptable.	X	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) PFB = Pentafluorobenzene 9) FBZ = 1,4-difluorobenzene 10) CBZ = chlorobenzene-d5 11) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all aqueous samples. No samples were qualified.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	Two samples were analyzed at dilution. MRLs are less than LTMP QAPP MRLs. MRLS are less than MEG (except for vinyl chloride) and MCLs.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 (J –detects, R NDs) 5) RRF>0.05 all compounds 6) RRT < 0.06 units (all stds within 30 sec) 7) %RSD<15% for all non-CCCs or COD>0.99 *8) RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)/* 9) *verify that instrument parameters met method and that Ical and analysis used the same parameters 10) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 11) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 9/25/05: All RRFs, CCCs and SPCCs within MPC limits for all VOCs of concern. No samples qualified	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Initial Cal (Linearity)	%RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 Qualification for compounds with : %RSD>30% and RRF>0.05 – J detects, UJ - NDs %RSD<30% and RRF<0.05; -J detects, R - ND %RSD>30% and RRF<0.05: J detects, R - ND (see VOA/SVIII-4)	Instrument MS1 9/25/05: %RSD>15% but the COD>0.99. Bromomethane and methylene chloride calibration curve is linear. No samples qualified.	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	Instrument MS1 All %Ds within MPC. No samples qualified.	X		
CCV	1) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 2) RRF all compounds > 0.05 3) CCC: (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC) %D<20% (or all analytes if no CCCs reported). 4) Qualification-J detects, R or UJ NDs 5) *verify same instrument and parameters 6) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 7) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 8) *IS RRT<0.06 units (30 sec) 9) * IS area -50 % to 100 % of last ICAL 10) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 11) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/28:05: 2-Butanone, tetrachloroethene, have %Ds>MPC. 09/28/05: Methylene chloride has %D>MPC. 09/29:05: Acetone and chloroethane have %Ds>MPC. These compounds not utilized from this run. No samples qualifed.		2-Butanone and PCE were qualified UJ for non-detects and J for detects in samples 895, 896, and 897. MeCl was qualified UJ in samples 894, 901, 904, and 905.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The aqueous results are usable for making project decisions, as qualified. All aqueous LCS/MS/MSD recoveries and RPDs were within MPC limits with the following exceptions: LCS/LCSD %Rs>UCL for PCE, MS/MSD %Rs < LCL for 1,1-DCE, and MSD RPD > MPC for TCE. Overall laboratory precision and accuracy are acceptable. ICAL: Acceptable. ICV: All %Ds within the limits. CCV: %Ds > MPCs for 2-butanone, PCE, and methylene chloride. Method blanks had a detect for hexachlorobutadiene but it is not detected the samples. The reports MRLs and MDLs provide adequate sensitivity to support evaluation against MEG and MCLs for all compounds except vinyl chloride. Sampling Error Evaluation : Trip blank was non-detect for all target VOCs. No apparent field cross contamination. Field duplicate was collected and analyzed as part of this SDG. <u>Field sample 894/field duplicate 895</u> There were nine target VOC compounds detected in both samples with RPDs < 30%. Overall precision is acceptable.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only)

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030B/5035/8260BSIM 1,4-Dioxane
Review Criteria: Region I Tier II Guidance and EIASOP-VOADIOX1(5/21/03)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**None**	**Cooler Temps (°C): 5.4**	**Northeast Laboratory-ME (NEL-ME)**	**NEL SDG# BNASEPC**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-P106	AH10894
BN-EP-27-MW313	AH10899
BN-EP-27-XD4	AH10900(Field Duplicate of AH10899)
BN-EP-27-MW337	AH10902
BN-EP-27-QT3	AH10905

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6°C 3) Unpreserved 4) No headspace	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 14 Days to analysis, 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	X	-	
Surrogates	Surrogate: 1,4-dioxane-d8 (60-140%) *check raw data for surrogated (recalculate 10% of them). *Transcription errors Qualification: >UCL, J- detects %R <10% J-detects, R-NDs %R>10% but <70% J-detects, UJ-NDs	All surrogate recoveries were within the QC limits. No samples were qualified.	X	-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	The aqueous method blanks of 09/19/05 and 09/20/05 did not have a detect for 1,4-dioxane. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Trip blank BN-EP-27-QT3 was analyzed with no target compound detect. No samples qualified.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	All detects > MRL. No samples qualified.	X	-	
LCS Recovery	1) 1,4-Dioxane 60-140% 2) 10% and <LCL% J detects, UJ –NDs 3) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All recoveries were within the MPC. No samples were qualified.	X	-	
LCSD RPD	RPD ≤ 20% (aq) No a method specific check. J-detects	The LCS/LCSD RPD < 20%. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD Recovery	1) 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 4) * Recalucate the %R (within 10% of lab)	AH10894MS/MSD: MS %R > UCL. The native sample concentration > 4X the spike amount. Sample was not qualified. AH10899MS/MSD: %Rs not reported due to high level of native sample concentration. Sample not qualified.	-	-	
MS/MSD RPD	RPD ≤ 20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	AH10894MS/MSD: RPD > 20%. Detect in sample AH10894 qualified J. AH10899MS/MSD: RPD not reported due to high level of native sample concentration. Sample not qualified.	-	1,4-Dioxane detect was qualified J in sample 894.	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 5) *Recalculate the concentrations for one compound and the PQL	Field sample 899/field duplicate 900 1,4-Dioxane was detected in both samples with an RPD of 5.2%. No samples were qualified.	X	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) FBZ = 1,4-difluorobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all samples.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	The MRL is 1.00 ppb(ug/L) which is consistent with the EPA Region I method. Sensitivity is acceptable.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) RRF criteria not part of method. This VOC falls under the *RRF exclusion of Section (IV-8) Tier II guidance.* 4) %RSD<30% Qualification for compounds with : %RSD>30% J detects, UJ -NDs %RSD<30% J detects, R - ND %RSD>30%: J detects, R - ND	Instrument MS1 9/19/05: %RSD <30%. No samples qualified	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	Instrument MS1 9/19/05: %D within MPC limits. No samples qualified	X	-	
CCV	1) %D<30% 2) before analysis and every 12 hours. 3) Qualification-J detects, R or UJ NDs 4) *verify same instrument and parameters 5) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 6) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 7) *IS RRT<0.06 units (30 sec) 8) * IS area -50 % to 100 % of last ICAL 9) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/19/05, 09/20/05,and 09/21/05: All %Ds <30%. No samples qualified.		-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Laboratory accuracy is acceptable. All aqueous LCS/LCSD recoveries were within MPC limits. Due to high levels in the native samples MS/MSD recoveries were not evaluated. Laboratory precision is acceptable except for AH AH10894MS/MSD with an RPD > 20%. Detect in sample 894 qualified J. The aqueous results are usable for making project decisions as qualified. Sampling Error Evaluation : Trip blank was non-detect for 1,4-Dioxane. No apparent field cross-contamination noted. Field duplicate pair 899/900 had detects for 1,4-dioxane with an RPD of 5.2%. Overall precision is acceptable.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Sample AH10902 was missing from the EDD. 1,4-Dioxane results were manually entered.

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030/Region I Methane SOP aka VSK-175
Review Criteria: Region I Tier II Guidance and VSL-175 SOP(EPA2001)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**Cooler Temps (°C): 5.4 at NEL, 3.2 at ATL**	**Air Toxic Laboratory (ATL), Folsom, CA**	**ATL SDG: 0509392 NEL #: BNASEPC**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-P106	0509392-01A (AH10894)
BN-EP-27-MW224	0509392-02A (AH10896)
BN-EP-27-MW315A	0509392-03A (AH10898)
BN-EP-27-MW313	0509392-04A (AH10899)
BN-EP-27-MW333	0509392-05A (AH10902)
BN-EP-27-MW334	0509392-06A (AH10903)
BN-EP-27-QT3	0509392-07A (AH10905)
BN-EP-27-MNAXD1	0509392-08A (AH10906)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. NEL subcontracted analysis to ATL. Samples were received at ATL with with custody seals intact. Unbroken Chain of Custody.	X	-	
Holding Time	1) 14 Days to analysisJ –detects, UJ or R –nondetects (function of time) 2) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	NA	-	-	
Lab Blanks (method blanks)	1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	Associated method blank was non-detect. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < MRL 2) TGT analytes <Lab QL (contact lab) - for soils indicate cross matrix TB (X rules apply to raw data) 3) MeCl & Acetone < 5 4) >RL report sample level U 5) <RL report PQL as U	Trip blank BN-EP-27-QT3 was analyzed with no target compound detects. No samples qualified.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Detects > RL. No samples qualified.	X	-	
LCS/ LFB Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 6) *Recalculate the concentrations for one compound in the LCS 7) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All LCS %Rs are within MPC limits. No samples qualified.	X	-	
Laboratory Duplicate	RPD<20%	Duplicate analyzed for sample 902. Methane detected in both samples with an RPD < 20%. No samples qualified.	X	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	No MS/MSD analyzed.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	No MS/MSD analyzed.	-	-	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	Field duplicate analyzed. <u>Field sample 899/Field duplicate 906</u> Methane was a detect in both samples with an RPD > 30%. Methane qualified J in both samples.	X	Methane was qualified J in samples 899 and 906.	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	The VSL-175 MRL is 10 ug/L, which has been met by this analytical method. No project action limits are specified for these parameters. However, 1ug/L was established as a monitored natural attenuation parameter for these VOCs. For this analysis the MDLs are greater than 1 ug/L. Methane: 2.9 ug/L Ethane: 2.4 ug/L Ethene: 2.3 ug/L Poject sensitivity does not meet the MNA technical letter criteria. The MRL is equal to or greater than the Weidemeir scoring criteria, as follows: Methane: 500 ug/L Etane: 10 ug/L Ethene: 10 ug/L Analytical sensitivity is adequate to address MNA evaluation, but not acceptable per the MNA technical letter.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) COD>0.995 3) Lowest gas standard S/N ratio >5 4) These VOC fall under the *RRF exclusions of Section (IV-8) Tier II guidance* as these VOCs have poor purge efficincies which is acknowledged in the method. 5) RF for ethane and ethane within 25% 6) RF for methane within 25% of ½ of the ethane/ethane average RF.	COD not determined. %RSD < 15%. No samples qualified.	X	-	
2nd Source ICV	The ICV is optional per method. %D<25% Qualification: J detects, R or UJ NDs	All %Ds < 25%within MPC. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
CCV	1) %D<20% 2) every 4 hours or 25 samples and at the end of the sample batch. 3) Qualification-J detects, R or UJ NDs 4) *verify same instrument and parameters 5) *Recalculate RR for one tgt cmpd associated with each IS. (within 10%) 6) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 7) *IS RRT<0.06 units (30 sec) 8) * IS area -50 % to 100 % of last ICAL 9) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	All CCV %Ds < 20%. No samples qualified.			
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Laboratory accuracy is acceptable. LCS %Rs within MPC limits. Sample matrix bias not determined, as MS/MSD was not analyzed. Laboratory preision is acceptable, with laboratory replicate RPDs within MPC limit. ICAL: within MPC. ICV: within MPC limits. CCV: within MPC limits. Sample results are usable as qualified, but the matrix bias has not been determined. Analytical sensitivity is acceptable for evaluation of MNA gases using the Weidemeier scoring criteria. The MNA VOCs have an MDL> the MNA technical letter requirement of quantitaion at 1.0 ppb. Sampling Error Evaluation : Trip blank was non-detect for all target VOCs. There is no apparent field cross contamination. Field duplicatepair Field sample 899/Field duplicate 906 Methane was a detect in both samples with an RPD > 30%. Methane qualified J in both samples.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3, NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**TOC-acid Nitrate/nitrite -acid**	**Temp (^oC): 5.4 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEPC**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-P106	AH10894
BN-EP-27-MW224	AH10896
BN-EP-27-MW315A	AH10898
BN-EP-27-MW313	AH10899
BN-EP-27-MW333	AH10902
BN-EP-27-MW334	AH10903
BN-EP-27-MNAXD1	AH10906 (Field Duplicate of AH10899)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation acceptable. No sample qualified.	X	-	
Holding Time	1) Alk- 14days, Cl–28 days, Fe(II) <24 hours, Nitrate/Nitrite–28 days, SO4–28 days, TOC–28 days & nitrite–2 days. Per methods 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	Field duplicate pair: Field sample 899/Field Duplicate 906 TOC was a detect in both samples with an RPD > 30%. All other RPDs <30%.	X	TOC was qualified J in samples 899 and 906.	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL and >IDL. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3, NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blank was non-detect except alkalinity at 0.46 mg/L. The sample lconcentrations > 5X the blank level. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	All LCS %R's were within MPC. Laboratory accuracy is acceptable.	X	-	
MS Recovery	1) 75-125% (if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	MS/MD was analyzed using samples 894 and 899. All %Rs within MPC. No samples qualified.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Laboratory duplicate analyzed using samples 894 and 899. All RPDs within MPC. No samples qualified.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Sensitivity is acceptable per Table 1 of MNA report.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Initial Cal Multipoint	1) Within laboratory MPC.	All COD's > 0.99 in all initial calibration runs. No sample qualifications.	X	-	
Continuing Calibration Blanks (CCB)	1) Within laboratory MPC.	No CCB detects – no samples qualified.	X	-	
2nd Source ICV	1) Within laboratory MPC.	All ICV %R's within MPC limits. No samples qualified.	X	-	
CCV	1) Within laboratory MPC.	All CCV %R's within MPC limits except TOC with ending CCV %R > MPC. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3, NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The laboratory accuracy is acceptable. Laboratory precision is acceptable. ICAL: COD within limits. ICV: in limits CCV: TOC > MPC. All others in limits Sampling Error Evaluation: Field duplicate pair: <u>Field sample 899/Field Duplicate 906</u> TOC was a detect in both samples with an RPD > 30%. All other RPDs <30%.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

TOC in samples AH10896 and AH10899 were reported as non-detects in EDD. Form I for AH10896 was also incorrect. They were changed to detects.
Nitrite in sample AH10894 was reported as a detect with “N” detect_flag. It was a non-detect according to the Form I and the raw data. It was changed by adding “U” lab qualifier.

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES 1& 3 AND EP
SEPTEMBER 2005 SAMPLING ROUND 27 (SDG BNASEPD)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE 1&3 AND EP MONITORING EVENT 27

DATE: 3/28/2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Inorganic Analysis (1988), and

3. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Site 1& 3 and Eastern Plume LTMP QAPP (May 2000). The QAPP MPC and validation guideline exceedences are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Acronym or Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
%M	Percent moisture
%S	Percent solids
Ug/L	Microgram per liter
BD	Breakdown
BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verfication
COC	Chain of custody
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
LTMP	Long term monitoring plan
MeCl	Methylene chloride
MS	Matrix spike

Acronym or Abbreviation	Definition
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following:

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Northeast Laboratory/Air Toxics Laboratory
SDG #: BNASEPD
EPA-NE DV TIER LEVEL: II
SITE NAME: NAS Brunswick – Sites 1&3 and EP

# of SAMPLES/MATRIX: VOC(8MW(1FD), 7SW(1FD), 2SEEP(1FD), 6 AQ(FD), 1TB), 1,4-Dioxane (3MW, 1 FD, 1TB), Pesticides(1 SED, 1 FD), Methane(2MW, 1TB), Metals (2MW, 1SED, 1SED FD), Water Quality (2MW)
VALIDATION CONTRACTOR: ECC
VALIDATOR'S NAME: Huison Chang
DV Completion Date: April 11, 2006.
Date Sampled: September 13, 2005.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	1,4-Dioxane	Pesticides	MNA Ground Water Quality	Methane, Ethane, Ethene (ATL)	Metals
1	Preservation and HT	M	O	O	O	O	O
2	Instrument Performance Check	O	O	O	O	O	O
3	Initial Calibration:	O	O	O	O	O	O
4	Continuing Calibration:	M	O	O	M	O	O
5	Blanks:	O	O	O	O	O	O
6	Surrogate Compounds:	O	O	O	O	O	-
7	Internal Standards	M	O	-	-	-	-
8	Matrix Spike/Matrix Spike Duplicate:	M	-	O	O	-	M
9	Sensitivity Check:	O	O	O	O	O	O
10	PE Samples- Accuracy Check	M	O	O	O	O	M
11	Target Compound Identification:	O	O	O	O	O	O
12	Compound Quantitation and Reported QLs	O	O	O	O	O	O
13	Tentatively Identified Compounds:	-	-	-	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	O	-	-	-
15	Data Completeness	O	O	O	O	O	O
16	Overall Evaluation of Data:	O	O	O	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): None.

AREAS OF CONCERN: (M items):

VOC: Samples AH10956 and AH10957 were qualified J for detects and UJ for non-detects due to holding time exceedance. Acetone was qualified J in sample AH10943 due to LCS %R and LCSD RPD > MPC . Methylene chloride was qualified UJ in samples AH10946, AH10947, AH10948, AH10951, AH10952, AH10953, and AH10954 due to LCS %R< MPC. Acetone was qualified J in sample AH10946 due to low MS/MSD %Rs. Samples AH10946 and AH10951 were qualified UJ for non-detects and J for detects due to MS/MSD RPDs > MPC. Acetone was qualified J in samples AH10946 and AH10948 due to high field duplicate RPD. Hexachlorobutadiene was qualified UJ in sample AH10946 due to low IS %R.

CCV: Chloromethane, acetone, 2-butanone, tetrachloroethene, hexachlorobutadiene, and bromomethane in samples AH10808 and AH10816; chloromethane and bromomethane in samples AH10809, AH1010, AH1011, AH1012, AH1013, AH1014, AH1015, AH1017, AH1018, and AH1019; 2-butanone tetrachloroethene in samples AH10820, AH10821, AH10822, AH10823, AH10824, AH10825 were qualified UJ due to high CCV %D.

Pesticides: Hexachlorobenzene qualified UJ in sample AH10949 due to MS/MSD %R < MPC. Alpha-BHC, gamma-BHC, heptachlor epoxide, endofulfan II and methoxychlor qualified J in AH10949 due to MS/MSD RPDs > MPC.

Methane, Ethane, Ethene: Sensitivity: MRL is equal to or less than MNA scoring criteria; however, sensitivity does not meet MNA Technical letter requirements.

Metals: LCS %R>UCL for Fe. LCS/LCSD RPD > MPC for Fe. Fe was qualified J in samples.
TOC: TOC qualified J in samples due to high CCV %R. in samples AH10932 and AH10935.

COMMENTS:

Data Summary Table

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	0.34	Y	J	0.29	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	100	Y		0	76	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1.6	Y		0.26	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	93	Y		0.14	86	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Acetone	3	Y	J	4.14	5	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	33	Y		0.55	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Trichloroethene	4	Y		0.28	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW319D	AH10931	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-P111	AH10932	EPA 300	09/16/2005	L	1	Sulfate	12	Y		0.11	1	mg/L
BN-EP-27-P111	AH10932	EPA 310.1	09/16/2005	L	1	Alkalinity	36	Y		0.35	5	mg/L
BN-EP-27-P111	AH10932	EPA 353.2	09/16/2005	L	1	Nitrate/Nitrite Total	0.1	N	U	0.006	0.1	mg/l
BN-EP-27-P111	AH10932	EPA 415.1	09/16/2005	L	1	Total Organic Carbon	1.6	Y	J	0.343	1	mg/L
BN-EP-27-P111	AH10932	EPA 6010B	09/16/2005	L	1	Arsenic Total,ppb	2.3	N	U	0.0067	2.3	ug/L
BN-EP-27-P111	AH10932	EPA 6010B	09/16/2005	L	1	Iron Total, ppb	1700	Y	J	0.0062	25	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-P111	AH10932	EPA 6010B	09/16/2005	L	1	Manganese Total, ppb	85	Y	J	0.0031	2	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	107	Y		0	76	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	92	Y		0.14	86	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Toluene-d8	97	Y		0	88	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-P111	AH10932	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-P111	AH10932	EPA 9056	09/16/2005	L	1	Chloride	5.5	Y		0.21	1	mg/L
BN-EP-27-P111	AH10932	EPA 9056	09/16/2005	L	1	Nitrite-N	0.2	N	U	0.295	0.2	mg/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	104	Y		0	76	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	92	Y		0.14	86	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-XD6	AH10933	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	260	Y	ZZZ	0.29	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	1,1,1-Trichloroethane	320	Y		0.29	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	1,1,2,2-Tetrachloroethane	10	N	ZZZ	0.39	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	1,1,2-Trichloroethane	10	N	ZZZ	0.2	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	33	Y		0.28	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	1,1-Dichloroethane	39	Y	ZZZ	0.28	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	33	Y		0.32	1	ug/L

Data Summary Table

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	1,1-Dichloroethene	34	Y	ZZZ	0.32	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	0.57	Y	J	0.46	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	1,2-Dichloroethane	10	N	ZZZ	0.46	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	96	Y		0	76	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	1,2-Dichloroethane-d4	102	Y	ZZZ	0	76	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	140	Y	ZZZ	0.26	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	1,2-Dichloroethene (total)	190	Y		0.26	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	1,2-Dichloropropane	10	N	ZZZ	0.1	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	2-Butanone	50	N	ZZZ	0.42	50	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	2-Hexanone	50	N	ZZZ	2.42	50	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	94	Y		0.14	86	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	4-Bromofluorobenzene	92	Y	ZZZ	0.14	86	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	4-Methyl-2-pentanone	50	N	ZZZ	1.33	50	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Acetone	18	Y	ZZZ	4.14	50	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Benzene	10	N	ZZZ	0.26	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Bromodichloromethane	10	N	ZZZ	0.22	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Bromoform	10	N	ZZZ	0.37	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Bromomethane	10	N	ZZZ	0.52	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Carbon Disulfide	10	N	ZZZ	0.27	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Carbon Tetrachloride	10	N	ZZZ	0.27	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Chlorobenzene	10	N	ZZZ	0.18	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Chloroethane	10	N	ZZZ	1.52	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Chloroform	10	N	ZZZ	0.42	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Chloromethane	10	N	ZZZ	0.38	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	cis-1,3-Dichloropropene	10	N	ZZZ	0.13	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Dibromochloromethane	10	N	ZZZ	0.32	10	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Ethylbenzene	10	N	ZZZ	0.15	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Hexachlorobutadiene	10	N	ZZZ	0.27	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Methylene Chloride	10	N	ZZZ	1.05	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Styrene	10	N	ZZZ	0.15	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	4	Y		0.55	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Tetrachloroethene	4.2	Y	ZZZ	0.55	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Toluene	10	N	ZZZ	0.15	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Toluene-d8	99	Y		0	88	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Toluene-d8	94	Y	ZZZ	0	88	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	trans-1,3-Dichloropropene	10	N	ZZZ	0.64	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Trichloroethene	140	Y	ZZZ	0.28	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Trichloroethene	160	Y		0.28	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Vinyl Chloride	10	N	ZZZ	0.43	10	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW331M	AH10934	EPA 8260B	09/16/2005	L	10	Xylenes (total)	10	N	ZZZ	0.52	10	ug/L
BN-EP-27-MW331	AH10935	EPA 300	09/16/2005	L	1	Sulfate	7.9	Y		0.11	1	mg/L
BN-EP-27-MW331	AH10935	EPA 310.1	09/16/2005	L	1	Alkalinity	35	Y		0.35	5	mg/L
BN-EP-27-MW331	AH10935	EPA 353.2	09/16/2005	L	1	Nitrate/Nitrite Total	0.49	Y		0.006	0.1	mg/l
BN-EP-27-MW331	AH10935	EPA 415.1	09/16/2005	L	1	Total Organic Carbon	1	Y	J	0.343	1	mg/L
BN-EP-27-MW331	AH10935	EPA 6010B	09/16/2005	L	1	Arsenic Total,ppb	2.3	N	U	0.0067	2.3	ug/L
BN-EP-27-MW331	AH10935	EPA 6010B	09/16/2005	L	1	Iron Total, ppb	61	Y	J	0.0062	25	ug/L
BN-EP-27-MW331	AH10935	EPA 6010B	09/16/2005	L	1	Manganese Total, ppb	4	Y	J	0.0031	2	ug/L
BN-EP-27-MW331	AH10935	EPA 8260B	09/16/2005	L	1	1,4 Dioxane	22	Y		0.49	1	ug/L
BN-EP-27-MW331	AH10935	EPA 8260B	09/16/2005	L	1	1,4-Dioxane-d8	135	Y		0	60	ug/L
BN-EP-27-MW331	AH10935	EPA 9056	09/16/2005	L	1	Chloride	95	Y		0.21	1	mg/L
BN-EP-27-MW331	AH10935	EPA 9056	09/16/2005	L	1	Nitrite-N	0.2	N	U	0.295	0.2	mg/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	20	Y		0.29	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1.7	Y		0.28	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	2.3	Y		0.32	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	105	Y		0	76	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	5	Y		0.26	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Acetone	3.3	Y	J	4.14	5	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Chloroform	2.6	Y		0.42	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	0.79	Y	J	0.55	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Trichloroethene	8.6	Y		0.28	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW332M	AH10936	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	2.8	Y		0.29	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	17	Y		0.28	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	32	Y		0.32	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1.1	Y		0.46	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	107	Y		0	76	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	3.4	Y		0.26	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	94	Y		0.14	86	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Benzene	0.33	Y	J	0.26	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	4.1	Y		0.55	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Toluene-d8	101	Y		0	88	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Trichloroethene	57	Y		0.28	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW311M	AH10937	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	18	Y		0.29	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	2.2	Y		0.28	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	4.4	Y		0.32	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	101	Y		0	76	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	0.51	Y	J	0.26	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	91	Y		0.14	86	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	7	Y		0.55	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Toluene-d8	96	Y		0	88	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Trichloroethene	6.7	Y		0.28	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW311D	AH10938	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	11	Y		0.29	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	3.6	Y		0.28	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	4.2	Y		0.32	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	102	Y		0	76	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	2.1	Y		0.26	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Chloroform	1.2	Y		0.42	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Toluene-d8	97	Y		0	88	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Trichloroethene	9.9	Y		0.28	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-EW05A	AH10939	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	61	Y		0.29	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	7.2	Y		0.28	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	11	Y		0.32	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	95	Y		0	76	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	14	Y		0.26	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	93	Y		0.14	86	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Chloroform	0.59	Y	J	0.42	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	3.9	Y		0.55	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Toluene-d8	97	Y		0	88	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Trichloroethene	35	Y		0.28	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-RAW INFLUENT	AH10940	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	104	Y		0	76	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,4 Dioxane	12	Y		0.49	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	1,4-Dioxane-d8	111	Y		0	60	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-COMB EFFLUENT	AH10941	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	102	Y		0	76	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,4 Dioxane	11	Y		0.49	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	1,4-Dioxane-d8	125	Y		0	60	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Toluene-d8	97	Y		0	88	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-XD8	AH10942	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	88	Y		0	76	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1.2	Y		0.26	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	91	Y		0.14	86	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Acetone	4	Y	J	4.14	5	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Trichloroethene	7.8	Y		0.28	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-MW212S	AH10943	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	101	Y		0	76	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Toluene-d8	97	Y		0	88	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-SW10	AH10944	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	104	Y		0	76	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	88	Y		0.14	86	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Toluene-d8	97	Y		0	88	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-SW11	AH10945	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	UJ	0.29	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	UJ	0.39	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	UJ	0.2	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	UJ	0.28	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	UJ	0.32	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	UJ	0.46	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	92	Y		0	76	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1	N	UJ	0.26	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	UJ	0.1	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	UJ	2.42	5	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	UJ	1.33	5	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Acetone	72	Y	J	4.14	5	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Benzene	1	N	UJ	0.26	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	UJ	0.22	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	UJ	0.37	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	UJ	0.27	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	UJ	0.27	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	UJ	0.18	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	UJ	1.52	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	UJ	0.42	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	UJ	0.13	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	UJ	0.32	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	UJ	0.15	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	UJ	0.27	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Styrene	1	N	UJ	0.15	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Toluene	1	N	UJ	0.15	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Toluene-d8	95	Y		0	88	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	UJ	0.64	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Trichloroethene	1	N	UJ	0.28	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	UJ	0.43	1	ug/L
BN-EP-27-SW13	AH10946	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	UJ	0.52	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	84	Y		0	76	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	91	Y		0.14	86	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Acetone	22	Y		4.14	5	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Toluene-d8	96	Y		0	88	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-SW14	AH10947	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	84	Y		0	76	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	92	Y		0.14	86	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Acetone	34	Y	J	4.14	5	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Toluene-d8	97	Y		0	88	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Trichloroethene	1	N	U	0.28	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-SW-XD16	AH10948	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	10	Aluminum Total	8700	Y	J	0.0196	24	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Antimony Total Solid	6	N	R	0.0018	6	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Arsenic Total	8.5	Y	J	0.0007158	1.2	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Barium Total	56	Y	J	0.0015	1.2	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Beryllium Total	0.6	N	U	0.0015	0.6	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Cadmium Total	1.2	N	U	0.0015	1.2	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Calcium Total	1400	Y	J	0.153	120	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Chromium Total	15	Y	J	0.0012	1.2	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Cobalt Total	9	Y	J	0.0036	6	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Copper Total	4.9	Y	J	0.0015	1.2	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	25	Iron Total	43000	Y	J	0.0157	30	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Lead Total Solid	33	Y	J	0.0012	1.2	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Magnesium Total	2500	Y		0.0902	120	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Manganese Total	780	Y	J	0.0103	1.2	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Nickel Total	12	Y	J	0.0015	1.2	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Potassium Total	940	Y		0.0584	120	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Selenium Total	6	N	U	0.26	6	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Silver Total	0.6	N	R	0.0012	0.6	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Sodium Total	120	N	UJ	0.2769	120	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Thallium Total	6	N	U	0.01	6	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Vanadium Total	26	Y	J	0.0034	6	mg/Kg
BN-EP-27-SED11	AH10949	EPA 6010B	09/16/2005	S	1	Zinc Total	60	Y	J	0.0081	1.2	mg/Kg
BN-EP-27-SED11	AH10949	EPA 7471A	09/16/2005	S	1	Mercury Total	0.048	N	U	0.000103	0.048	mg/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	1	2,4,5,6-Tetrachloro-m-xylene	76	Y			18	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	4,4-DDD	170	N	U	0.0059	170	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	4,4-DDE	34	N	U	0.0156	34	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	4,4-DDT	170	N	U	0.0156	170	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Aldrin	17	N	U	0.0053	17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Alpha-BHC	17	N	U	0.0142	17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	1	alpha-Chlordane	17	N	U	0.0166	17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Beta-BHC	17	N	U	0.0078	17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Chlordane	170	N	U	0.21	170	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	1	Decachlorobiphenyl	85	Y			25	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Delta-BHC	17	N	U	0.0121	17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Dieldrin	34	N	U	0.0149	34	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Endosulfan I	17	N	U	0.0088	17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Endosulfan II	34	N	U	0.0111	34	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Endosulfan Sulfate	340	N	U	0.0116	340	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Endrin	34	N	U	0.0062	34	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Endrin Aldehyde	170	N	U	0.0075	170	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Endrin Ketone	170	N	U	0.0068	170	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Gamma-BHC (Lindane)	17	N	U	0.0073	17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	1	gamma-Chlordane	17	N	U	0.0074	17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Heptachlor	17	N	U	0.0089	17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Heptachlor Epoxide	17	N	U	0.0083	17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	1	Hexachlorobenzene	17	N	U		17	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Methoxychlor	170	N	U	0.0079	170	ug/Kg
BN-EP-27-SED11	AH10949	EPA 8081	09/16/2005	S	8	Toxaphene	170	N	U	0.678	170	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	10	Aluminum Total	5300	Y	J	0.0196	16	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Antimony Total Solid	4	N	U	0.0018	4	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Arsenic Total	4.9	Y	J	0.0007158	0.8	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Barium Total	25	Y	J	0.0015	0.8	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Beryllium Total	0.4	N	U	0.0015	0.4	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Cadmium Total	0.8	N	U	0.0015	0.8	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Calcium Total	1000	Y	J	0.153	80	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Chromium Total	7.9	Y	J	0.0012	0.8	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Cobalt Total	4	N	UJ	0.0036	4	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Copper Total	2	Y	J	0.0015	0.8	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	10	Iron Total	14000	Y	J	0.0157	8	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Lead Total Solid	9.1	Y	J	0.0012	0.8	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Magnesium Total	1600	Y		0.0902	80	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Manganese Total	390	Y	J	0.0103	0.8	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Nickel Total	6	Y	J	0.0015	0.8	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Potassium Total	620	Y		0.0584	80	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Selenium Total	4	N	U	0.26	4	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Silver Total	0.4	N	UJ	0.0012	0.4	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Sodium Total	80	N	U	0.2769	80	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Thallium Total	4	N	U	0.01	4	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Vanadium Total	13	Y	J	0.0034	4	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 6010B	09/16/2005	S	1	Zinc Total	23	Y	J	0.0081	0.8	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 7471A	09/16/2005	S	1	Mercury Total	0.046	N	U	0.000103	0.046	mg/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	1	2,4,5,6-Tetrachloro-m-xylene	53	Y			18	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	4,4-DDD	160	N	U	0.0059	160	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	4,4-DDE	33	N	U	0.0156	33	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	4,4-DDT	160	N	U	0.0156	160	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Aldrin	16	N	U	0.0053	16	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Alpha-BHC	16	N	U	0.0142	16	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	1	alpha-Chlordane	16	N	U	0.0166	16	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Beta-BHC	16	N	U	0.0078	16	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Chlordane	160	N	U	0.21	160	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	1	Decachlorobiphenyl	60	Y			25	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Delta-BHC	16	N	U	0.0121	16	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Dieldrin	33	N	U	0.0149	33	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Endosulfan I	16	N	U	0.0088	16	ug/Kg

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Endosulfan II	33	N	U	0.0111	33	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Endosulfan Sulfate	330	N	U	0.0116	330	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Endrin	33	N	U	0.0062	33	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Endrin Aldehyde	160	N	U	0.0075	160	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Endrin Ketone	160	N	U	0.0068	160	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Gamma-BHC (Lindane)	16	N	U	0.0073	16	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	1	gamma-Chlordane	16	N	U	0.0074	16	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Heptachlor	16	N	U	0.0089	16	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Heptachlor Epoxide	16	N	U	0.0083	16	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	1	Hexachlorobenzene	16	N	U		16	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Methoxychlor	160	N	U	0.0079	160	ug/Kg
BN-EP-27-SED-XD17	AH10950	EPA 8081	09/16/2005	S	8	Toxaphene	160	N	U	0.678	160	ug/Kg
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	0.6	Y	J	0.29	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	UJ	0.39	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	UJ	0.2	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	UJ	0.28	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	UJ	0.32	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	UJ	0.46	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	98	Y		0	76	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	2.2	Y	J	0.26	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	UJ	0.1	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	UJ	2.42	5	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	UJ	1.33	5	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Acetone	3.8	Y	J	4.14	5	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Benzene	1	N	UJ	0.26	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	UJ	0.22	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	UJ	0.37	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	UJ	0.27	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	UJ	0.27	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	UJ	0.18	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	UJ	1.52	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	UJ	0.42	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	UJ	0.13	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	UJ	0.32	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	UJ	0.15	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	UJ	0.27	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Styrene	1	N	UJ	0.15	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1.6	Y	J	0.55	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Toluene	1	N	UJ	0.15	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Toluene-d8	96	Y		0	88	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	UJ	0.64	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Trichloroethene	1.5	Y	J	0.28	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	UJ	0.43	1	ug/L
BN-EP-27-SEEP11	AH10951	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	UJ	0.52	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	0.5	Y	J	0.29	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	90	Y		0	76	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1.9	Y		0.26	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	92	Y		0.14	86	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1.4	Y		0.55	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Toluene-d8	97	Y		0	88	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Trichloroethene	1.4	Y		0.28	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-SEEP-XD15	AH10952	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	94	Y		0	76	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1	N	U	0.26	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	91	Y		0.14	86	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Acetone	19	Y	J	4.14	5	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	1	N	U	0.55	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Trichloroethene	1	N	UJ	0.28	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-SW12	AH10953	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	1	N	U	0.29	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1	N	U	0.28	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	1	N	U	0.32	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	U	0.46	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	97	Y		0	76	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	1.6	Y		0.26	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Acetone	5.7	Y	J	4.14	5	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	U	0.42	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	0.34	Y	J	0.55	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Trichloroethene	10	Y	J	0.28	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-XD5	AH10954	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	69	Y		0.29	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	0.39	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	U	0.2	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	9.1	Y		0.28	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	16	Y		0.32	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	0.38	Y	J	0.46	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	107	Y		0	76	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	18	Y		0.26	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	U	0.1	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	U	0.42	5	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	U	2.42	5	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	90	Y		0.14	86	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	U	1.33	5	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Acetone	5	N	U	4.14	5	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Benzene	1	N	U	0.26	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	U	0.22	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	U	0.37	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	U	0.52	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	U	0.27	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	U	0.27	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	U	0.18	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	U	1.52	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Chloroform	0.21	Y	J	0.42	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	U	0.38	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	U	0.13	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	U	0.32	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	U	0.15	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	U	0.27	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	U	1.05	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Styrene	1	N	U	0.15	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	7.8	Y		0.55	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Toluene	1	N	U	0.15	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Toluene-d8	98	Y		0	88	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	U	0.64	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Trichloroethene	40	Y		0.28	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	U	0.43	1	ug/L
BN-EP-27-EW2A	AH10955	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	U	0.52	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	1,1,1-Trichloroethane	8.8	Y	J	0.29	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	UJ	0.39	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	1,1,2-Trichloroethane	1	N	UJ	0.2	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethane	1.4	Y	J	0.28	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	1,1-Dichloroethene	2.7	Y	J	0.32	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane	1	N	UJ	0.46	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethane-d4	112	Y	J	0	76	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	1,2-Dichloroethene (total)	13	Y	J	0.26	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	1,2-Dichloropropane	1	N	UJ	0.1	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	2-Hexanone	5	N	UJ	2.42	5	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	4-Bromofluorobenzene	88	Y		0.14	86	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	4-Methyl-2-pentanone	5	N	UJ	1.33	5	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Benzene	1	N	UJ	0.26	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Bromodichloromethane	1	N	UJ	0.22	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Bromoform	1	N	UJ	0.37	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Bromomethane	1	N	UJ	0.52	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Carbon Disulfide	1	N	UJ	0.27	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Carbon Tetrachloride	1	N	UJ	0.27	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Chlorobenzene	1	N	UJ	0.18	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Chloroethane	1	N	UJ	1.52	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Chloroform	1	N	UJ	0.42	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	cis-1,3-Dichloropropene	1	N	UJ	0.13	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Dibromochloromethane	1	N	UJ	0.32	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Ethylbenzene	1	N	UJ	0.15	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Hexachlorobutadiene	1	N	UJ	0.27	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Methylene Chloride	1	N	UJ	1.05	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Styrene	1	N	UJ	0.15	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Tetrachloroethene	3.4	Y	J	0.55	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Toluene	1	N	UJ	0.15	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Toluene-d8	100	Y		0	88	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	trans-1,3-Dichloropropene	1	N	UJ	0.64	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Trichloroethene	19	Y	J	0.28	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Vinyl Chloride	1	N	UJ	0.43	1	ug/L
BN-EP-27-EW1	AH10956	EPA 8260B	09/16/2005	L	1	Xylenes (total)	1	N	UJ	0.52	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,1,1-Trichloroethane	1	N	UJ	0.29	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,1,2,2-Tetrachloroethane	1	N	UJ	0.39	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,1,2-Trichloroethane	1	N	UJ	0.2	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,1-Dichloroethane	1	N	UJ	0.28	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,1-Dichloroethene	1	N	UJ	0.32	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,2-Dichloroethane	1	N	UJ	0.46	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,2-Dichloroethane-d4	110	Y		0	76	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,2-Dichloroethene (total)	1	N	UJ	0.26	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,2-Dichloropropane	1	N	UJ	0.1	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,4 Dioxane	1	N	UJ	0.49	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	1,4-Dioxane-d8	84	Y		0	60	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	2-Butanone	5	N	UJ	0.42	5	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	2-Hexanone	5	N	UJ	2.42	5	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	4-Bromofluorobenzene	88	Y		0.14	86	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	4-Methyl-2-pentanone	5	N	UJ	1.33	5	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Acetone	5	N	UJ	4.14	5	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Benzene	1	N	UJ	0.26	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Bromodichloromethane	1	N	UJ	0.22	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Bromoform	1	N	UJ	0.37	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Bromomethane	1	N	UJ	0.52	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Carbon Disulfide	1	N	UJ	0.27	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Carbon Tetrachloride	1	N	UJ	0.27	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Chlorobenzene	1	N	UJ	0.18	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Chloroethane	1	N	UJ	1.52	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Chloroform	1	N	UJ	0.42	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Chloromethane	1	N	UJ	0.38	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	cis-1,3-Dichloropropene	1	N	UJ	0.13	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Dibromochloromethane	1	N	UJ	0.32	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Ethylbenzene	1	N	UJ	0.15	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Hexachlorobutadiene	1	N	UJ	0.27	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Methylene Chloride	1.3	Y	J	1.05	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Styrene	1	N	UJ	0.15	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Tetrachloroethene	1	N	UJ	0.55	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Toluene	1	N	UJ	0.15	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Toluene-d8	95	Y		0	88	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	trans-1,3-Dichloropropene	1	N	UJ	0.64	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Trichloroethene	1	N	UJ	0.28	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Vinyl Chloride	1	N	UJ	0.43	1	ug/L
BN-EP-27-QT4	AH10957	EPA 8260B	09/16/2005	S	1	Xylenes (total)	1	N	UJ	0.52	1	ug/L
BN-EP-27-P111 (AH10932)	0509430-01A	VSK-175	9/16/2005	WG	1	Methane	0.01	N	U	0.0029	0.01	uG/mL
BN-EP-27-P111 (AH10932)	0509430-01A	VSK-175	9/16/2005	WG	1	Ethane	0.01	N	U	0.0024	0.01	uG/mL
BN-EP-27-P111 (AH10932)	0509430-01A	VSK-175	9/16/2005	WG	1	Ethene	0.01	N	U	0.0023	0.01	uG/mL
BN-EP-27-MW331 (AH10935)	0509430-02A	VSK-175	9/16/2005	WG	1	Methane	0.01	N	U	0.0029	0.01	uG/mL
BN-EP-27-MW331 (AH10935)	0509430-02A	VSK-175	9/16/2005	WG	1	Ethane	0.01	N	U	0.0024	0.01	uG/mL
BN-EP-27-MW331 (AH10935)	0509430-02A	VSK-175	9/16/2005	WG	1	Ethene	0.01	N	U	0.0023	0.01	uG/mL
BN-EP-27-QT4 (AH10957) Trip Blank	0509430-03A	VSK-175	9/16/2005	WG	1	Methane	0.01	N	U	0.0029	0.01	uG/mL
BN-EP-27-QT4 (AH10957) Trip Blank	0509430-03A	VSK-175	9/16/2005	WG	1	Ethane	0.01	N	U	0.0024	0.01	uG/mL
BN-EP-27-QT4 (AH10957) Trip Blank	0509430-03A	VSK-175	9/16/2005	WG	1	Ethene	0.01	N	U	0.0023	0.01	uG/mL

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Metals 6010B/ 7471A
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous and solid**	**Nitric Acid**	**Temp (^oC): 5.7 & 4.9 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEPD**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-P111	AH10932
BN-EP-27-MW331	AH10935
BN-EP-27-SED11	AH10949
BN-EP-27-SED-XD17	AH10950 (Field Duplicate of AH0949)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No sample qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	<u>Field sample 949/Field duplicate 950</u> FD RPDs > MPC for As, Ba, Ca, Cu, Fe, Pb, Mn, Ni, Va, & Zn. Co detected in 949 but not in 950. These detects qualified J and nondetect UJ.	X	As, Ba, Ca, Cu, Fe, Pb, Mn, Ni, Va, & Zn detects qualified J in sample 949 and 950. Co was qualified J in 949 and UJ in 950.	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	All % solids > 30%. No samples qualified.	X-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL or >IDL. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Metals 6010B/ 7471A
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Aqueous preparation blank was non-detect for all MNA metals. Solid preparation blank had detect for Al and Fe. Sample results >5X blank level. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	W-LCS %R's were within MPC except for Fe, which exceeded the UCL. S-LCS %Rs < LCL for Ag and > UCL for Al.	X	Fe qualified J in samples 932 & 935. Ag qualified UJ and Al qualified J in samples 949 & 950.	
LCS/LCSD RPD	1) RPD<20%	All W-LCS/LCSD RPDs > MPC. All S-LCS/LCSD RPDs within MPC. No sediment samples qualified.	X	Fe and Mn detects qualified J in samples 932 & 935.	
MS Recovery	1) 75-125% ICP metals and Hg if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	No aqueous MS analysed. Field sample 949 used for MS/MSD. MS and MSD %Rs < 30% for Ag, Sb, and Zn. %Rs < LCL for Ba, Na, and Pb. Ag and Sb nondetects rejected Zn qualified J. Ba, Na, and Pb qualified UJ or J. %Rs > UCL for Be, Cr. Be was a nondetect and Cr was qualified J. Native Fe and Mn level > 4X the spike amount for Al, Fe, Mn and were not evaluated. Matrix bias noted for sediment samples.	X	Ag and Sb qualified R, Zn detect qualified J, Ba, Cr &, Pb detects qualifed J and Na nondetect qualified UJ in sample 949.	
MS/MSD RPD	MS/MSD RPD<20%	Field sample AH10816 used for MS/MSD. MS/MSD RPD < 20%. RPD within MPC. As. Laboratory precision is acceptable.	-	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Laboratory duplicate analysed for sample 949. RPD > MPC for As, Ba, Co, Fe, Mn, Pb, V, Zn.	-	As, Ba, Co, Fe, Mn, Pb, V, Zn qualified J in sample 949.	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Dilution Factor = 1 for all aqueous samples. No project action limits for MNA metals. The MRLs were within the MNA technical letter requirements except for Mn (MRL = 2.5). The Mn IDL is less than the MNA technical Letter MRL. Sediment samples diluted to bring results in calibration range. Sensitivity is acceptable.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Metals 6010B/ 7471A
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ)	No negative blank detections. No samples qualified.	X	-	
Initial Cal Multipoint	1) Blank and 3 standards covering range of instrument. 2) high standard verification +/- %5 3) Hg 5-point calibration COD>0.99	All COD's > 0.99 in all initial calibration runs for all methods. No sample qualifications.	X	-	
Initial Calibration Blanks (ICB)	1) Ical blank after Ical 2) Results > QL; sample results <5X ; sample result U (nd) 3) Blank concentrations < project RLs 4) Sample results >5X blank level; no action 5) ABS >RL then J qualify data	No ICB detects – no samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	1) CCB every 10 samples end of run 2) Blank concentrations < project RLs 3) Results > QL; sample results <5X ; sample result U 4) Sample results >5X blank level; no action ABS >RL then J qualify data.	No CCB detects – no samples qualified.	X	-	
Serial Dilution	1) once per digestion batch 2) Not required per QAPP- no criteria provided. 3) %D<10% 4) %D not evaluated if element results is <50X IDL 5) J detects, UJ non-detects.	Serial dilution analyzed on sample 949. Serial dilution acceptable for detects >50X IDL except Fe which exceeded cal range in the undiluted analysis. No samples qualified.	X	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J (if DL is <10 ug/l use 2X DL). 7) Absolute value of negative ICS-A response>DL and sample detects <5X ICS-A response: detects J, NDs as UJ 8) If the ICS-A is within limits, the ICS-AB may not be analyzed (USACE Shell)	Both ICS-A and ICS-AB %R's within MPC limits for all runs. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R) Hg 80-120%	All ICV %R's within MPC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	All CCV %R's within MPC limits. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Metals 6010B/ 7471A
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachment A-1)	PDS was analyzed for sample 949. The PDS recovery for As &Sb < MPC and Be and Cr > MPC. Native Al, Fe and Mn levels > 4X the spike amount.	-	Al, Sb qualified R and Cr qualified J in sample 949.	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
Tune Check	Within Method limits.	NA	-		
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The laboratory accuracy for MNA metals matrix is acceptable except for Fe LCS %R which exceeded the UCL. Sediment matrix LCS %Rs low for Ag and high for Al. MS/MSD %Rs < 30% for Ag, Sb, Zn; low %Rs for Ba, Na; Pb; and high %Rs for Be, Cr. PDS %Rs confirmed for Ag, Be, Cr, Sb. Probable matrix interference in the sediment matrix. The laboratory precision is poor for MNA metals with all RPDs high. The laboratory precision for sediment matrix was acceptable except for As, Ba, Co, Fe, Mn, Pb, V and Zn with high laboratory duplicate RPDs. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Field sample 949/ field duplicate 950 Field sampling precision low with FD RPDs > MPC for all detects.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

ECC Region I Data Review Worksheet (rv 3) **Pesticides 3510C/3545/8081A**
Project:NAS Brunswick Sites 1&3 ECC Job No. 5700 **Review Criteria: Sites 1, 3 & EP QAPP & USEPA Region I Tier II Guidance**

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Solid**	**None**	**Temp (^oC): 5.7, 4.9^oC**	**Northeast Laboratory, ME**	**NEL #** **BNASEPD**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-SED11	AH10949
BN-EP-27-SED-XD17	AH10950

Note: Samples are described below in the data worksheets by reference to the last few digits of the Lab Sample Number

REVIEW ITEMS	MEASUREMENT PERFORMANCE CRITERIA (MPC)	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures < 6 ^oC. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 7 days to extract (14 days for solids) and 40 days to analysis J –detects, UJ or R – nondetects (function of time)	Dates collected: September 16, 2005. Date extracted: September 23, 2005. Date analyzed: October 13, 2005. All samples extracted and analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	%solids > 30% in the sediment samples.	X	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Attached data summary table. No results >MDL but <PQL/RL or exceeding upper calibration range.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG.	-	-	
Surrogates	Surrogate acceptance limits not specified in the LTMP. Use laboratory statistical limits. TMX 30-150% DCB 30-150% Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	All surrogate recoveries within MPC limits. No sample qualifications.	X	-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab)	Gamma-BHC was the only detected result in the samples – was not detected in both columns in the MB. No sample qualifications.	X	-	

REVIEW ITEMS	MEASUREMENT PERFORMANCE CRITERIA (MPC)	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
LCS Recovery	1) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects Attachment A-2 LTMP; Gamma-BHC (Lindane) 56-123% Heptachlor 40-131% Aldrin 40-120% Dieldrin 52-126% Endrin 56-121% 4,4'-DDT 38-127%	All LCS recoveries within MPC limits. No sample qualifications.	X	-	-
MS/MSD Recovery	1) QAPP limits (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL J detects, UJ -NDs >UCL J detects Attachment A-2 LTMP; Gamma-BHC (Lindane) 56-123% Heptachlor 40-131% Aldrin 40-120% Dieldrin 52-126% Endrin 56-121% 4,4'-DDT 38-127%	Native samples – AH10949 Recoveries for delta-BHC were above MPC and for hexachlorobenzene were below MPC.	X	Hexachlorobenzene was qualified UJ in sample AH10949.	-
MS/MSD RPD	MS/MSD RPD per QAPP Attachment A-2 Gamma-BHC (Lindane) <15% Heptachlor <20% Aldrin <22% Dieldrin <18% Endrin <21% 4,4'-DDT <27% J –detects in MS sample UJ-non detects	Native samples – AH10949 AH10949 MS/MSD: RPDs above MPC for alpha-BHC, lindane, heptachlor epoxide, endosulfan II, and methoxychlor.	X	Alpha-BHC, lindane, heptachlor epoxide, endosulfan II, and methoxychlor qualified UJ in AH10949.	
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5%, symmetrical peakshape. GPC check with interferants. Good surrogate recovery, GPC blank check – no carryover.(VOA/SV-IX-I6). Sulfur and High MW compounds removed. SW-846 clean-up not required	NA	-	-	
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 50% soil and <30% waters for Results >2X PQL (FD pair only) J-detects (both > X PQL) 2) If one >2X PQL, other ND, J-detections, UJ non-detect Other conditions use judgement	Field Duplicate pairs – <u>Field sample 949/Field supplicate 950</u> All results non-detects in both samples. No sample qualifications.	X		

REVIEW ITEMS	MEASUREMENT PERFORMANCE CRITERIA (MPC)	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
DDT Degradation check	Degradation Breakdown (BD) Check every 12 hours and prior to sample analysis. DDT Breakdown: <15% for all checks associated with samples. Endrin Breakdown: <15% for check prior to sample analysis. If BD>15% J detects Endrin/DDT.	Instrument: 5890S. Endrin and DDT breakdown within MPC limits for all EVAL standard associated with samples. No sample qualifications.	X	-	
Initial Cal (Linearity)	Correct calibration stds %RSD < 20% use average RF for calibration %RSD> 20% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20% for all target analytes, with no analyte %RSD>40%	Instrument: 5890S. Dates: October 4, & 13, 2005. COD >0.99 for both columns. No sample qualifications.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	No second source ICV analyzed. See CCVs.	-	-	
CCV	1) QAPP: 15% of initial calib. Curve (85%-115%) . J qualify data. 2) Qualification-J detects, R or UJ NDs	Instrument: 5890S. CCV: October 13, 2005: 4,4'-DDT and methoxychlor %Ds above MPC on both columns. Qualified in samples 949 and 950 All other %D's were within MPC limits in one or both columns.	X	4,4'-DDT and methoxychlor were qualified UJ in samples 949 and 950.	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP 2) %D <25% primary and secondary column identification and quantitation 3) Target compounds by 8081 Lindane PQL 0.05 ug/L MCL/MEG 0.2 4,4' DDT PQL 0.02 ug/L MEG/0.83	There were no detects in any samples. No sample qualifications.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory results, as qualified, are usable for making project decisions. All surrogate, LCS, MS/MSD recoveries and MS/MSD RPD's were within MPC limits. ICAL, ICV and CCV are within MPC limits for all samples except 4,4'-DDT and methoxychlor CCV %Ds>MPC. No method blank detection for the compound. All results were non-detects in the field duplicate pair. Acceptable sampling precision as results were similar.	X	-	-

*(Tier III check items) Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

VOCs 5030B/5035/8260B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl, MeOH, $NaHSO_4$**	**Cooler Temps (°C): 5.7 & 4.9°C**	**Northeast Laboratory-ME (NEL-ME)**	**NEL # BNASEPD**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW319D	AH10931
BN-EP-27-P111	AH10932
BN-EP-27-XD2	AH10933 (Field duplicate of AH10932)
BN-EP-27-MW331M	AH10934
BN-EP-27-MW332M	AH10936
BN-EP-27-MW311M	AH10937
BN-EP-27-MW311D	AH10938
BN-EP-27-EW5A	AH10939
BN-EP-27-RAW INFLUENT	AH10940
BN-EP-27-COMB EFFLUENT	AH10941
BN-EP-27-XD8	AH10942 (Field Duplicate of AH10941)
BN-EP-27-MW212S	AH10943
BN-EP-27-MW212S (dilution analysis)	AH10943
BN-EP-27-SW10	AH10944
BN-EP-27-SW11	AH10945
BN-EP-27-SW13	AH10946
BN-EP-27-SW14	AH10947
BN-EP-27-SW-XD16	AH10948 (Field Duplicate of AH10946)
BN-EP-27-SEEP11	AH10951
BN-EP-27-SEEP-XD15	AH10952 (Field duplicate of AH10951)
BN-EP-27-SW12	AH10953
BN-EP-27-XD5	AH10954 (Field Duplicate of AH10953)
BN-EP-27-EW2A	AH10955
BN-EP-27-EW1	AH10956
BN-EP-27-QT4	AH10957

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inventory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3) **VOCs 5030B/5035/8260B**
Project: NAS Brunswick ECC Job No. 5700 **Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	Samples 956 and 957 were analyzed outside the prescribed holding time. These samples were qualified J or UJ. Other samples were analyzed within the holding time.	X	All compounds qualified J or UJ in samples 956 and 957.	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	NA	X	.	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	Four aqueous method blanks (09/28, 10/29, &10/30/05) had a detect for hexachlorobutadiene at 0.66, 2.22, 1.96, and 0.56 ug/L. This compound was not detected in the samples. No samples were qualified. .	X	-	
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Trip blank BN-EP-27-QT4 was analyzed. Methylene chloride was present but it was non-detect in all field samples. No samples qualified. Note: Not all coolers contained a trip blank.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <PQL/RL .	X	J for all samples with estimated results <MRL but >MDL.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*TICs (if reported)	1) *verify library search for samples and blanks 2) verify TICs were not misreported compounds (different fraction or miss in search) 3) All TICs – J estimated 4) * verify blanks do not contain TIC peaks 5) * check TIC assignment spectra to STD spectra 6) *review blank and Samples for common lab contaminants	None Reported/not evaluated	-	-	
Surrogates	1,2-Dichloroethane-d4 76-114% Dibromofluoromethane 86-118% Toluene-d8 88%-110% 4-BFB 86-115% *check raw data for surrogate (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	All surrogate recoveries were within the QAPP limits except for one low surrogate an LCS analysis. No samples were qualified.. Note: QAPP surrogate dibromofluoromethane was not utilized.	X	-	
LCS Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	LCS/LCSD 9/28/05 (23:27): All %Rs within the MPC limits. No samples were qualified. LCS/LCSD 9/29/05 (14:03): Acetone in LCS had %R above the MPC. Detects for acetone was qualified J. LCS /LCSD 09/30/05: LCS %R was below the limit for methylene chloride. Non-detects for MeCl were qualified UJ. LCS/LCSD 09/30/05-10/1/05: All %Rs within the MPC limits. No samples were qualified.	X	Acetone detect was qualified J in sample 943. Non-detects for MeCl were qualified UJ in samples 946, 947, 948, 951, 952, 953, and 954.	
LCSD RPD	RPD=20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J-detects	LCS/LCSD 9/28/05 (23:27): RPDs above the limit for methylene chloride and hexachlorobutadiene. No samples were qualified. LCS /LCSD 09/29/05: RPDs above the limit for acetone, 2-hexanone, and hexachlorobutadiene. Acetone detect qualified J. No samples were qualified. LCS /LCSD 09/30/05: RPDs above the limit for methylene chloride and hexachlorobutadiene. No samples were qualified. LCS/LCSD 09/30/05-10/1/05: RPDs >20% for chloromethane, vinyl chloride, and methylene chloride. No samples were qualified.	X	Acetone detect qualified J in sample 943.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*MS/MSD/unspike sample RSD	1) For unspiked compounds if reported, Non-MS spike compounds <50% RSD calculated MS/MSD/unspiked Qualification: >50% RSD J-detects 2)*recalculated the RPD (within 10% of lab)	NA		-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	AH10941MS/MSD: All MS and MSD %Rs were within the limits. No samples were qualified. AH10946MS/MSD: Acetone had 0% recoveries. Acetone was qualified J in the native sample. AH10951 MS/MSD: All %Rs were within the limits. No samples were qualified.	X	Acetone detect was qualified J in sample 946.	
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	AH10941MS/MSD: All RPDs <20%. No samples were qualified. AH10946MS/MSD: 24 of 36 RPDs were >20%. All VOC compounds were qualified J for detects and UJ for nondetects in the native sample. AH10951 MS/MSD: 32 of 36 RPDs were >20%. All VOC compounds were qualified J for detects and UJ for nondetects in the native sample.	X	All target VOCs were qualified J for detects and UJ for nondetects in samples 946 and 951.	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	Field samples and field duplicates collected/analyzed with this SDG: <u>Field sample 941 / Field duplicate 942</u> <u>Field sample 932 / Field duplicate 933</u> There were no detects for target VOCs in these duplicate pairs. <u>Field sample 953 / Field duplicate 954</u> Acetone was detected in both samples with RPD >30%. Trichloroethene and tetrachloroethene (<MRL) present in 954 which were not in 953. <u>Field sample 946/ Field duplicate 948</u> Acetone was detected in both samples with an RPD >30%. Acetone was qualified in this duplicate pair.	X	Acetone was qualified J in sample 953 and 954. Trichloroethene was qualifed UJ in 953 and J in 954 Acetone was qualified J in samples 946 and 948.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		Field sample 951/ Field duplicate 952 1,1,1-TCA, 1,2-DCE, TCE, and PCE were present I both samples with RPDs <30%. Acetone was detected in 951 but not in 952. However the concentration was < MRL. No samples were qualified. Overall precision acceptable except as noted.			
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) PFB = Pentafluorobenzene 9) FBZ = 1,4-difluorobenzene 10) CBZ = chlorobenzene-d5 11) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all aqueous samples except low DCB %R in sample 946. Due to a laboratory error, no re-analysis was run. Hexachlorobutadiene was qualified UJ.	X	Hexachlorobutadiene was qualified UJ in sample 946.	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	One sample was analyzed at a dilution. MRLs are less than LTMP QAPP MRLs. MRLS are less than MEG (except for vinyl chloride) and MCLs.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 (J –detects, R NDs) 5) RRF>0.05 all compounds 6) RRT < 0.06 units (all stds within 30 sec) 7) %RSD<15% for all non-CCCs or COD>0.99 *8) RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)/* 9) *verify that instrument parameters met method and that Ical and analysis used	Instrument MS1 9/25/05: All RRFs, CCCs and SPCCs within MPC limits for all VOCs of concern. No samples qualified	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	the same parameters 10) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 11) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)				
Initial Cal (Linearity)	%RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 Qualification for compounds with : %RSD>30% and RRF>0.05 – J detects, UJ - NDs %RSD<30% and RRF<0.05; -J detects, R - ND %RSD>30% and RRF<0.05: J detects, R - ND (see VOA/SVIII-4)	Instrument MS1 9/25/05: %RSD>15% but the COD>0.99. Bromomethane and methylene chloride calibration curve is linear. No samples qualified.	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	Instrument MS1 All %Ds within MPC. No samples qualified.	X		

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
CCV	1) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 2) RRF all compounds > 0.05 3) CCC: (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC) %D<20% (or all analytes if no CCCs reported). 4) Qualification-J detects, R or UJ NDs 5) *verify same instrument and parameters 6) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 7) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 8) *IS RRT<0.06 units (30 sec) 9) * IS area -50 % to 100 % of last ICAL 10) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 11) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/28/05: Methylene chloride has %D>MPC. 09/29:05: Acetone and chloroethane have %Ds>MPC. These compounds were qualified J or UJ in the associated samples. 09/30/05 8:13: Methylene chloride has %D>MPC. 09/30/05 20:31: All %Ds within MPC. No samples qualified.		MeCl was qualified UJ in samples 931, 932, 933, 934, 936, 937, 946, 947, 948, 951, 952, 953, and 954. Acetone and chloroethane were qualified J or UJ in samples 938, 939, 940, 941, 942, 943, 944, and 945	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The aqueous results are usable for making project decisions, as qualified. Two samples, 956 and 957, were analyzed outside the holding time. All aqueous LCS/MS/MSD recoveries were within MPC limits with the following exceptions: Acetone %R >MPC (9/29), Mecl%R < MPC (9/30). Acetone was not recovered in 946MS/MSD. The LCSD/MSD RPDs were above the limits for MeCl and hexachlorobutadiene (9/28), acetone, 2-hexanone, hexachlorobutadiene (9/29), MeCl, hexachlorobutadiene, chloromethane, vinyl chloride (9/30). Majority of MSD RPDs (946MSD & 951MSD) were above the MPC. ICV: All %Ds within the limits. CCV: 09/28/05-MeCl %D >MPC. 09/29/05: Acetone and chloroethane %Ds>MPC. 09/30/05: MeCl %D >MPC. Method blanks had a detect for hexachlorobutadiene but it is not detected the samples. The reports MRLs and MDLs provide adequate sensitivity to support evaluation against MEG and MCLs for all compounds except vinyl chloride.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		Sampling Error Evaluation : Trip blank had a detect for methylene chloride but was not detected in any of the samples. No apparent field cross contamination. Field duplicate was collected and analyzed as part of this SDG. There were no detects for target VOCs in these duplicate pairs. <u>Field sample 953 / Field duplicate 954</u> Acetone was detected in both samples with RPD >30%. Trichloroethene and tetrachloroethene (<MRL) present in 954 which were not in 953. <u>Field sample 946/ Field duplicate 948</u> Acetone was detected in both samples with an RPD >30%. Acetone was qualified in this duplicate pair. Field sample 951/ Field duplicate 952 1,1,1-TCA, 1,2-DCE, TCE, and PCE were present I both samples with RPDs <30%. Acetone was detected in 951 but not in 952. However the concentration was < MRL. No samples were qualified. Overall precision is acceptable.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

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ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030B/5035/8260BSIM 1,4-Dioxane
Review Criteria: Region I Tier II Guidance and EIASOP-VOADIOX1(5/21/03)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**None**	**Cooler Temps (°C): 5.7 & 4.9**	**Northeast Laboratory-ME (NEL-ME)**	**NEL SDG# BNASEPD**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-MW331	AH10935
BN-EP-27-COMB EFFLUENT	AH10941
BN-EP-27-XD8	AH10942 (Field Duplicate of AH10941)
BN-EP-27-QT4	AH10957

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6°C 3) Unpreserved 4) No headspace	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 14 Days to analysis, 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Surrogates	Surrogate: 1,4-dioxane-d8 (60-140%) *check raw data for surrogated (recalculate 10% of them). *Transcription errors Qualification: >UCL, J- detects %R <10% J-detects, R-NDs %R>10% but <70% J-detects, UJ-NDs	All surrogate recoveries were within the QC limits. No samples were qualified.	X	-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	The aqueous method blanks of 09/19/05 and 09/22/05 did not have a detect for 1,4-dioxane. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Trip blank BN-EP-27-QT4 was analyzed with no target compound detect. No samples qualified.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Repoted detects < upper cal range and > PQL. No samples qualified.	X	-	
LCS Recovery	1) 1,4-Dioxane 60-140% 2) 10% and <LCL% J detects, UJ –NDs 3) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All recoveries were within the MPC. No samples were qualified.	X	-	
LCSD RPD	RPD ≤ 20% (aq) No a method specific check. J-detects	The LCS/LCSD RPD < 20%. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD Recovery	1) 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 4) * Recalucate the %R (within 10% of lab)	AH10941MS/MSD: All %Rs within MPC. No samples qualified.	X	-	
MS/MSD RPD	RPD ≤ 20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	AH10941MS/MSD: RPD < 20%. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 5) *Recalculate the concentrations for one compound and the PQL	<u>Field sample 941/field duplicate 942</u> 1,4-Dioxane was detected in both samples with an RPD of 5.2%. No samples were qualified. Field sampling precision is acceptable.	X	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) FBZ = 1,4-difluorobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all samples.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	The MRL is 1.00 ppb(ug/L) which is consistent with the EPA Region I method. Sensitivity is acceptable.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)				
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) RRF criteria not part of method. This VOC falls under the *RRF exclusion of Section (IV-8) Tier II guidance.* 4) %RSD<30% Qualification for compounds with : %RSD>30% J detects, UJ -NDs %RSD<30% J detects, R - ND %RSD>30%: J detects, R - ND	Instrument MS1 9/19/05: %RSD <30%. No samples qualified	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	Instrument MS1 9/19/05: %D within MPC limits. No samples qualified	X	-	
CCV	1) %D<30% 2) before analysis and every 12 hours. 3) Qualification-J detects, R or UJ NDs 4) *verify same instrument and parameters 5) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 6) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 7) *IS RRT<0.06 units (30 sec) 8) * IS area -50 % to 100 % of last ICAL 9) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/19/05, 09/20/05,and 09/21/05: All %Ds <30%. No samples qualified.		-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Laboratory accuracy is acceptable. Laboratory precision is acceptable The aqueous results are usable for making project decisions. All aqueous LCS/LCSD/MS/MSD recoveries and RPDs were within MPC limits. Sampling Error Evaluation : Trip blank was non-detect for 1,4-Dioxane. No apparent field cross-contamination noted. Field duplicate pair: Field sample 941/Field duplicate942 Both samples had a detect for 1,4-dioxane with an RPD of 8.7%. Overall precision is acceptable.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

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ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030/Region I Methane SOP aka VSK-175
Review Criteria: Region I Tier II Guidance and VSL-175 SOP(EPA2001)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**Cooler Temps (°C): 5.7 & 4.9 at NEL, 2.4 at ATL**	**Air Toxic Laboratory (ATL), Folsom, CA**	**ATL SDG: 0509430 NEL #: BNASEPD**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-P111	0509430-01A (AH10932)
BN-EP-27-MW331	0509430-02A (AH10935)
BN-EP-27-QT4	0509430-03A (AH10937)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. NEL subcontracted analysis to ATL. Samples were received at ATL with custody seals intact. Unbroken Chain of Custody.	X	-	
Holding Time	1) 14 Days to analysisJ –detects, UJ or R –nondetects (function of time) 2) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	.	
Lab Blanks (method blanks)	1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	Associated method blank was non-detect. No samples were qualified.	X	-	
Trip Blank	1) < MRL 2) TGT analytes <Lab QL (contact lab) - for soils indicate cross matrix TB (X rules apply to raw data) 3) MeCl & Acetone < 5 4) >RL report sample level U 5) <RL report PQL as U	Trip blank BN-EP-27-QT4 was analyzed with no target compound detects. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. No detects in the samples. No samples qualified.	X	-	
LCS/ LFB Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 6) *Recalculate the concentrations for one compound in the LCS 7) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All LCS %Rs are within MPC limits. No samples qualified.	X	-	
Laboratory Duplicate	RPD<20%	Laboratory duplicate analyzed using sample 932. Non-detects in sample and duplicate.	X	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	No MS/MSD analyzed.	-	-	
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	No MS/MSD analyzed.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	No field duplicate collected/analyzed with this SDG.	-	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	The VSL-175 MRL is 10 ug/L, which has been met by this analytical method. No project action limits are specified for these parameters. However, 1ug/L was established as a monitored natural attenuation parameter for these VOCs. For this analysis the MDLs are greater than 1 ug/L. Methane: 2.9 ug/L Ethane: 2.4 ug/L Ethene: 2.3 ug/L Poject sensitivity does not meet the MNA technical letter criteria. The MRL is equal to or greater than the Weidemeir scoring criteria, as follows: Methane: 500 ug/L Etane: 10 ug/L Ethene: 10 ug/L Analytical sensitivity is adequate to address MNA evaluation, but not acceptable per the MNA technical letter.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) COD>0.995 3) Lowest gas standard S/N ratio >5 4) These VOC fall under the *RRF exclusions of Section (IV-8) Tier II guidance* as these VOCs have poor purge efficincies which is acknowledged in the method. 5) RF for ethane and ethane within 25% 6) RF for methane within 25% of ½ of the ethane/ethane average RF.	COD not determined. %RSD < 15%. No samples qualified.	X	-	
2nd Source ICV	The ICV is optional per method. %D<25% Qualification: J detects, R or UJ NDs	Same as LCS. All %Ds < 25%within MPC. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
CCV	1) %D<20% 2) every 4 hours or 25 samples and at the end of the sample batch. 3) Qualification-J detects, R or UJ NDs 4) *verify same instrument and parameters 5) *Recalculate RR for one tgt cmpd associated with each IS. (within 10%) 6) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 7) *IS RRT<0.06 units (30 sec) 8) * IS area -50 % to 100 % of last ICAL 9) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	All CCV %Ds < 20%. No samples qualified.			
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Laboratory accuracy and precision are acceptable with all LCS %Rs and LD RPDs within MPC limits. ICAL: within MPC. ICV: within MPC limits. CCV: within MPC limits. Analytical sensitivity is acceptable for evaluation of MNA gases using the Weidemeier scoring criteria. The MNA VOCs have an MDL> the MNA technical letter requirement of quantitaion at 1.0 ppb. Sampling Error Evaluation : Trip blank was non-detect for all target VOCs. There is no apparent field cross contamination. No field duplicate was collected and analyzed.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**TOC-acid Nitrate/nitrite -acid**	**Temp (^oC): 5.7 & 4.9 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEPD**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-27-P111	AH10932
BN-EP-27-MW311	AH10938

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation acceptable. No sample qualified.	X	-	
Holding Time	1) Alk- 14days, Cl–28 days, Fe(II) <24 hours, Nitrate/Nitrite–28 days, SO4–28 days, TOC–28 days & nitrite–2 days. Per methods 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	No field duplicate collected/analyzed.	-	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL and >IDL. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blank was non-detect. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	All LCS %R's were within MPC. Laboratory accuracy is acceptable.	X	-	
MS Recovery	1) 75-125% (if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	MS was analyzed for nitrate, TOC, and alkalinity using sample 935. %Rs within MPC. No samples qualified.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Laboratory duplicate analyzed for alkalinity, TOC and nitrate using sample 935 with RPDs within MPC. No samples qualified.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Sensitivity is acceptable per Table 1 of MNA report.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Initial Cal Multipoint	1) Within laboratory MPC.	All initial calibrations acceptable. No sample qualifications.	X	-	
Continuing Calibration Blanks (CCB)	1) Within laboratory MPC.	No CCB detects – no samples qualified.	X	-	
2nd Source ICV	1) Within laboratory MPC.	All ICV %R's within MPC limits. No samples qualified.	X	-	
CCV	1) Within laboratory MPC.	All CCV %R's within MPC limits except TOC with ending CCV %R > MPC. TOCs qualified J.	X	TOC qualified J in samples 932 & 935.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The laboratory accuracy is acceptable. Laboratory precision is acceptable. ICAL: Acceptable. ICV: in limits CCV: TOC > MPC. All others in limits Sampling Error Evaluation: No field duplicate analyzed.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

Nitrate and nitrite were reported as detects in EDD but according to the raw data and Form I, they were non-detects. They were changed to non-detects.
TOC detect in sample AH10935 had “N” detect_flag. It was changed to “Y” in the EDD.

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES EP
SEPTEMBER 2005 SAMPLING ROUND 27 (SDG BNASEPE)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE EP MONITORING EVENT 27

DATE: 3/28/2007

Project data were validated using the following Validation Functional Guidelines, as modified for non-CLP methods and project-specific QAPP measurement performance criteria (MPC):

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996),

2. National Functional Guidelines for Evaluation Inorganic Analysis (1988), and

3. National Functional Guidelines for Evaluation Organic Analysis (October 1999).

The data were assessed against the MPC listed in the approved Site 1& 3 and Eastern Plume LTMP QAPP (May 2000). The QAPP MPC and validation guideline exceedences are assessed and documented on the method/QAPP specific data validation worksheets. On these data validation worksheets the data quality acceptance criteria are presented, analytes requiring qualification based on MPC and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated by a method is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Acronym or Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
%M	Percent moisture
%S	Percent solids
Ug/L	Microgram per liter
BD	Breakdown
BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verfication
COC	Chain of custody
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
LTMP	Long term monitoring plan
MeCl	Methylene chloride
MS	Matrix spike

Acronym or Abbreviation	Definition
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following:

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Northeast Laboratory
SDG #: BNASEPE
EPA-NE DV TIER LEVEL: II
SITE NAME: NAS Brunswick – Sites 1&3 and EP

# of SAMPLES/MATRIX: 1 Water
VALIDATION CONTRACTOR: ECC
VALIDATOR'S NAME: Huison Chang
DV Completion Date: April 10, 2006.
Date Sampled: September 22, 2005.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	MNA Ground Water Quality	Methane, Ethane, Ethene (ATL)	1,4-Dioxane	MNA Metals
1	Preservation and HT	O	O	O	O	O
2	Instrument Performance Check	O	O	O	O	O
3	Initial Calibration:	O	O	O	O	O
4	Continuing Calibration:	M	O	O	O	O
5	Blanks:	M	O	O	O	O
6	Surrogate Compounds:	M	O	O	O	-
7	Internal Standards	O	O	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	M	O	-	-	O
9	Sensitivity Check:	O	O	M	O	O
10	PE Samples- Accuracy Check	M	O	O	O	M
11	Target Compound Identification:	O	O	O	O	O
12	Compound Quantitation and Reported QLs	O	O	O	O	O
13	Tentatively Identified Compounds:	-	-	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	-	-	-
15	Data Completeness	O	O	O	O	O
16	Overall Evaluation of Data:	O	O	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): None.

AREAS OF CONCERN: (M items):

VOC: Acetone was qualified J due to high LCS %R and LCSD RPD.

ICV: Acetone, methylene chloride, and 1,1-dichloroethene qualified UJ due to %D > MPC.

CCV: Bromomethane, methylene chloride, 1,2-dichloroethene, and hexachlorobutadiene qualified UJ for non-detects and J for detect in sample AH11290 due to high CCV %Ds.

Metals: Fe was qualified J in sample AH11290 due to LCS %R>UCL and LCS/LCSD RPD > MPC.

Methane, Ethane, Ethene: Sensitivity: MRL is equal to or less than MNA scoring criteria; however, sensitivity does not meet MNA Technical letter requirements.

COMMENTS:

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-26-MW-QS1	AH11290	EPA 300	09/22/2005	L	1	Sulfate	1	N	U	1	1	mg/L
BN-EP-26-MW-QS1	AH11290	EPA 310.1	09/22/2005	L	1	Alkalinity	5	N	U	5	5	mg/L
BN-EP-26-MW-QS1	AH11290	EPA 353.2	09/22/2005	L	1	Nitrate/Nitrite Total	0.1	N	U	0.1	0.1	mg/l
BN-EP-26-MW-QS1	AH11290	EPA 415.1	09/22/2005	L	1	Total Organic Carbon	1	N	U	1	1	mg/L
BN-EP-26-MW-QS1	AH11290	EPA 6010B	09/22/2005	L	1	Arsenic Total,ppb	2.3	N	U	2.3	2.3	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 6010B	09/22/2005	L	1	Iron Total, ppb	100	Y	J	25	25	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 6010B	09/22/2005	L	1	Manganese Total, ppb	2	N	U	2	2	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,1,1-Trichloroethane	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,1,2,2-Tetrachloroethane	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,1,2-Trichloroethane	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,1-Dichloroethane	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,1-Dichloroethene	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,2-Dichloroethane	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,2-Dichloroethane-d4	107	Y		74	76	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,2-Dichloroethene (total)	1	N	UJ	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,2-Dichloropropane	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,4 Dioxane	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	1,4-Dioxane-d8	84	Y		60	60	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	2-Butanone	0.54	Y	J	5	5	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	2-Hexanone	5	N	U	5	5	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	4-Bromofluorobenzene	98	Y		78	86	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	4-Methyl-2-pentanone	5	N	U	5	5	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Acetone	26	Y	J	5	5	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Benzene	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Bromodichloromethane	1	N	U	1	1	ug/L

Field Sample Name	Lab ID	Analytical Method	Sample Date	Matrix	Dilution Factor	Analyte	Result	Detect Y / N	Qualifier	MDL	MRL	Units
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Bromoform	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Bromomethane	1	N	UJ	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Carbon Disulfide	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Carbon Tetrachloride	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Chlorobenzene	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Chloroethane	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Chloroform	1.6	Y		1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Chloromethane	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	cis-1,3-Dichloropropene	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Dibromochloromethane	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Ethylbenzene	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Hexachlorobutadiene	1	N	UJ	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Methylene Chloride	3.8	Y	UJ	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Styrene	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Tetrachloroethene	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Toluene	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Toluene-d8	108	Y		85	88	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	trans-1,3-Dichloropropene	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Trichloroethene	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Vinyl Chloride	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 8260B	09/22/2005	L	1	Xylenes (total)	1	N	U	1	1	ug/L
BN-EP-26-MW-QS1	AH11290	EPA 9056	09/22/2005	L	1	Chloride	1	N	U	1	1	mg/L
BN-EP-26-MW-QS1	AH11290	EPA 9056	09/22/2005	L	1	Nitrite-N	0.2	N	U	0.2	0.2	mg/L
BN-EP-26-MW-QS1 (AH11290)	0509554-01A	VSK-175	9/22/2005	WG	1	Methane	0.01	N	U	0.0029	0.01	uG/mL
BN-EP-26-MW-QS1 (AH11290)	0509554-01A	VSK-175	9/22/2005	WG	1	Ethane	0.01	N	U	0.0024	0.01	uG/mL
BN-EP-26-MW-QS1 (AH11290)	0509554-01A	VSK-175	9/22/2005	WG	1	Ethene	0.01	N	U	0.0023	0.01	uG/mL

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**Nitric Acid**	**Temp (^oC): 4.9 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEPE**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-26-MW-QS1	AH11290

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No sample qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	No field duplicate collected/analyzed.	-	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL or >IDL. No samples qualified.	X	-	
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blank was non-detect for all MNA metals. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	All LCS/LCSD %R's were within MPC except for Fe, which exceeded the UCL. Laboratory accuracy is acceptable.	X	Fe qualified J in the sample.	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

MNA Metals As, Fe, Mn 6010B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
LCS/LCSD RPD	1) RPD<20%	All LCS/LCSD RPDs are within MPC except for Fe with high RPD.	X	Fe qualified J in the sample.	
MS Recovery	1) 75-125% ICP metals and Hg if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	No MS/MSD analyzed.	-	-	
MS/MSD RPD	MS/MSD RPD<20%	No MS/MSD analyzed.	-	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	No lab duplicate analyzed.	-	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Dilution Factor = 1 for all samples. No project action limits for metals. The MRLs were within the MNS technical letter requirements except for Mn (MRL = 2.5). The Mn IDL is less than the MNA technical Letter MRL. Sensitivity is acceptable.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ)	No negative blank detections. No samples qualified.	X	-	
Initial Cal Multipoint	1) Blank and 3 standards covering range of instrument. 2) high standard verification +/- %5 3) Hg 5-point calibration COD>0.99	All COD's > 0.99 in all initial calibration runs for all methods. No sample qualifications.	X	-	
Initial Calibration Blanks (ICB)	1) Ical blank after Ical 2) Results > QL; sample results <5X ; sample result U (nd) 3) Blank concentrations < project RLs 4) Sample results >5X blank level; no action 5) ABS >RL then J qualify data	No ICB detects – no samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	1) CCB every 10 samples end of run 2) Blank concentrations < project RLs 3) Results > QL; sample results <5X ; sample result U 4) Sample results >5X blank level; no action ABS >RL then J qualify data.	No CCB detects – no samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Serial Dilution	1) once per digestion batch 2) Not required per QAPP- no criteria provided. 3) %D<10% 4) %D not evaluated if element results is <50X IDL 5) J detects, UJ non-detects.	Not analyzed.	X	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J (if DL is <10 ug/l use 2X DL). 7) Absolute value of negative ICS-A response>DL and sample detects <5X ICS-A response: detects J, NDs as UJ 8) If the ICS-A is within limits, the ICS-AB may not be analyzed (USACE Shell)	Both ICS-A and ICS-AB %R's within MPC limits for all runs. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R) Hg 80-120%	All ICV %R's within MPC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	All CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachment A-1)	No PDS analyzed.	-	-	-
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
Tune Check	Within Method limits.	NA	-		

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The laboratory accuracy is acceptable except for Fe LCS/LCSD %Rs exceeded the UCL. Laboratory precision is acceptable except for Fe with LCS/LCSD RPD above the limit. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: No field duplicate collected/analyzed with this SDG..	X	-	

*TIER III DATA VALIDATION ONLY

Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

VOCs 5030B/5035/8260B
Review Criteria: Site 1&3/Eastern Plume QAPP & Region I Tier II Guidance/NFG

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous and solid**	**HCl, MeOH, $NaHSO_4$**	**Cooler Temps (°C): 4.9**	**Northeast Laboratory-ME (NEL-ME)**	**NEL # BNASEPE**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-26-MW-QS1	AH11290

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	.	
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	The sample was analyzed within holding time. No sample qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	NA	X	.	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	One aqueous method blank (10/6/05) had detect a detect for MeCl at 4.96 ug/L. MeCl detect in sample 290 was qualified U.	X	MeCl detect in sample 290 was qualified U	
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	No trip blank was analyzed with this SDG.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq	Not collected/analyzed with this SDG.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)				
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <PQL/RL .	X	J for all samples with estimated results <MRL but >MDL.	
*TICs (if reported)	1) *verify library search for samples and blanks 2) verify TICs were not misreported compounds (different fraction or miss in search) 3) All TICs – J estimated 4) * verify blanks do not contain TIC peaks 5) * check TIC assignment spectra to STD spectra 6) *review blank and Samples for common lab contaminants	None Reported/not evaluated	-	-	
Surrogates	1,2-Dichloroethane-d4 76-114% Dibromofluoromethane 86-118% Toluene-d8 88%-110% 4-BFB 86-115% *check raw data for surrogate (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	All surrogate recoveries were within the QAPP limits except for one surrogate above the MPC limit in LCS. No sample qualification. Note: QAPP surrogate dibromofluoromethane was not utilized.	X	-	
LCS Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	Acetone, MeCl, 1,2-DCE in LCS and LCSD and 1,1-DCE, carbon disulfide, hexachlorobutadiene in LCSD have %Rs above the UCL. Acetone detect was qualified J.	X	Acetone detect was qualified J in sample 290.	
LCSD RPD	RPD=20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J-detects	RPDs >20% for acetone, 1,1-DCE, carbon disulfide, hexachlorobutadiene. Acetone detect was qualified J.	X	Acetone detect was qualified J in sample 290.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*MS/MSD/unspike sample RSD	1) For unspiked compounds if reported, Non-MS spike compounds <50% RSD calculated MS/MSD/unspiked Qualification: >50% RSD J-detects 2)*recalculated the RPD (within 10% of lab)	NA		-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	No MS/MSD analyzed.	-	-	
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	No MS/MSD analyzed.	-	-	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL	No field duplicate analyzed for this SDG.	-	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	%R for three compounds (10% of them).				
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) PFB = Pentafluorobenzene 9) FBZ = 1,4-difluorobenzene 10) CBZ = chlorobenzene-d5 11) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable. No sample was qualified.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRLs are less than LTMP QAPP MRLs. MRLS are less than MEG (except for vinyl chloride) and MCLs.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 (J –detects, R NDs) 5) RRF>0.05 all compounds 6) RRT < 0.06 units (all stds within 30 sec) 7) %RSD<15% for all non-CCCs or COD>0.99 *8) RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)/* 9) *verify that instrument parameters met method and that Ical and analysis used the same parameters 10) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 11) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 10/055/05: All RRFs, CCCs and SPCCs within MPC limits for all VOCs of concern. No samples qualified	X	-	
Initial Cal (Linearity)	%RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 Qualification for compounds with : %RSD>30% and RRF>0.05 – J detects, UJ - NDs	Instrument MS1 10/05/05: %RSD>15% but COD > 0.990 for hexachlorobutadiene. No sample qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	%RSD<30% and RRF<0.05; -J detects, R - ND %RSD>30% and RRF<0.05: J detects, R - ND (see VOA/SVIII-4)				
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	Instrument MS1 All %Ds within MPC except acetone, MeCl, trans-1,2-DCE. These compounds qualified UJ in sample.	X	Acetone, MeCl, 1,2-DCE qualified UJ in sample 290.	
CCV	1) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 2) RRF all compounds > 0.05 3) CCC: (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC) %D<20% (or all analytes if no CCCs reported). 4) Qualification-J detects, R or UJ NDs 5) *verify same instrument and parameters 6) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 7) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 8) *IS RRT<0.06 units (30 sec) 9) * IS area -50 % to 100 % of last ICAL 10) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 11) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 10/06:05: %D > 20% for bromomethane, acetone, MeCl, trans-1,2-DCE, and hexachlorobutadiene. These compounds were qualified UJ in sample.		Bromomethane, MeCl, 1,2-DCE, and hexachlorobutadiene were ualified UJ and acetone was qualified J in sample 290.	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The aqueous results are usable for making project decisions, as qualified. All aqueous LCS/MS/MSD recoveries were within MPC limits with the following exceptions: High %Rs were noted for acetone, 1,1-dichloroethene, carbon disulfide, methylene chloride, 1,2-dichloroethene, hexachlorobutadiene. RPDs >20% were noted for acetone, 1,1-DCE, carbon disulfide, hexachlorobutadiene, 4-methyl-2-pentanone, 2-hexanone, and 1,1,2,2-tetrachloroethane. Acetone detect was qualified; remaining compounds were non-detects which did not require qualifications. All surrogate recoveries, except one in LCS, were within the QC lmits and	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		required no qualification. ICV: Acetone, methylene chloride and 1,2-dichloroethene %Ds > MPC and were qualified in the sample. CCV: Bromomethane, acetone, methylene chloride 1,2-dichloroethene, and hexachlorobutadiene %Ds >20% and were qualified estimated UJ or J in the sample. Method blanks had a detect for methylene chloride which was also present in the sample resulting and U qualifier. The reports MRLs and MDLs provide adequate sensitivity to support evaluation against MEG and MCLs for all compounds except vinyl chloride. Sampling Error Evaluation : No trip blank or field duplicate was analyzed with this SDG. The sample was analyzed within holding time.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

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ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030B/5035/8260BSIM 1,4-Dioxane Review Criteria: Region I Tier II Guidance and EIASOP-VOADIOX1(5/21/03)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**None**	**Cooler Temps (°C): 4.9**	**Northeast Laboratory-ME (NEL-ME)**	**NEL SDG# BNASEPE**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-26-MW-QS1	AH11290

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6°C 3) Unpreserved 4) No headspace	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 14 Days to analysis, 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding time. No sample qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	X	-	
Surrogates	Surrogate: 1,4-dioxane-d8 (60-140%) *check raw data for surrogated (recalculate 10% of them). *Transcription errors Qualification: >UCL, J- detects %R <10% J-detects, R-NDs %R>10% but <70% J-detects, UJ-NDs	All surrogate recoveries were within the QC limits. No sample qualified.		-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants 1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	The aqueous method blank of 09/29/05 did not have a detect for 1,4-dioxane. No sample qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate cross matrix TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	No trip blank was collected/analyzed with this SDG.	X	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Not collected/analyzed with this SDG.	-	-	
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	No detect in the sample. .	X	-	
LCS Recovery	1) 1,4-Dioxane 60-140% 2) 10% and <LCL% J detects, UJ –NDs 3) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All recoveries were within the MPC. No samples were qualified.	X	-	
LCSD RPD	RPD ≤ 20% (aq) No a method specific check. J-detects	The LCS/LCSD RPD < 20%. No samples were qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD Recovery	1) 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 4) * Recalucate the %R (within 10% of lab)	No MS/MSD analyzed.	-	-	
MS/MSD RPD	RPD ≤ 20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	No MS/MSD analyzed.	-	-	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 5) *Recalculate the concentrations for one compound and the PQL	No field duplicate collected/analyzed with this SDG.	X	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ, J detects 7) *check for IS transcription errors 8) FBZ = 1,4-difluorobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	The IS %Rs were acceptable for all samples.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	The MRL is 1.00 ppb(ug/L) which is consistent with the EPA Region I method. Sensitivity is acceptable.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 11) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 12) PES > acceptance criteria – Detects in	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	samples J, 13) PES<acceptance criteria – Detects J, NDs –R 14) VOA/SV-XI14 other criteria 15) *% of PES sample above and below criteria 16) *Recalculate concentrations for one tgt compound per PES (10% of lab)				
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	All tunes passed method criteria. No samples qualified.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) RRF criteria not part of method. This VOC falls under the *RRF exclusion of Section (IV-8) Tier II guidance.* 4) %RSD<30% Qualification for compounds with : %RSD>30% J detects, UJ -NDs %RSD<30% J detects, R - ND %RSD>30%: J detects, R - ND	Instrument MS1 9/19/05: %RSD <30%. No samples qualified	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP. %D<25% or %R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal used to evaluate data sets. Qualification: J detects, R or UJ NDs	Instrument MS1 9/19/05: %D within MPC limits. No samples qualified	X	-	
CCV	1) %D<30% 2) before analysis and every 12 hours. 3) Qualification-J detects, R or UJ NDs 4) *verify same instrument and parameters 5) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 6) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 7) *IS RRT<0.06 units (30 sec) 8) * IS area -50 % to 100 % of last ICAL 9) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument MS1 09/29/05: %Ds <30. No samples qualified.		-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Laboratory accuracy is acceptable. Laboratory precision is acceptable The aqueous results are usable for making project decisions. All aqueous LCS/LCSD recoveries and RPDs were within MPC limits. Sampling Error Evaluation : Trip blank and field duplicate were not collected and analyzed as part of this SDG.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

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ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030/Region I Methane SOP aka VSK-175
Review Criteria: Region I Tier II Guidance and VSL-175 SOP(EPA2001)

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**Cooler Temps (°C): 5.9 at NEL, 5.4 at ATL**	**Air Toxic Laboratory (ATL), Folsom, CA**	**ATL SDG: 0509554 NEL #: BNASEPE**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-26-QS1	050954-01A (AH11290)

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. NEL subcontracted analysis to ATL. Samples were received at ATL with with custody seals intact. Unbroken Chain of Custody.	X	-	
Holding Time	1) 14 Days to analysisJ –detects, UJ or R –nondetects (function of time) 2) *transcription errors	All samples analyzed within holding time. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	NA	-	-	
Lab Blanks (method blanks)	1) TGT analytes <Lab QL 2) if linear range is exceeded, verify if a instrument blank was performed 3) *verify accurate transcription of times, Ids, are reported on forms 4) *verify from the raw data if the instrument blank was performed in the same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors	Associated method blank was non-detect. No samples were qualified.	X	-	
Trip Blank	1) < MRL 2) TGT analytes <Lab QL (contact lab) - for soils indicate cross matrix TB (X rules apply to raw data) 3) MeCl & Acetone < 5 4) >RL report sample level U 5) <RL report PQL as U	No trip blank analyzed. No samples qualified.	-	-	
Equip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab)	Not collected/analyzed with this SDG.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	-for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)				
Results > Cal Range or <Cal Range	7) >Upper Cal Range J-detects - ensure instrument blank performed 8) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. No detects. No samples qualified.	X	-	
LCS/ LFB Recovery	1) Attachment A-2 of LTMP 2) All VOCs 60-140% 3) 10% and <LCL% J detects, UJ –Nods 4) >UCL% J detects <10% R NDs, J-detects 6) *Recalculate the concentrations for one compound in the LCS 7) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All LCS %Rs are within MPC limits. No samples qualified.	X	-	
Laboratory Duplicate	RPD<20%	No duplicate analyzd.	-	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 60-140% for all VOCs (if MS>4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 5) * Recalucate the %R (within 10% of lab)	No MS/MSD analyzed.	-	-	
MS/MSD RPD	RPD per the LTMP AttachmentA-2 RPD=20% (when MS >QL) J –detects in MS sample UJ-non detects * recalculate RPD	No MS/MSD analyzed.	-	-	
Field Dup RPD	1) RPD ≤ 30% (FD pair only) J-detects (both > MRL) 2) Note: FD RPD not specified in QAPP. 30% will be used as the MPC, to be consistent with other NASB QAPPs. 3) If one >PQL, other ND, J-detections, UJ	No field duplicate analyzed.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 6) *Recalculate the concentrations for one compound and the PQL				
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 6) * performed annually 7) *MDL is at least ½ of PQL 8) *tgt and surrogate 80-120% R 9) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 11) <u>Dilution factors for samples – impacts to sensitivity</u>	The VSL-175 MRL is 10 ug/L, which has been met by this analytical method. No project action limits are specified for these parameters. However, 1ug/L was established as a monitored natural attenuation parameter for these VOCs. For this analysis the MDLs are greater than 1 ug/L. Methane: 2.9 ug/L Ethane: 2.4 ug/L Ethene: 2.3 ug/L Poject sensitivity does not meet the MNA technical letter criteria. The MRL is equal to or greater than the Weidemeir scoring criteria, as follows: Methane: 500 ug/L Etane: 10 ug/L Ethene: 10 ug/L Analytical sensitivity is adequate to address MNA evaluation, but not acceptable per the MNA technical letter.	X	-	
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 9) *Matrix effects- MS/MSD, surrogated, PDS. 10) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts.	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	11) *overall system contamination-review all blanks for systemic or sporadic contamination				
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) COD>0.995 3) Lowest gas standard S/N ratio >5 4) These VOC fall under the *RRF exclusions of Section (IV-8) Tier II guidance* as these VOCs have poor purge efficincies which is acknowledged in the method. 5) RF for ethane and ethane within 25% 6) RF for methane within 25% of ½ of the ethane/ethane average RF.	COD not determined. %RSD < 15%. No samples qualified.	X	-	
2nd Source ICV	The ICV is optional per method. %D<25% Qualification: J detects, R or UJ NDs	All %Ds < 25%within MPC. No samples qualified.	X	-	
CCV	1) %D<20% 2) every 4 hours or 25 samples and at the end of the sample batch. 3) Qualification-J detects, R or UJ NDs 4) *verify same instrument and parameters 5) *Recalculate RR for one tgt cmpd associated with each IS. (within 10%) 6) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 7) *IS RRT<0.06 units (30 sec) 8) * IS area -50 % to 100 % of last ICAL 9) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	All CCV %Ds < 20%. No samples qualified.			

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Laboratory accuracy is acceptable. LCS %Rs within MPC limits. Sample matrix bias not determined, as MS/MSD was not analyzed. Laboratory preision is acceptable, with laboratory replicate RPDs within MPC limit. ICAL: within MPC. ICV: within MPC limits. CCV: within MPC limits. Sample results are usable as qualified, but the matrix bias has not been determined. Analytical sensitivity is acceptable for evaluation of MNA gases using the Weidemeier scoring criteria. The MNA VOCs have an MDL> the MNA technical letter requirement of quantitaion at 1.0 ppb. Sampling Error Evaluation : No trip blank or field duplicate analyzed.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3, NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**TOC-acid Nitrate/nitrite -acid**	**Temp (^oC): 4.9 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEPE**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-26-MW-QS1	AH11290

Note: Samples are described below in the data worksheets by reference to the last three digits of the Lab Sample Number

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures ≤6°C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation acceptable. No sample qualified.	X	-	
Holding Time	1) Alk- 14days, Cl–28 days, Fe(II) <24 hours, Nitrate/Nitrite–28 days, SO4–28 days, TOC–28 days & nitrite–2 days. Per methods 2) J –detects, UJ or R –nondetects (function of time)	All samples analyzed within holding time. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 30% water (no QAPP Criteria) for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	No field duplicate collected/analyzed.	-	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	NA	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	All detections are greater than the MRL. No <MRL and >IDL. No samples qualified.	X	-	
Lab Blanks (method blank or preparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X; sample result U (ND) 3) Sample results >5X blank level; no action	Preparation blank was non-detect except alkalinity at 0.8mg/L; alkalinity is a non-detect in the sample. No sample qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 80-120% ICP metals and Hg. 3) <LCL% Reject 4) >UCL% detects J	All LCS %R's were within MPC. Laboratory accuracy is acceptable.	X	-	

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3, NO_2, NO_2, SO_4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
MS Recovery	1) 75-125% (if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	No MS analyzed.	-	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	No laboratory duplicate analyzed	-	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Sensitivity is acceptable per Table 1 of MNA report.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	
Initial Cal Multipoint	1) Within laboratory MPC.	All COD's > 0.99 in all initial calibration runs for all methods. No sample qualifications.	X	-	
Continuing Calibration Blanks (CCB)	1) Within laboratory MPC.	No CCB detects – no samples qualified.	X	-	
2nd Source ICV	1) Within laboratory MPC.	All ICV %R's within MPC limits. No samples qualified.	X	-	
CCV	1) Within laboratory MPC.	All CCV %R's within MPC limits. No samples qualified.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: The laboratory accuracy is acceptable. Laboratory precision is acceptable. ICAL: COD within limits. ICV: in limits CCV: TOC > MPC. All others in limits Sampling Error Evaluation: No field duplicate analyzed.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):
Chloride was reported as a detect with a "N" detect_flag. According to the raw data, it is a non-detect. EDD was revised with an addition of U laboratory qualifier.