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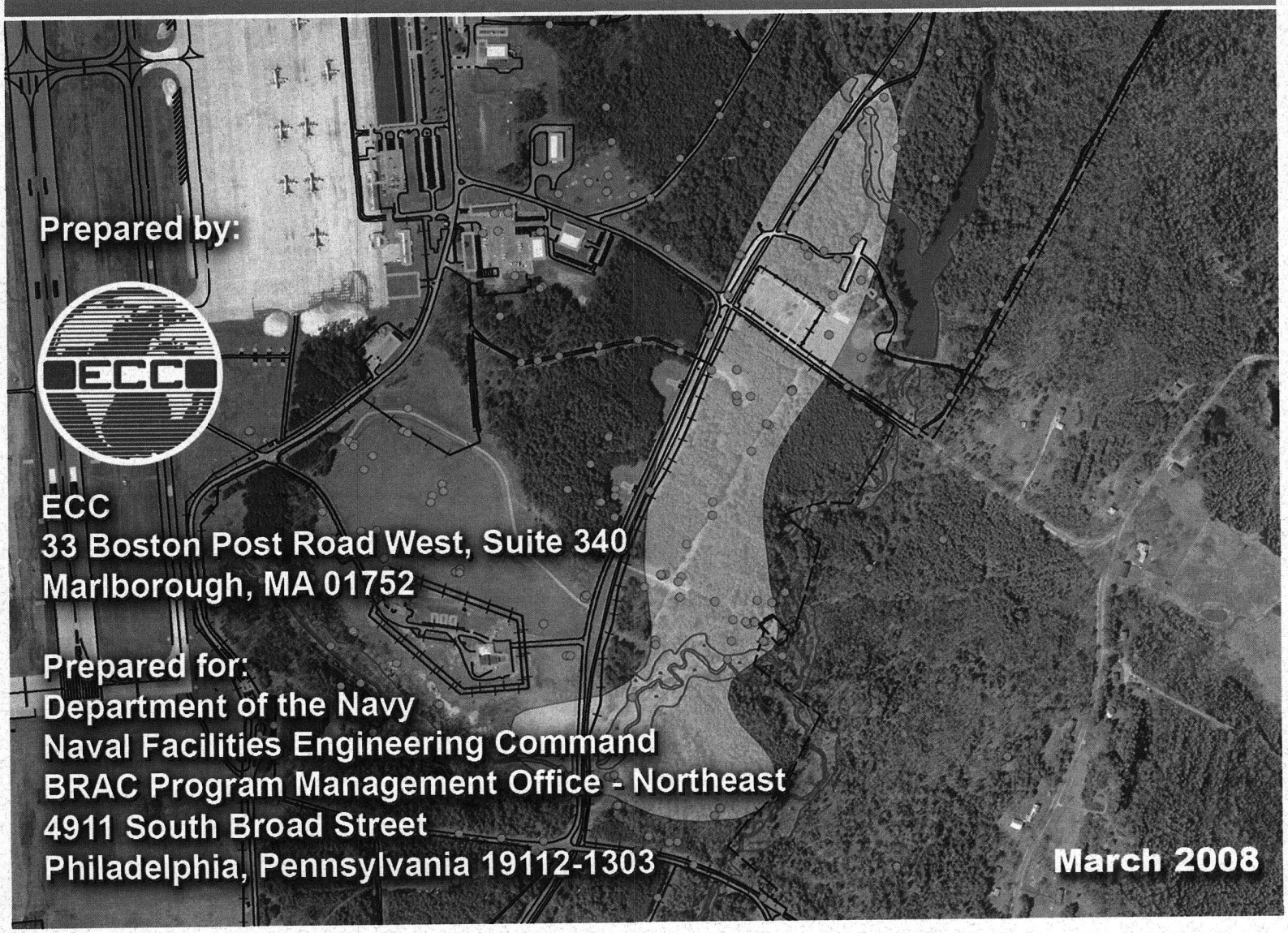
BRUNSWICK MAINE

Final
Sites 1, 3 & Eastern Plume Monitoring Event 28 Report April 2006

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

Naval Air Station Brunswick, Maine



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March 2008

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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

STATE OF MAINE
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3/27/08

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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	dichloroethene
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 PROJECT ACTIVITIES AND MONITORING PROGRAM

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 Revised Proposed Optiminization Plan for Groundwater Samples Collected as Part of Long-Term Monitoring, NAS Brunswick was issued in October 2004 (EA 2004b). The Final LTMP for Sites 1&3 and Eastern Plume (EA 2000a), as amended by the Octoer 2004 Optimization Plan was followed by the ME-28 sampling. For detailed history of this Installation Restoration Program Site, please refer to the 2nd Five-Year Review for NAS Brunswick (ECC/EA 2005).

In August 2006, the LTMP for Sites 1 and 3 and Eastern Plume was issued as Draft (EA 2006a). A Draft Final LTMP for Sites 1 and 3 and Eastern Plume was re-issued based on regulator comment in November 2006 (EA 2006b). The Draft Final LTMP (EA 2006b) incorporated the November 2004 Optiminization Plan (EA 2004c) for sampling at Sites 1 and 3 and Eastern Plume. The Draft Final Long-Term Monitoring Report (EA 2006b), together with the November 2004 Optiminization Plan, has been commented on by the regulators and is in the process of being finalized for use as the current LTMP for Sites 1 and 3 and Eastern Plume. The Draft Final Long-Term Monitoring Report will be finalized before the Fall 2007 Monitoring Event.

Based on Technical Meeting discussions with the Project Stakeholders, additional groundwater sampling was initiated in October 2003 at the Eastern Plume for monitored natural attenuation parameters. The additional monitored natural attenuation parameter sampling was conducted at the Eastern Plume for six consecutive monitoring events (i.e., Monitoring Events 23, 24, 25, 26, 27,and 28). The monitored natural attenuation parameter groundwater results from this Monitoring Event (ME 28) are consistent with the results of the previous MNA sampling event. The sampling results indicate that the southern region of the plume has the greatest potential for biodegradation of chlorinated VOCs; however, limited occurrence of reductive dechlorination is actually occurring in the Plume. Based on the six rounds of MNA data results, it has been decided to discontinue additional MNA sampling at the Eastern Plume.

The Sites 1 and 3 LTMP well designation, monitoring frequency and sample parameters are summarized in Table 1-1 and the Eastern Plume LTMP well designation, monitoring frequency and sample parameters are summarized in Table 1-2. Figure 1-3 shows the Sites 1 and 3 and Eastern Plume monitoring and sampling locations.

Remedial actions at Sites 1 and 3 have 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). Groundwater 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 groundwater prior to discharge. The extraction system, which has been operational since April 1995 and 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 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). MNA parameters were collected and analyzed in this Monitoring Event 28 sampling round; however, based on the results of the MNA parameter sampling conducted at the Eastern Plume from April 2003 through April 2006 (i.e., Monitoring Events 23, 24, 25, 26, 27 and 28), continued MNA parameter monitoring is not recommended at the Eastern Plume beyond this event. The summary of the MNA sampling results from Monitoring Events 23, 24, 25 and 26 is provided in the Monitored Natural Attenuation Assessment of the Eastern Plume (ECC and EA 2006). Further discussion on the MNA sampling results for the April 2006 sampling event is provided in Section 2.6 of this Monitoring Event Report.

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 issued as 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. The Draft Final Long-Term Monitoring Report (EA 2006b) together with the November 2004 Optiminization Plan have been commented on by the regulators and are in the process of being consolidated and finalized for use as the current LTMP for Sites 1 and 3 and Eastern Plume. The Draft Final Long-Term Monitoring Report will be finalized before 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 Decision 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 presents results for Monitoring Event 28 conducted in April and June 2006. The normally scheduled Spring 2006 Long-Term Monitoring sampling event, typically conducted in April, was delayed until June due to issues related to flooding. Section 1 describes the activities completed during Monitoring Event 28 and presents an overview of the Long-Term Monitoring Program. 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 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 complete analytical report Form I laboratory data tables. Finaly, Appendix H provides a history of 1,4-dioxane results.

1.2 Measurement of Water Level Elevations

Water level measurements were obtained on 18 April 2006 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 contours for the site.

Pumping rates for each extraction well for the period October 2005 through March 2006 (which may affect groundwater potentiometric surface elevations) are provided in Table 1-5. The groundwater extraction and treatment system (GWETS) was operational for 95.92 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, ten groundwater samples were collected between the 18th and 27th of April 2006 using low-flow sampling techniques. One monitoring well inside the slurry wall (MW-217B) and three monitoring wells located outside the slurry wall were sampled during the April 2006 monitoring event. In addition to these four wells, the Navy installed three monitoring well couplets south of the slurry wall opening (MW-1301S, MW-1301D, MW-1302S, MW-1302D, MW-1303S, and MW-1303D). These additional newly installed monitoring wells (ten total wells) were sampled as part of the April 2006 Monitoring Event (Table 1-1).

At the Eastern Plume, groundwater samples were collected from 26 monitoring wells. 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 2003b). The groundwater sampling program was performed during 18th through the 27th of April 2006, and 19th of June 2006. The sampling event in June was necessary because samples were unable to be collected due to significant flooding. The sampling program for the April and June 2006 sampling events at Sites 1 and 3 and Eastern Plume are summarized in Tables 1-1 and 1-2. Preserved samples were delivered by laboratory sample courier to Northeast Laboratory Services, 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
- 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)

In addition to the above LTMP sampling, groundwater samples were analyzed for MNA parameters by Northeast Laboratory Services. MNA groundwater samples collected from the Eastern Plume were submitted for the following analysis:

- Dissolved gases (methane, ethane, and ethene) – EPA Region 1 methane, ethane, and ethene standard operating procedure
- Total selected metals (arsenic, iron, and manganese) – SW-846 EPA Method 6020A
- General Chemistry – 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 (HACH Field Test Kit with DR890 Spectrophotometer), and total organic carbon (EPA Method 415.1)

In addition to the sampling listed above, groundwater samples were also collected from selected monitoring well locations and analyzed for the VOC compound 1,4-dioxane using EPA Region I 1,4-Dioxane Method. This additional sampling has been conducted at the Eastern Plume since Monitoring Event 24 at the request of the EPA and MEDEP, and is not formally part of the Long-Term Monitoring Program at the Eastern Plume. A table of 1,4-dioxane results can be found in Appendix H.

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 and 3 and the Eastern Plume. The data obtained during the April 2006 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 established in the Final LTMP (EA 2000a) 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 and the Eastern Plume in April 2006:

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

Samples were sent to 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) (EA 2000b). 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 contained in the draft LTMP (EA 2000a), a review of laboratory data was performed on selected quality control parameters to evaluate precision, accuracy, representation, completeness, and comparability and data quality objective requirements. A summary of the analytical data quality review for chemical data is provided in Appendix D. With consideration of the data qualifiers and discussion 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 Final Quality Assurance Project Plan (EA 2000b). Method detection limits for sediment and aqueous media are included in Appendix D.

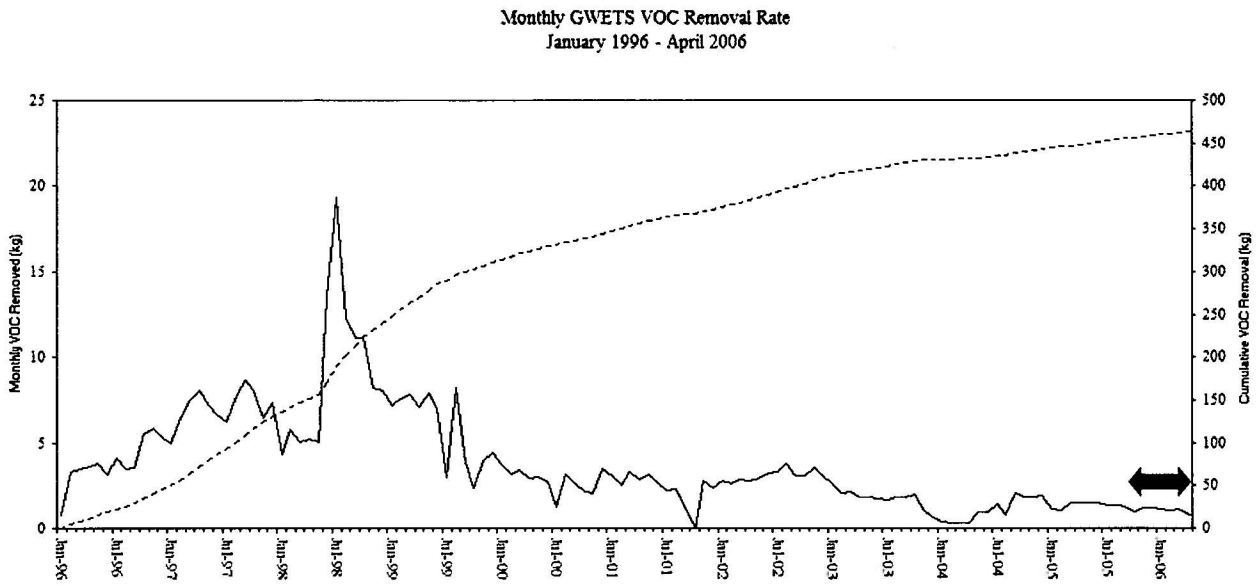
2.0 TEMPORAL TRENDS AND OBSERVATIONS

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 95.92 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 – March 2006. The dotted line represents the cumulative VOC removal since January 1996.



The monthly VOC removal rates for April 2005 through April 2006 (see red arrow on chart above) ranged from approximately 0.78 to 1.54 kilograms per month with an average removal rate of 1.22 kilogram per month. The cumulative VOC mass removed from the Eastern Plume since the extraction system began operation is approximately 470.42 kilograms. Data from the effluent samples collected between 30 September 2005 and 30 April 2006 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 April 2006 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 provide 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.

At Sites 1 and 3, a comparison of water elevation data collected during long-term monitoring indicates water elevations have decreased in the vicinity of the slurry wall due to active pumping and placement of the slurry wall and landfill cap. The deepest known elevation of the bottom of the waste material at Sites 1 and 3 has been reported to be 31.59 feet above mean sea level (at well MW-216A). As shown on Figure 1-5, groundwater elevation here is 32.17 feet.

Project stakeholders agreed during the 9 October 2003 Technical Meeting to establish the following 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 (ft 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 September 2005 through 30 April 2006, no trigger elevations were reached. The trigger elevations were established to prevent groundwater from infiltrating the landfill cap as high groundwater might be an indication of infiltration through the cap and/or leakage through the slurry wall. 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

Appendix B (Tables B-1 through B-22) provides analytical data from the April 2006 sampling event. The temporal trends in groundwater chemicals of concern at Sites 1&3 and the Eastern Plume between 1996 and the current Monitoring Event 28 are presented in Appendix C.

The April 2006 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 Monitoring Event 28. The complete data set can be reviewed in Appendix B with trend graphs presented in Appendix C. In the event that a State MEG or Federal MCL was exceeded the analytical trends are depicted as bar-graphs in Sections 2.4 and 2.5 below showing the overall analytical results for 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 28 numbered monitoring events, and also 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 abscissa scale (x-axis) in monitoring events (19 through 28), and the ordinate (y-axis) scale 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 are listed for each compound or metal.

2.4 Sites 1 and 3 – Volatile Organic Compounds and Metals

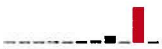
2.4.1 Monitoring Wells

Detections above a State MEG or Federal MCL in the ten wells sampled were reported in MW-217B, MW-218, MW-1301S, MW-1301D, MW-1302S, MW-1302D, MW-1303S, and MW-1303D. In the other two monitoring wells sampled (i.e., MW-202A and MW-203) there were no exceedances of either VOCs or metals, and therefore no table for these wells is presented in this Section; however, the data for these wells is provided in Appendix B and the trends are provided in Appendix C. The tables on the next page show the reported detections above the Federal MCL or State MEG for VOCs and metals in MW-217B and MW-218. The newly installed monitoring wells couplets which were sampled as part of Monitoring Event 28 (MW-1301S, MW-1301D, MW-1302S, MW-1302D, MW-1303S, and MW-1303D) are not shown on the tables in this Section as this event was the first time where groundwater samples were collected from these wells (Table 1-1).

In each of these new monitoring well couplets, reported metal concentrations of aluminum, iron, and manganese exceeded either the MCL or MEG, which in part may be associated with turbidity. Aluminum concentrations ranged from 220 – 28,000 µg/L, iron concentrations ranged from 1,100 J – 26,000 µg/L, and manganese concentrations ranged from 360 – 5,000 µg/L. In addition, the groundwater sample collected from MW-1303D reported a detection of arsenic (42 µg/L) above the MCL of 10 µg/L. There were three VOC concentrations reported in the groundwater samples collected from these new monitoring well couplets which exceeded the Federal MCL and/or State MEG. 1,1-Dichloroethane was detected at 83 J µg/L (MEG, 70 µg/L) in well MW-1302D, vinyl chloride was detected at 10 J µg/L (MCL, 2 µg/L) in monitoring well

MW-1301D, and vinyl chloride was detected at 1.3 J µg/L (MEG, 0.15 µg/L) in well MW-1302D. The tables below showing trend bar graphs indicate vinyl chloride was also reported in the groundwater sample collected from monitoring well MW-217B (duplicate sample) at 1 J µg/L (J = estimated concentration) above the MEG (0.15 µg/L).

Monitoring Well MW-217B

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	1.93 µg/L	3.4 µg/L	Stable, decreasing	1.93 – 587.4	
Vinyl Chloride (MCL=2, MEG=0.2)	ND	1 J	Decreasing	ND – 100	
Metals					
Aluminum (MEG=1,430)	100,000 J µg/L	240 µg/L	Spike	14.5 – 100,000	
Arsenic (MCL=50, MEG=10))	680 µg/L	10 U µg/L	Spike	10 - 680	
Chromium (MCL=100, MEG=40)	1,600 µg/L	10 U µg/L	Spike	10 – 1,600	
Lead (MCL=15, MEG=10)	52 µg/L	3 U µg/L	Spike	3 - 52	
Manganese (MEG=500)	5,500 µg/L	1,100 µg/L	Stable	1,100 – 18,100	
Nickel (MEG=140)	1,000 µg/L	40 U µg/L	Spike	40 – 1,000	
Zinc (MEG=2,000)	14,000 µg/L	30 B µg/L	Spike	12 – 14,000	

Note – Newly installed monitoring well couplet results are not summarized in this table as these wells were first sampling during Monitoring Event 28.

It is noted that monitoring well MW-217B had been purged dry during Monitoring Events 24, 25, and 27. These samples had a high turbidity and the sample was "cloudy with particles." Elevated concentrations of metals during these past sampling events are suspected to be associated, at least in part, with the high turbidity and therefore the metal results are not a reliable indicator for assessing the concentration trends for metals. It is noted that monitoring wells, MW202A, MW-203, and MW-218 are currently sampled annually in April. MW-204, MW-219, and MW-240 are sampled every two years in April, as specified in the most current draft final LTMP (EA 2006b), and consequently were not sampled in Monitoring Event 28.

Monitoring Well MW-218

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
Metals					
Arsenic (MCL=50, MEG=10)	Not Sampled	150 µg/L	Spike	10 - 680	
Manganese (MEG=500)	Not Sampled	1,100 µg/L	Stable	1,100 – 18,100	

Note - Monitoring well couplet results are not summarized in this table as these wells were first sampling during Monitoring Event 28.

2.4.2 Surface Water

Surface water samples, SW-04, SW-07, SW-08, and SW-09, had no detections of VOCs above the Risk-Based Ecological Screening Values. Using the Risk-Based Ecological Screening Values for Surface Water, Seep Water, and Sediment (EA 2006)The four surface water sites above had detections above the screening values for manganese (all four sites) and aluminum at SW-04 (Tables B-7 and B-8).

2.4.3 Leachate Seep

As part of the April 2006 sampling event, five leachate seep samples were collected and analyzed for VOCs, TAL Metals, and Pesticides (refer to Appendix B-10, B-11, and B-12). The same five seep samples were re-sampled for VOC in June 2006. Carbon disulfide was reported in 3 seep samples (SEEP -03, SEEP-05 and SEEP -09) slightly above the Risk Based Screening Value of 0.0016 ug/L. All leachte seep samples analyzed for pesticides were reported as non-detect except for a Gamma-BHC (Lindane) detection in SEEP-03.

Leachate Seep SEEP-01

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	Range (µg/L)	Trend
VOCs*	ND	0.56 µg/L	Stable	ND – 102	
Metals*					
Manganese (120)	230 µg/L	260 J µg/L	Stable	118 – 82,500	
Iron (1,000)	1,700 J µg/L	3,600 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) in parenthesis

Leachate Seep SEEP-03

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	Range (µg/L)	Trend
VOCs*	2.03 µg/L	3.49 µg/L	Spike	ND – 108	
Metals*					
Aluminum (87)	8,000 µg/L	23,000 µg/L	Increasing	15.4 – 23,000	
Barium (3.9)	460 µg/L	270 µg/L	Stable	40.2 – 3,490	
Chromium (11)	30 µg/L	130 µg/L	Spike	0.6 - 420	
Iron (1,000)	160,000 J µg/L	320,000 J µg/L	Steady	9,210 – 5,150,000	
Lead (0.41)	50 µg/L	51 µg/L	Increasing	0.91 - 150	
Manganese (120)	42,000 µg/L	13,000 J µg/L	Steady	1,020 – 189,000	
Pesticides					
Gamma-BHC (Lindane)	0.59 µg/L	0.36 µg/L		ND – 0.59	4th Sample Point

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

Leachate Seep SEEP-04

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	Range (µg/L)	Trend
VOCs*	0 µg/L	0 µg/L	Decreasing	0 – 114.6	
Metals*					
Aluminum (87)	50,000 J µg/L	700 J µg/L	Decrease	8.2 – 50,000	
Beryllium (0.66)	5 J µg/L	5 U µg/L	Detection Limit	0.11 - 5	
Chromium (11)	430 µg/L	10 U µg/L	Decrease	0.57 - 430	
Cobalt (23)	390 J µg/L	50 U µg/L	Detection Limit	2.8 - 390	
Copper (2.36)	30 µg/L	25 UJ µg/L	Increasing	0.84 - 600	
Iron (1,000)	150,000 µg/L	13,000 J µg/L	Steady	1,200 – 6,630,000	
Lead (0.41)	39 µg/L	30 U µg/L	Spike	1.4 - 90	
Manganese (120)	2,600 µg/L	20 J µg/L	Steady	48 – 10,600	
Nickel (13.4)	790 µg/L	56 µg/L	Decrease	2.6 - 102	
Vanadium (20)	70 µg/L	50 U µg/L	Detection Limit	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	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	Range (µg/L)	Trend
VOCs*	0 µg/L	0 µg/L	Steady	0 - 137.2	
Metals*					
Aluminum (87)	200 U µg/L	220 J µg/L	Steady	0 – 34,800	
Iron (1,000)	23,000 J µg/L	110,000 J µg/L	Steady	4,600 – 8,080,000	
Manganese (120)	3,500 µg/L	6,700 µg/L	Steady	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	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	Range (µg/L)	Trend
VOCs*	6.70 µg/L	3.25 µg/L	Steady	ND - 36	
Metals*					
Arsenic (150)	40 µg/L	170 J µg/L	Steady	5 – 3,470	
Iron (1,000)	29,000 J µg/L	180,000 J µg/L	Steady	755 – 2,560,000	
Lead (0.41)	3 U µg/L	17 µg/L	Steady	2 – 35.9	
Manganese (120)	1,600 µg/L	1,900 J µg/L	Steady	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 VOCs and metal concentrations are found in Table B-15. These samples were collected in June 2006, due the presence of beaver dams in the area which resulted in significant flooding during the April sampling event.

Leachate Sediment LT-01

Analyte	September 2005 (ME27)	June 2006 (ME28)	Trend Assessment	Range (mg/kg)	Trend
Metals*					
Barium (0.7)	12 mg/kg	7.3 mg/kg	Steady	12 - 626	

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

Leachate Sediment LT-03

Analyte	September 2005 (ME27)	June 2006 (ME28)	Trend Assessment	Range (mg/kg)	Trend
Metals*					
Barium (0.7)	130 mg/kg	43 J mg/kg	Steady	18.5 – 572	
Beryllium (0.55)	Non-Detect	1.3 mg/kg	Spike	0 – 1.3	
Mercury (0.18)	1.3 mg/kg	0.36 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	September 2005 (ME27)	June 2006 (ME28)	Trend Assessment	Range (µg/L)	Trend
Metals*					
Barium (0.7)	51 J mg/kg	9.7 J mg/kg	Steady	5.5 - 751	

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

Leachate Sediment LT-05

Analyte	September 2005 (ME27)	June 2006 (ME28)	Trend Assessment	Range (µg/L)	Trend
Metals*					
Arsenic (9.8)	140 J mg/kg	18 mg/kg	Steady	3.4 – 4,900	
Barium (0.7)	78 J mg/kg	8.8 J mg/kg	Steady	10.6 - 171	
Cobalt (10)	63 J mg/kg	13 mg/kg	Increasing	8.8 - 151	

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

Leachate Sediment LT-09

Analyte	September 2005 (ME27)	June 2006 (ME28)	Trend Assessment	Range (µg/L)	Trend
Metals*					
Barium (0.7)	53 J mg/kg	22 J mg/kg	Steady	10.7 – 75.8	
Cobalt (10)	64 J mg/kg	12 mg/kg	Decrease	1.7 – 81.7	

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

2.4.5 Sediment

Sediment samples are collected annually in September, as specified in the current LTMP (EA 2006b). 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 2006c) in September 2005. In addition, manganese concentrations reported from SED-17 also exceeded the Risk-Based Ecological Screening Values for Monitoring Event 27. No trending is provided in the April reports. Trends are shown in Appendix C and specific trends will be provided when sampled in the September reports.

2.5 Eastern Plume - Volatile Organic Compounds

2.5.1 Monitoring Wells - Shallow Interval Wells

The table in this section summarizes the analytical results for the groundwater samples collected at the Eastern Plume for the shallow interval wells. There were no reported detections of VOCs at either of the shallow monitoring wells, MW-224 and MW-332. MW-332 is listed in a table below because there was VOC reported concentrations above the State MEG or Federal MCL for Monitoring Event 27 (September 2005). However, as summarized in this section, there were no reported detections of VOCs in MW-332 during the Monitoring Event 28. No table is provided in this section for the other shallow monitoring well sampled (MW-224) since there were no reported exceedances. The data for both wells are provided in Appendix B and the trends graphs are provided in Appendix C.

The data summarized in the tables below show a comparison to the previous monitoring event in September 2005, the overall concentration trends, and 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	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs (Fig 122/185, App. C.2)	40.99 µg/L	0.8 µg/L	Seasonal, steady	0.8 – 296.7	
Trichloroethene (MCL=5, MEG=32)	8.6 µg/L	1 UJ µg/L	Steady	1 – 65	
1,1-Dichloroethene (MCL=7, MEG=7)	2.3 µg/L	1 UJ µg/L	Steady	0.8 – 19	

2.5.2 Monitoring Wells – Deep Interval Wells

Groundwater samples collected from the deep groundwater wells at the Eastern Plume are listed in Table 1-2. Laboratory Form I tables are provided in Appendix H. The tables in this section summarize the analytical results for the groundwater samples collected at the Eastern Plume for the deep interval wells. Of the 26 monitoring wells sampled only 11 wells reported VOC exceedences of State MEGs or Federal MCLs. The other 15 wells are not shown in the tables below, as this data is provided in Appendix B and the trend charts in Appendix C. This section summarizes the findings of Monitoring Event 28. The monitoring wells listed in the tables presented in this section are only those wells where exceedances of the State MEG or Federal MCL were reported in the groundwater samples collected. However, all the monitoring well groundwater results are provided in Appendix B.

The data summarized in these tables show a comparison to the previous monitoring event in September 2005, the overall concentration trends, and a trend graph of chemical data from the last 10 monitoring events. The 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.

Monitoring Well MW-205

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	45.1 µg/L	29.32 µg/L	Decreasing	29.32 – 706.1	
Trichloroethene (MCL=5, MEG=32)	19 J µg/L	10 J µg/L	Decreasing	10 – 280	

Monitoring Well MW-229A

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
Mid Depth Interval					
VOCs	Not Sampled	33.7 µg/L	Decreasing, Stable	71 – 18,990	
Trichloroethene (MCL=5, MEG=32)	Not Sampled	13 J µg/L	Dencreasing, Stable	16 – 3,400	

Monitoring Well MW-230A

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
Deep Depth Interval					
VOCs	Not Sampled	10.88 µg/L	Decreasing	0 – 14.1	
Trichloroethene (MCL=5, MEG=32)	Not Sampled	5.2 J µg/L	Stable	0 – 6.6	

Monitoring Well MW-308

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	Not Sampled	96.72 µg/L	Spike	0 – 96.72	
Trichloroethene (MCL=5, MEG=32)	Not Sampled	49 µg/L	Spike	0 – 49	

Monitoring Well MW-311

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
Mid Depth Interval (Not Sampled during Monitoring Events 19 – 21)					
VOCs	117.7 µg/L	45.2 µg/L	Decreasing, Stable	71 – 18,990	
Tetrachloroethene (MCL=5, MEG=7)	4.1 µg/L	8.8 J µg/L	Decreasing	4.1 – 200	
Trichloroethene (MCL=5, MEG=32)	57 µg/L	15 J µg/L	Decreasing	15 – 3,400	
1,1-Dichloroethene (MCL=7, MEG=7)	32 µg/L	9.4 J µg/L	Decreasing	9.4 – 1,400	
Deep Depth Interval					
VOCs	38.81 µg/L	29.70 µg/L	Decreasing	38.81 – 18,990	
Tetrachloroethene (MCL=5, MEG=7)	7 µg/L	15 J µg/L	Stable	4 – 200	
Trichloroethene (MCL=5, MEG=32)	6.7 µg/L	4.2 J µg/L	Stable	4.2 – 3,400	
1,1-Dichloroethene (MCL=7, MEG=7)	4.4 µg/L	2.2 J µg/L	Stable	2.2 – 1,400	

Monitoring Well MW-313

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	32.94 µg/L	24.3 µg/L	Decreasing, Stable	71 – 180	
1,1-Dichloroethene (MCL=7, MEG=7)	17 µg/L	13 µg/L	Decreasing	4.1 – 200	
1,4-Dioxane (MEG=32)	99 (94) µg/L	78 (120) µg/L	Decreasing	78 – 180	

Monitoring Well MW-319

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	38.94 µg/L	38.00 µg/L	Decreasing, Stable	36.8 – 109.9	
Tetrachloroethene (MCL=5, MEG=7)	33 µg/L	29 J µg/L	Decreasing	12 – 59	
Trichloroethene (MCL=5, MEG=32)	4 µg/L	6.4 J µg/L	Increasing	5 – 33	

Monitoring Well MW-331

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	740.57 µg/L	518.95 µg/L	Decreasing, Stable	721.7 – 1,540.9	
1,4-Dioxane (MEG=32)	22 µg/L	26 µg/L	Increasing	7.2 – 28	
Trichloroethene (MCL=5, MEG=32)	160 µg/L	68 J µg/L	Decreasing	68 – 370	
1,1,1-Trichloroethane (MCL=200, MEG=200)	320 µg/L	140 J µg/L	Decreasing	140 – 1,000	
1,2-Dichloroethene, total (MCL=70, MEG=70)	190 µg/L	230 J µg/L	Stable	4 – 350	
1,1-Dichloroethene (MCL=7, MEG=7)	33 µg/L	27 J µg/L	Stable	33 – 120	

Monitoring Well MW-333

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	14.67 µg/L	23.80 µg/L	Stable	0.9 – 40	
1,1-Dichloroethene (MCL=7, MEG=7)	9.4 µg/L	12 J µg/L	Stable	0.8 – 15	
1,4-Dioxane (MEG=32)	60 µg/L	54 µg/L	Increasing	47.6 – 60	

Monitoring Well MW-NASB-212

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	9.0 µg/L	9.7 µg/L	Stable	3 – 46.65	
Trichloroethene (MCL=5, MEG=32)	7.8 µg/L	7.6 J µg/L	Stable	5.5 – 34	

Piezometer P-106

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	688.39 µg/L	737.82 µg/L	Stable	688.4 – 6,426	
Tetrachloroethene (MCL=5, MEG=7)	5.6 µg/L	4.3 J µg/L	Decreasing	4.3 – 22	
Trichloroethene (MCL=5, MEG=32)	220 J µg/L	210 J µg/L	Decreasing, Stable	170 – 1,300	
1,1,1-Trichloroethane (MCL=200, MEG=200)	360 J µg/L	420 J µg/L	Decreasing, Stable	360– 4,500	
1,1-Dichloroethene (MCL=7, MEG=7)	64 J µg/L	58 J µg/L	Decreasing, Stable	58 – 500	
1,4-Dioxane (MEG=32)	30 µg/L	31 µg/L	Increasing	35 – 68.7	

2.5.3 Extraction Wells

The tables below summaries of the analytical results for the groundwater samples collected from 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 locations of the extraction wells sampled as part of the LTMP are shown on Figure 1-3.

Extraction Well EW-01

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	48.3 µg/L	86.6 µg/L	Decreasing, Stable	41.3 – 189	
1,1,1-Trichloroethane (200, 200)	8.8 J µg/L	13 J µg/L	Decreasing	6.8 - 110	
Trichloroethene (MCL=5, MEG=32)	19 J µg/L	31 J µg/L	Decreasing, Stable	17.5 – 46	

Extraction Well EW-02A

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	160.49 µg/L	141.00µg/L	Stable	141 – 2,083	
Tetrachloroethene (MCL=5, MEG=7)	7.8 µg/L	5 J µg/L	Decreasing	4 – 18	
1,1,1-Trichloroethane (MCL=200, MEG=200)	69 µg/L	50 J µg/L	Decreasing	50 – 1,800	
Trichloroethene (MCL=5, MEG=32)	40 µg/L	28 J µg/L	Stable	40 – 680	
1,1-Dichloroethene (MCL=7, MEG=7)	16 µg/L	24 J µg/L	Stable	16 – 200	

Extraction Well EW-04

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	Not Sampled	Not Sampled	Decreasing	174.1 – 1,448	
1,1,1-Trichloroethane (200, 200)	Not Sampled	Not Sampled	Stable	5 – 1,000	
Trichloroethene (MCL=5, MEG=32)	Not Sampled	Not Sampled	Decreasing	39 – 340	
1,1-Dichloroethene (MCL=7, MEG=7)	Not Sampled	Not Sampled	Decreasing	12 – 56	

Extraction Well EW-05A

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	32.0 µg/L	45.5 µg/L	Decreasing	28 – 195.2	
1,1,1-Trichloroethane (200, 200)	11 µg/L	10 J µg/L	Decreasing	10 – 110	
Trichloroethene (MCL=5, MEG=32)	9.9 µg/L	14 J µg/L	Decreasing	8.6 – 49	

Eastern Plume Combined Influent

Analyte	September 2005 (ME27)	April 2006 (ME28)	Trend Assessment	High-Low Range (µg/L)	Trend (last 10 MEs)
VOCs	132.69µg/L	102.19 µg/L	Decreasing	129.8 – 858.8	
1,1,1-Trichloroethane (200, 200)	61 µg/L	46 J	Stable	46 – 670	
Trichloroethene (MCL=5, MEG=32)	35 µg/L	31 J µg/L	Decreasing	34 – 170	
1,1-Dichloroethene (MCL=7, MEG=7)	11 µg/L	9.3 J µg/L	Decreasing	7.6 – 52	

2.5.4 Surface Water

Surface samples, SW-10, SW-11, 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 2006c) (Table B-9).

2.5.5 Leachate Seep

Leachate Seep (SEEP-10) and 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 2006c) (Table B-13).

2.5.6 Leachate Sediment

The table below summarizes analytical results for the leachate sediment samples collected at the Eastern Plume. Laboratory Form I tables are provided in Appendix G. The data summarized in this tables show a comparison to the previous monitoring event in September 2005 and the overall concentration trends. The locations of the leachate sediment sampled as part of the LTMP are shown on Figure 1-3.

Leachate Sediment SED-11

Analyte	September 2005 (ME26)	April 2006 (ME27)	Trend Assessment	Range (mg/kg)	Trend
Metals* (Figs 132 & 133/171, App. C.1)					
Barium (0.7)	56 J mg/kg	52 mg/kg	-	33 – 46.9	5th Sample
Iron (10,000)	43,000 J mg/kg	22,000 J mg/kg	-	14,000 – 43,000	5th Sample
Manganese (0.18)	780 J mg/kg	720 mg/kg	-	170 - 874	5th Sample

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

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 (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 restricted and natural attenuation will likely be effective.

The efficacy 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 evaluate natural attenuation using standardized hydrologic, geochemical, and biological parameters. Parameters and guidelines which are used to assess the potential for natural attenuation to be an effective remedy at the Naval Air Station Brunswick can be found 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)

- 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 are the primary 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 28 at selected monitoring wells located at the Eastern Plume. The results of the monitored natural attenuation sampling are summarized in this section. Monitored Natural Attenuation parameter sampling has been conducted at the Eastern Plume from Monitoring Event 23 (October 2003) to Monitoring Event 28 (i.e, for Monitoring Events 23, 24, 25, 26, 27 and 28) in order to assess the potential for and/or occurrence of natural attenuation within the Eastern Plume.

2.6.1 Eastern Plume

A total of 15 monitoring wells located at the Eastern Plume were selected and sampled during the April 2006 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.

ECC field team sampled the monitoring wells listed above for selected natural attenuation parameters on 18 – 21 April 2007. The samples were sent to Northeast Laboratory Services of Winslow, Maine for analysis to determine if evidence exists for chlorinated volatile organic compound natural attenuation. MNA indicators analyzed included the following list and VOC analysis using EPA Method 8260B, which is part of the Long-Term Monitoring sampling at the Eastern Plume. The VOC analysis will indicate the occurrence of parent compounds and/or daughter products within the Plume.

- Dissolved Gas (methane, ethane and ethene) - Analyzed using U.S. EPA Region 1 methane, ethane, and ethene methods as defined in the MNA Summary Report

- 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 – temperature, pH, conductivity, dissolved oxygen, ORP, turbidity and color – field forms for MNA sampling are provided in Appendix E

Ferrous iron [Fe (II)] was analyzed in the field using Hach Ferrous Iron Test Kit. 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 April 2006 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 overall groundwater conditions at the Eastern Plume are not conducive for biodegradation and that the occurrence of reductive dechlorination is limited. Therefore, continued sampling for MNA parameters at the Eastern Plume is not planned to be continued beyond this April 2006 monitoring event. However, the effectiveness of MNA as a viable means for contaminant reduction may be re-evaluated in the future after the extraction well network is modified and the groundwater model for the Eastern Plume has been completed. For purposes of evaluating biodegradation using the Wiedemeier et al. (1996) 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 April 2006 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 limited evidence of conditions conducive for chlorinated VOC biodegradation in 3 monitoring wells and inadequate evidence of biodegradation in 12 monitoring wells sampled for monitored natural attenuation parameters. Sample locations with the higher weighted scores [MW-331 (14), MW-333 (11), and MW-335 (11)] are along the southern distal end of the mapped Plume, but all of the MNA sample locations are proximal to natural organic carbon sources (i.e. with Mere Brook and Merriconeag Stream).
Weighted scores for groundwater locations assessed were contoured 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). Contoured natural attenuation scores, reflecting the adequacy of evidence for chlorinated VOC degradation, are illustrated on Figure 2-6 and indicates the potential for attenuation at the site.

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.

2.6.3 Natural Attenuation Summary and Conclusion

During Monitoring Event 28, three monitoring wells MW-331, MW-333, and MW-335 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 three 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.

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 conductive to promote reductive dechlorination processes and the monitoring has concluded that is MNA 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 in April 2006 the following general conclusions and recommendations are provided on the basis of the April 2006 sampling at Sites 1 and 3 and Eastern Plume:

3.1 Conclusions and Recommendations

- **Conclusion** – Arsenic concentrations were reported above the MCL/MEG (10 ppb) in three of 24 monitoring wells sampled for metals, and manganese concentrations were reported above the MEG (500 ppb) in 7 of 24 monitoring wells sampled for metals. Elevated VOC concentrations were reported above the MCL and/or MEG at 13 of the 43 monitoring wells sampled. TCE was reported in concentrations above the MCL (5 ppb) at 9 monitoring well locations (MW-205, MW-212, MW-229A, MW-230A, MW-308, MW-311, MW-319, MW-331 and P-106). PCE was reported in concentrations above the MCL (5 ppb) at MW-311 and MW-319 and above the MEG (3 ppb) at P-106. 1,2-DCE (total) was reported in concentrations above the MCL (70 ppb) in MW-331. 1,1,1-TCA was reported in concentrations above the MCL (200 ppb) at P-106. These elevated VOC concentrations are within the Plume boundaries with exception to the slightly elevated estimated concentration of TCE (5.2 J) reported in the groundwater sample collected from MW-230A, which is slightly above the MCL of 5 µg/L.

  Recommendation – The installation of one new extraction well location has been agreed to by the Project Stakeholders and the groundwater model (currently in progress) will be used to determine the location of a second extraction well at the Eastern Plume. 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 other areas with elevated VOCs.

- **Conclusion** – Data collected for natural attenuation parameters during this April 2006 sampling event indicate few to limited localities within the deep aquifer zone of the Eastern Plume have conditions favorable for complete reductive dechlorination processes. Overall the MNA data collected to date has identified the occurrence of limited natural attenuation and overall conditions which are not favorable to support natural attenuation processes.

  Recommendation – MNA data has been collected at the Eastern Plume each monitoring event since October 2003 (i.e, for Monitoring Events 23, 24, 25, 26, 27 and 28). This sixth round of MNA data is consistent with the results of the previous MNA sampling events. The southern region of the plume has the greatest potential for biodegradation of chlorinated VOCs, however, the results indicate limited occurrence of reductive dechlorination is presently occurring in the Plume.

  In addition to the six rounds of MNA sampling data which have not shown strong evidence that reductive dechlorination is occurring in the Eastern Plume, the Navy also initiated a Bio-Trap™ Microbial Sampling Study (ECC and EA 2006) between April and

August 2005 in order to further assess whether microbial activity within the Plume may be conducive to biodegradation. The results of the Study indicated that the microbes types present in the Plume are not in sufficient quantity or activity to be considered a viable effective remedial option for the Eastern Plume under the current natural conditions. This study is detailed in Appendix B within the Final Monitored Natural Attenuation Summary Report (ECC and EA 2006). Therefore, based on the results of the MNA and Bio-Trap™ Study it has been recommended that the MNA sampling program is discontinued at this time and re-evaluated in the future.

- **Conclusion** – The surface water samples collected during April 2006 monitoring event, were non-detect for VOCs. Surface water investigations have been conducted at the Eastern Plume, initiating with the September 2005 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. However, no chlorinated VOCs were detected in these three additional surface water samples. Surface water impacts associated with plume discharge to Merebrook and Merriconeag Stream are, however, ongoing.

  Recommendation – Surface water results remain non-detect; however, the joint EPA, MEDEP, and Navy porewater sampling in August and September 2005 showed significant VOC detections in porewater along Merriconeag Stream. As a continuation of the 2005 porewater investigation, the Navy will perform a pore water sampling event at the confluence of Mere Brook and Merriconeag Stream to further quantify porewater VOC concentrations. ECC will develop a work plan outlining this sampling. The proposed investigation will be conducted in order to provide data to better define the geology and hydrogeology controlling the discharge of the Eastern Plume to the confluence of Mere Brook and Merriconeag Stream, and to determine if VOCs are present in the stream from the discharge of the groundwater plume. This work is tentatively scheduled for 2007.

- **Conclusion** – Based on the data collected to date, the remedial measures completed at Sites 1 and 3 appear to be effective in preventing significant impacts from the Sites 1 and 3 landfill, although 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.

- **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 in specific areas.

  Recommendation – In order to achieve a totally effective treatment system, consideration should be given to changing the remedial approach for the Eastern Plume to include pump-and-treat in conjunction with hot spot removal/reduction. 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. Any modifications to the existing treatment, such as to include hot-spot reduction, would be evaluated once the Eastern Plume groundwater model has been completed along with the site Background Study. Also, consideration should be given to reducing pumping where concentrations are lower, and installing new extraction wells (as discussed above).

- **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.

  Recommendation – Consider re-installation of EW-1 (or an additional extraction well) with the well screen set in the lower sand aquifer.

3.1 Long-Term Monitoring Objectives

The following describes some of the uses for the data collected during the Long-Term Monitoring Program, and provides conclusions on the degree of success in achieving the LTMP objectives. However, the April 2005 was conducted following the October 2004 Optiminization Plan (EA 2004) and not the current LTMP (2000), therefore the conclusions derived from this Event Report are limited. It is noted that the LTMP for Sites 1 and 3 Landfill, and the Eastern Plume is currently under revision. The Draft Final LTMP (EA 2006b) issued in November 2006 has been commented on by the project stakeholders and will be revised prior to the Fall 2007 Monitoring Event. It is planned that the Revised Final LTMP be issued in two separate documents, whereby Sites 1and 3 Landfill, and Eastern Plume long-term monitoring will be presented in two separate documents. The Final LTMPs for Sites 1 and 3 Landfill, and Eastern Plume are planned to be issued in 2007.

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

  The Navy is planning to develop of Background Study Work Plan to facilitate establishing natural background conditions for the Site. This Work Plan will be submitted for review in Spring 2007. The Long-Term Monitoring data collected are used to assess contaminant trends in surface water and groundwater at Sites 1 and 3 and Eastern Plume. Investigations are planned for Spring 2007 along the confluence of Mere Brook and Merriconeag Stream to further assess the occurrence of potential plume discharge to surface water.

- ***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, as well as the planned Mere Brook investigation and Eastern Plume computer model.

Recommendations for improvement, if needed, will be made after the results from the investigation and modeling are assessed.

- ***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 and with data from the newly installed 1300 series monitoring wells straddling the gap in the Site 1&3 slurry wall.

- ***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. The Navy is in the process of developing a groundwater flow model for the Eastern Plume to further assess the degree of hydraulic control achieved through the current extraction well network and to gain further understanding of the contaminant migration beneath the site.

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TABLES

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TABLE 1-1
SUMMARY OF LONG-TERM MONITORING PROGRAM AT SITES 1 AND 3
APRIL AND JUNE 2006 SAMPLING EVENT

Sample Type/Location	Monitoring Frequency	Slurry Wall	Sample Parameters			Monitoring Event 28	
			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	Outside	X[b]	X	X	X	X
MW-203	Annual	Outside	X[b]	X	X	X	X
MW-204	Annual	Outside	NR	NR	NR	X	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[b]	X	X	X	X
MW-234R	Bi-Annual	Inside	NR	NR	NR	X	NR
MW-240	Annual	Outside	NR	NR	NR	X	NR
MW-2101	Annual	Outside	NR	NR	NR	X	NR
MW-1301S	Bi-Annual	Outside	X[b]	X	X	X	X
MW-1302S	Bi-Annual	Outside	X[b]	X	X	X	X
MW-1303S	Bi-Annual	Outside	X[b]	X	X	X	X
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	Outside	X[b]	X	X	X	X
MW-219	Annual	Outside	NR	NR	NR	X	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
MW-1301D	Bi-Annual	Outside	X[b]	X	X	X	X
MW-1302D	Bi-Annual	Outside	X[b]	X	X	X	X
MW-1303D	Bi-Annual	Outside	X[b]	X	X	X	X
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

(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) Groundwater sample collected by low-flow and diffusion sampler method.

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

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

Sample Type/Location	Monitoring Frequency	Sample Parameters			Monitoring Event 28	
		TCL VOC	TAL Elements	Field Parameters[a]	Gauged	Sampled
Shallow EP-Series Piezometers						
EP-16	Bi-Annual	Inside	NR	NR	X	NR
EP-17	Bi-Annual	Inside	NR	NR	X	NR
EP-18	Bi-Annual	Inside	NR	NR	X	NR
EP-19	Bi-Annual	Inside	NR	NR	X	NR
EP-20	Bi-Annual	Inside	NR	NR	X	NR
Leachate Station Seep						
SEEP-1	Bi-Annual	X	X	X	NR	X[c]
SEEP-3	Bi-Annual	X	X	X	NR	X[c]
SEEP-4	Bi-Annual	X	X	X	NR	X[c]
SEEP-5	Bi-Annual	X	X	X	NR	X[c]
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[d]	X	X	X	X	NR
SW-16	Annual[d]	X	X	X	X	NR
Sediment						
SED-9	Annual[d]	NR	NR	NR	NR	NR
SED-15	Annual[d]	NR	NR	NR	NR	NR
SED-16	Annual[d]	NR	NR	NR	NR	NR
SED-17	Annual[d]	NR	NR	NR	NR	NR
SED-18	Annual[d]	NR	NR	NR	NR	NR
SED-19	Annual[d]	NR	NR	NR	NR	NR

(c) These seep samples were additionally analyzed for pesticides by EPA Method 8081A, grain size and total organic carbon by Lloyd Kahn.
(d) Annual samples collected in September.

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

Sample Type/Location	Monitoring Frequency	Well Location	Sample Parameters		Monitoring Event 28	
			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	X	X	X
MW-225B	Bi-Annual	NA	NR	NR	X	NR
MW-229B	Bi-Annual	NA	NR	NR	X	NR
MW-231B	Annual	Sentinel	NR	NR	NR	NR
MW-307	Bi-Annual	NA	NR	NR	X	NR
MW-318	Annual	Sentinel	NR	NR	NR	NR
MW-332	Bi-Annual	Interior Plume	X[b]	X	X	X
MW-1104	Annual	Perimeter	NR	NR	NR	NR
Deep Monitoring Wells						
MW-105A	Annual	Perimeter	NR	NR	NR	NR
MW-205	Bi-Annual	Interior Plume	X	NR	X	X
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	Interior Plume	X	NR	X	X
MW-208	Bi-Annual	NA	NR	NR	X	NR
MW-225A	Annual	Interior Plume	X	NR	X	X
MW-229A	Annual	Interior Plume	X	NR	X	X
MW-230A	Bi-Annual	Sentinel	X	X	X	X
MW-230B	Bi-Annual	Sentinel	NR	NR	X	NR
MW-231A	Annual	Sentinel	X	NR	X	X
MW-303	Annual	Sentinel	X	NR	X	X
MW-305	Bi-Annual	Sentinel	X	X	X	X
MW-306	Annual	Perimeter	X	NR	X	NR
MW-310	Bi-Annual	NA	NR	NR	X	X
MW-311(M,D)	Bi-Annual	Interior Plume	X	X	X	X
MW-312	Bi-Annual	NA	NR	NR	X	NR

(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.

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 28	
			TCL VOC	Field Parameters[a]	Gauged	Sampled
Deep Monitoring Wells (continued)						
MW-313	Bi-Annual	Sentinel	X	X	X	X
MW-315A	Bi-Annual	Sentinel	X	X	X	X
MW-319	Bi-Annual	Interior Plume	X	X	X	X
MW-330	Annual	Perimeter	NR	NR	NR	NR
MW-331	Bi-Annual	Interior Plume	X	X	X	X
MW-333	Bi-Annual	Interior Plume	X	X	X	X
MW-334	Bi-Annual	Sentinel	NR	NR	NR	NR
MW-335	Bi-Annual	Sentinel	X	X	X	X
MW-336	Bi-Annual	Sentinel	X	X	X	X
MW-337	Bi-Annual	Sentinel	X	X	X	X
MW-338A	Bi-Annua	Sentinel	X	X	X	X
MW-338B	Bi-Annual	Sentinel	X	X	X	X
MW-338C	Bi-Annual	Sentinel	X	X	X	X
MW-339	Bi-Annual	Sentinel	X	X	X	X
MW-NASB-212	Bi-Annual	Perimeter	X	X	X	X
Bedrock Monitoring Wells						
MW-308	Annual[d]	Sentinel	X	X	X	X
MW-309A	Bi-Annual	NA	NR	NR	X	NR
MW-309B	Annual[d]	Sentinel	X	X	X	X
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	X	X	X
P-121	Bi-Annual	NA	NR	NR	X	NR
P-132	Annual	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	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 28	
			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	NR	NR	X
Raw Influent	Bi-Annual	NA	X	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 APRIL 2006
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	11.58	47.30
MW-202A	52.40	31.09	Outside	21.11	31.29
MW-203	52.75	42.04	Outside	30.42	22.33
MW-204	50.50	37.18	Outside	29.00	21.50
MW-210B	54.72	40.85	Outside	25.83	28.89
MW-211B	65.44	35.87	Inside	33.59	31.85
MW-215R	62.26	59.00	Inside	30.92	31.34
MW-217B	61.25	32.90	Inside	28.94	32.31
MW-234R	68.55	59.10	Inside	37.00	31.55
MW-240	52.21	42.60	Outside	29.55	22.66
MW-2101	61.05	30.00	Outside	10.78	50.27
Deep Monitoring Wells					
MW-216A	71.17	47.75	Inside	39.00	32.17
MW-217A	61.78	47.40	Inside	30.65	31.13
MW-218	54.16	53.54	Outside	33.40	17.54
MW-219	51.87	71.82	Outside	28.55	23.32
MW-220	47.20	51.43	Outside	23.00	24.20
MW-232A	71.18	34.78	Inside	39.35	31.83
MW-233R	63.94	38.72	Inside	32.47	31.47
Bedrock Monitoring Wells					
MW-210A	52.17	106.32	Outside	15.74	36.43
MW-210R	55.90	112.35	Inside	18.73	37.17
MW-211A	65.59	142.76	Inside	22.35	43.24
Extraction Wells					
EW-06	57.74	59.93	Inside	22.04	35.70
EW-07	51.13	48.90	Inside	22.51	28.62
Shallow EP Series Piezometers					
EP-16	58.92	59.52	Inside	29.85	29.07
EP-17	69.73	42.70	Inside	37.73	32.00
EP-18	68.58	38.93	Inside	36.62	31.96
EP-19	68.22	46.59	Inside	36.51	31.71
EP-20	69.55	47.25	Inside	37.64	31.91

NOTE: MSL = Mean sea level.

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TABLE 1-4
MONITORING WELL GAUGING SUMMARY FOR APRIL 2006
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	7.67	16.88
MW-106	51.26	37.27	16.15	35.11
MW-206B	42.77	27.17	14.15	28.62
MW-207B	22.90	9.21	4.87	18.03
MW-209	54.84	32.38	18.61	36.23
MW-222	57.43	45.34	20.25	37.18
MW-223	53.71	42.61	18.02	35.69
MW-224	57.63	46.01	19.40	38.23
MW-225B	46.25	42.00	14.32	31.93
MW-229B	30.08	33.14	14.85	15.23
MW-231B	46.31	37.99	22.2	24.11
MW-307	62.70	22.21	14.69	48.01
MW-318	24.28	25.14	5.43	18.85
MW-332	25.33	21.03		
MW-1104	60.09	27.55	12.46	43.44
Deep Monitoring Wells				
MW-105A	24.19	47.75	Artesian Well	Artesian Well
MW-205	45.99	79.00	20.86	25.13
MW-206A	43.02	74.36	14.29	28.73
MW-207A	Destroyed and replaced with MW-207AR			
MW-207AR(a)	23.42	97.00	Artesian Well	Artesian Well
MW-208	49.40	102.80	14.05	35.35
MW-225A	45.95	76.03	13.18	32.77
MW-229A	33.83	64.97	10.44	23.39
MW-230A	36.32	81.49	12.3	24.02
MW-231A	45.41	61.19	16.72	NA
MW-303	44.28	72.75	18.42	26.99
MW-305	43.09	53.51	10.47	33.81
MW-306	52.12	56.98	12.11	30.98
MW-310	53.39	73.25	23.07	30.32
MW-311	21.48	56.25	7.97	13.51
MW-312	35.97	71.15	10.38	25.59
MW-313	21.39	37.47	7.19	14.2
MW-315A	22.86	64.50	Artesian Well	Artesian Well
MW-319	40.16	72.60	6.68	33.48
MW-330B	35.71	36.36	1.29	34.42
MW-331	30.54	56.23	(a)	(a)
MW-333	27.25	42.85	8.62	18.63
MW-334	30.93	47.80	8.55	22.38
MW-335	40.91	86.00	16.73	24.18

TABLE 1-4 (continued)
MONITORING WELL GAUGING SUMMARY FOR APRIL 2006
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	10.38	19.24
MW-337	37.19	85.00	13.20	23.99
MW-338A	21.37	91.00	Artesian Well	Artesian Well
MW-338B	21.48	70.00	Artesian Well	Artesian Well
MW-338C	21.65	52.00	1.87	19.78
MW-339	22.54	72.00	0.81	21.73
MW-NASB-212	41.64	64.29	7.20	34.44
Bedrock Monitoring Wells				
MW-308	37.70	73.25	1.59	36.11
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	20.39	33.32
MW-316B	54.40	57.85	9.81	44.59
MW-317A	71.35	120.79	13.22	58.13
MW-317B	70.10	96.95	11.97	58.13
MW-323	55.90	39.00	12.46	43.44
Shallow P-Series Piezometers				
P-103	60.35	28.75	18.59	41.76
P-111	31.48	9.98	4.50	26.98
P-121	50.78	17.35	15.38	35.4
P-132	42.95	32.46	17.9	25.05
Deep P-Series Piezometers				
PZ-1	47.88	58.00	23.27	24.61
PZ-2	39.66	55.50	16.68	22.98
PZ-6	33.14	55.60	12.75	20.39
PZ-11	53.66	41.10	21.62	32.04
P-105	42.08	70.35	5.28	36.80
P-106	38.83	72.40	5.53	33.30
P-123	Ice Damage to PVC Riser, Cannot Gauge			
Extraction Wells				
EW-01	25.34	99.66	4.51	20.83
EW-02A	22.27	66.00	30.86	-8.59
EW-04	37.13	69.37	10.61	26.52
EW-05A	37.63	82.00	11.27	26.36

TABLE 1-4 (continued)
MONITORING WELL GAUGING SUMMARY FOR APRIL 2006
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	5.89	25.78
EP-02	29.74	99.00	4.21	25.53
EP-03	27.91	89.21	2.15	25.76
EP-04	32.59	91.11	1.12	31.47
EP-05	34.61	79.85	1.46	33.15
EP-06	40.14	83.51	7.4	32.74
EP-07	48.49	70.20	12.75	35.74
EP-08	47.31	80.38	11.37	35.94
EP-09	37.84	62.46	1.7	36.14
EP-10	37.78	57.73	1.94	35.84
EP-11	41.59	65.03	4.2	37.39
EP-12	49.38	69.61	11.48	37.90
EP-13	38.96	70.93	0.76	38.20
EP-14	43.46	80.05	5.42	38.04
EP-15	45.37	82.68	7.53	37.84

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	NS	NS
GP-2A	23.92	1.69	25.61
GP-3B	31.15	0.34	31.15
GP-4A	17.68	1.40	19.08
GP-5B	12.09	3.88	15.97
GP-6A	7.46	1.78	9.24

(a) MW-331 has an obstruction approximately one foot into the well due possibly from frost damage

NOTE: MSL = Mean sea level.

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TABLE 1-5
GROUNDWATER EXTRACTION AND TREATMENT SYSTEM DATA (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
Oct-05	31	6.0	623.5	86.60%	224,453	31	12.1	623.5	86.60%	523,723
Nov-05	30	6.0	720	100%	259,200	30	14.0	720	100%	604,800
Dec-05	31	5.3	744	100%	236,160	31	14.0	744	100%	624,960
Jan-06	31	4.6	686.6	92.28%	205,968	31	12.8	686.6	92.28%	569,510
Feb-06	28	5.0	672	100%	201,600	28	13.0	672	100%	524,160
Mar-06	31	4.2	743.5	99.93%	187,080	31	12.7	743.5	99.93%	568,410
Totals	182	5.18	4,189.6	96.47%	1,314,461	182	13.1	4,189.6	96.47%	3,415,563

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
Oct-05	31	21.7	623.5	86.60%	935,220	31	5.2	623.5	86.60%	224,453
Nov-05	30	25.0	720	100%	1,080,000	30	6.0	720	100%	259,200
Dec-05	31	25.0	744	100%	1,116,000	31	6.0	744	100%	267,840
Jan-06	31	23.1	686.6	92.28%	1,029,840	31	5.5	686.6	92.28%	247,162
Feb-06	28	25.0	672	100%	1,008,000	28	6.0	672	100%	241,920
Mar-06	31	25.0	743.5	99.93%	1,115,250	31	6.0	743.5	99.93%	267,660
Totals	182	24.13	4,189.6	96.47%	6,284,310	182	5.78	4,189.6	96.47%	1,508,235

	Total Days Available	Total Hours	Total Run Time (Hours)	Percent Operation	Water Treated (Gallons)
Totals	728	17,472	16,758.4	95.92%	12,522,569

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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 28	
		Monitored Natural Attenuation Paramters[a]	Field Parameters[b]	Gauged	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 APRIL 2006 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-1302[a]	Inside	5.81	16.96	337	4.83	3	154
MW-1301[a]	Inside	6.26	14.69	1076	4.28	21	70.3
MW-1303A[a]	Inside	5.57	15.05	363	1.64	5	119
MW-202A[a]	Inside	6.17	12.02	401	3.79	5	-148.3
MW-203[a]	Inside	5.64	13.62	182	6.85	1	216
MW-217B[a]	Inside	6.26	7.39	589	2.40	140	-356
Deep Monitoring Wells							
MW-1302[a]	Inside	6.23	18.49	741	1.11	50	-126
MW-1301[a]	Inside	6.34	14.17	1459	4.94	500	134.7
MW-1303A[a]	Inside	6.66	13.22	574	0.26	9	-85
MW-218[a]	Inside	7.20	10.14	742	4.46	10	-84

(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 APRIL 2006 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	6.94	6.34	102	1.78	5	-276
Deep P-Series Piezometers						
P-106	7.22	10.68	103	8.69	1	39.4

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 APRIL 2006 AT EASTERN PLUME

Well Designation	pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)
Shallow Monitoring Wells						
MW-224	8.27	8.47	49	13.52	---	-25
MW-332	6.83	5.22	46	9.04	---	109.6
Deep Monitoring Wells						
MW-205	7.34	8.32	179	2.7	---	-49
MW-207AR	7.84	8.26	203	0.27	---	-1855
MW-225A	6.92	7.77	162	1.2	---	300
MW-229A	7.57	6.29	148	9.67	---	109
MW-230A	7.53	8.08	120	0.3	---	-120
MW-231A	7.39	7.44	56	10.0	---	-29
MW-303	7.44	7.22	231	0.96	---	-120.9
MW-306	7.39	7.29	66	6.92	---	-210.1
MW-311 [a]	6.89	8.18	300	0.62	---	-38
MW-313	8.47	7.84	453	0.32	---	-216
MW-315A	6.25	8.26	167	10.45	---	-552
MW-319	6.96	8.26	348	1.07	---	144.2
MW-331 [b]	6.53	8.83	291	1.73	1	-280
MW-333	8.14	7.80	399	5.7	---	-258
MW-334	7.96	9.62	150	1.5	8.6	-64
MW-335	7.03	7.59	348	0.16	---	-112
MW-336	6.54	6.67	62	10.02	---	157.1
MW-337	7.44	8.78	135	0.1	---	-117
MW-338A	8.42	8.31	1034	2.7	---	-265
MW-338B	8.30	8.25	108	0.20	---	-295
MW-338C	8.06	8.25	68	5.7	---	-208
MW-339	7.87	8.18	136	0.22	---	-169
MW-NASB-212	7.21	7.76	342	0.96	---	-43.2
Bedrock Monitoring Wells						
MW-308	8.64	8.59	664	0.35	---	-118.7
MW-309B	8.20	8.50	244	0.47	---	-213

= (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 APRIL 2006 AT EASTERN PLUME

Well Designation	pH	Temperature (°C)	Conductivity (μmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)
Extraction Wells						
EW-01	7.30	10.25	232	4.11	-	-16
EW-02A	7.24	8.61	261	4.70	9.4	-24
EW-04	Not Sampled					
EW-05A	7.28	9.81	110	7.75	-	26.5
Groundwater Treatment Plant						
Eastern Plume Raw Influent	7.06	9.56	210	3.60	0.95	145.3
Combined Effluent	8.01	10.25	199	6.19	0	90.5

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 APRIL 2006 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	7.56	9.62	192	11.06	2.1	-81
SW-7	7.32	10.52	194	11.24	2.4	-242
SW-8	7.09	11.20	184	11.33	3.0	-224
SW-9	7.16	11.57	189	11.26	2.7	-227
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	6.56	6.27	579	0.81	160	-336
SEEP-3	6.32	6.21	316	5.77	650	-257
SEEP-4	6.28	7.43	359	8.70	350	-231
SEEP-5	6.19	9.05	488	0.68	180	-329
SEEP-9	6.21	9.90	253	0.43	150	-352

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 APRIL 2006 AT EASTERN PLUME

Sample Designation	pH	Temperature (°C)	Conductivity (μmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)
Surface Water						
SW-10	7.70	11.33	197	10.69	3.56	86.6
SW-11	7.25	11.20	181	11.3	3	-26
SW-12	7.42	13.10	150	5.6	3	117
SW-13	7.39	13.50	131	10.8	3	85
SW-14	7.31	13.40	145	10.9	4	68
Seep						
SEEP-10	7.20	10.72	59	3.89	14.4	143.9
SEEP-11	8.79	8.59	162	7.86	20.5	174.8

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 – APRIL 2006

Monitoring Well (Well Depth)	Monitoring Event 28 Groundwater Total VOC Concentration[a]	Well Type	Summary of Monitoring Event 28 Diffusion Sampler Study Results
Sampling Group 1			
MW-205 (Deep)	Moderate	Interior Plume	Moderate VOCs reported in sample (29.32 µg/L)
MW-NASB-212 (Deep)	Moderate	Perimeter	Moderate VOCs reported in sample (9.7µg/L)
MW-224 (Shallow)	Low	Perimeter	No VOCs detected
MW-311 (Deep)	Moderate	Interior Plume	Moderate VOCs reported in sample (45.2µg/L)
MW-319 (Deep)	Moderate	Interior Plume	Moderate VOCs reported in sample (38.00 µg/L)
MW-331 (Deep)	High	Interior Plume	High VOCs reported in sample (518.95 µg/L)
MW-332 (Shallow)	Low	Interior Plume	Moderate VOCs reported in sample (0.8 µg/L)
Sampling Group 2			
MW-230A (Deep)	Low	Sentinel	Moderate VOCs reported in sample (7.58 µg/L)
MW-333 (Deep)	Moderate	Sentinel	Moderate VOCs reported in samples (23.80 µg/L)
MW-313 (Shallow)	Low	Perimeter	No VOCs detected

(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 2006 GROUNDWATER DATA

			MW-224		MW-313		MW-315A		MW-331	
			Value	Score	Value	Score	Value	Score	Value	Score
Total Score	Evaluation Criteria	Score		**1**		**9**		**4**		**14**
Dissolved Oxygen (mg/L)	<0.5; 0.5 - 5; >5	3; 0; -3	9.63	-3	1.14	0	0.63	0	1.73	0
Eh (mV)	<-100; -100 - 50; >50	2; 1; 0	-181	2	-130	2	-129	2	-280	2
Temperature (Deg C)	>20	1	11.11	0	10.13	0	8.45	0	8.83	0
Alkanlinity, Total as CaCO3 (mg/L)	>58.2 (2X Background)	1	8.5	0	68	1	40	0	47	0
Chloride (mg/L)	>38.2 (2X Background)	2	23	0	21	0	12	0	63	2
Ethane (mg/L)	>0.01; >0.1	2; 3	0.01 U	0	0.01 UJ	0	0.01 UJ	0	0.01 U	0
Ethene (mg/L)	>0.01; >0.1	2; 3	0.01 U	0	0.01 UJ	0	0.01 UJ	0	0.01 U	0
Hydrogen (nM)	>1 nM	1	NC	0	NC	0	NC	0	NC	0
Iron, Ferrous (mg/L)	>1	3	0.03	0	0.33	0	0.03	0	0.18	0
Methane (mg/L)	>0.5	3	0.01 U	0	0.042 J	0	0.01 J	0	0.01 U	0
Nitrogen, Nitrate (mg/L)	<1	2	1.2	0	0.1 U	0	0.1 U	0	0.71	2
Sulfate (mg/L)	<20	2	9.4	2	4.5	2	2.5	2	8.8	2
Sulfide (mg/L)	>1	3	NC	0	NC	0	NC	0	NC	0
Total Organic Carbon (mg/L)	>20	2	1	0	1.2	0	1 U	0	1 U	0
1,1,1-Trichloroethane (ug/L)	Assume Released	0	ND	0	1.7 J	0	ND	0	140 J	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	8.5 J	2	ND	0	53 J	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	ND	0	ND	0	ND	0	230 J	2
Tetrachloroethene (ug/L)	Assume Released	0	ND	0	ND	0	ND	0	0.95 J	0
Total BTEX (ug/L)	>100	2	ND	0	ND	0	ND	0	ND	0
Trichloroethene (ug/L)	Present	2	ND	0	1.1 J	2	ND	0	68 J	2
Vinyl Chloride (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0

TABLE 2-2 (continued)
RESULTS OF NATURAL ATTENUATION PARAMETER SCREENING APRIL 2006 GROUNDWATER DATA

			MW-333		MW-334		MW-335		MW-336	
			Value	Score	Value	Score	Value	Score	Value	Score
Total Score	Evaluation Criteria	Score		**11**		**4**		**11**		**1**
Dissolved Oxygen (mg/L)	<0.5; 0.5 - 5; >5	3; 0; -3	1.9	0	1.5	0	0.41	3	9.86	-3
Eh (mV)	<-100; -100 - 50; >50	2; 1; 0	-239	2	-64	2	-59	1	179	0
Temperature (Deg C)	>20	1	9.74	0	9.62	0	9.07	0	7.42	0
Alkanlinity, Total as CaCO3 (mg/L)	>58.2 (2X Background)	1	66	1	51	0	78	1	6.1	0
Chloride (mg/L)	>38.2 (2X Background)	2	22	0	19	0	41	2	4.6	0
Ethane (mg/L)	>0.01; >0.1	2; 3	0.01 UJ	0	0.010 U	0	0.01 U	0	0.01 U	0
Ethene (mg/L)	>0.01; >0.1	2; 3	0.01 UJ	0	0.01 U	0	0.01 U	0	0.01 U	0
Hydrogen (nM)	>1 nM	1	NC	0	NC	0	NC	0	NC	0
Iron, Ferrous (mg/L)	>1	3	0.44	0	0.01	0	0.45	0	NM	0
Methane (mg/L)	>0.5	3	0.01 UJ	0	0.01 U	0	0.058	0	0.01 U	0
Nitrogen, Nitrate (mg/L)	<1	2	0.1 U	0	0.1 U	0	0.1 U	0	0.85	2
Sulfate (mg/L)	<20	2	3.7	2	3.1	2	3.2	2	2.9	2
Sulfide (mg/L)	>1	3	NC	0	NC	0	NC	0	NC	0
Total Organic Carbon (mg/L)	>20	2	1.4	0	1 U	0	1.2	0	1 U	0
1,1,1-Trichloroethane (ug/L)	Assume Released	0	ND	0	NM	0	ND	0	ND	0
1,1,2-Trichloroethane (ug/L)	Assume Released	0	ND	0	NM	0	ND	0	ND	0
1,1-Dichloroethane (ug/L)	Present	2	9.1 J	2	NM	0	ND	0	ND	0
Carbon Tetrachloride (ug/L)	Assume Released	0	ND	0	NM	0	ND	0	ND	0
Chloroethane (ug/L)	Present	2	ND	0	NM	0	ND	0	ND	0
Chloroform (ug/L)	Present	2	ND	0	NM	0	ND	0	ND	0
Dichloroethene, Total (ug/L)	Present	2	1.6 J	2	NM	0	ND	0	ND	0
Tetrachloroethene (ug/L)	Assume Released	0	ND	0	NM	0	ND	0	ND	0
Total BTEX (ug/L)	>100	2	ND	0	NM	0	ND	0	ND	0
Trichloroethene (ug/L)	Present	2	1.1 J	2	NM	0	0.85 J	2	ND	0
Vinyl Chloride (ug/L)	Present	2	ND	0	NM	0	ND	0	ND	0

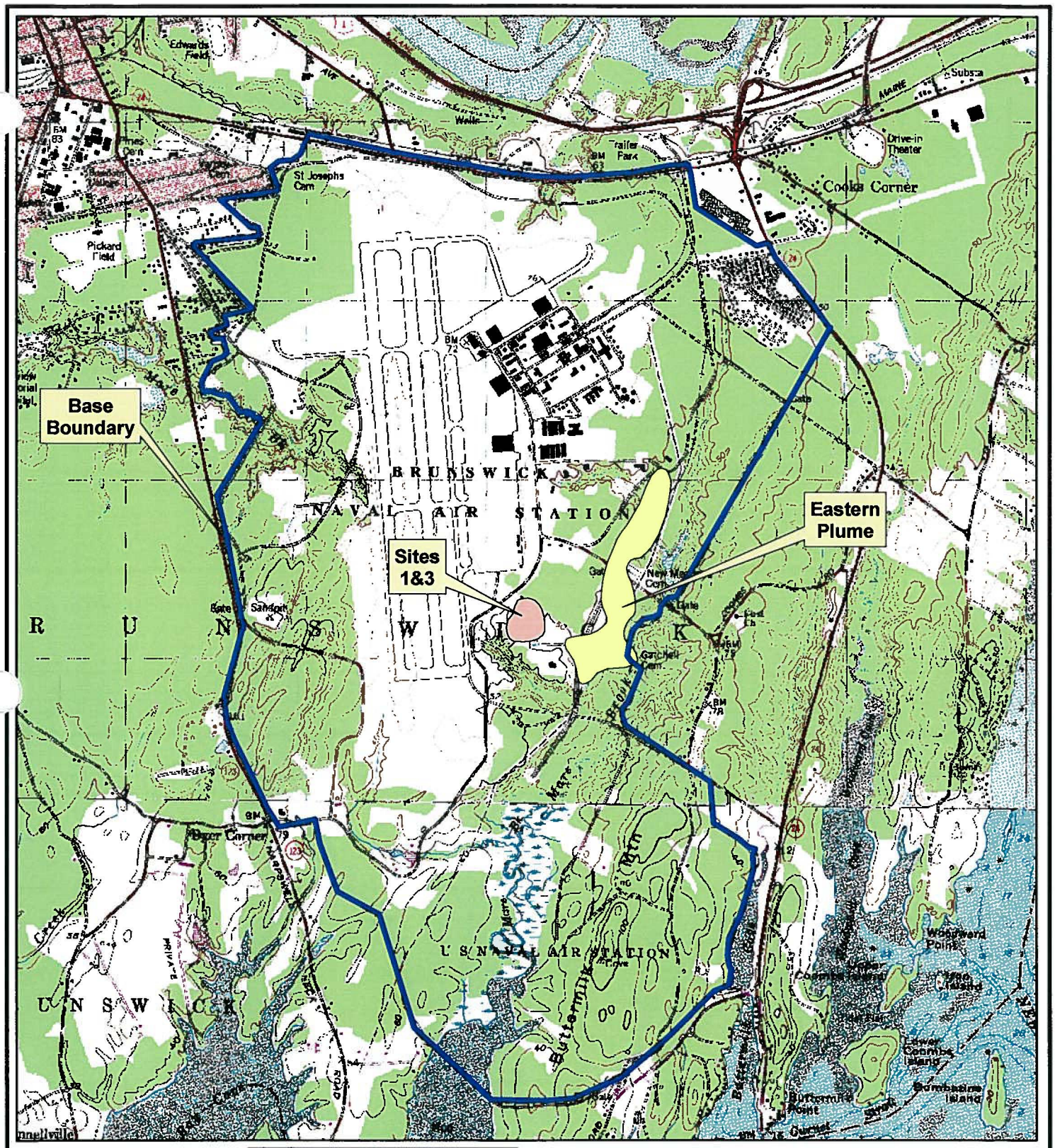
TABLE 2-2 (continued)
RESULTS OF NATURAL ATTENUATION PARAMETER SCREENING APRIL 2006 GROUNDWATER DATA

			MW-337		MW-338A		MW-338B		MW-338C	
			Value	Score	Value	Score	Value	Score	Value	Score
Total Score	Evaluation Criteria	Score		**6**		**7**		**7**		**1**
Dissolved Oxygen (mg/L)	<0.5; 0.5 - 5; >5	3; 0; -3	0.6	0	4.4	0	0.40	3	6.6	-3
Eh (mV)	<-100; -100 - 50; >50	2; 1; 0	-104	2	-270	2	-295	2	-198	2
Temperature (Deg C)	>20	1	11.55	0	8.7	0	9.5	0	9.08	0
Alkanlinity, Total as CaCO3 (mg/L)	>58.2 (2X Background)	1	48	0	280	1	35	0	18	0
Chloride (mg/L)	>38.2 (2X Background)	2	12	0	120	2	8.8	0	4.5	0
Ethane (mg/L)	>0.01; >0.1	2; 3	0.01 U	0	0.01 UJ	0	0.01 UJ	0	0.01 UJ	0
Ethene (mg/L)	>0.01; >0.1	2; 3	0.01 U	0	0.01 UJ	0	0.01 UJ	0	0.01 UJ	0
Hydrogen (nM)	>1 nM	1	NC	0	NC	0	NC	0	NC	0
Iron, Ferrous (mg/L)	>1	3	0.97	0	0.01	0	0.08	0	0.03	0
Methane (mg/L)	>0.5	3	0.01 U	0	0.24 J	0	0.01 UJ	0	0.01 UJ	0
Nitrogen, Nitrate (mg/L)	<1	2	0.1 U	0	0.1 U	0	0.1 U	0	0.1 U	0
Sulfate (mg/L)	<20	2	4	2	0.2 U	2	5.6	2	3.4	2
Sulfide (mg/L)	>1	3	NC	0	NC	0	NC	0	NC	0
Total Organic Carbon (mg/L)	>20	2	1 UJ	0	2.7	0	1 U	0	1 U	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	1.5 J	2	ND	0	ND	0	ND	0
Vinyl Chloride (ug/L)	Present	2	ND	0	ND	0	ND	0	ND	0

TABLE 2-2 (continued)
RESULTS OF NATURAL ATTENUATION PARAMETER SCREENING APRIL 2006 GROUNDWATER DATA

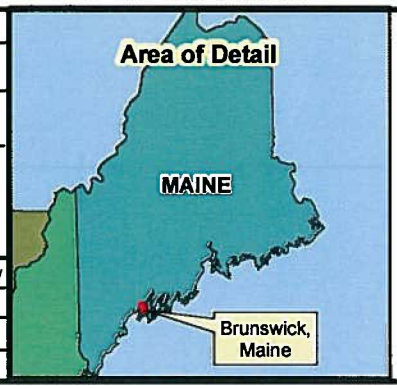
			MW-339		P-106		P-111	
			Value	Score	Value	Score	Value	Score
Total Score	Evaluation Criteria	Score		**7**		**8**		**4**
Dissolved Oxygen (mg/L)	<0.5; 0.5 - 5; >5	3; 0; -3	0.38	3	8.69	-3	1.78	0
Eh (mV)	<-100; -100 - 50; >50	2; 1; 0	-140	2	39.4	1	-276	2
Temperature (Deg C)	>20	1	9.05	0	10.68	0	6.34	0
Alkanlinity, Total as CaCO3 (mg/L)	>58.2 (2X Background)	1	34	0	30	0	33	0
Chloride (mg/L)	>38.2 (2X Background)	2	8.5	0	14	0	5.5	0
Ethane (mg/L)	>0.01; >0.1	2; 3	0.01 UJ	0	0.01 U	0	0.01 U	0
Ethene (mg/L)	>0.01; >0.1	2; 3	0.01 UJ	0	0.01 U	0	0.01 U	0
Hydrogen (nM)	>1 nM	1	NC	0	NC	0	NC	0
Iron, Ferrous (mg/L)	>1	3	0.03	0	0.06	0	0.58	0
Methane (mg/L)	>0.5	3	0.01 UJ	0	0.01 U	0	0.01 U	0
Nitrogen, Nitrate (mg/L)	<1	2	0.1 U	0	0.4	2	0.1 U	0
Sulfate (mg/L)	<20	2	4.5	2	4.4	2	13	2
Sulfide (mg/L)	>1	3	NC	0	NC	0	NC	0
Total Organic Carbon (mg/L)	>20	2	1 U	0	1 U	0	1.3	0
1,1,1-Trichloroethane (ug/L)	Assume Released	0	ND	0	420 J	0	ND	0
1,1,2-Trichloroethane (ug/L)	Assume Released	0	ND	0	0.52 J	0	ND	0
1,1-Dichloroethane (ug/L)	Present	2	ND	0	33 J	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	ND	0	ND	0
Dichloroethene, Total (ug/L)	Present	2	ND	0	12 J	2	ND	0
Tetrachloroethene (ug/L)	Assume Released	0	ND	0	4.3 J	0	ND	0
Total BTEX (ug/L)	>100	2	ND	0	ND	0	ND	0
Trichloroethene (ug/L)	Present	2	ND	0	210 J	2	ND	0
Vinyl Chloride (ug/L)	Present	2	ND	0	ND	0	ND	0

FIGURES



Contract No.	N62472-02-D-0810
Description	Sites 1 & 3 & Eastern Plume
Coordinate system	NAD 1983, UTM, Zone 19 N in meters
Sources	Naval Base Boundary provided by Navy. Orrs Island (1978) and Brunswick (1980) 7.5 minute quadrangles provided by USGS.

Date	10-APR-2007	Rev.	Date	App. By
DB	C. Guido			
CB	N. Williams			
AB				



Legend

NASB Brunswick Boundary

Figure 1-1

Sites 1, 3 & Eastern Plume Site Location Map

Naval Air Station
Brunswick, Maine

ECC GIS
C:\NAVY_GIS\TO07_Brunswick\Site1and3\
MapDocuments\EP_April06\EP_April06Fig1-1.mxd

0 800 1,600 3,200 Feet

Sites 1&3

Inferred plume area based on reported concentrations above State MEGs/Federal MCLs (April 2006)

Merriconeag Stream

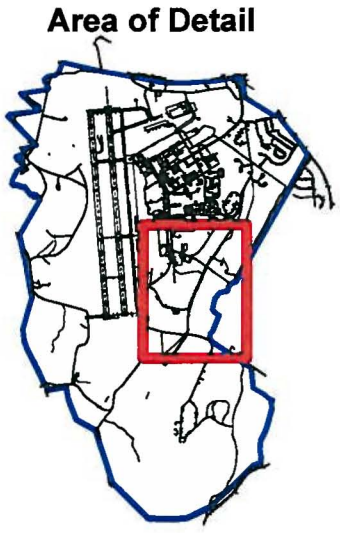
Mere Brook

NOTES
1. Inferred extent of Eastern Plume boundary lines are approximate and based on April 2006 sampling results.
2. Plume boundary was extended to include an estimated concentration of TCE (5.2 J ug/L) at MW-230A.
3. VOC concentrations used to generate these boundary lines do not include: acetone, 2-butanone and methylene chloride.

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

Date	22-MAY-2007	Rev.	Date	App. By
DB	C. Guido			
CB	A. Easterday			
AB				

Area of Detail



Legend

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

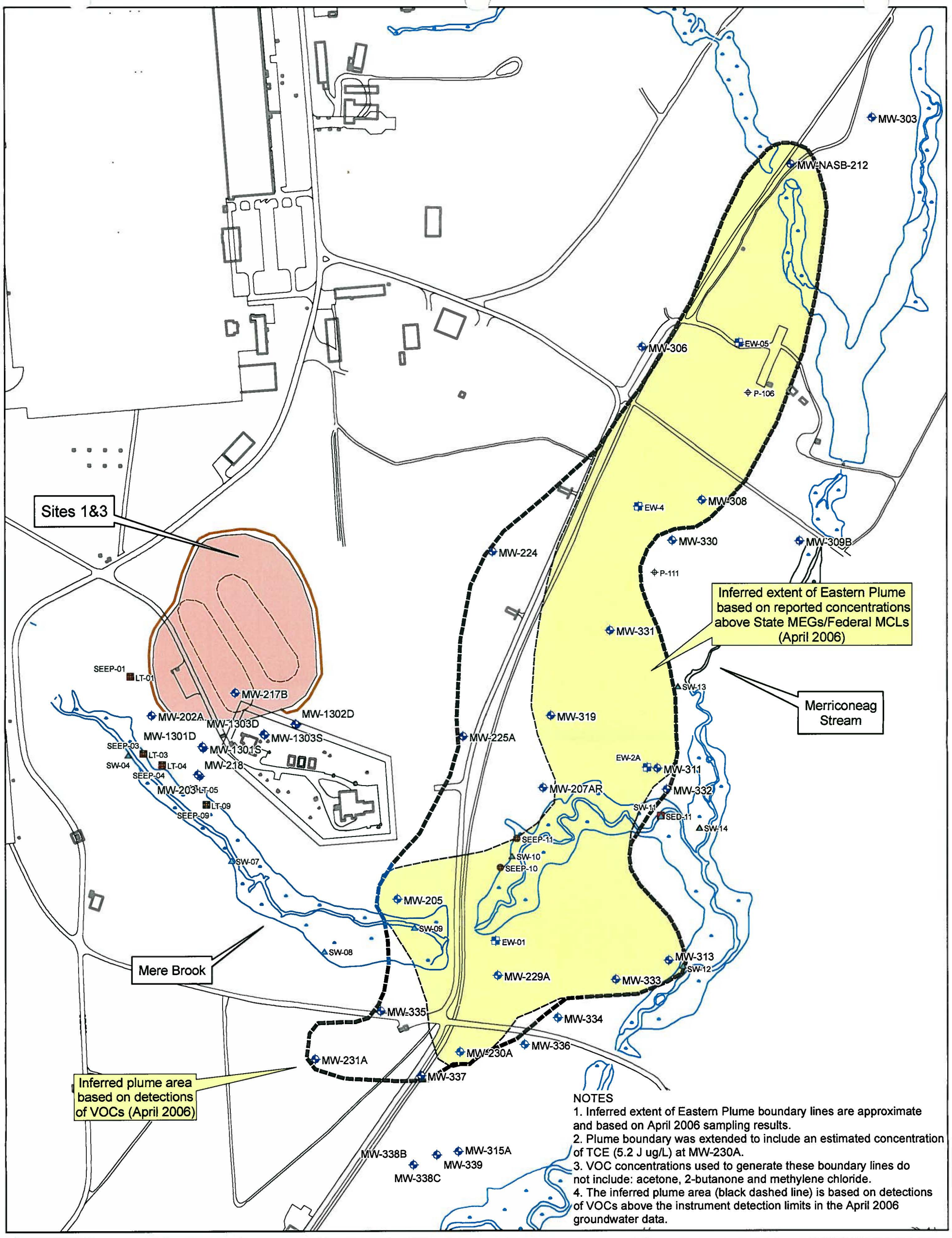
Figure 1-2

Site Plan
Sites 1 and 3,
Eastern Plume

Naval Air Station
Brunswick, Maine

ECC Marlborough, MA
C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\EP_April06\EP_April06Fig1-2_11X17.mxd

0 125 250 500 Feet

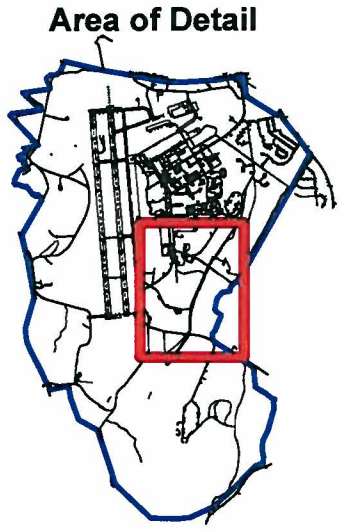


NOTES
1. Inferred extent of Eastern Plume boundary lines are approximate and based on April 2006 sampling results.
2. Plume boundary was extended to include an estimated concentration of TCE (5.2 J ug/L) at MW-230A.
3. VOC concentrations used to generate these boundary lines do not include: acetone, 2-butanone and methylene chloride.
4. The inferred plume area (black dashed line) is based on detections of VOCs above the instrument detection limits in the April 2006 groundwater data.

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

Date	22-MAY-2007	Rev.	Date	App. By
DB	C. Guido			
CB	A. Easterday			
AB				

Area of Detail



Legend

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

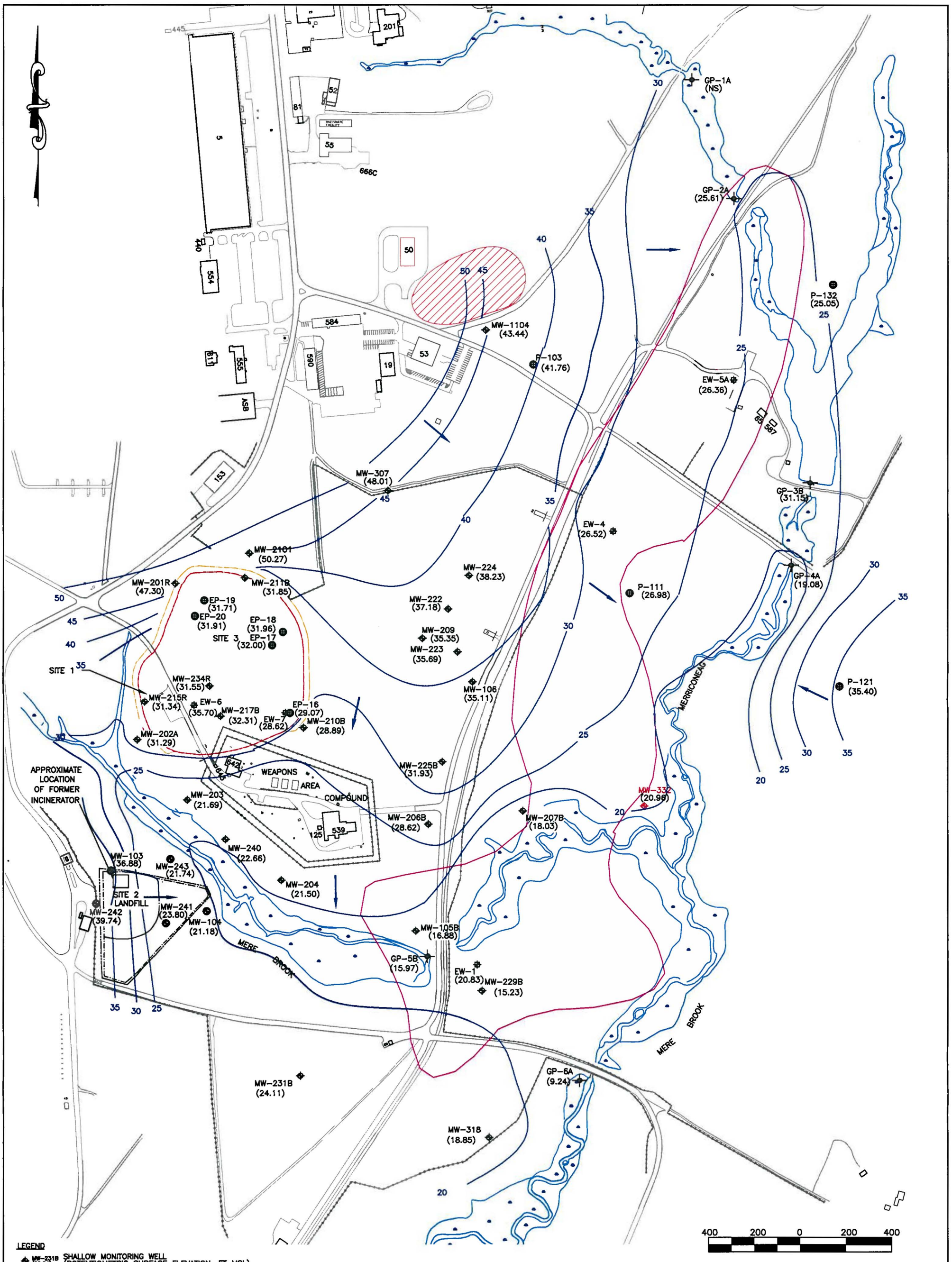
Figure 1-3

Long-Term Monitoring Sample Locations (April 2006)

Naval Air Station
Brunswick, Maine

ECC Marlborough, MA
C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\EP_April06\EP_April06Fig1-3_11X17.mxd

0 125 250 500 Feet



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
- APPROXIMATE LIMITS OF EASTERN PLUME
- 27 GROUNDWATER CONTOUR (FT MSL) (DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION
- GWETS INFILTRATION GALLERY

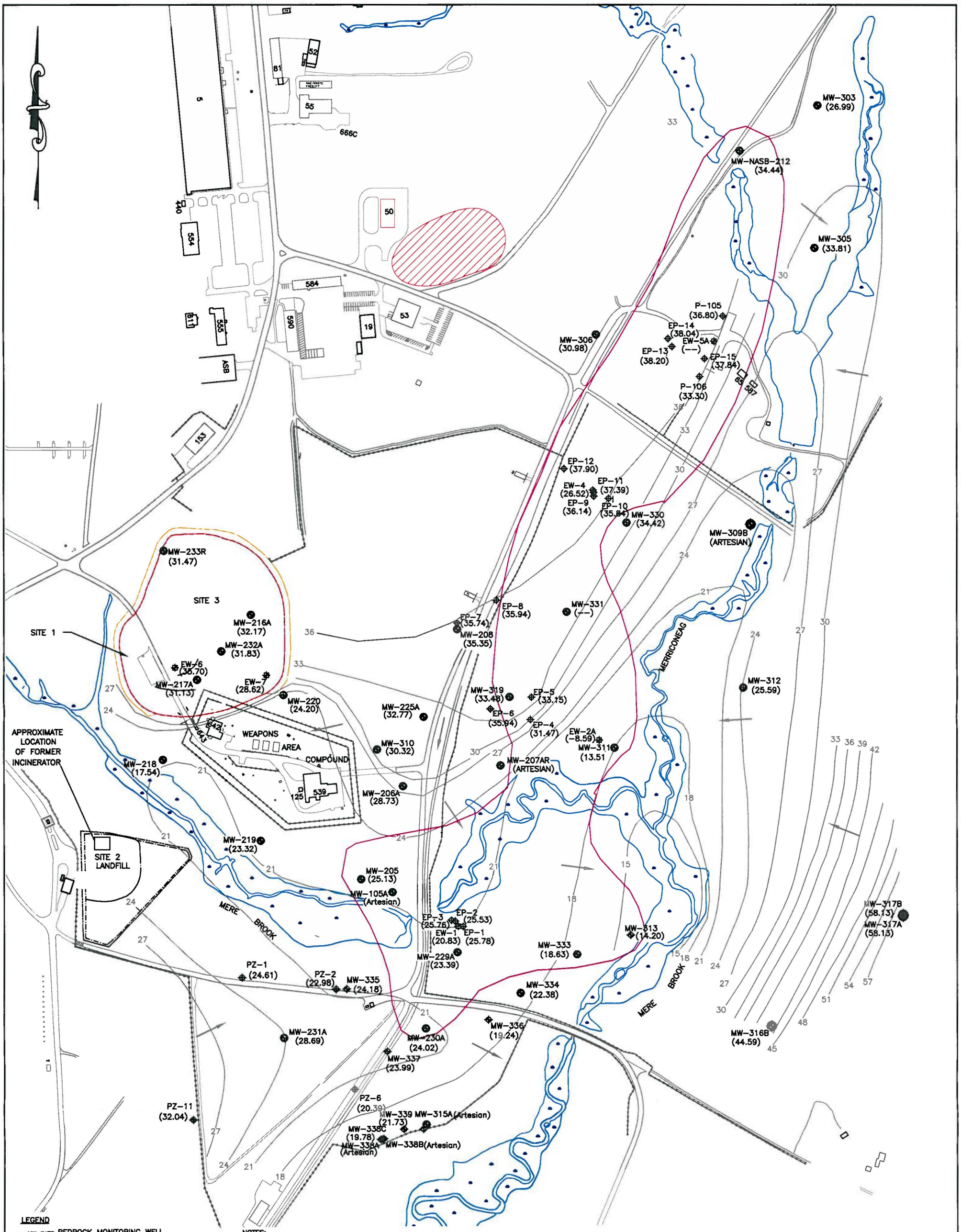
NOTE:

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, APRIL 2006

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 (58.71) 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
- APPROXIMATE LIMITS OF EASTERN PLUME
- 27 GROUNDWATER CONTOUR (FT MSL) (DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION
- GWETS INFILTRATION GALLERY

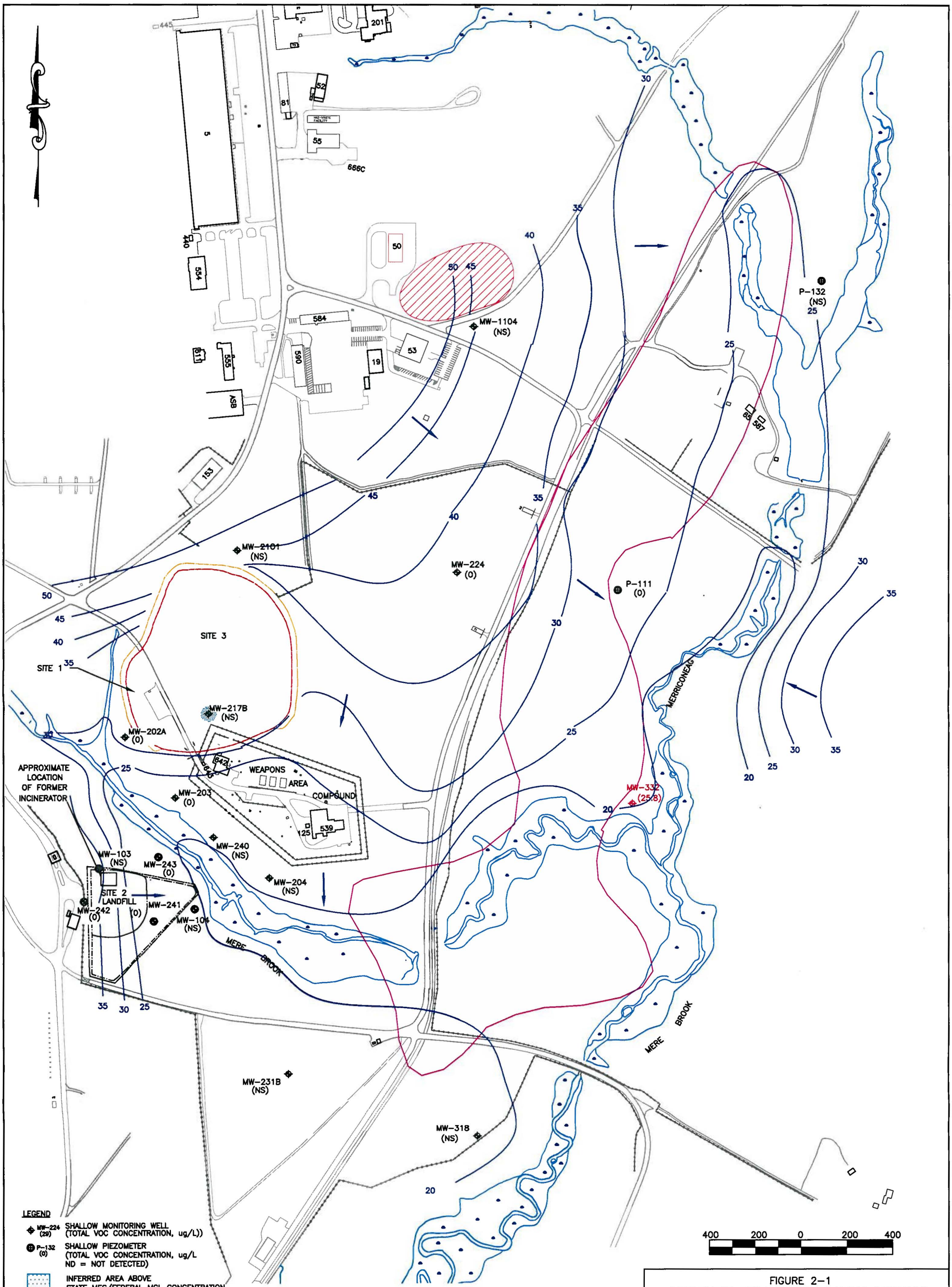
NOTES:

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, APRIL 2006
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

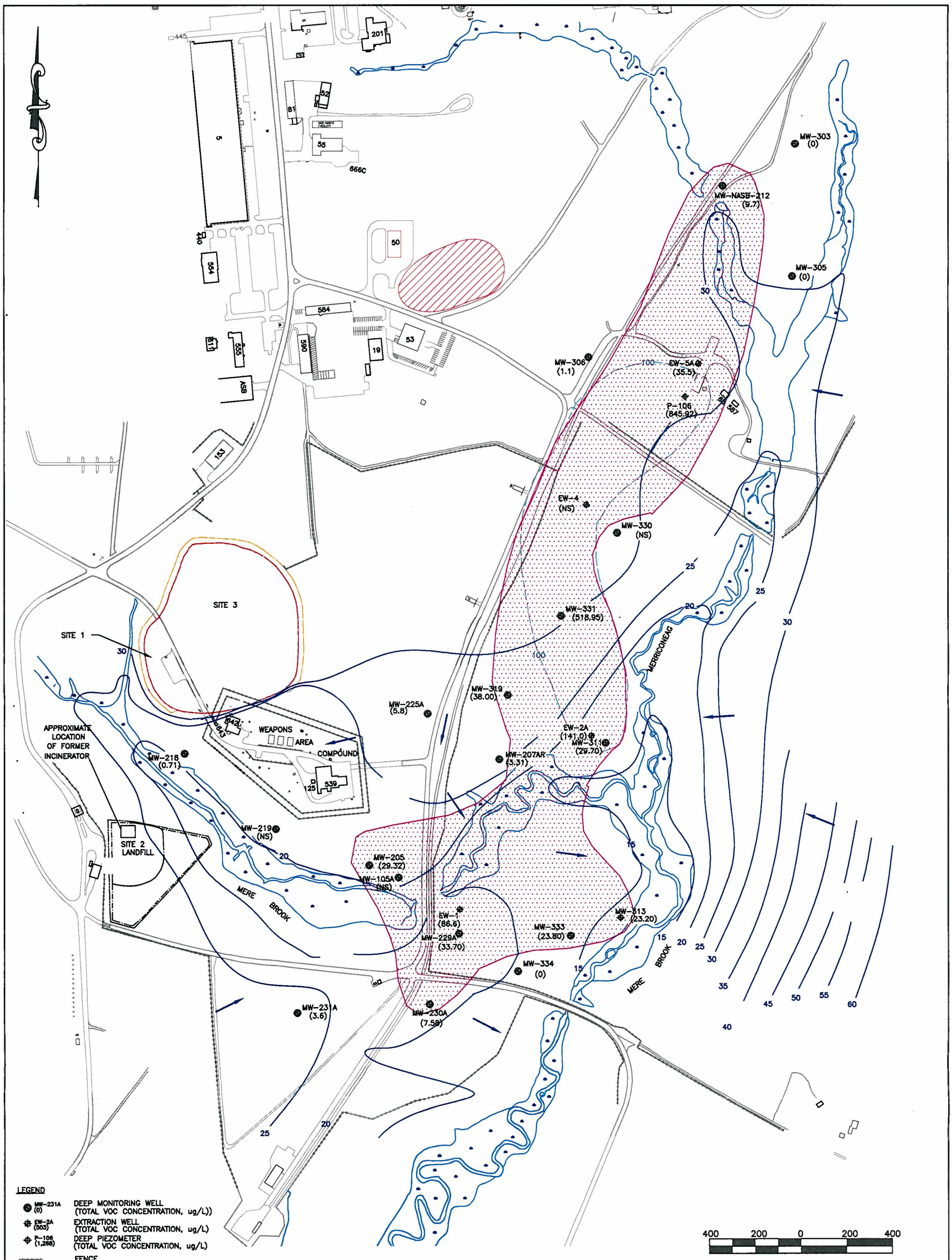
- MW-224 (29) SHALLOW MONITORING WELL (TOTAL VOC CONCENTRATION, ug/L))
- P-132 (0) SHALLOW PIEZOMETER (TOTAL VOC CONCENTRATION, ug/L ND = NOT DETECTED)
- INFERRED AREA ABOVE STATE MEG/FEDERAL MCL CONCENTRATION
- 100 100 ug/L TOTAL VOC CONTOUR (DASHED WHERE INFERRED)
- FENCE
- APPROXIMATE LIMITS OF SLURRY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

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 28
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
- APPROXIMATE LIMITS OF EASTERN PLUME
- 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
- GWETS INFILTRATION GALLERY

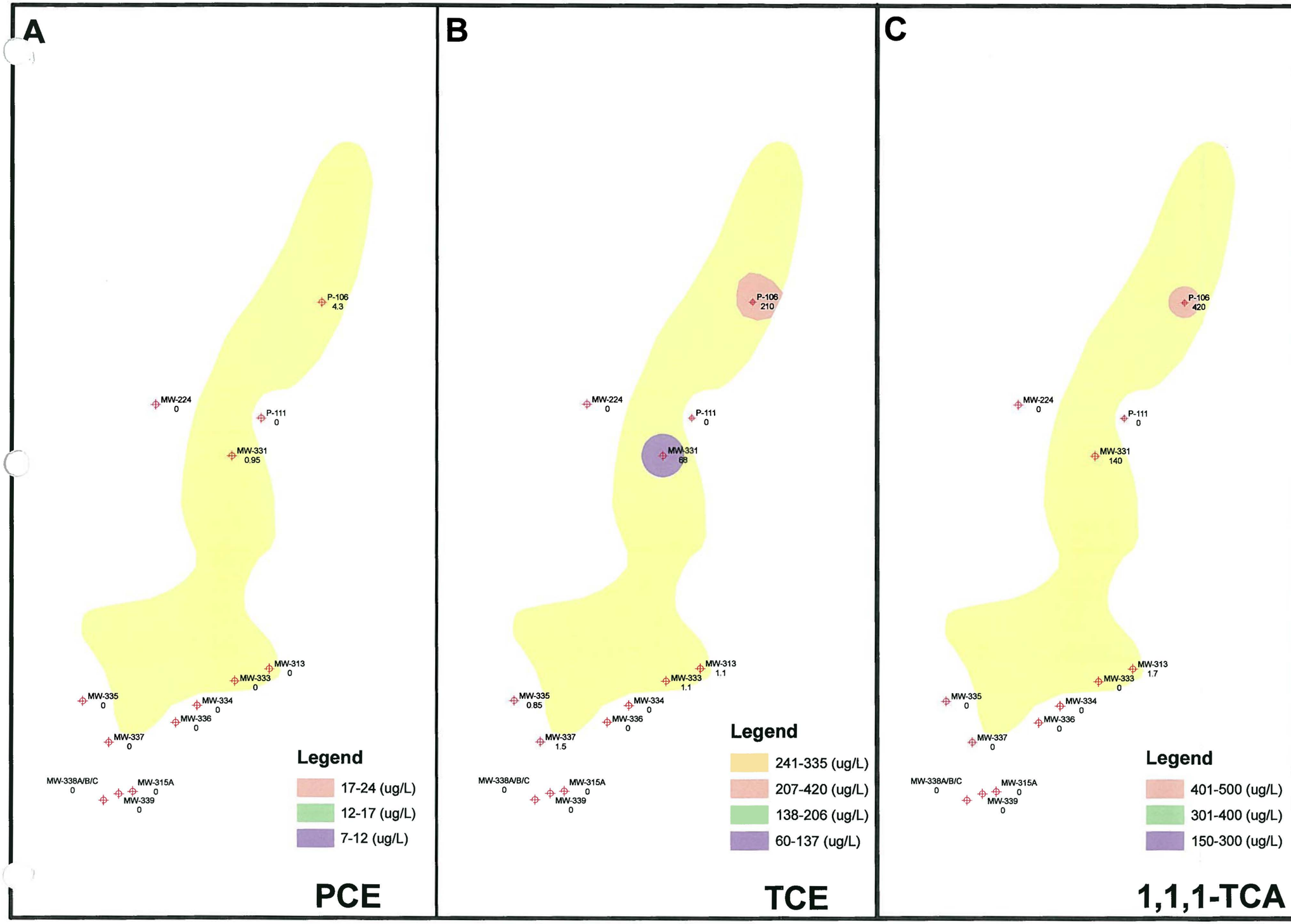
NOTE:

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 28
SITES 1 AND 3 AND EASTERN PLUME
NAVAL AIR STATION, BRUNSWICK, MAINE

DATE APRIL 2006	ECC	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	Eastern Plume
Coordinate System	NAD 1983, UTM, Zone 19N
Note	Based on April 2006 sampling results

Date	22-MAY-07	Rev.	Date	Approved
Drawn	C. Guido			
Checked	N. Williams			
Approved				

Legend

Sample Location
Eastern Plume, April 2006

0 250 500 1,000 Feet

ECC Marlborough, MA, C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\EP_April06\EP_April06Fig2-3.mxd

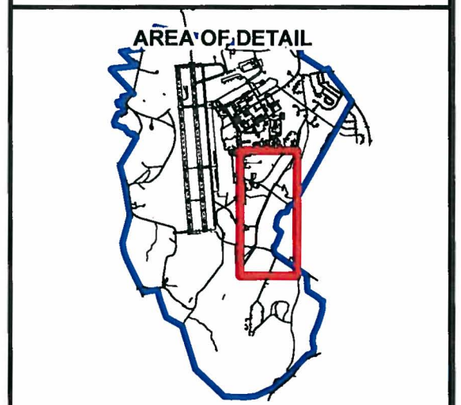
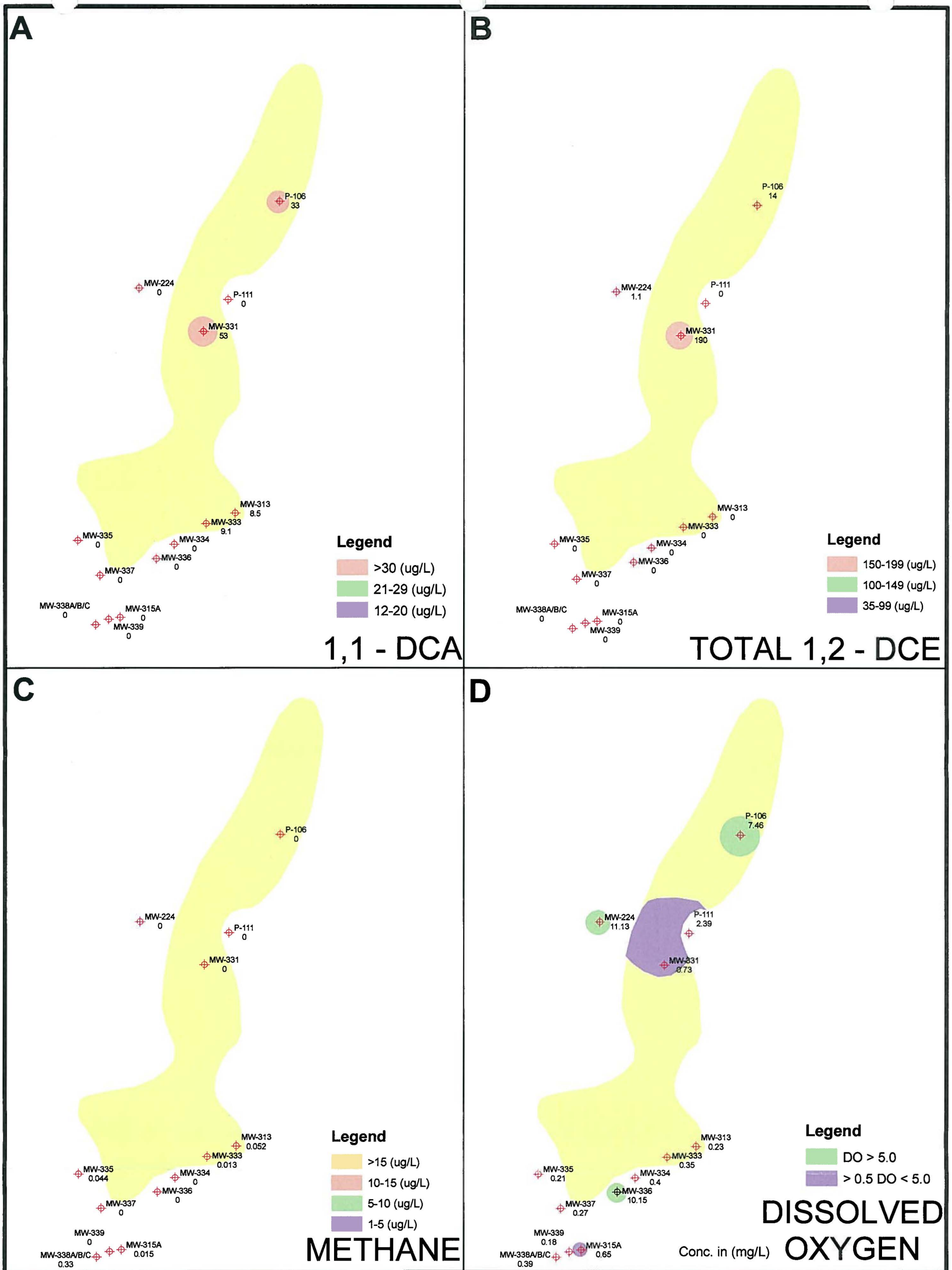


Figure 2-3

PCE, TCE and 1,1,1-TCA Concentrations

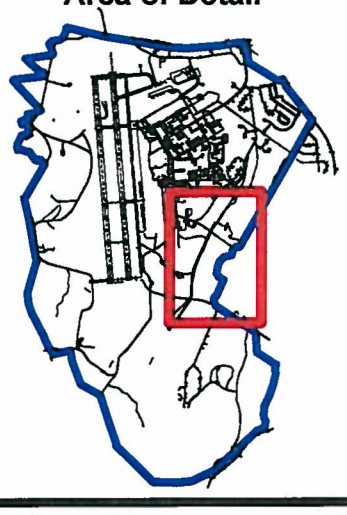
Naval Air Station
Brunswick, Maine



Project No.	5700.007
Description	Eastern Plume
Coordinate system	NAD 1983, UTM, Zone 19N
Note	Based on April 2006 sampling results

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

Area of Detail



Legend

- Sample Location
- Eastern Plume, April 2006

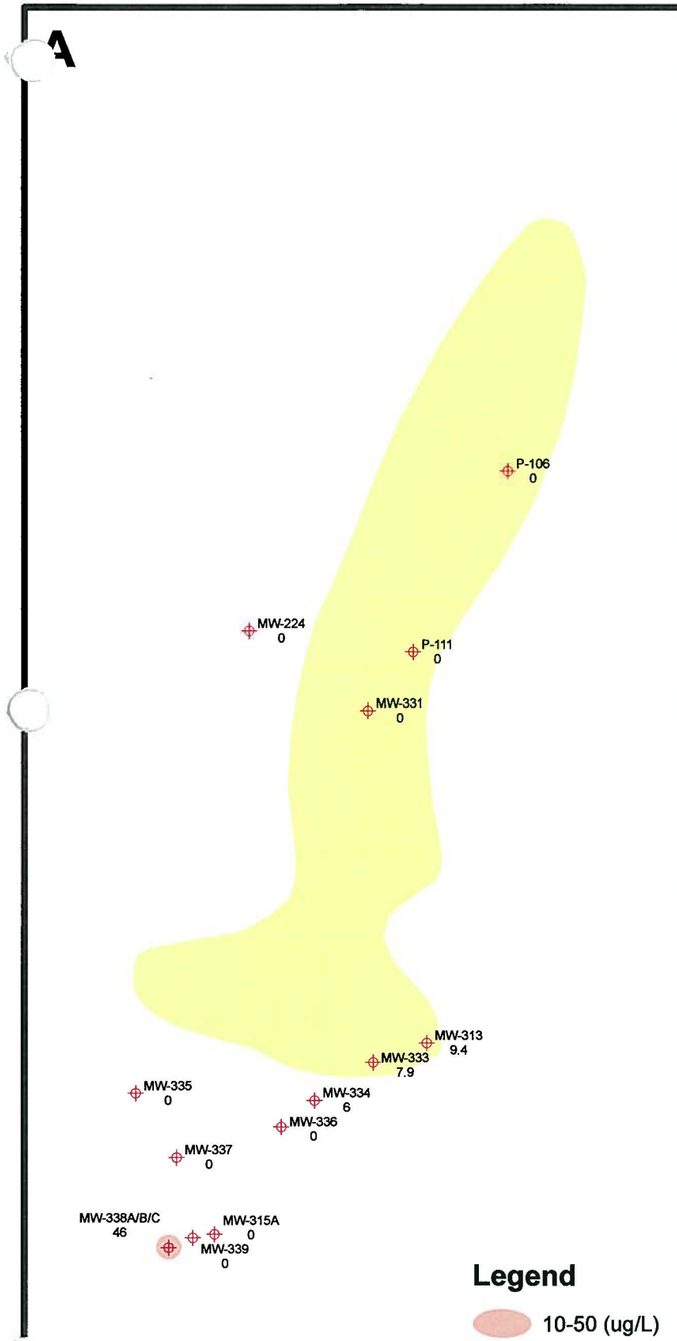
Figure 2-4

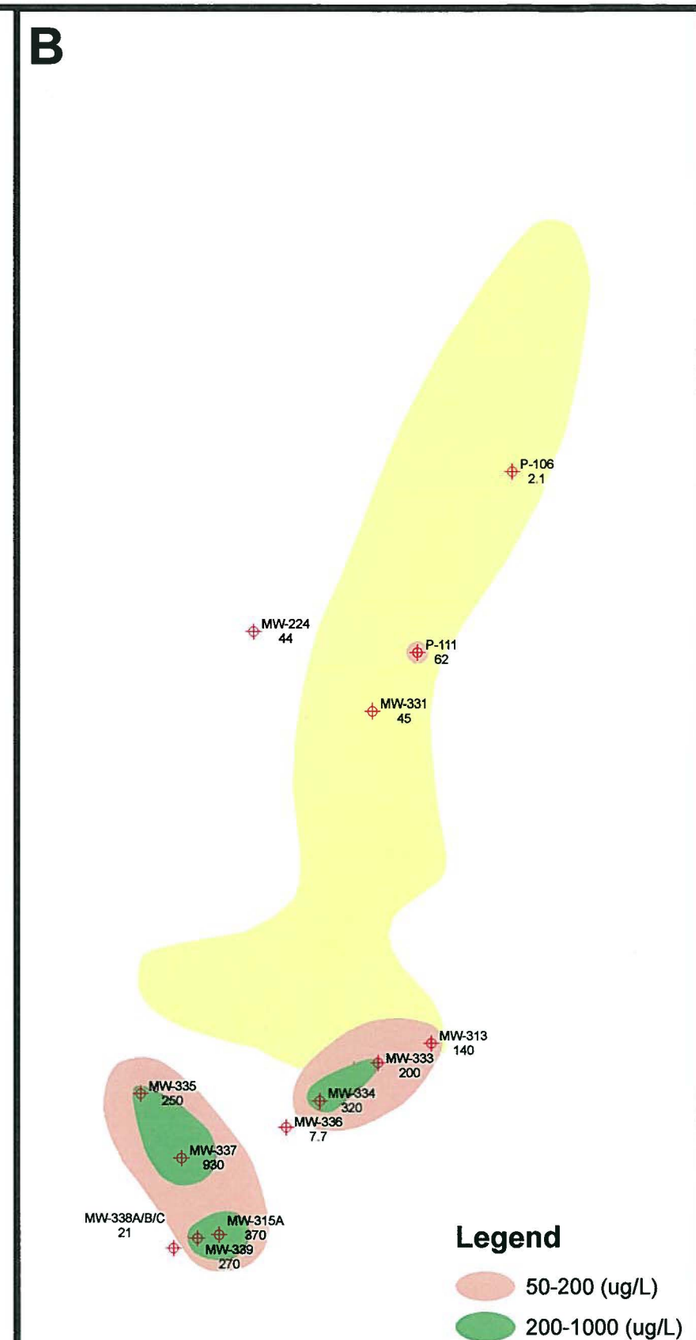
1,1-DCA, 1,2-DCE, Methane & Dissolved Oxygen Concentrations

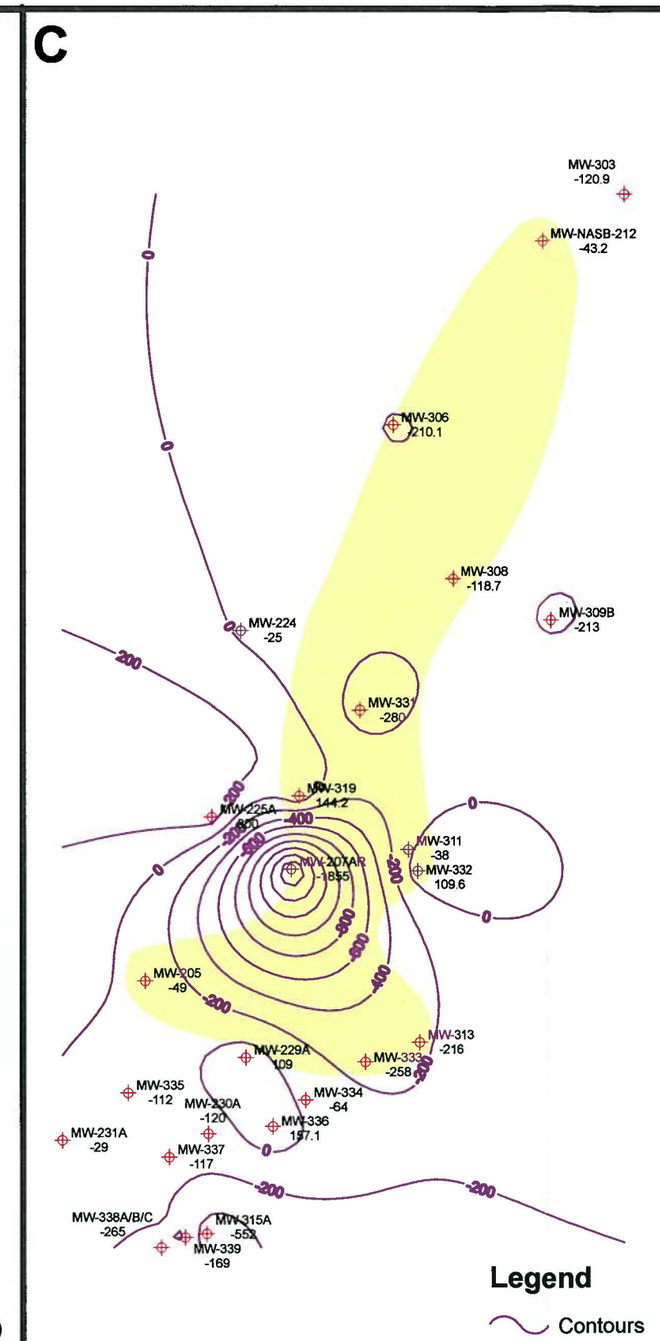
Naval Air Station
Brunswick, Maine

ECC Marlborough, MA
C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\EP_April06\EP_April06Fig2-4.mxd

0 250 500 1,000 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	20-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_April06\EP_April06Fig2-6_AsMnORP.mxd

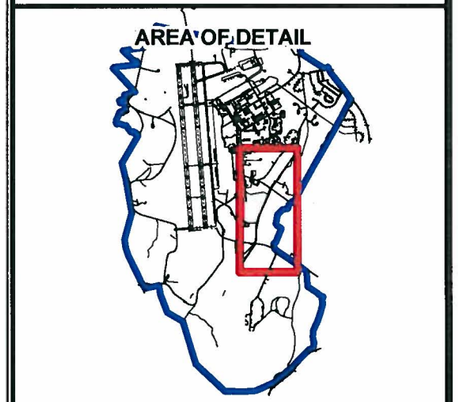
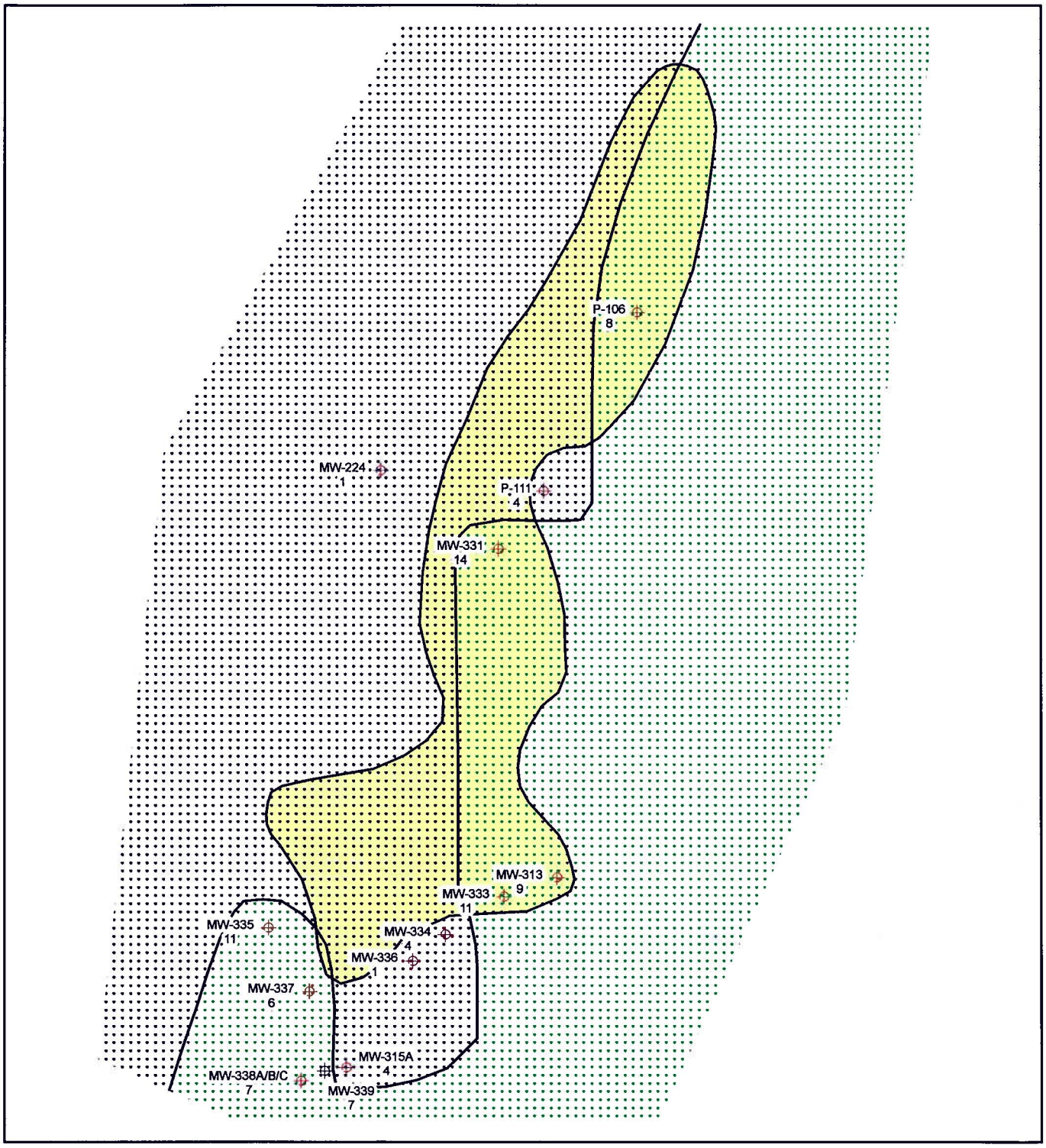


Figure 2-5

Arsenic, Manganese and ORP Concentration Isocontours

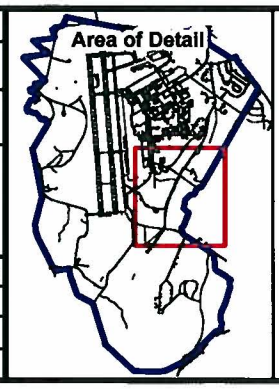
Based on April 2006 Sampling Event

Naval Facilities Engineering Command
Naval Air Station
Brunswick, ME



Project No.	2960047
Description	Eastern Plume
Coordinate system	NAD 1983, UTM, Zone 19N
Notes	Based on April 2006 sampling results

Date	22-MAY-2007	Rev.	Date	App. By
DB	C. Guido			
CB	N. Williams			
AB				



Legend

- Sample Location
- 6-14, Limited Evidence of Biodegradation
- <6, Inadequate Evidence of Bidegradation
- Eastern Plume, April 2006

Figure 2-6

Monitored Natural Attenuation Scoring

Naval Air Station
Brunswick, Maine

ECC Marlborough, MA
C:\NAVY_GIS\TO07_Brunswick\Site1and3\MapDocuments\EP_April06\EP_April06Fig2-5.mxd

APPENDIX A

Response to Comments from the Regulators on the Draft Report

Responses to Comments Provided by the State of Maine Environmental Protection Agency on the Sites 1&3 Eastern Plume Monitoring Event 28 (April 2006) Report, May 2007 Naval Air Station, Brunswick, Maine

Reviewer: Ms. Claudia Sait, MEDEP Project Manager
Date: August 22, 2007 (Additional Comment, October 31, 2007)
Respondent: Navy
Date: August 31, 2007 (Additional Response November 27, 2007)

Comment #	Location	Comment	Response
1	General	The data for Monitoring Event (ME) 28 are generally consistent with previous rounds, notable exceptions are included in the specific comments below. The April and June 2006 monitoring event omitted several locations included in the approved 2000 Long-Term Monitoring Plan (LTMP). This issue is being addressed through dispute resolution and 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 optimization proposal agreed to by the stakeholders. The final Sites 1&3 and Eastern Plume LTMP should have included the November 2004 revised proposal. This oversight will be corrected in the revised Sites 1&3 and Eastern Plume LTMP, which is scheduled to be finalized prior to the Fall 2007 monitoring event. Based on trend graphs that the Navy has developed using monitoring data from before and after the missing data, it is with reasonable certainty that similar contaminant concentrations would have been detected.
2	General	MEDEP generally agrees with and supports USEPA comments dated July 2, 2007, on this draft report. In particular MEDEP supports the need to evaluate groundwater concentrations of arsenic and manganese within the Eastern Plume as part of the site-wide background study. MEDEP also supports USEPA comment #7 from the July 2 letter, the report and Tables 1-1 and 1-2 should state that the wells, parameters and frequency apply specifically to ME 28 only or reference the appropriate version of the LTMP. Other specific comments are noted below.	**Noted.** See USEPA comments in the attached response to comments. The site-wide background study will include analytes that are agreed to by the Navy and the regulators. The ME 28 report will be updated to include updated information to summarize the ME 28 sampling and reference where appropriate the appropriate version of the LTMP. This will include updates to the appropriate tables and figures.
3	General	Correspondence between USEPA and Navy relating to the presence of 1,4 Dioxane in the Eastern Plume, and the need for treatment under the ROD has led to a Navy proposal to proceed with the CERCLA Remedial Investigation process to evaluate the nature and extent of 1,4 Dioxane in the plume and perhaps elsewhere at the site as part of the background study. As an interim step prior to this investigation proceeding MEDEP believes a focused synoptic round of water levels in the vicinity of the GWETS infiltration gallery would support a better understanding of	**Noted.** An interim investigation to determine water levels in the vicinity of the GWETS infiltration gallery to support flowpaths downgradient of the system should be discussed at the next Brusnwick NAS technical meeting (September 2007).

Comment #	Location	Comment	Response
		flowpaths downgradient of the system. The wells typically included in the bi-annual LTM do not provide coverage near the GWETS. When the flowpaths are defined, optimum sample points can be selected to determine the influence of the re-introduction of 1,4 dioxane into the Eastern Plume by the GWETS. Response to Comment 3: Since the topic of groundwater levels in the vicinity of the Ground Water Extraction Treatment System has not been discussed please add it to the December Technical Meeting agenda.	**Noted.**
4	General	It is also notable that this is the first LTM round with the six new wells installed downgradient of the gap in the slurry wall at Landfills 1&3. The data indicate the presence of volatile organic compounds (VOCs), primarily breakdown products of 1,1,1 TCA, and metals such as iron, manganese and lead. This appears to be one of the few locations where VOC degradation/dechlorination is proceeding beyond 1,1 DCA in the groundwater, based upon the vinyl chloride and chloroethane concentrations detected.	**Concur.** This region and the vicinity of Mere Brook are the only region indicative of active–biodegradation. These regions must have adequate TOC to support reductive dechlorination. Lack of TOC is most likely the cause of halted bio-degradation in the Eastern Plume.
5	Section 1.2, Figures 1-4 and 1-5 and Tables 1-1 and 1-3	a.) The plotted groundwater elevation contours appear to be incorrect in several locations. On Figure 1-4, the 30 and 35 foot contour miss several of the wells north of the Weapons Compound and west of the Eastern Plume. On Figure 1-5, the 24, 27, and 30-foot contours also are not picking up wells in the same area. b.) Table 1-1 indicates MW-204, MW-220, MW-240, and MW-2101 are not required for gauging, but based on Table 1-3 they were gauged this round. Please revise as needed.	**a) Concur.** Contour water elevations will be corrected in the wells north of the Weapons Compound area and west of the Eastern Plume. **b) Concur.** Table will be updated to include wells that were gauged.
6	Section 1.3	*"In addition to these 10 wells, the Navy installed three monitoring well…"* Please revise the text to reflect that the 6 new wells and 4 existing wells (10 total) were sampled in ME28.	**Concur.** The text will be revised to reflect hat the 6 new wells and 4 existing wells (10 total) were sampled in ME28
7	Section 1.3	*"Water quality indicator parameters, including pH, specific conductance…"* Only tables 1-7 and 1-8 are included. Please include the field parameter tables for the other locations sampled this round.	Tables 1-9 through 1-12 include other water quality indicator parameters. The final version of the document will include these tables if not included in the draft version.
8	Section 2.4.1 MW-218 Table	The ME28 date is listed as 2007, please revise.	**Concur.** The date will be correct to April 2006.

Comment #	Location	Comment	Response
9	Section 2.4.5	*"No trending is shown since sampling is conducted on an annual basis."* MEDEP is uncertain why trending cannot be shown for annual sampling, please revise or provide further justification, as trends are interpreted for groundwater locations sampled annually for other locations at NASB	**Noted.** Trending will be provided in the September reports when sampling occurs. Since sediment samples were not collected no trending will be provided in the body of this report. The report will annotate this explanation.
10	Section 2.5.1 Appendix C Figure 199	The trend figure for MW-332 has not been updated for ME27 and ME28, please revise.	**Concur.** The trend figure will be updated.
11	Section 2.5.2 Appendix B Tables and Appendix C Figures	a.) MW-231A – The detection limit for 1,1 DCE was listed as 10 ug/L (over the MEG/MCL) and there were trace detections of 1,1 DCA and 1,2 DCE (total). These are some of the first detections of VOCs at this location, and if they persist represent another portion of the leading edge of the plume. b.) MW-308 – The detections this round are a significant increase from previous rounds, and are also represent the first low-flow sample data in several years. This location may need to be re-evaluated for PDB placement depth or possibly needs re-development for the PDB to provide a representative sample. c.) MW-313 – MEDEP was unable to find any historical values approaching the TVOC high concentration of 18,990 ug/L noted in the table. Please revise as needed.	**a) Noted.** MW-231A will be closely monitored in future sampling events to determine if this is in fact a continuing trend. **b) Noted.** MW-308 and the detections should be discussed at the next technical meeting (September 2007). **c) Noted.** MW-313 will be reviewed and the correct high concentration will be provided.
12	Section 3.1	a.) Bullet 1:_*"These elevated VOC concentrations are within the plume…"* MEDEP believes MW-230A is appropriately noted as within the plume, based on several detections of TCE in excess of the MCL, and based on the overall migration of the plume to the south of Mere Brook. MEDEP agrees with the targeting of hot-spots to reduce overall VOC concentrations and improve removal rates by the extraction system. b.) Bullet 2, Recommendation: MEDEP agrees with the Navy's recommendation to discontinue MNA sampling program at this time. c.) Bullet 3, Recommendation: MEDEP had a difficult time making sense of this recommendation. It appears that two investigations are discussed. First, the joint effort by MEDEP, EPA and the Navy for the porewater investigation implemented in two phases, August and September 2005, but this investigation had no connection with Monitoring Event 27. The subsequent investigation performed by ECC in 2007 was a result of the initial porewater investigation. Please edit the	**a) Noted.** **b) Noted.** **c) Concur.** The recommendation will be changed to be, "Surface water results remain non-detect; however, the joint EPA, MEDEP, and Navy porewater sampling in August and September 2005 showed significant VOC detections in porewater along Merriconeag Stream. As a continuation of the 2005 porewater investigation, the Navy will perform a pore

Comment #	Location	Comment	Response
		recommendation heavily for verb tense and for clarity. d.) Bullet 4: MEDEP will consider the results of the fish tissue study prior to any optimization of the surface water or leachate seep locations. Groundwater is also impacted by chlorinated VOCs downgradient of the landfill, and MEDEP cannot fully agree with this conclusion due to the LTMP issues noted elsewhere. e.) Bullet 5: MEDEP agrees that the extraction network has been successful in reducing VOC concentrations in some areas of the plume, but notes that hydraulic control is also exerted by the geology and hydrogeology in the area, as demonstrated by the migration of the southern and eastern boundaries of the plume. MEDEP also supports the USEPA comment on this section.	water sampling event at the confluence of Mere Brook and Merriconeag Stream to further quantify porewater VOC concentrations. ECC will develop a work plan outlining this sampling. The proposed investigation will be conducted in order to provide data to better define the geology and hydrogeology controlling the discharge of the Eastern Plume to the confluence of Mere Brook and Merriconeag Stream, and to determine if VOCs are present in the stream from the discharge of the groundwater plume. This work is tentatively scheduled for 2007". **d) Noted.** **e) Noted.** See response to USEPA comments.
13	Section 3.1	Bullets 2 & 4 – MEDEP agrees the groundwater model under development and the ongoing Mere Brook Investigation will be important for a comprehensive evaluation of the groundwater extraction network effectiveness. Assessing the chemical and gauging data alone will not be sufficient to complete a detailed evaluation of the capture zone and degree of hydraulic control achieved by the current network. Future changes in the extraction well network will require reconsideration of the LTMP wells and frequency to evaluate any changes in the plume distribution.	**Noted.**
14	Figure 2-2 and Appendix B Table B-3	The title box for the figure is dated 2005, please revise. Also the TVOC value for MW-231A should be noted as 3.6 ug/L rather than "0".	**Concur.** The title box will be updated to 2006 and will include 3.6 ug/L for MW-231A.
15	Table 1-4 MW-207AR and MW-331	a.) 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 make an effort to 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. b.) MW-207AR was installed in 2002, please confirm a bottom depth for this location.	**a) Concur.** MW-331 has always been successfully sampled despite the obstruction. Navy is reviewing options for a smaller diameter probe or replacing MW-331. b) The bottom depth is 97 feet.

Comment #	Location	Comment	Response
16	Appendix B, Table B-12	The non-detects for alpha and gamma-chlordane, and hexachlorobenzene are noted as "0U". Was this the reporting limit provided by the laboratory, or was the value low enough to fall out due to significant digits in the printout?	**Noted.** The laboratory MRL was provided as 0.05 ug/l for these pesticides. The table notation, "0 U" will be replaced with "0.05 U".
17	Appendix B Table B-9	The TVOC value for SW-10 is listed as 4.57 ug/L, however only bromoform is listed at 0.57 ug/L. Please revise the table, as needed.	**Concur.** The Table B-9 will be revised as necessary.
18	Appendix , Extraction Wells	The plots for the extraction wells have not been updated to 2006, please revise.	**Concur.** The trend graphs for the extraction wells will be updated.
19	Appendix D, Page 30	The aqueous VOC MDLs are listed as mg/L rather than ug/L, please revise.	**Noted.** The VOC MDLs will be listed as ug/L.
END OF COMMENTS			

October 31, 2007

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 and Eastern Plume, Monitoring Event Reports 27 & 28

Dear Mr. Monaco:

MEDEP has reviewed the Navy's responses dated August 17, 2007, to the Maine Department of Environmental Protection (MEDEP) comments, dated May 31, 2007, for Sites 1, 3 and Eastern Plume Monitoring Event Report 27-September 2005 (March 2007) and Monitoring Event Report 28-April 2006 (May 2007). Based on that review MEDEP has some follow up comments.

Monitoring Event 27:

Response to Comment 17. It appears that the Navy is suggesting is 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.

tResponse to Comment 24 – By not responding to the individual items within this comment the Navy risks MEDEP not accepting the document as final.

Monitoring Event 28:

Response to Comment 3: Since the topic of groundwater levels in the vicinity of the Ground Water Extraction Treatment System has not been discussed please add it to the December Technical Meeting agenda.

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

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January 30, 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 28
Naval Air Station, Brunswick, Maine

Dear Mr. Monaco:

The Maine Department of Environmental Protection (MEDEP) has reviewed the Navy's responses dated September 7, 2007, to MEDEP comments (August 22, 2007) for Sites 1, 3 & Eastern Plume, Monitoring Event Report 28-April 2006 (May 2007). While the topic of the groundwater levels in the vicinity of the Groundwater Extraction Treatment System (GWETS) still needs to be discussed, MEDEP does not want to hold up the finalization of this report. MEDEP anticipated discussing the need for an interim investigation of groundwater levels to be taken in the vicinity of the GWETS' infiltration gallery to determine downgradient flow paths at the next conference call scheduled for February 5, 2008. (Response to comment #3)

Based on its review 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
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Responses to Comments Provided by the United States Environmental Protection Agency New England – Region 1 on the Sites 1&3 Eastern Plume Monitoring Event 28 (April 2006) Report, May 2007 Naval Air Station, Brunswick, Maine

Reviewer: Ms. Christine Williams, EPA Project Manager
Date: July 2, 2007 (Additional Comments, June 19, 2007 and October 4, 2007)
Respondent: Navy
Date: August 31, 2007 (Additional Responses, November 27, 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 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 November 2004 revised optimization proposal agreed to by the stakeholders. The final Sites 1&3 and Eastern Plume LTMP should have included this revised proposal. This oversight will be corrected in the revised Sites 1&3 and Eastern Plume LTMP, which is scheduled to be finalized prior to the Fall 2007 monitoring event. Based on trend graphs that the Navy has developed using monitoring data from before and after the missing data, it is with reasonable certainty that similar contaminant concentrations would have been detected.
2	General	Please provide the rationale for neglecting to sample existing wells in the agreed to finalized LTMP (EA 2000).	See response to Comment 1.
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.	**Noted.** The Navy will address the 1,4 dioxane issue in a separate letter. Please refer to Navy correspondence," Eastern Plume (OU-5), 1,4-Dioxane; Naval Air Station Brunswick, Maine" (Navy June 2007 Serial Number 07-071). The GWET system, developed in conjunction with the MEDEP and EPA, was established to remove ROD COCs, which are CVOCs, from the Eastern Plume. Metals at that time were not determined to be COCs in the ROD. Arsenic and Manganese detections are located in the distal portion of the plume. The southern distal portion of the Eastern plume has natural reducing conditions (from TOC in the lowland brooks), which may be mobilizing naturally occurring arsenic

Comment #	Location	Comment	Response
		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 them. Iron is of interest because the redox chemistry of iron often controls the fate of As and Mn.	and manganese. The upcoming background study will provide more insight in comparing similar strata under similar reducing conditions.
4	General	The Navy has notified EPA that they are upgrading the equipment in the treatment plant to treat the 1,4-dioxane. EPA agrees to extend the requirement for a schedule for completion of the upgrades and beginning of treatment for 1,4-dioxane to no later than August 10, 2007 as requested by the Navy in their June 26, 2007 letter.	**Noted**. Please refer to Navy correspondence," Eastern Plume (OU-5), 1,4-Dioxane; Naval Air Station Brunswick, Maine" (Navy June 2007 Serial Number 07-071).
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. EPA agrees with the Navy's proposal to evaluate the nature and extent of arsenic and manganese contaminants throughout the eastern plume as part of the facility wide background study	**Concur.** The site-wide background study will include analytes that are agreed to by the Navy and the regulators.
6	General	Results from Event 28 are generally consistent with recent trends (see, e.g., Appendix C), particularly for VOCs. Notable exceptions include: a. Metals at MW-217B: Inorganics concentrations returned to historical levels at MW-217B following a "spike" in ME 27. In ME27, the well purged dry; in this round, it yielded water, although turbidity was high (140 NTU). It is noted that ORP was very low (-356 mV), so much of the high iron detected (39 mg/L) was likely in solution. Despite the high Fe and Mn (1.1 mg/L), most trace metals are non-detect (ND). b. VOCs at MW-308: TCE (49 ppb), 1,1-DCE (29 ppb), and 1,1-DCA (15 ppb) jumped significantly from the previous round (Fall 2002, all ND). This location is downgradient of the historical hotspot at P-106, and the new detections may represent the advective arrival of hotspot contamination.	**Comments Noted.**

Comment #	Location	Comment	Response
		c. TCE at MW-230A: TCE exceeded the MCL at MW-230A, at the leading edge (south) of the plume. Although suggestive of continued expansion of the plume, this is not unprecedented; a similar concentration was observed in 2004	
7	General	The document makes a significant and welcome effort to clarify the history and status of the Long Term Monitoring Plan (LTMP). However, it is nowhere clear what version of the LTMP was followed in ME28. This should be stated clearly in Sec. 1.0. It is also recommended that Tables 1-1 and 1-2 be annotated with the sampling plan that they reflect. This is particularly important during the transition to a new LTMP that is underway at present, given that there has been some misunderstanding in this regard.	**Noted. See response to Comment 1.**
8	Page 1-1, Section 1.0	The historical review of the Long-Term Monitoring Plan (LTMP) is a welcome feature of the report. Please add to this history a clear statement regarding which version of the LTMP was followed for ME28, the subject of this document. Please see General Comment 1.	**Noted. See response to Comment 1.**
9	Page 1-4, Section 1.1. Last Bullet	The last bullet on this page indicates that the monitoring data are to be used to "analyze the effective capture zone … ." Will such an analysis be provided as part of the numerical model currently under development?	**Concur.** The groundwater model will be used to determine capture zones.
10	Page 1-5 Section 1.2	As noted in EPA comments on previous monitoring reports, the interpretations of the shallow and deep hydraulic potential surfaces (Figs. 1-4 and 1-5) do not honor the influence of the slurry wall. If the slurry wall is indeed an impermeable barrier (and there is nothing in the present to data to suggest that it is not), and it is keyed into the underlying clay, equipotentials must be perpendicular to the wall (both outside and inside). The wall allows a discontinuous potential surface, with high water outside, and low water inside. The interpretation shown in Figs. 1-4 and 1-5 attempts to define a continuous surface, and suggests flow through the wall. Please revise the contours to account for the hydraulic effects of the wall. An example was provided with EPA comments on ME 27.	**Concur.** The contour groundwater levels will be updated.
11	Page 1-5, Section 1.2, Figure 1-4	The 35-ft (msl) contour passes to the upgradient side of the cluster of wells including MW-224, MW-222, MW-209, MW-223, and MW-106, all of which recorded water levels greater than 35 ft. Please revise accordingly.	**Noted.** See MEDEP Comment 5.
12	Page 1-5, Section 1.2	The text states, "Pumping rates … for the period May 2005 through April 2006 … are provided in Table 1-5." However, the table shows data from October 2005 through March 2006. Please check text and table for consistency, and edit accordingly.	**Noted.** The dates will be corrected for consistency, as they should read October 2005 through March 2006. The table is correct the text will be updated.

Comment #	Location	Comment	Response
13	Page 2-1, Section 2.1	The first paragraph of this section gives the percentage of available hours over which the GWETS was operational. This figure would be more meaningful to the reader if the period to which it applies were given. It appears from Table 1-5 that this period is October 2005 through March 2006.	**Concur.** The percentage is based on the period from October 2005 through March 2006.
14	Page 2-1 Section 2.1, Figure	The red arrow is intended to span from April 2005 to April 2006. By the scale, however, it appears to go from March 2006 to February 2006. Please check for consistency.	**Noted.** The red arrow is intended to mark the time period from October 2005 through March 2006.
15	Page 2-,2, Section 2.2	The text states, "The trigger elevations were established to prevent groundwater from infiltrating the landfill cap." It would be more precise to state that high groundwater might be an indication of infiltration through the cap and/or leakage through the slurry wall.	**Noted.** The section will be updated to include that high groundwater might be an indication of infiltration through the cap and/or leakage through the slurry wall.
16	Page 2-6 Section 2.4.3 Tables	The tables for SEEP-03 and SEEP-04 describe the trends for a number of analytes as "spike," where this is not apparent in the data. VOCs at SEEP-03 showed a "spike" two events previously, but a spike is not obvious in ME28. Al, Cr, and Ni are described as exhibiting a "spike," but the bar graphs suggest that the spikes occurred in the previous event, rather than in ME28. Please check tables for consistency.	**Concur.** The tables for SEEP-03 and SEEP-04 will be checked for consistency.
17	Page 2-8, Section 2.4.4 Table	The table for LT-09 describes the trend for Co as a "spike." However, the bar graph suggests that the spike occurred in the previous event, rather than in ME28. Please check table for consistency.	**Concur.** The tables for LT-09 will be checked for consistency.
18	Page 2-9, Section 2.5	Because the tables provided in this section include results for total VOCs, it might be noted that the computed totals omit acetone, if that is the case, so that the totals shown can be reconciled with the complete analytical data tables (Appendix B).	**Noted.** The tables and analytical data tables (Appendix B) will be consistent.
19	Page 2-10, Section 2.5.2 Paragraph 2	The text states, "The reported total VOC concentrations … are shown on Figure 1-5. Figure 2-2 provides a map of the VOC concentration in the deep wells." Should this read, "The reported total VOC concentrations … are shown on Figure 2-2?"	**Concur.** The text should state that reported total VOC concentrations…are shown on Figure 2-2.
20	Page 2-13, Section 2.5.2 P-106	The table entry for 1,4-dioxane shows only two bars, and the second is lower than the first. The plot provided in Appendix C shows four dioxane analyses from 2004 through early 2006. The table shows a range of results with a minimum of 35 ppb, yet the result for September 2005 is shown as 30 ppb, and that for April 2006 is shown as 31 ppb. Please check the table for completeness and consistency.	**Concur.** The table for 1,4-dioxane will be updated to include all 1,4-dioxane results.
21	Page 2-11, Section 2.5.2 MW-313	The table for MW-313 describes the trend for 1,4-dioxane as a "increasing." However, the bar graph shows two successive declines following a maximum in ME26. Please check table for consistency.	**Noted.** The trend will be checked for consistency.

Comment #	Location	Comment	Response
22	Page 2-18, Section 2.6.2 Figure 2-5	The figure shows green stippling across the entire eastern portion of the domain shown, implying that this area shows "limited evidence of biodegradation." This seems like an unsupported extrapolation from a few control points. It is entirely likely that these more favorable conditions for reductive dechlorination are more localized, and should be displayed as such.	**Noted.** The black area has little to no MNA possible, while the Green area has just slightly more possibility than the black areas. As such the difference between the two regions is not terribly significant, as MNA is not a active component of site remediation in either colored area. The MNA study conclusions for the black and green regions are that MNA is halted and limited due to lack of organic carbon in the sampled regions of the Eastern Plume.
23	Page 3-2 Section 3.1, First Bullet	The text states, "However, no chlorinated VOCs were detected in these three additional surface water samples. Surface water impacts associated with plume discharge to Mere Brook and Merriconeag stream are, however, ongoing." Is the intent to state not that surface water impacts are ongoing, but that *characterization* of potential surface water impact is ongoing? Please check and edit as appropriate	**Noted.** The text should state that the characterization of the potential surface water impact is ongoing.
24	Page 3-2 Section 3.1 Third Bullet	The report states, "The extraction well network appears to have nearly complete effectiveness at maintaining hydraulic control … ." It is not clear that hydraulic control has been tested or demonstrated in a comprehensive fashion. While the contaminant footprint does not appear to be changing rapidly or substantially, that is possible even without hydraulic control (e.g., via source control, mass extraction in hotspots, and dispersion at the margins of the plume). The current effort to develop a numerical model for the plume should provide a useful tool with which to examine the degree of hydraulic control.	**Noted.** The plume footprint has shrunk over the years the GWETS system has been in operation. The groundwater model will be used to evaluate hydraulic control.
25	Page 3-3, Section 3.1 First Bullet	The recommendation to re-install EW-1 is well founded. It is noted that the TCE exceedance detected at MW-203A, downgradient of the extraction well, provides added support for improving capture at EW-1.	**Noted.**
26	Table B-2	The entries for inorganics for MW-1303S,D show, under the "Sampling Method," that the wells were sampled by passive diffusion bags. Were these not low-flow samples? Please check table and edit as needed.	**Noted.** The tables will be checked for consistency with sampling methods.
27		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	**Noted.**

Comment #	Location	Comment	Response
		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.	
END OF COMMENTS			

NASB GWETS
Influent and Effluent Metals
January 2008

GWETS Influent	Parameter	GWETS Influent Result	Unvalidated Qual	Units	GWETS Effleunt	GWETS Effluent Result	Unvalidated Qual	Units	%Reduction beteween Influent and Effluent	Interpretation	MCL (ppb)	MEG (ppb)
TP-152-TPI	Aluminum	14 U	U	ug/l	TP-152-TPE	14 U	U	ug/l	NC	NTR	NA	1,430
TP-152-TPI	Antimony	0.5	B	ug/l	TP-152-TPE	0.44	B	ug/l	12.0%	TI	6	3
TP-152-TPI	Arsenic	4.2	B	ug/l	TP-152-TPE	2.4	B	ug/l	42.9%	**TREATED**	10	10
TP-152-TPI	Barium	4	B	ug/l	TP-152-TPE	3.1	B	ug/l	22.5%	TI	2,000	2,000
TP-152-TPI	Beryllium	0.15 U	U	ug/l	TP-152-TPE	0.15 U	U	ug/l	NC	NTR	4	NA
TP-152-TPI	Cadmium	0.3	B	ug/l	TP-152-TPE	0.2	B	ug/l	33.3%	TI	5	3.5
TP-152-TPI	Calcium	11900		ug/l	TP-152-TPE	12100		ug/l	-1.7%	NT	NA	NA
TP-152-TPI	Chromium	0.30 U	U	ug/l	TP-152-TPE	0.30 U	U	ug/l	NC	NTR	100	40
TP-152-TPI	Cobalt	3.4	B	ug/l	TP-152-TPE	3.6	B	ug/l	-5.9%	NT	NA	NA
TP-152-TPI	Copper	0.59 U	U	ug/l	TP-152-TPE	0.59 U	U	ug/l	NC	NTR	1,300	1,300
TP-152-TPI	Iron	297		ug/l	TP-152-TPE	1.2 U	U	ug/l	**100.0%**	**TREATED**	NA	NA
TP-152-TPI	Lead	0.19	B	ug/l	TP-152-TPE	0.027	B	ug/l	85.8%	**TREATED**	15	10
TP-152-TPI	Magnesium	4490	B	ug/l	TP-152-TPE	4510	B	ug/l	-0.4%	NT	NA	NA
TP-152-TPI	Manganese	33.9		ug/l	TP-152-TPE	0.12 U	U	ug/l	**100.0%**	**TREATED**	NA	500
TP-152-TPI	Mercury	0.018 U	U	ug/l	TP-152-TPE	0.018 U	U	ug/l	NC	NTR	2	2
TP-152-TPI	Nickel	0.28 U	U	ug/l	TP-152-TPE	0.28 U	U	ug/l	NC	NTR	NA	140
TP-152-TPI	Potassium	1710	B	ug/l	TP-152-TPE	1720	B	ug/l	-0.6%	NT	NA	NA
TP-152-TPI	Selenium	1.9 U	U	ug/l	TP-152-TPE	1.9 U	U	ug/l	NC	NTR	50	35
TP-152-TPI	Silver	0.30 U	U	ug/l	TP-152-TPE	0.30 U	U	ug/l	NC	NTR	NA	35
TP-152-TPI	Sodium	16400		ug/l	TP-152-TPE	16800		ug/l	-2.4%	NT	NA	20,000
TP-152-TPI	Thallium	0.24 U	U	ug/l	TP-152-TPE	0.24 U	U	ug/l	NC	NTR	2	0.5
TP-152-TPI	Vanadium	0.35 U	U	ug/l	TP-152-TPE	0.35 U	U	ug/l	NC	NTR	NA	NA
TP-152-TPI	Zinc	6.1	B	ug/l	TP-152-TPE	5.7	B	ug/l	6.6%	TI	NA	2,000

January 2008 GWETS Data
Postive %Reduction indicates effluent less than influent.
NC = not calculated
NTR = No Treatment Required (influent non-detect and below MCL/MEG)
TI = Treatment Inconclusive (no appreciable difference between effluent and influent)
NT = Not Treated - (no appreciable difference between effluent and influent or results within analytical variation)
Note: All influent and effluent metals are below MCL/MEGs

From: <Daly.Mike@epamail.epa.gov>
To: "Monaco, Orlando J CIV NAVFAC MIDLANT" <orlando.monaco@navy.mil>
CC: "Gallant, Joseph P CIV NAVFAC MIDLANT" <joseph.gallant@navy.mil>, <willi...
Date: 10/4/2007 3:32 PM
Subject: NASB - Sites 1&3 and E. Plume ME #28: Navy RTCs

Hi Lonnie,

The purpose of this e-mail is to notify the Navy that its responses to EPA's comments on the subject monitoring event report are satisfactory however the comment EPA provided in its October 4, 2007 on ME#27 for the same sites is also applicable to the ME #28 report.

Thanks,

Mike

APPENDIX B

Laboratory Analytical Data Summary Tables

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
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

			Station ID:	MW-1301D	MW-1301S	MW-1302D	MW-1302S	MW-1302S
			Field Sample ID*:	MW1301D	MW1301S	MW1302D	MW1302S	MWXD2
			Lab Sample ID:	AI03778	AI03777	AI03776	AI03938	AI03939
			Sample Date:	4/25/2006	4/25/2006	4/25/2006	4/27/2006	4/27/2006
			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	Low-Flow
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
1,1,1-Trichloroethane	ug/l	200	200	1 U	1 U	14	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	NA	1.8	1 R	1 R	1 R	0.67 UJ	1.5 UJ
1,1,2-Trichloroethane	ug/l	5	6	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/l	NA	70	1.4 J	1 UJ	83 J	1.6 J	1.7 J
1,1-Dichloroethene	ug/l	7	1	1 U	1 U	1.8	1 U	1 U
1,2-Dichloroethane	ug/l	5	4	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene, total	ug/l	70	70	3	1.2	1.1	1 U	1 U
1,2-Dichloropropane	ug/l	5	5	1 U	1 U	1 U	1 U	1 U
2-Hexanone	ug/l	NA	NA	5 UJ	5 UJ	5 UJ	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	6300	5.5 J	100 J	5.5 J	5 UJ	3.2 J
Benzene	ug/l	5	6	1 U	1 U	0.51 J	1 U	1 U
Bromodichloromethane	ug/l	NA	6	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/l	NA	44	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/l	NA	10	1 U	1 U	1 U	1 UJ	1 UJ
Carbon disulfide	ug/l	NA	600	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	ug/l	5	3	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/l	100	47	1 U	3.9	1.7	1 U	1 U
Chloroethane	ug/l	NA	NA	2.8 J	0.74 J	150 J	73 J	69 J
Chloroform	ug/l	80	70	1 U	1 U	1 U	1 U	1 U
Chloromethane	ug/l	NA	3	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/l	NA	4	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/l	NA	4	1 U	1 U	1 U	1 U	1 U

Table B-1
Summary of Groundwater Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

			Station ID:	MW-1301D	MW-1301S	MW-1302D	MW-1302S	MW-1302S
			Field Sample ID*:	MW1301D	MW1301S	MW1302D	MW1302S	MWXD2
			Lab Sample ID:	AI03778	AI03777	AI03776	AI03938	AI03939
			Sample Date:	4/25/2006	4/25/2006	4/25/2006	4/27/2006	4/27/2006
			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	Low-Flow
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
Ethylbenzene	ug/l	700	70	1 U	1 U	1 U	1 U	1 U
Methyl ethyl ketone	ug/l	NA	3600	5 U	5 U	5 U	5 U	5 U
Methylene chloride	ug/l	5	47	1.4 U	0.86 U	1.2 U	0.67 J	1.2 J
Styrene	ug/l	100	140	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/l	5	7	1 UJ	1 UJ	1 UJ	1 U	1 U
Toluene	ug/l	1000	1400	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/l	NA	4	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/l	5	32	1.1	0.94 J	1 U	0.51 J	0.51 J
Vinyl Chloride	ug/l	2	0.2	**10 J**	1 UJ	1.3 J	1 U	1 U
Xylenes, Total	ug/l	10000	1400	1 U	1 U	1 U	1 U	1 U
Total VOC	ug/l	NA	NA	35.3	6.78	253.41	75.11	71.21

Table B-1
Summary of Groundwater Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

Station ID:		MW-1303A	MW-1303A	MW-202A	MW-203	MW-203	MW-217B	MW-218
Field Sample ID*:		MW1303AD	MW1303AS	MW202A	MW203	MWXD1	MW217BD	MW218
Lab Sample ID:		AI03779	AI03780	AI03781	AI03783	AI03784	AI03786	AI03782
Sample Date:		4/25/2006	4/25/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006
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:		Deep Diffusion	Shallow Diffusion	Low-Flow	Low-Flow	Low-Flow	Deep Diffusion	Low-Flow
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 U	1 U	1.3	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	1 R	1 R	1.6 B	1 R	1 R	1 R	1 R
1,1,2-Trichloroethane	ug/l	1 U	1 U	0.74 J	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
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	1 U
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
2-Hexanone	ug/l	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/l	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 U
Acetone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	19 J	5 UJ
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	2.4	1 U
Chloroethane	ug/l	5.4 J	3 J	1 UJ	1 UJ	1 UJ	1 U	1 UJ
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

Table B-1
Summary of Groundwater Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

Station ID:		MW-1303A	MW-1303A	MW-202A	MW-203	MW-203	MW-217B	MW-218
Field Sample ID*:		MW1303AD	MW1303AS	MW202A	MW203	MWXD1	MW217BD	MW218
Lab Sample ID:		AI03779	AI03780	AI03781	AI03783	AI03784	AI03786	AI03782
Sample Date:		4/25/2006	4/25/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006
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:		Deep Diffusion	Shallow Diffusion	Low-Flow	Low-Flow	Low-Flow	Deep Diffusion	Low-Flow
	Units							
VOCs								
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 UJ	5 UJ	5 UJ	5 UJ	5 U
Methylene chloride	ug/l	1.2 U	0.86 U	0.56 UJ	1 UJ	1 UJ	1 UJ	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	0.68 J	1 U	1 U	1 U	1 UJ
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	0.71 J
Vinyl Chloride	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 J	1 UJ
Xylenes, Total	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total VOC	ug/l	5.4	3	6.52	2.4	1.7	3.4	0.71

Table B-1

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-2
Summary of Groundwater Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

			Station ID:	MW-1301D	MW-1301S	MW-1302D	MW-1302S	MW-1302S
			Field Sample ID*:	MW1301D	MW1301S	MW1302D	MW1302S	MWXD2
			Lab Sample ID:	AI03778	AI03777	AI03776	AI03938	AI03939
			Sample Date:	4/25/2006	4/25/2006	4/25/2006	4/27/2006	4/27/2006
			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	Low-Flow
	Units	**Federal MCL**	**Maine MEG**					
Metals								
Aluminum	ug/l	NA	1430	28000	400	1600	580 J	790 J
Antimony, Furnace-GW	ug/l	6	3	6 U	6 U	6 U	6 U	6 U
Arsenic	ug/l	10	10	10 U	10 U	10 U	10 U	10 U
Barium	ug/l	2000	2000	200 U	200 U	200 U	200 U	200 U
Beryllium	ug/l	4	NA	5 U	5 U	5 U	5 U	5 U
Cadmium	ug/l	5	3.5	5 U	5 U	5 U	5 U	5 U
Calcium	ug/l	NA	NA	110000	150000	71000	92000	93000
Chromium	ug/l	100	40	31	10 U	15	10 J	20 J
Cobalt	ug/l	NA	NA	50 U	50 U	50 U	50 U	50 U
Copper	ug/l	1300	1300	29 J	25 U	25 U	25 U	25 U
Iron	ug/l	NA	NA	26000	1800	3200	1100 J	1500 J
Lead	ug/l	15	10	6	6	3 U	3	4
Magnesium	ug/l	NA	NA	63000	69000	50000 U	5400	5500
Manganese	ug/l	NA	500	360	3900	5000	430	410
Mercury by Cold Vapor GW	ug/l	2	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	NA	140	40 U	90	40 U	40 UJ	20 J
Potassium	ug/l	NA	NA	19000	6400	7800	50000 U	50000 U
Selenium Furnace GW	ug/l	50	35	5 U	5 U	5 U	5 U	5 U
Silver	ug/l	NA	35	10 U	10 U	10 U	10 U	10 U
Sodium	ug/l	NA	20000	160000	57000	50000 U	5000 U	5000 U
Thallium, Furnace, Groundwater	ug/l	2	0.5	2 U	2 U	2 U	2 U	2 U
Vanadium	ug/l	NA	NA	50 U	50 U	50 U	50 U	50 U
Zinc	ug/l	NA	2000	50 B	20 U	20 U	40 UJ	60 UJ

Table B-2
Summary of Groundwater Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

Station ID:		MW-1303A	MW-1303A	MW-202A	MW-203	MW-203	MW-217B	MW-218
Field Sample ID*:		MW1303AD	MW1303AS	MW202A	MW203	MWXD1	MW217B	MW218
Lab Sample ID:		AI03779	AI03780	AI03781	AI03783	AI03784	AI03785	AI03782
Sample Date:		4/25/2006	4/25/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006	4/24/2006
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:		Deep Diffusion	Shallow Diffusion	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow
	Units							
Metals								
Aluminum	ug/l	450	220	200 U	200 U	200 U	240	390
Antimony, Furnace-GW	ug/l	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Arsenic	ug/l	**42**	10 U	10 U	10 U	10 U	10 U	**150**
Barium	ug/l	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Beryllium	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Calcium	ug/l	50000 U	50000 U	89000	18000 J	17000	67000	50000 U
Chromium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cobalt	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Copper	ug/l	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Iron	ug/l	11000	1200	6200	100 U	100 U	39000	5100
Lead	ug/l	3 U	4	3 U	15 J	3 UJ	3 U	3 U
Magnesium	ug/l	19000	5900	7300	5000 U	5000 U	16000	16000
Manganese	ug/l	960	3600	300	15	17	1100	1100
Mercury by Cold Vapor GW	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	40 U	40 U	40 U	40 U	40 U	40 U	40 U
Potassium	ug/l	5000 U	6800	15000	5000 U	5000 U	6200	8500
Selenium Furnace GW	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Sodium	ug/l	50000 U	14000	11000	5200	5100	62000	150000
Thallium, Furnace, Groundwater	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Vanadium	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	ug/l	20 U	20 U	20 U	20 J	20 UJ	30 B	20 B

Table B-2

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

			Station ID:	MW-205	MW-207AR	MW-207AR	MW-212	MW-224
			Field Sample ID*:	MW205D	MW207ARD	MW207ARM	MW212S	MW224M
			Lab Sample ID:	AI03606	AI03450	AI03451	AI03456	AI03610
			Sample Date:	4/21/2006	4/19/2006	4/19/2006	4/19/2006	4/21/2006
			Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
			Field QC:	Original data	Original data	Original data	Original data	Original data
			Sampling Method:	Deep Diffusion	Deep Diffusion	Mid Diffusion	Shallow Diffusion	Mid Diffusion
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
1,1,1-Trichloroethane	ug/l	200	200	8.7 J	1 UJ	1 UJ	1 UJ	1 UJ
1,1,2,2-Tetrachloroethane	ug/l	NA	1.8	1 R	1 R	1 R	1 R	1 R
1,1,2-Trichloroethane	ug/l	5	6	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethane	ug/l	NA	70	0.92 J	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethene	ug/l	7	1	2 J	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethane	ug/l	5	4	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethene, total	ug/l	70	70	7.7 J	2.4 J	1.9 J	2.1 J	1 UJ
1,2-Dichloropropane	ug/l	5	5	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,4-Dioxane	ug/l	NA	NA	-	-	-	-	-
2-Hexanone	ug/l	NA	NA	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
4-Methyl-2-pentanone	ug/l	NA	NA	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Acetone	ug/l	NA	6300	57 J	19 J	20 J	11 J	55 J
Benzene	ug/l	5	6	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromodichloromethane	ug/l	NA	6	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromoform	ug/l	NA	44	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromomethane	ug/l	NA	10	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon disulfide	ug/l	NA	600	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon tetrachloride	ug/l	5	3	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chlorobenzene	ug/l	100	47	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroethane	ug/l	NA	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroform	ug/l	80	70	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloromethane	ug/l	NA	3	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	NA	4	10 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

			Station ID:	MW-205	MW-207AR	MW-207AR	MW-212	MW-224
			Field Sample ID*:	MW205D	MW207ARD	MW207ARM	MW212S	MW224M
			Lab Sample ID:	AI03606	AI03450	AI03451	AI03456	AI03610
			Sample Date:	4/21/2006	4/19/2006	4/19/2006	4/19/2006	4/21/2006
			Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
			Field QC:	Original data	Original data	Original data	Original data	Original data
			Sampling Method:	Deep Diffusion	Deep Diffusion	Mid Diffusion	Shallow Diffusion	Mid Diffusion
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
Dibromochloromethane	ug/l	NA	4	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Ethylbenzene	ug/l	700	70	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Methyl ethyl ketone	ug/l	NA	3600	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Methylene chloride	ug/l	5	47	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Styrene	ug/l	100	140	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Tetrachloroethene	ug/l	5	7	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Toluene	ug/l	1000	1400	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
trans-1,3-Dichloropropene	ug/l	NA	4	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Trichloroethene	ug/l	5	32	10 J	0.91 J	0.53 J	7.6 J	1 UJ
Vinyl Chloride	ug/l	2	0.2	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Xylenes, Total	ug/l	10000	1400	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Total VOC	ug/l	NA	NA	29.32	3.31	2.43	9.7	0

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-224	MW-224	MW-225A	MW-229A	MW-230A	MW-231A	MW-303
Field Sample ID*:		MW224	MWXD1	MW225AM	MW229AM	MW230AD	MW231AD	MW303D
Lab Sample ID:		AI03611	AI03612	AI03607	AI03529	AI03605	AI03604	AI03457
Sample Date:		4/21/2006	4/21/2006	4/21/2006	4/20/2006	4/21/2006	4/21/2006	4/18/2006
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	Original data	Original data
Sampling Method:		Low-Flow	Low-Flow	Mid Diffusion	Mid Diffusion	Deep Diffusion	Deep Diffusion	Deep Diffusion
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 UJ	1 UJ	1.1 J	13 J	1 UJ	1 UJ	1 UJ
1,1,2,2-Tetrachloroethane	ug/l	1 R	1 R	1 R	1 R	1 R	1 R	1 R
1,1,2-Trichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1.6 J	0.8 J	1 UJ
1,1-Dichloroethene	ug/l	1 UJ	1 UJ	1 UJ	2.6 J	0.78 J	10 UJ	1 UJ
1,2-Dichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethene, total	ug/l	1.1 J	1.2 J	7 J	3.2 J	1 UJ	2.8 J	1 UJ
1,2-Dichloropropane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,4-Dioxane	ug/l	-	-	-	-	-	-	-
2-Hexanone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
4-Methyl-2-pentanone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Acetone	ug/l	5 UJ	5 UJ	47 J	13 J	43 J	35 J	10 J
Benzene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromodichloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromoform	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromomethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon disulfide	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon tetrachloride	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chlorobenzene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroform	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-224	MW-224	MW-225A	MW-229A	MW-230A	MW-231A	MW-303
Field Sample ID*:		MW224	MWXD1	MW225AM	MW229AM	MW230AD	MW231AD	MW303D
Lab Sample ID:		AI03611	AI03612	AI03607	AI03529	AI03605	AI03604	AI03457
Sample Date:		4/21/2006	4/21/2006	4/21/2006	4/20/2006	4/21/2006	4/21/2006	4/18/2006
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	Original data	Original data
Sampling Method:		Low-Flow	Low-Flow	Mid Diffusion	Mid Diffusion	Deep Diffusion	Deep Diffusion	Deep Diffusion
	Units							
VOCs								
Dibromochloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Ethylbenzene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Methyl ethyl ketone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Methylene chloride	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Styrene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Tetrachloroethene	ug/l	1 UJ	1 UJ	1.8 J	1.9 J	1 UJ	1 UJ	1 UJ
Toluene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
trans-1,3-Dichloropropene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Trichloroethene	ug/l	1 UJ	1 UJ	4 J	13 J	5.2 J	1 UJ	1 UJ
Vinyl Chloride	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Xylenes, Total	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Total VOC	ug/l	1.1	1.2	0	33.7	10.88	3.6	0

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-306	MW-308	MW-309B	MW-311	MW-311	MW-311	MW-313
Field Sample ID*:		MW306D	MW308	MW309BD	MW311M	MWXD2	MW311D	MW313
Lab Sample ID:		AI03458	AI05955	AI03449	AI03446	AI03447	AI03448	AI03462
Sample Date:		4/18/2006	6/19/2006	4/19/2006	4/19/2006	4/19/2006	4/19/2006	4/19/2006
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:		Deep Diffusion	Low-Flow	Deep Diffusion	Mid Diffusion	Mid Diffusion	Deep Diffusion	Low-Flow
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 UJ	1.9	1 UJ	4.3 J	5.1 J	5.6 J	-
1,1,2,2-Tetrachloroethane	ug/l	1 R	1 U	1 R	1 R	1 R	1 R	-
1,1,2-Trichloroethane	ug/l	1 UJ	1 U	1 UJ	5 UJ	5 UJ	1 UJ	-
1,1-Dichloroethane	ug/l	1 UJ	15	1 UJ	2.9 J	2.5 J	1.2 J	-
1,1-Dichloroethene	ug/l	1 UJ	**29**	1 UJ	**9.4 J**	**7.7 J**	2.2 J	-
1,2-Dichloroethane	ug/l	1 UJ	1 U	1 UJ	2.9 J	2.5 J	1 UJ	-
1,2-Dichloroethene, total	ug/l	1 UJ	1.3	1 UJ	1.9 J	1.7 J	1.5 J	-
1,2-Dichloropropane	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
1,4-Dioxane	ug/l	-	-	-	-	-	-	120 J
2-Hexanone	ug/l	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 UJ	-
4-Methyl-2-pentanone	ug/l	5 UJ	5 U	5 UJ	1 UJ	1 UJ	5 UJ	-
Acetone	ug/l	64 J	5 U	17 J	20 J	21 J	5 UJ	-
Benzene	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Bromodichloromethane	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Bromoform	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Bromomethane	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Carbon disulfide	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Carbon tetrachloride	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Chlorobenzene	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Chloroethane	ug/l	1 UJ	1 U	1 UJ	5 UJ	5 UJ	1 UJ	-
Chloroform	ug/l	1.1 J	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Chloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	-
cis-1,3-Dichloropropene	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-306	MW-308	MW-309B	MW-311	MW-311	MW-311	MW-313
Field Sample ID*:		MW306D	MW308	MW309BD	MW311M	MWXD2	MW311D	MW313
Lab Sample ID:		AI03458	AI05955	AI03449	AI03446	AI03447	AI03448	AI03462
Sample Date:		4/18/2006	6/19/2006	4/19/2006	4/19/2006	4/19/2006	4/19/2006	4/19/2006
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:		Deep Diffusion	Low-Flow	Deep Diffusion	Mid Diffusion	Mid Diffusion	Deep Diffusion	Low-Flow
	Units							
VOCs								
Dibromochloromethane	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Ethylbenzene	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Methyl ethyl ketone	ug/l	5 UJ	5 U	5 UJ	1 UJ	1 UJ	5 UJ	-
Methylene chloride	ug/l	1 UJ	1.1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Styrene	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Tetrachloroethene	ug/l	1 UJ	0.52 J	1 UJ	**8.8 J**	**11 J**	**15 J**	-
Toluene	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
trans-1,3-Dichloropropene	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Trichloroethene	ug/l	1 UJ	**49**	1 UJ	15 J	12 J	4.2 J	-
Vinyl Chloride	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	-
Xylenes, Total	ug/l	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 UJ	-
Total VOC	ug/l	1.1	96.72	0	45.2	42.5	29.7	-

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-313	MW-313	MW-315A	MW-319	MW-331	MW-331	MW-332
Field Sample ID*:		MWXD3	MW313D	MW315A-D	MW319D	W331	MW331M	MW332M
Lab Sample ID:		AI03463	AI03464	AI04301	AI03452	AI03545	AI03547	AI03444
Sample Date:		4/19/2006	4/19/2006	5/4/2006	4/19/2006	4/20/2006	4/20/2006	4/19/2006
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Field duplicates	Original data	Original data	Original data	Original data	Original data	Original data
Sampling Method:		Low-Flow	Deep Diffusion	Deep Diffusion	Deep Diffusion	Low-Flow	Mid Diffusion	Mid Diffusion
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	-	1.7 J	1 UJ	1 UJ	-	140 J	0.8 J
1,1,2,2-Tetrachloroethane	ug/l	-	1 R	1 R	1 R	-	1 R	1 R
1,1,2-Trichloroethane	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	5 UJ
1,1-Dichloroethane	ug/l	-	8.5 J	1 UJ	1 UJ	-	53 J	5 UJ
1,1-Dichloroethene	ug/l	-	**13 J**	1 UJ	1 UJ	-	**27 J**	1 UJ
1,2-Dichloroethane	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
1,2-Dichloroethene, total	ug/l	-	1 UJ	1 UJ	2.6 J	-	**230 J**	1 UJ
1,2-Dichloropropane	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
1,4-Dioxane	ug/l	78	-	-	-	26	-	-
2-Hexanone	ug/l	-	5 UJ	5 UJ	5 UJ	-	5 UJ	5 UJ
4-Methyl-2-pentanone	ug/l	-	5 UJ	5 UJ	5 UJ	-	5 UJ	1 UJ
Acetone	ug/l	-	23 J	33 J	21 J	-	36 J	25 J
Benzene	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Bromodichloromethane	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Bromoform	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Bromomethane	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Carbon disulfide	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Carbon tetrachloride	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Chlorobenzene	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Chloroethane	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	5 UJ
Chloroform	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Chloromethane	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-313	MW-313	MW-315A	MW-319	MW-331	MW-331	MW-332
Field Sample ID*:		MWXD3	MW313D	MW315A-D	MW319D	W331	MW331M	MW332M
Lab Sample ID:		AI03463	AI03464	AI04301	AI03452	AI03545	AI03547	AI03444
Sample Date:		4/19/2006	4/19/2006	5/4/2006	4/19/2006	4/20/2006	4/20/2006	4/19/2006
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Field duplicates	Original data	Original data	Original data	Original data	Original data	Original data
Sampling Method:		Low-Flow	Deep Diffusion	Deep Diffusion	Deep Diffusion	Low-Flow	Mid Diffusion	Mid Diffusion
	Units							
VOCs								
Dibromochloromethane	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Ethylbenzene	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Methyl ethyl ketone	ug/l	-	5 UJ	5 UJ	5 UJ	-	5 UJ	1 UJ
Methylene chloride	ug/l	-	1 UJ	1 UJ	1 UJ	-	1.9 UJ	1 UJ
Styrene	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Tetrachloroethene	ug/l	-	1 UJ	1 UJ	**29 J**	-	0.95 J	1 UJ
Toluene	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
trans-1,3-Dichloropropene	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Trichloroethene	ug/l	-	1.1 J	1 UJ	6.4 J	-	**68 J**	1 UJ
Vinyl Chloride	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Xylenes, Total	ug/l	-	1 UJ	1 UJ	1 UJ	-	1 UJ	1 UJ
Total VOC	ug/l	-	24.3	1.5	38	-	518.95	0.8

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-332	MW-333	MW-333	MW-335	MW-335	MW-336	MW-336
Field Sample ID*:		MWXD4	MW333	MW333M	MW335M	MW335	MW336S	MW336
Lab Sample ID:		AI03445	AI03465	AI03466	AI03532	AI03534	AI03530	AI03531
Sample Date:		4/19/2006	4/19/2006	4/19/2006	4/20/2006	4/20/2006	4/20/2006	4/20/2006
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Field duplicates	Original data	Original data	Original data	Original data	Original data	Original data
Sampling Method:		Mid Diffusion	Low-Flow	Mid Diffusion	Mid Diffusion	Low-Flow	Shallow Diffusion	Low-Flow
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1,2,2-Tetrachloroethane	ug/l	1.1 J	-	1 R	1 R	1 R	1 R	1 R
1,1,2-Trichloroethane	ug/l	5 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethane	ug/l	5 UJ	-	9.1 J	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethene	ug/l	1 UJ	-	**12 J**	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethane	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethene, total	ug/l	1.4 J	-	1.6 J	1 UJ	1.3 J	1 UJ	1 UJ
1,2-Dichloropropane	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,4-Dioxane	ug/l	-	54	-	-	-	-	-
2-Hexanone	ug/l	5 UJ	-	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
4-Methyl-2-pentanone	ug/l	1 UJ	-	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Acetone	ug/l	20 J	-	37 J	10 J	5 UJ	5 UJ	5 UJ
Benzene	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromodichloromethane	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromoform	ug/l	0.67 J	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromomethane	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon disulfide	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon tetrachloride	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chlorobenzene	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroethane	ug/l	5 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroform	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloromethane	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-332	MW-333	MW-333	MW-335	MW-335	MW-336	MW-336
Field Sample ID*:		MWXD4	MW333	MW333M	MW335M	MW335	MW336S	MW336
Lab Sample ID:		AI03445	AI03465	AI03466	AI03532	AI03534	AI03530	AI03531
Sample Date:		4/19/2006	4/19/2006	4/19/2006	4/20/2006	4/20/2006	4/20/2006	4/20/2006
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
Field QC:		Field duplicates	Original data	Original data	Original data	Original data	Original data	Original data
Sampling Method:		Mid Diffusion	Low-Flow	Mid Diffusion	Mid Diffusion	Low-Flow	Shallow Diffusion	Low-Flow
	Units							
VOCs								
Dibromochloromethane	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Ethylbenzene	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Methyl ethyl ketone	ug/l	1 UJ	-	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Methylene chloride	ug/l	1 UJ	-	0.62 U	1 UJ	1 UJ	1 UJ	1 UJ
Styrene	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Tetrachloroethene	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Toluene	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
trans-1,3-Dichloropropene	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Trichloroethene	ug/l	1 UJ	-	1.1 J	1 UJ	0.85 J	1 UJ	1 UJ
Vinyl Chloride	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Xylenes, Total	ug/l	1 UJ	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Total VOC	ug/l	3.17	-	23.8	0	2.15	0	0

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-337	MW-337	MW-338A	MW-338A	MW-338B	MW-338B	MW-338C
Field Sample ID*:		MW337M	MW337	MW338A-S	MW338A	MW338B	MW338B-M	MW338CM
Lab Sample ID:		AI03540	AI03543	AI03370	AI03371	AI03375	AI03376	AI03459
Sample Date:		4/20/2006	4/20/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
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 Method:		Mid Diffusion	Low-Flow	Shallow Diffusion	Low-Flow	Low-Flow	Deep Diffusion	Mid Diffusion
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1,2,2-Tetrachloroethane	ug/l	1 R	1 R	1 R	0.6 J	1 R	1 R	1 R
1,1,2-Trichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethene, total	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloropropane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,4-Dioxane	ug/l	-	-	-	1 U	-	-	-
2-Hexanone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
4-Methyl-2-pentanone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Acetone	ug/l	14 J	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	17 J
Benzene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromodichloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromoform	ug/l	1 UJ	1 UJ	1 UJ	0.69 J	1 UJ	1 UJ	1 UJ
Bromomethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon disulfide	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon tetrachloride	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chlorobenzene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroform	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-337	MW-337	MW-338A	MW-338A	MW-338B	MW-338B	MW-338C
Field Sample ID*:		MW337M	MW337	MW338A-S	MW338A	MW338B	MW338B-M	MW338CM
Lab Sample ID:		AI03540	AI03543	AI03370	AI03371	AI03375	AI03376	AI03459
Sample Date:		4/20/2006	4/20/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006
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 Method:		Mid Diffusion	Low-Flow	Shallow Diffusion	Low-Flow	Low-Flow	Deep Diffusion	Mid Diffusion
	Units							
VOCs								
Dibromochloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Ethylbenzene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Methyl ethyl ketone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Methylene chloride	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	0.98 UJ	0.93 UJ	1 UJ
Styrene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Tetrachloroethene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Toluene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
trans-1,3-Dichloropropene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Trichloroethene	ug/l	1.5 J	1.5 J	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Vinyl Chloride	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Xylenes, Total	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Total VOC	ug/l	1.5	1.5	0	5.49	0	0	0

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-338C	MW-339	MW-339	MW-339	P-106	P-106	P-111
Field Sample ID*:		MW338C	MW339	MW339	MW-XD5	P106	MWXD6	P111
Lab Sample ID:		AI03460	AI03372	AI03373	AI03374	AI03541	AI03542	AI03537
Sample Date:		4/19/2006	4/18/2006	4/18/2006	4/18/2006	4/20/2006	4/20/2006	4/20/2006
Lab Name:		NEL-ME	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	Original data
Sampling Method:		Low-Flow	Low-Flow	Low-Flow	Deep Diffusion	Low-Flow	Low-Flow	Low-Flow
	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	**420 J**	**380 J**	1 UJ
1,1,2,2-Tetrachloroethane	ug/l	1 R	1 R	1 R	1 R	1 R	1 R	1 R
1,1,2-Trichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	0.52 J	0.57 J	1 UJ
1,1-Dichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	33 J	32 J	1 UJ
1,1-Dichloroethene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	**58 J**	**56 J**	1 UJ
1,2-Dichloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethene, total	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	12 J	12 J	1 UJ
1,2-Dichloropropane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,4-Dioxane	ug/l	-	-	-	-	31 J	-	-
2-Hexanone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
4-Methyl-2-pentanone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Acetone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Benzene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromodichloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromoform	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromomethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon disulfide	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon tetrachloride	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chlorobenzene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroform	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Table B-3
Summary of Groundwater Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-338C	MW-339	MW-339	MW-339	P-106	P-106	P-111
Field Sample ID*:		MW338C	MW339	MW339	MW-XD5	P106	MWXD6	P111
Lab Sample ID:		AI03460	AI03372	AI03373	AI03374	AI03541	AI03542	AI03537
Sample Date:		4/19/2006	4/18/2006	4/18/2006	4/18/2006	4/20/2006	4/20/2006	4/20/2006
Lab Name:		NEL-ME	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	Original data
Sampling Method:		Low-Flow	Low-Flow	Low-Flow	Deep Diffusion	Low-Flow	Low-Flow	Low-Flow
	Units							
VOCs								
Dibromochloromethane	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Ethylbenzene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Methyl ethyl ketone	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Methylene chloride	ug/l	1 UJ	1.8 UJ	2.4 UJ	2.3 UJ	1 UJ	1 UJ	1 UJ
Styrene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Tetrachloroethene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	4.3 J	4.2 J	1 UJ
Toluene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
trans-1,3-Dichloropropene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Trichloroethene	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	**210 J**	**190 J**	1 UJ
Vinyl Chloride	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Xylenes, Total	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Total VOC	ug/l	0	0	0	0	737.82	674.77	0

Table B-3

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-4
Summary of Groundwater Samples - Eastern Plume
Target Analyte List Metals by EPA 6000/7000 Series Methods
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

			Station ID:	MW-224	MW-313	MW-315A	MW-331	MW-331
			Field Sample ID*:	MW224	MW313	MW315A	W331	MNAXD1
			Lab Sample ID:	AI03609	AI03462	AI03461	AI03545	AI03546
			Sample Date:	4/21/2006	4/19/2006	4/18/2006	4/20/2006	4/20/2006
			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	Low-Flow
	Units	**Federal MCL**	**Maine MEG**					
Metals								
Arsenic	ug/l	10	10	2.3 U	9.4	2.3 U	2.3 U	2.3 U
Iron	ug/l	NA	NA	390 J	2700	1500	200 J	200 J
Manganese	ug/l	NA	500	44	140	370	44 J	45 J

Table B-4
Summary of Groundwater Samples - Eastern Plume
Target Analyte List Metals by EPA 6000/7000 Series Methods
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-333	MW-334	MW-335	MW-336	MW-337	MW-337	MW-338A
Field Sample ID*:		MW333	MW334	MW335	MW336	MW337	MNAXD2	MW338A
Lab Sample ID:		AI03465	AI03535	AI03534	AI03531	AI03543	AI03544	AI03371
Sample Date:		4/19/2006	4/20/2006	4/20/2006	4/20/2006	4/20/2006	4/20/2006	4/18/2006
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	Field duplicates	Original data
Sampling Method:		Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow
Units								
Metals								
Arsenic	ug/l	7.9	6	2.3 U	2.3 U	2.3 U	2.3 U	**46**
Iron	ug/l	1800	940 J	1100 J	130 J	1200 J	1600 J	340 J
Manganese	ug/l	200	320 J	250 J	7.7 J	730 J	930 J	21

Table B-4
Summary of Groundwater Samples - Eastern Plume
Target Analyte List Metals by EPA 6000/7000 Series Methods
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-338B	MW-338C	MW-339	P-106	P-111		
Field Sample ID*:		MW338B	MW338C	MW339	P106	P111		
Lab Sample ID:		AI03375	AI03460	AI03372	AI03541	AI03537		
Sample Date:		4/18/2006	4/19/2006	4/18/2006	4/20/2006	4/20/2006		
Lab Name:		NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME		
Field QC:		Original data	Original data	Original data	Original data	Original data		
Sampling Method:		Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow		
Units								
Metals								
Arsenic	ug/l	3.2	6	2.3 U	2.3 U	2.3 U	-	-
Iron	ug/l	880	380	540 J	120 J	740 J	-	-
Manganese	ug/l	410	9.1	270	2.1 J	62 J	-	-

Table B-4

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

			Station ID:	MW-224	MW-313	MW-315A	MW-331	MW-331
			Field Sample ID*:	MW224	MW313	MW315A	W331	MNAXD1
			Lab Sample ID:	AI03609	AI03462	AI03461	AI03545	AI03546
			Sample Date:	4/21/2006	4/19/2006	4/18/2006	4/20/2006	4/20/2006
			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	Low Flow
	Units	**Federal MCL**	**Maine MEG**					
MNA Parameters								
Alkalinity, Total as CaCO3	mg/l	NA	NA	8.5	68	40	47	46
Chloride	mg/l	NA	NA	23	21	12	63	62
Ethane	mg/l	NA	NA	0.01 U	0.01 UJ	0.01 UJ	0.01 U	0.01 U
Ethene	mg/l	NA	NA	0.01 U	0.01 UJ	0.01 UJ	0.01 U	0.01 U
Methane	mg/l	NA	NA	0.01 U	0.042 J	0.01 J	0.01 U	0.01 U
Nitrogen, Nitrate+Nitrite	mg/l	NA	NA	1.2	0.1 U	0.1 U	0.71	0.74
Nitrogen, Nitrite	mg/l	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Sulfate	mg/l	NA	NA	9.4	4.5	2.5	8.8	9
Total Organic Carbon	mg/l	NA	NA	1	1.2	1 U	1 U	1 U

Table B-5
Summary of Groundwater Samples - Eastern Plume
Natural Attenuation Parameters
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-333	MW-334	MW-335	MW-336	MW-337	MW-337	MW-338A
Field Sample ID*:		MW333	MW334	MW335	MW336	MW337	MNAXD2	MW338A
Lab Sample ID:		AI03465	AI03535	AI03534	AI03531	AI03543	AI03544	AI03371
Sample Date:		4/19/2006	4/20/2006	4/20/2006	4/20/2006	4/20/2006	4/20/2006	4/18/2006
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	Field duplicates	Original data
Sampling Method:		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow
	Units							
MNA Parameters								
Alkalinity, Total as CaCO3	mg/l	66	51	78	6.1	48	47	280
Chloride	mg/l	22	19	41	4.6	12	12	120
Ethane	mg/l	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ
Ethene	mg/l	0.01 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UJ
Methane	mg/l	0.01 UJ	0.01 U	0.058	0.01 U	0.01 U	0.01 U	0.24 J
Nitrogen, Nitrate+Nitrite	mg/l	0.1 U	0.1 U	0.1 U	0.85	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	0.2 U	0.2 U	0.2 U
Sulfate	mg/l	3.7	3.1	3.2	2.9	4	3.8	1 U
Total Organic Carbon	mg/l	1.4	1 U	1.2	1 U	1 UJ	1 J	2.7

Table B-5
Summary of Groundwater Samples - Eastern Plume
Natural Attenuation Parameters
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

Station ID:		MW-338B	MW-338B	MW-338C	MW-339	P-106	P-111	
Field Sample ID*:		MW338B	MW338B	MW338C	MW339	P106	P111	
Lab Sample ID:		AI03468	AI03375	AI03460	AI03372	AI03541	AI03537	
Sample Date:		4/18/2006	4/18/2006	4/19/2006	4/18/2006	4/20/2006	4/20/2006	
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:		Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	Low Flow	
	Units							
MNA Parameters								
Alkalinity, Total as CaCO3	mg/l	35	-	18	34	30	33	-
Chloride	mg/l	8.8	-	4.5	8.5	14	5.5	-
Ethane	mg/l	-	0.01 UJ	0.01 UJ	0.01 UJ	0.01 U	0.01 U	-
Ethene	mg/l	-	0.01 UJ	0.01 UJ	0.01 UJ	0.01 U	0.01 U	-
Methane	mg/l	-	0.01 UJ	0.01 UJ	0.01 UJ	0.01 U	0.01 U	-
Nitrogen, Nitrate+Nitrite	mg/l	-	0.1 U	0.1 U	0.1 U	0.4	0.1 U	-
Nitrogen, Nitrite	mg/l	0.2 U	-	0.2 U	0.2 U	0.2 U	0.2 U	-
Sulfate	mg/l	5.6	-	3.4	3.5	4.4	13	-
Total Organic Carbon	mg/l	-	1 U	1 U	1 U	1 U	1.3	-

Table B-5

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-6
Summary of Groundwater Samples - Groundwater Extraction and Treatment System
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: GWETS

			Station ID:	Combined Effluent	Combined Effluent	Plume Raw Influent	EW-01	EW-02A
			Field Sample ID*:	COMB EFFLUENT	EFFLUENT-XD1	RAW INFLUENT	EW1	EW2A
			Lab Sample ID:	AI03454	AI03455	AI03453	AI03533	AI03608
			Sample Date:	4/18/2006	4/18/2006	4/18/2006	4/20/2006	4/21/2006
			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	Low-Flow	Low-Flow
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
1,1,1-Trichloroethane	ug/l	200	200	1 UJ	1 UJ	46 J	13 J	50 J
1,1,2,2-Tetrachloroethane	ug/l	NA	1.8	1 R	1 R	1 R	1 R	1 R
1,1,2-Trichloroethane	ug/l	5	6	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethane	ug/l	NA	70	1 UJ	1 UJ	8.7 UJ	2.6 J	16 J
1,1-Dichloroethene	ug/l	7	1	1 UJ	1 UJ	**9.3 J**	4.6 J	**24 J**
1,2-Dichloroethane	ug/l	5	4	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethene, total	ug/l	70	70	1 UJ	1 UJ	11 J	22 J	18 J
1,2-Dichloropropane	ug/l	5	5	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,4-Dioxane	ug/l	NA	NA	8.1 J	8.9	-	-	-
2-Hexanone	ug/l	NA	NA	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
4-Methyl-2-pentanone	ug/l	NA	NA	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Acetone	ug/l	NA	6300	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Benzene	ug/l	5	6	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromodichloromethane	ug/l	NA	6	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromoform	ug/l	NA	44	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromomethane	ug/l	NA	10	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon disulfide	ug/l	NA	600	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon tetrachloride	ug/l	5	3	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chlorobenzene	ug/l	100	47	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroethane	ug/l	NA	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroform	ug/l	80	70	1 UJ	1 UJ	0.59 J	1 UJ	1 UJ
Chloromethane	ug/l	NA	3	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	NA	4	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Table B-6
Summary of Groundwater Samples - Groundwater Extraction and Treatment System
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: GWETS

			Station ID:	Combined Effluent	Combined Effluent	Plume Raw Influent	EW-01	EW-02A
			Field Sample ID*:	COMB EFFLUENT	EFFLUENT-XD1	RAW INFLUENT	EW1	EW2A
			Lab Sample ID:	AI03454	AI03455	AI03453	AI03533	AI03608
			Sample Date:	4/18/2006	4/18/2006	4/18/2006	4/20/2006	4/21/2006
			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	Low-Flow	Low-Flow
	Units	**Federal MCL**	**Maine MEG**					
VOCs								
Dibromochloromethane	ug/l	NA	4	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Ethylbenzene	ug/l	700	70	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Methyl ethyl ketone	ug/l	NA	3600	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Methylene chloride	ug/l	5	47	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Styrene	ug/l	100	140	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Tetrachloroethene	ug/l	5	7	1 UJ	1 UJ	4.3 J	6.4 J	5 J
Toluene	ug/l	1000	1400	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
trans-1,3-Dichloropropene	ug/l	NA	4	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Trichloroethene	ug/l	5	32	1 UJ	1 UJ	31 J	**38 J**	28 J
Vinyl Chloride	ug/l	2	0.2	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Xylenes, Total	ug/l	10000	1400	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Total VOC	ug/l	NA	NA	0	0	102.19	86.6	141

Table B-6
Summary of Groundwater Samples - Groundwater Extraction and Treatment System
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: GWETS

Station ID:	EW-05
Field Sample ID*:	EW5
Lab Sample ID:	AI03536
Sample Date:	4/20/2006
Lab Name:	NEL-ME
Field QC:	Original data
Sampling Method:	Low-Flow

	Units							
VOCs								
1,1,1-Trichloroethane	ug/l	10 J	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/l	1 R	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/l	1 UJ	-	-	-	-	-	-
1,1-Dichloroethane	ug/l	10 J	-	-	-	-	-	-
1,1-Dichloroethene	ug/l	4.4 J	-	-	-	-	-	-
1,2-Dichloroethane	ug/l	1 UJ	-	-	-	-	-	-
1,2-Dichloroethene, total	ug/l	4.3 J	-	-	-	-	-	-
1,2-Dichloropropane	ug/l	1 UJ	-	-	-	-	-	-
1,4-Dioxane	ug/l	-	-	-	-	-	-	-
2-Hexanone	ug/l	5 UJ	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/l	5 UJ	-	-	-	-	-	-
Acetone	ug/l	5 UJ	-	-	-	-	-	-
Benzene	ug/l	1 UJ	-	-	-	-	-	-
Bromodichloromethane	ug/l	1 UJ	-	-	-	-	-	-
Bromoform	ug/l	1 UJ	-	-	-	-	-	-
Bromomethane	ug/l	1 UJ	-	-	-	-	-	-
Carbon disulfide	ug/l	1 UJ	-	-	-	-	-	-
Carbon tetrachloride	ug/l	1 UJ	-	-	-	-	-	-
Chlorobenzene	ug/l	1 UJ	-	-	-	-	-	-
Chloroethane	ug/l	1 UJ	-	-	-	-	-	-
Chloroform	ug/l	2.8 J	-	-	-	-	-	-
Chloromethane	ug/l	1 UJ	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/l	1 UJ	-	-	-	-	-	-

Table B-6
Summary of Groundwater Samples - Groundwater Extraction and Treatment System
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: GWETS

Station ID:	EW-05
Field Sample ID*:	EW5
Lab Sample ID:	AI03536
Sample Date:	4/20/2006
Lab Name:	NEL-ME
Field QC:	Original data
Sampling Method:	Low-Flow

	Units							
VOCs								
Dibromochloromethane	ug/l	1 UJ	-	-	-	-	-	-
Ethylbenzene	ug/l	1 UJ	-	-	-	-	-	-
Methyl ethyl ketone	ug/l	5 UJ	-	-	-	-	-	-
Methylene chloride	ug/l	1 UJ	-	-	-	-	-	-
Styrene	ug/l	1 UJ	-	-	-	-	-	-
Tetrachloroethene	ug/l	1 UJ	-	-	-	-	-	-
Toluene	ug/l	1 UJ	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/l	1 UJ	-	-	-	-	-	-
Trichloroethene	ug/l	14 J	-	-	-	-	-	-
Vinyl Chloride	ug/l	1 UJ	-	-	-	-	-	-
Xylenes, Total	ug/l	1 UJ	-	-	-	-	-	-
Total VOC	ug/l	45.5	-	-	-	-	-	-

Table B-6

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-7
Summary of Surface Water Sample - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

		Station ID:	SW-04	SW-04	SW-07	SW-08	SW-09	
		Field Sample ID*:	SW4	SW-XD1	SW7	SW8	SW09	
		Lab Sample ID:	AI03936	AI03937	AI03933	AI03927	AI03928	
		Sample Date:	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	
		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:	1	1	1	1	1	
	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 UR	1 UR	1 UR	1 UR	1 UR	-
1,1,2-Trichloroethane	ug/l	1200	1 U	1 U	1 U	1 U	1 U	-
1,1-Dichloroethane	ug/l	47	1 UJ	1 UJ	1 UJ	1 U	1 UJ	-
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 UJ	5 UJ	5 UJ	2.9 J	5 UJ	-
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 UJ	1 UJ	1 UJ	1 U	1 UJ	-
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 UJ	1 UJ	1 UJ	1 UJ	1 UJ	-
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	-

Table B-7
Summary of Surface Water Sample - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

		Station ID:	SW-04	SW-04	SW-07	SW-08	SW-09	
		Field Sample ID*:	SW4	SW-XD1	SW7	SW8	SW09	
		Lab Sample ID:	AI03936	AI03937	AI03933	AI03927	AI03928	
		Sample Date:	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	
		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								
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	0.56 J	1 J	0.83 J	1 U	0.79 J	-
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	0.67 J	1 U	-
Total VOC	ug/l	NA	0	0	0	0.67	0	-

Table B-7

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-8
Summary of Surface Water Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

		Station ID:	SW-04	SW-04	SW-07	SW-08	SW-09	
		Field Sample ID*:	SW4	SW-XD1	SW7	SW8	SW09	
		Lab Sample ID:	AI03936	AI03937	AI03933	AI03927	AI03928	
		Sample Date:	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	
		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**						
Metals								
Aluminum	ug/l	87	200 UJ	320 J	200 U	200 U	200 U	-
Antimony, Furnace-GW	ug/l	NA	6 U	6 U	6 U	6 U	6 U	-
Arsenic	ug/l	150	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	-
Beryllium	ug/l	0.66	5 U	5 U	5 U	5 U	5 U	-
Cadmium	ug/l	0.08	5 U	5 U	5 U	5 U	5 U	-
Calcium	ug/l	NA	11000	11000	12000	12000	12000	-
Chromium	ug/l	11	10 U	10 U	10 U	10 U	10 U	-
Cobalt	ug/l	23	50 U	50 U	50 U	50 U	50 U	-
Copper	ug/l	2.36	25 U	25 U	25 U	25 U	25 U	-
Iron	ug/l	1000	740 J	1100 J	920 J	1000 J	890 J	-
Lead	ug/l	0.41	3 U	3 U	3 U	3 U	3 U	-
Magnesium	ug/l	NA	5000 U	5000 U	5000 U	5000 U	5000 U	-
Manganese	ug/l	120	160 J	170 J	190 J	180 J	190 J	-
Mercury by Cold Vapor GW	ug/l	NA	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	-
Potassium	ug/l	NA	5000 U	5000 U	5000 U	5000 U	5000 U	-
Selenium Furnace GW	ug/l	NA	5 J	5 UJ	5 U	5 U	5 U	-
Silver	ug/l	0.23	10 U	10 U	10 U	10 U	10 U	-
Sodium	ug/l	NA	50000 J	50000 J	50000 J	50000 J	50000 J	-
Thallium, Furnace, Groundwater	ug/l	NA	2 U	2 U	2 U	2 U	2 U	-
Vanadium	ug/l	20	50 U	50 U	50 U	50 U	50 U	-
Zinc	ug/l	NA	30 UJ	40 UJ	20 UJ	30 UJ	30 UJ	-

Table B-8

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-9
Summary of Surface Water Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

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-XD1	SW14
		Lab Sample ID:	AI03593	AI03594	AI03602	AI03595	AI03597	AI03596
		Sample Date:	4/21/2006	4/21/2006	4/21/2006	4/21/2006	4/21/2006	4/21/2006
		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 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1,2,2-Tetrachloroethane	ug/l	610	1 J	1 R	1 R	1 R	1 R	1 R
1,1,2-Trichloroethane	ug/l	1200	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethane	ug/l	47	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,1-Dichloroethene	ug/l	25	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethane	ug/l	910	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloroethene, total	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
1,2-Dichloropropane	ug/l	2160	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
2-Hexanone	ug/l	99	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
4-Methyl-2-pentanone	ug/l	170	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Acetone	ug/l	1500	5 UJ	5 UJ	2.2 J	14 J	14 J	11 J
Benzene	ug/l	130	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromodichloromethane	ug/l	2610	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromoform	ug/l	2300	0.57 J	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Bromomethane	ug/l	9450	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon disulfide	ug/l	92	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon tetrachloride	ug/l	9.8	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chlorobenzene	ug/l	64	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroethane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroform	ug/l	28	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloromethane	ug/l	6000	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	0.085	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Dibromochloromethane	ug/l	2510	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Table B-9
Summary of Surface Water Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

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-XD1	SW14
		Lab Sample ID:	AI03593	AI03594	AI03602	AI03595	AI03597	AI03596
		Sample Date:	4/21/2006	4/21/2006	4/21/2006	4/21/2006	4/21/2006	4/21/2006
		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								
Ethylbenzene	ug/l	7.3	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Methyl ethyl ketone	ug/l	NA	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Methylene chloride	ug/l	2200	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Styrene	ug/l	300	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Tetrachloroethene	ug/l	98	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Toluene	ug/l	9.8	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
trans-1,3-Dichloropropene	ug/l	0.085	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Trichloroethene	ug/l	47	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Vinyl Chloride	ug/l	0.069	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Xylenes, Total	ug/l	1.8	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Total VOC	ug/l	NA	0.57	0	0	0	0	0

Table B-9

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-10
Summary of Leachate Station Seep Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

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	SEEP-XD1
		Lab Sample ID:	AI03920	AI03921	AI03935	AI03922	AI03931	AI03932
		Sample Date:	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006
		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	0.76 J	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	610	1 UR	0.71 UJ	1 UR	1 UR	1 UR	1 UR
1,1,2-Trichloroethane	ug/l	1200	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/l	47	1 U	0.61 J	1 U	1 U	0.65 J	0.59 J
1,1-Dichloroethene	ug/l	25	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
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 U	5 U	5 U	4.2 J	2.6 J
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 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Carbon disulfide	ug/l	92	1 U	1.6	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 UJ	1 UJ	1 UJ	1 UJ	2.6 J	2.6 J
Chloroform	ug/l	28	1 U	1 U	1 U	1 U	1 U	1 U
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

Table B-10
Summary of Leachate Station Seep Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

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	SEEP-XD1
		Lab Sample ID:	AI03920	AI03921	AI03935	AI03922	AI03931	AI03932
		Sample Date:	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006
		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								
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 U	1 U	1 U	1 U	0.67 U	0.53 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	0.56 J	0.52 J	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	0.56	3.49	0	0	3.25	3.19

Table B-10

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-11
Summary of Leachate Station Seep Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
April 2006 (Monitoring Event 28)

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	SEEP-XD1
		Lab Sample ID:	AI03920	AI03921	AI03935	AI03922	AI03931	AI03932
		Sample Date:	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006	4/26/2006
		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 UJ	23000 J	700 J	220 J	3600 J	5600 J
Antimony, Furnace-GW	ug/l	NA	6 U	6 U	6 U	6 U	6 U	6 U
Arsenic	ug/l	150	10 UJ	30 J	10 UJ	140 J	130 J	170 J
Barium	ug/l	3.9	200 U	270	200 U	200 U	200 U	200 U
Beryllium	ug/l	0.66	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	ug/l	0.08	5 U	5 U	5 U	5 U	5 U	5 U
Calcium	ug/l	NA	110000	120000	53000	50000 U	52000 J	50000 UJ
Chromium	ug/l	11	10 U	130	10 U	10 U	10 U	10 U
Cobalt	ug/l	23	50 U	50 U	50 U	50 U	50 U	50 U
Copper	ug/l	2.36	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ
Iron	ug/l	1000	3600 J	320000 J	13000 J	110000 J	140000 J	180000 J
Lead	ug/l	0.41	3 U	51	30 U	3 U	14	17
Magnesium	ug/l	NA	10000 J	13000 J	5000 U	12000 J	5200 J	5600 J
Manganese	ug/l	120	260 J	13000 J	20 J	6700 J	1700 J	1900 J
Mercury by Cold Vapor GW	ug/l	NA	0.2 U	2	0.2 U	0.2 U	0.2 J	0.3 J
Nickel	ug/l	13.4	40 U	120	56	40 U	40 U	40 U
Potassium	ug/l	NA	50000 U	11000	50000 U	6800	7700	8100
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
Sodium	ug/l	NA	50000 U	50000 U	5000 U	17000 J	18000 J	18000 J
Thallium, Furnace, Groundwater	ug/l	NA	2 UR	2 UR	2 UR	2 UR	2 UR	2 UR
Vanadium	ug/l	20	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	ug/l	NA	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	50 UJ

Table B-11

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-12
Summary of Leachate Station Seep Samples - Sites 1 and 3
Pesticides by EPA Method 8081A
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

		Station ID:	SEEP-01	SEEP-03	SEEP-04	SEEP-05		
		Field Sample ID*:	SEEP1	SEEP3	SEEP4	SEEP5		
		Lab Sample ID:	AI03920	AI03921	AI03935	AI03922		
		Sample Date:	4/26/2006	4/26/2006	4/26/2006	4/26/2006		
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME		
		Field QC:	Original data	Original data	Original data	Original data		
		Sampling Method:	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	-	-
4,4'-DDE	ug/l	NA	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	-	-
Aldrin	ug/l	NA	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	-	-
Alpha-chlordane	ug/l	NA	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	-	-
Chlordane	ug/l	NA	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	-	-
Dieldrin	ug/l	NA	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	-	-
Endosulfan II	ug/l	NA	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	-	-
Endrin	ug/l	NA	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	-	-
Endrin Ketone	ug/l	NA	0.1 U	0.1 U	0.1 U	0.1 U	-	-
Gamma-BHC (Lindane)	ug/l	NA	0.05 U	0.36	0.05 U	0.05 U	-	-
Gamma-Chlordane	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	-	-
Heptachlor	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	-	-
Heptachlor Epoxide	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	-	-
Hexachlorobenzene	ug/l	NA	0.05 U	0.05 U	0.05 U	0.05 U	-	-
Methoxychlor	ug/l	NA	0.5 U	0.5 U	0.5 U	0.5 U	-	-
Toxaphene	ug/l	NA	1 U	1 U	1 U	1 U	-	-

Table B-12

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-13
Summary of Leachate Station Seep Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

		Station ID:	SEEP-10	SEEP-11	SEEP-11			
		Field Sample ID*:	SEEP10	SEEP11	SEEP-XD1			
		Lab Sample ID:	AI03603	AI03600	AI03601			
		Sample Date:	4/21/2006	4/21/2006	4/21/2006			
		Lab Name:	NEL-ME	NEL-ME	NEL-ME			
		Field QC:	Original data	Original data	Field duplicates			
		Sampling Method:	Grab	Grab	Grab			
	Units	**Screening Value**						
VOCs								
1,1,1-Trichloroethane	ug/l	11	1 UJ	9.6 J	9.4 J	-	-	-
1,1,2,2-Tetrachloroethane	ug/l	610	1 R	1 R	1 R	-	-	-
1,1,2-Trichloroethane	ug/l	1200	1 UJ	1 UJ	1 UJ	-	-	-
1,1-Dichloroethane	ug/l	47	1 UJ	1 UJ	1 UJ	-	-	-
1,1-Dichloroethene	ug/l	25	1 UJ	1 UJ	1 UJ	-	-	-
1,2-Dichloroethane	ug/l	910	1 UJ	1 UJ	1 UJ	-	-	-
1,2-Dichloroethene, total	ug/l	NA	1 UJ	8.2 J	8 J	-	-	-
1,2-Dichloropropane	ug/l	2160	1 UJ	1 UJ	1 UJ	-	-	-
2-Hexanone	ug/l	99	5 UJ	1 UJ	5 UJ	-	-	-
4-Methyl-2-pentanone	ug/l	170	5 UJ	1 UJ	5 UJ	-	-	-
Acetone	ug/l	1500	5 UJ	2.9 J	1.6 J	-	-	-
Benzene	ug/l	130	1 UJ	1 UJ	1 UJ	-	-	-
Bromodichloromethane	ug/l	2610	1 UJ	1 UJ	1 UJ	-	-	-
Bromoform	ug/l	2300	1 UJ	1 UJ	1 UJ	-	-	-
Bromomethane	ug/l	9450	1 UJ	1 UJ	1 UJ	-	-	-
Carbon disulfide	ug/l	92	1 UJ	1 UJ	1 UJ	-	-	-
Carbon tetrachloride	ug/l	9.8	1 UJ	1 UJ	1 UJ	-	-	-
Chlorobenzene	ug/l	64	1 UJ	1 UJ	1 UJ	-	-	-
Chloroethane	ug/l	NA	1 UJ	1 UJ	1 UJ	-	-	-
Chloroform	ug/l	28	1 UJ	1 UJ	1 UJ	-	-	-
Chloromethane	ug/l	6000	1 UJ	1 UJ	1 UJ	-	-	-
cis-1,3-Dichloropropene	ug/l	0.085	1 UJ	1 UJ	1 UJ	-	-	-
Dibromochloromethane	ug/l	2510	1 UJ	1 UJ	1 UJ	-	-	-

Table B-13
Summary of Leachate Station Seep Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

		Station ID:	SEEP-10	SEEP-11	SEEP-11			
		Field Sample ID*:	SEEP10	SEEP11	SEEP-XD1			
		Lab Sample ID:	AI03603	AI03600	AI03601			
		Sample Date:	4/21/2006	4/21/2006	4/21/2006			
		Lab Name:	NEL-ME	NEL-ME	NEL-ME			
		Field QC:	Original data	Original data	Field duplicates			
		Sampling Method:	Grab	Grab	Grab			
	Units	**Screening Value**						
VOCs								
Ethylbenzene	ug/l	7.3	1 UJ	1 UJ	1 UJ	-	-	-
Methyl ethyl ketone	ug/l	NA	5 UJ	5 UJ	5 UJ	-	-	-
Methylene chloride	ug/l	2200	1 UJ	1 UJ	1 UJ	-	-	-
Styrene	ug/l	300	10 UJ	1 UJ	1 UJ	-	-	-
Tetrachloroethene	ug/l	98	1 UJ	4.7 J	4.6 J	-	-	-
Toluene	ug/l	9.8	1 UJ	1 UJ	1 UJ	-	-	-
trans-1,3-Dichloropropene	ug/l	0.085	1 UJ	1 UJ	1 UJ	-	-	-
Trichloroethene	ug/l	47	1 UJ	8.6 J	8.6 J	-	-	-
Vinyl Chloride	ug/l	0.069	1 UJ	1 UJ	1 UJ	-	-	-
Xylenes, Total	ug/l	1.8	1 UJ	1 UJ	1 UJ	-	-	-
Total VOC	ug/l	NA	0	30.6	31.1	-	-	-

Table B-13

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-14
Summary of Leachate Station Sediment Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

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	LT-XD1
		Lab Sample ID:	AI03923	AI03924	AI03925	AI03926	AI03929	AI03930
		Sample Date:	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006
		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	0.007 U	0.036 U	0.007 U	0.07	0.009 U	0.008 U
1,1,2,2-Tetrachloroethane	mg/kg	0.94	0.0075	0.028 J	0.007 U	0.009 U	0.009 U	0.008 U
1,1,2-Trichloroethane	mg/kg	0.17	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
1,1-Dichloroethane	mg/kg	4.6	0.007 U	0.036 U	0.007 U	0.073	0.009 U	0.008 U
1,1-Dichloroethene	mg/kg	4.8	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
1,2-Dichlorobenzene	mg/kg	0.34	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
1,2-Dichloroethane	mg/kg	4.4	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
1,2-Dichloroethene, total	mg/kg	NA	0.007 U	0.036 U	0.007 U	0.056	0.009 U	0.008 U
1,2-Dichloropropane	mg/kg	5.8	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
1,3-Dichlorobenzene	mg/kg	1.7	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
1,4-Dichlorobenzene	mg/kg	0.35	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
2-Hexanone	mg/kg	4.4	0.01 U	0.071 U	0.01 U	0.01 U	0.01 U	0.01 U
4-Methyl-2-pentanone	mg/kg	0.026	0.01 U	0.071 U	0.01 U	0.01 U	0.01 U	0.01 U
Acetone	mg/kg	2.3	0.11 J	0.85 J	0.068 J	0.086 J	0.098 J	0.083 J
Benzene	mg/kg	0.057	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
Bromodichloromethane	mg/kg	7.7	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
Bromoform	mg/kg	12.2	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
Bromomethane	mg/kg	1.4	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
Carbon disulfide	mg/kg	0.0016	0.007 U	0.032 J	0.007 U	0.19 E	0.01	0.0059 J
Carbon tetrachloride	mg/kg	7.7	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
Chlorobenzene	mg/kg	0.82	0.007 U	0.019 J	0.007 U	0.11	0.009 U	0.008 U
Chloroethane	mg/kg	2.9	0.007 UJ	0.036 UJ	0.007 UJ	0.009 UJ	0.009 UJ	0.008 UJ
Chloroform	mg/kg	5.6	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U

Table B-14
Summary of Leachate Station Sediment Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

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	LT-XD1
		Lab Sample ID:	AI03923	AI03924	AI03925	AI03926	AI03929	AI03930
		Sample Date:	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006
		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	mg/kg	2.1	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
cis-1,3-Dichloropropene	mg/kg	0.000023	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
Dibromochloromethane	mg/kg	9.9	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
Ethylbenzene	mg/kg	3.6	0.007 U	0.036 U	0.007 U	0.12	0.009 U	0.008 U
Methyl ethyl ketone	mg/kg	NA	0.01 U	0.11	0.052	0.26 E	0.01 U	0.01 U
Methylene chloride	mg/kg	3.7	0.007 U	0.021 J	0.028	0.084	0.009 U	0.008 U
Styrene	mg/kg	9.2	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
Tetrachloroethene	mg/kg	0.53	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
Toluene	mg/kg	0.67	0.007 U	0.036 U	0.013	0.14 E	0.009 U	0.008 U
trans-1,3-Dichloropropene	mg/kg	0.000023	0.007 U	0.036 U	0.007 U	0.009 U	0.009 U	0.008 U
Trichloroethene	mg/kg	1.4	0.007 U	0.029 J	0.007 U	0.083	0.009 U	0.008 U
Vinyl Chloride	mg/kg	0.000016	0.01 U	0.071 U	0.01 U	0.01 U	0.01 U	0.01 U
Xylenes, Total	mg/kg	9.7	0.007 U	0.036 U	0.046	0.36 E	0.009 U	0.008 U
Total VOC	mg/kg	NA	0.0075	0.218	0.111	1.462	0.01	0.0059

Table B-14

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-15
Summary of Leachate Station Sediment Samples - Sites 1 and 3
Target Analyte List Metals by EPA 6000/7000 Series Methods
April 2006 (Monitoring Event 28)

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	LT-XD1
		Lab Sample ID:	AI03923	AI03924	AI03925	AI03926	AI03929	AI03930
		Sample Date:	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006	4/27/2006
		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	3100	16000	2100	4500	10000	12000
Antimony	mg/kg	0.16	4.7 U	3.2 U	3.8 U	3.6 U	3.6 U	3.9 U
Arsenic	mg/kg	9.8	0.94 U	7.7	1.4	18	1.3	0.84
Barium	mg/kg	0.7	7.3 J	43 J	9.7 J	8.8 J	22 J	26 J
Beryllium	mg/kg	0.55	0.47 U	1.3	0.38 U	0.36 U	0.36 U	0.39 U
Cadmium	mg/kg	0.99	0.94 U	0.64 U	0.76 U	0.71 U	0.71 U	0.79 U
Calcium	mg/kg	NA	890	6200	2000	1200	1200	1100
Chromium	mg/kg	43.4	4.1 J	26 J	2.3 J	12 J	10 J	12 J
Cobalt	mg/kg	10	4.7 U	4.3	5.1	13	12	7.8
Copper	mg/kg	31.6	4.2	4.7	3.2	4	9.3	9.5
Iron	mg/kg	10000	9100 J	19000 J	3400 J	6300 J	12000 J	13000 J
Lead	mg/kg	35.8	4.5	7.3	8.1	4.7	6.6	7.7
Magnesium	mg/kg	NA	820 J	260 J	290 J	800 J	2200 J	2200 J
Manganese	mg/kg	630	200 J	2600 J	21 J	180 J	120 J	120 J
Mercury	mg/kg	0.18	0.18	0.36	0.075	0.018 U	0.062	0.042
Nickel	mg/kg	22.7	4.5 J	7.3 J	12 J	3.9 J	13 J	13 J
Potassium	mg/kg	NA	320 J	64 UJ	120 J	300 J	760 J	960 J
Selenium	mg/kg	0.29	4.7 U	3.2 U	3.8 U	3.6 U	3.6 U	3.9 U
Silver	mg/kg	0.5	0.47 U	0.32 U	0.38 U	0.36 U	0.36 U	0.39 U
Sodium	mg/kg	NA	94 UJ	74 J	76 UJ	71 UJ	71 UJ	79 UJ
Thallium	mg/kg	NA	4.7 U	3.2 U	3.8 U	3.6 U	3.6 U	3.9 U
Vanadium	mg/kg	43	4.7 U	3.2 U	3.8 U	3.6 U	18	13
Zinc	mg/kg	NA	9.9 B	4.5 B	5.4 B	9 B	23 B	22 B

Table B-15

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-16
Summary of Sediment Samples - Eastern Plume
Pesticides by EPA Method 8081
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

		Station ID:	SED-11	SED-11				
		Field Sample ID*:	SED11	SED-XD1				
		Lab Sample ID:	AI03598	AI03599				
		Sample Date:	4/21/2006	4/21/2006				
		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	0.14 U	0.14 U	-	-	-	-
4,4'-DDE	mg/kg	0.00316	0.027 U	0.028 U	-	-	-	-
4,4'-DDT	mg/kg	0.00416	0.14 U	0.14 U	-	-	-	-
Aldrin	mg/kg	0.002	0.014 U	0.014 U	-	-	-	-
Alpha-BHC	mg/kg	0.006	0.014 U	0.014 U	-	-	-	-
Alpha-chlordane	mg/kg	0.0032	0.014 U	0.014 U	-	-	-	-
Beta-BHC	mg/kg	0.005	0.014 U	0.014 U	-	-	-	-
Chlordane	mg/kg	NA	0.14 U	0.14 U	-	-	-	-
Delta-BHC	mg/kg	0.0024	0.014 U	0.014 U	-	-	-	-
Dieldrin	mg/kg	0.0019	0.027 U	0.028 U	-	-	-	-
Endosulfan I	mg/kg	0.0055	0.014 U	0.014 U	-	-	-	-
Endosulfan II	mg/kg	0.0055	0.027 U	0.028 U	-	-	-	-
Endosulfan Sulfate	mg/kg	0.0055	0.27 U	0.28 U	-	-	-	-
Endrin	mg/kg	0.0022	0.027 U	0.028 U	-	-	-	-
Endrin Aldehyde	mg/kg	0.0022	0.14 U	0.14 U	-	-	-	-
Endrin Ketone	mg/kg	0.0022	0.14 U	0.14 U	-	-	-	-
Gamma-BHC (Lindane)	mg/kg	0.0024	0.014 U	0.014 U	-	-	-	-
Gamma-Chlordane	mg/kg	0.0032	0.014 U	0.014 U	-	-	-	-
Heptachlor	mg/kg	0.0025	0.014 U	0.014 U	-	-	-	-
Heptachlor Epoxide	mg/kg	0.0025	0.014 U	0.014 U	-	-	-	-
Hexachlorobenzene	mg/kg	NA	0.014 UJ	0.014 UJ	-	-	-	-
Methoxychlor	mg/kg	0.019	0.14 U	0.14 U	-	-	-	-
Toxaphene	mg/kg	NA	0.14 U	0.14 U	-	-	-	-

Table B-16

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-17
Summary of Sediment Samples - Eastern Plume
Target Analyte List Metals by EPA 6000/7000 Series Methods
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

		Station ID:	SED-11	SED-11				
		Field Sample ID*:	SED11	SED-XD1				
		Lab Sample ID:	AI03598	AI03599				
		Sample Date:	4/21/2006	4/21/2006				
		Lab Name:	NEL-ME	NEL-ME				
		Field QC:	Original data	Field duplicates				
		Sampling Method:	Grab	Grab				
	Units	**Screening Value**						
Metals								
Aluminum	mg/kg	26000	6000	6400	-	-	-	-
Antimony	mg/kg	0.16	7.5 U	7.8 U	-	-	-	-
Arsenic	mg/kg	9.8	3.9	2.6	-	-	-	-
Barium	mg/kg	0.7	52	36	-	-	-	-
Beryllium	mg/kg	0.55	0.75 U	0.78 U	-	-	-	-
Cadmium	mg/kg	0.99	1.5 U	1.6 U	-	-	-	-
Calcium	mg/kg	NA	1000	1400	-	-	-	-
Chromium	mg/kg	43.4	13	9.4	-	-	-	-
Cobalt	mg/kg	10	8.9 J	7.8 UJ	-	-	-	-
Copper	mg/kg	31.6	1.7	1.9	-	-	-	-
Iron	mg/kg	10000	22000 J	21000 J	-	-	-	-
Lead	mg/kg	35.8	40	28	-	-	-	-
Magnesium	mg/kg	NA	2100	1600	-	-	-	-
Manganese	mg/kg	630	720	460	-	-	-	-
Mercury	mg/kg	0.18	0.071 U	0.072 U	-	-	-	-
Nickel	mg/kg	22.7	10	7.3	-	-	-	-
Potassium	mg/kg	NA	770 J	550 J	-	-	-	-
Selenium	mg/kg	0.29	7.5 U	7800 U	-	-	-	-
Silver	mg/kg	0.5	0.75 U	0.78 U	-	-	-	-
Sodium	mg/kg	NA	150 UJ	340 J	-	-	-	-
Thallium	mg/kg	NA	7.5 U	7.8 U	-	-	-	-
Vanadium	mg/kg	43	22 J	15 J	-	-	-	-
Zinc	mg/kg	NA	58 J	38 J	-	-	-	-

Table B-17

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-18
Summary of Rinsate and Trip Blank Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

		Station ID:	Rinsate Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
		Field Sample ID*:	MW-QS1	MW Trip Blank -1	QT1	QT2	QT3	Trip Blank
		Lab Sample ID:	AI03659	AI03377	AI03467	AI03548	AI03613	AI05956
		Sample Date:	4/24/2006	4/18/2006	4/19/2006	4/20/2006	4/21/2006	6/19/2006
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Rinsate blank	Trip blank	Trip blank	Trip blank	Trip blank	Trip blank
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
VOCs								
1,1,1-Trichloroethane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
1,1,2,2-Tetrachloroethane	ug/l	NA	1 R	1 R	1 R	1 R	1 R	1 U
1,1,2-Trichloroethane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
1,1-Dichloroethane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
1,1-Dichloroethene	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
1,2-Dichloroethane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
1,2-Dichloroethene, total	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
1,2-Dichloropropane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
1,4-Dioxane	ug/l	NA	1 UJ	1 U	1 UJ	1 UJ	-	-
2-Hexanone	ug/l	NA	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
4-Methyl-2-pentanone	ug/l	NA	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
Acetone	ug/l	NA	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
Benzene	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Bromodichloromethane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Bromoform	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Bromomethane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Carbon disulfide	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Carbon tetrachloride	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Chlorobenzene	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Chloroethane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Chloroform	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Chloromethane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
cis-1,3-Dichloropropene	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U

Table B-18
Summary of Rinsate and Trip Blank Samples - Eastern Plume
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

		Station ID:	Rinsate Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
		Field Sample ID*:	MW-QS1	MW Trip Blank -1	QT1	QT2	QT3	Trip Blank
		Lab Sample ID:	AI03659	AI03377	AI03467	AI03548	AI03613	AI05956
		Sample Date:	4/24/2006	4/18/2006	4/19/2006	4/20/2006	4/21/2006	6/19/2006
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME	NEL-ME
		Field QC:	Rinsate blank	Trip blank	Trip blank	Trip blank	Trip blank	Trip blank
		Sampling Method:	Grab	Grab	Grab	Grab	Grab	Grab
	Units	**Screening Value**						
VOCs								
Dibromochloromethane	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Ethylbenzene	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Methyl ethyl ketone	ug/l	NA	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
Methylene chloride	ug/l	NA	1 UJ	3.4 UJ	2.3 J	5.4 J	6.6 J	1.6
Styrene	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Tetrachloroethene	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Toluene	ug/l	NA	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U
trans-1,3-Dichloropropene	ug/l	NA	-	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Trichloroethene	ug/l	NA	-	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Vinyl Chloride	ug/l	NA	-	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Xylenes, Total	ug/l	NA	-	1 UJ	1 UJ	1 UJ	1 UJ	1 U
Total VOC	ug/l	NA	0	0	2.3	5.4	6.6	1.6

Table B-18

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-19
Summary of Rinsate Blank Samples - Eastern Plume
Target Analyte List Metals by EPA 6000/7000 Series Methods
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

		Station ID:	Rinsate Blank					
		Field Sample ID*:	MW-QS1					
		Lab Sample ID:	AI03659					
		Sample Date:	4/24/2006					
		Lab Name:	NEL-ME					
		Field QC:	Rinsate blank					
		Sampling Method:	Grab					
	Units	**Screening Value**						
Metals								
Arsenic	ug/l	NA	2.3 U	-	-	-	-	-
Iron	ug/l	NA	25 U	-	-	-	-	-
Manganese	ug/l	NA	2 U	-	-	-	-	-

Table B-19

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-20
Summary of Rinsate and Trip Blank Samples - Eastern Plume
Monitored Natural Attenuation Parameters
April 2006 (Monitoring Event 28)

Site Name: Eastern Plume

		Station ID:	Rinsate Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	
		Field Sample ID*:	MW-QS1	MW Trip Blank -1	QT1	QT2	QT3	
		Lab Sample ID:	AI03659	AI03377	AI03467	AI03548	AI03613	
		Sample Date:	4/24/2006	4/18/2006	4/19/2006	4/20/2006	4/21/2006	
		Lab Name:	NEL-ME	NEL-ME	NEL-ME	NEL-ME	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	-	-	-	-	-
Ethane	mg/l	NA	0.01 U	0.01 UJ	0.01 UJ	0.01 U	0.01 U	-
Ethene	mg/l	NA	0.01 U	0.01 UJ	0.01 UJ	0.01 U	0.01 U	-
Methane	mg/l	NA	0.01 U	0.01 UJ	0.01 UJ	0.01 U	0.01 U	-
Nitrogen, Nitrate+Nitrite	mg/l	NA	0.1 U	-	-	-	-	-
Sulfate	mg/l	NA	1 U	-	-	-	-	-
Total Organic Carbon	mg/l	NA	1 U	-	-	-	-	-

Table B-20

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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-21
Summary of Trip Blank Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

		Station ID:	Trip Blank	Trip Blank				
		Field Sample ID*:	MWQT1	MWQT2				
		Lab Sample ID:	AI03787	AI03940				
		Sample Date:	4/26/2006	4/26/2006				
		Lab Name:	NEL-ME	NEL-ME				
		Field QC:	Trip blank	Trip blank				
		Sampling Method:	Grab	Grab				
	Units	**Screening Value**						
VOCs								
1,1,1-Trichloroethane	ug/l	NA	1 U	1 U	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/l	NA	0.84 JB	1 UR	-	-	-	-
1,1,2-Trichloroethane	ug/l	NA	1 U	1 U	-	-	-	-
1,1-Dichloroethane	ug/l	NA	1 UJ	1 U	-	-	-	-
1,1-Dichloroethene	ug/l	NA	1 U	1 UJ	-	-	-	-
1,2-Dichloroethane	ug/l	NA	1 U	1 U	-	-	-	-
1,2-Dichloroethene, total	ug/l	NA	1 U	1 U	-	-	-	-
1,2-Dichloropropane	ug/l	NA	1 U	1 U	-	-	-	-
2-Hexanone	ug/l	NA	5 UJ	5 U	-	-	-	-
4-Methyl-2-pentanone	ug/l	NA	5 U	5 U	-	-	-	-
Acetone	ug/l	NA	5 UJ	5 U	-	-	-	-
Benzene	ug/l	NA	1 U	1 U	-	-	-	-
Bromodichloromethane	ug/l	NA	1 U	1 U	-	-	-	-
Bromoform	ug/l	NA	1 U	1 U	-	-	-	-
Bromomethane	ug/l	NA	1 U	1 UJ	-	-	-	-
Carbon disulfide	ug/l	NA	1 U	1 U	-	-	-	-
Carbon tetrachloride	ug/l	NA	1 U	1 U	-	-	-	-
Chlorobenzene	ug/l	NA	1 U	1 U	-	-	-	-
Chloroethane	ug/l	NA	1 UJ	1 UJ	-	-	-	-
Chloroform	ug/l	NA	1 U	1 U	-	-	-	-
Chloromethane	ug/l	NA	1 U	1 U	-	-	-	-
cis-1,3-Dichloropropene	ug/l	NA	1 U	1 U	-	-	-	-
Dibromochloromethane	ug/l	NA	1 U	1 U	-	-	-	-

Table B-21
Summary of Trip Blank Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

		Station ID:	Trip Blank	Trip Blank				
		Field Sample ID*:	MWQT1	MWQT2				
		Lab Sample ID:	AI03787	AI03940				
		Sample Date:	4/26/2006	4/26/2006				
		Lab Name:	NEL-ME	NEL-ME				
		Field QC:	Trip blank	Trip blank				
		Sampling Method:	Grab	Grab				
	Units	**Screening Value**						
VOCs								
Ethylbenzene	ug/l	NA	1 U	1 U	-	-	-	-
Methyl ethyl ketone	ug/l	NA	5 U	5 U	-	-	-	-
Methylene chloride	ug/l	NA	2.3 U	2.3 U	-	-	-	-
Styrene	ug/l	NA	1 U	1 U	-	-	-	-
Tetrachloroethene	ug/l	NA	1 UJ	1 U	-	-	-	-
Toluene	ug/l	NA	1 U	1 U	-	-	-	-
trans-1,3-Dichloropropene	ug/l	NA	1 U	1 U	-	-	-	-
Trichloroethene	ug/l	NA	1 U	1 U	-	-	-	-
Vinyl Chloride	ug/l	NA	1 UJ	1 U	-	-	-	-
Xylenes, Total	ug/l	NA	1 U	1 U	-	-	-	-
Total VOC	ug/l	NA	0.84	0	-	-	-	-

Table B-21

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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 Trip Blank (Soil) Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

		Station ID:	Trip Blank					
		Field Sample ID*:	MWQT2					
		Lab Sample ID:	AI03934					
		Sample Date:	4/26/2006					
		Lab Name:	NEL-ME					
		Field QC:	Trip blank					
		Sampling Method:	Grab					
	Units	**Screening Value**						
VOCs								
1,1,1-Trichloroethane	mg/kg	0.17	0.005 U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	0.94	0.005 U	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	0.17	0.005 U	-	-	-	-	-
1,1-Dichloroethane	mg/kg	4.6	0.005 U	-	-	-	-	-
1,1-Dichloroethene	mg/kg	4.8	0.005 U	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.34	0.005 U	-	-	-	-	-
1,2-Dichloroethane	mg/kg	4.4	0.005 U	-	-	-	-	-
1,2-Dichloroethene, total	mg/kg	NA	0.005 U	-	-	-	-	-
1,2-Dichloropropane	mg/kg	5.8	0.005 U	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	1.7	0.005 U	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.35	0.005 U	-	-	-	-	-
2-Hexanone	mg/kg	4.4	0.01 U	-	-	-	-	-
4-Methyl-2-pentanone	mg/kg	0.026	0.01 U	-	-	-	-	-
Acetone	mg/kg	2.3	0.01 U	-	-	-	-	-
Benzene	mg/kg	0.057	0.005 U	-	-	-	-	-
Bromodichloromethane	mg/kg	7.7	0.005 U	-	-	-	-	-
Bromoform	mg/kg	12.2	0.005 U	-	-	-	-	-
Bromomethane	mg/kg	1.4	0.005 U	-	-	-	-	-
Carbon disulfide	mg/kg	0.0016	0.005 U	-	-	-	-	-
Carbon tetrachloride	mg/kg	7.7	0.005 U	-	-	-	-	-
Chlorobenzene	mg/kg	0.82	0.005 U	-	-	-	-	-
Chloroethane	mg/kg	2.9	0.005 UJ	-	-	-	-	-
Chloroform	mg/kg	5.6	0.005 U	-	-	-	-	-

Table B-22
Summary of Trip Blank (Soil) Samples - Sites 1 and 3
Volatile Organic Compounds by EPA Method 8260B
April 2006 (Monitoring Event 28)

Site Name: Sites 1 & 3

		Station ID:	Trip Blank					
		Field Sample ID*:	MWQT2					
		Lab Sample ID:	AI03934					
		Sample Date:	4/26/2006					
		Lab Name:	NEL-ME					
		Field QC:	Trip blank					
		Sampling Method:	Grab					
	Units	**Screening Value**						
VOCs								
Chloromethane	mg/kg	2.1	0.005 U	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	0.000023	0.005 U	-	-	-	-	-
Dibromochloromethane	mg/kg	9.9	0.005 U	-	-	-	-	-
Ethylbenzene	mg/kg	3.6	0.005 U	-	-	-	-	-
Methyl ethyl ketone	mg/kg	NA	0.01 U	-	-	-	-	-
Methylene chloride	mg/kg	3.7	0.005 U	-	-	-	-	-
Styrene	mg/kg	9.2	0.005 U	-	-	-	-	-
Tetrachloroethene	mg/kg	0.53	0.005 U	-	-	-	-	-
Toluene	mg/kg	0.67	0.005 U	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	0.000023	0.005 U	-	-	-	-	-
Trichloroethene	mg/kg	1.4	0.005 U	-	-	-	-	-
Vinyl Chloride	mg/kg	0.000016	0.01 U	-	-	-	-	-
Xylenes, Total	mg/kg	9.7	0.005 U	-	-	-	-	-

Table B-22

Notes

MEG (Maximum Exposure Guideline) - obtained from State of Maine Department of Human Services Maximum Exposure Guidelines, Memorandum dated 23 October 1992.
MCL (Maximum Contaminant Level) - 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 identification numbers (IDs) begin with **BN-1&3-28-** for samples collected from Sites 1 and 3 or **BN-EP-28-** for samples collected from the Eastern Plume area.

NA	Criteria not applicable
ug/L	micrograms per liter
GWETS	Groundwater Extraction and Treatment System
-	Not sampled
U	Non detect 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

Total VOC calculation does not include common laboratory contaminants (acetone, methylene chloride, 2-butanone), VOCs detected in the blank samples, or 1,4-dioxane.
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.

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

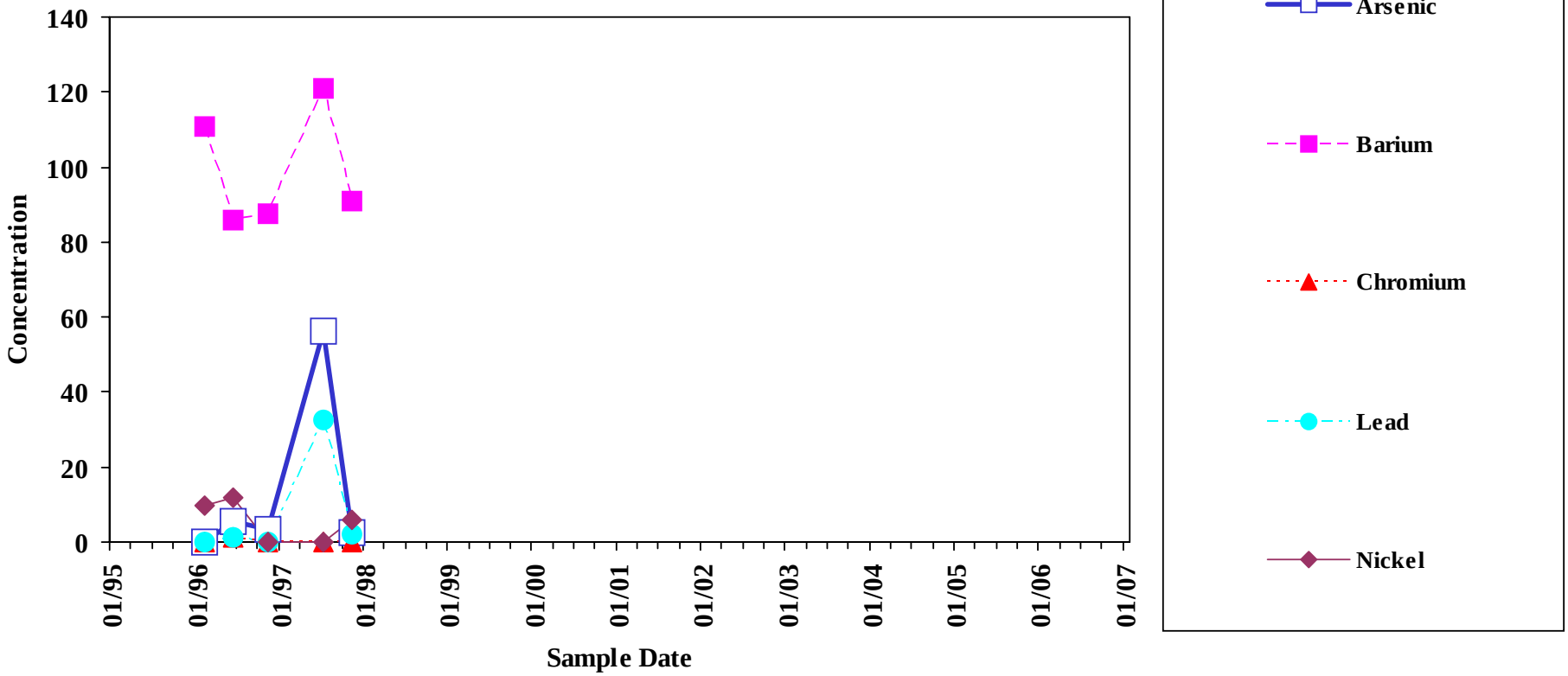
- Extraction Well Data (EW)
- Leachate Sediment Data (LT)
- Groundwater Data (MW)
- Stream Sediment Data (SED)
- Leachate Seep Data (SEEP)
- Extraction System Influent – Sites 1 and 3
- Surface Water (SW)

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

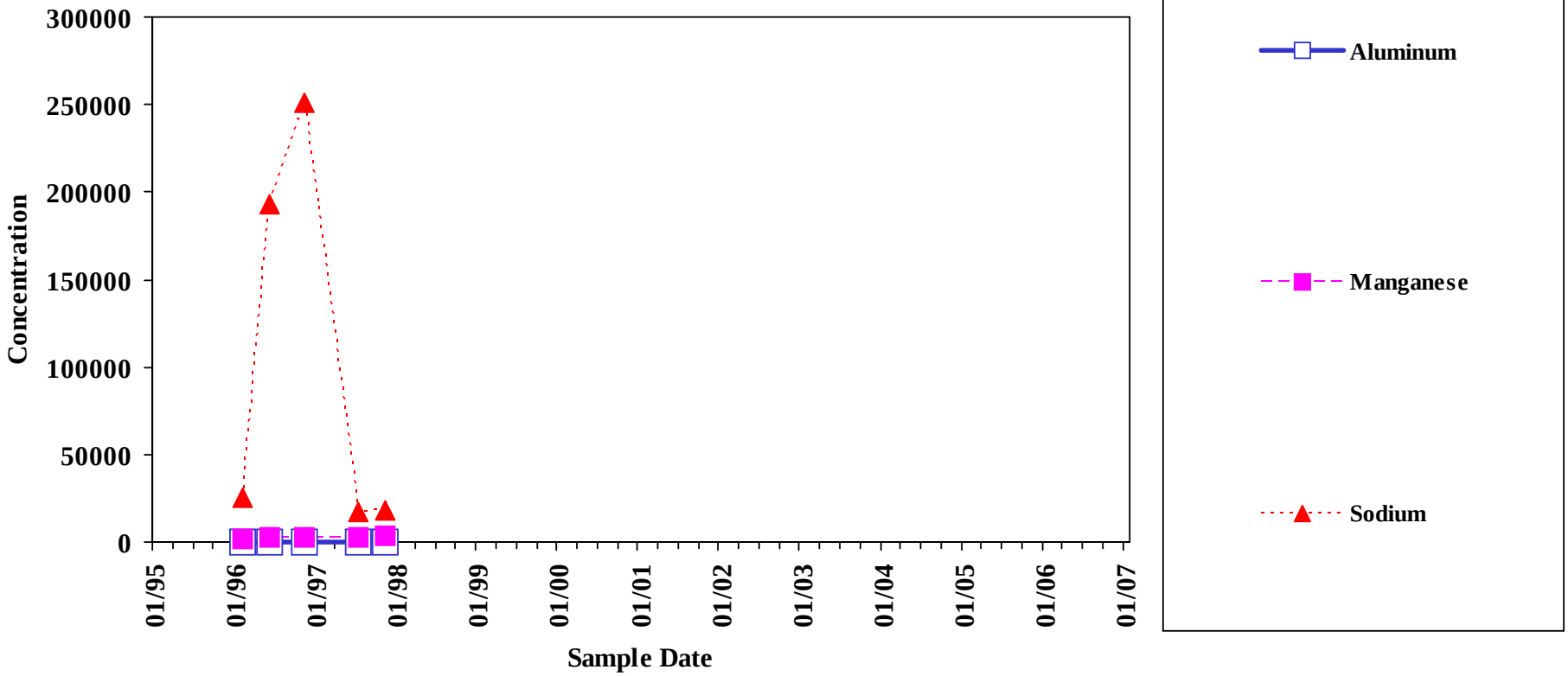
Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

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

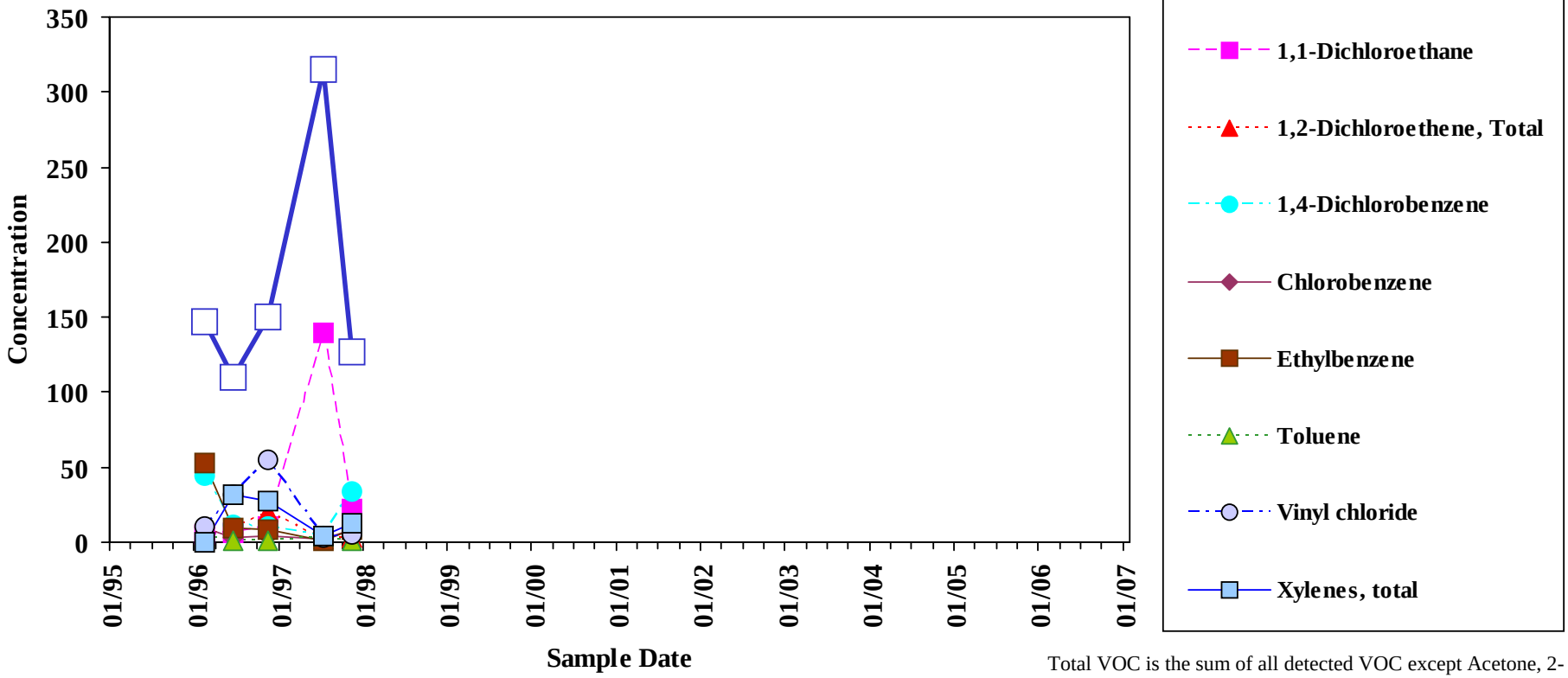
Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

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

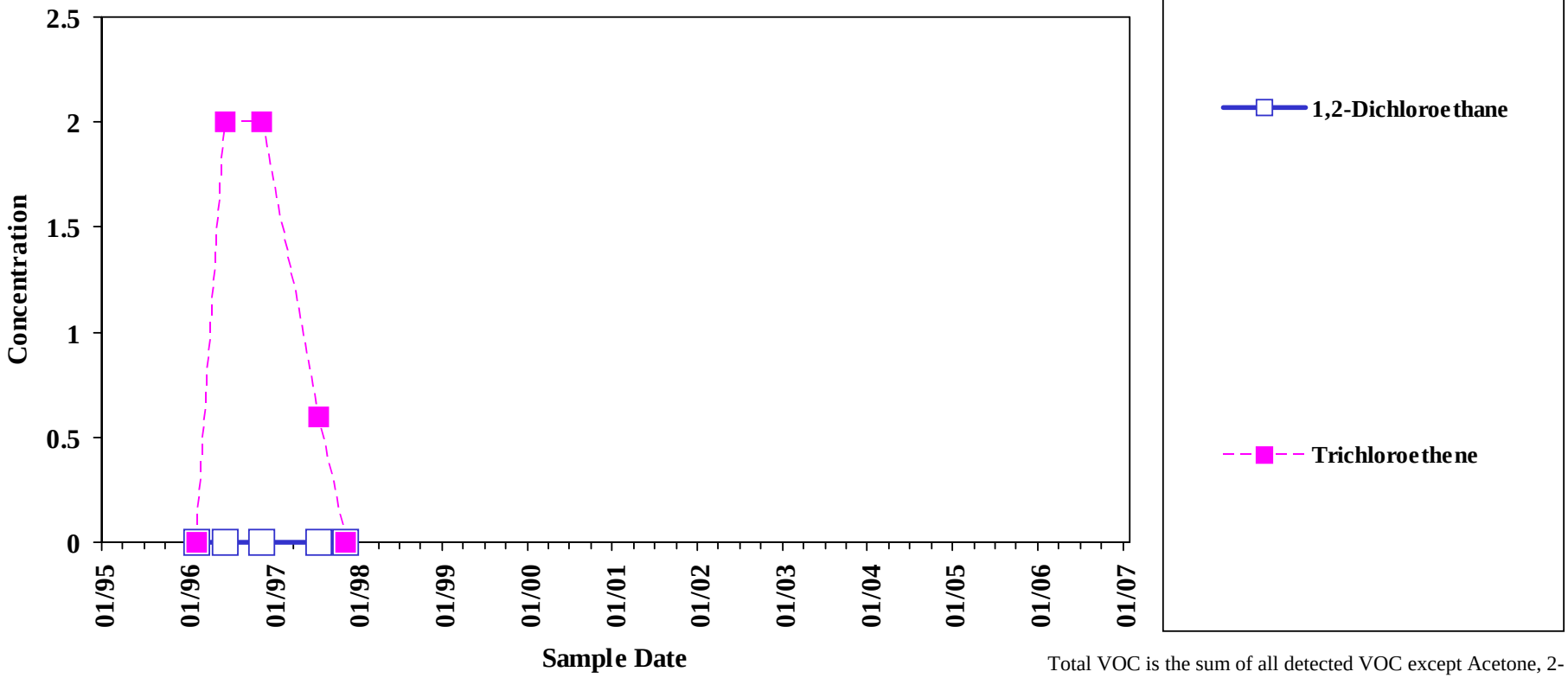
Sample Location:

EW-06

Low-flow Sample

Sites 1 & 3
Groundwater

Chemicals of concern: Volatiles



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

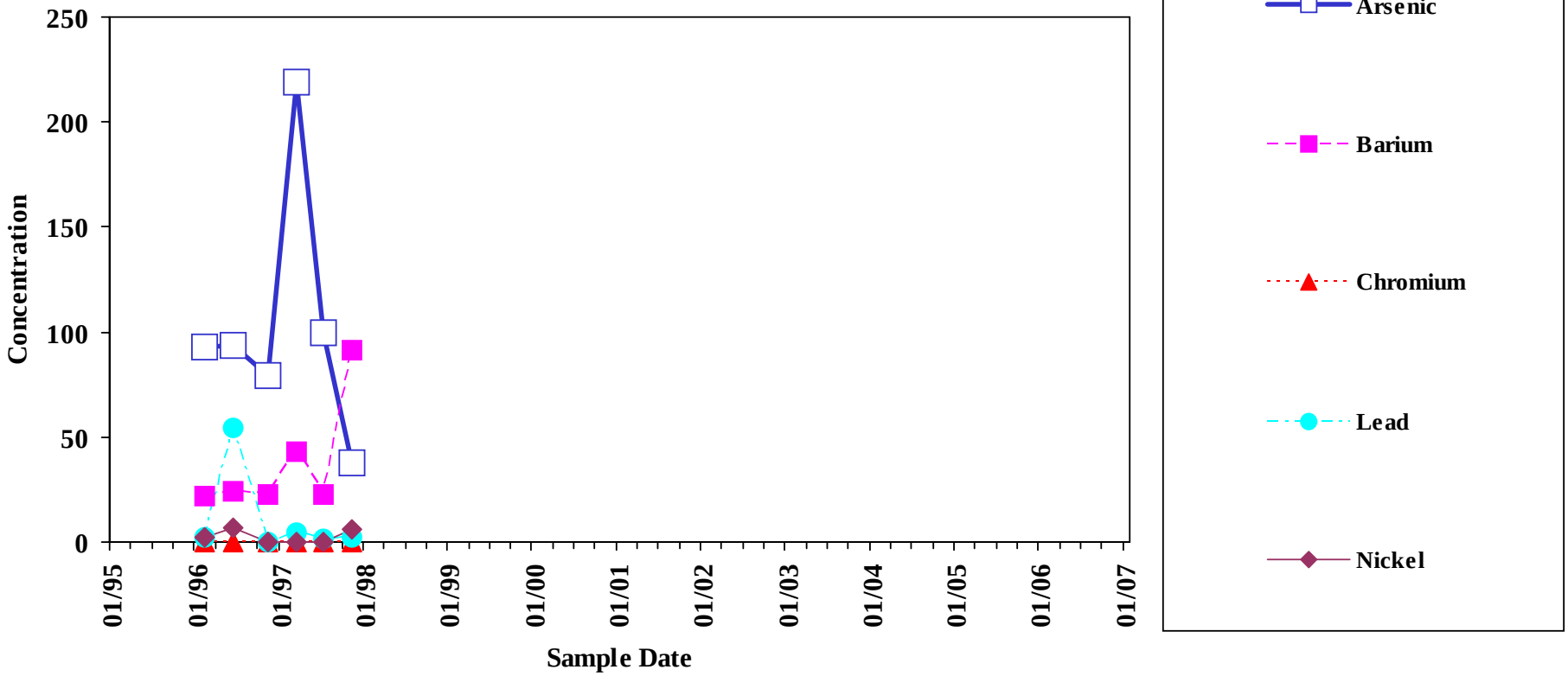
Xylenes, total	
MEG:	600
MCL:	10000

Sample Location:

EW-07

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

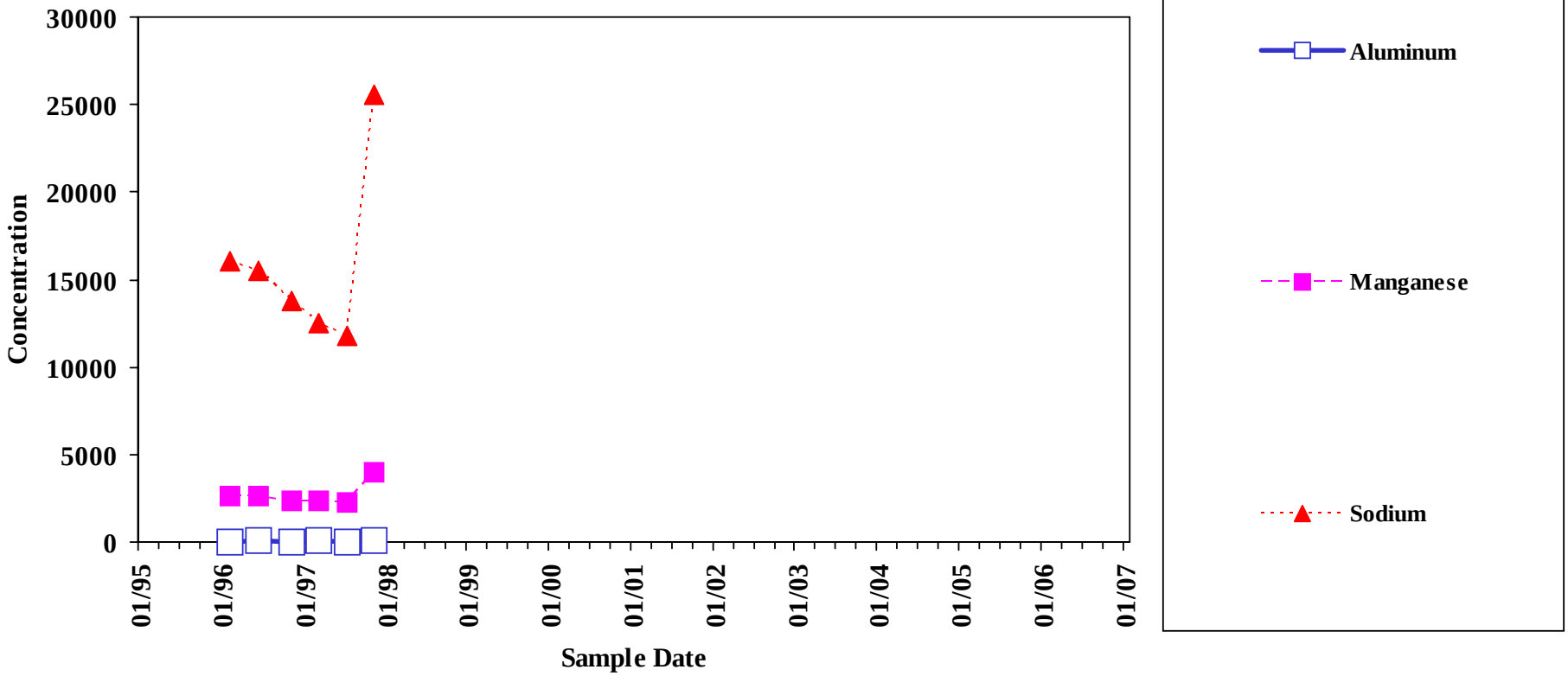
Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

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

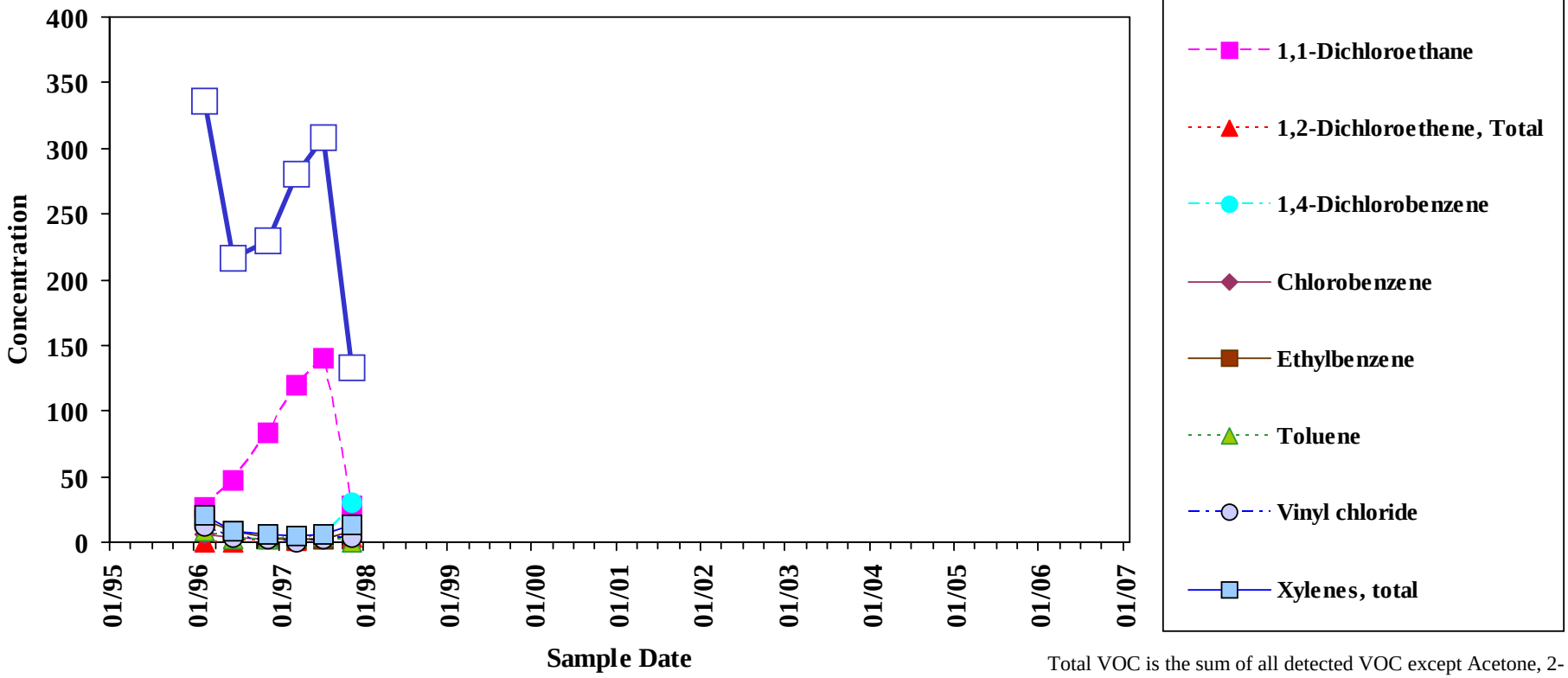
Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

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

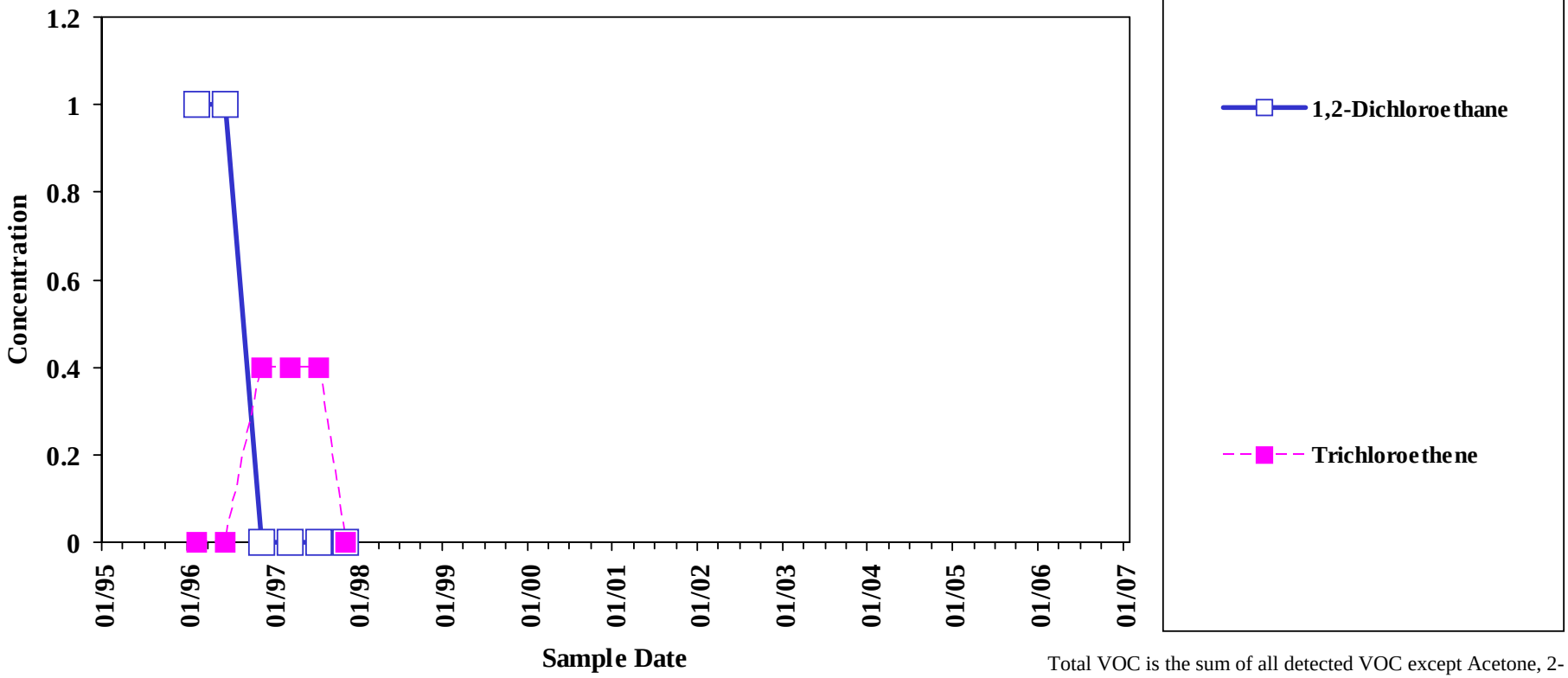
Sample Location:

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

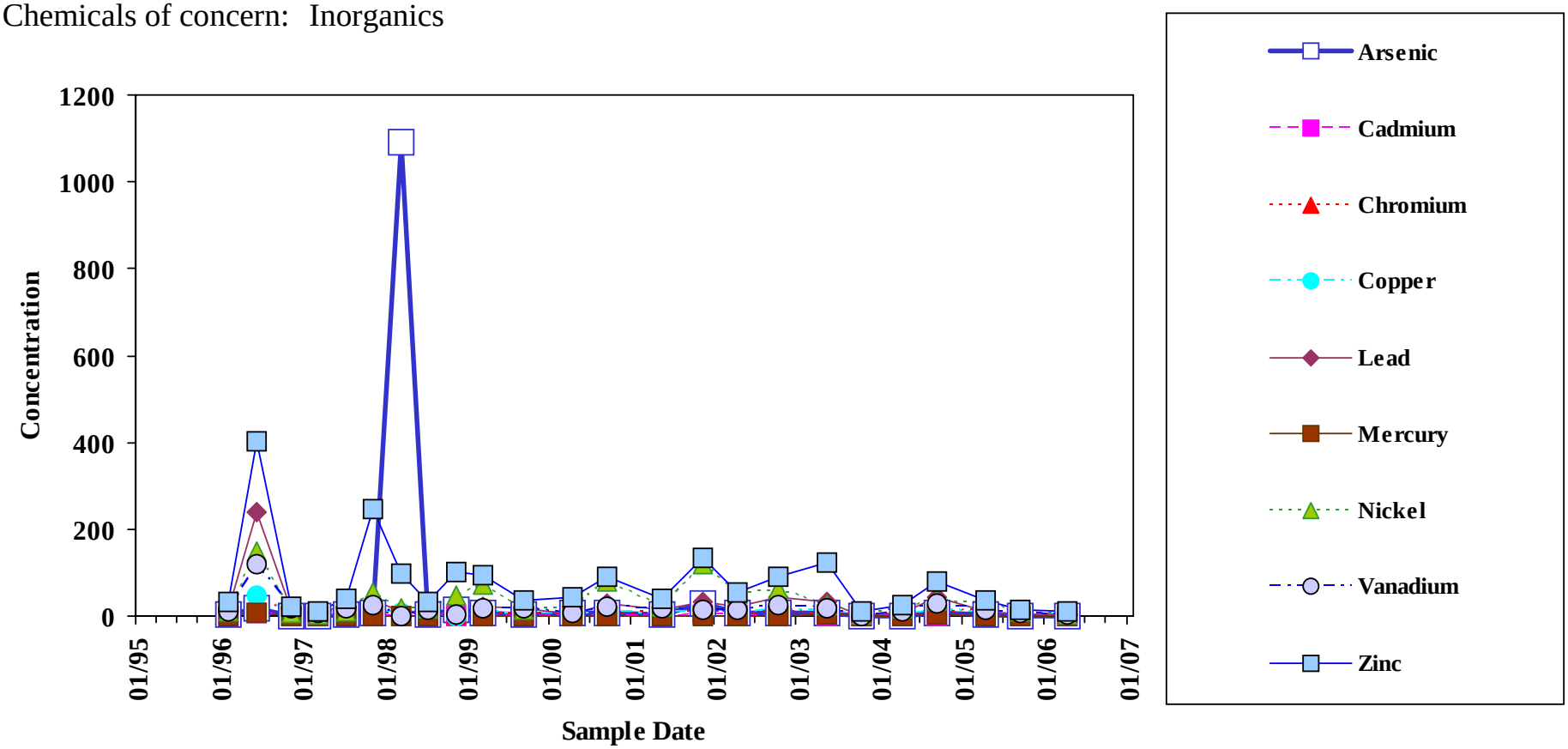
Xylenes, total	
MEG:	600
MCL:	10000

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.

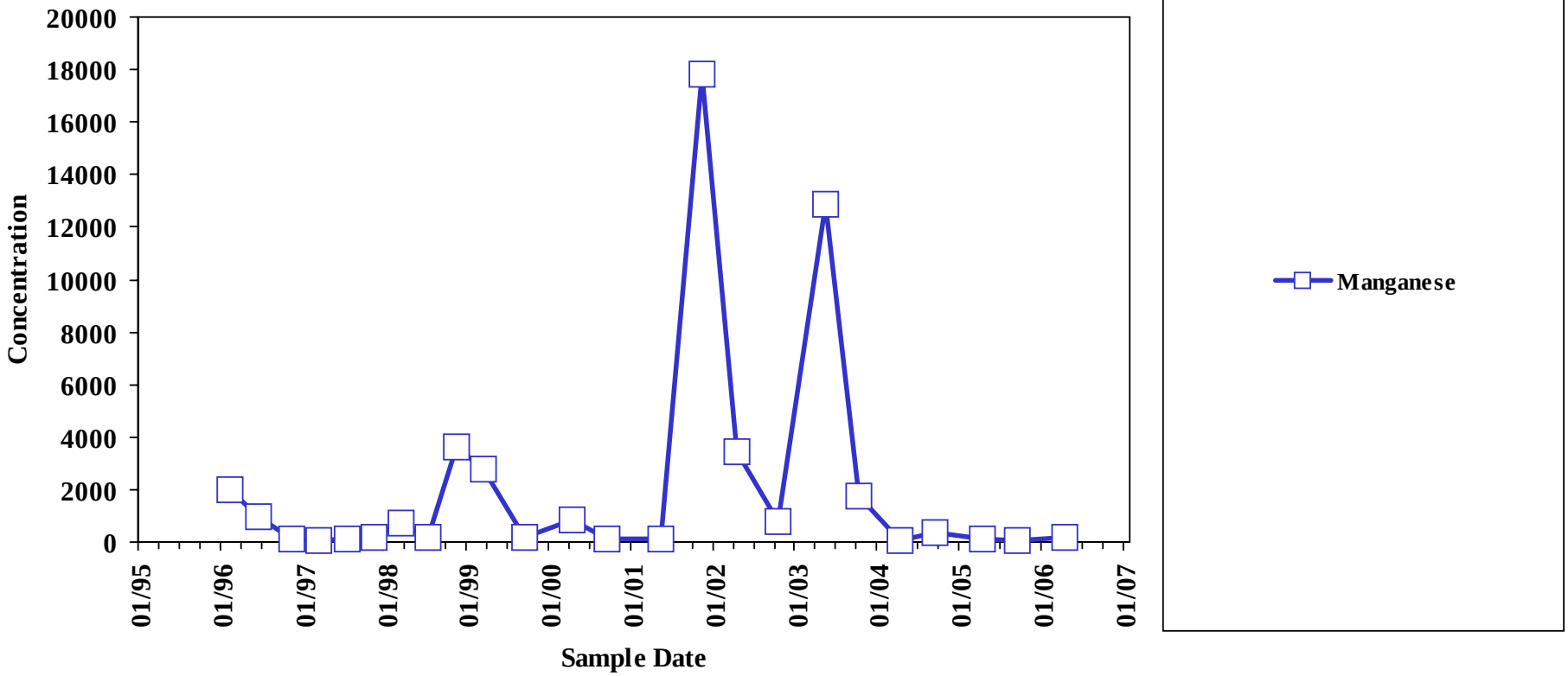
Sample concentration units: mg/Kg

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.

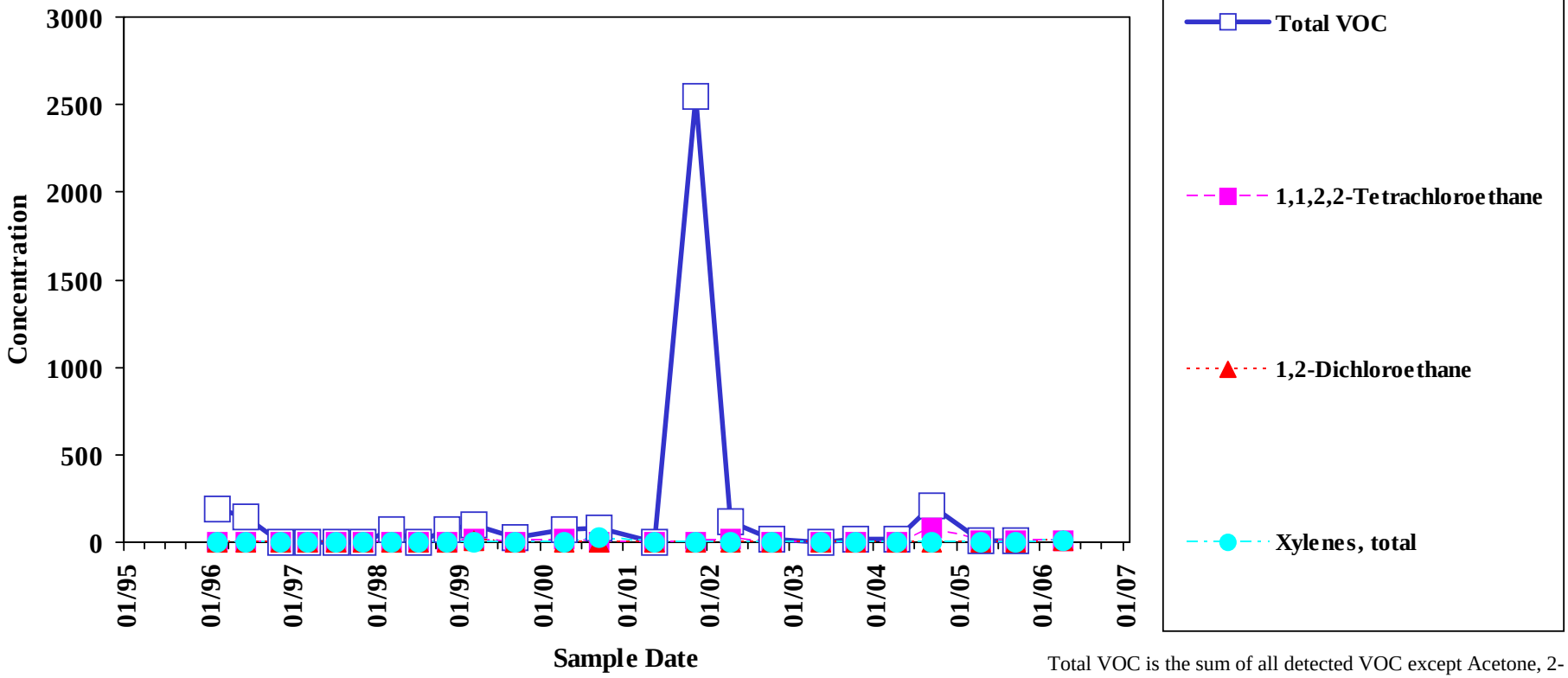
Sample concentration units: mg/Kg

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.

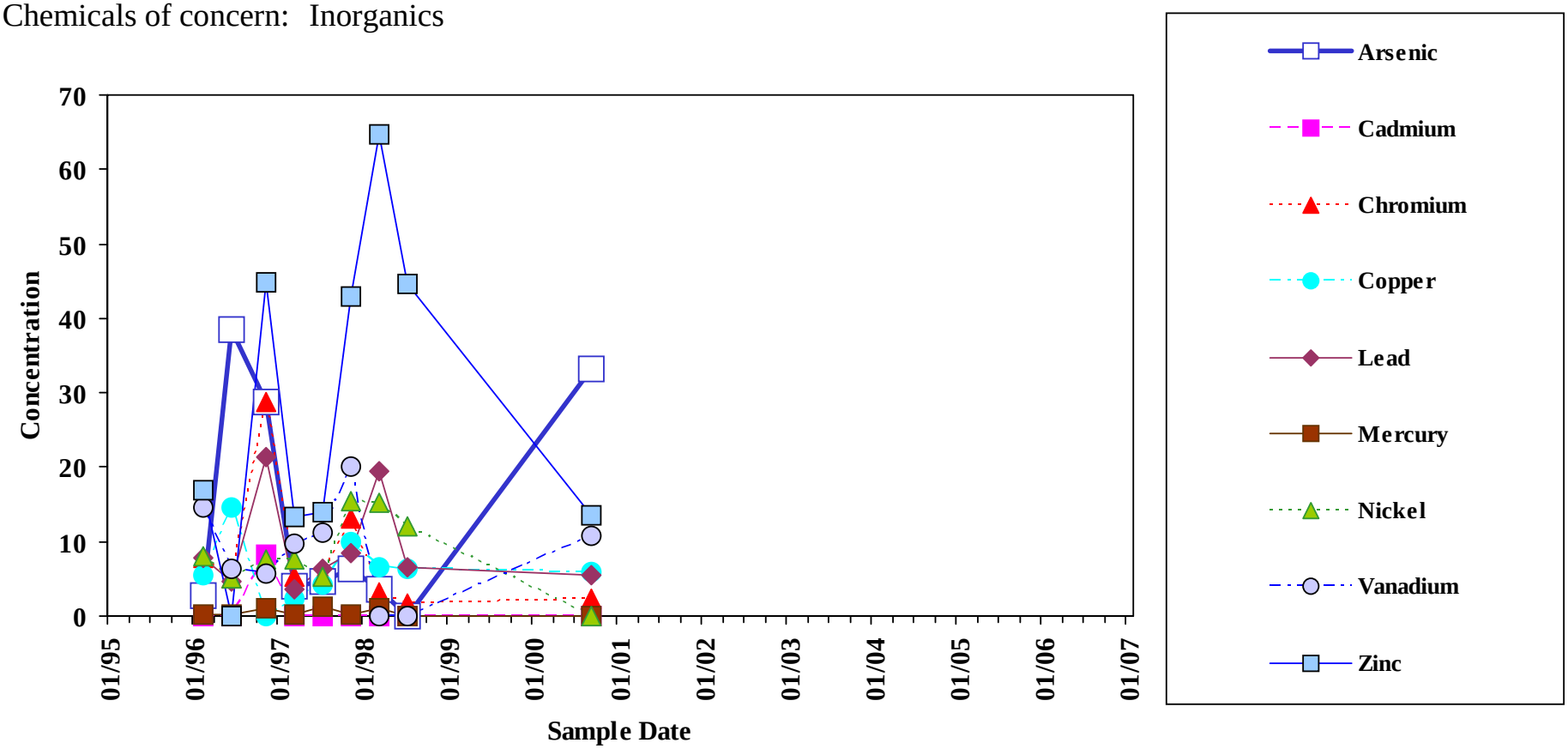
Sample concentration units: µg/Kg

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.

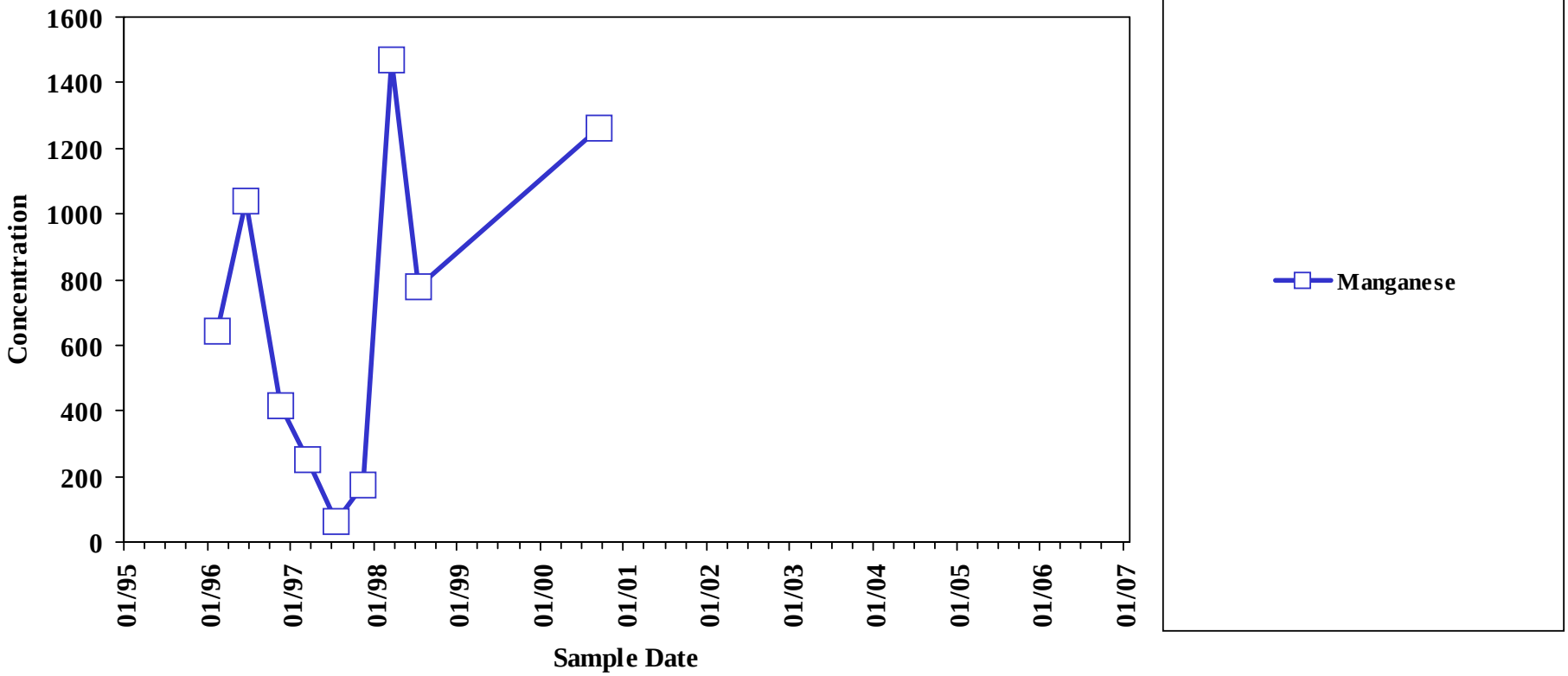
Sample concentration units: mg/Kg

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.

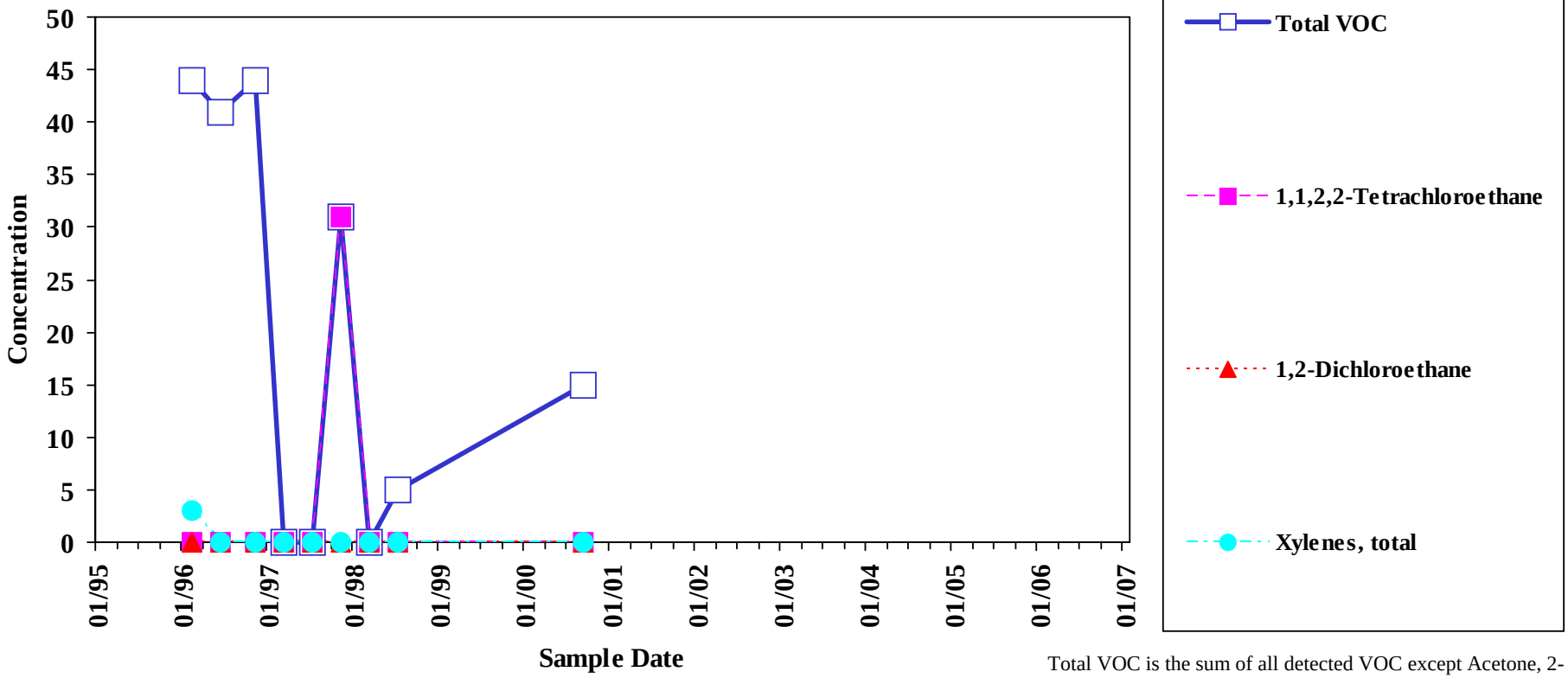
Sample concentration units: mg/Kg

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.

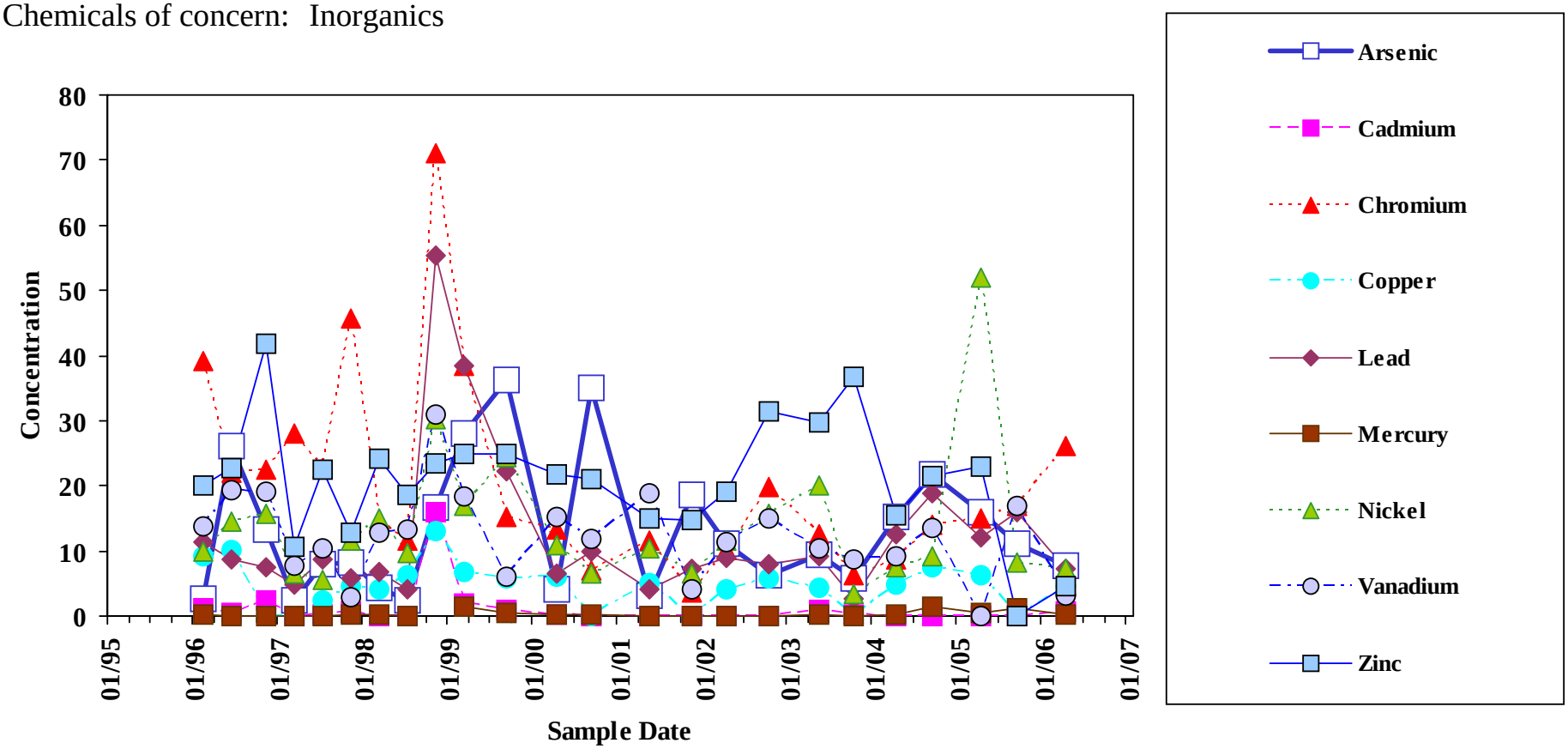
Sample concentration units: µg/Kg

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.

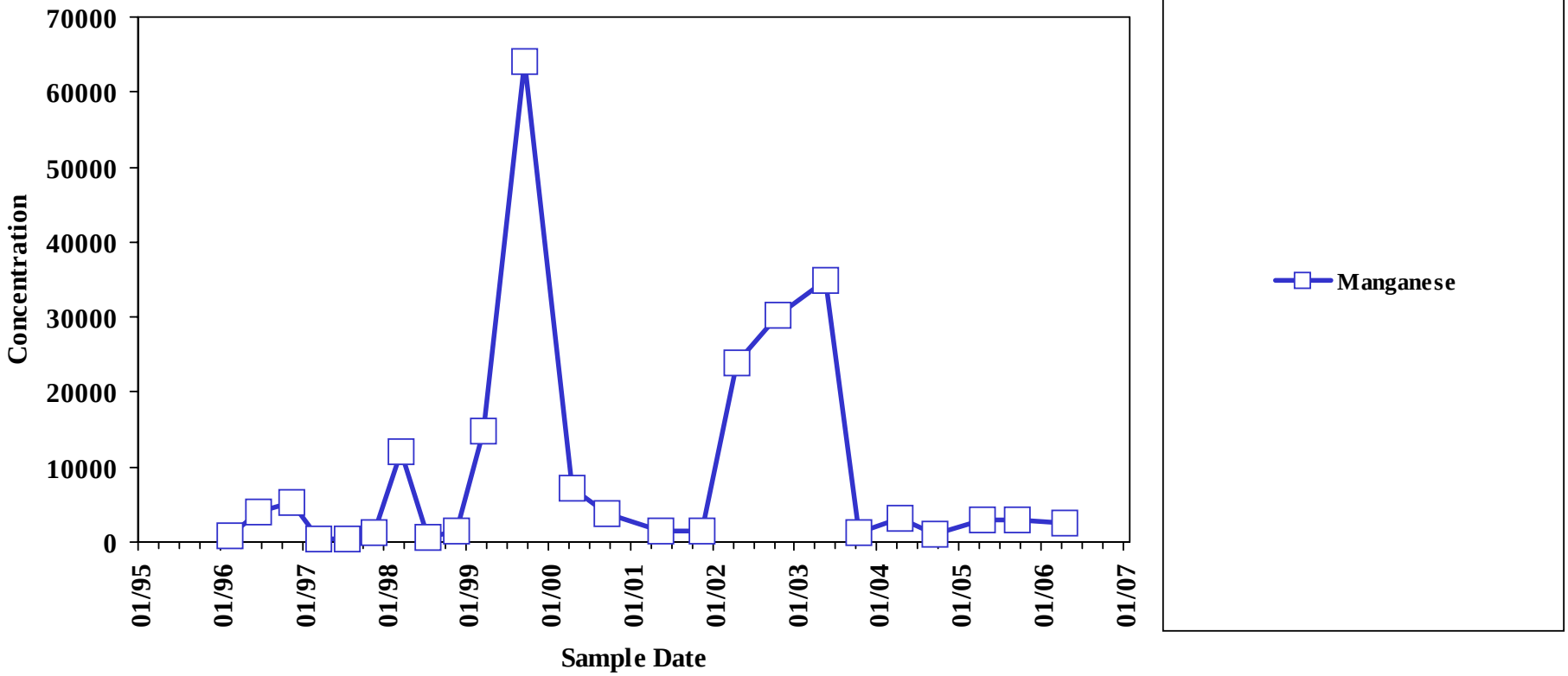
Sample concentration units: mg/Kg

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.

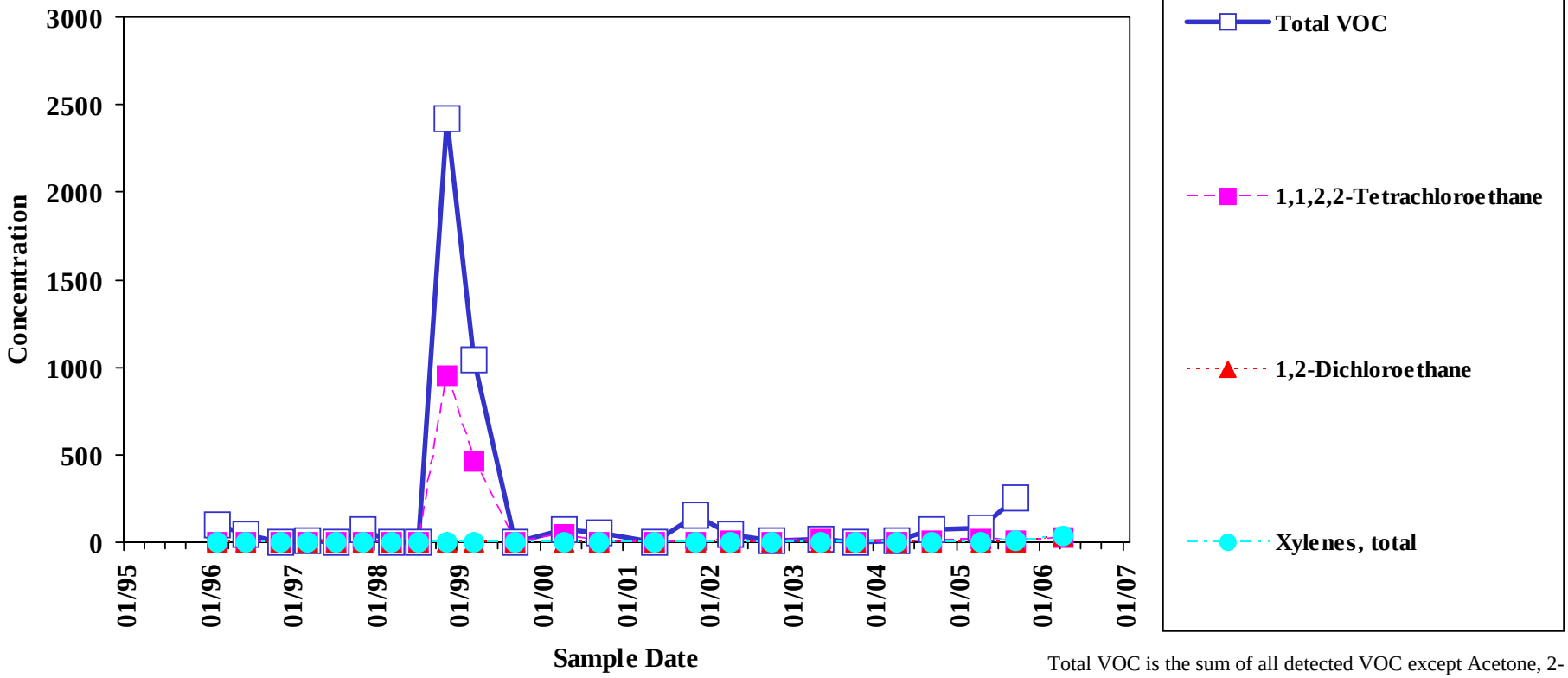
Sample concentration units: mg/Kg

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.

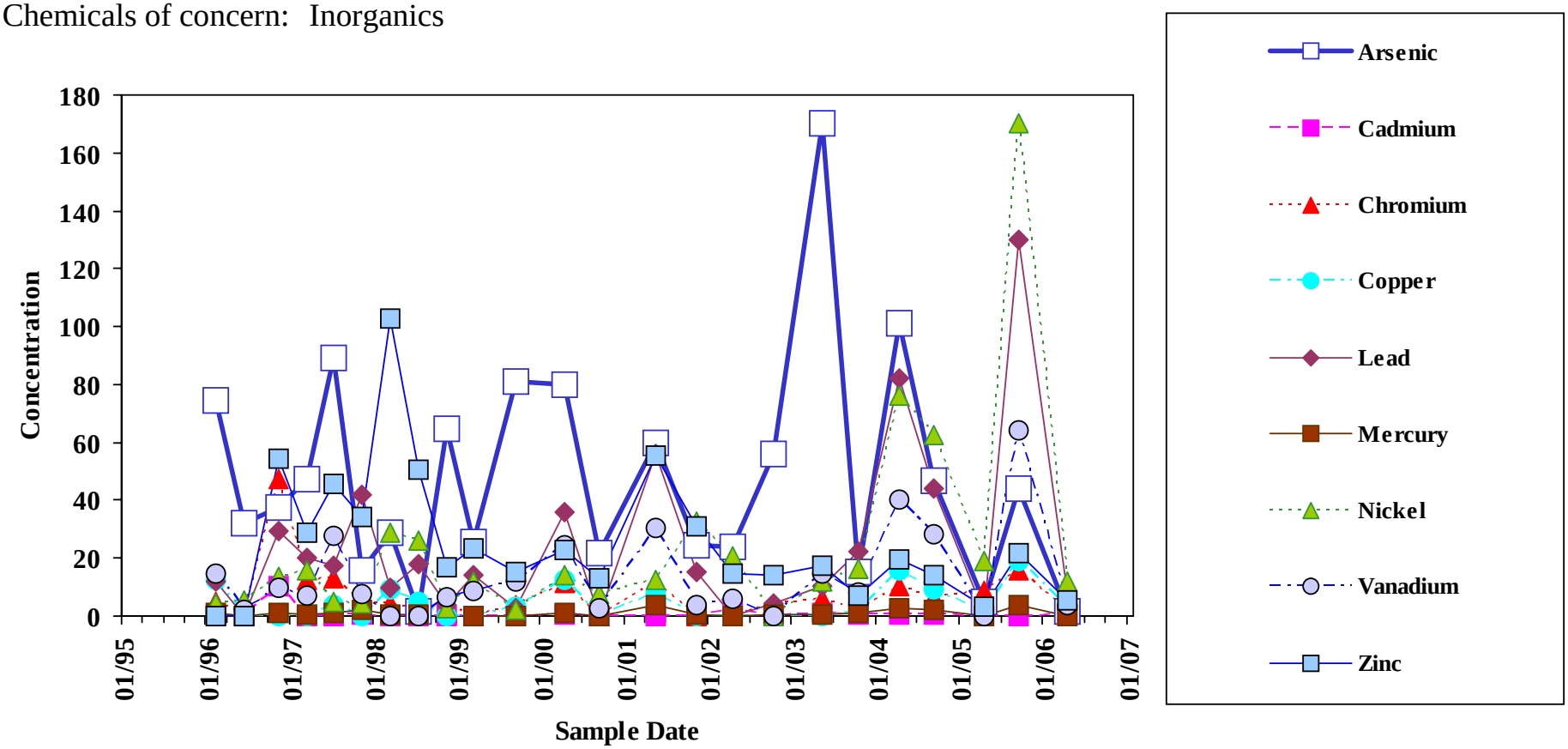
Sample concentration units: µg/Kg

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.

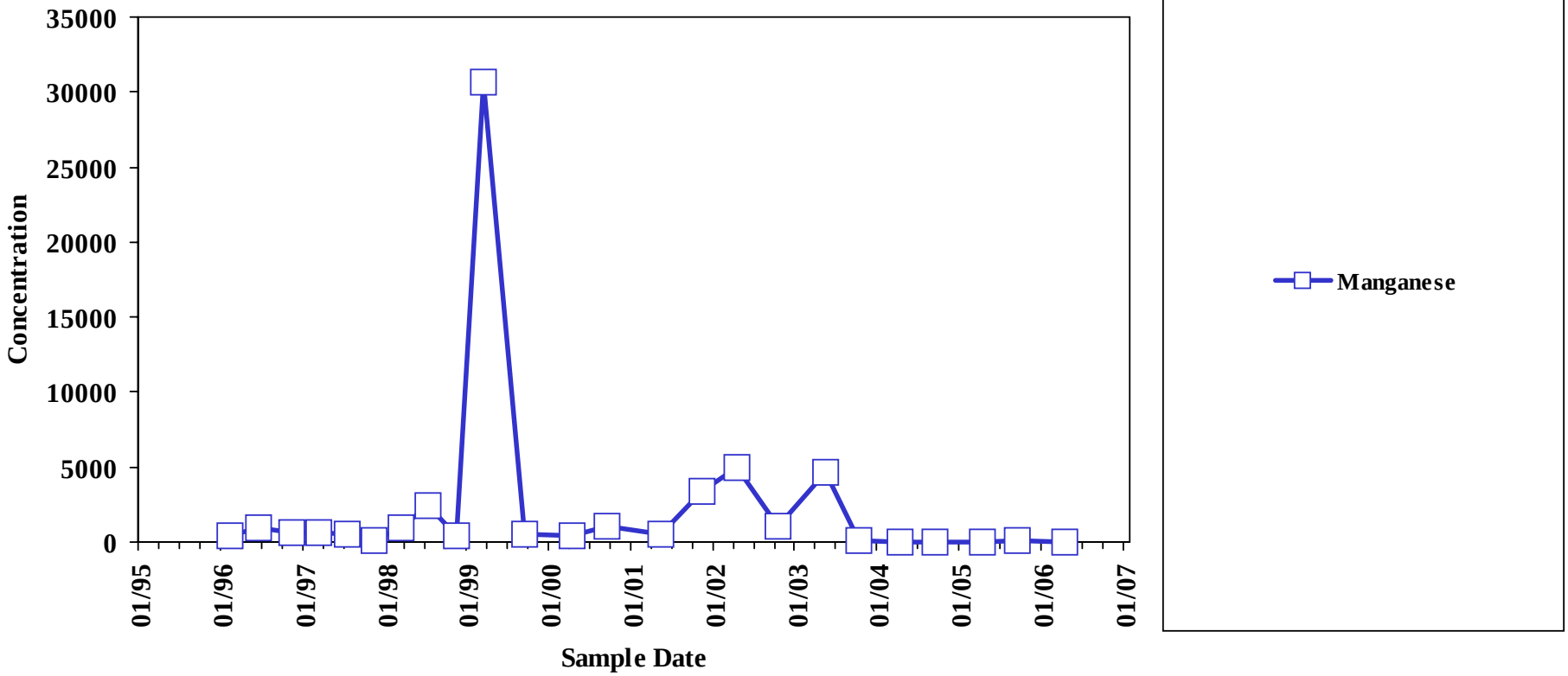
Sample concentration units: mg/Kg

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.

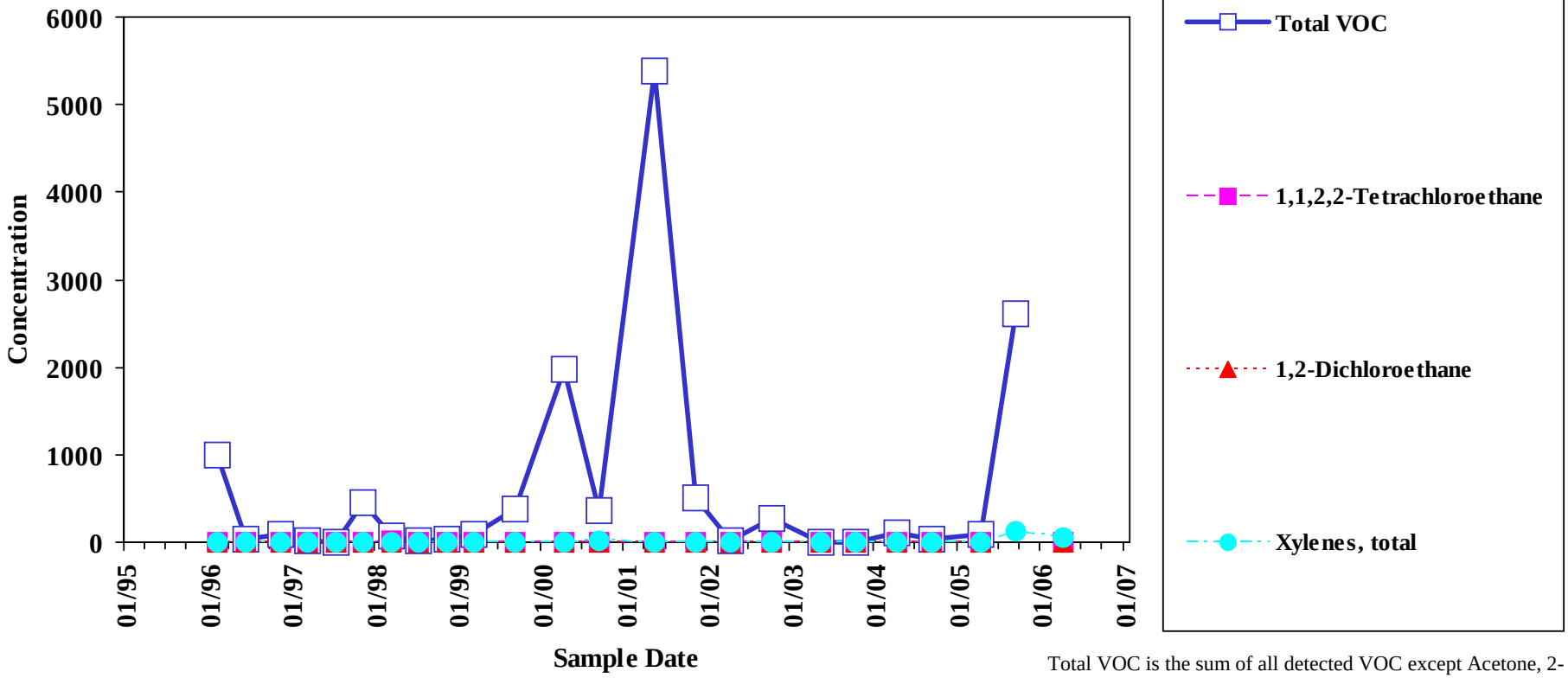
Sample concentration units: mg/Kg

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.

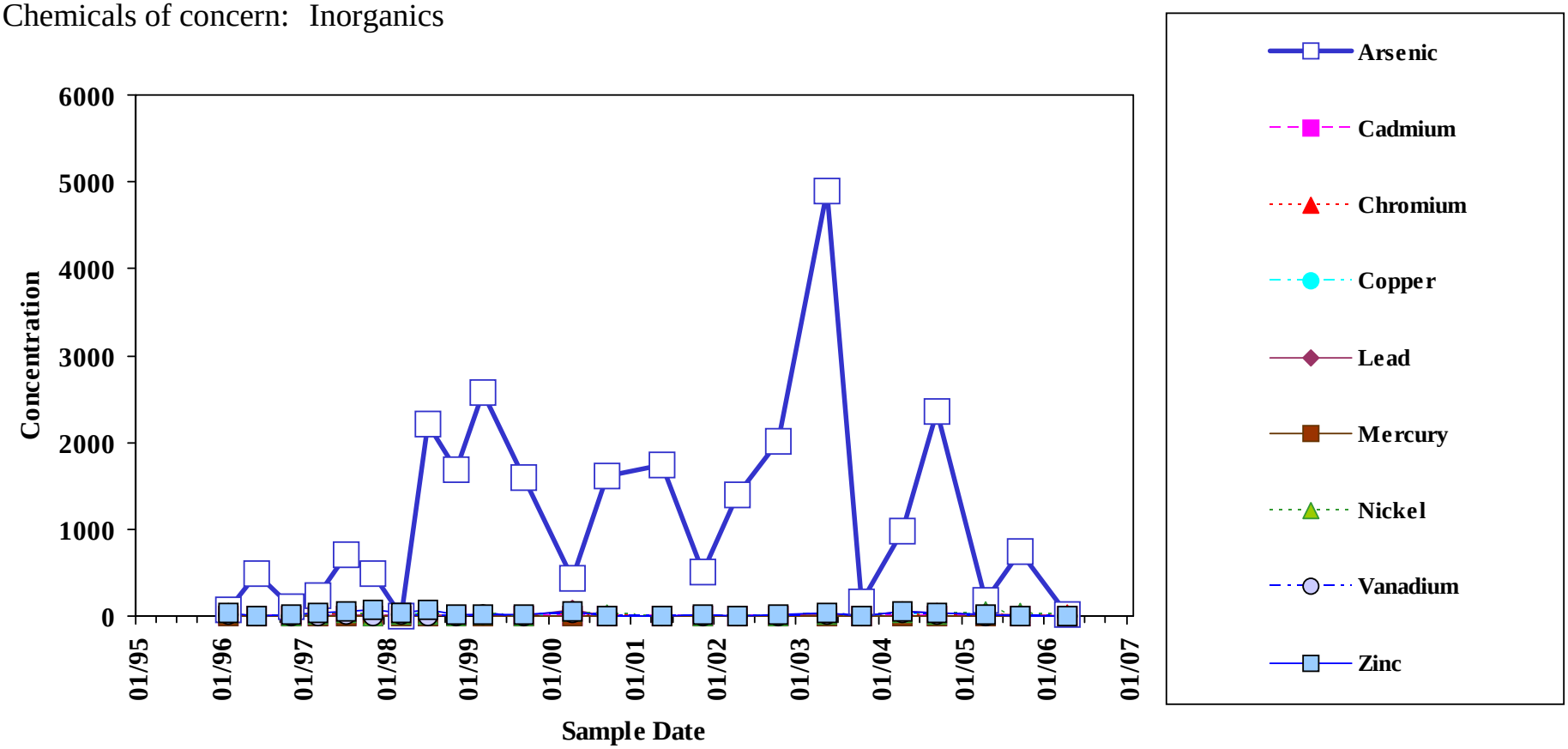
Sample concentration units: µg/Kg

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.

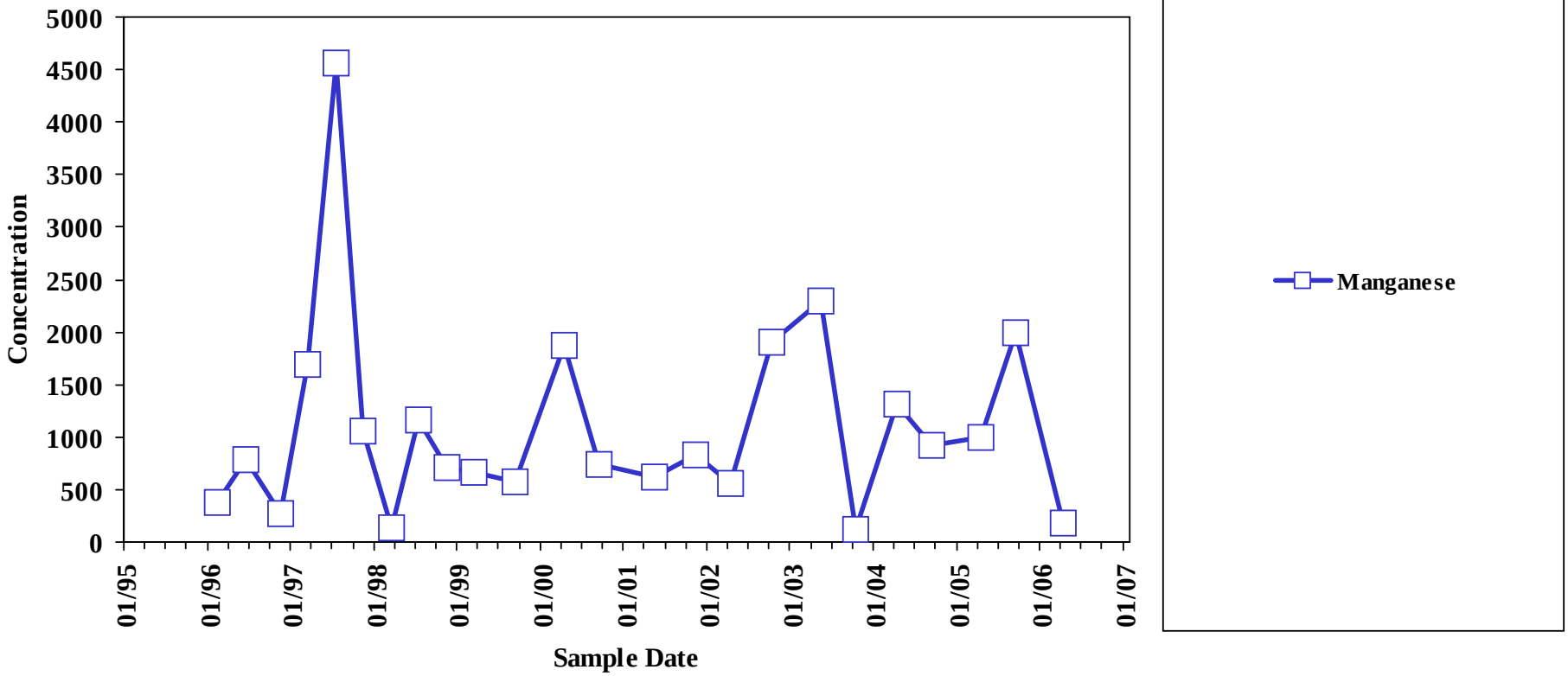
Sample concentration units: mg/Kg

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.

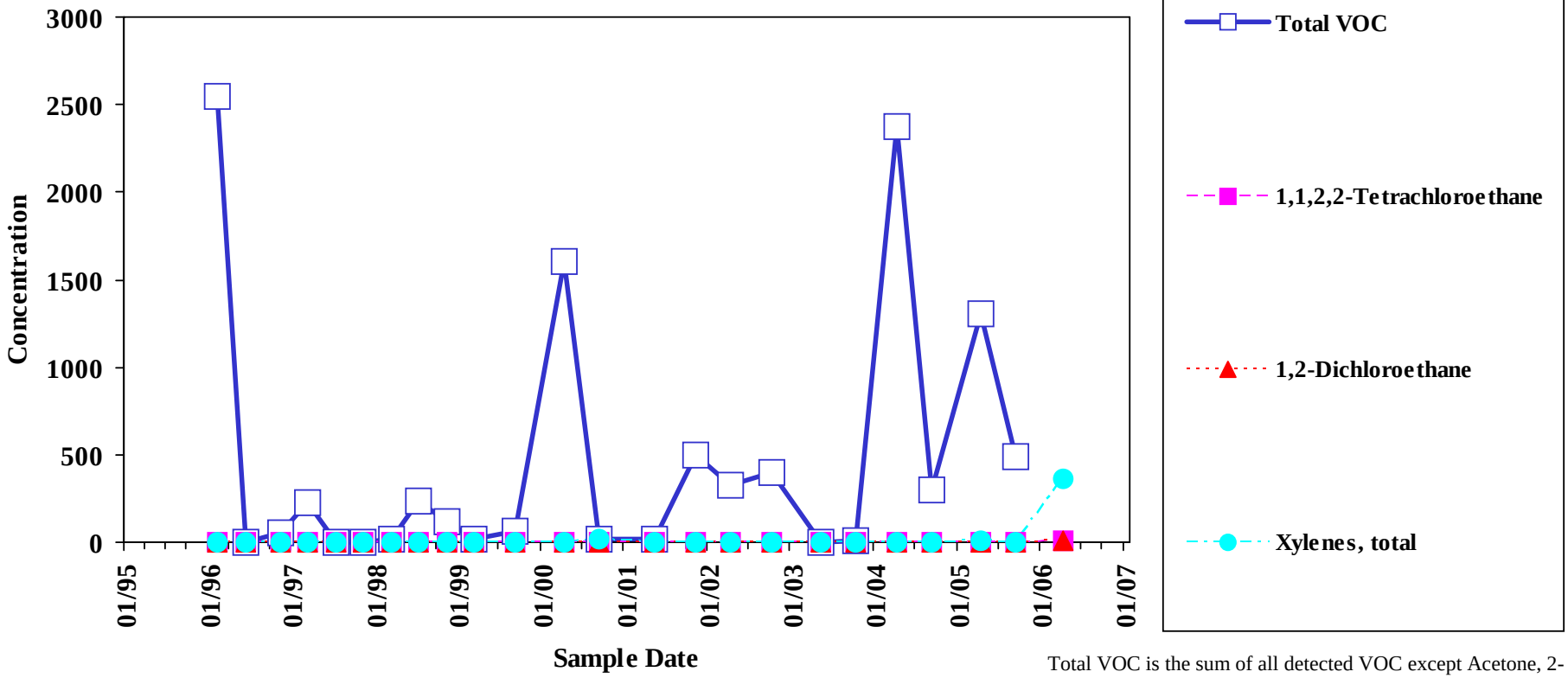
Sample concentration units: mg/Kg

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.

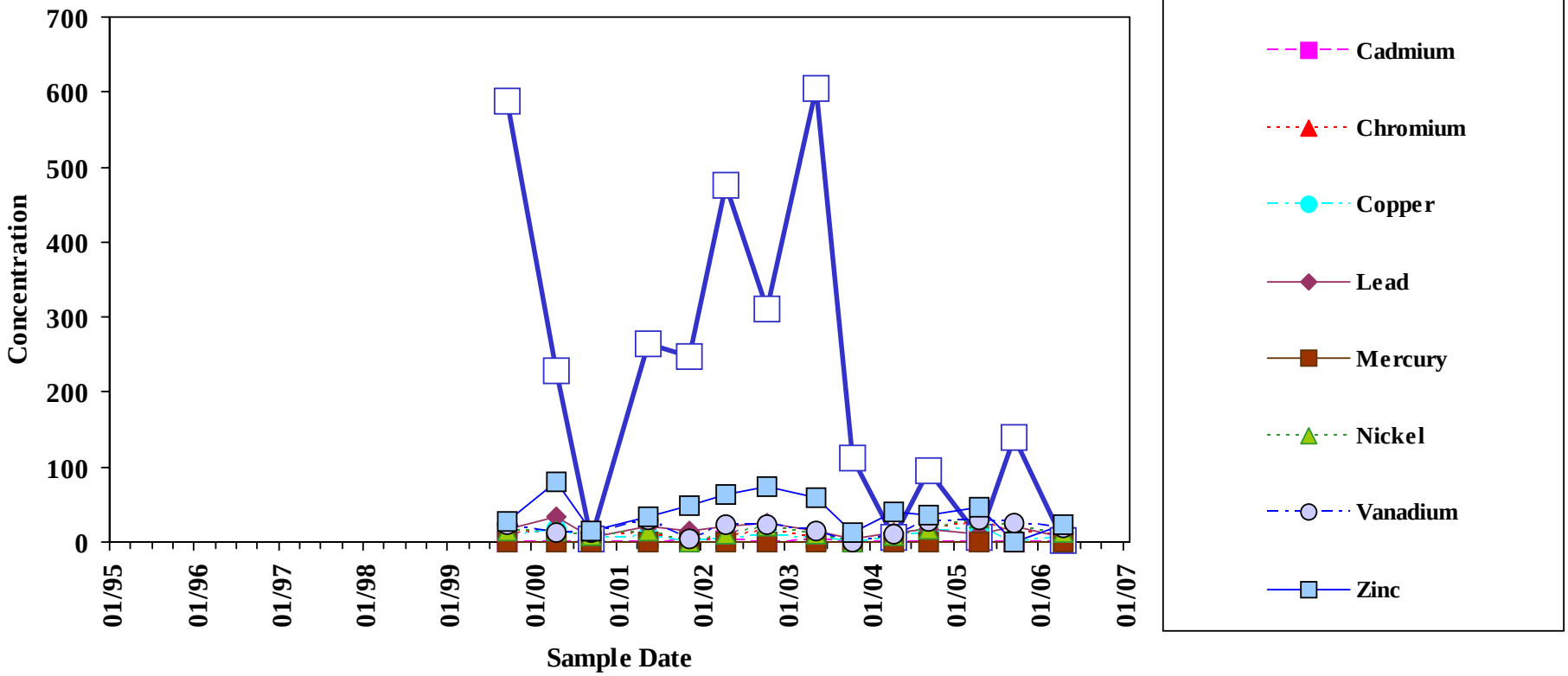
Sample concentration units: µg/Kg

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.

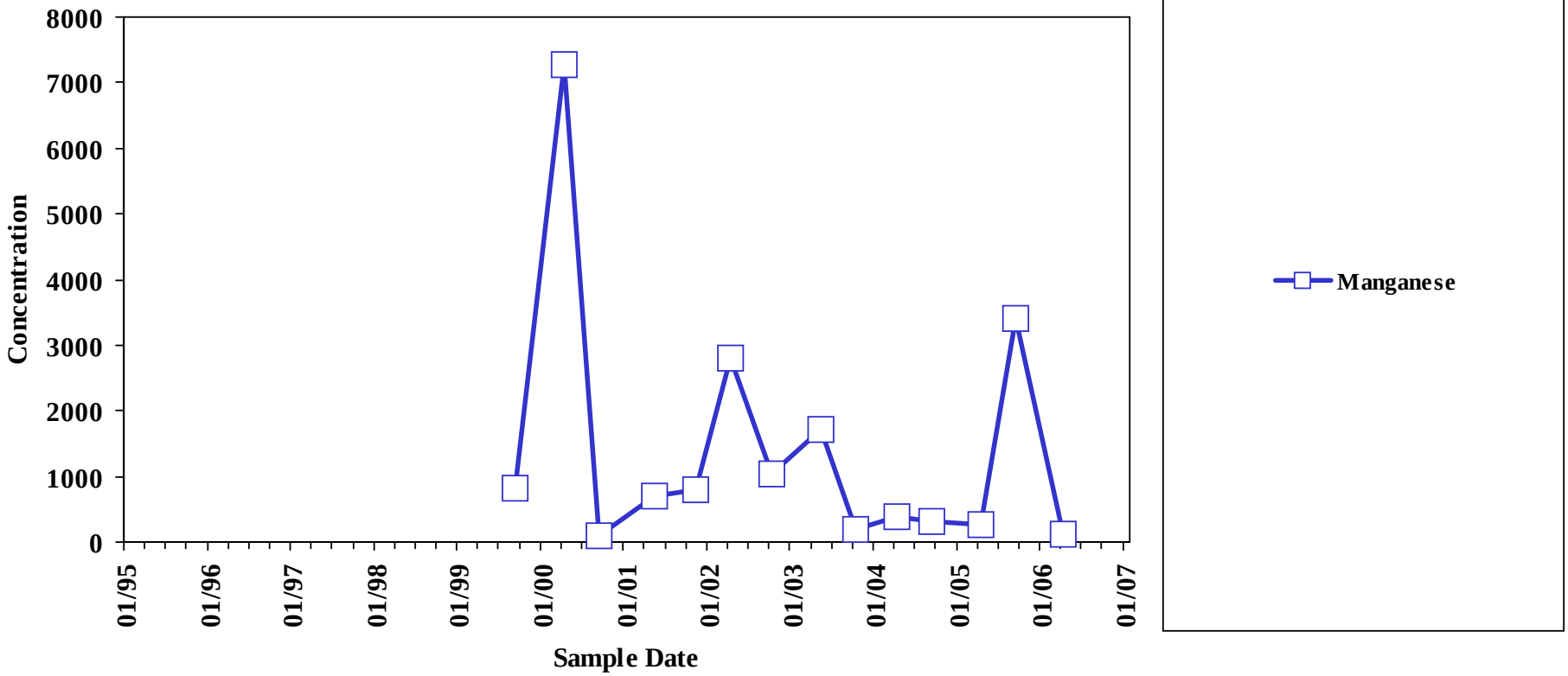
Sample concentration units: mg/Kg

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.

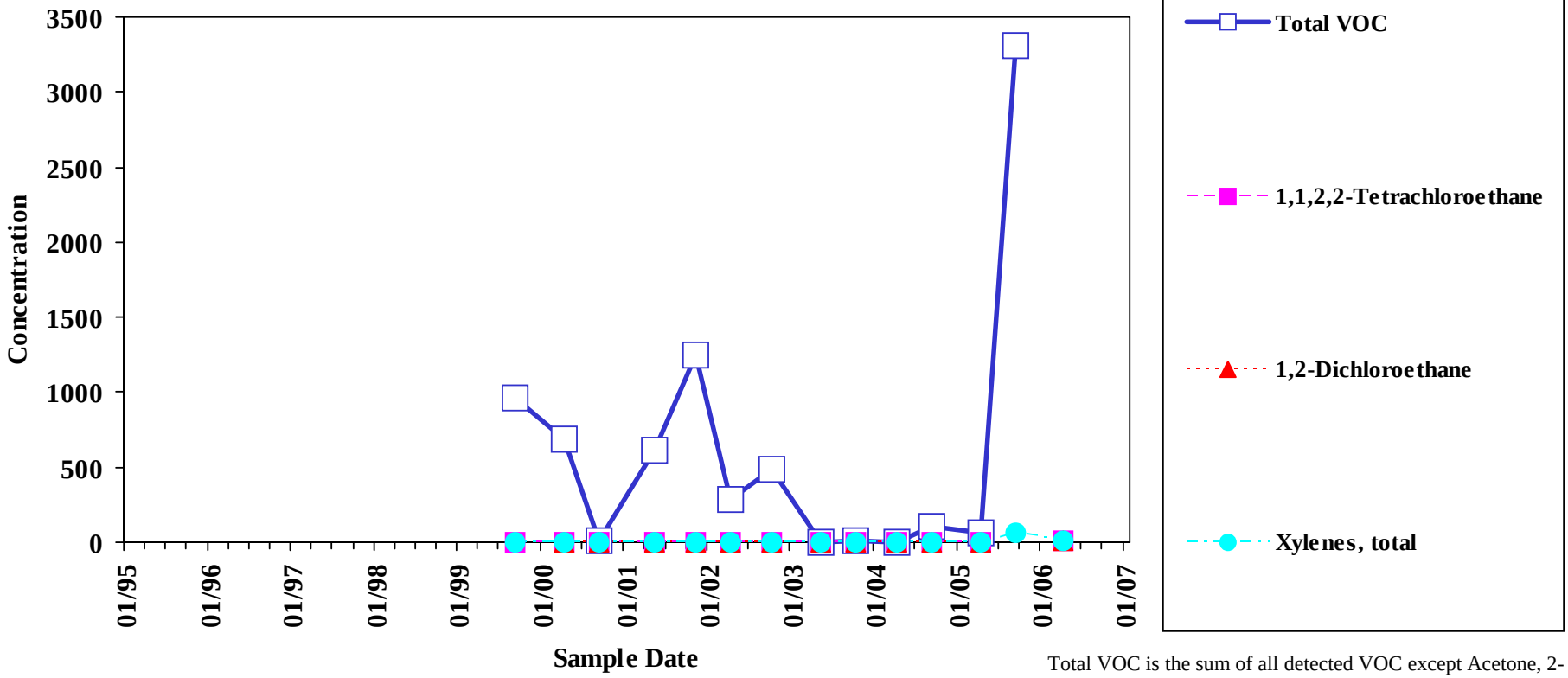
Sample concentration units: mg/Kg

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

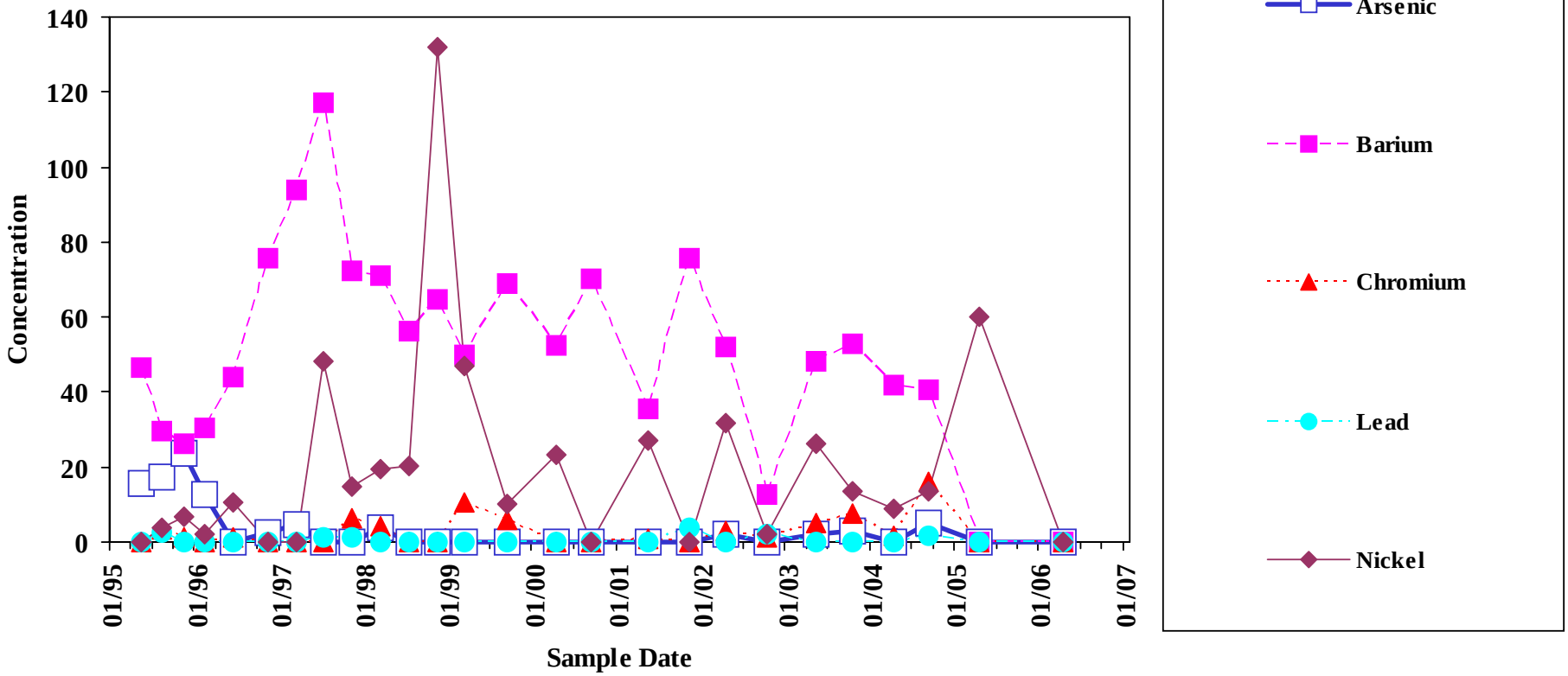
Sample Location:

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

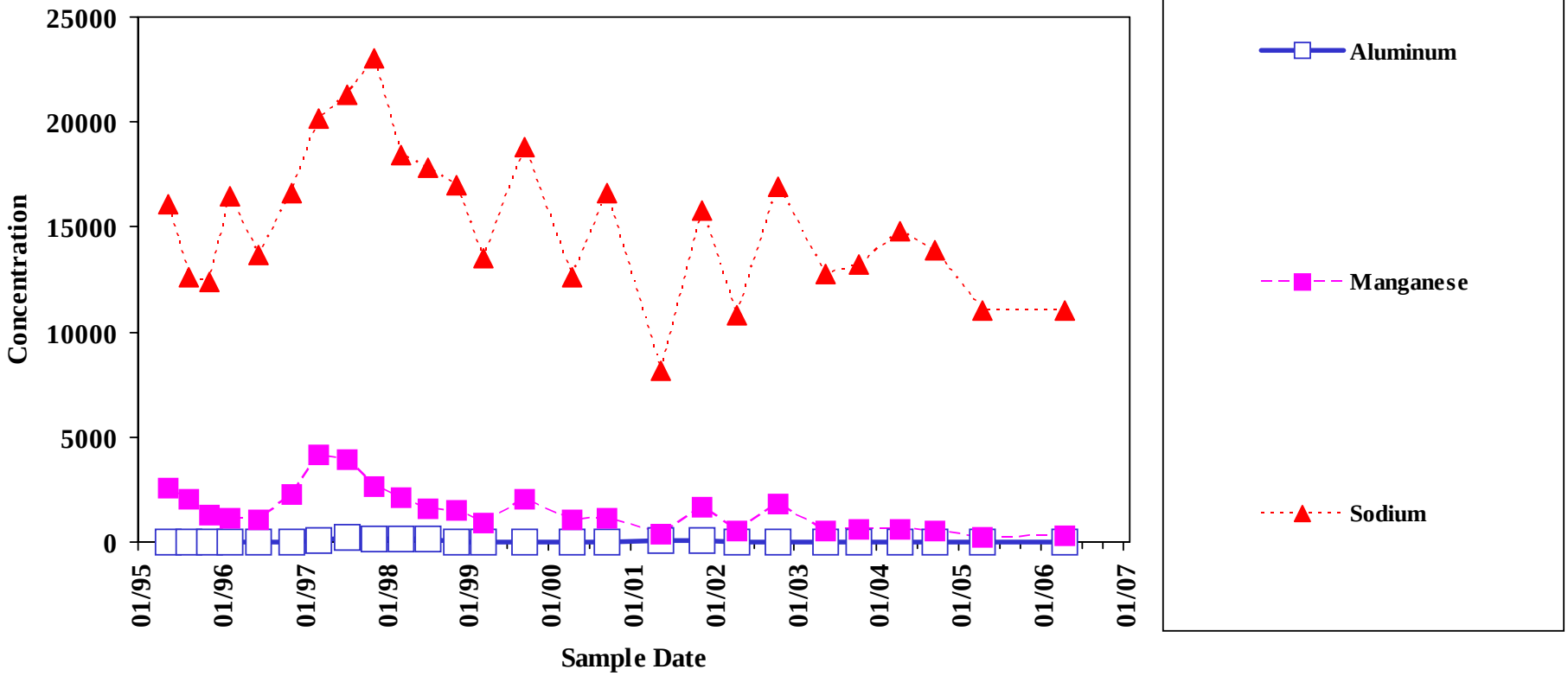
Sample Location:

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:	-

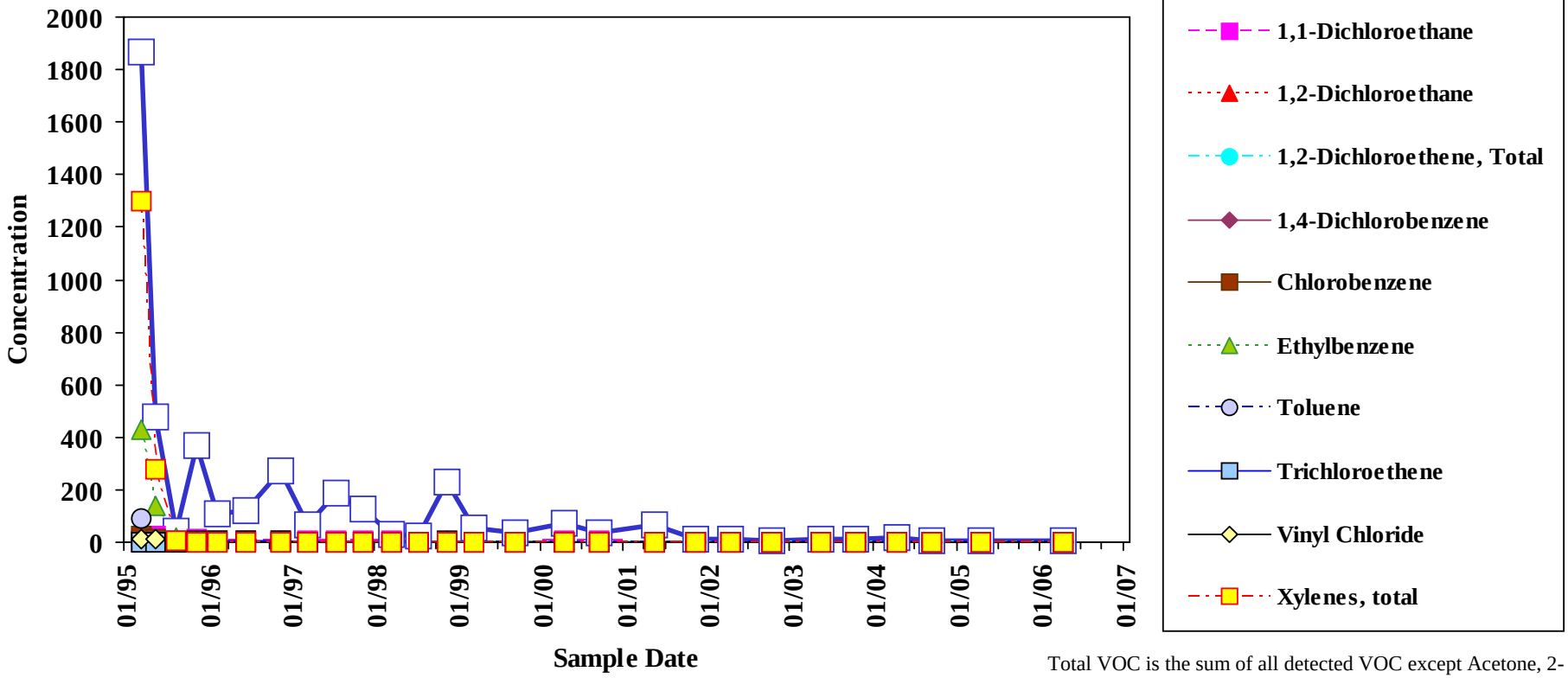
Sample Location:

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

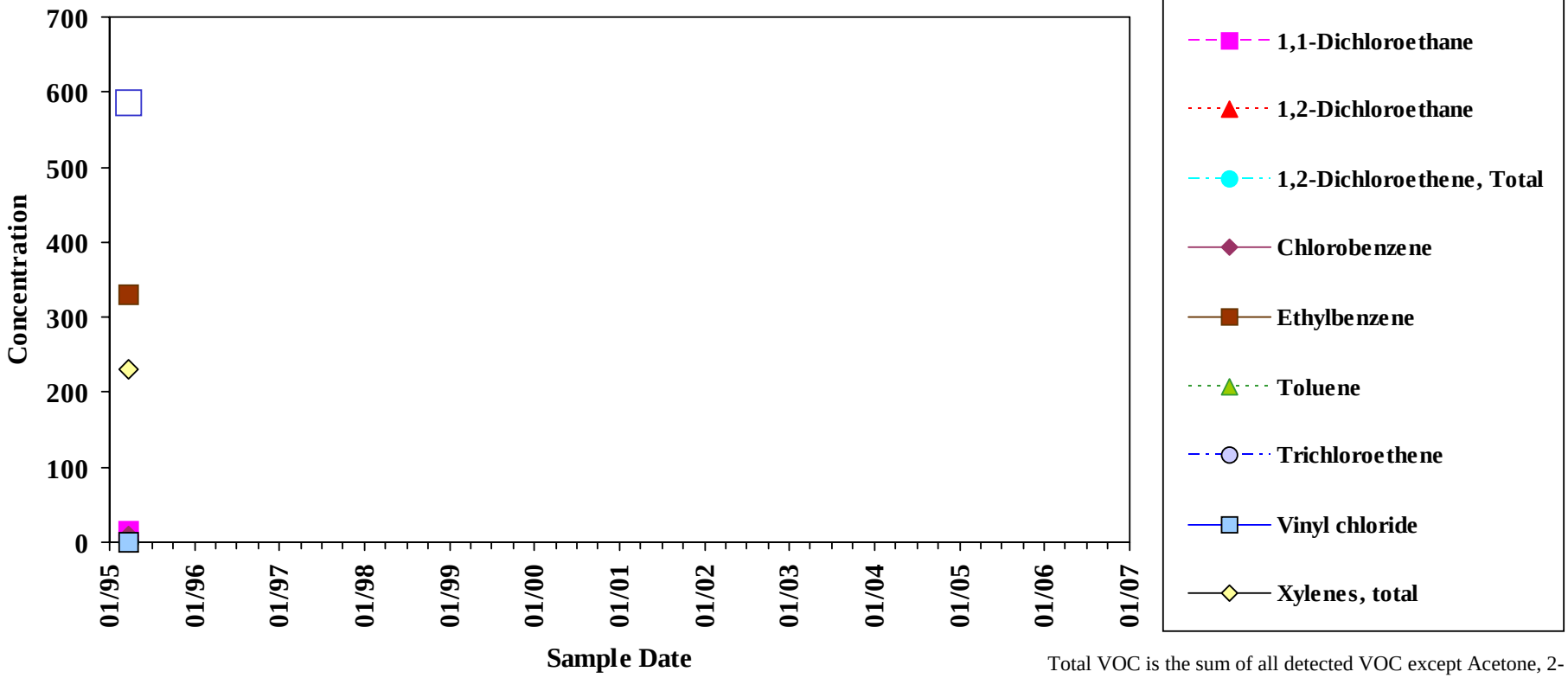
Sample Location:

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

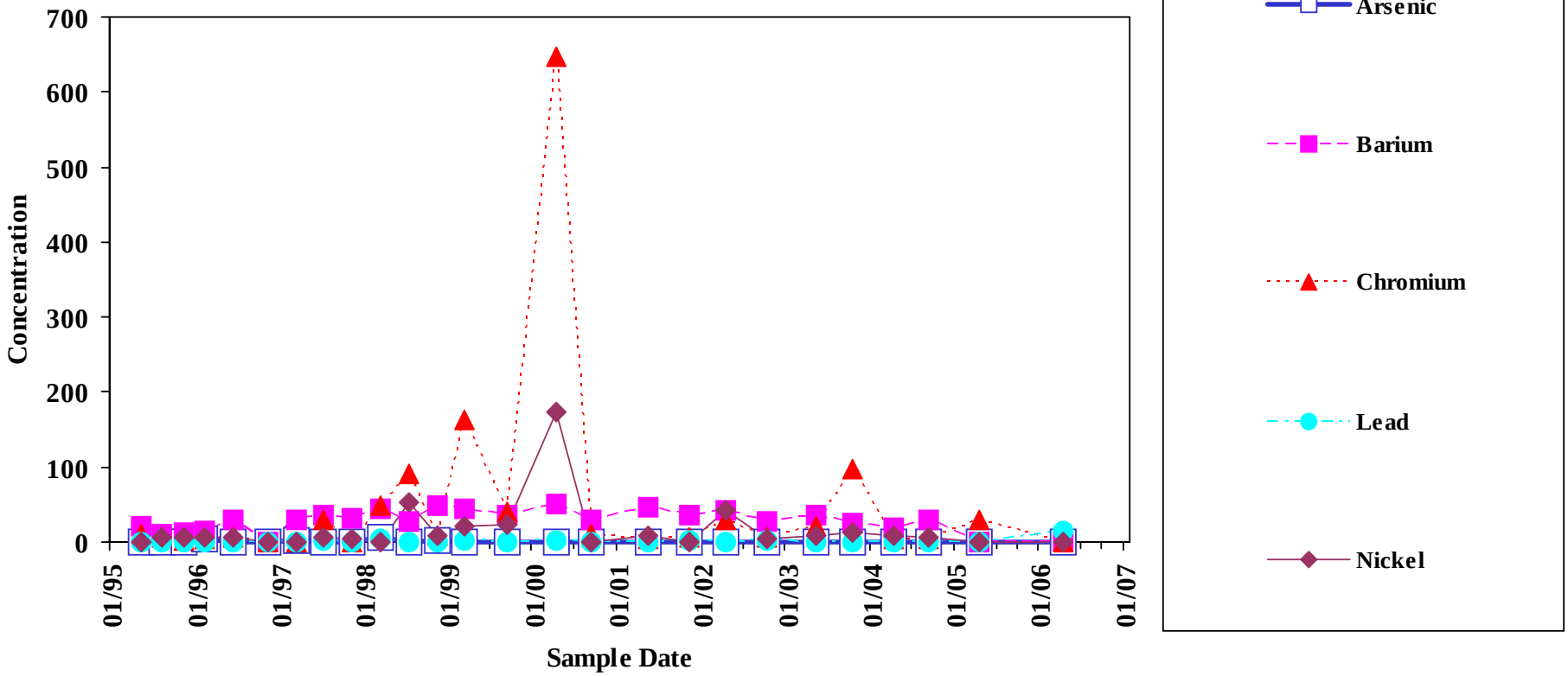
Sample Location:

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

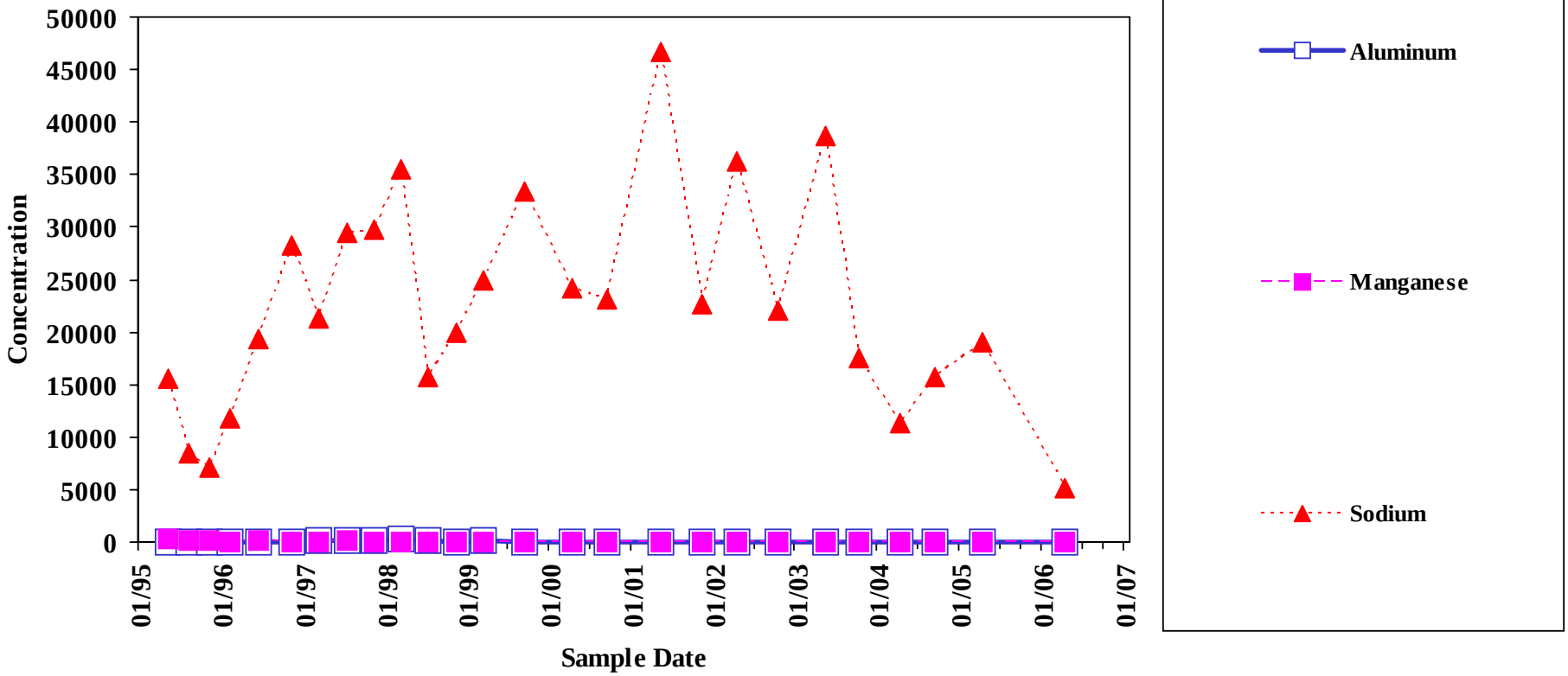
Sample Location:

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:	-

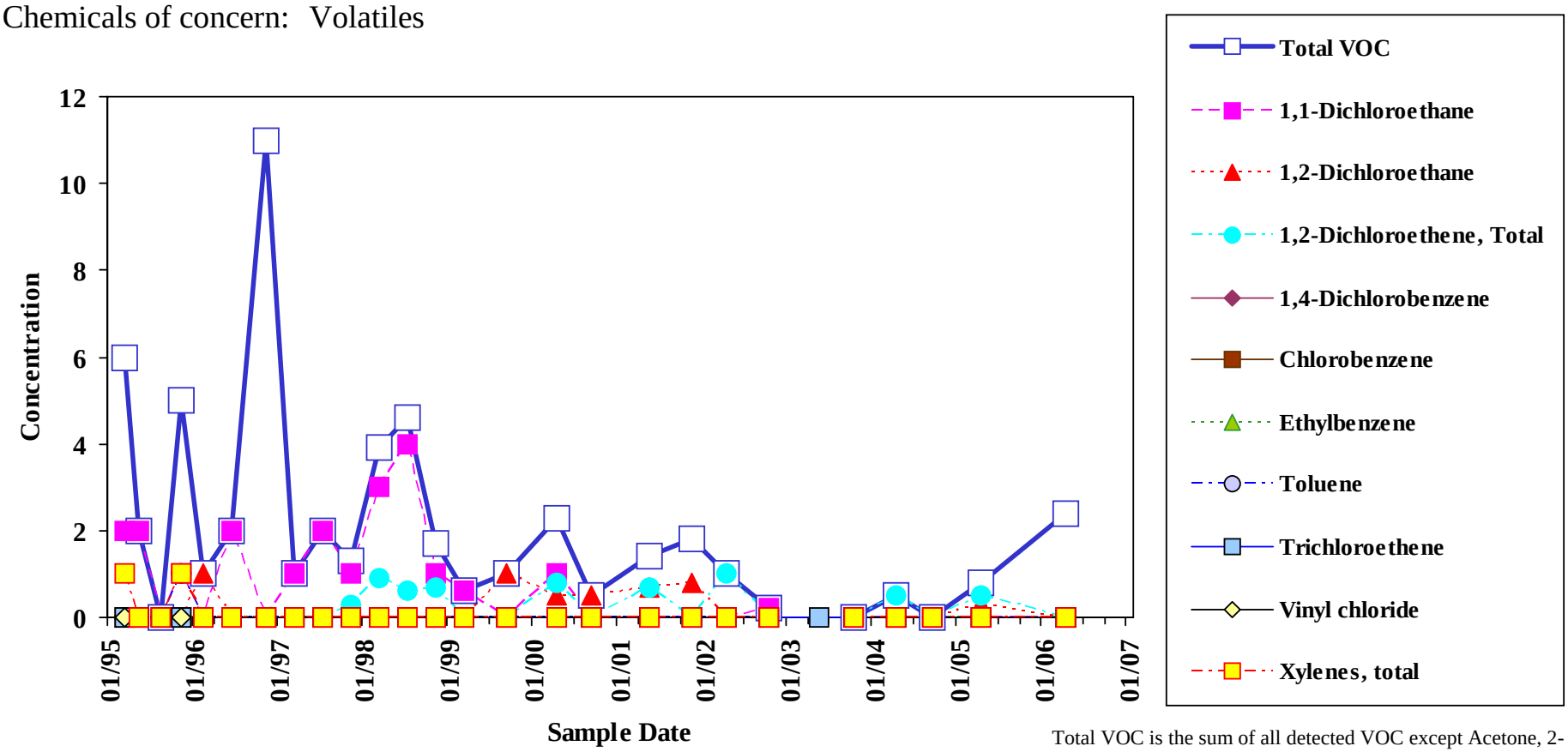
Sample Location:

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

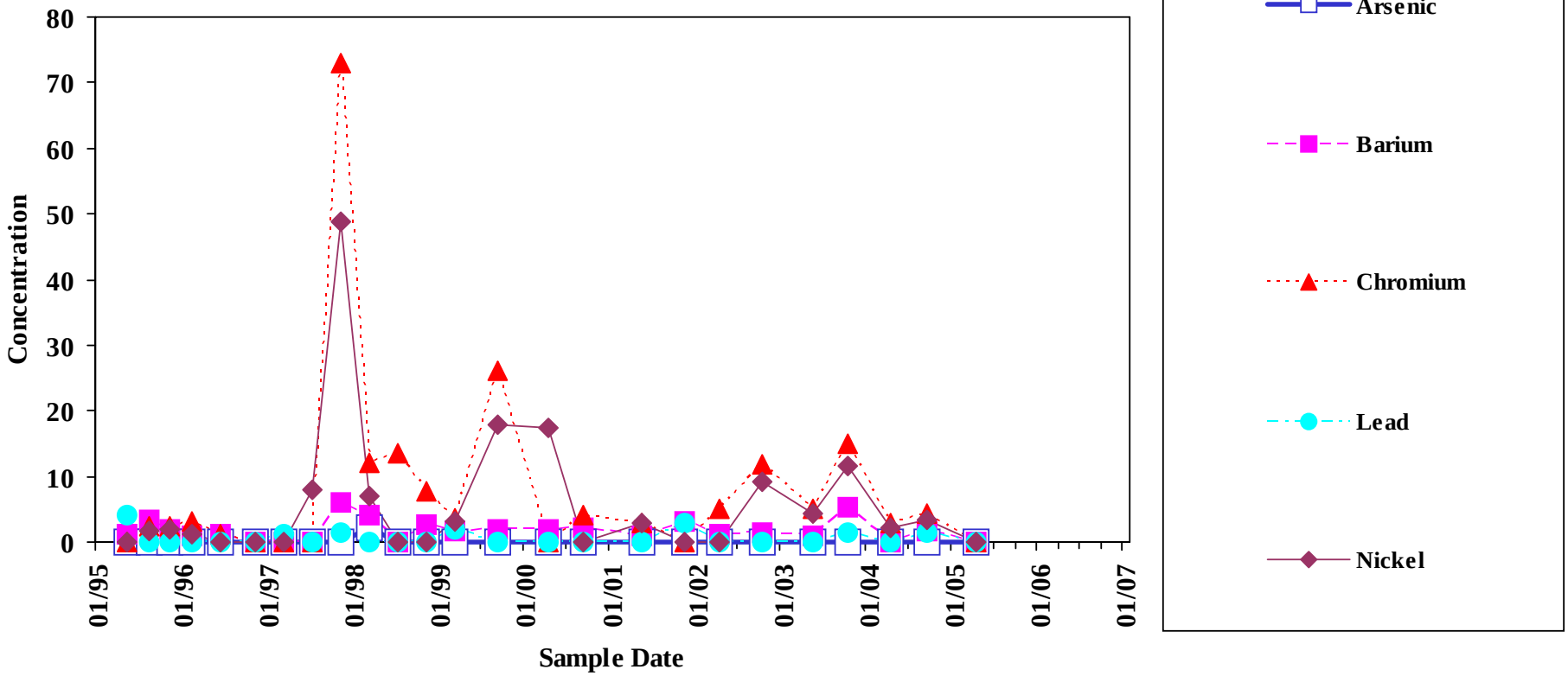
Sample Location:

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

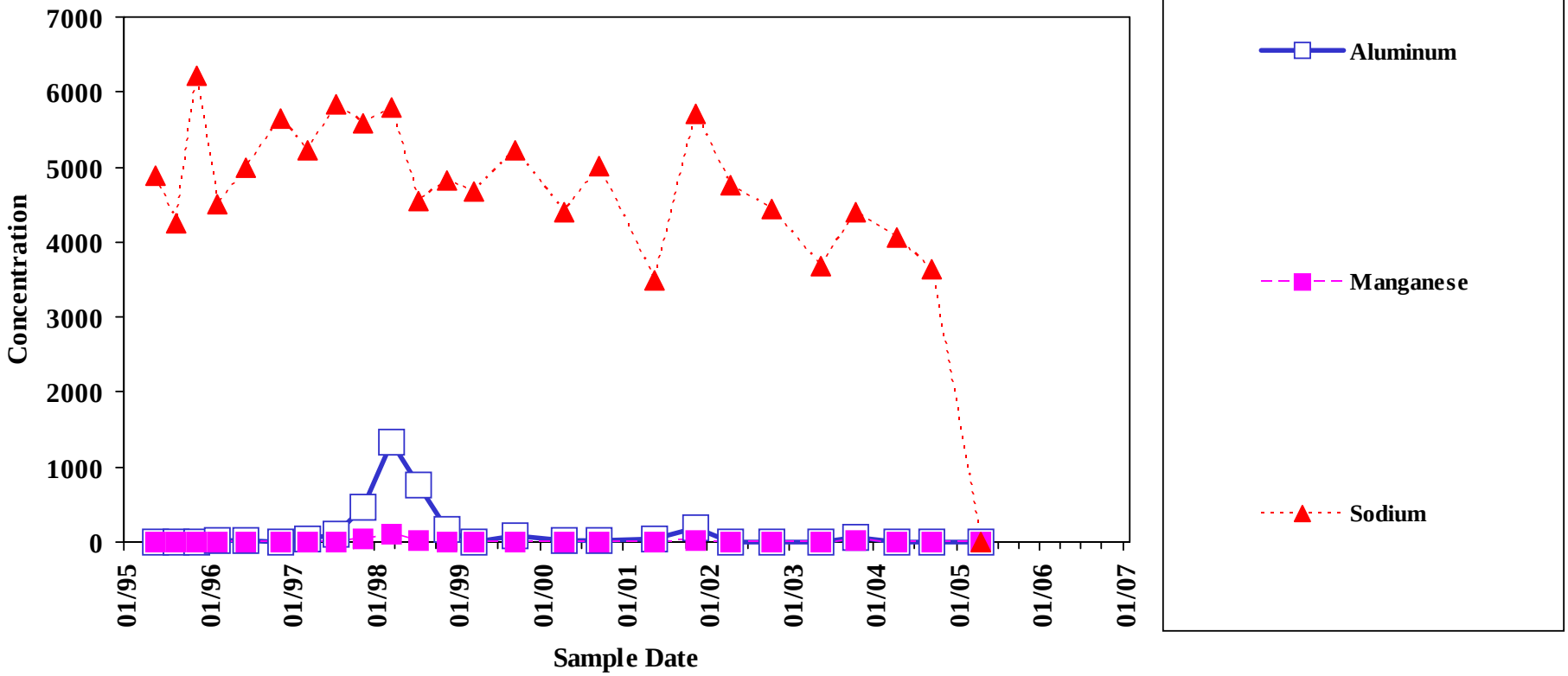
Sample Location:

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:	-

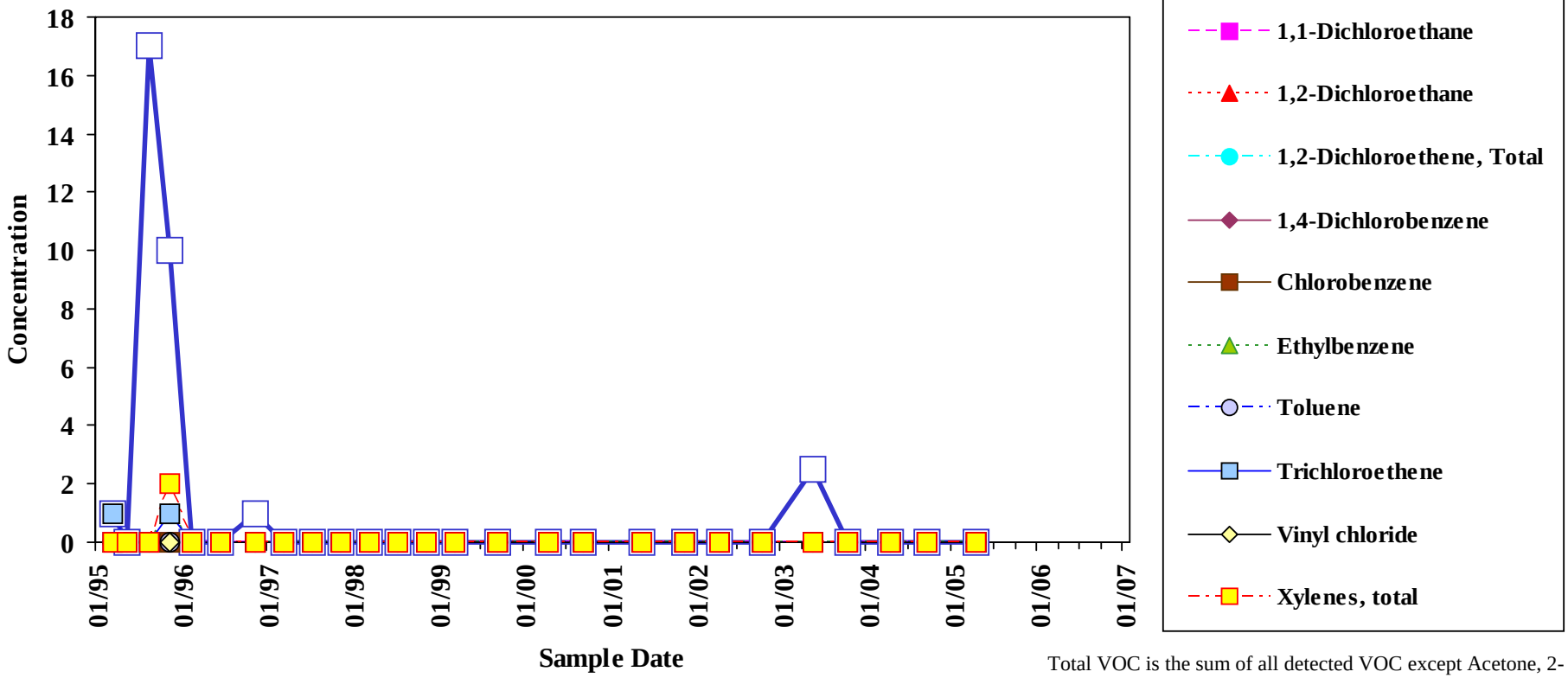
Sample Location:

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

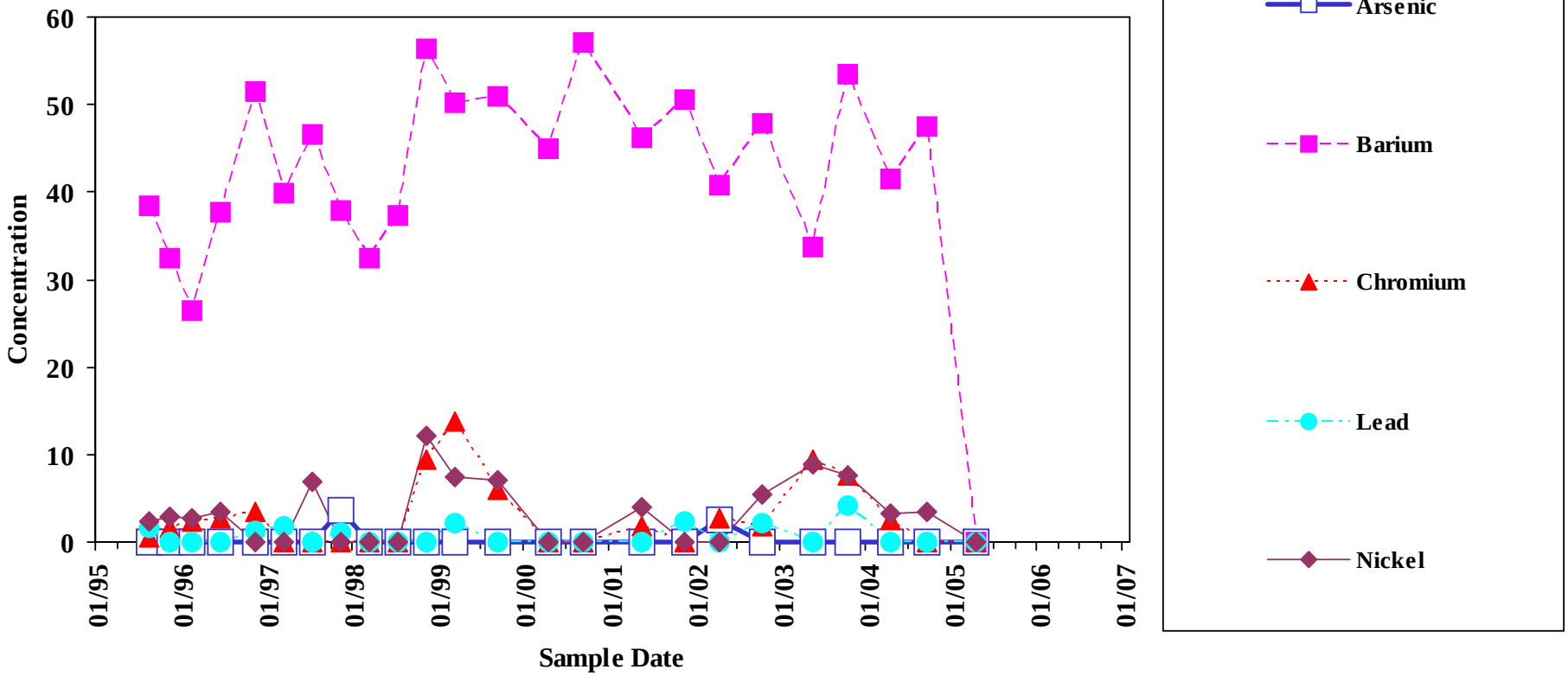
Sample Location:

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

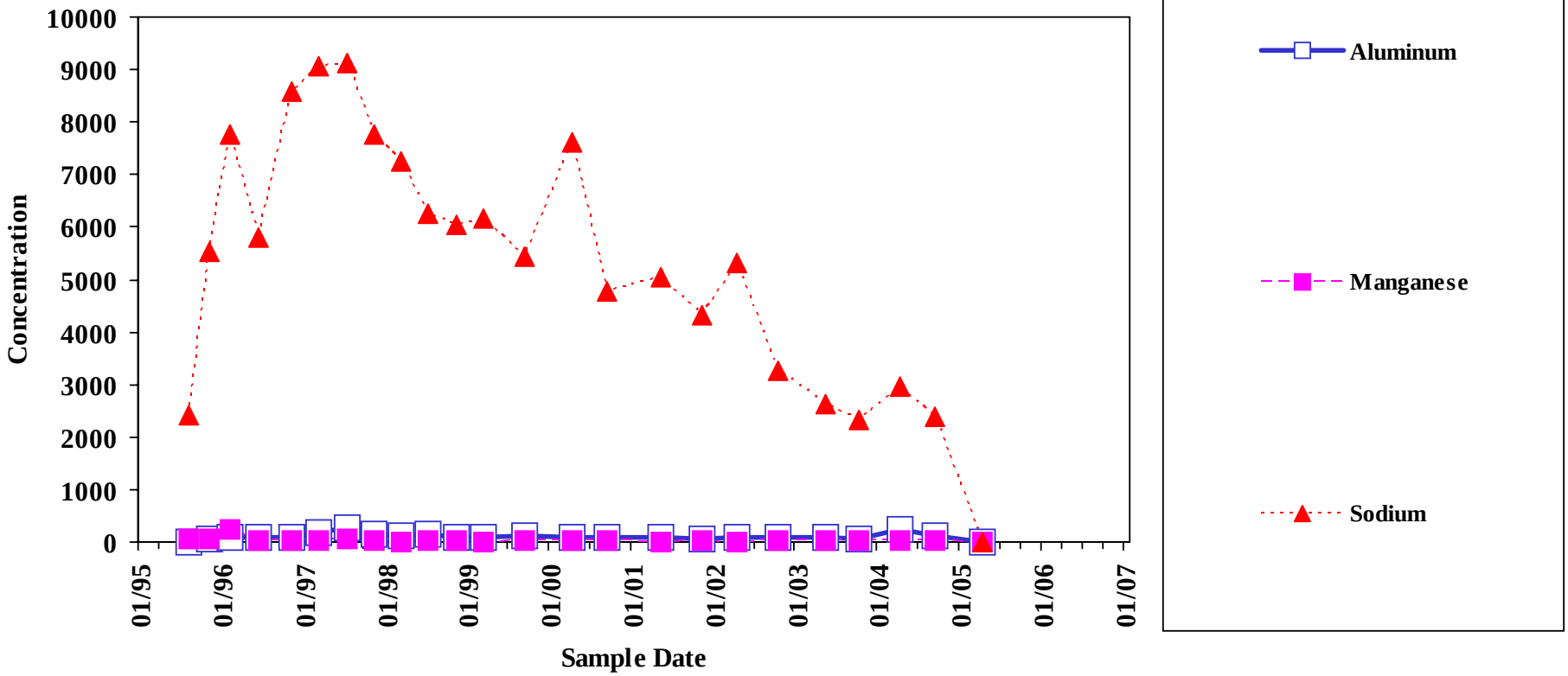
Sample Location:

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:	-

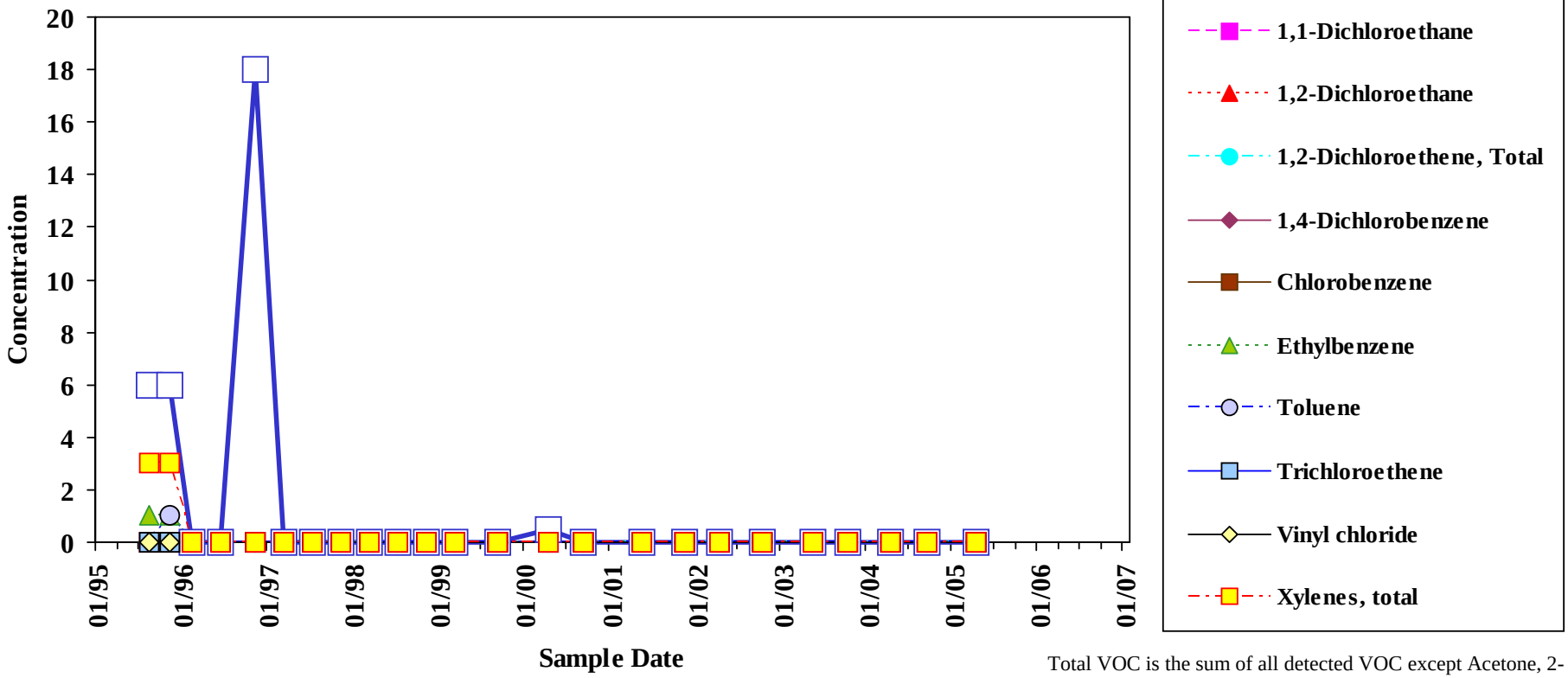
Sample Location:

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

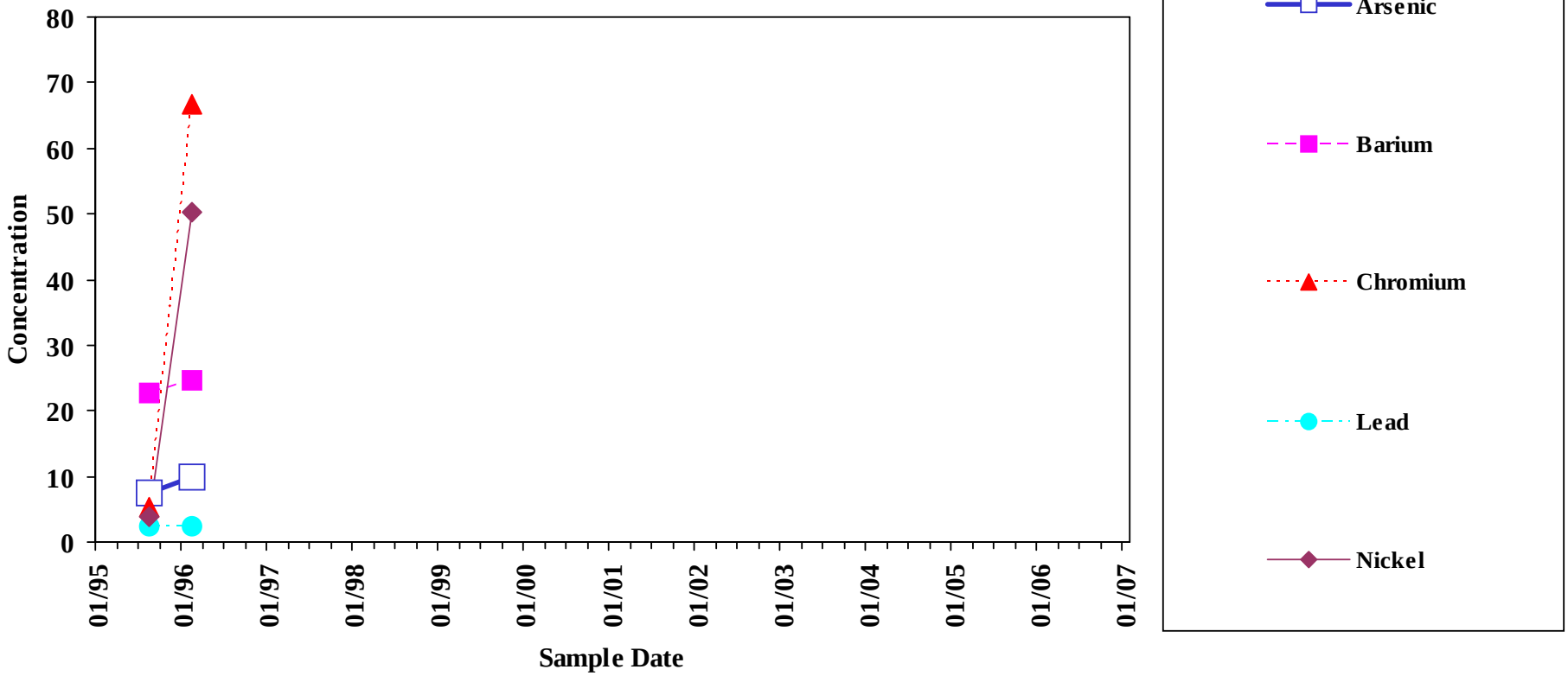
Sample Location:

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

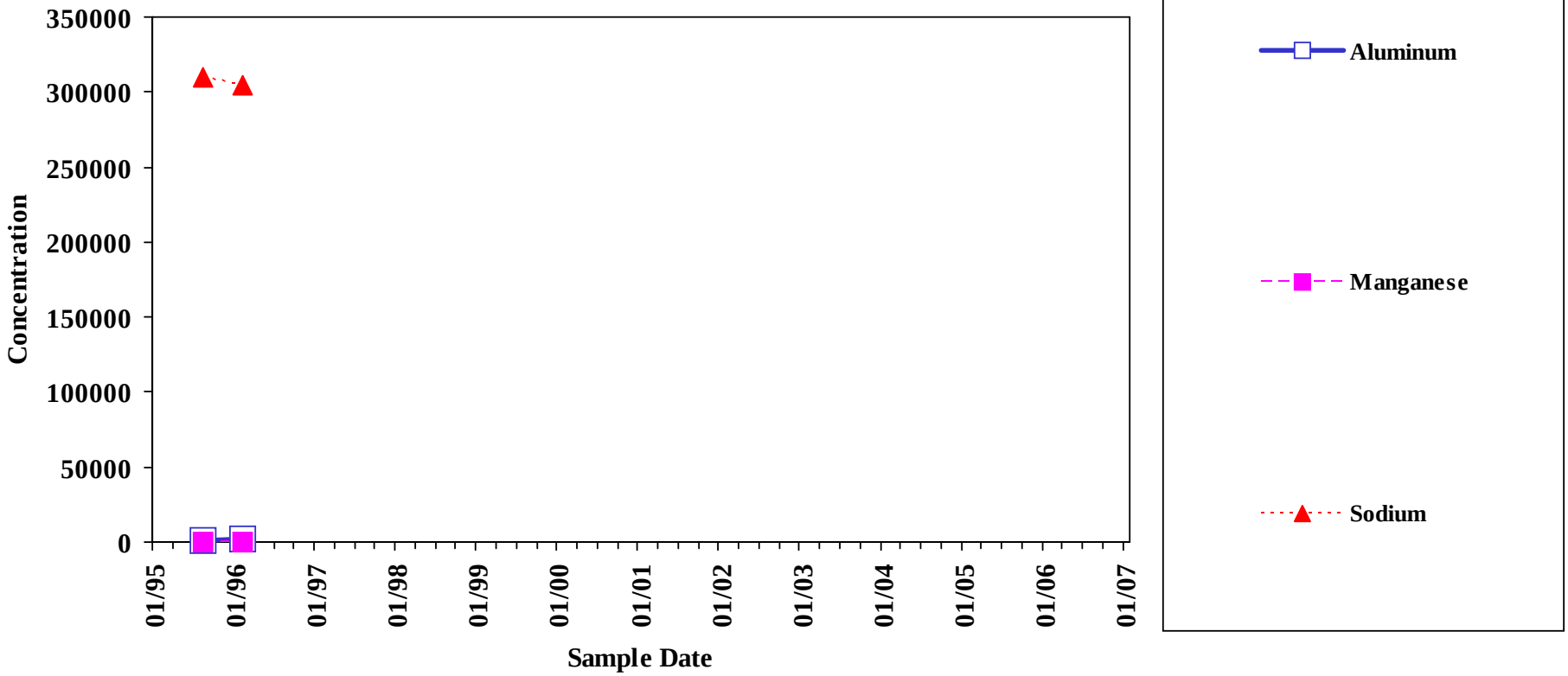
Sample Location:

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:	-

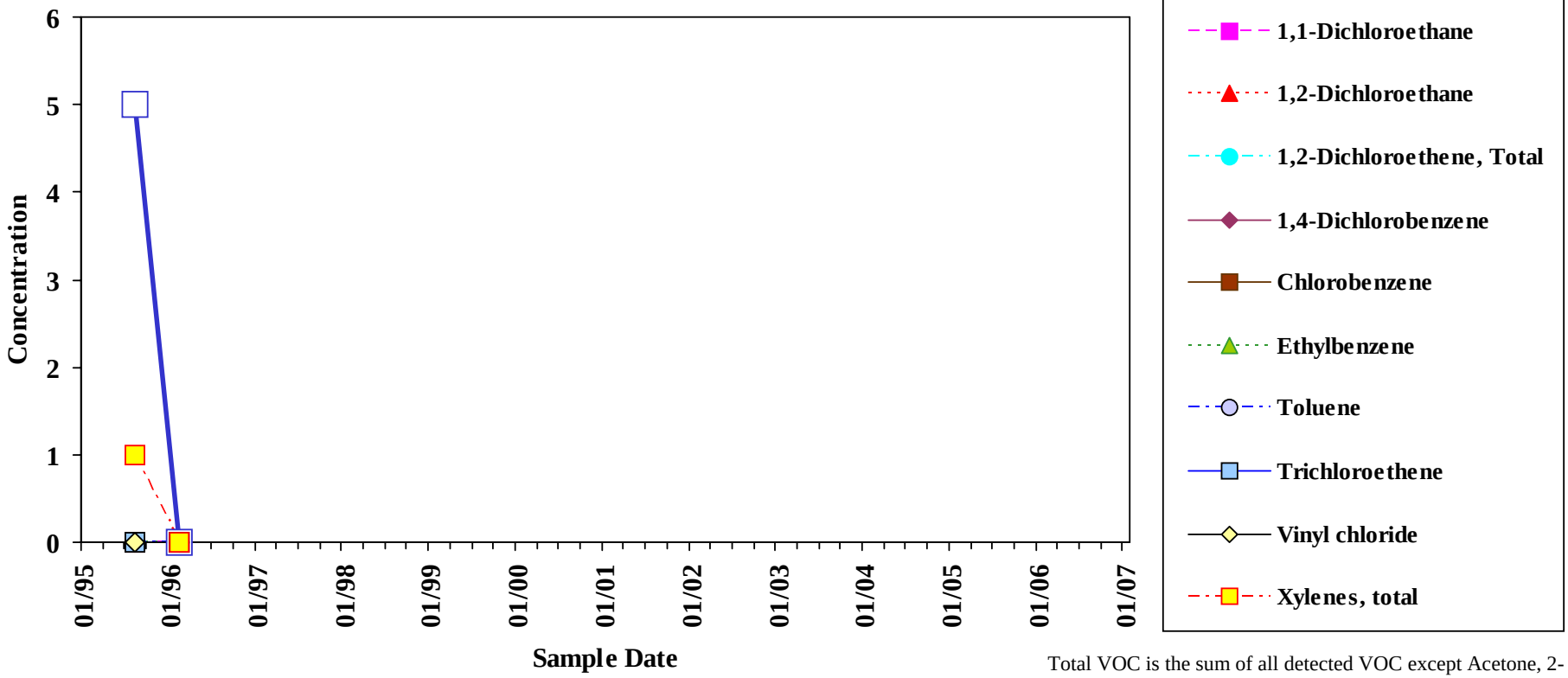
Sample Location:

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

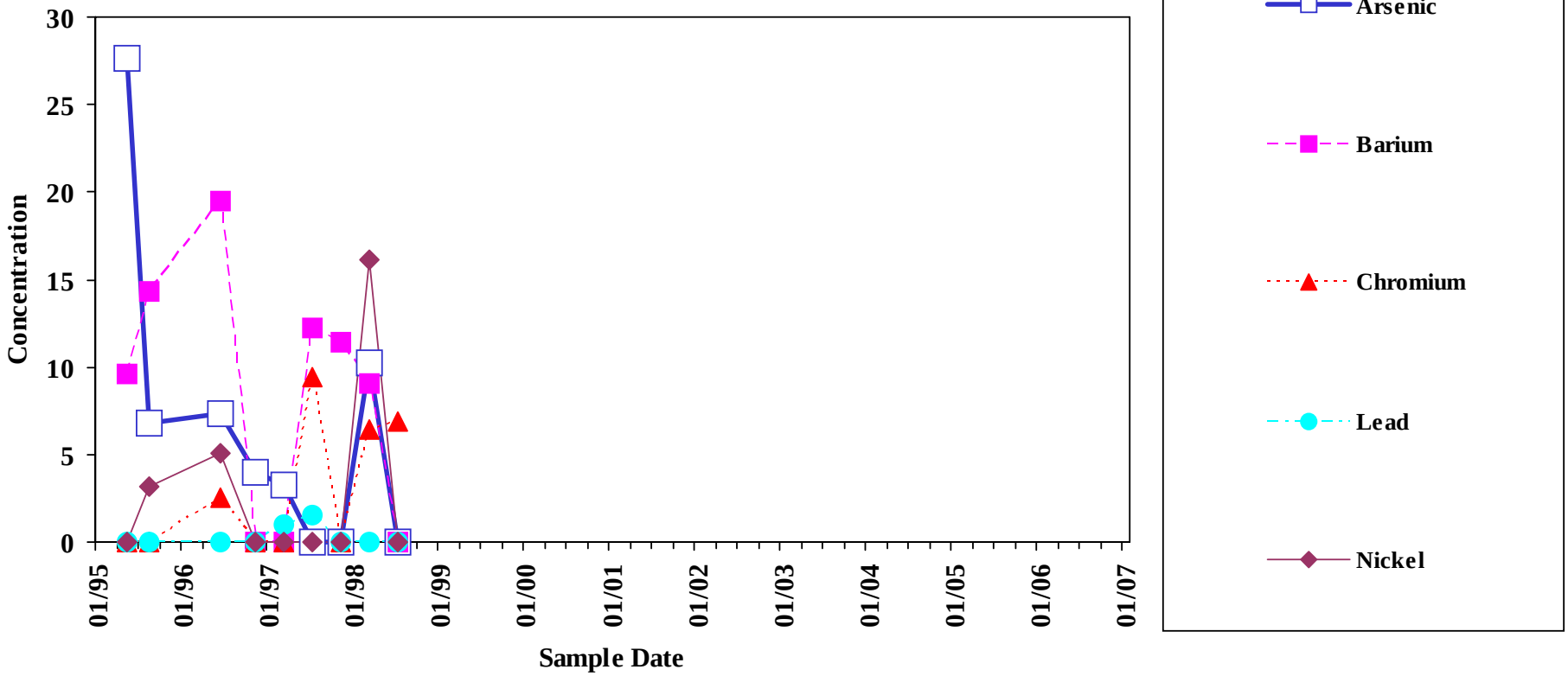
Sample Location:

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

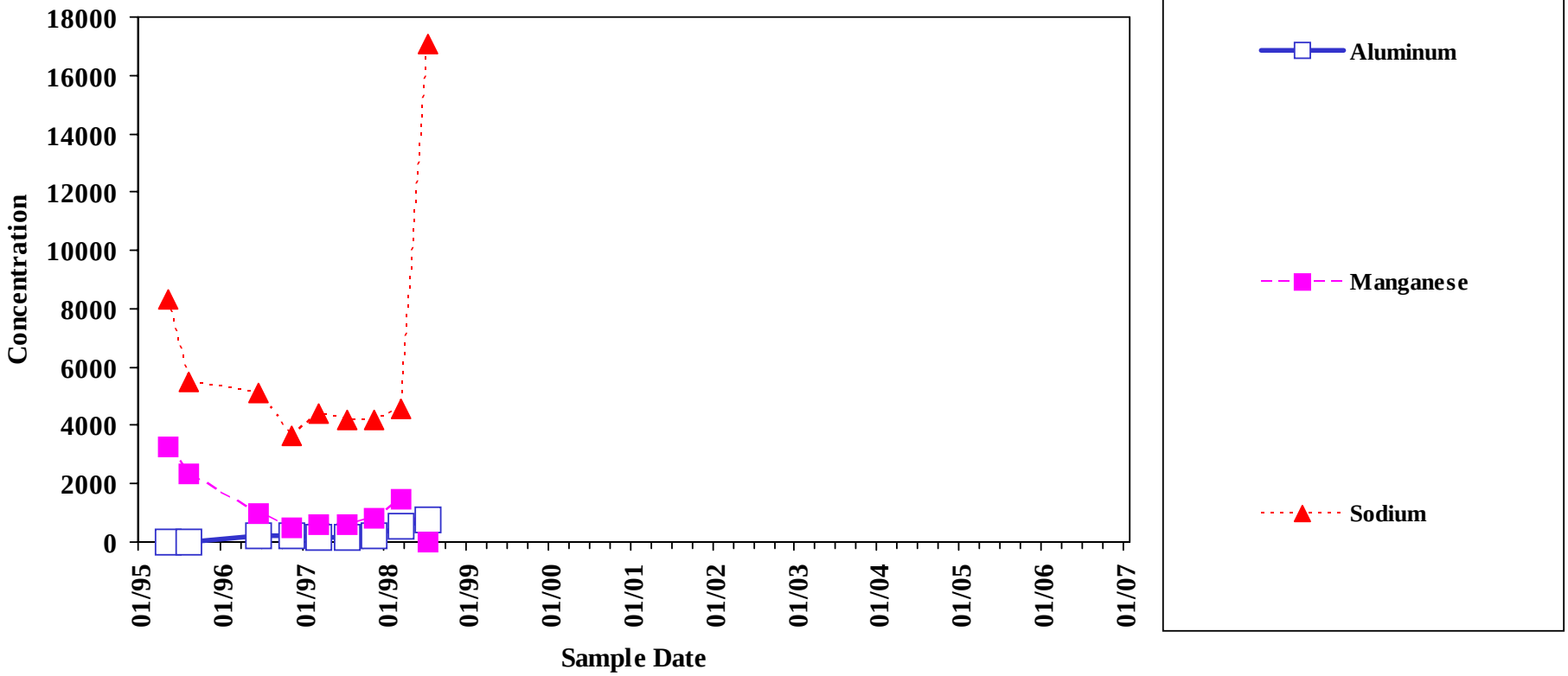
Sample Location:

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:	-

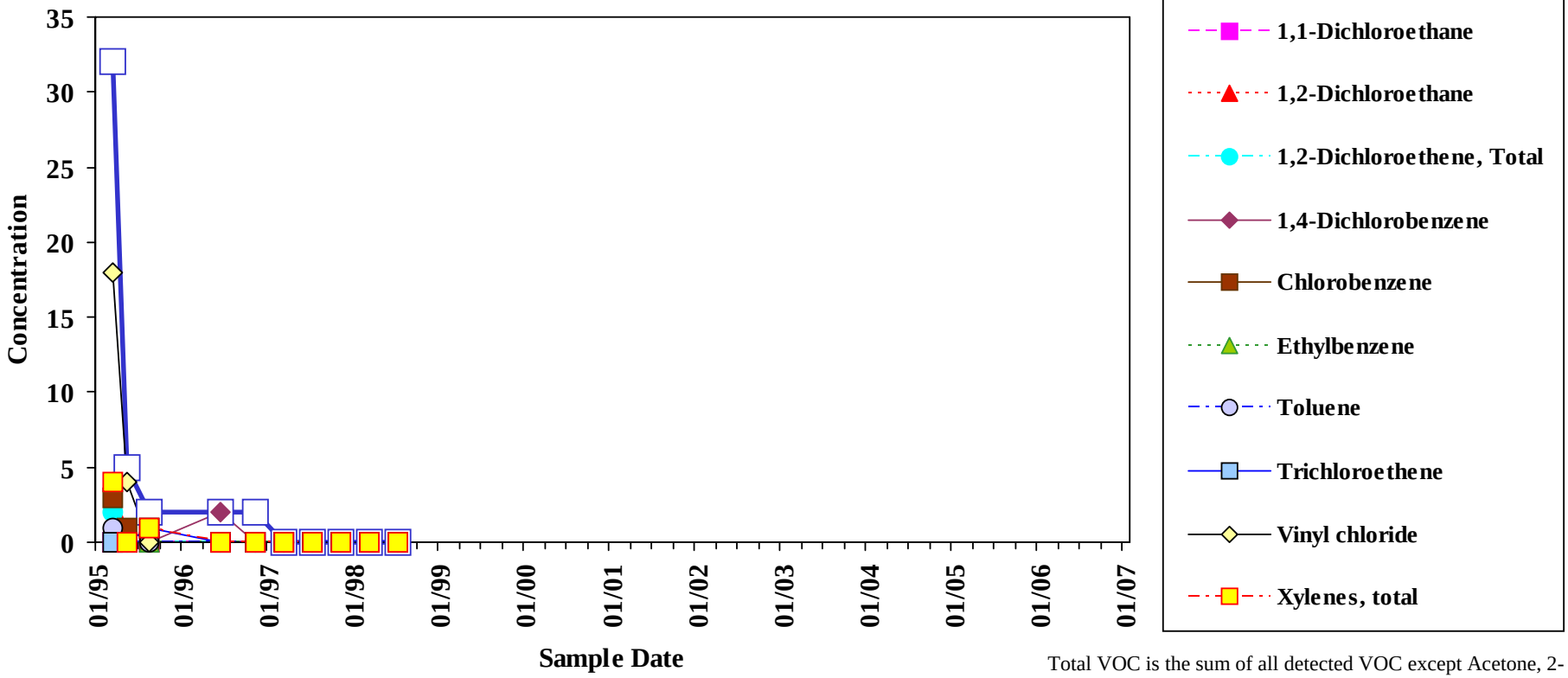
Sample Location:

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

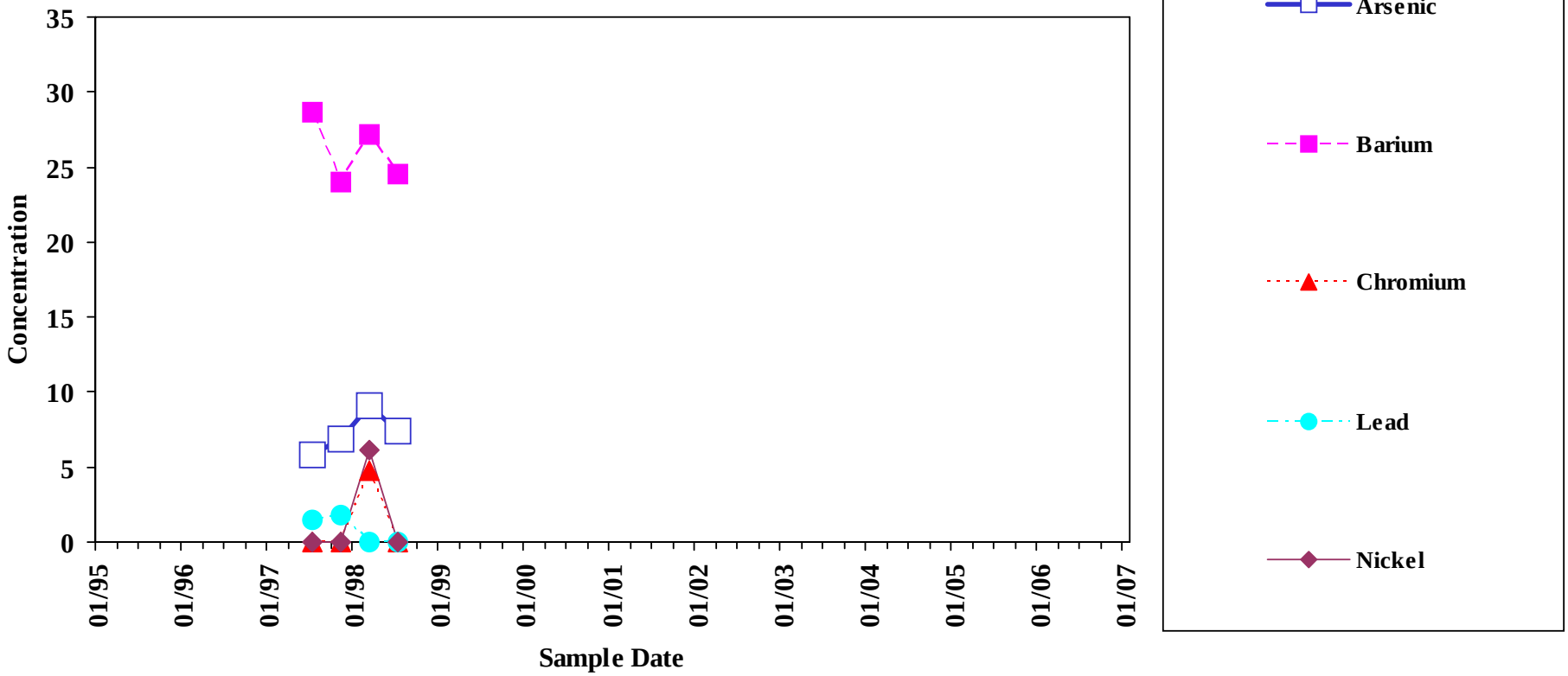
Sample Location:

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

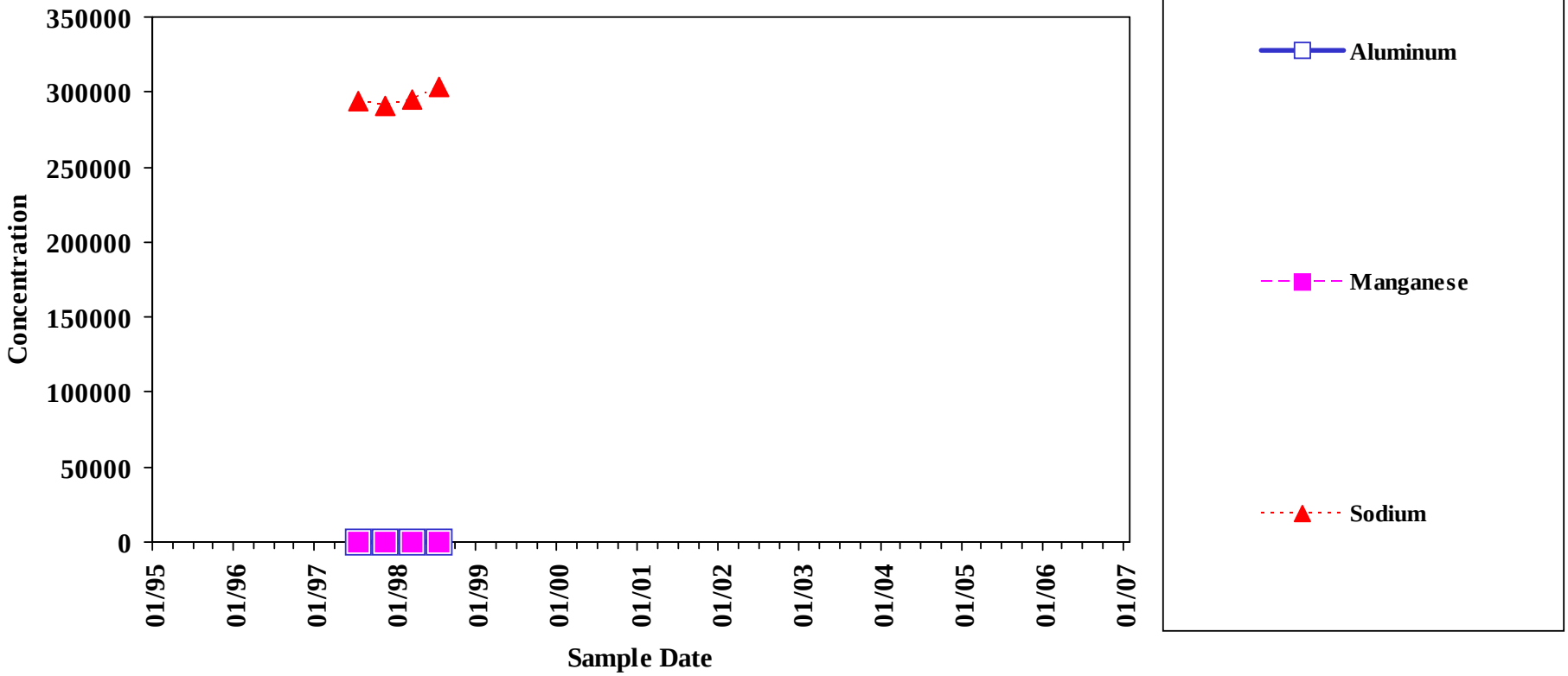
Sample Location:

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:	-

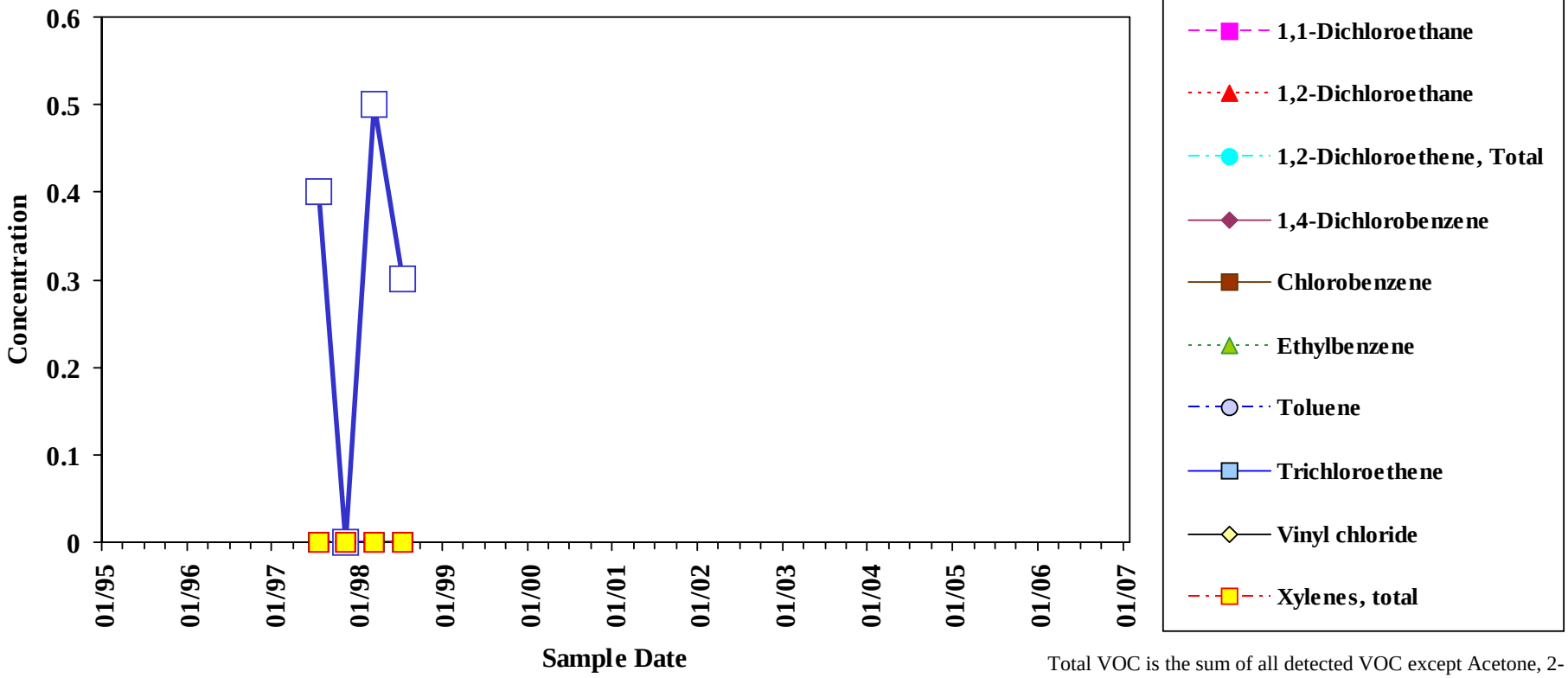
Sample Location:

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

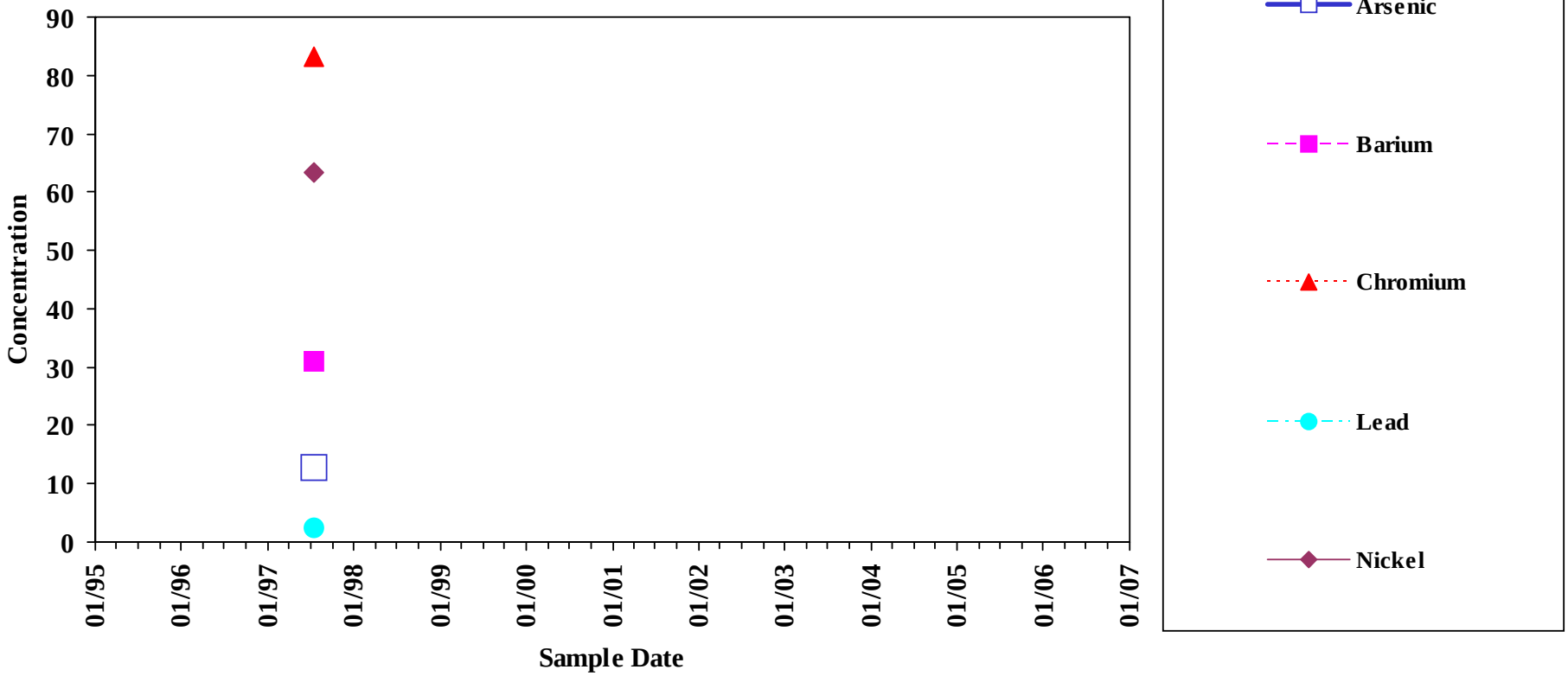
Sample Location:

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

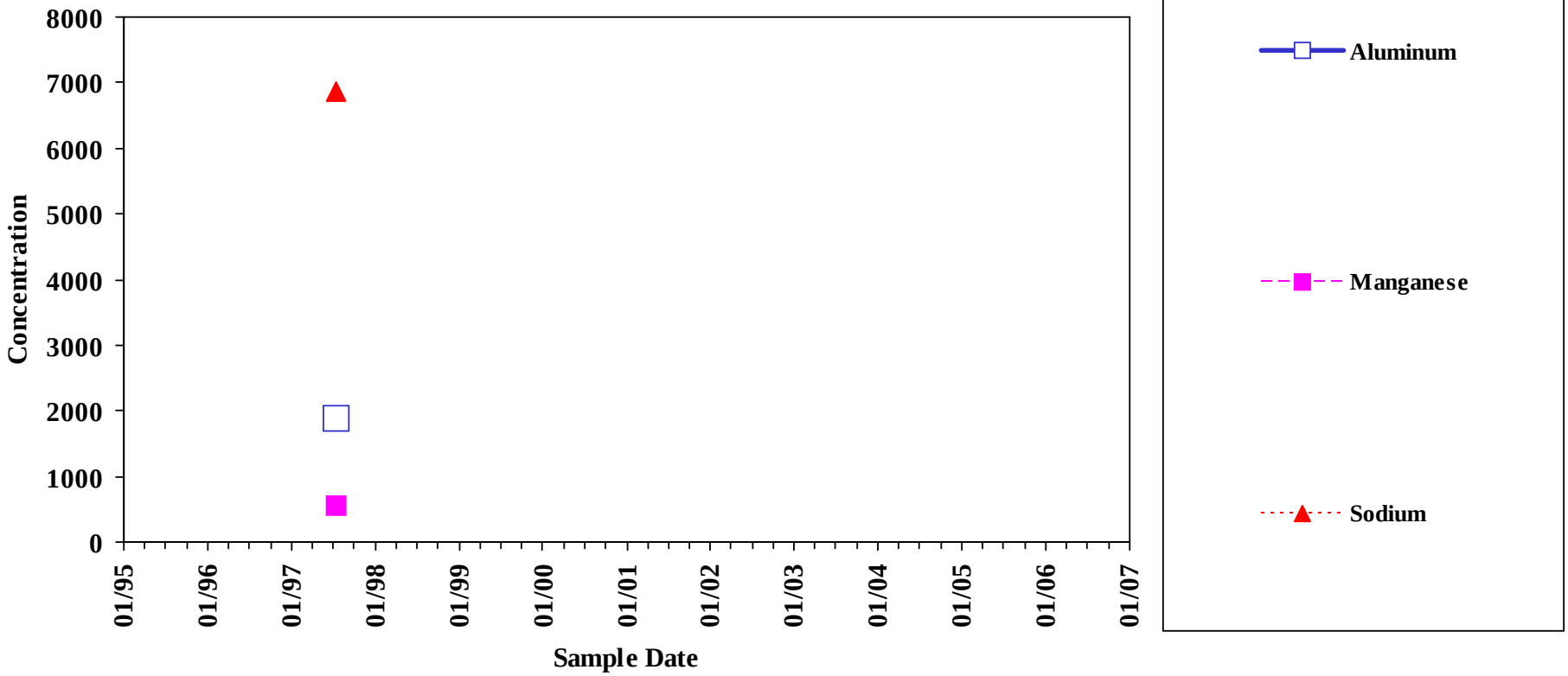
Sample Location:

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:	-

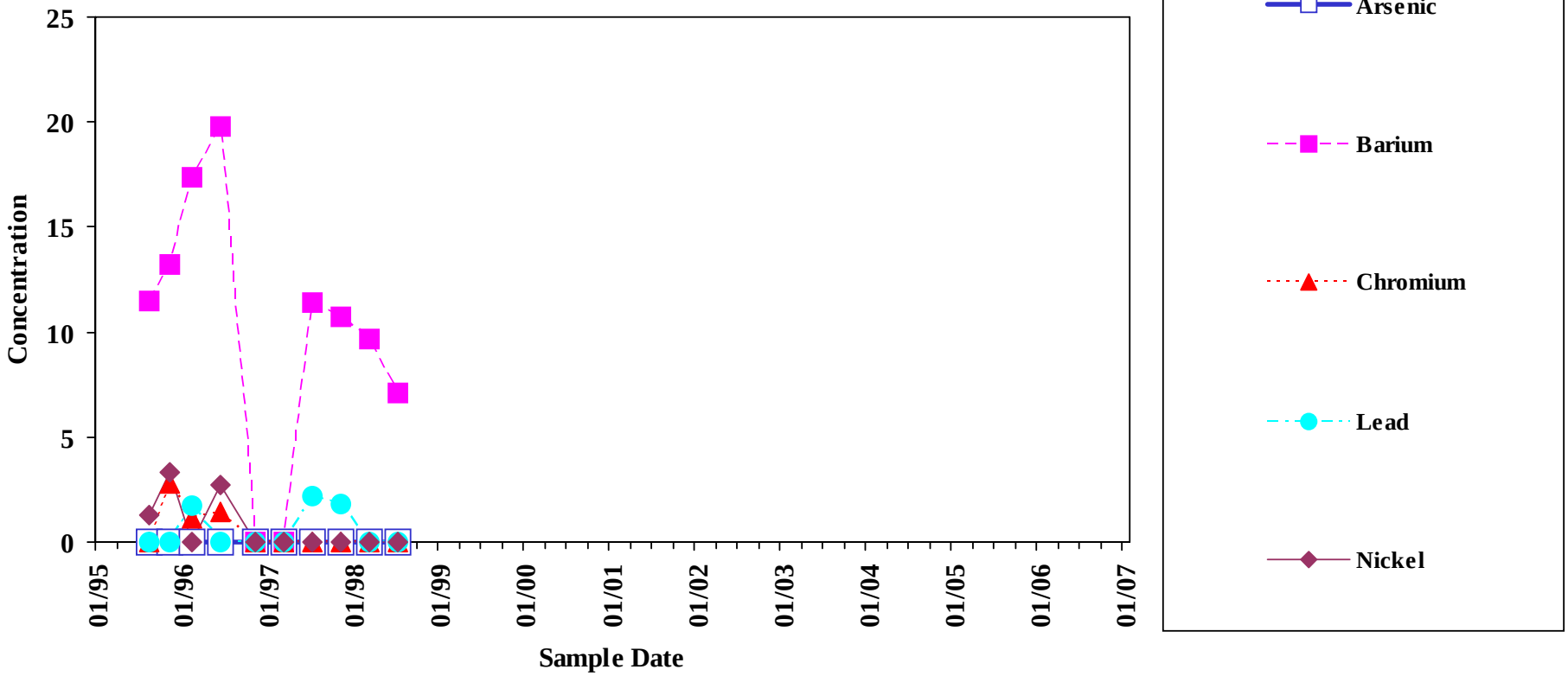
Sample Location:

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

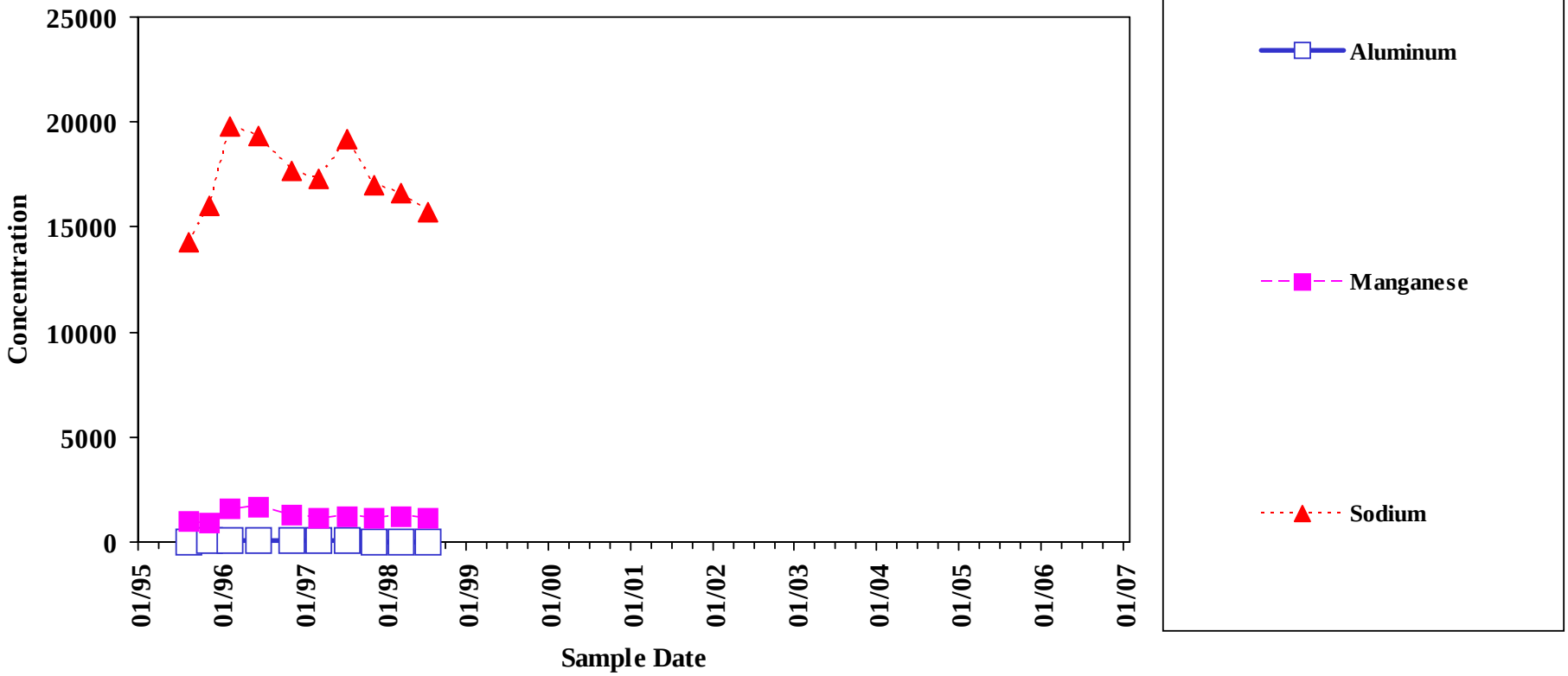
Sample Location:

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:	-

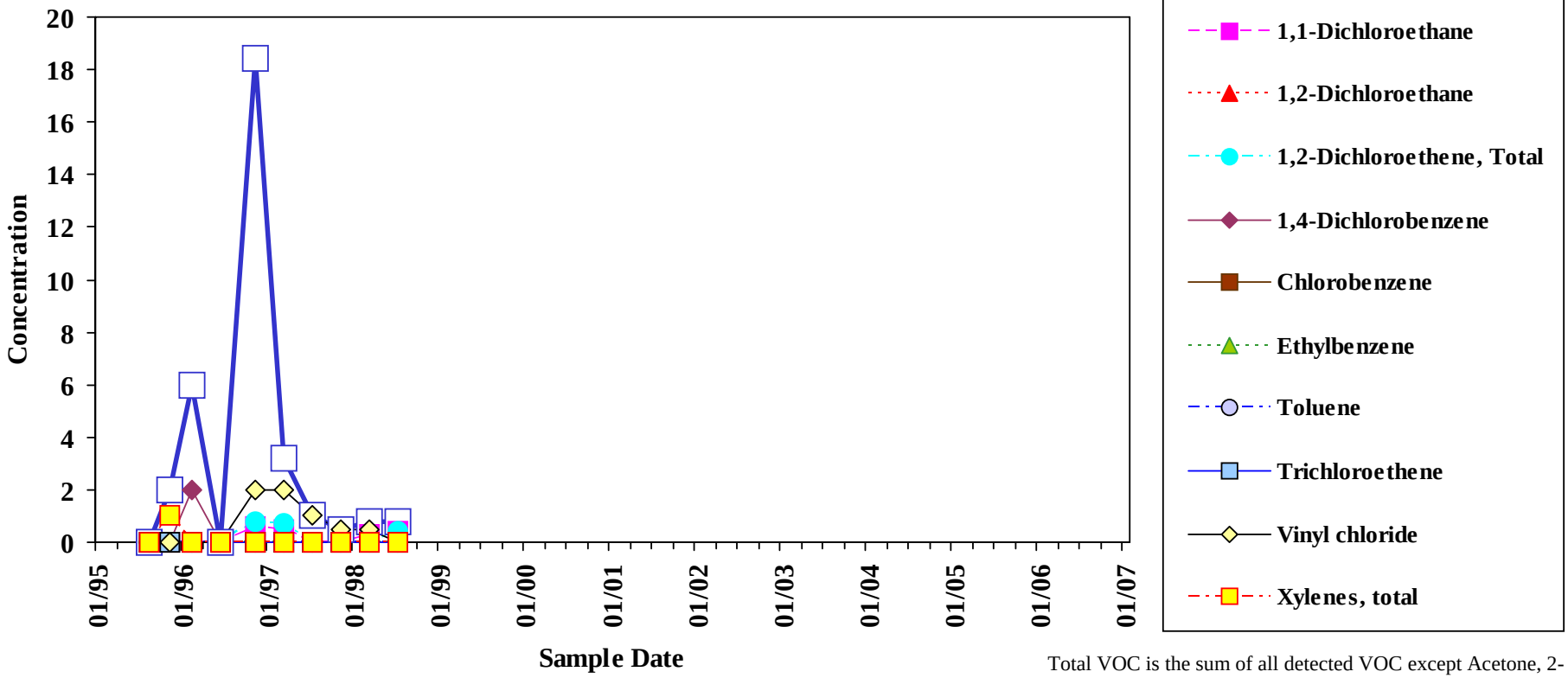
Sample Location:

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

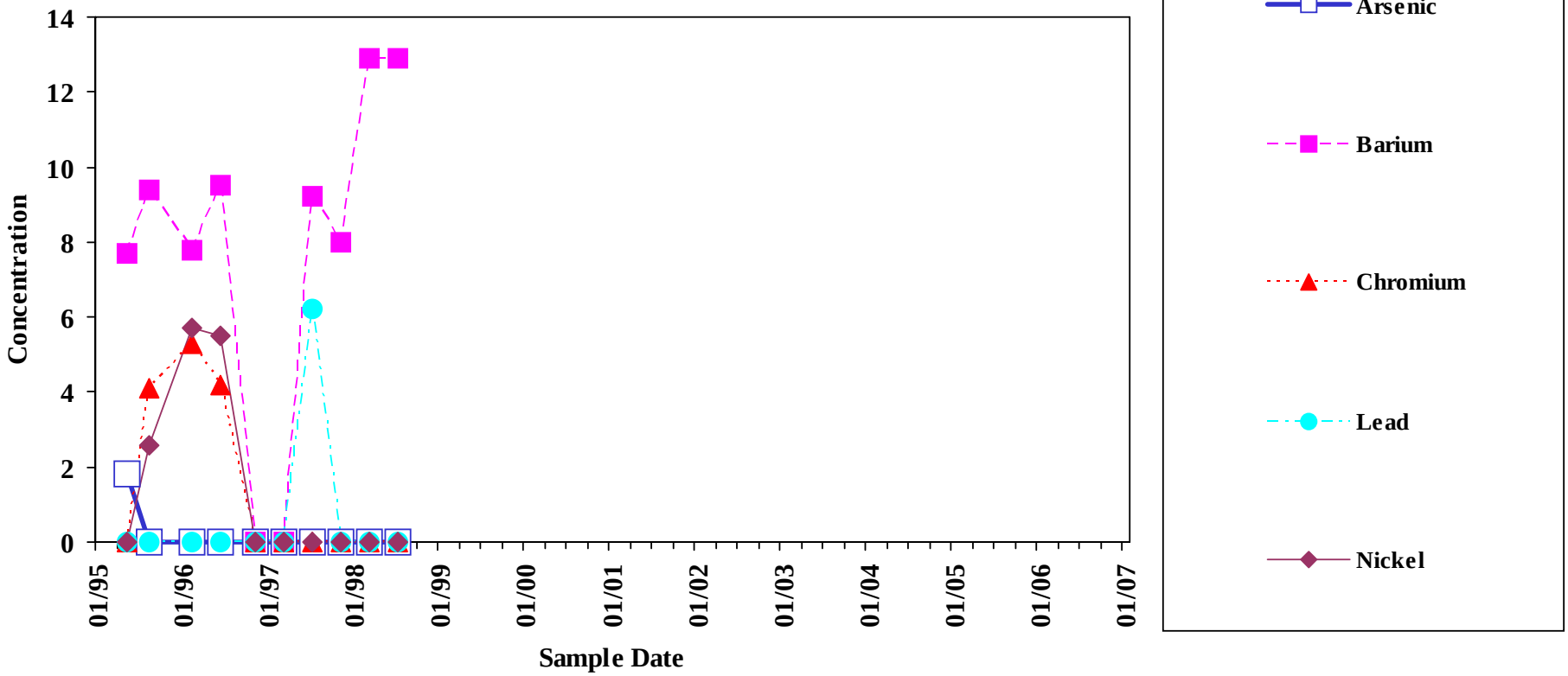
Sample Location:

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

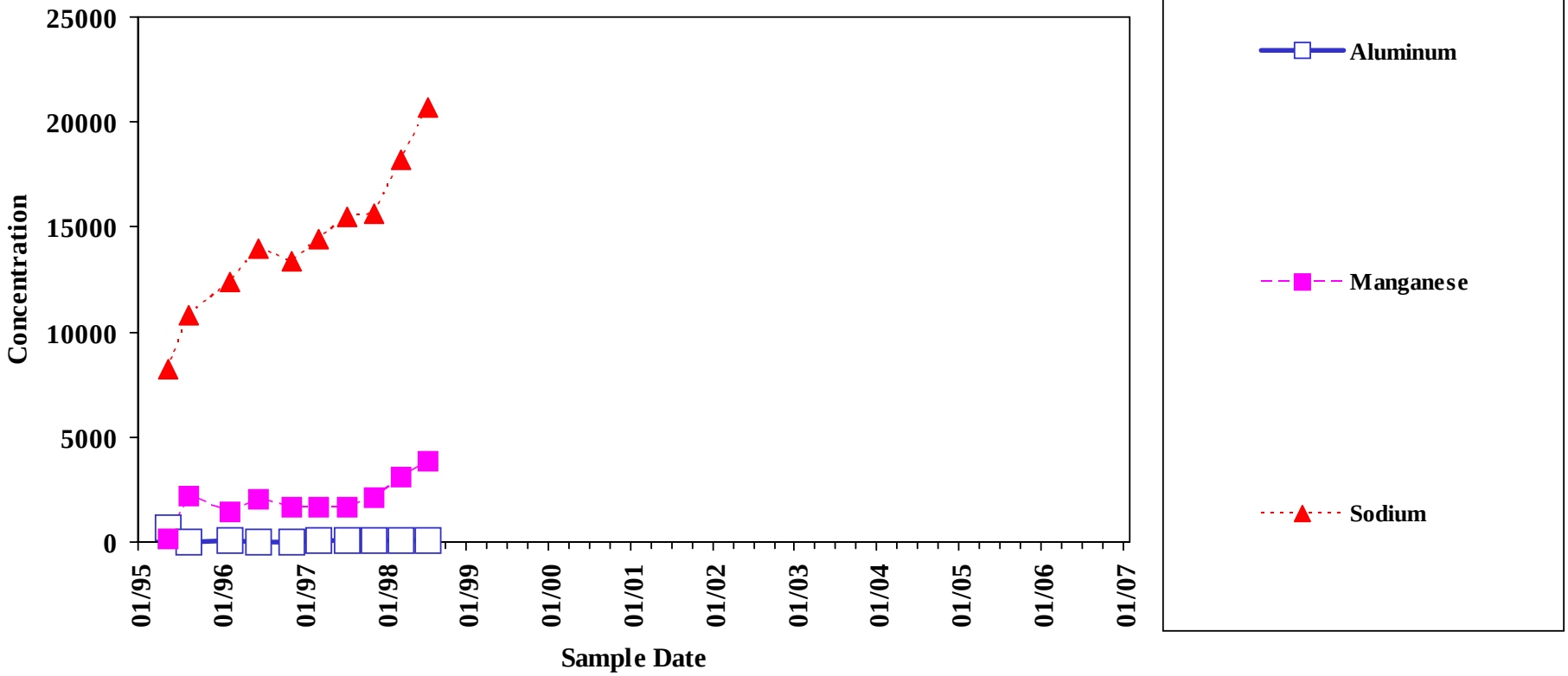
Sample Location:

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:	-

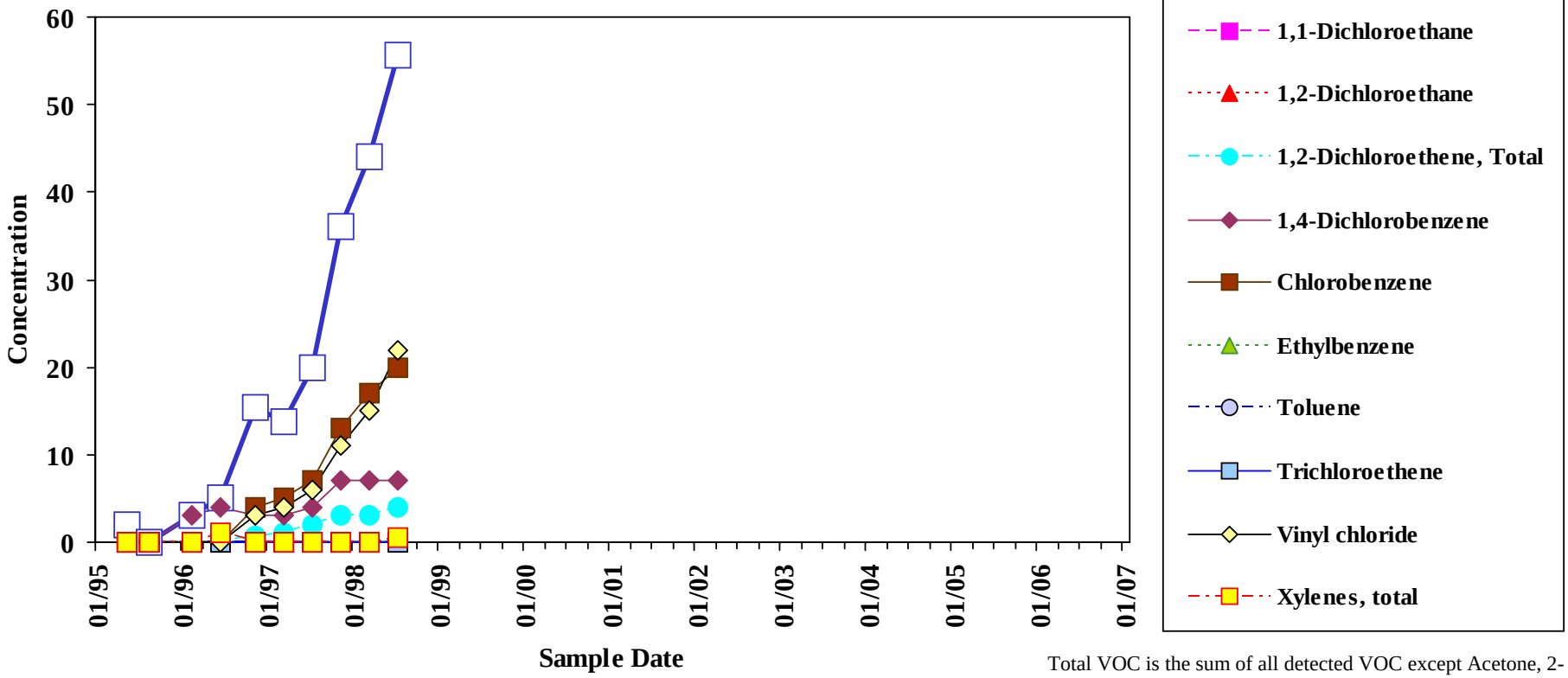
Sample Location:

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

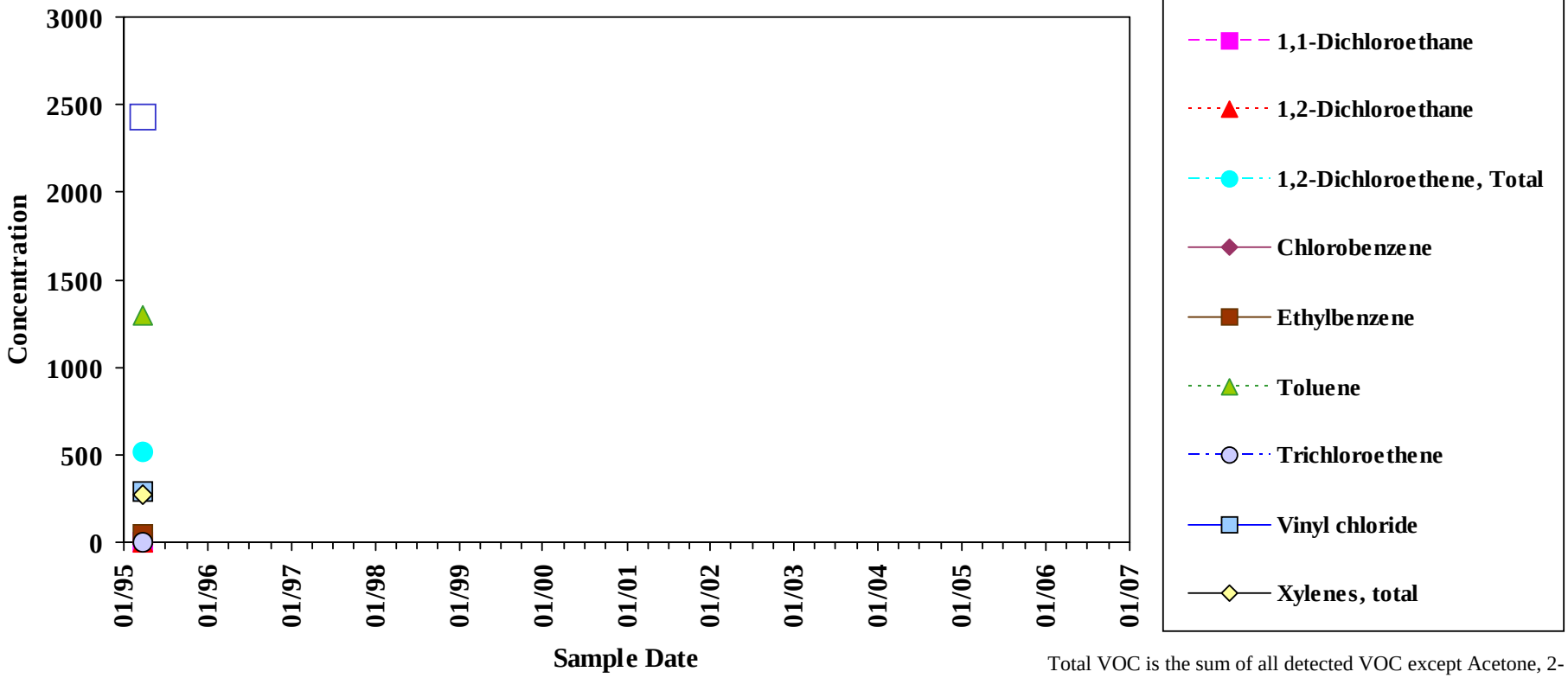
Sample Location:

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

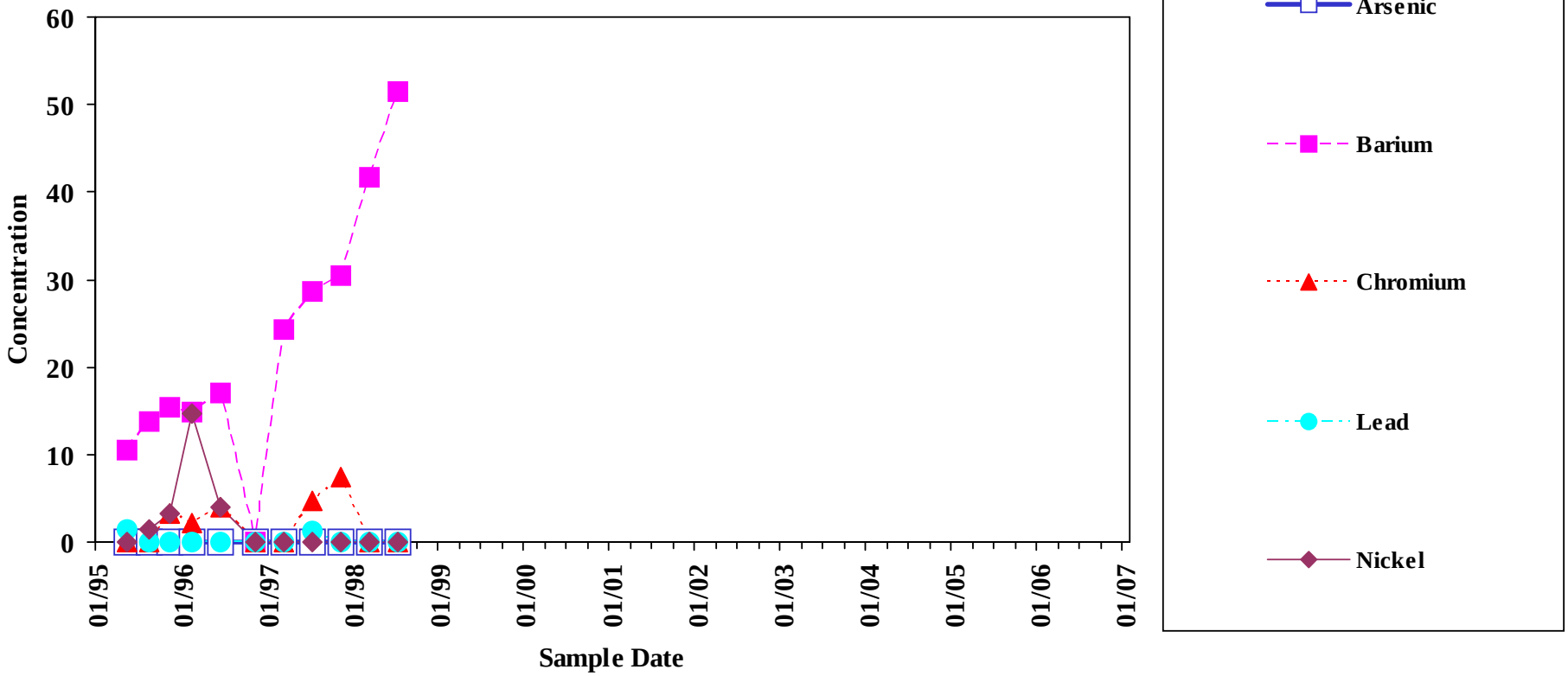
Sample Location:

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

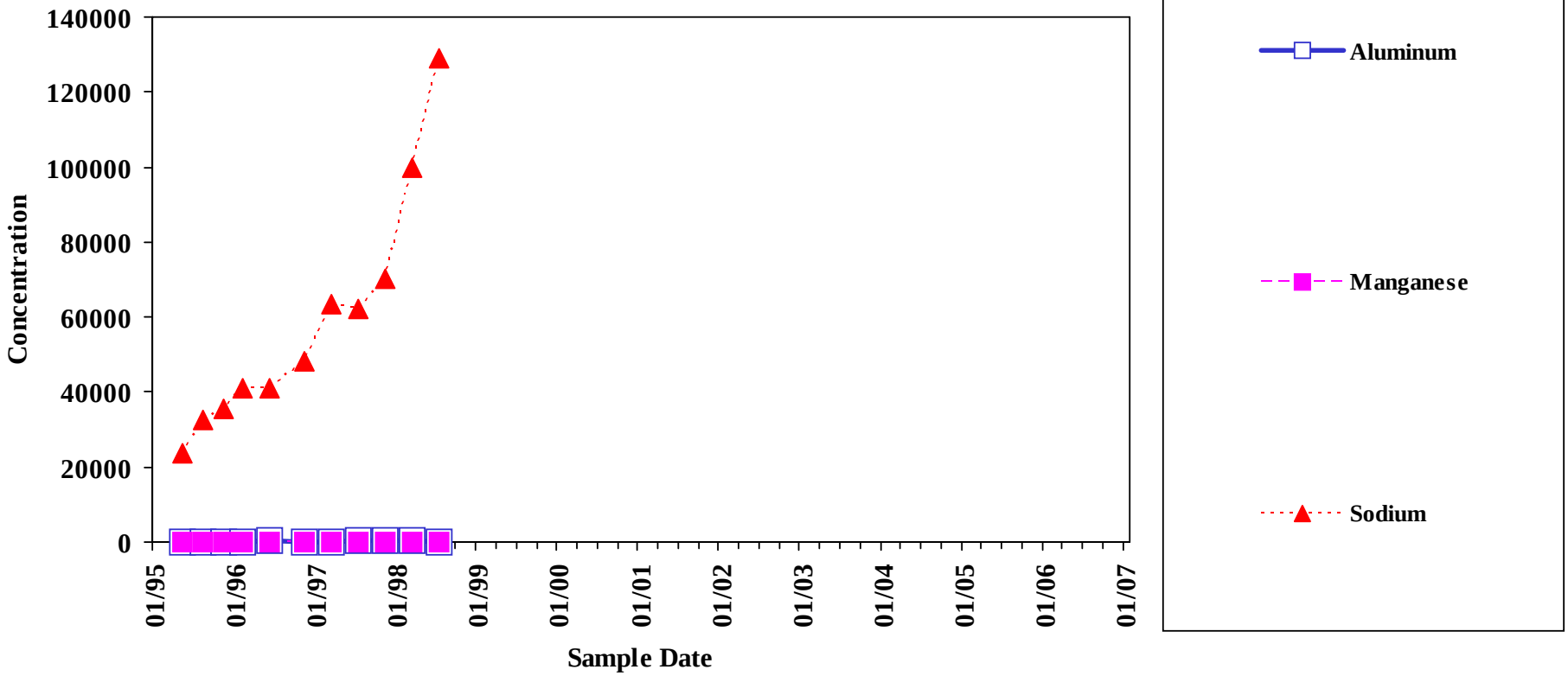
Sample Location:

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:	-

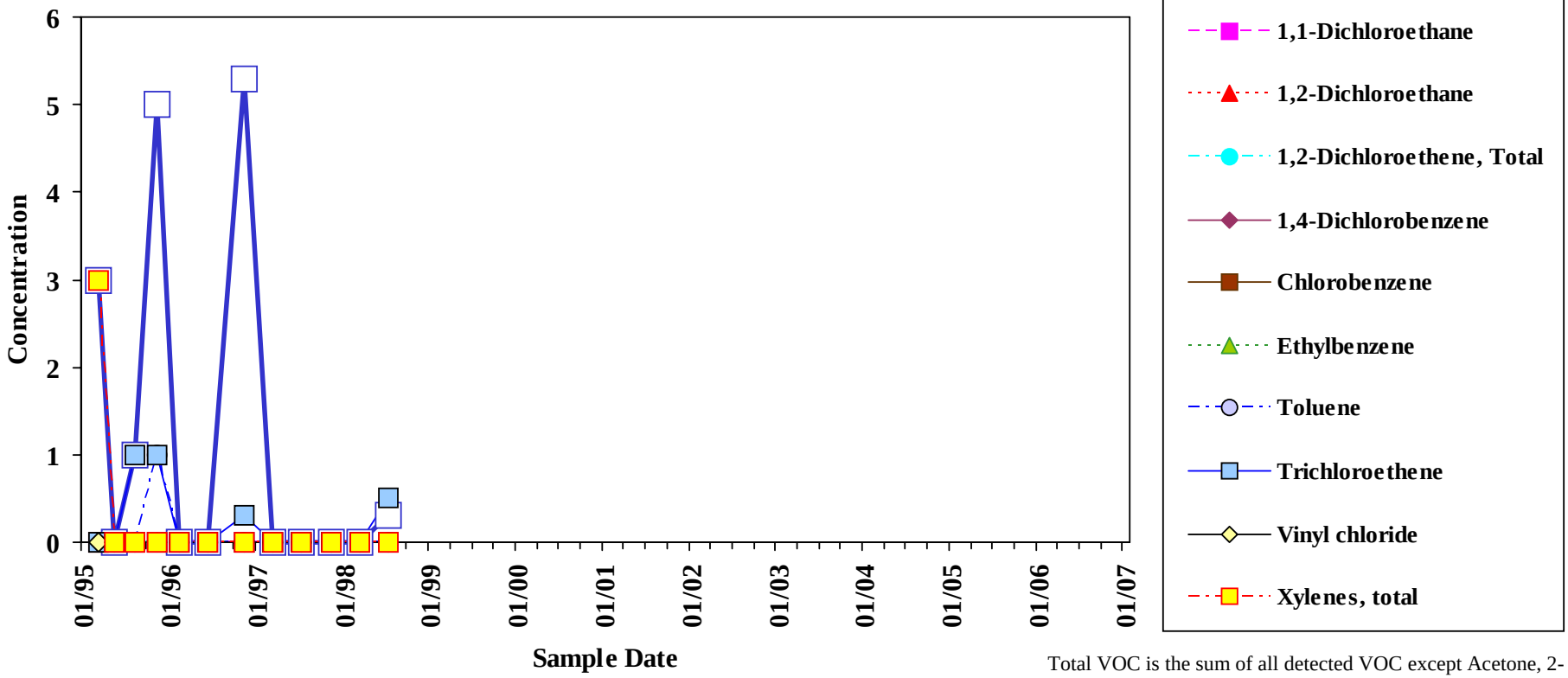
Sample Location:

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

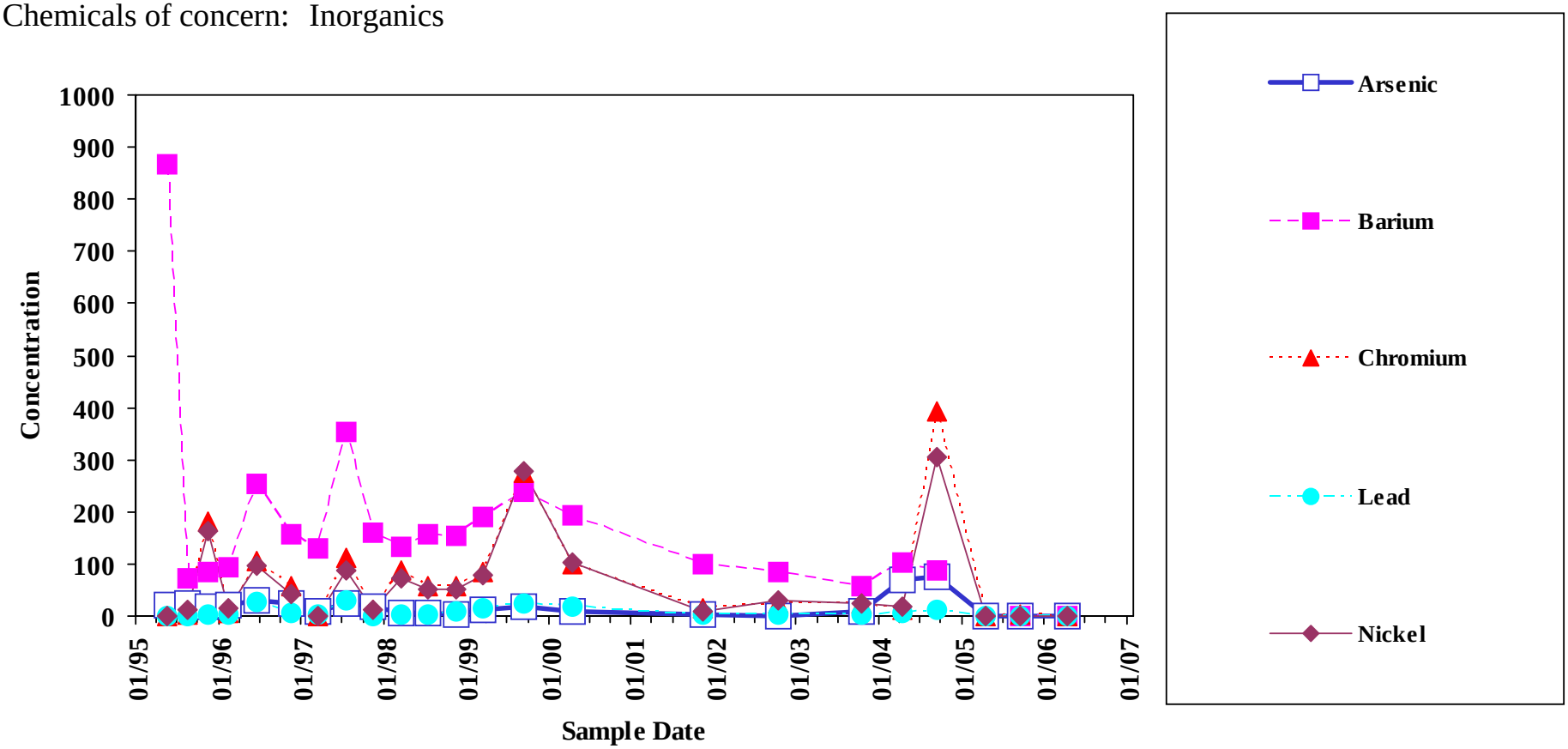
Sample Location:

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

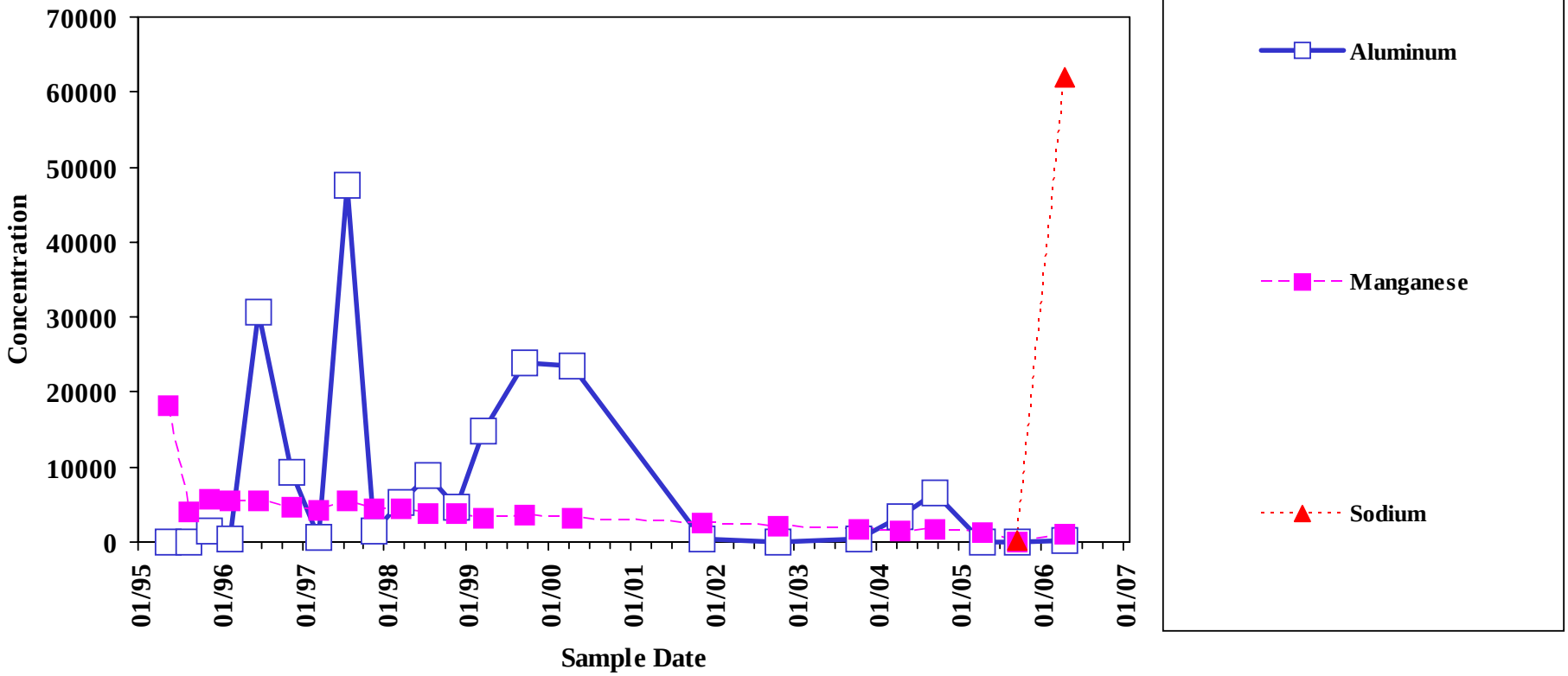
Sample Location:

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:	-

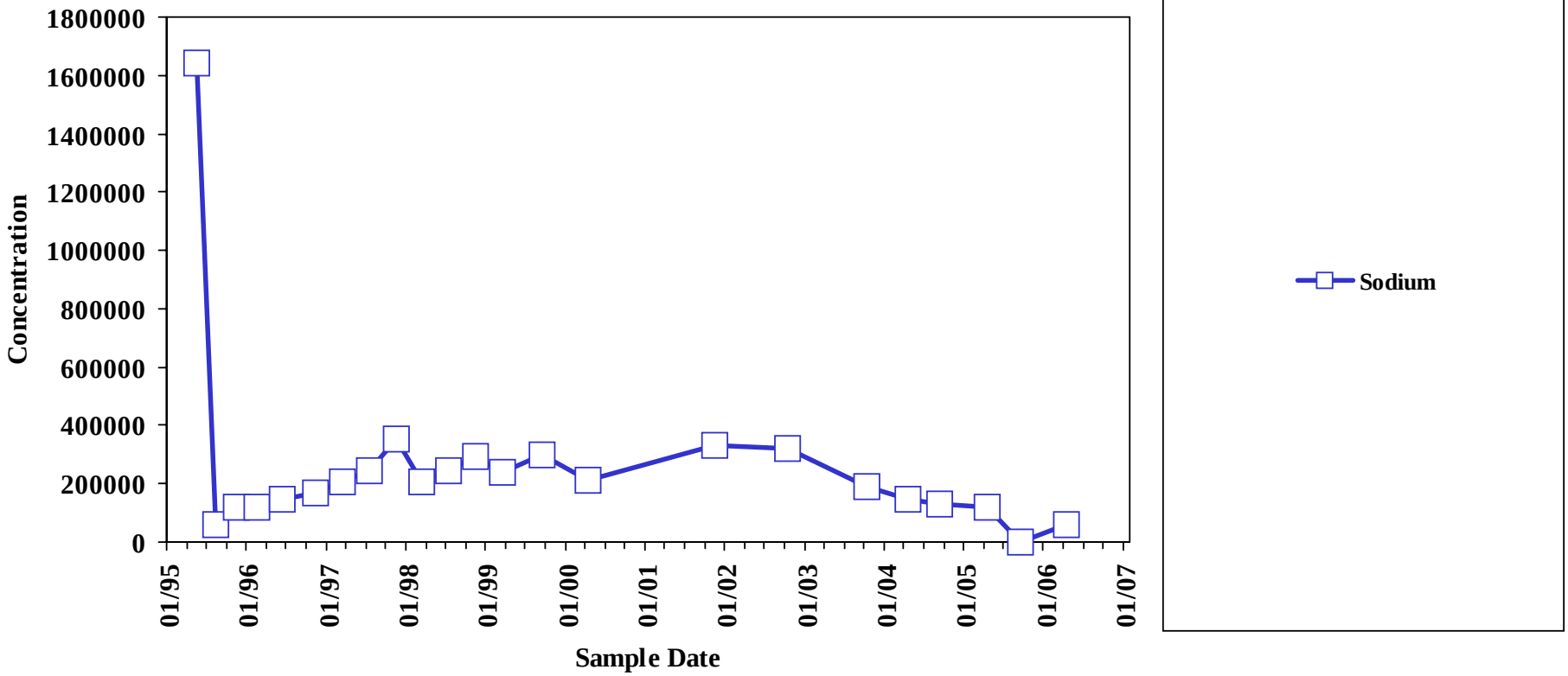
Sample Location:

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

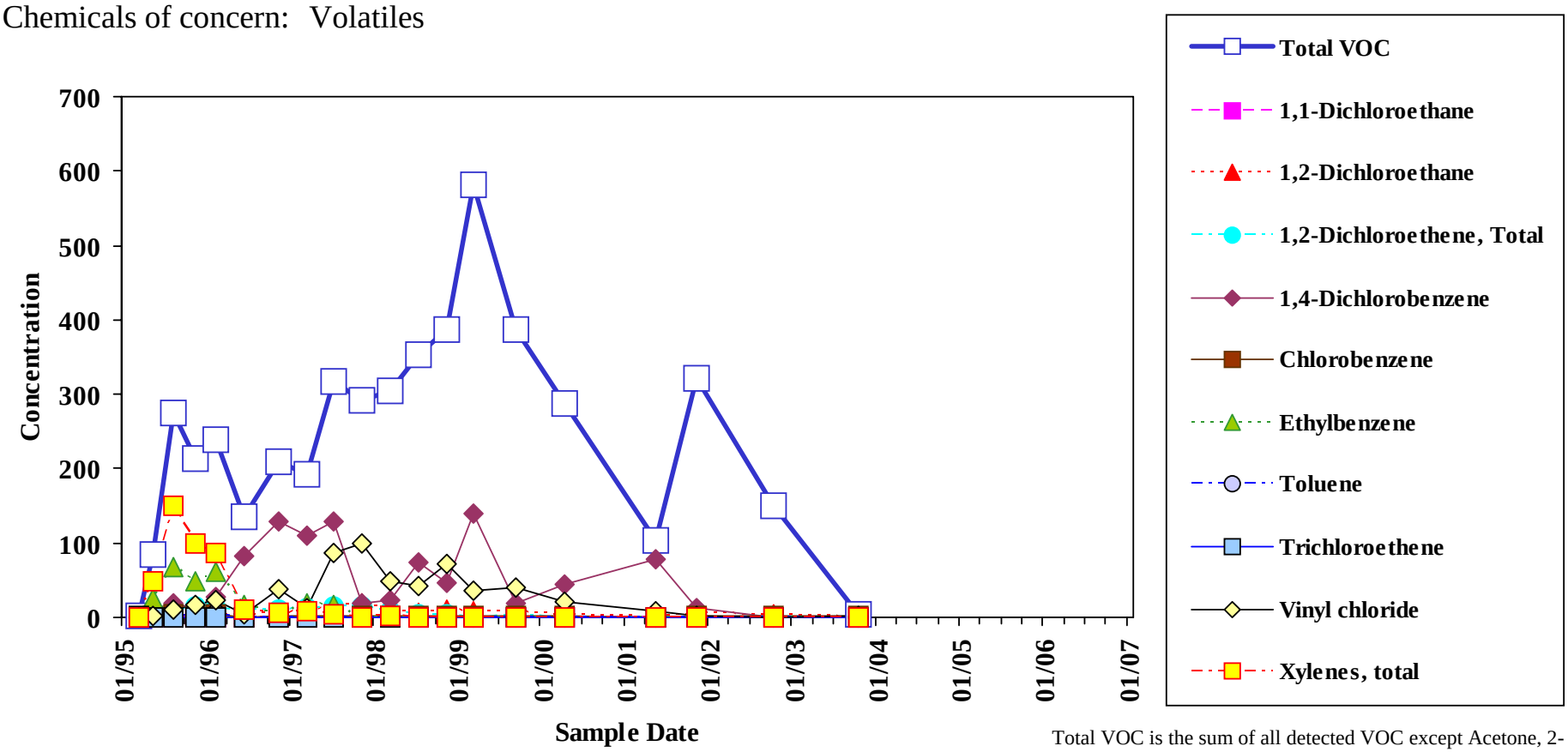
Sample Location:

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

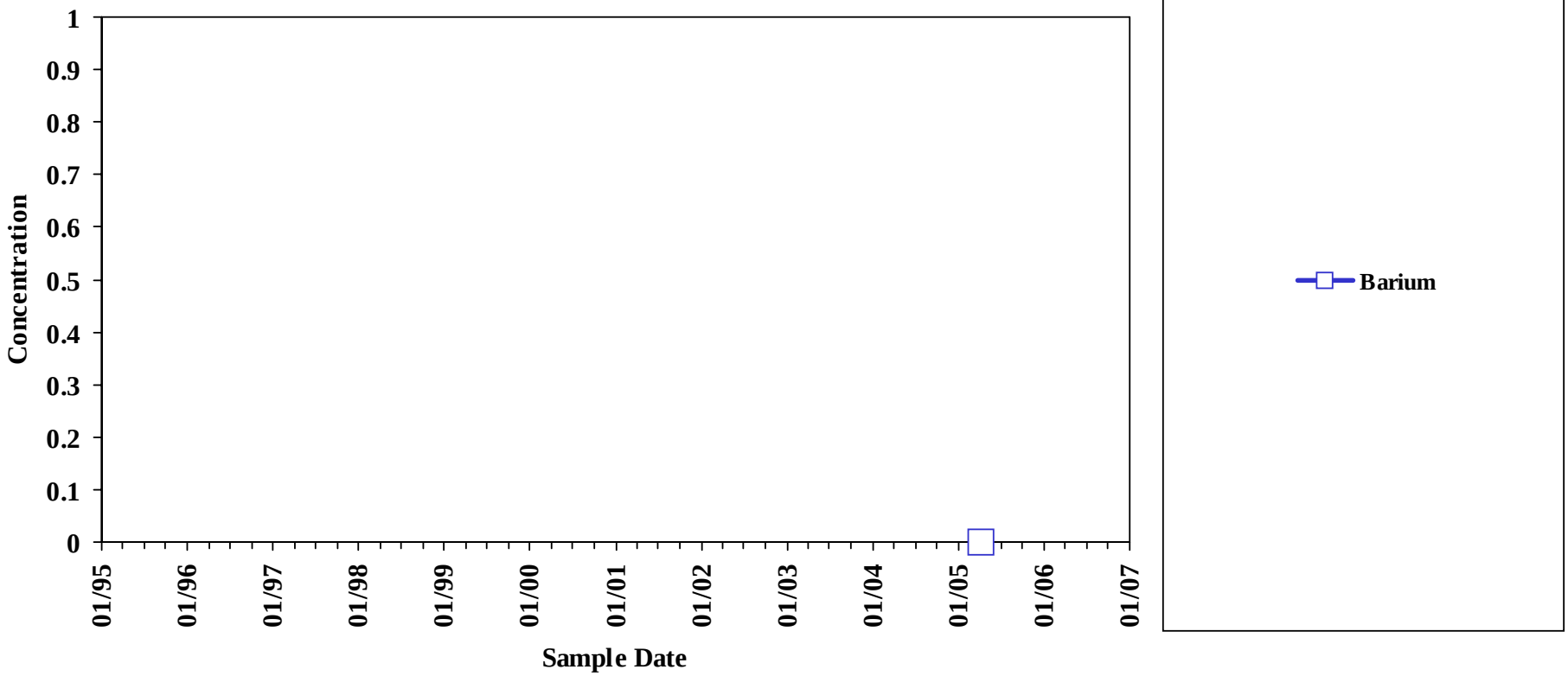
Sample Location:

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

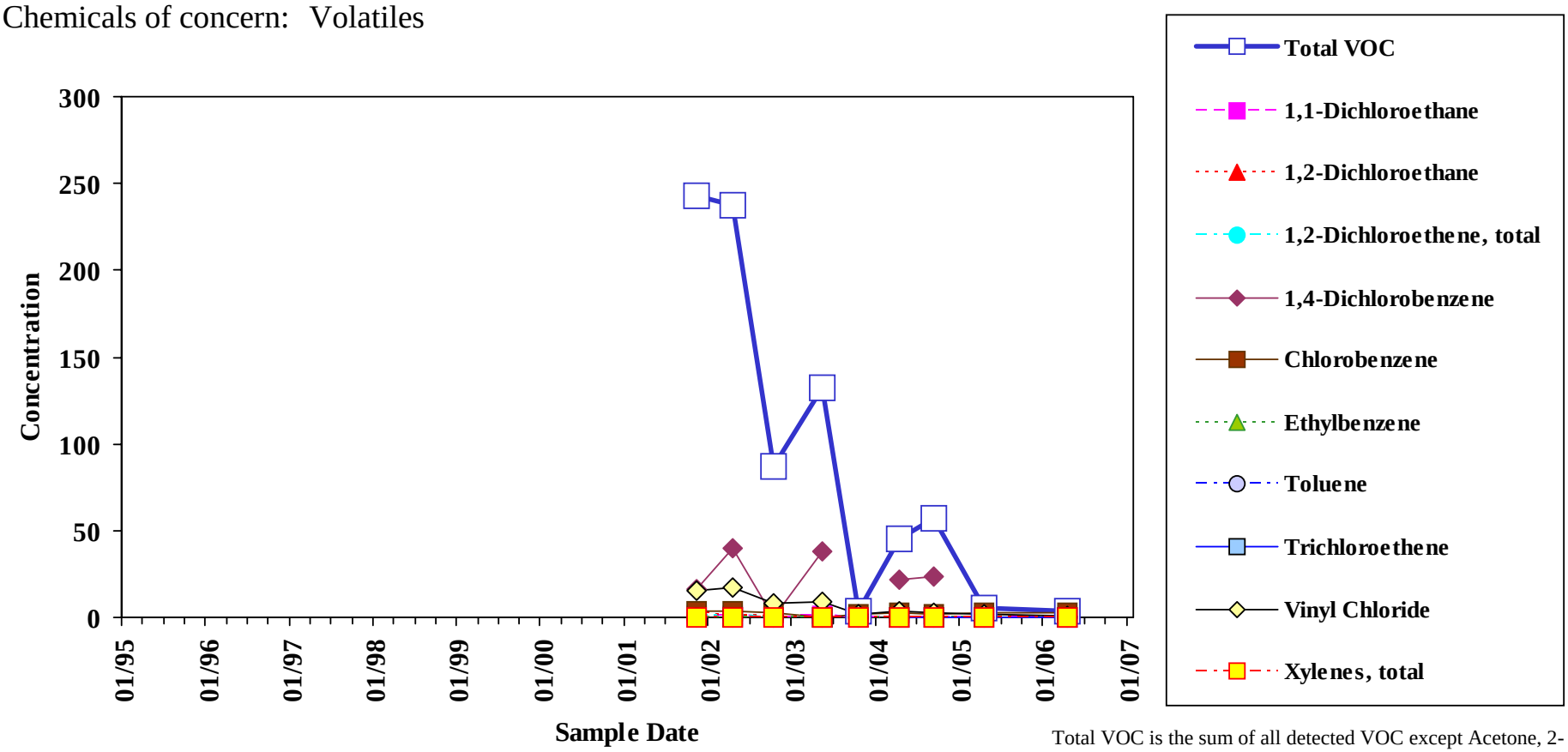
Sample Location:

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

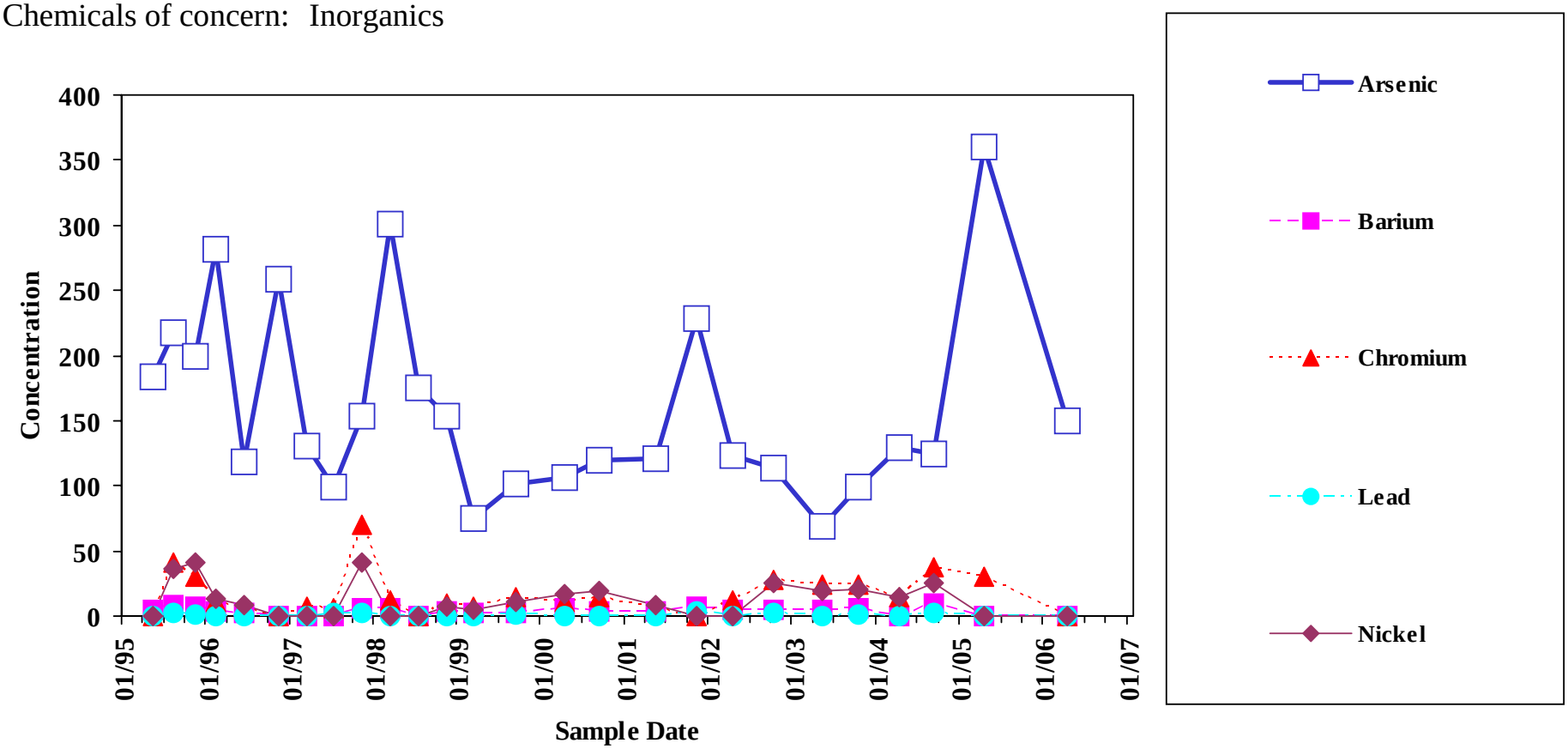
Sample Location:

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

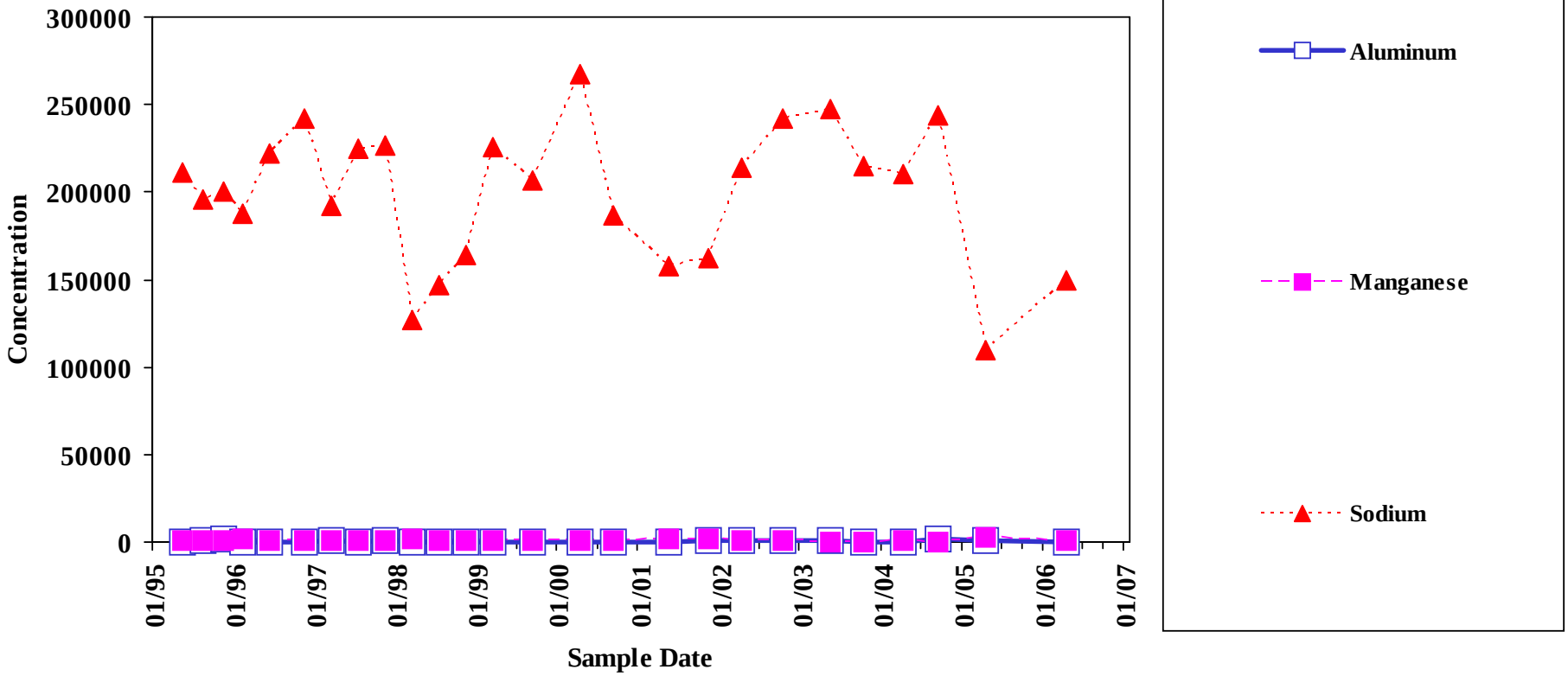
Sample Location:

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:	-

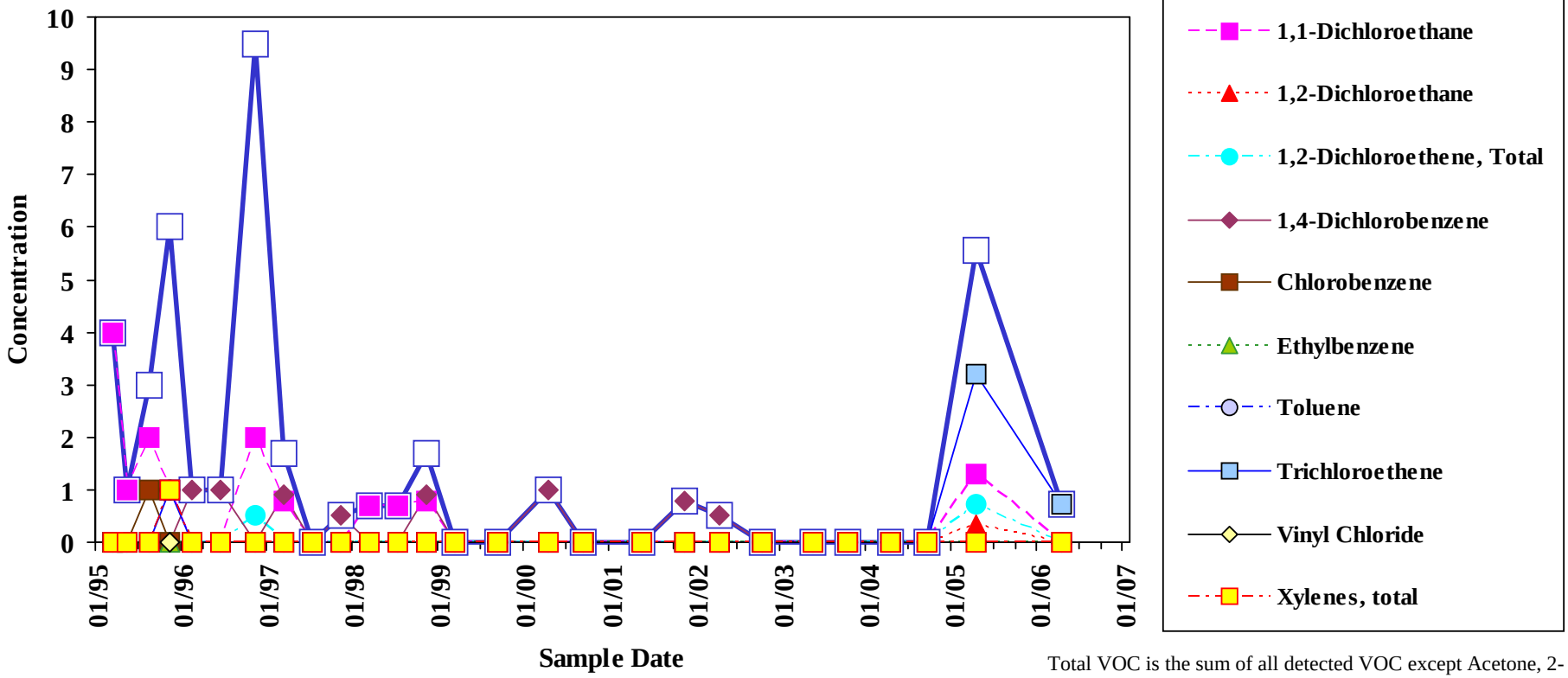
Sample Location:

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

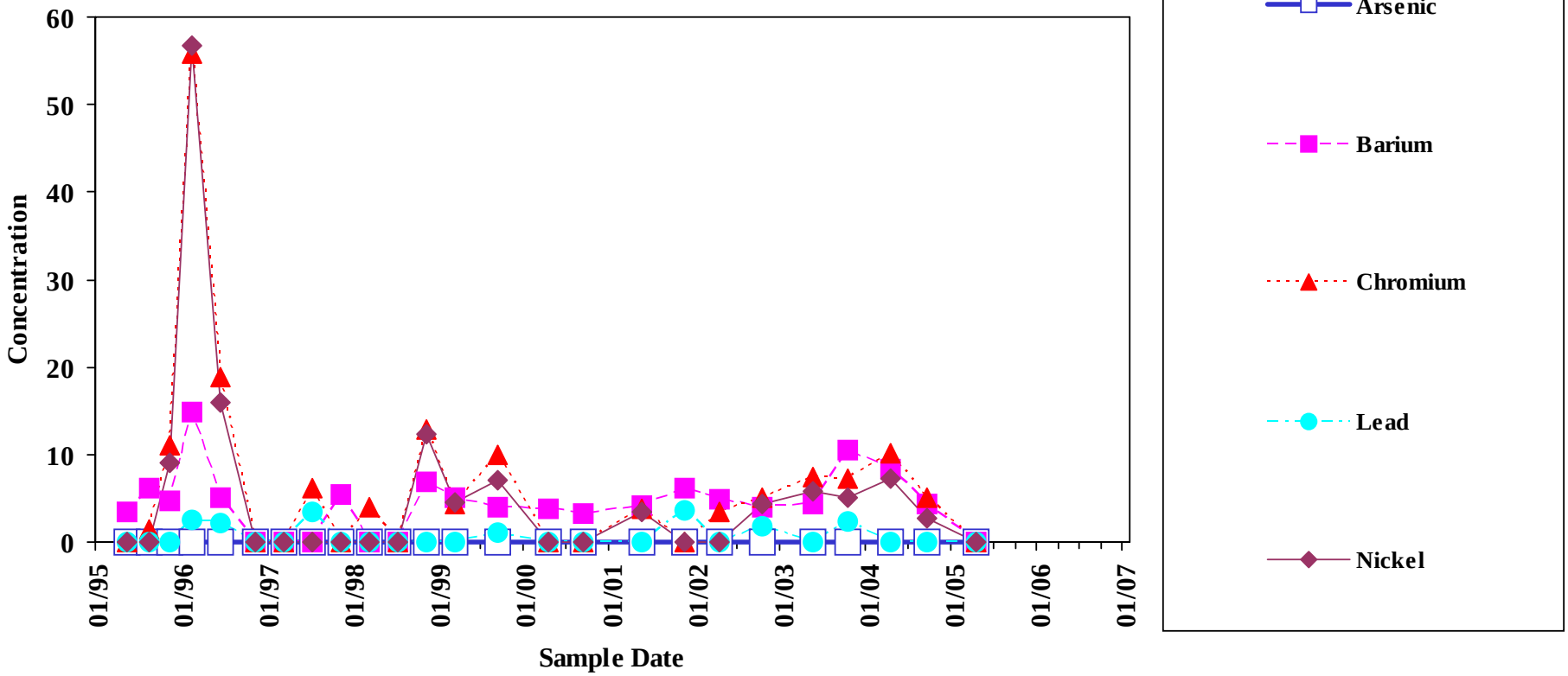
Sample Location:

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

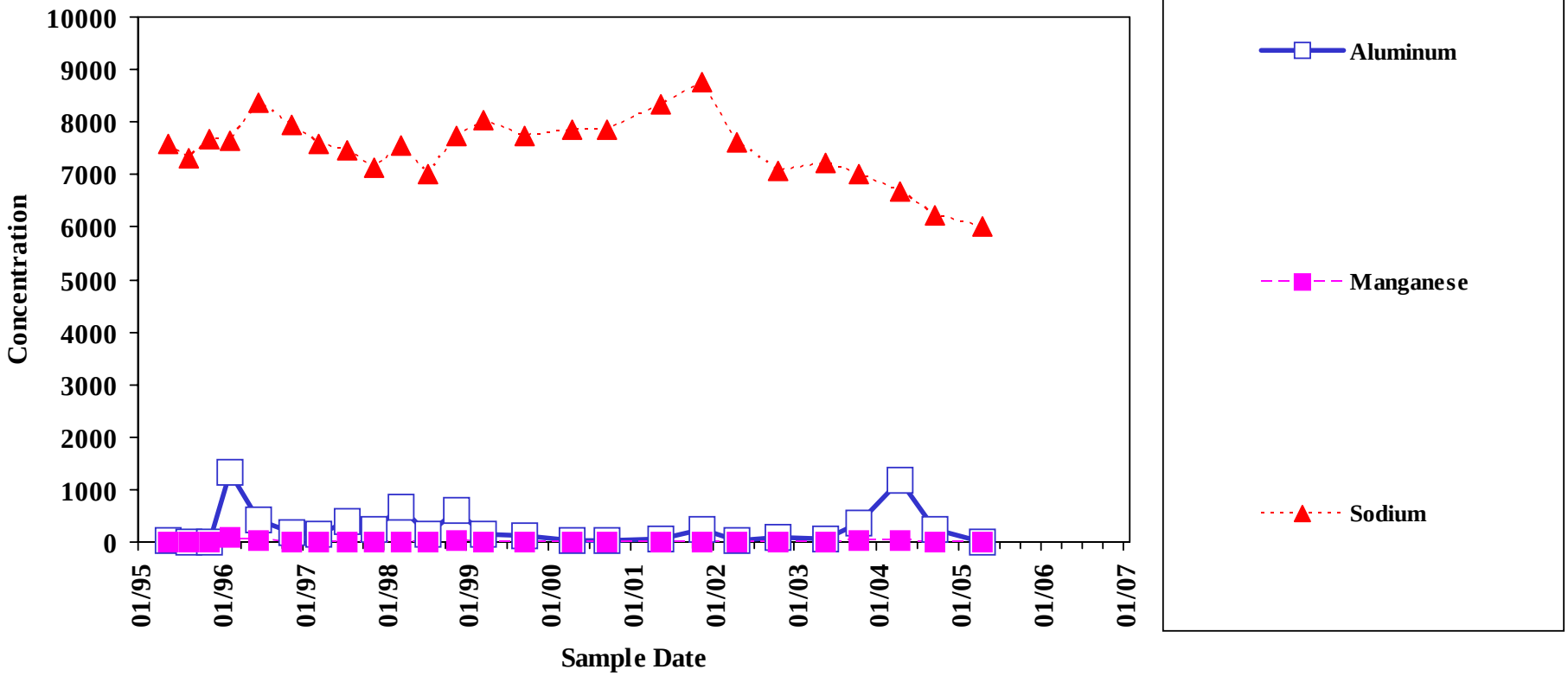
Sample Location:

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:	-

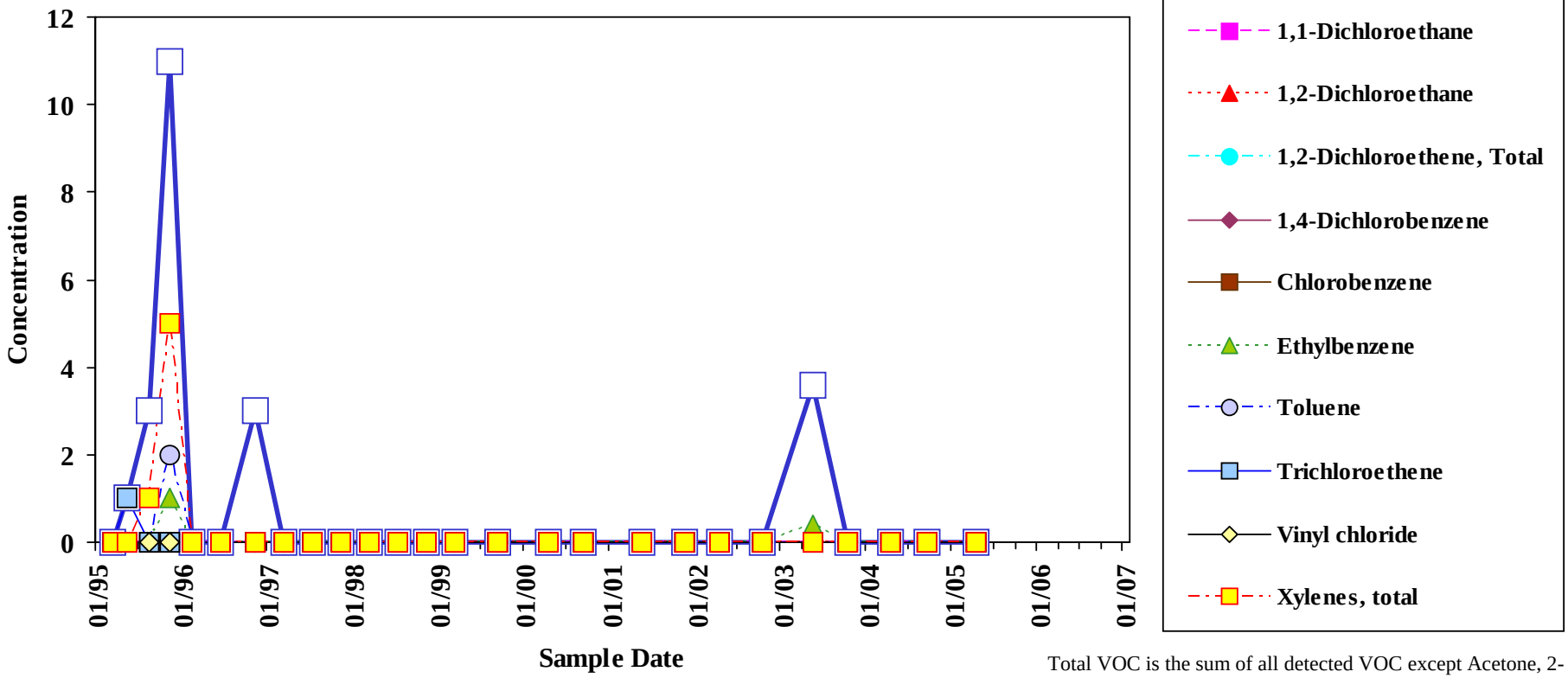
Sample Location:

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

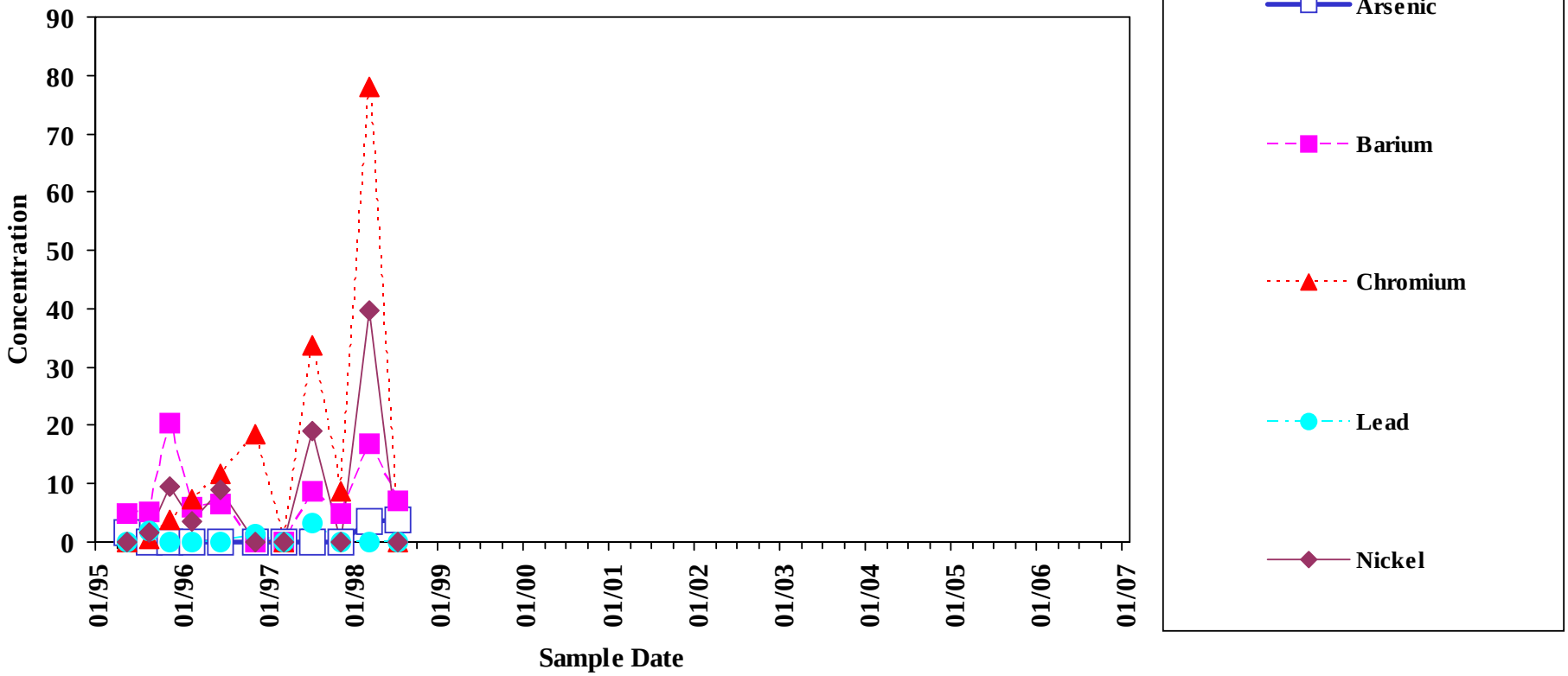
Sample Location:

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

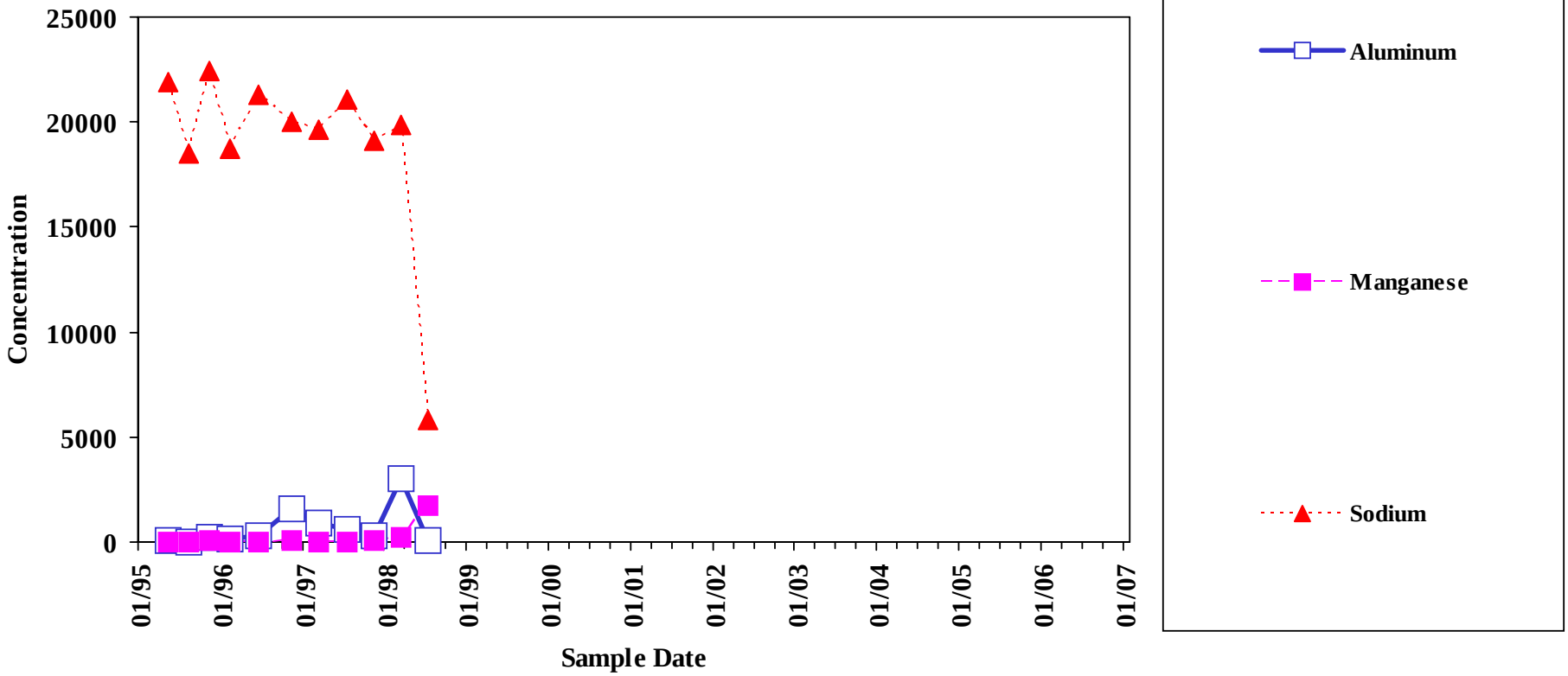
Sample Location:

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:	-

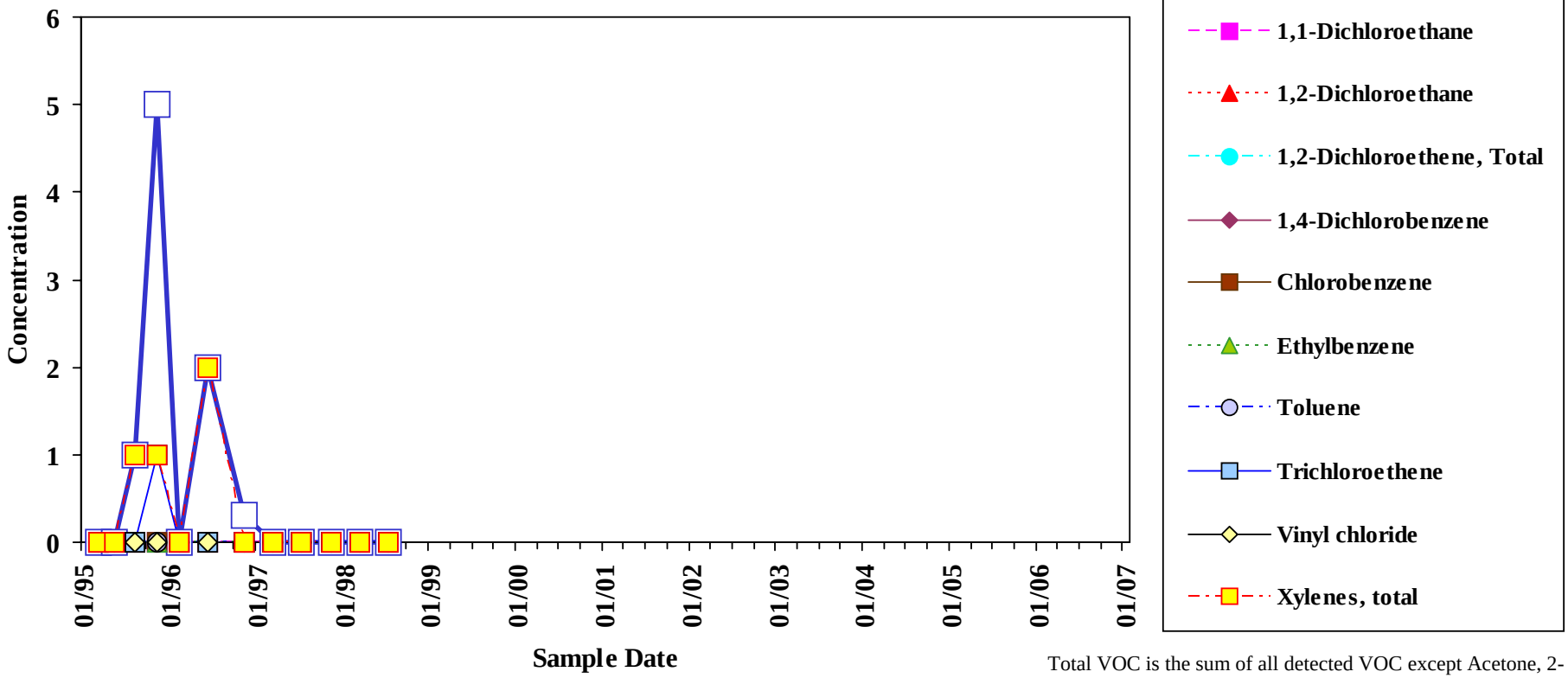
Sample Location:

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

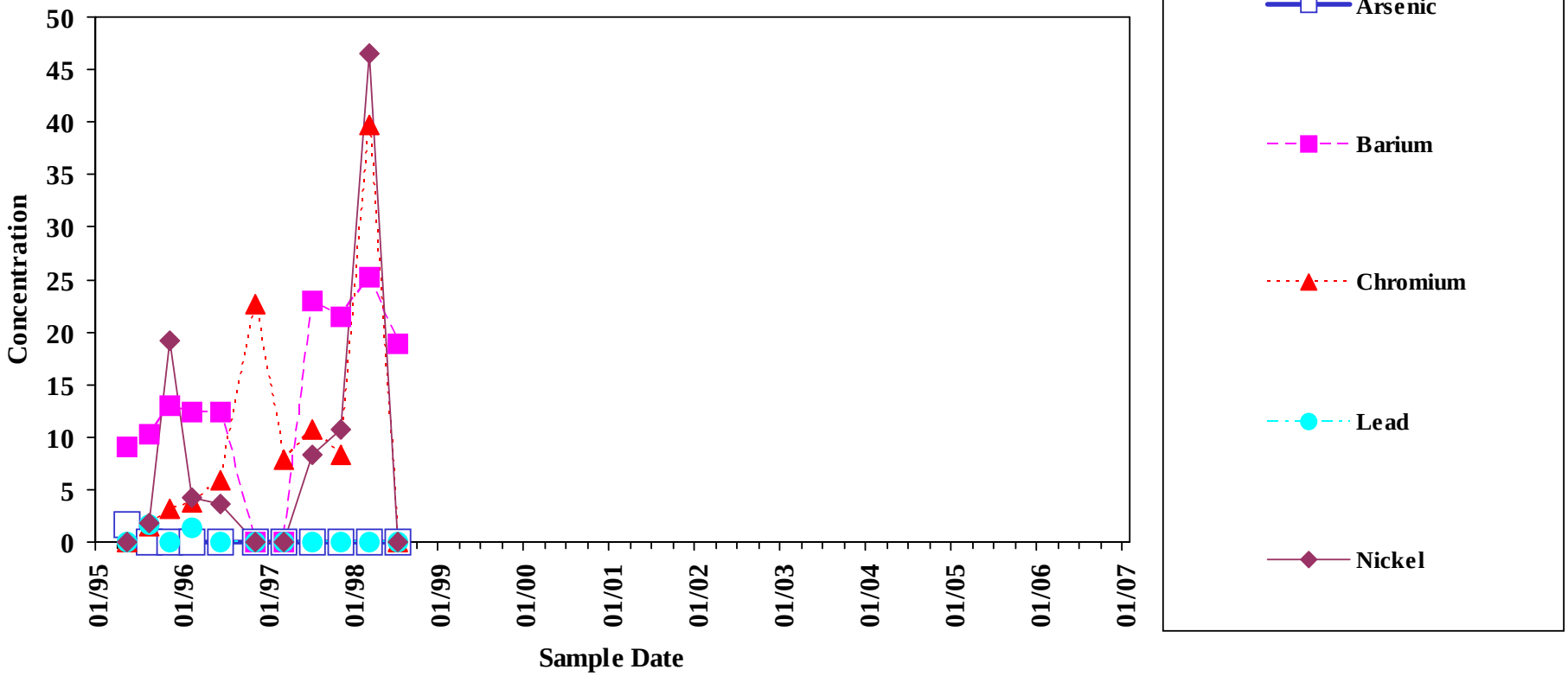
Sample Location:

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

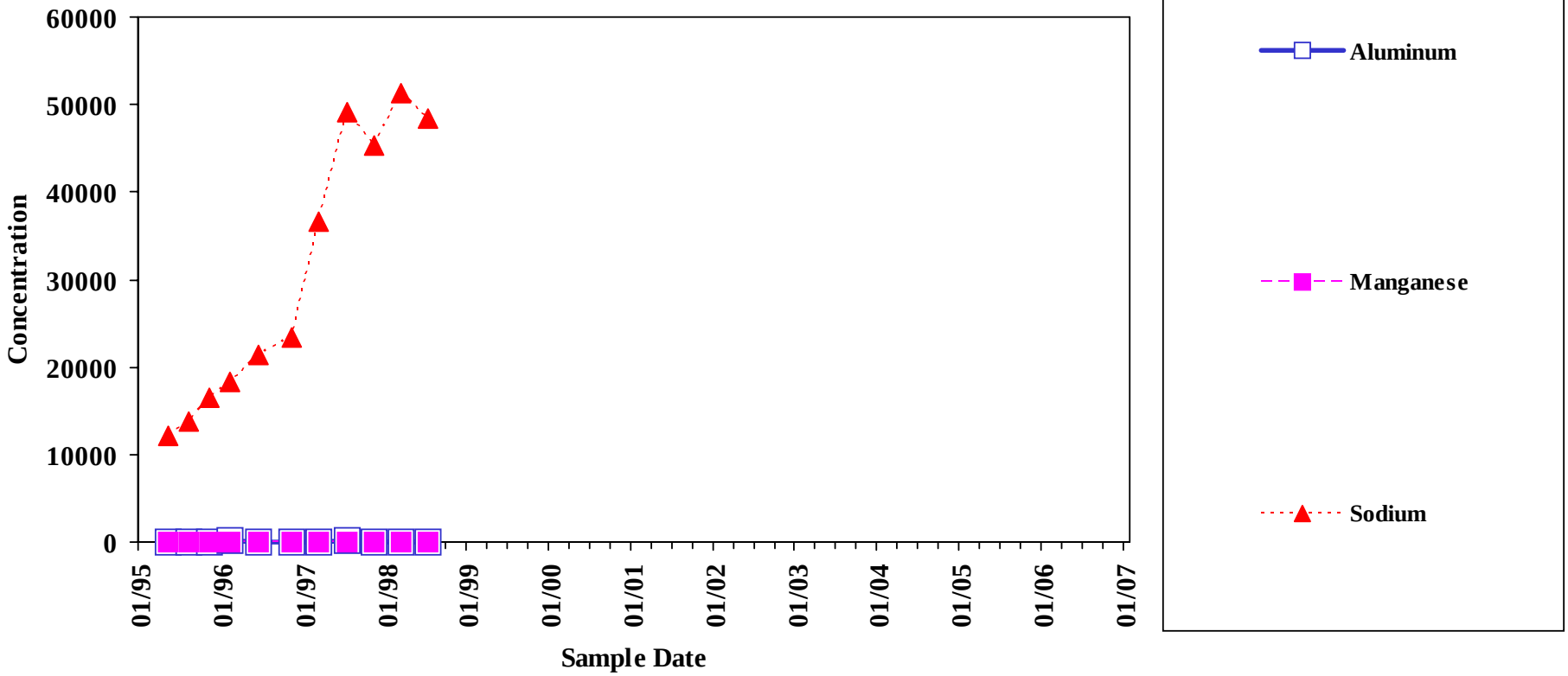
Sample Location:

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:	-

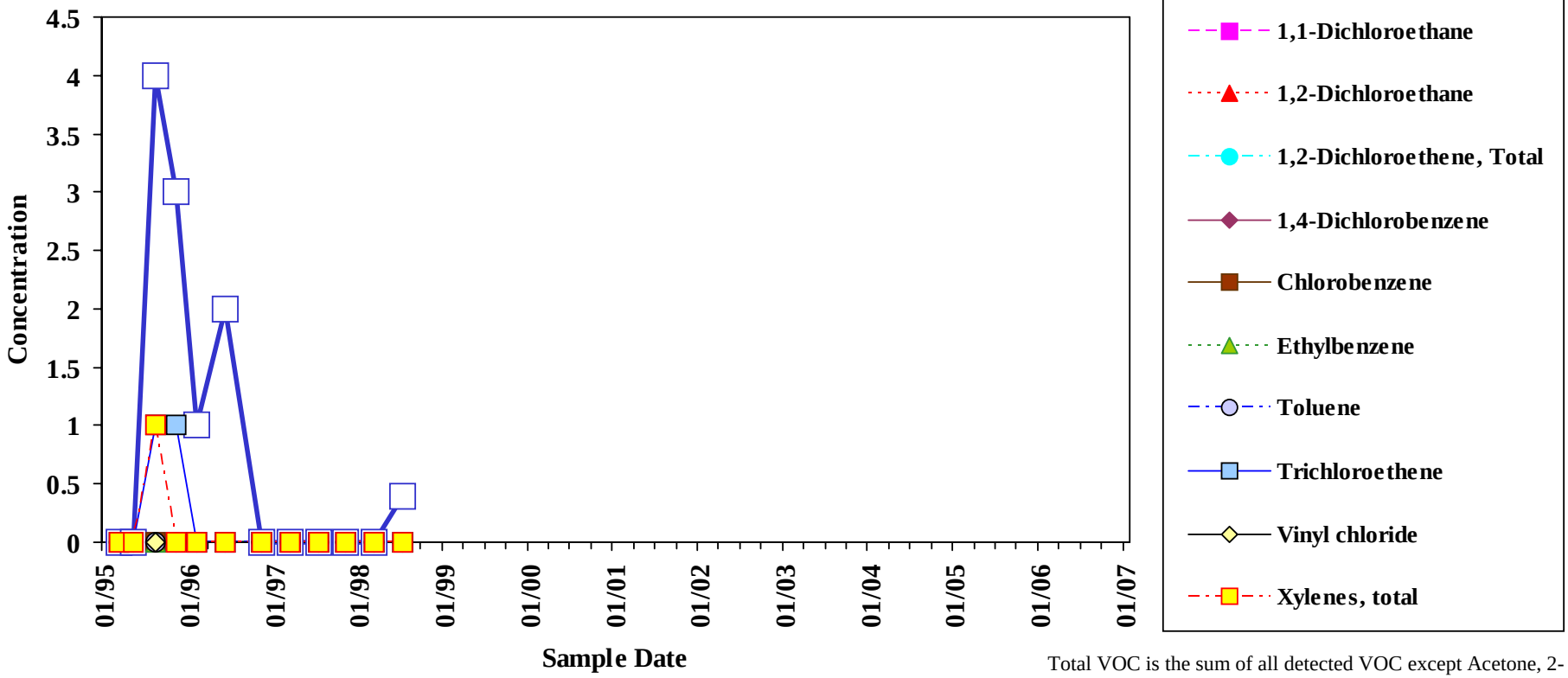
Sample Location:

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

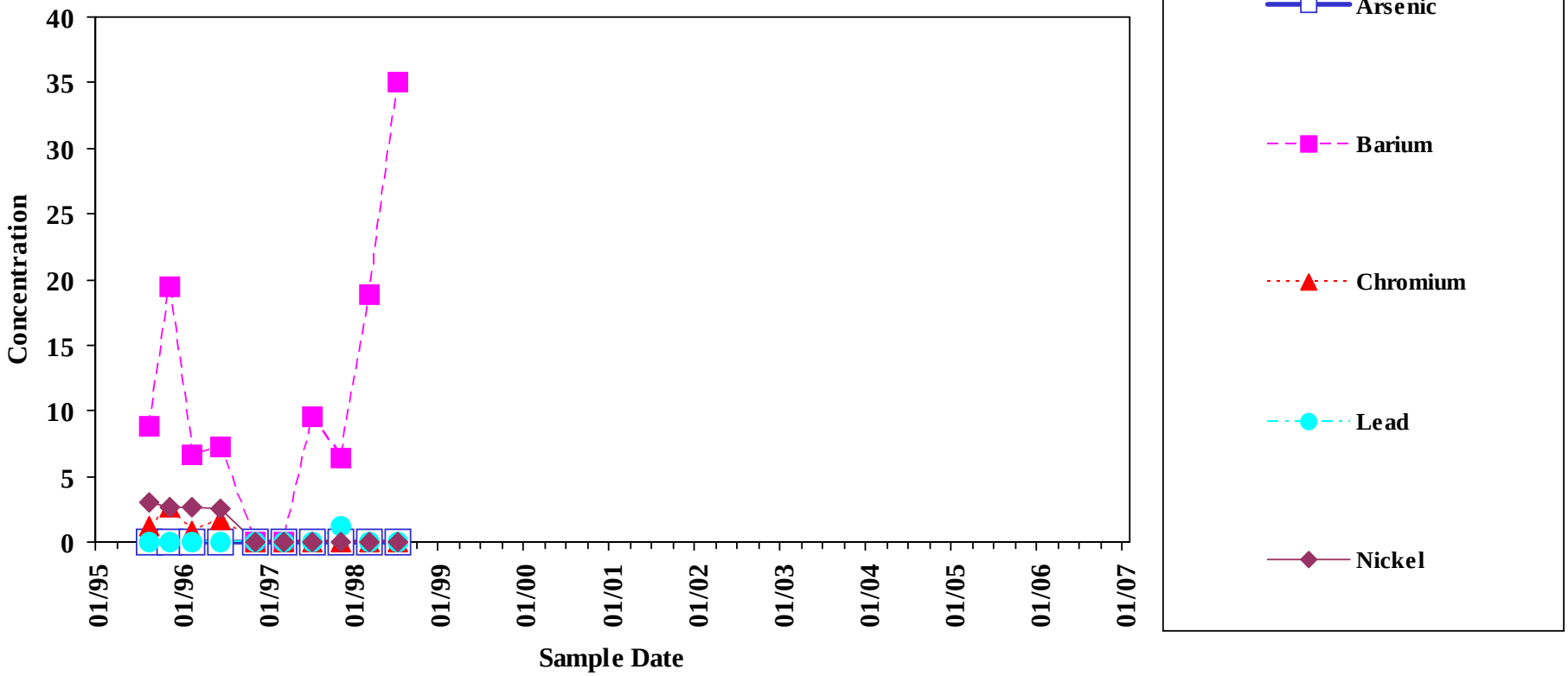
Sample Location:

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

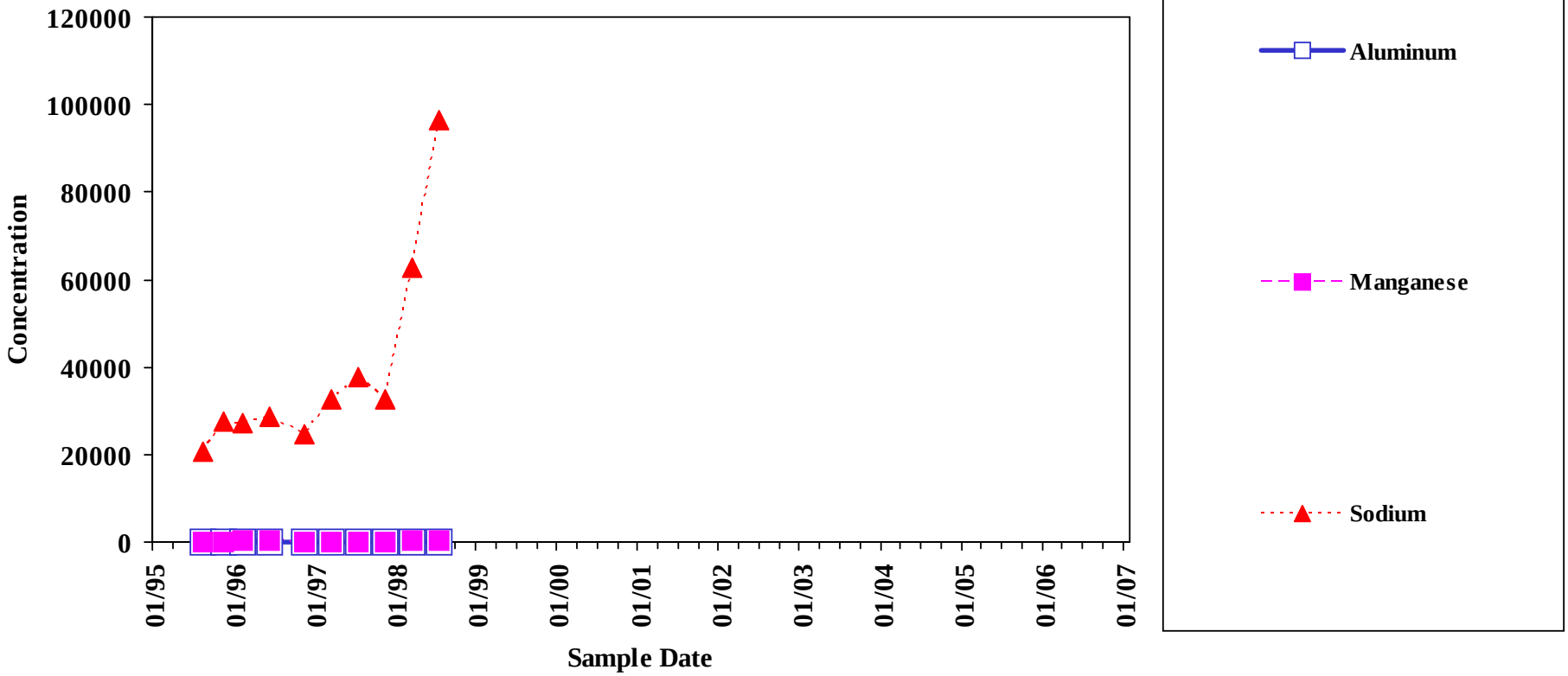
Sample Location:

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:	-

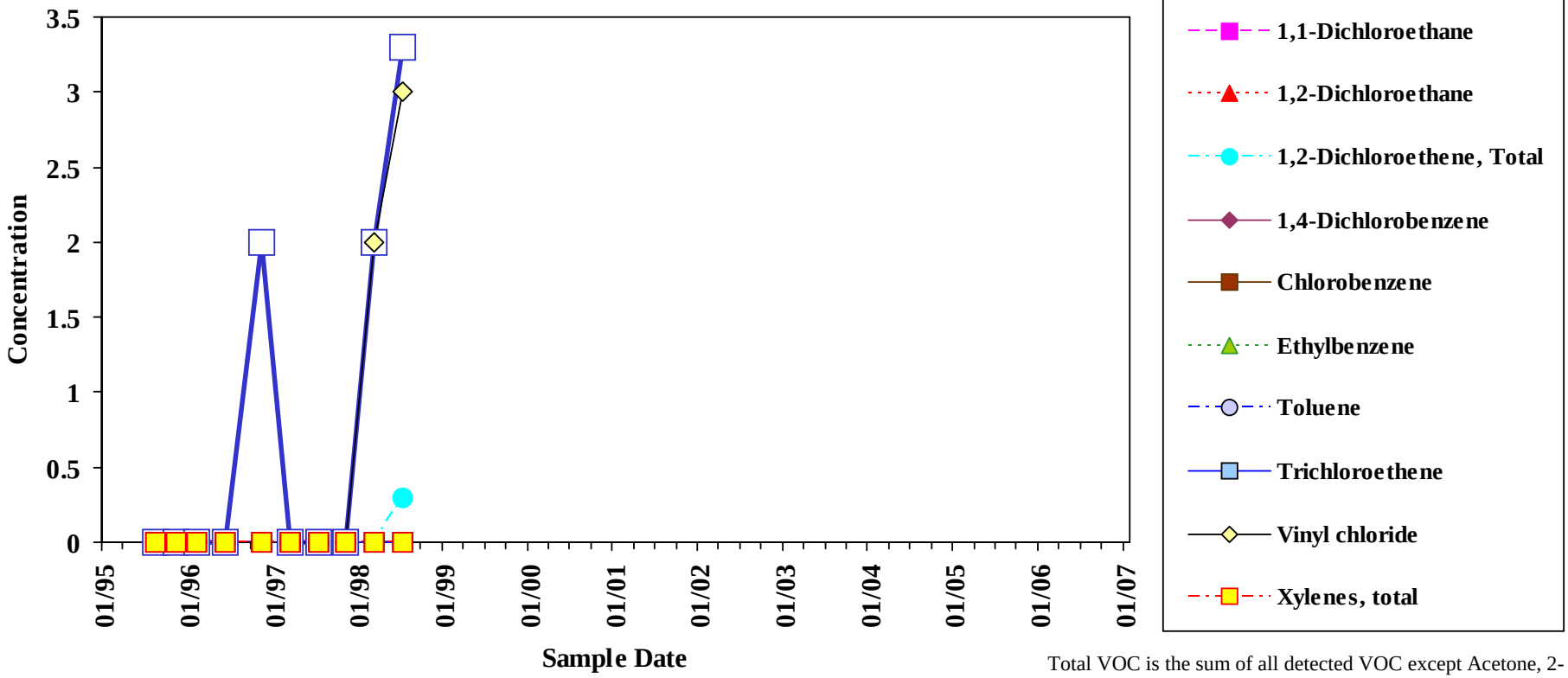
Sample Location:

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

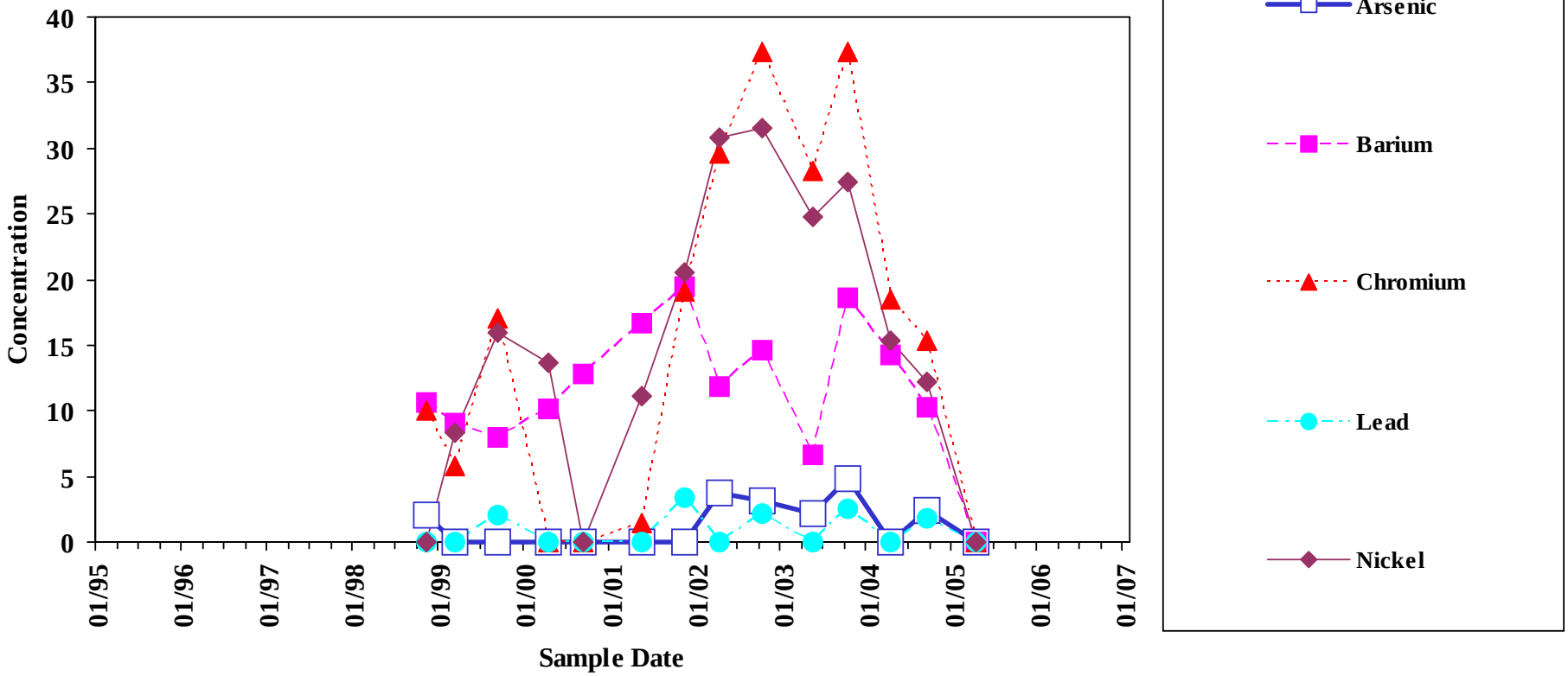
Sample Location:

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

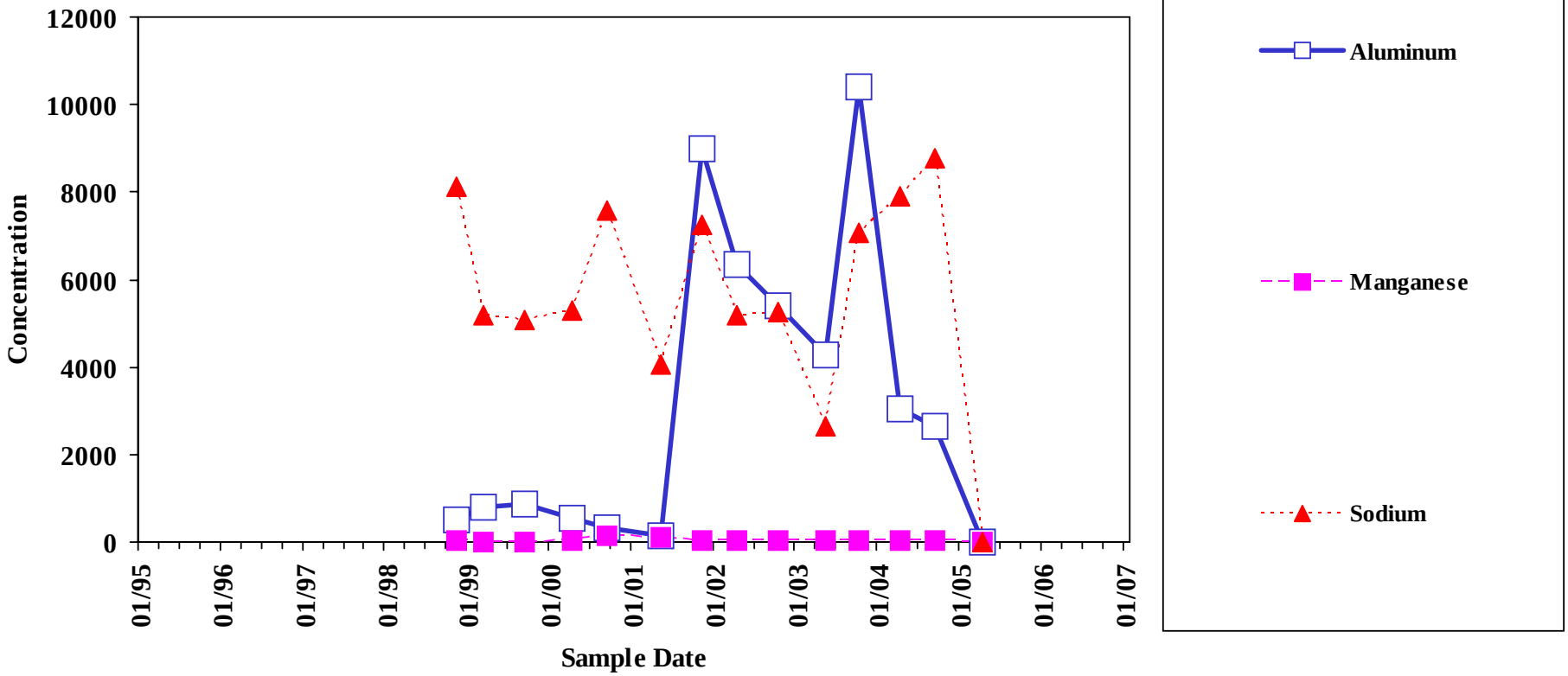
Sample Location:

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:	-

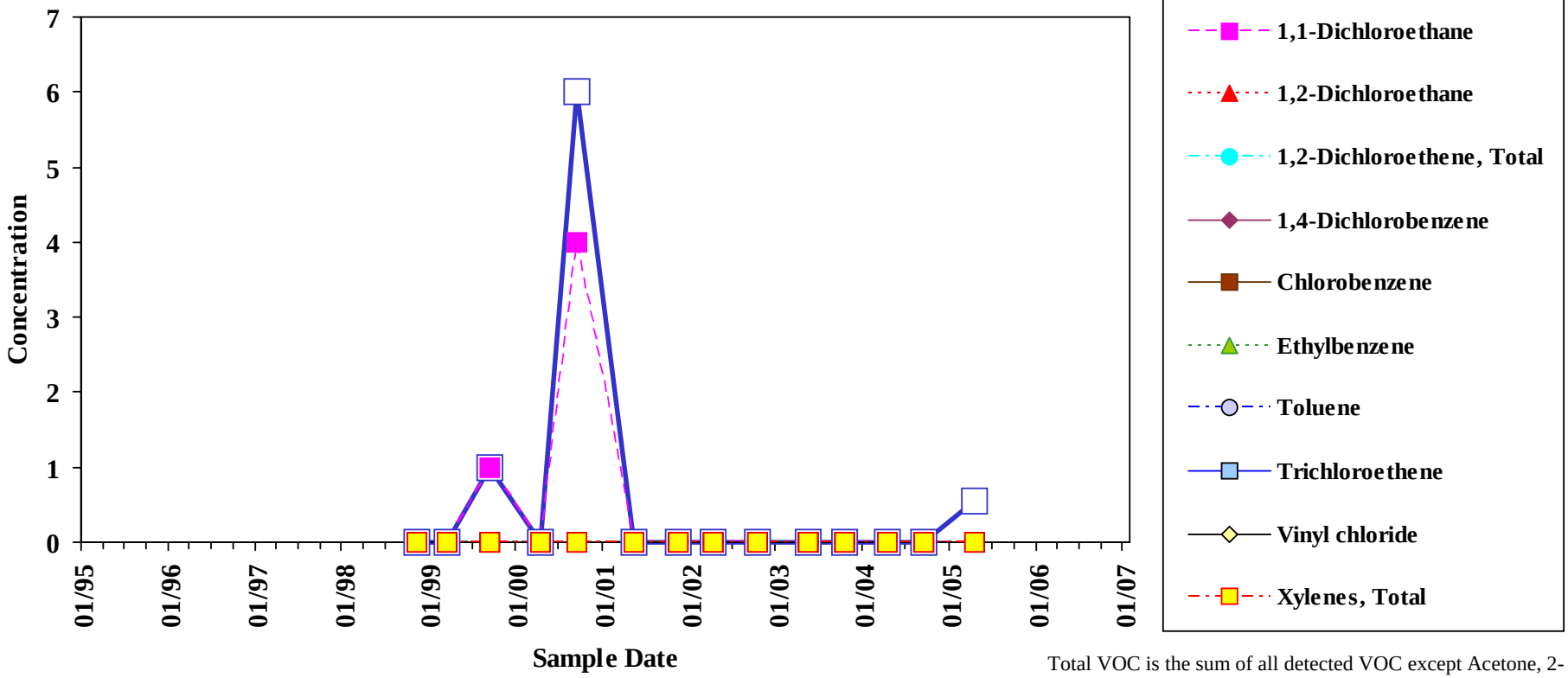
Sample Location:

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

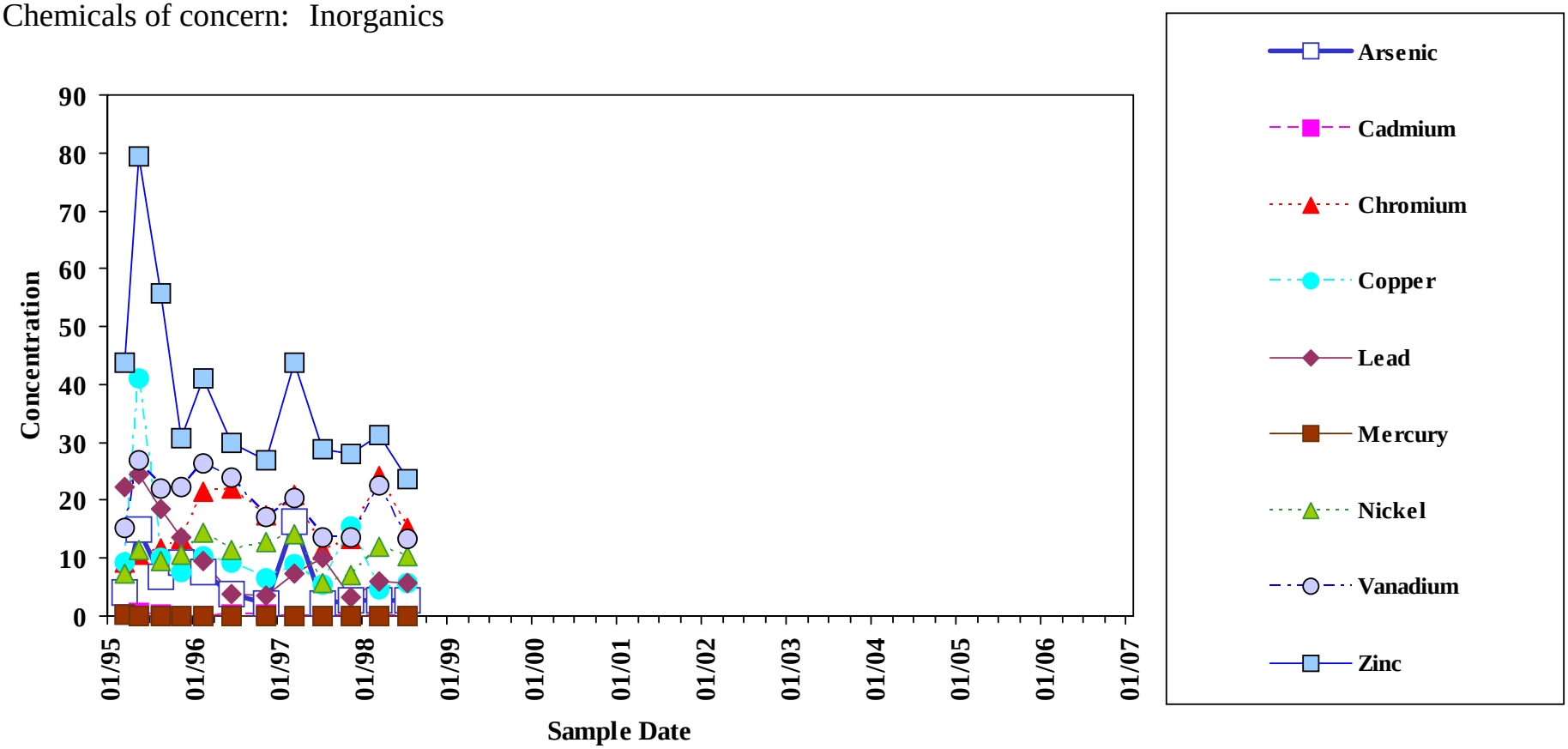
Xylenes, total	
MEG:	600
MCL:	10000

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.

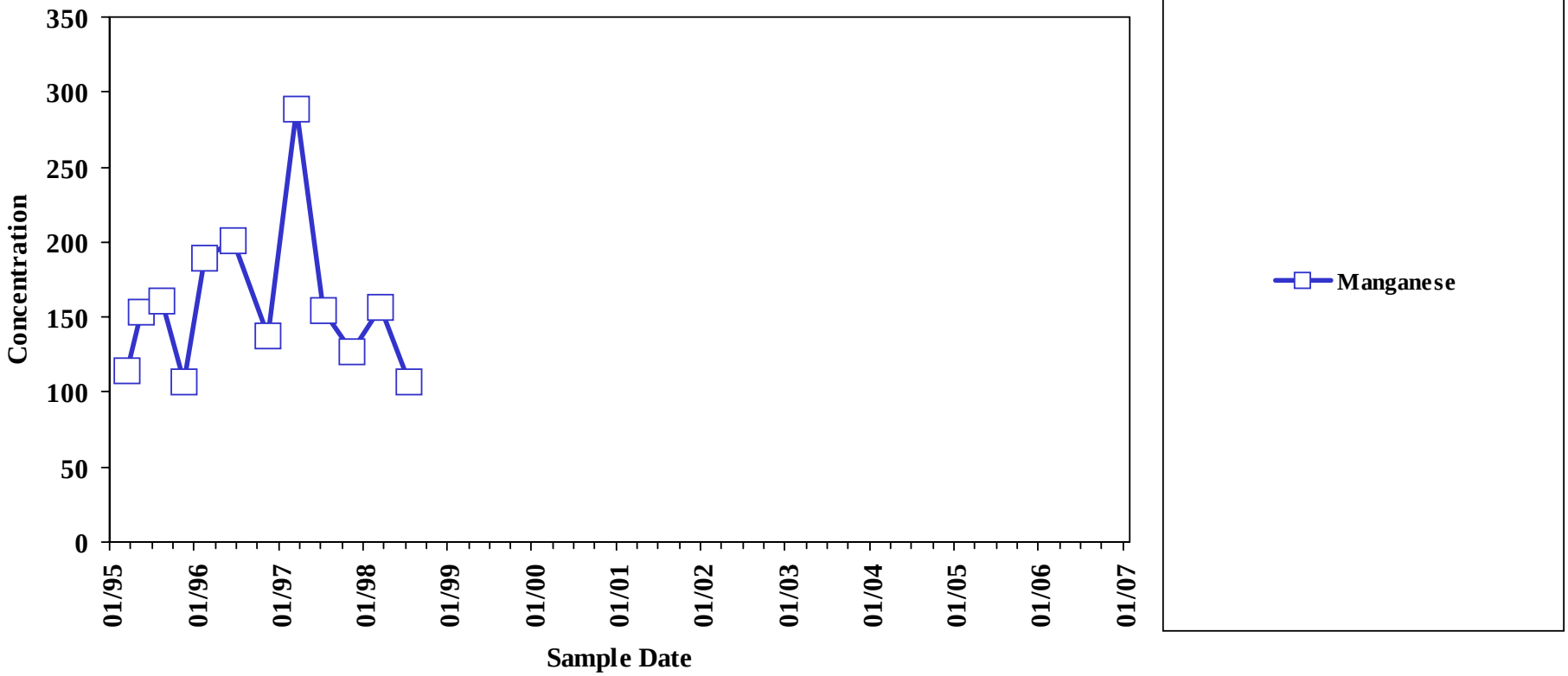
Sample concentration units: mg/Kg

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.

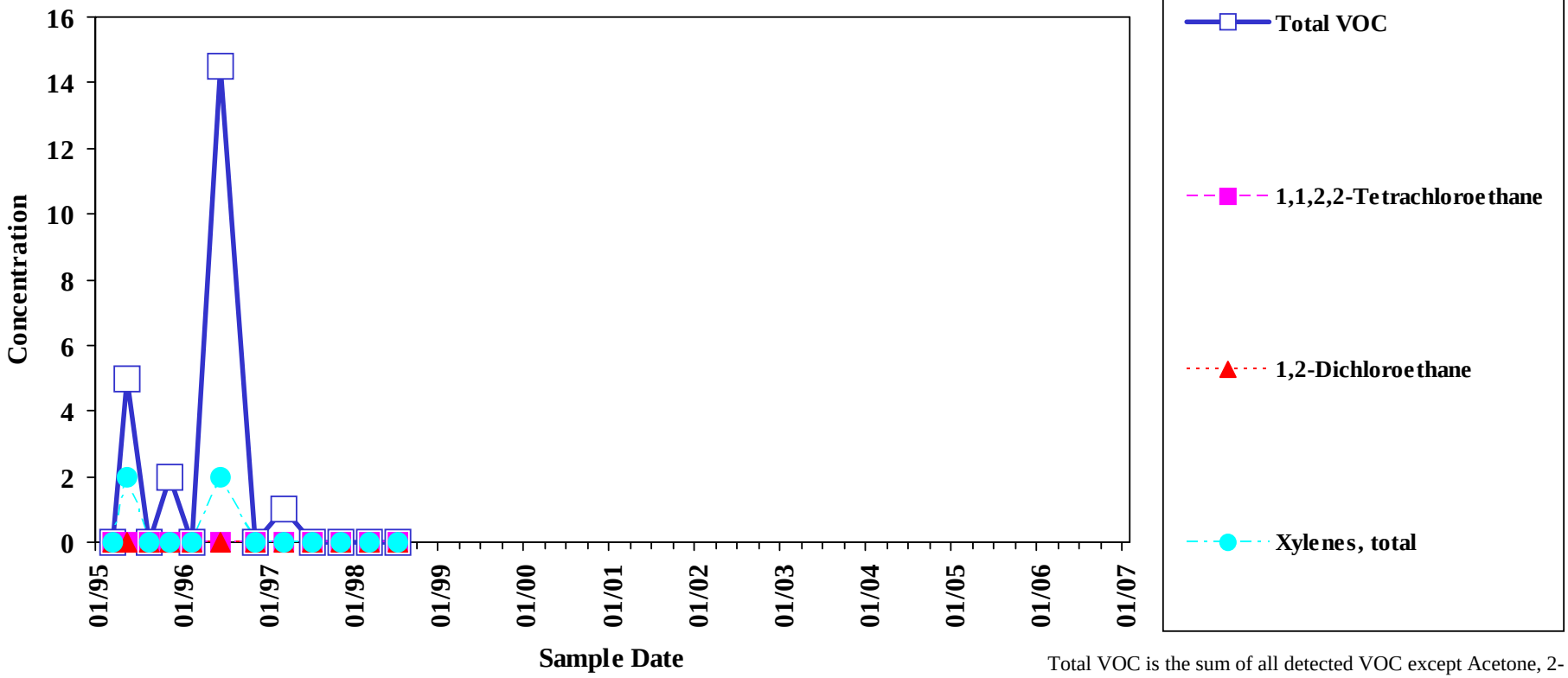
Sample concentration units: mg/Kg

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.

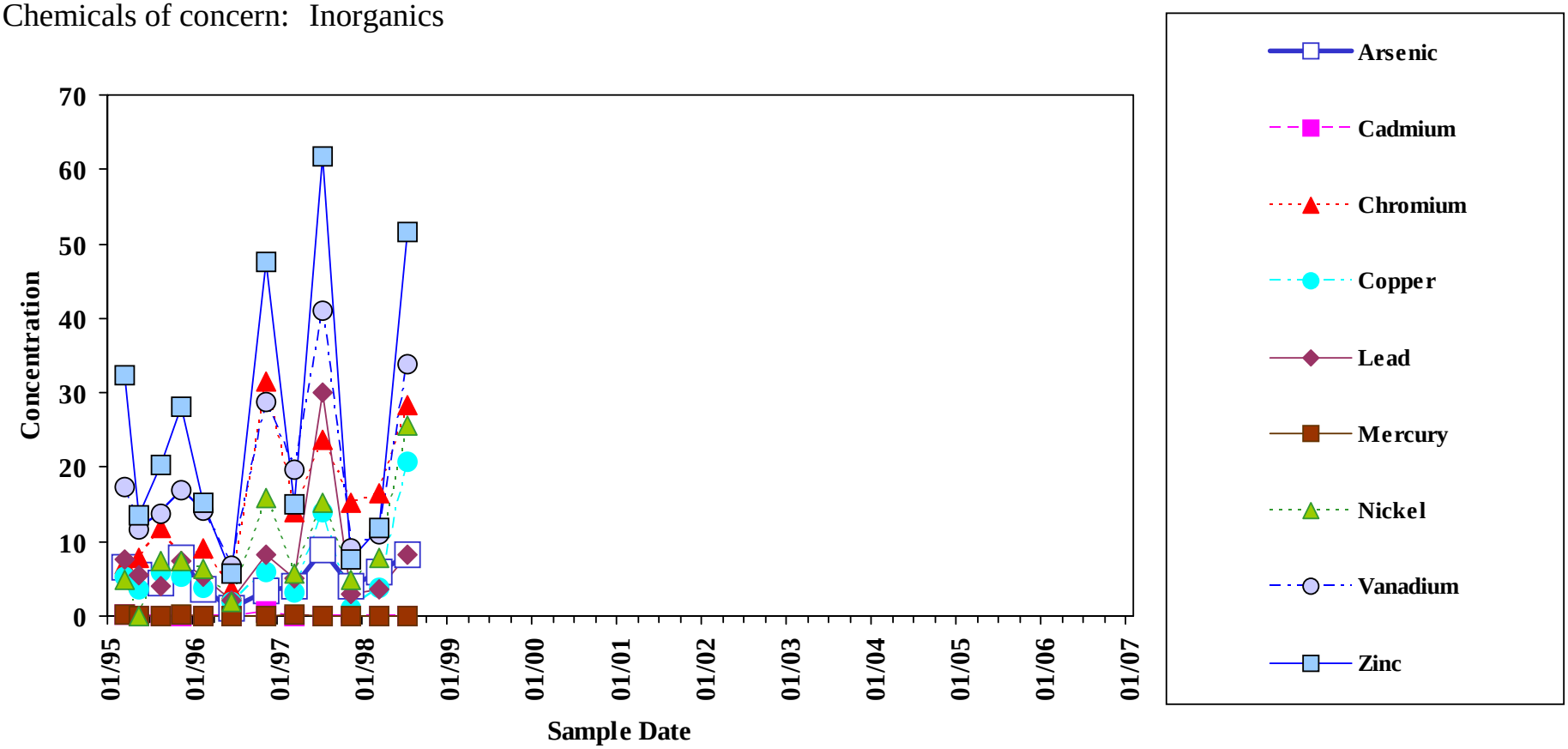
Sample concentration units: µg/Kg

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.

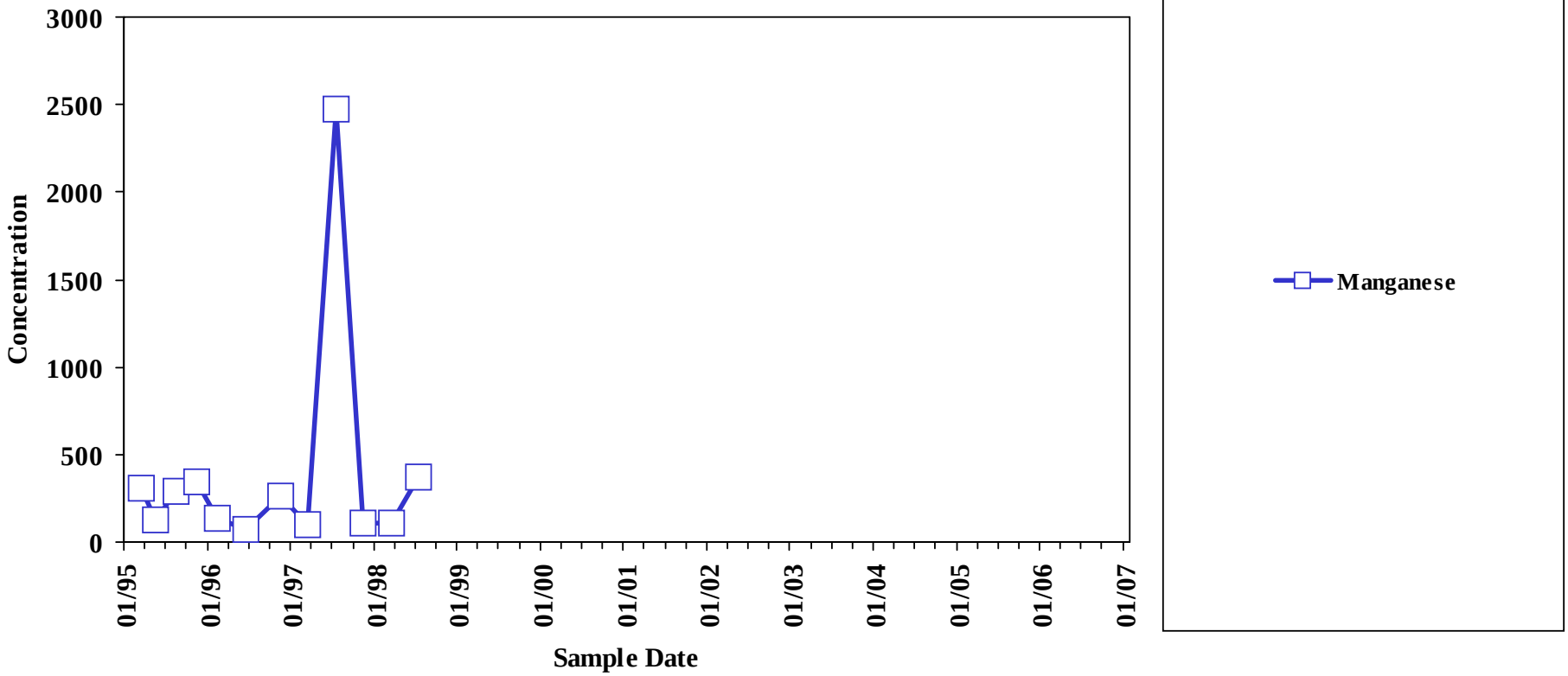
Sample concentration units: mg/Kg

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.

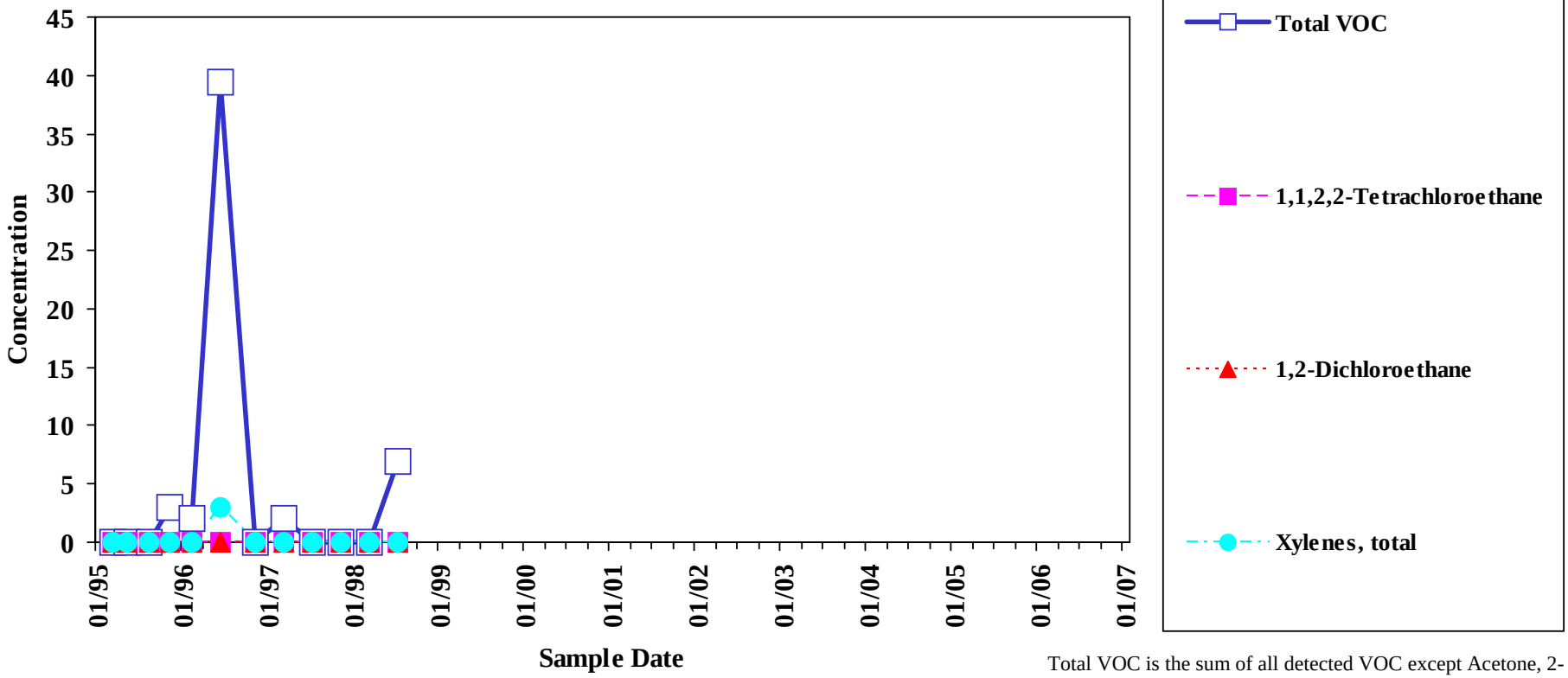
Sample concentration units: mg/Kg

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.

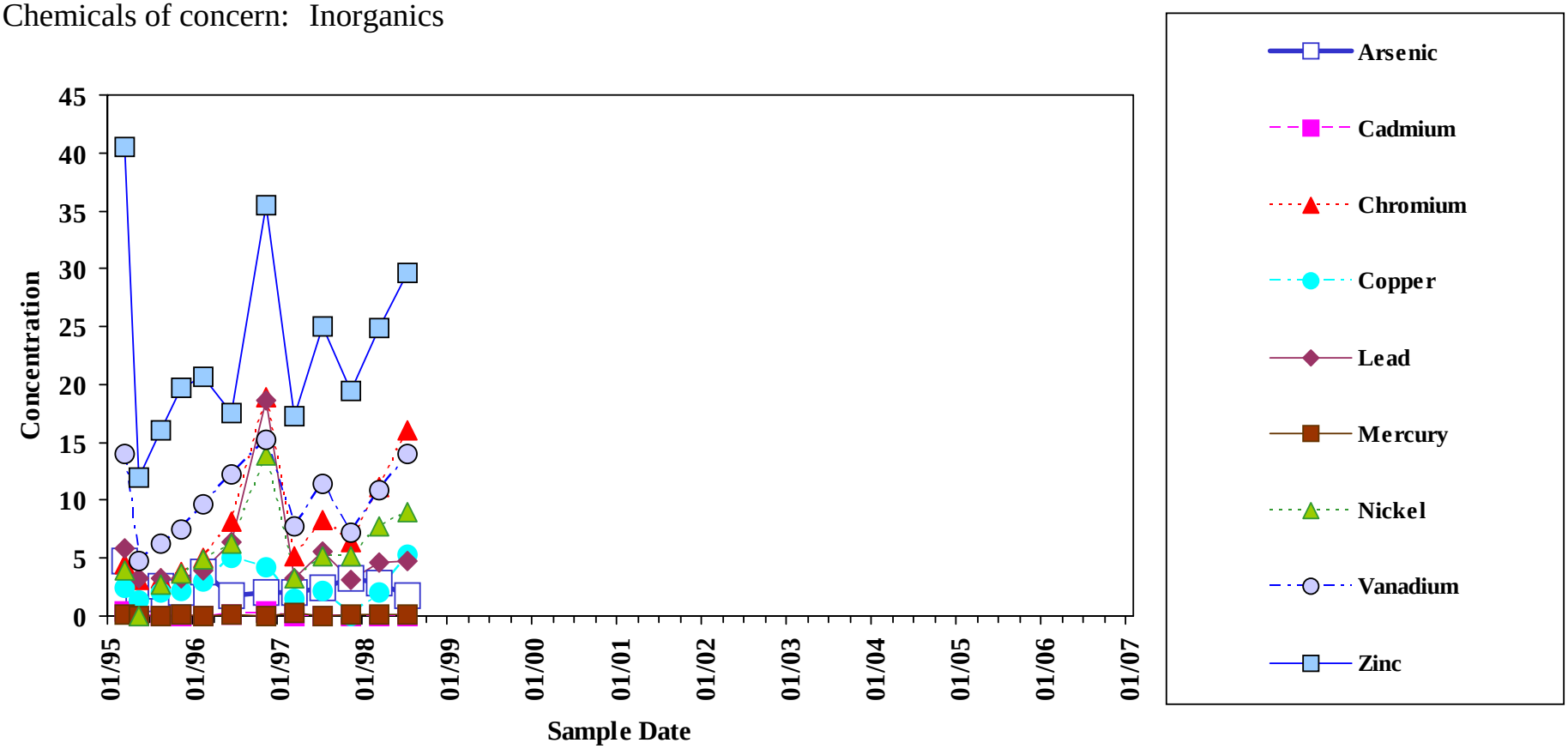
Sample concentration units: µg/Kg

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.

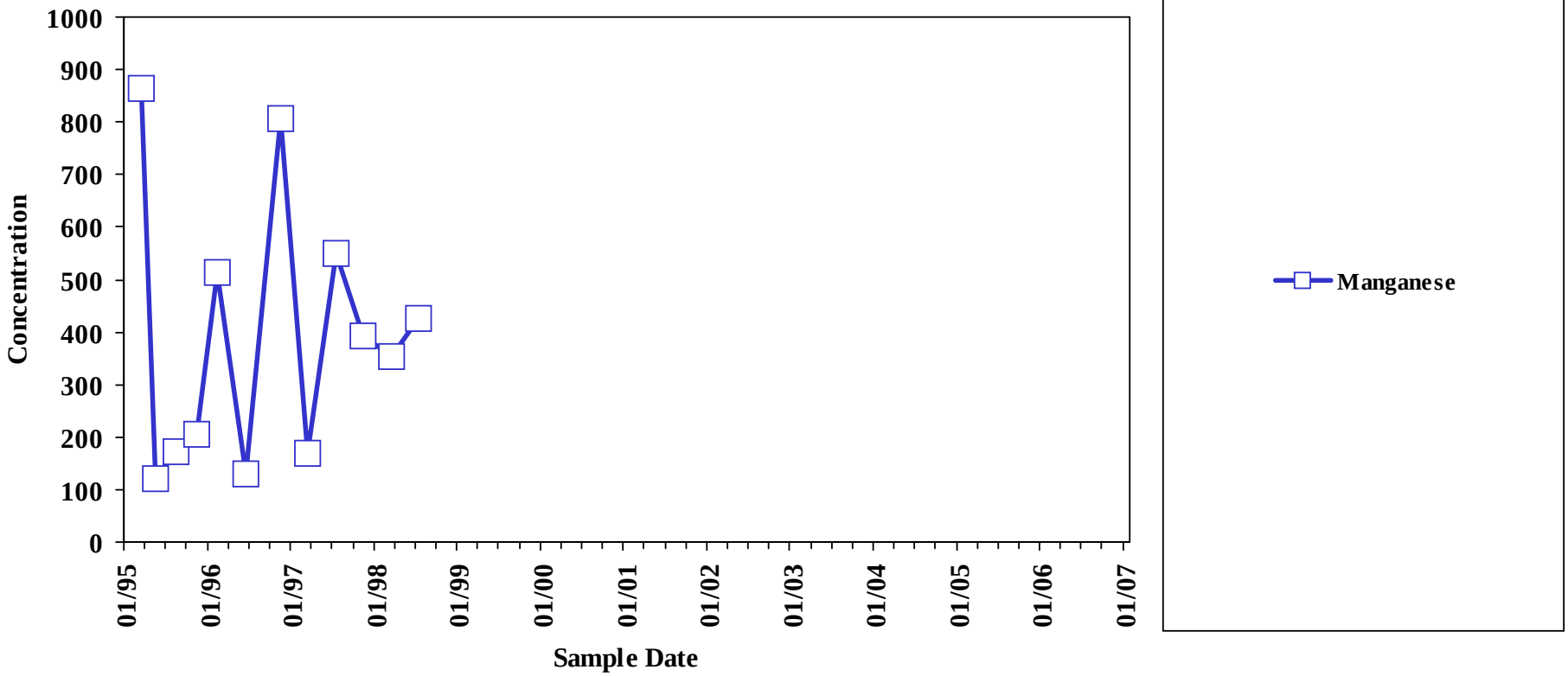
Sample concentration units: mg/Kg

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.

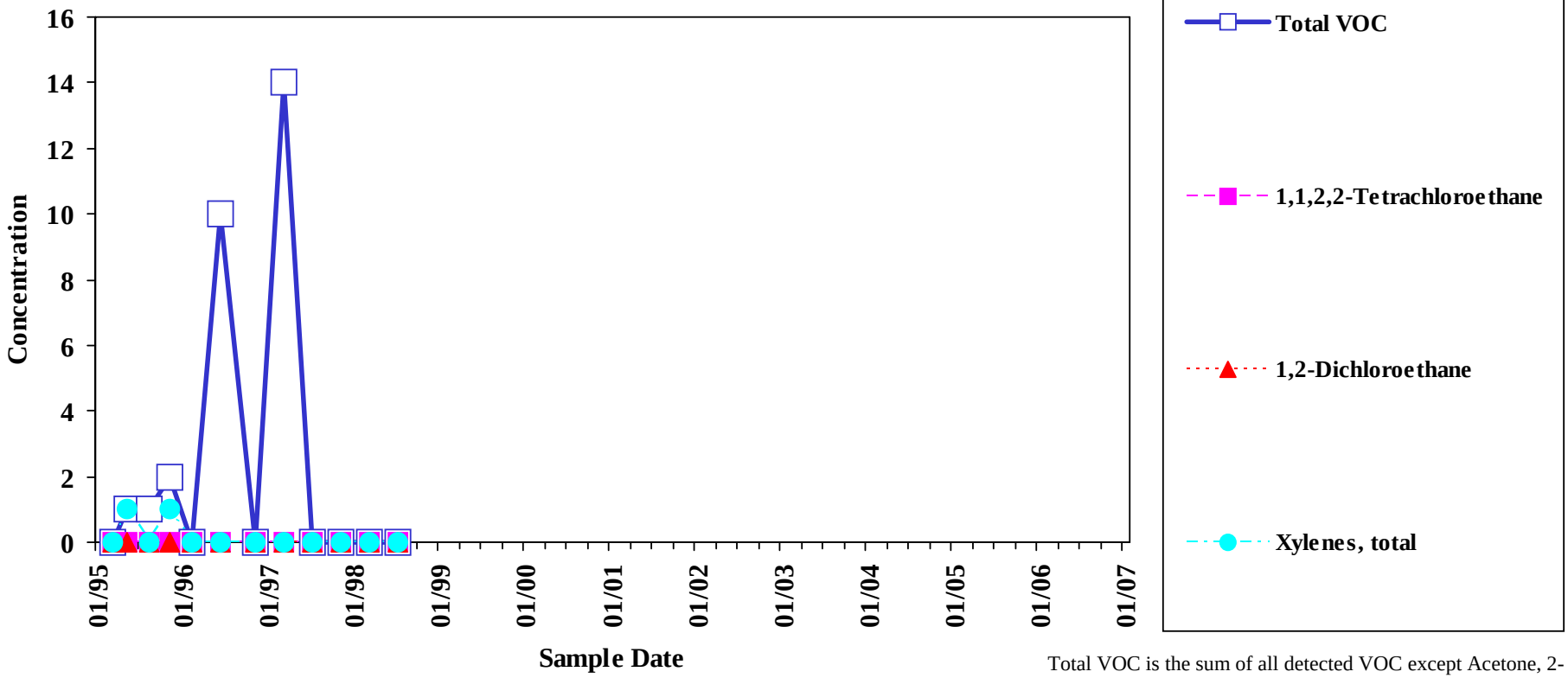
Sample concentration units: mg/Kg

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.

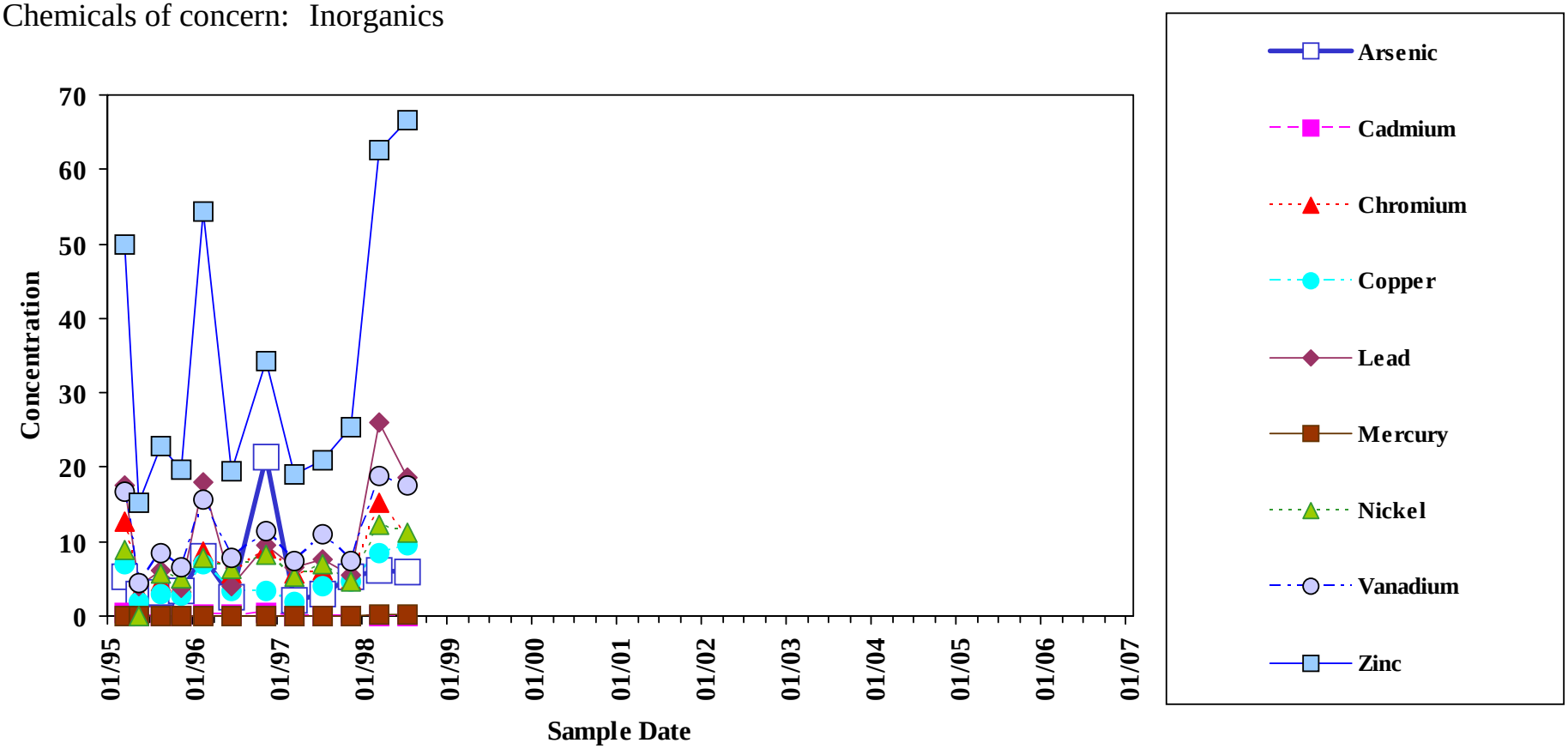
Sample concentration units: µg/Kg

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.

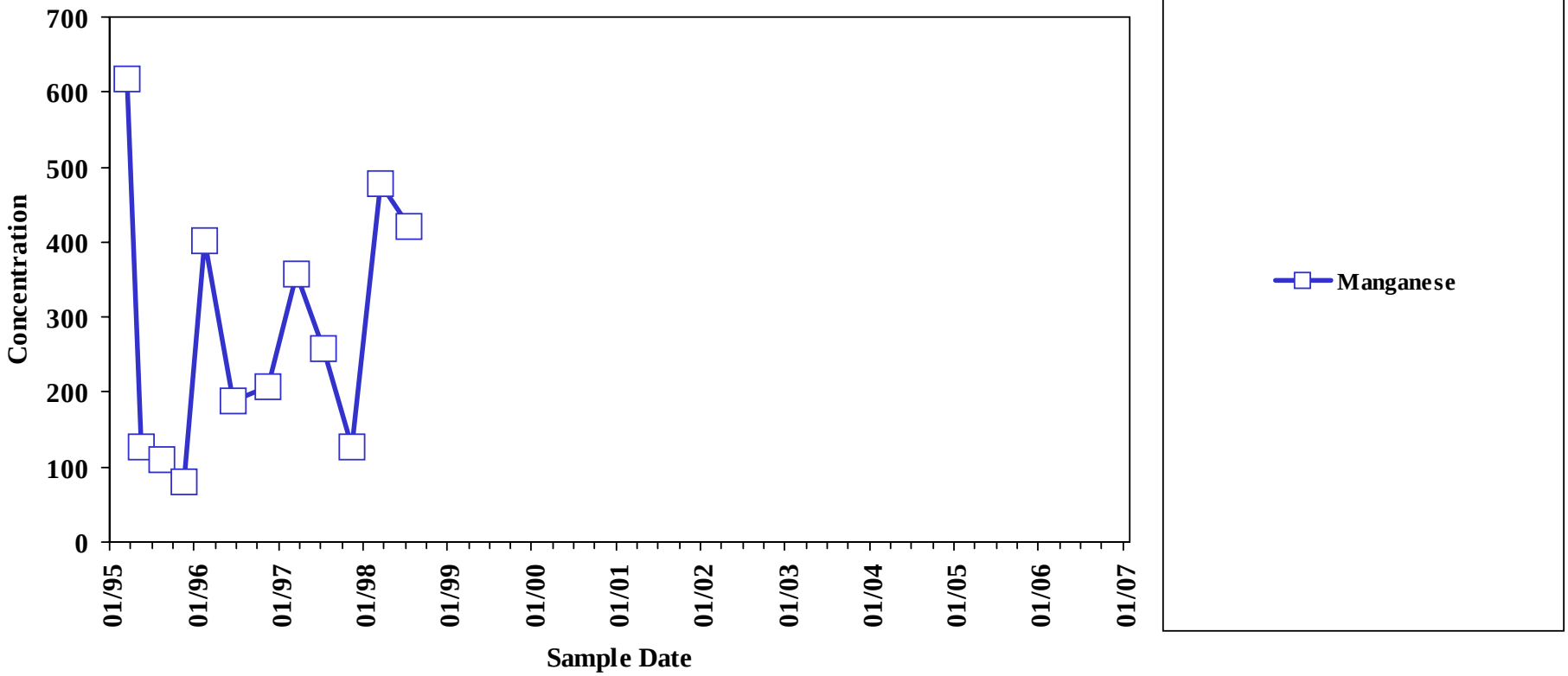
Sample concentration units: mg/Kg

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.

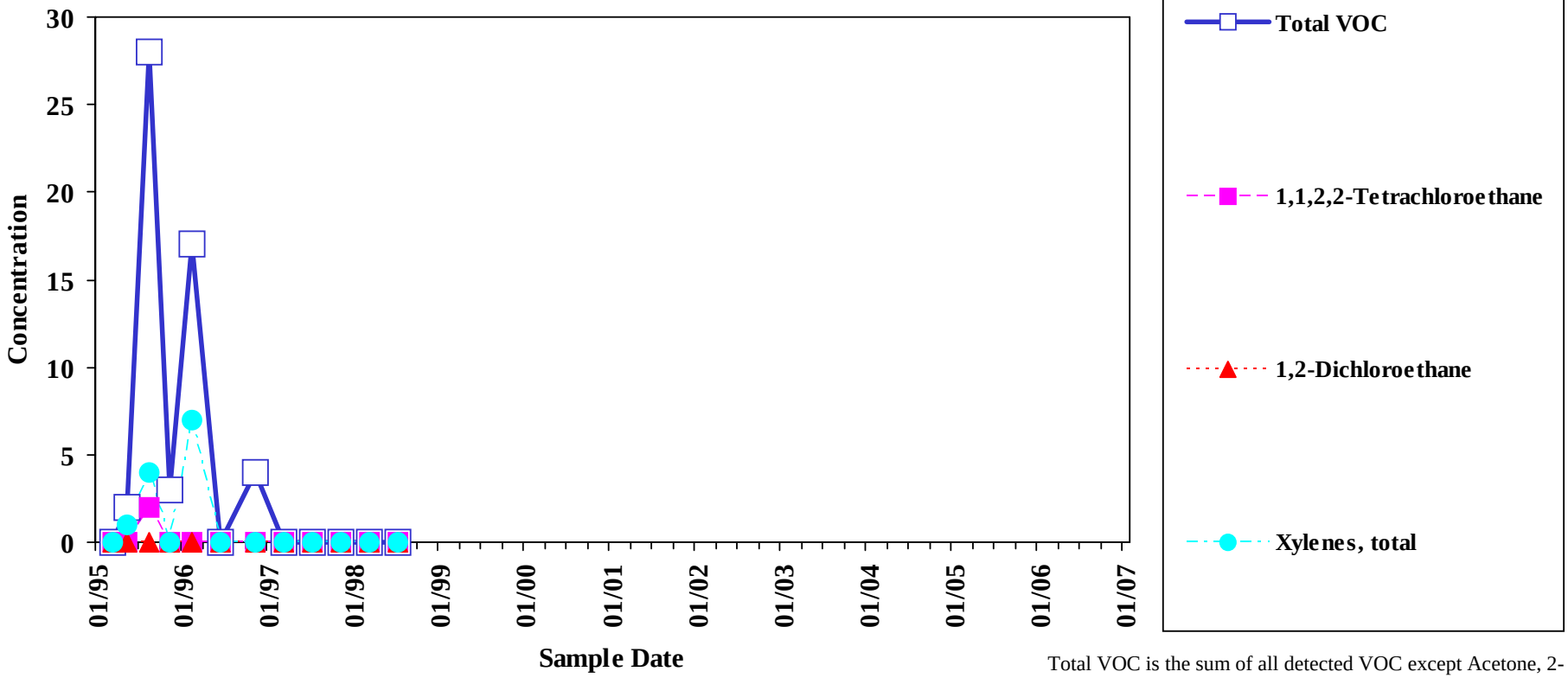
Sample concentration units: mg/Kg

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.

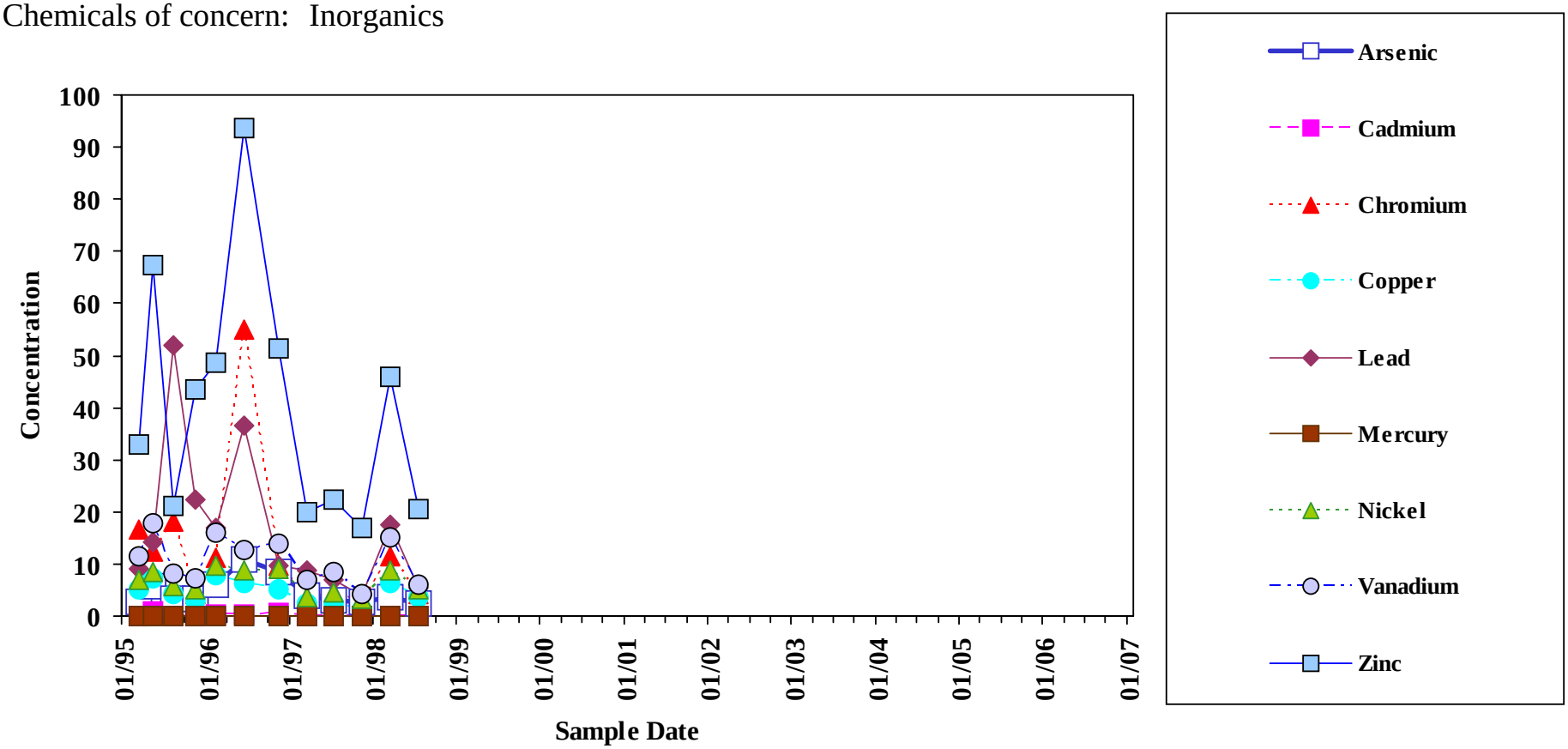
Sample concentration units: µg/Kg

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.

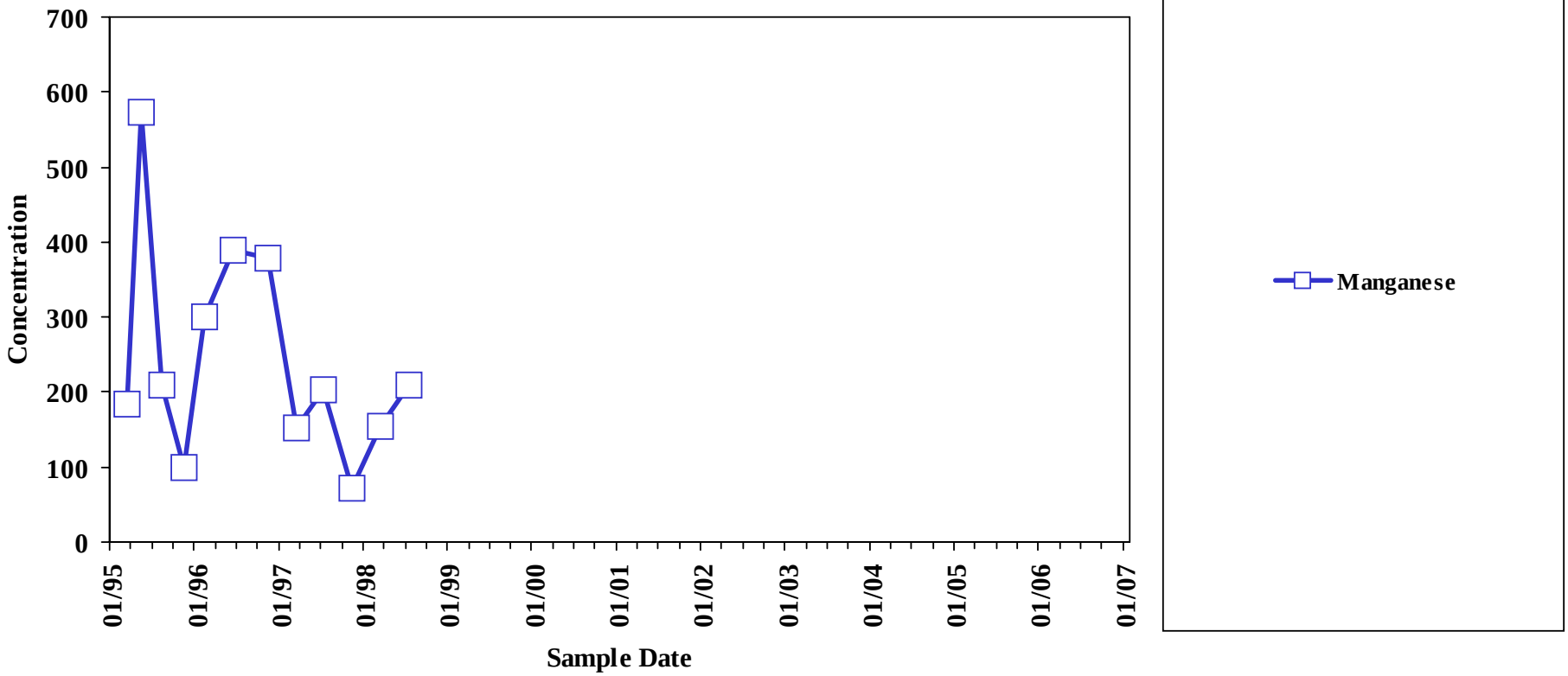
Sample concentration units: mg/Kg

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.

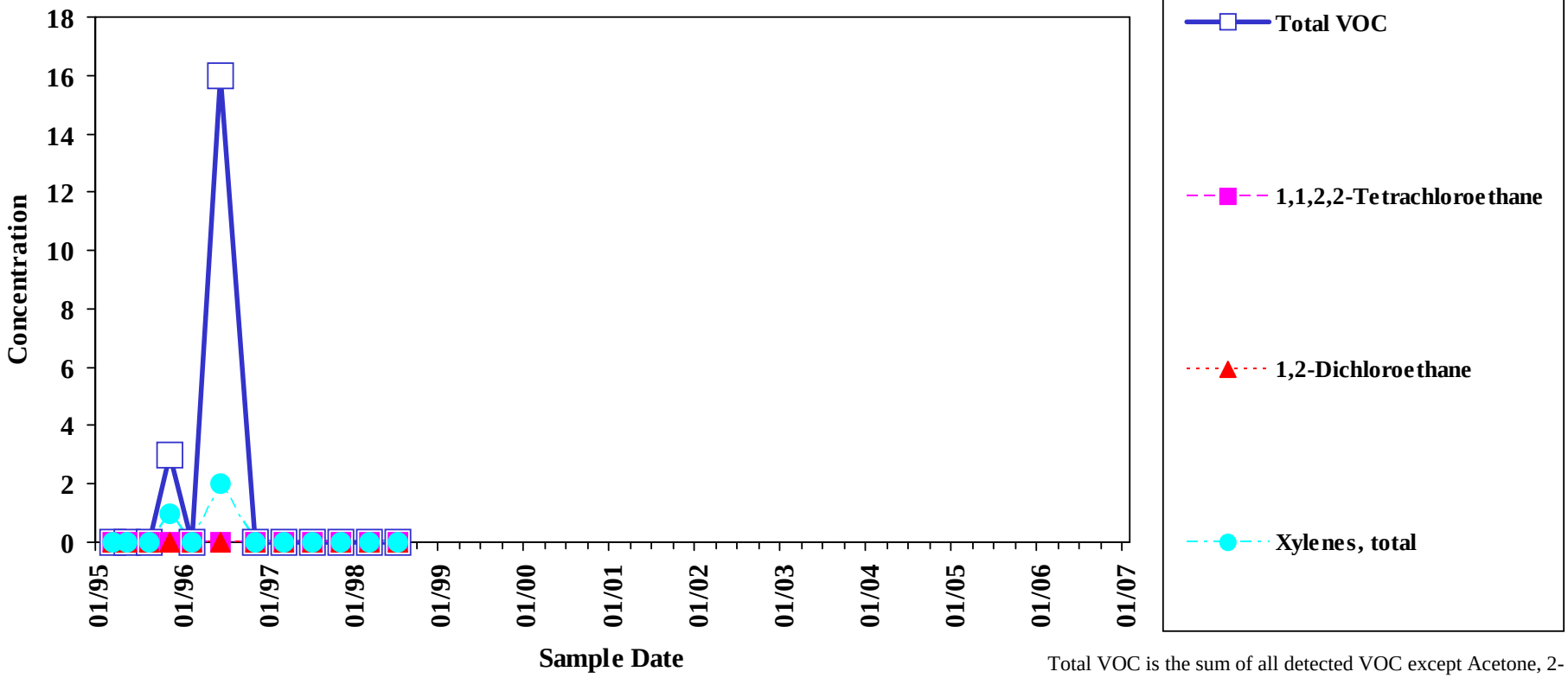
Sample concentration units: mg/Kg

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.

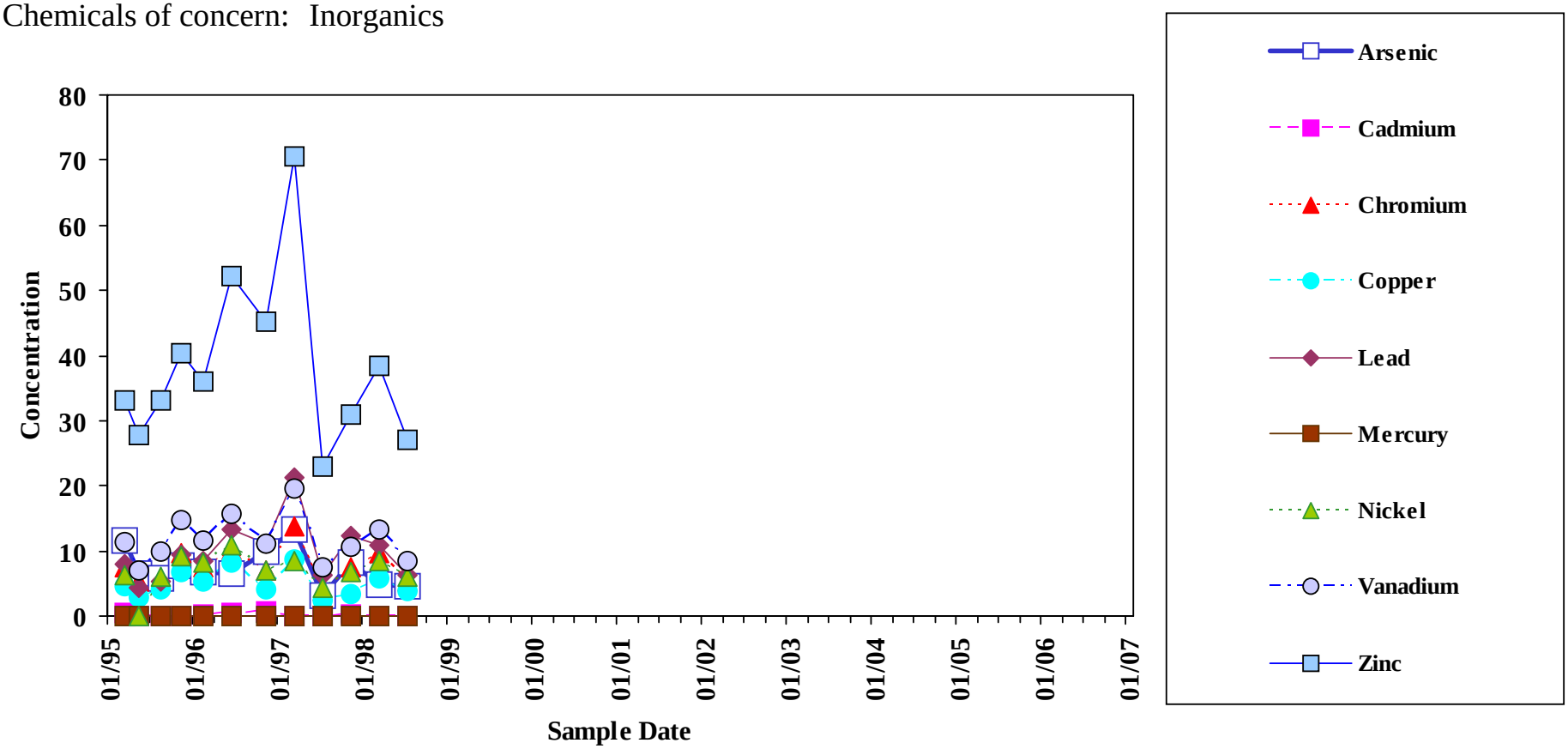
Sample concentration units: µg/Kg

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.

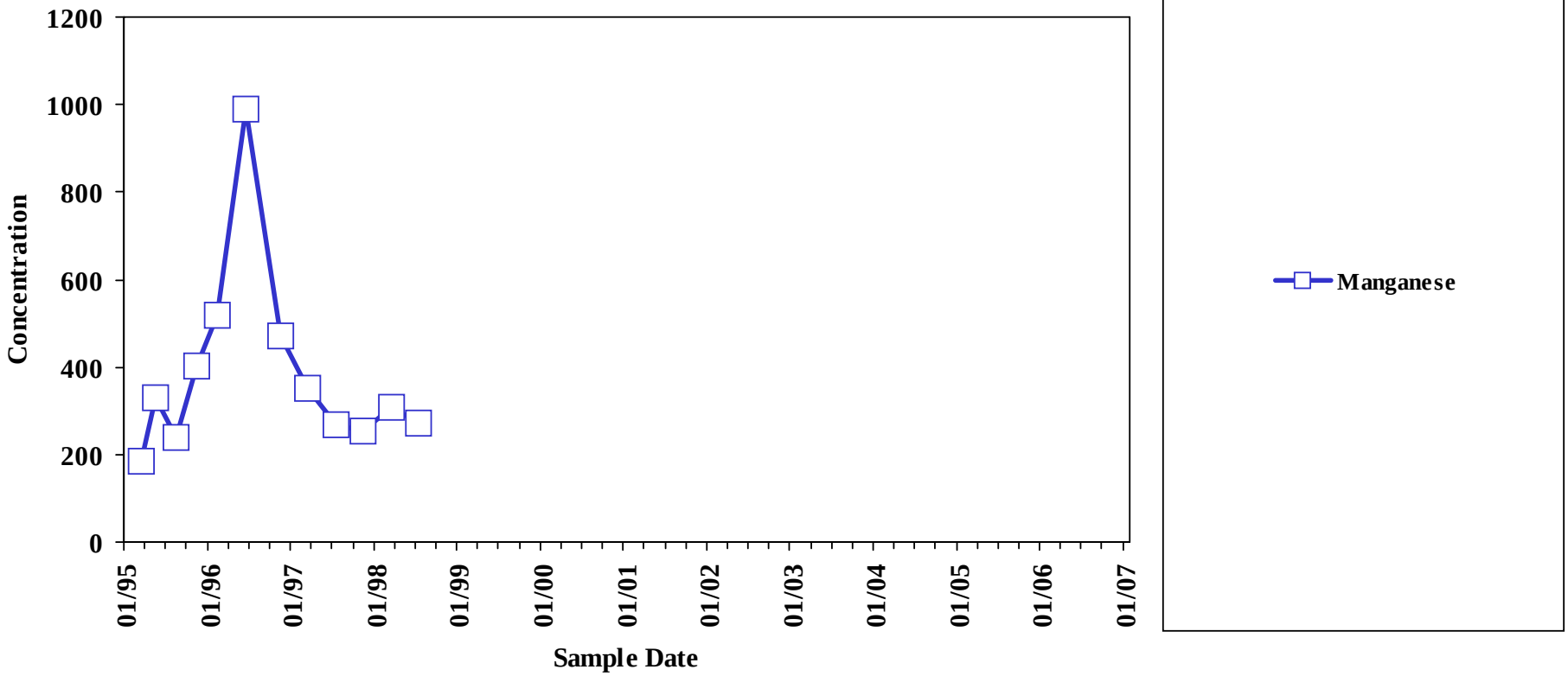
Sample concentration units: mg/Kg

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.

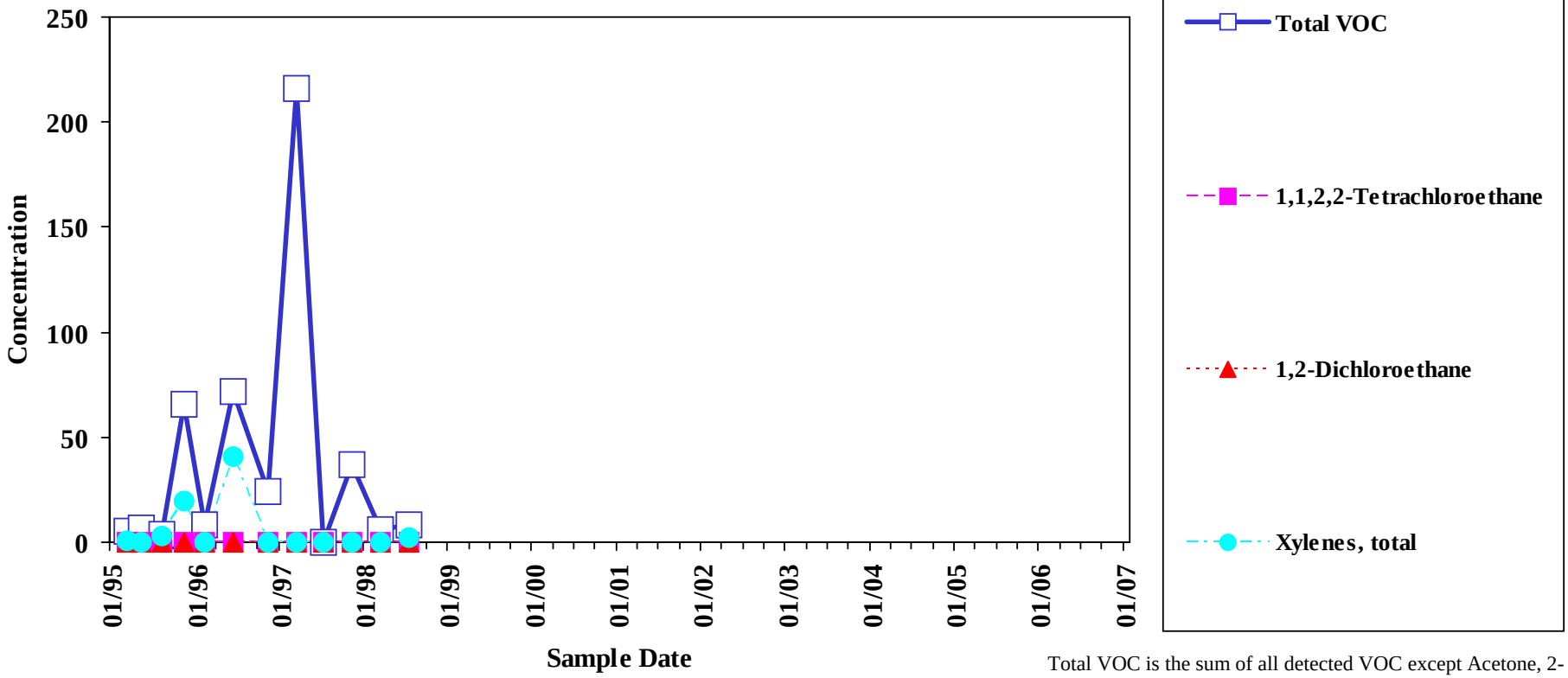
Sample concentration units: mg/Kg

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.

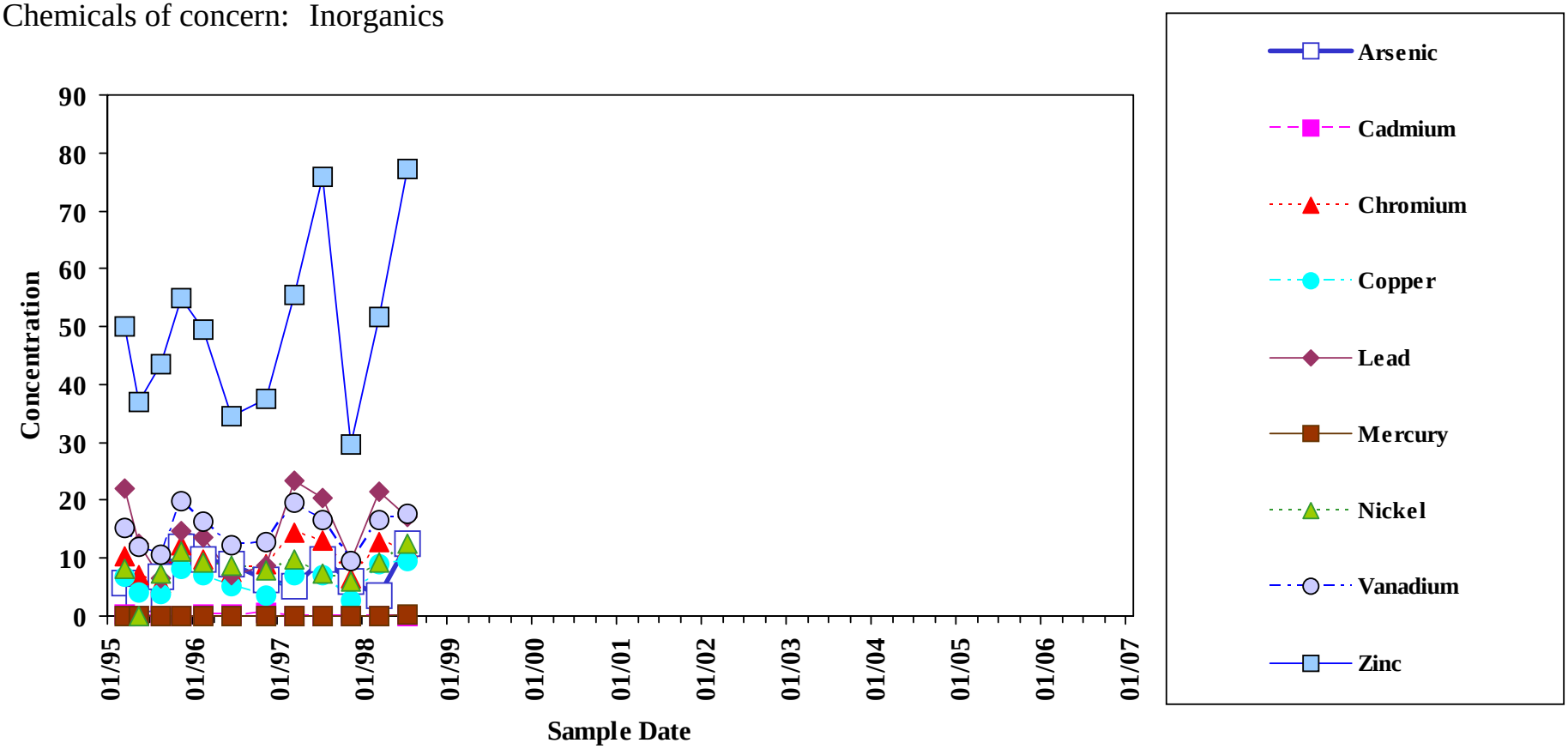
Sample concentration units: µg/Kg

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.

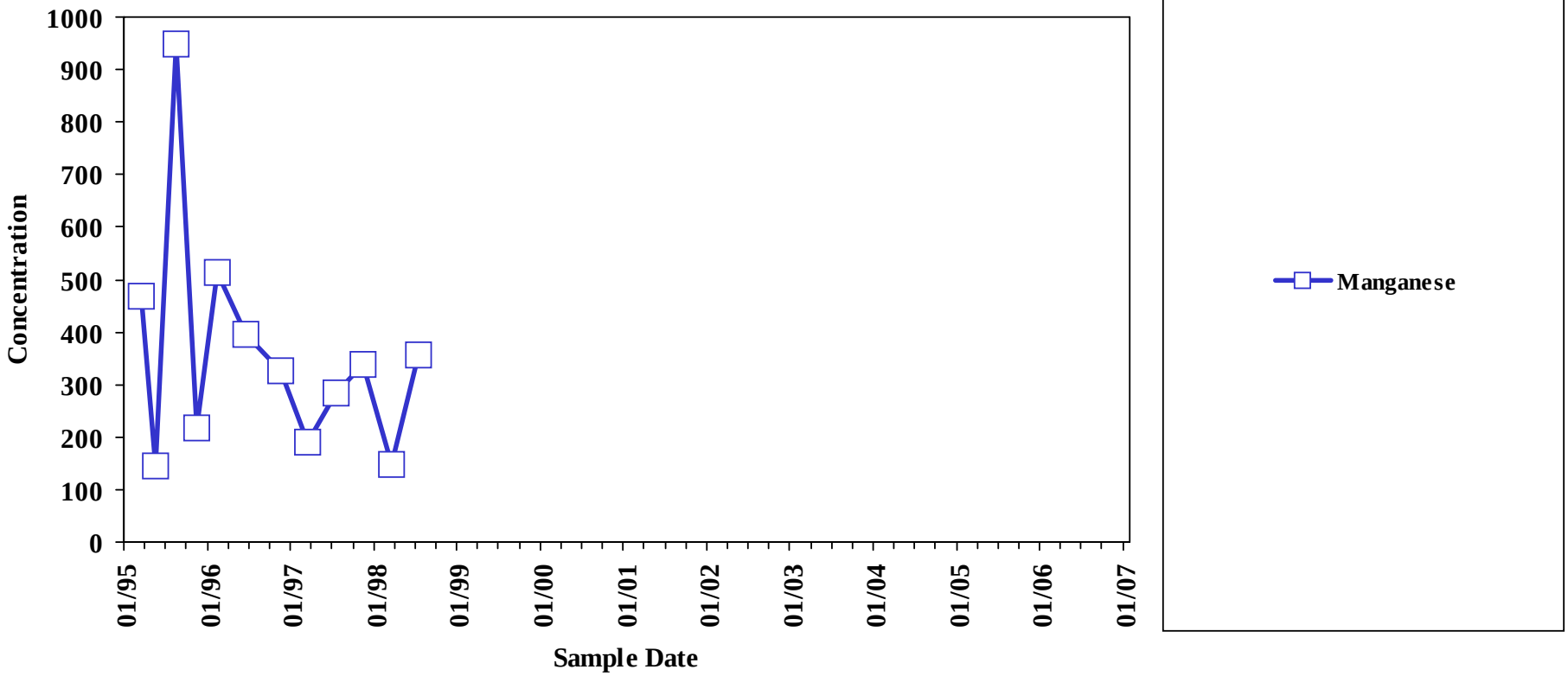
Sample concentration units: mg/Kg

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.

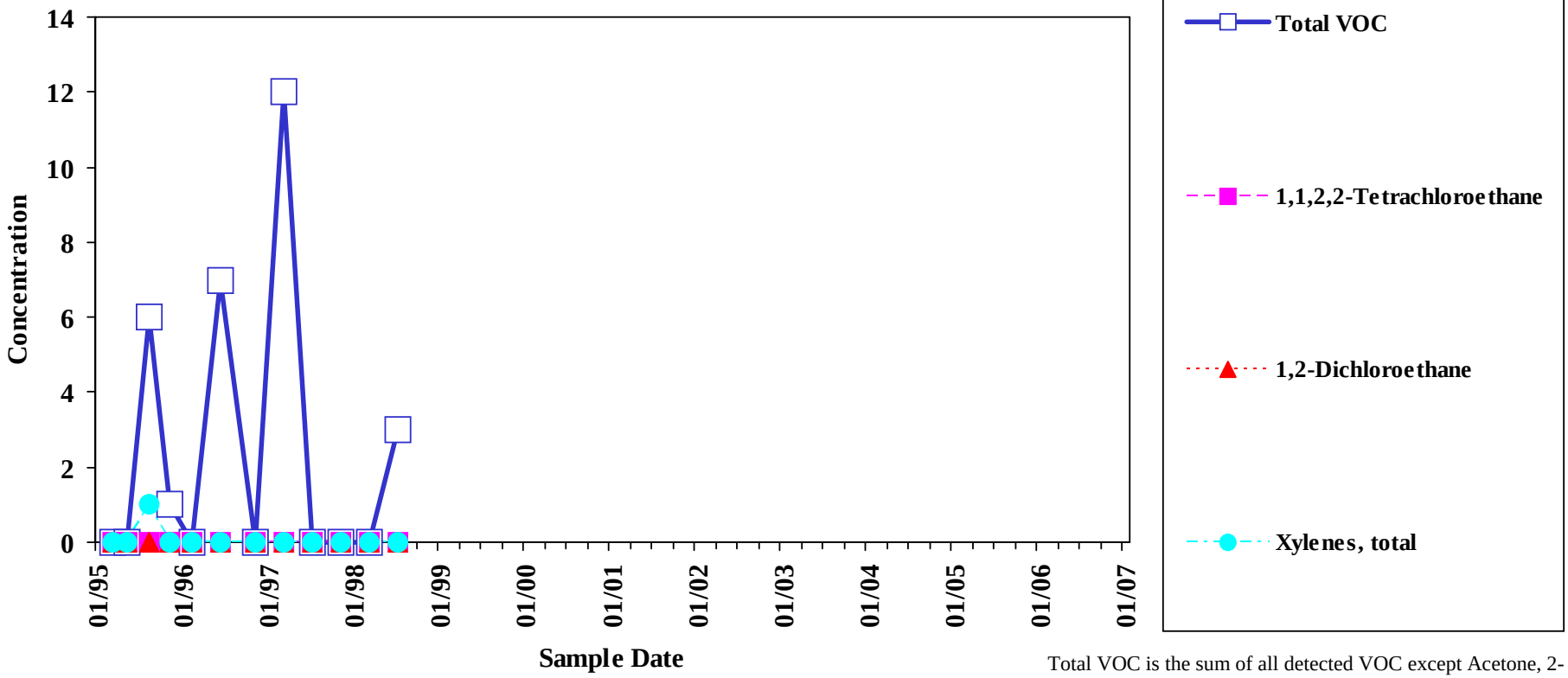
Sample concentration units: mg/Kg

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.

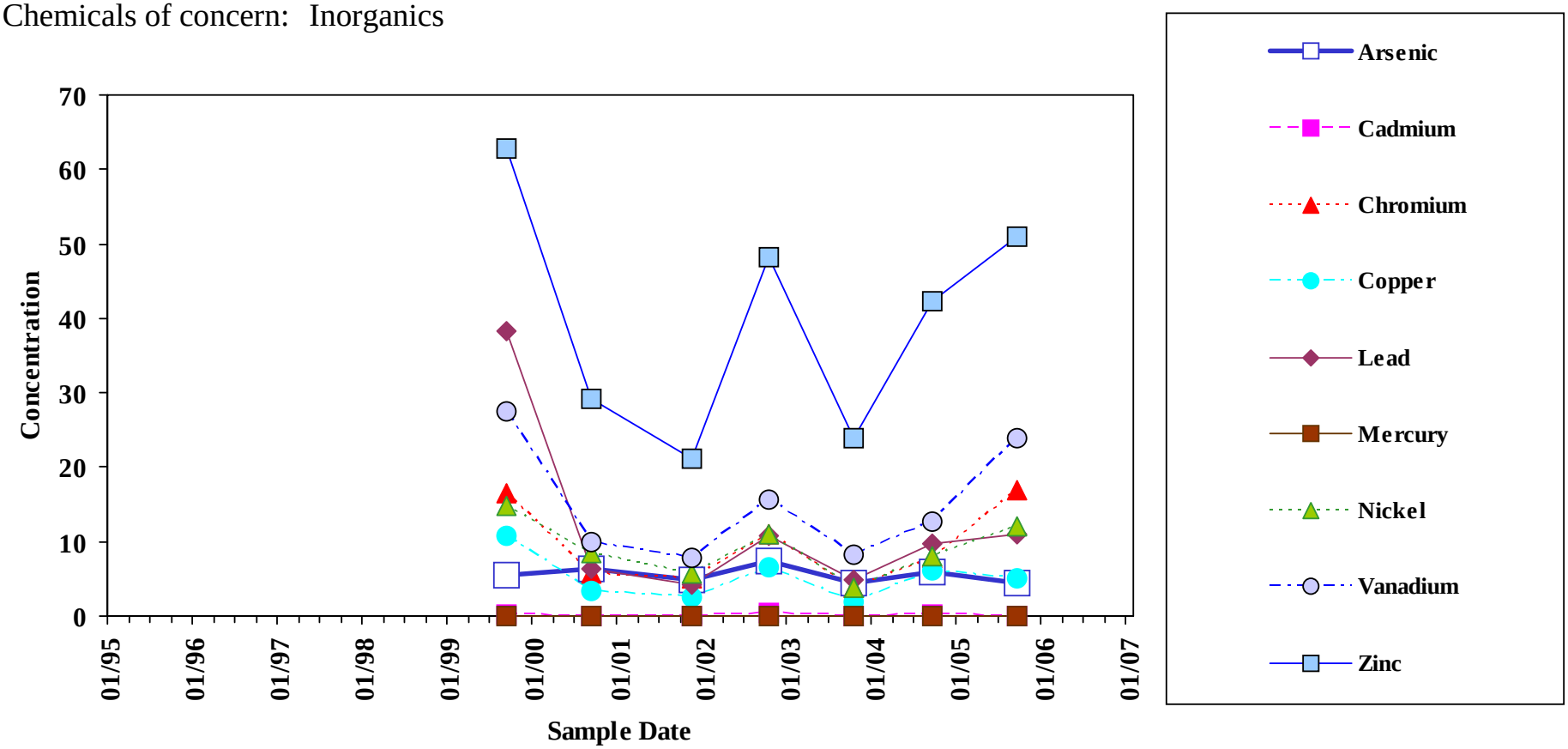
Sample concentration units: µg/Kg

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.

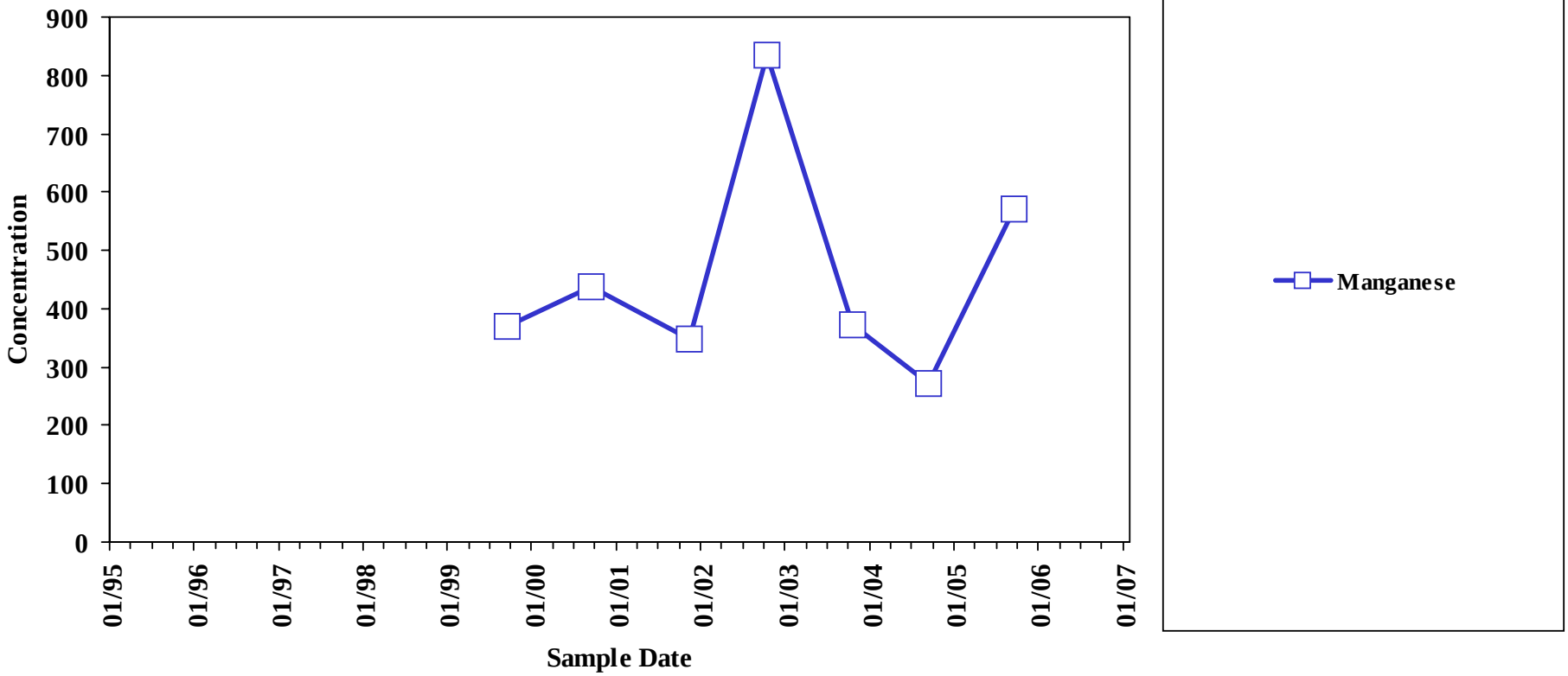
Sample concentration units: mg/Kg

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.

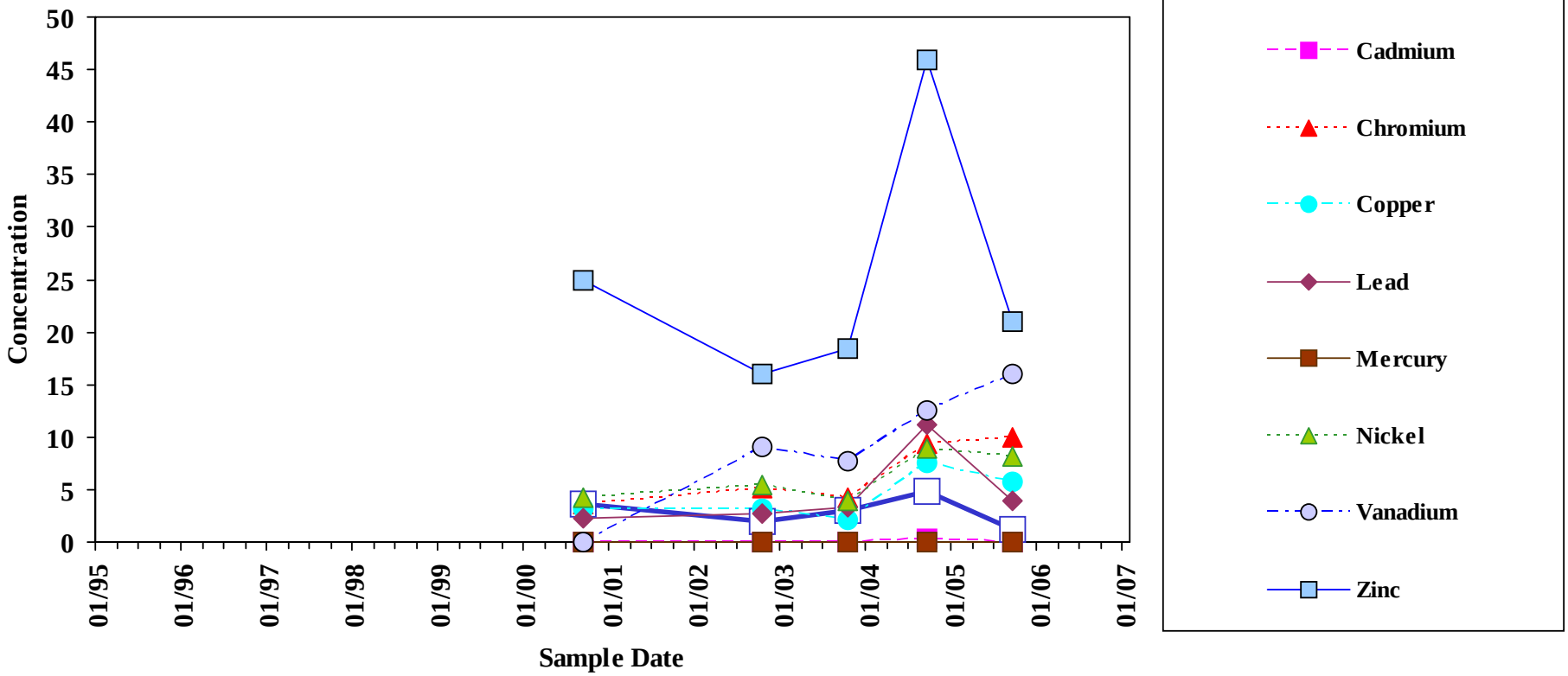
Sample concentration units: mg/Kg

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.

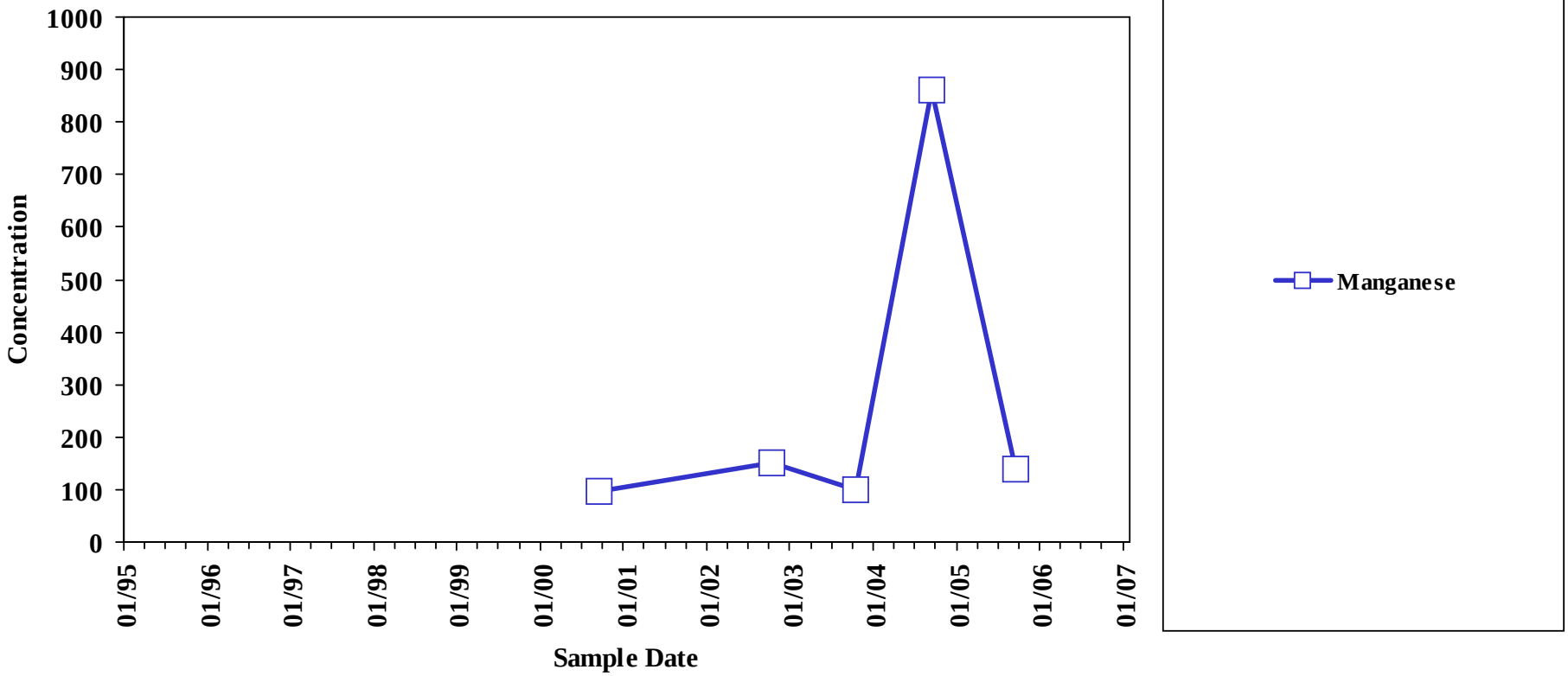
Sample concentration units: mg/Kg

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.

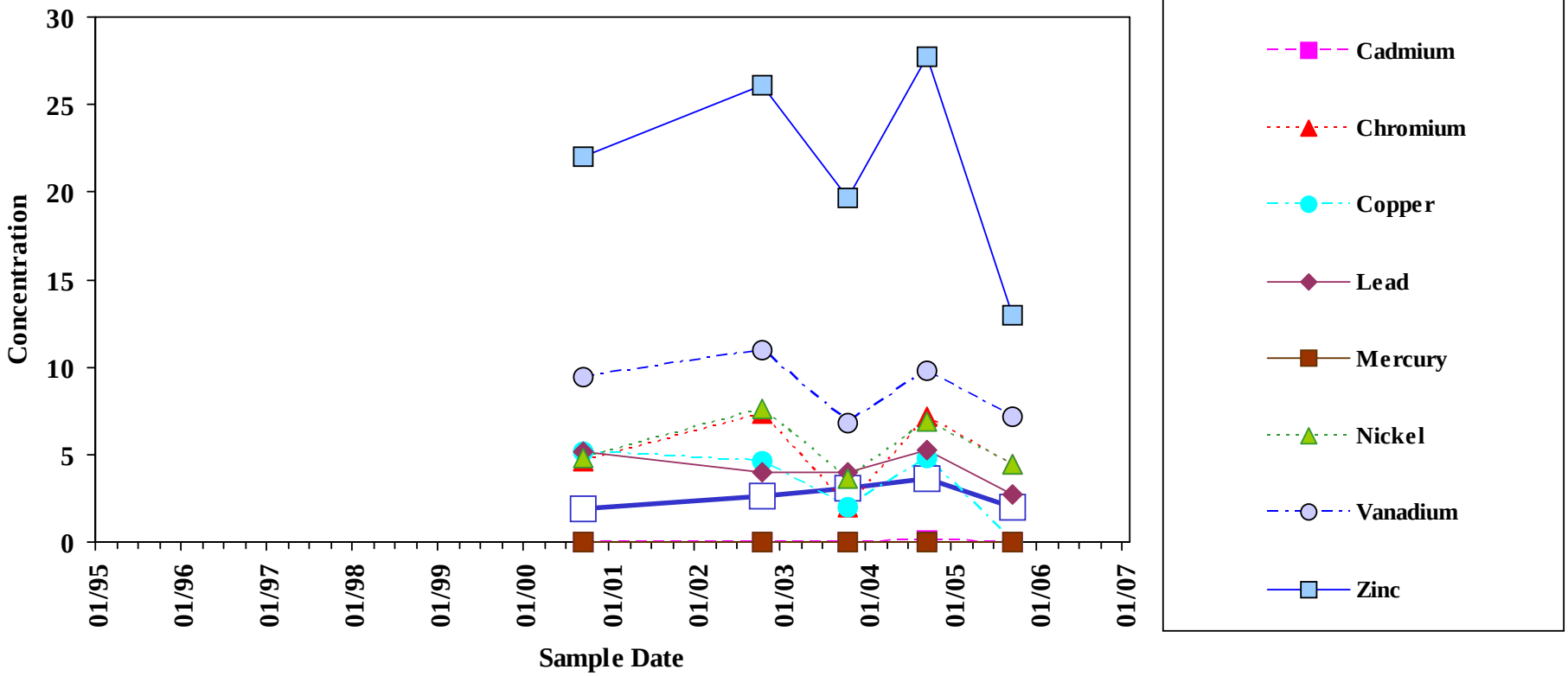
Sample concentration units: mg/Kg

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.

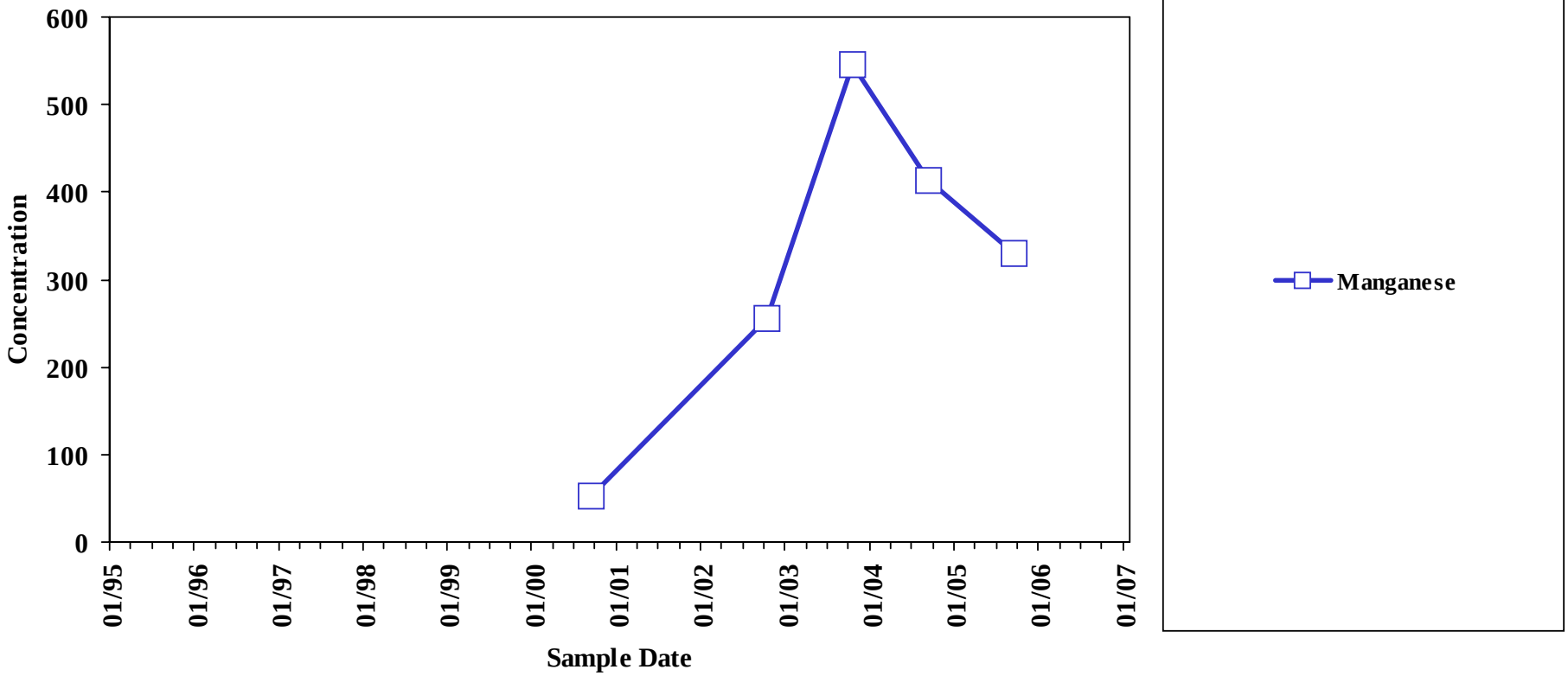
Sample concentration units: mg/Kg

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

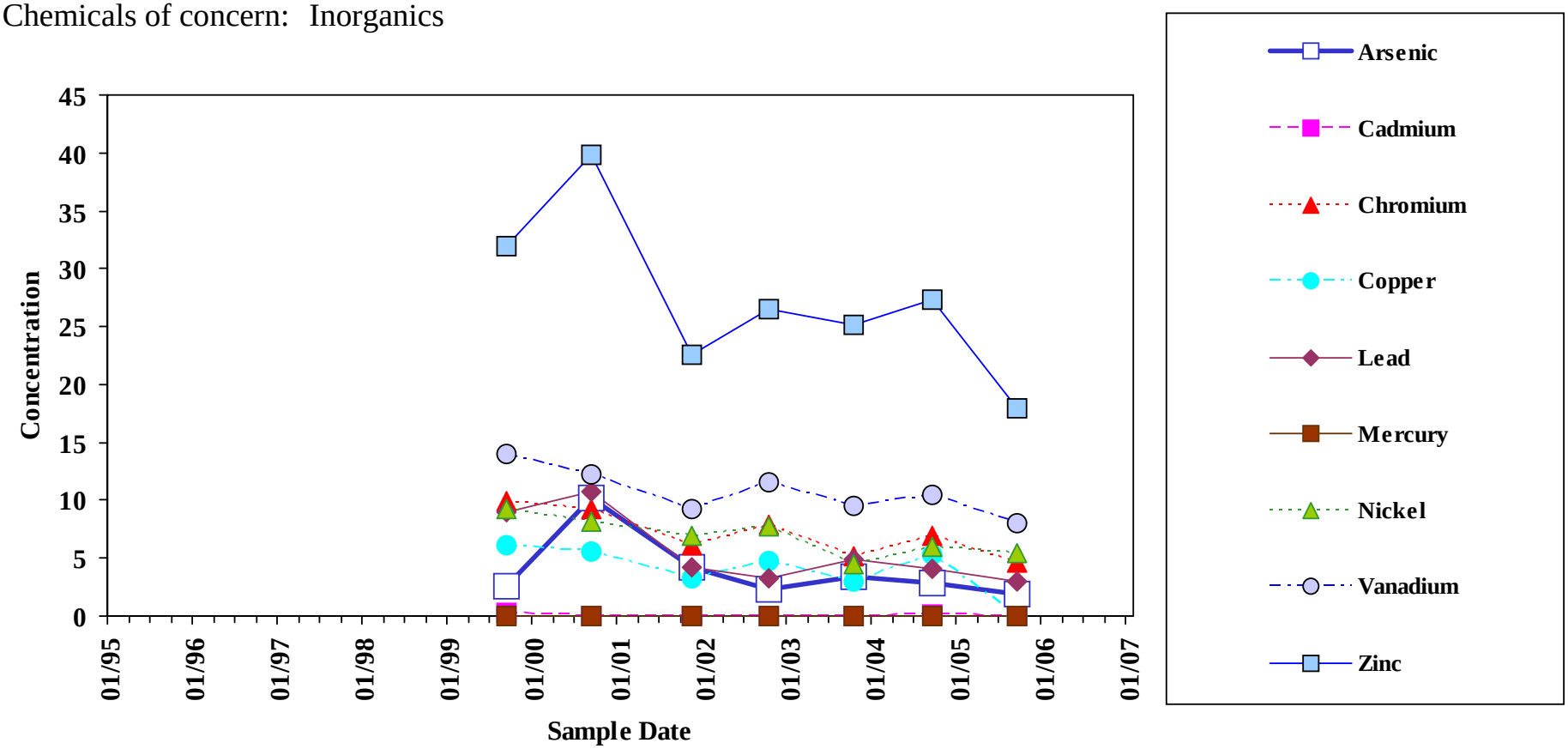
Sample Location:

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.

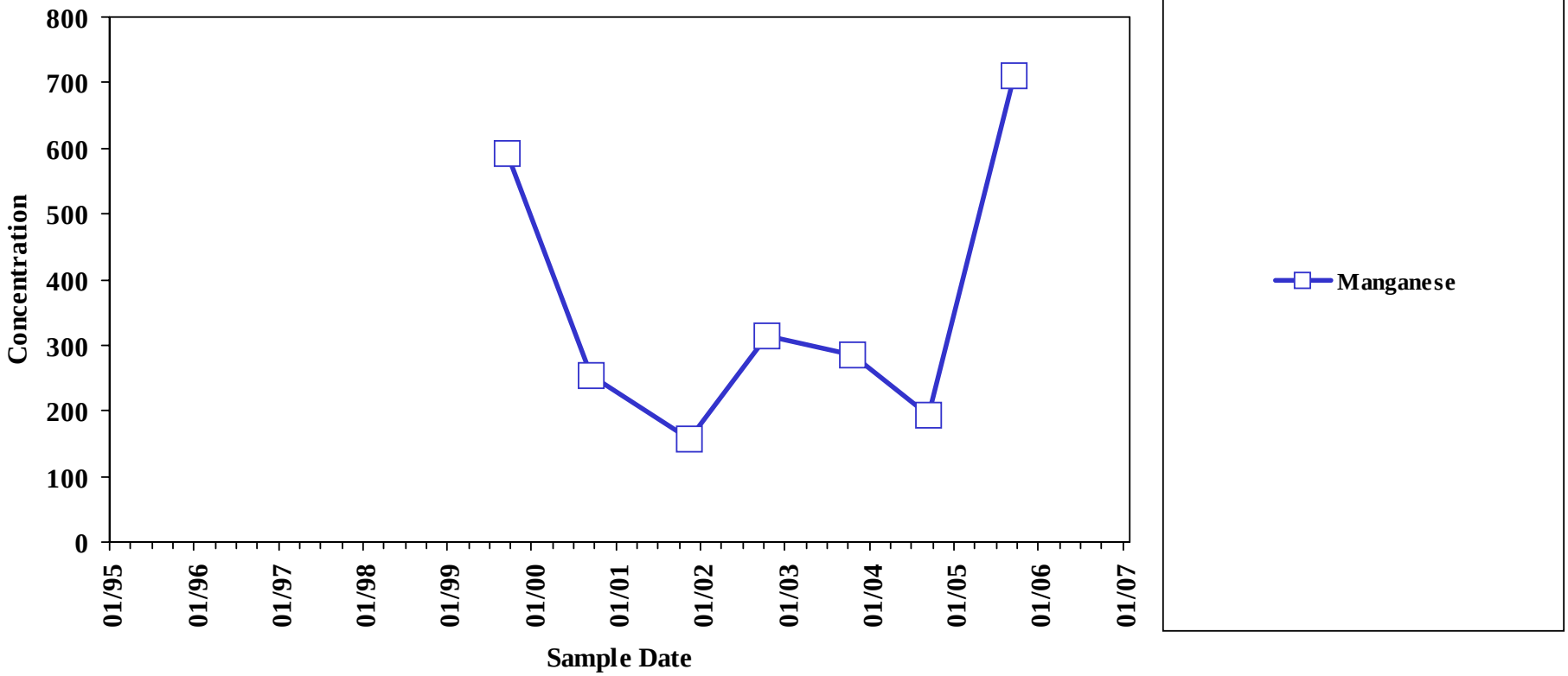
Sample concentration units: mg/Kg

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.

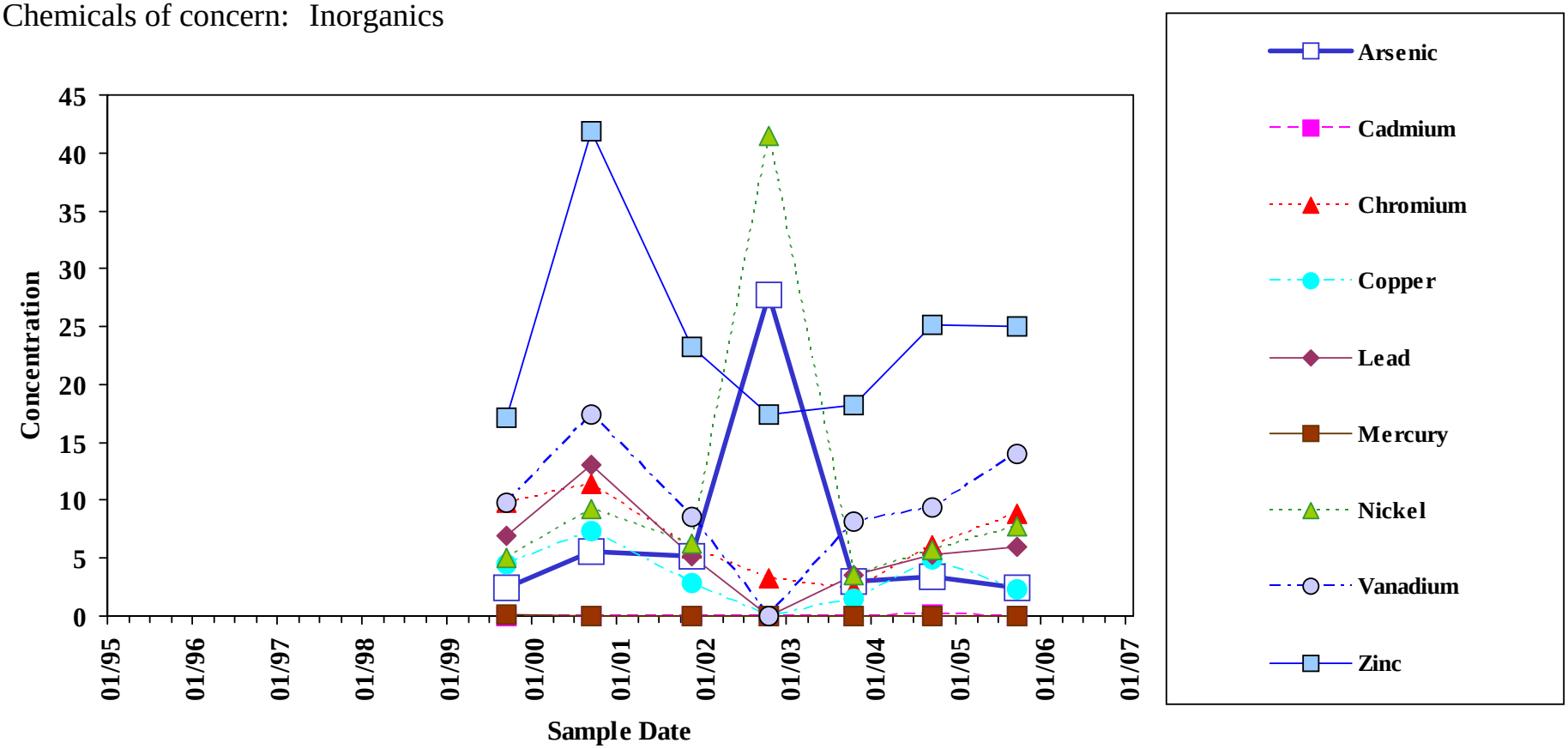
Sample concentration units: mg/Kg

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.

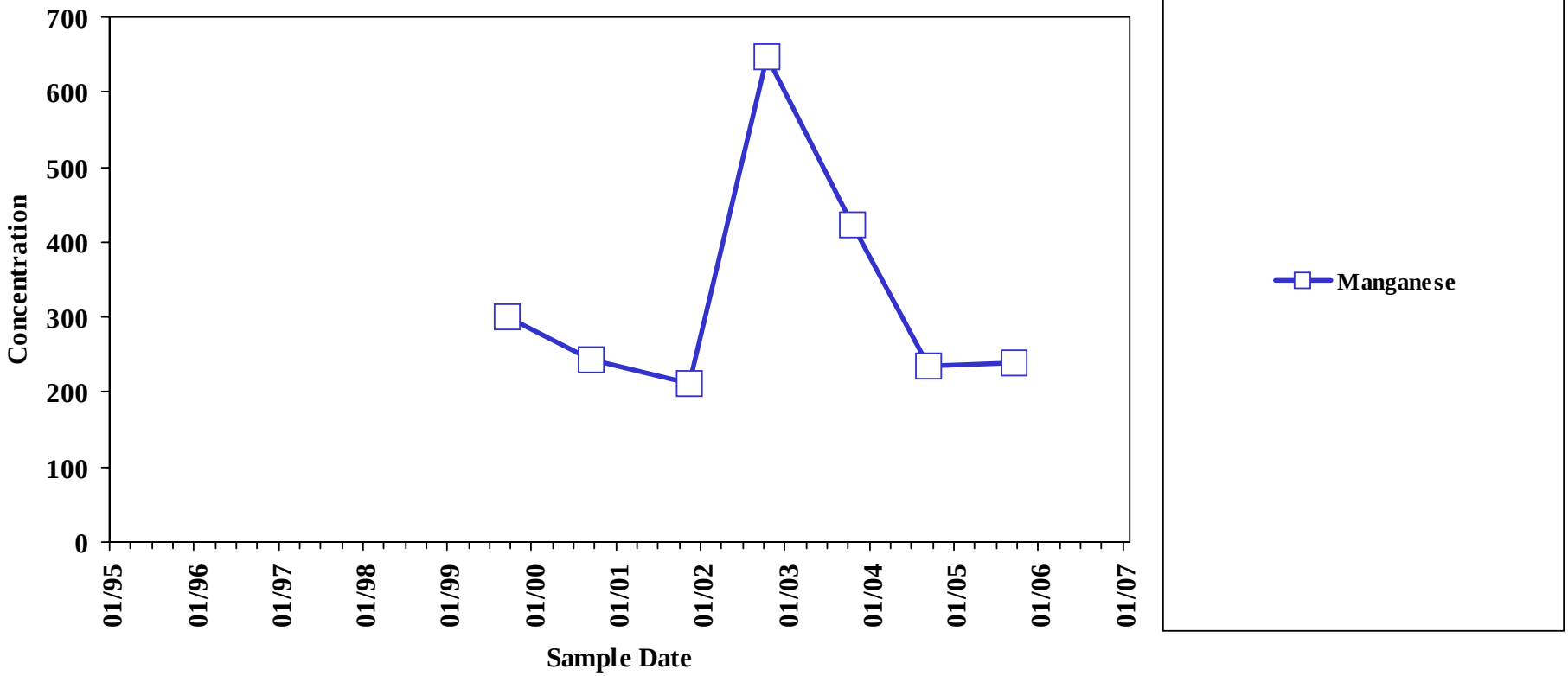
Sample concentration units: mg/Kg

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.

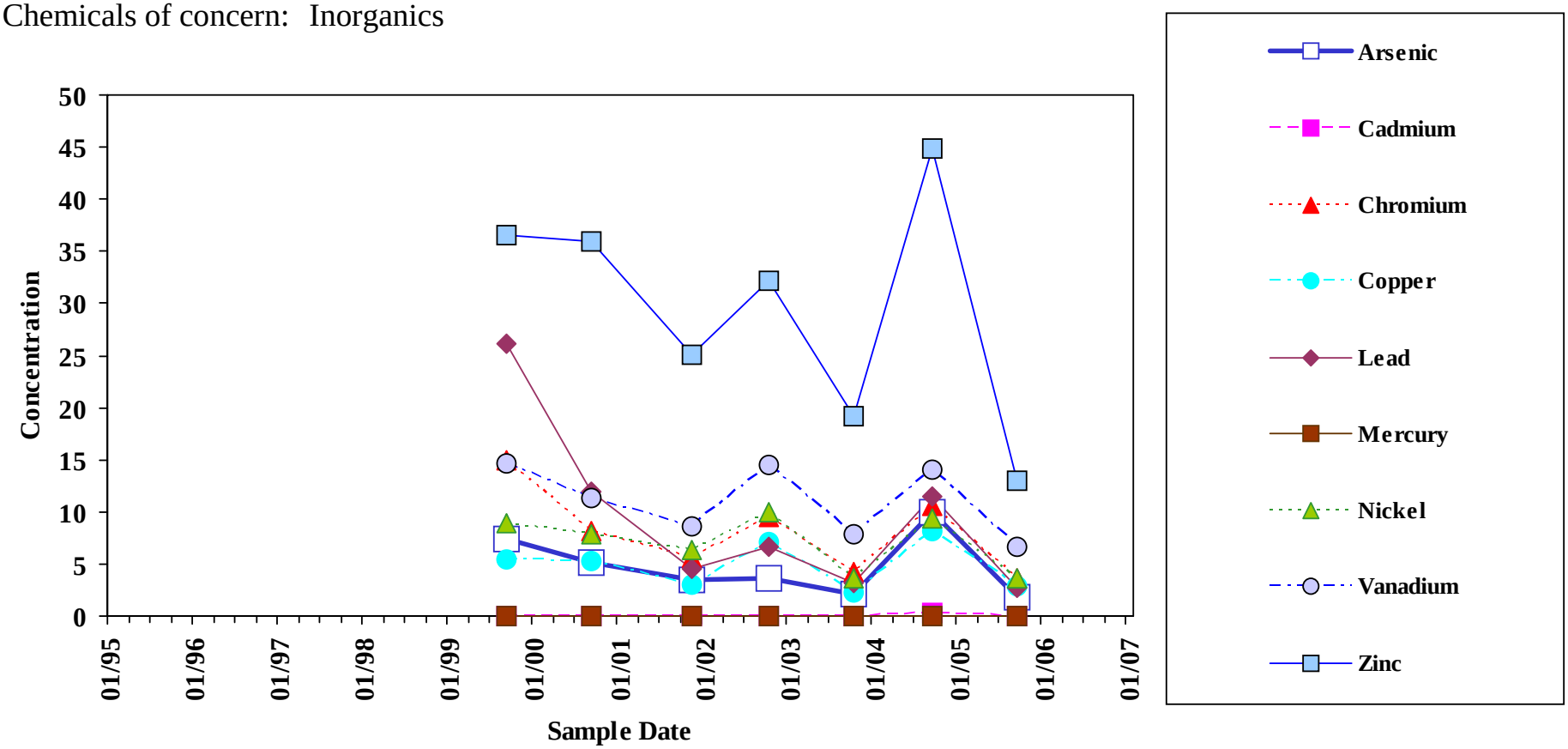
Sample concentration units: mg/Kg

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.

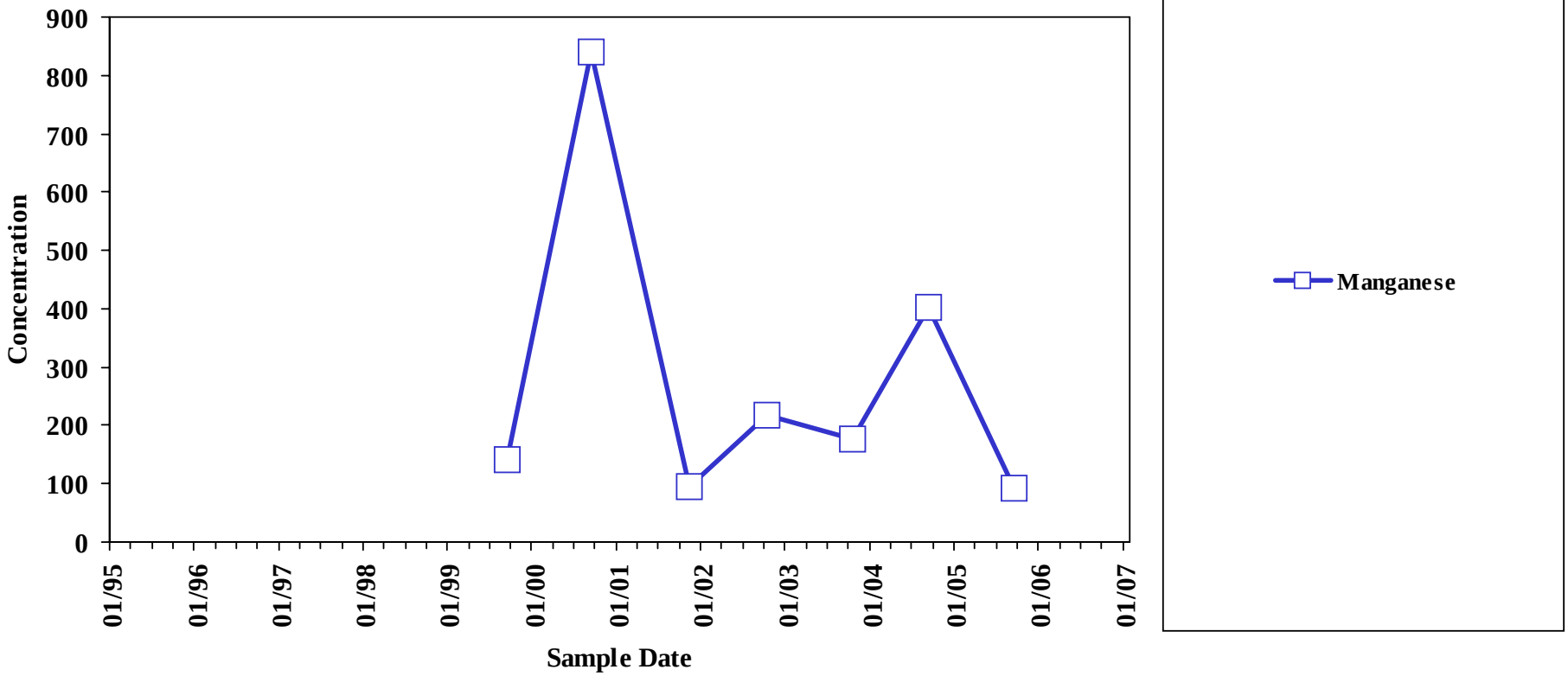
Sample concentration units: mg/Kg

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

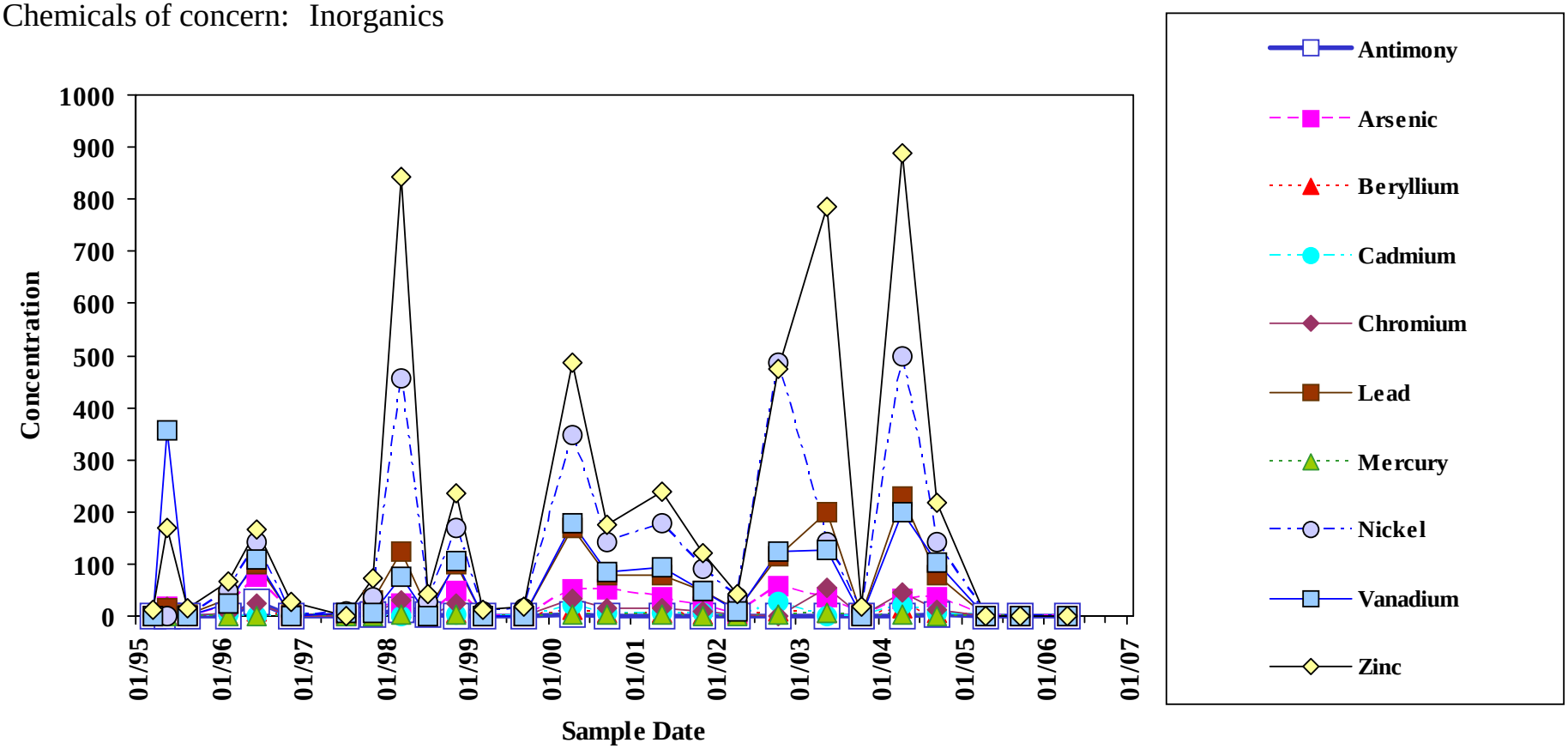
Sample Location:

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.

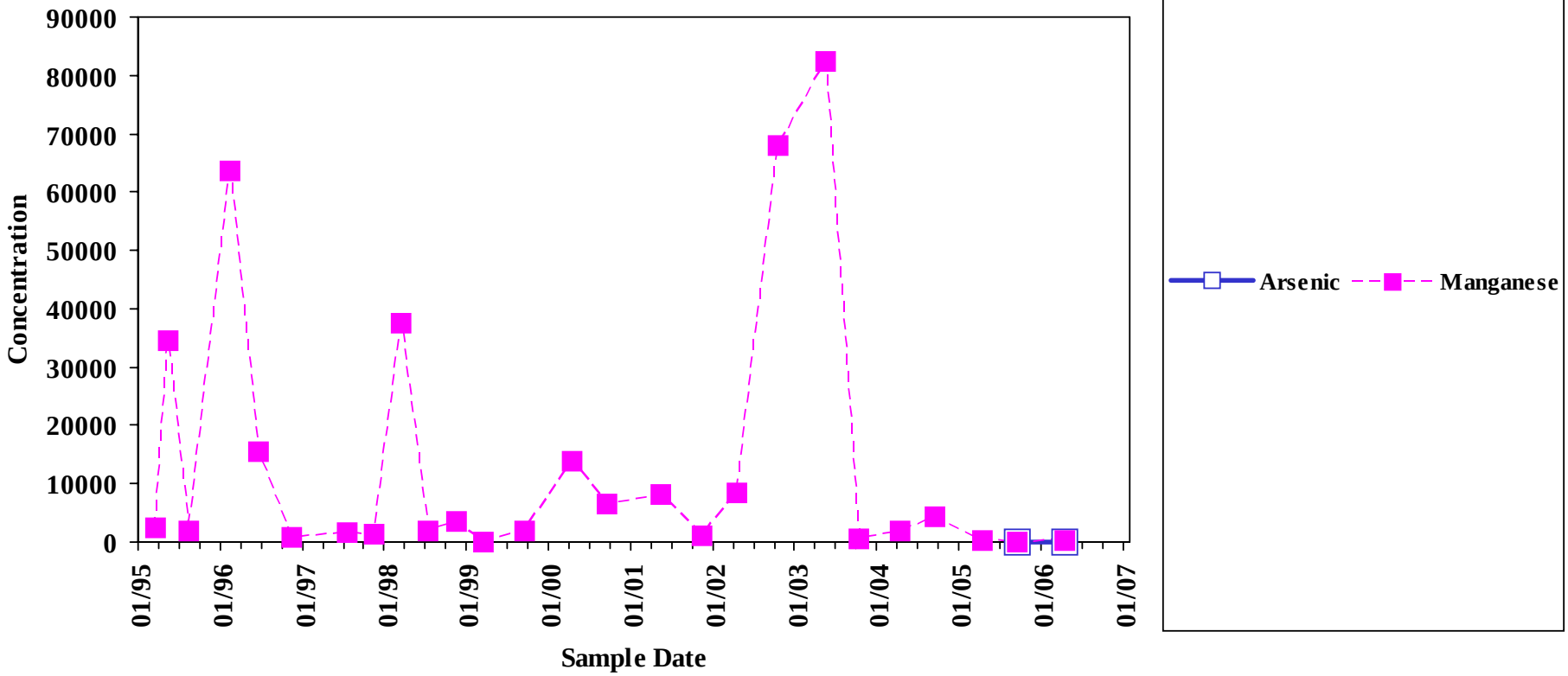
Sample concentration units: µg/L

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.

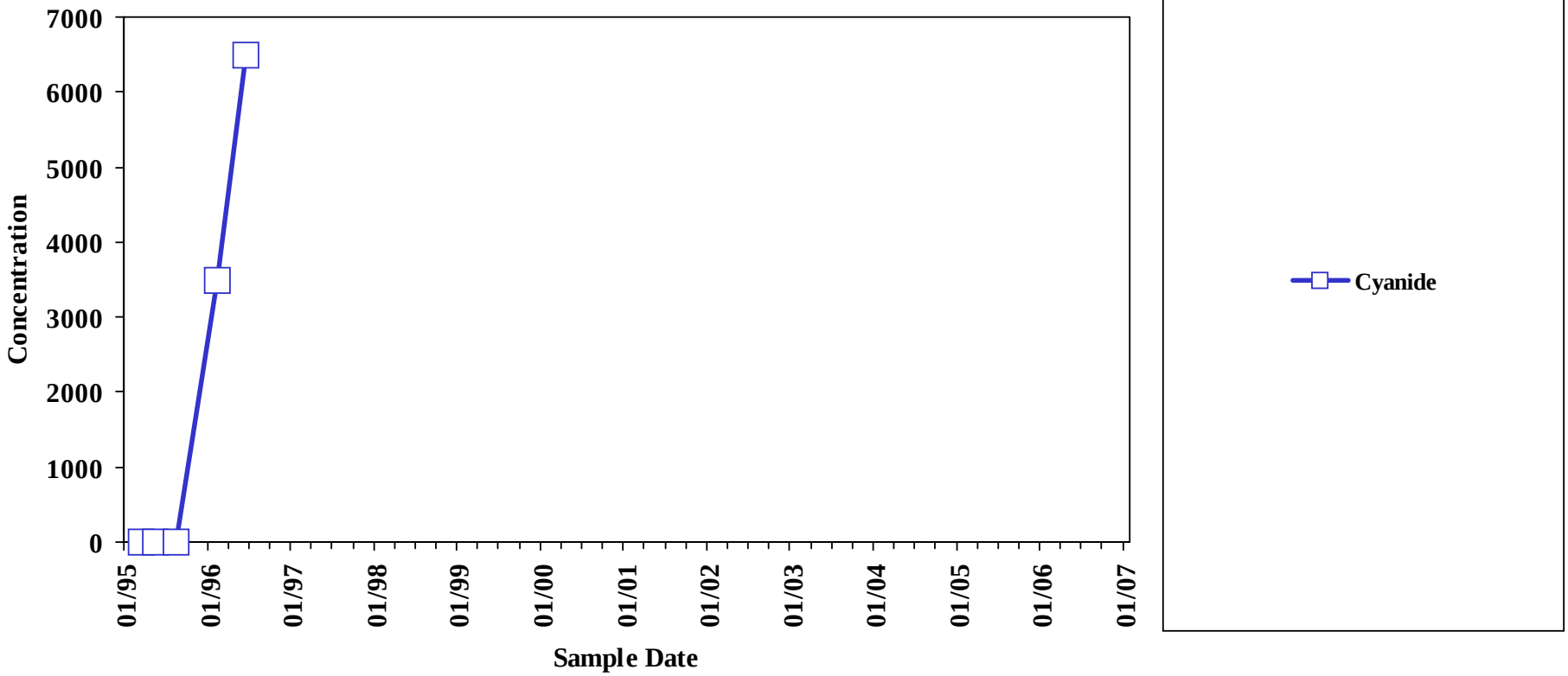
Sample concentration units: µg/L

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.

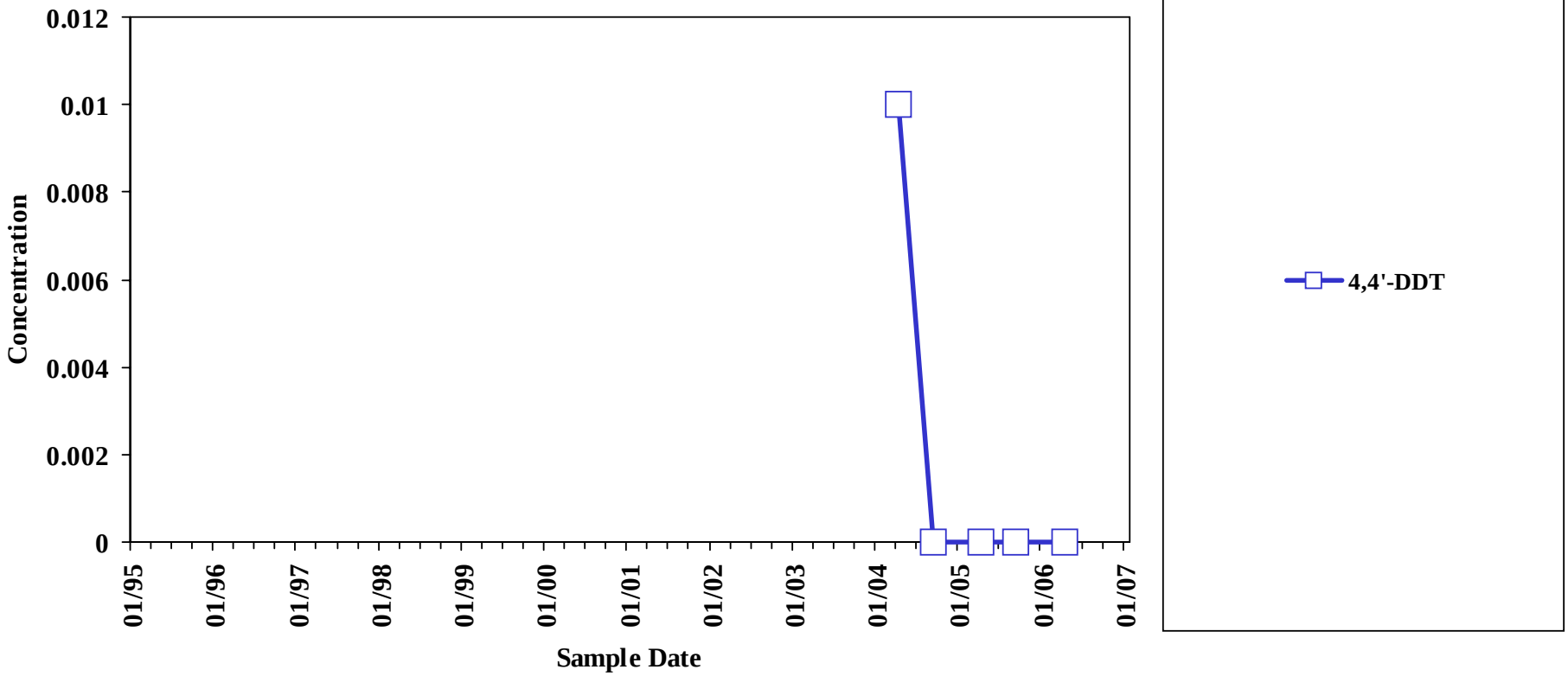
Sample concentration units: µg/L

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.

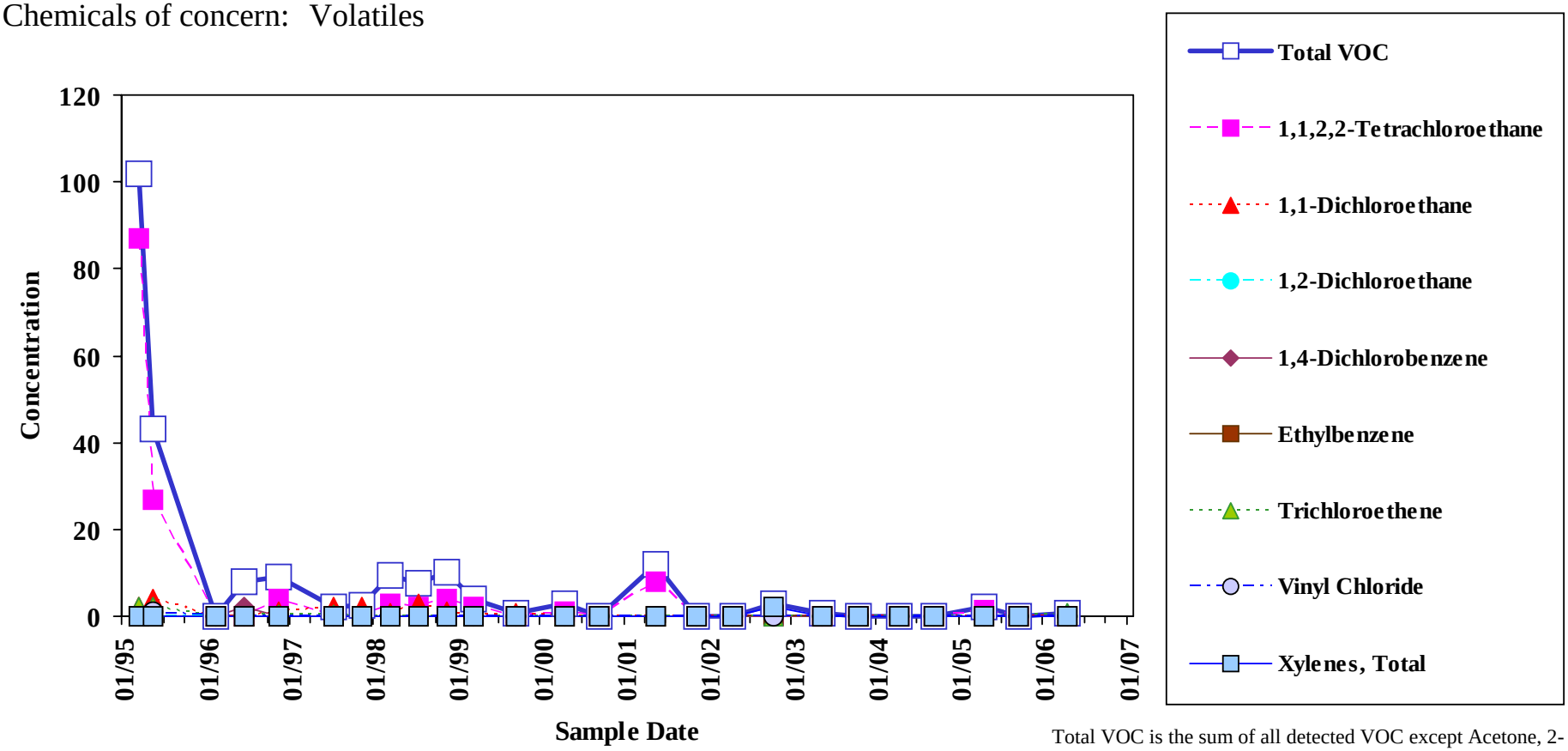
Sample concentration units: µg/l

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.

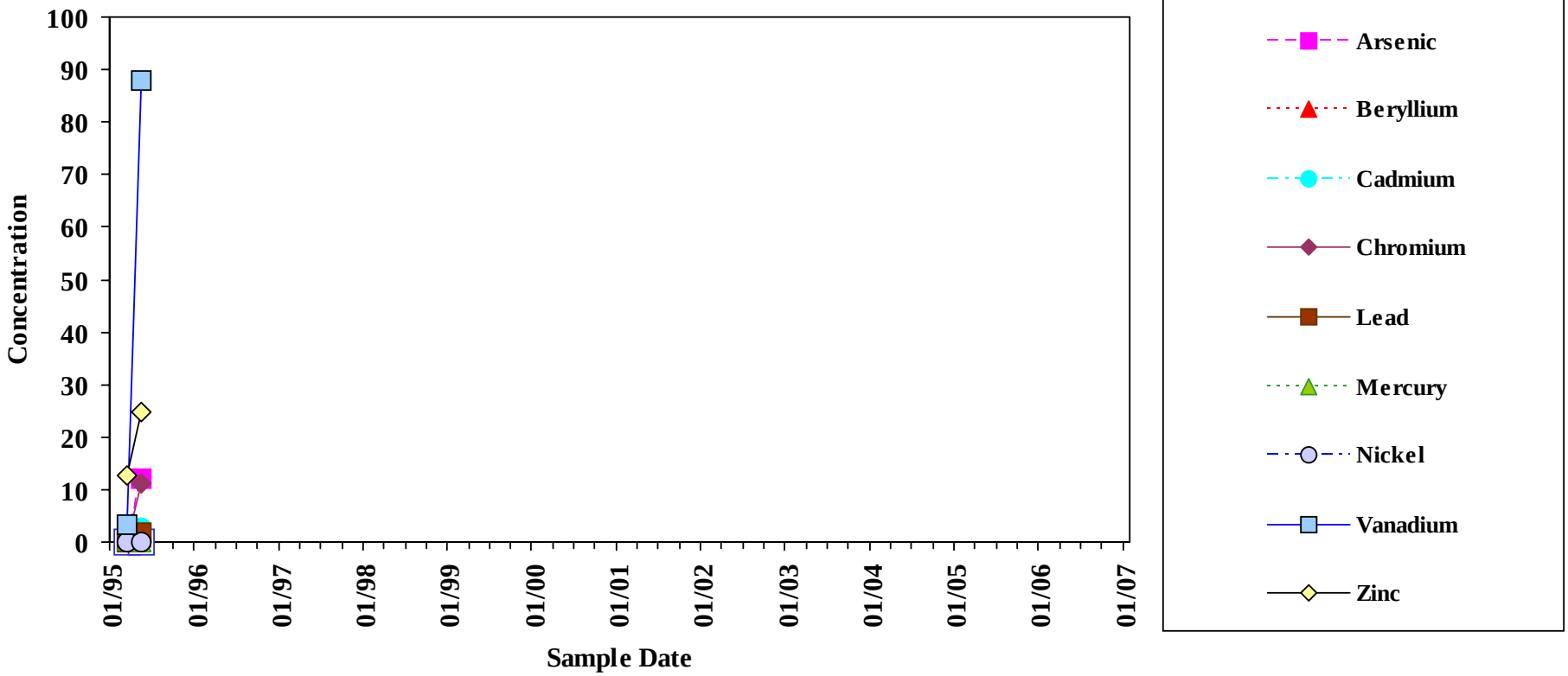
Sample concentration units: µg/L

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.

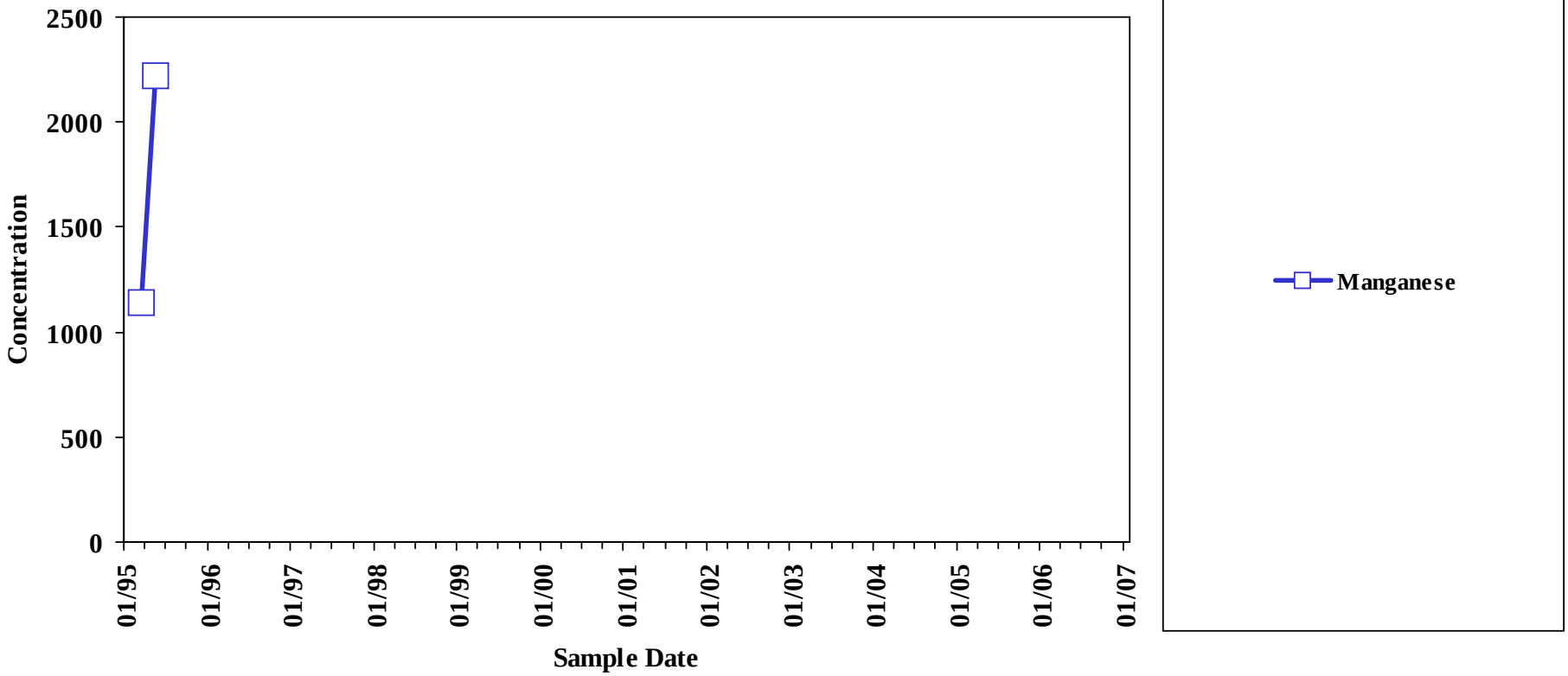
Sample concentration units: µg/L

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.

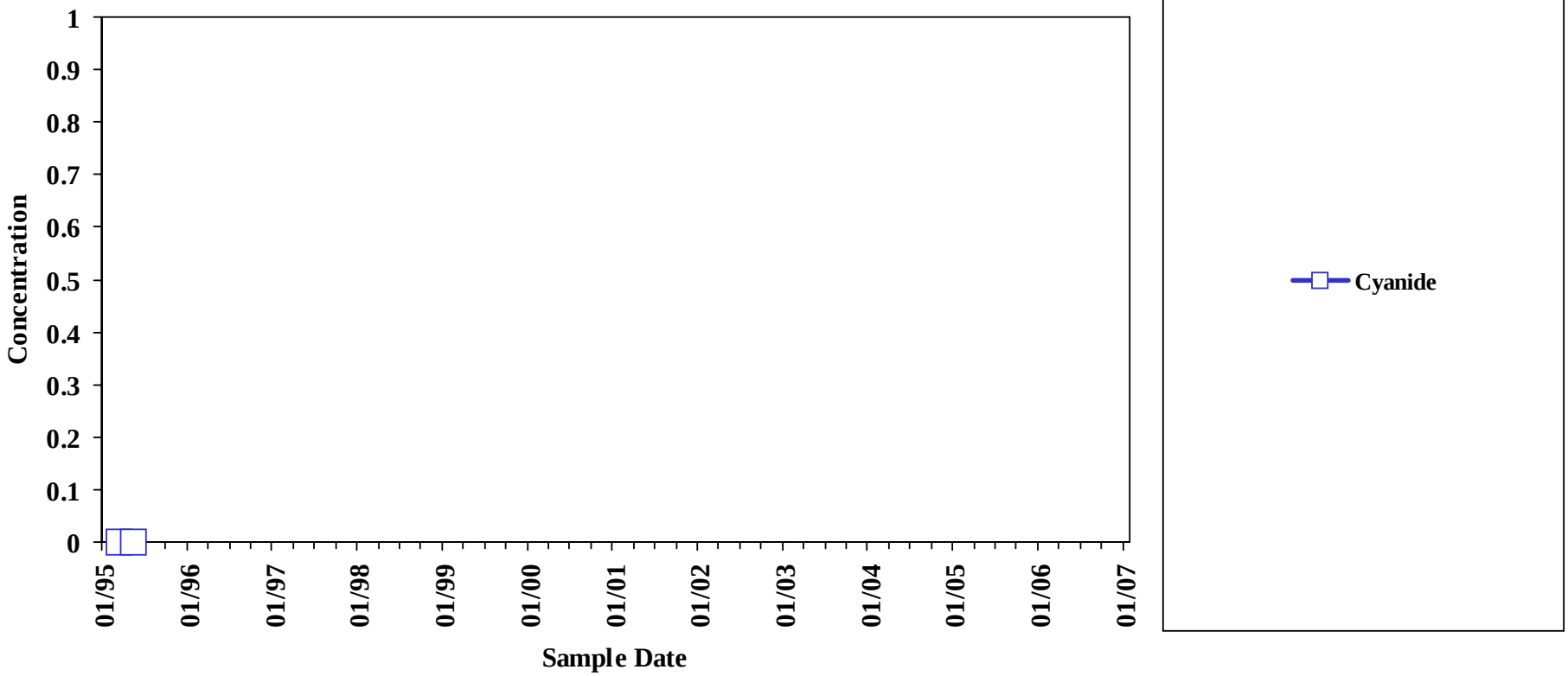
Sample concentration units: µg/L

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.

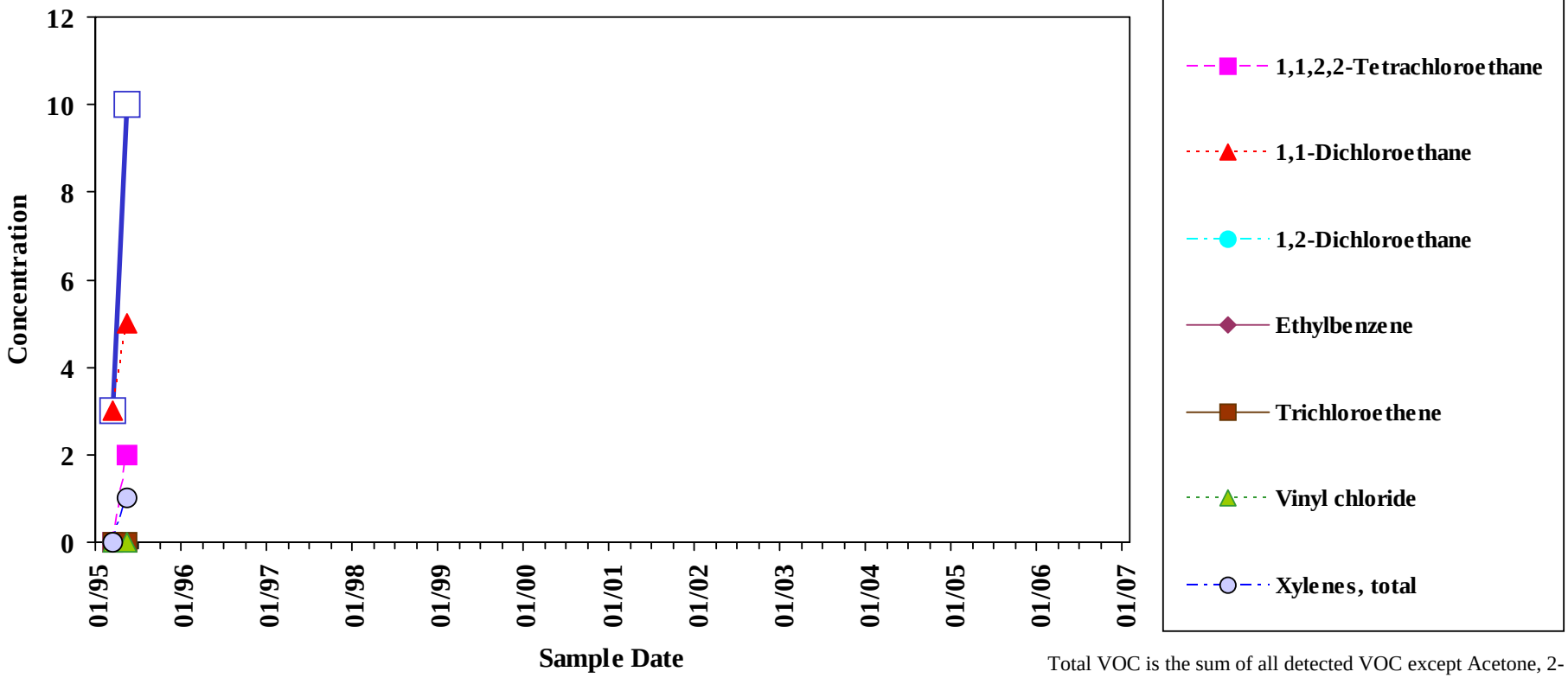
Sample concentration units: µg/L

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.

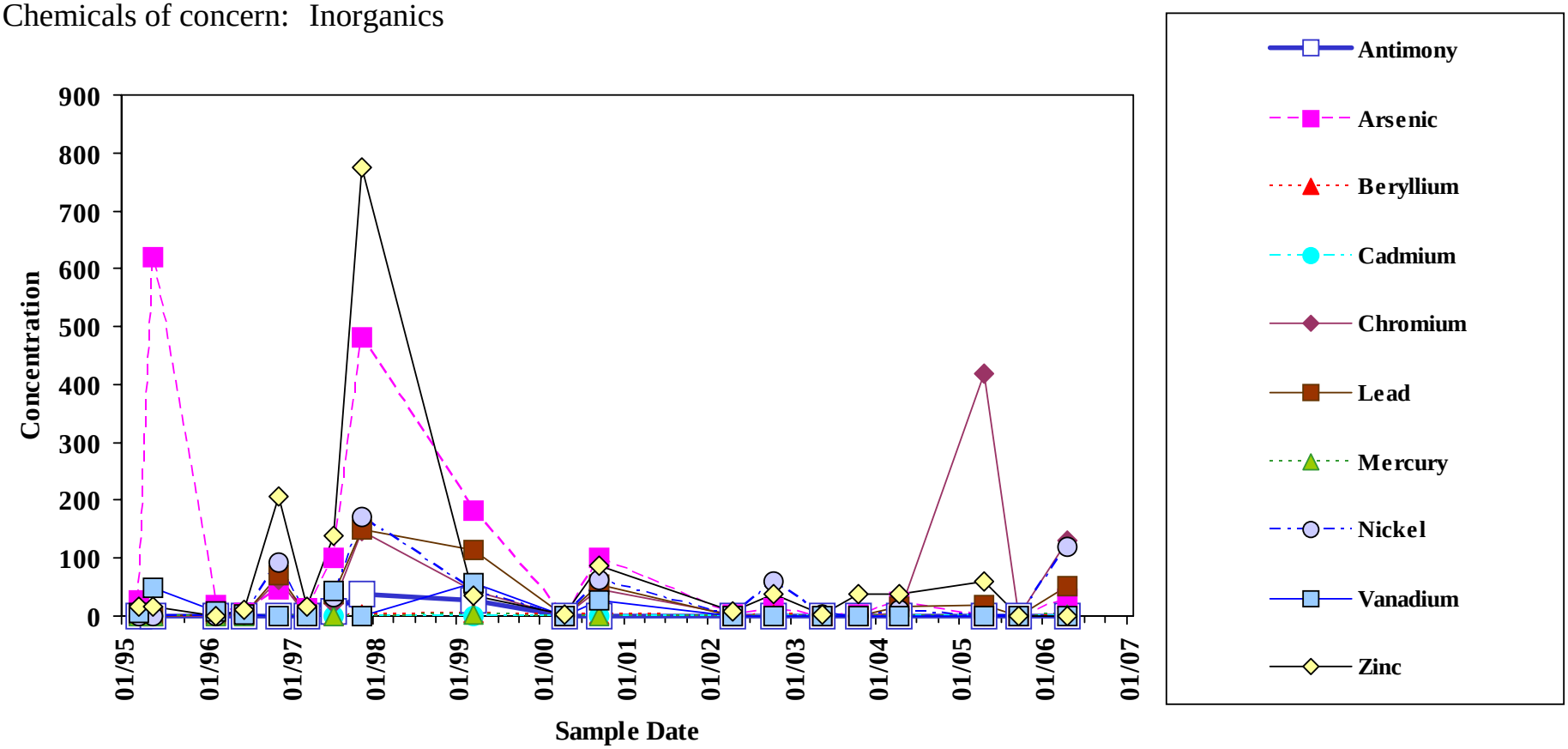
Sample concentration units: µg/L

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.

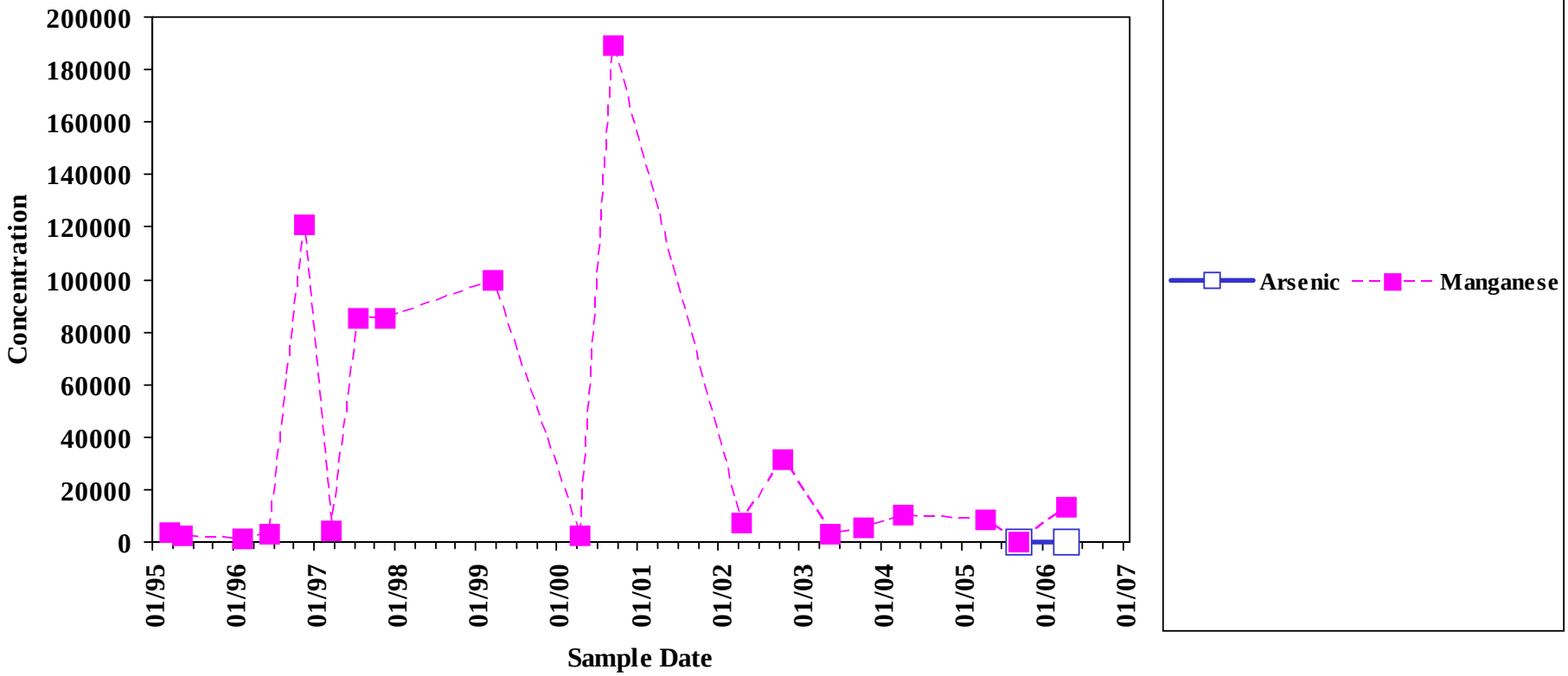
Sample concentration units: mg/L

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.

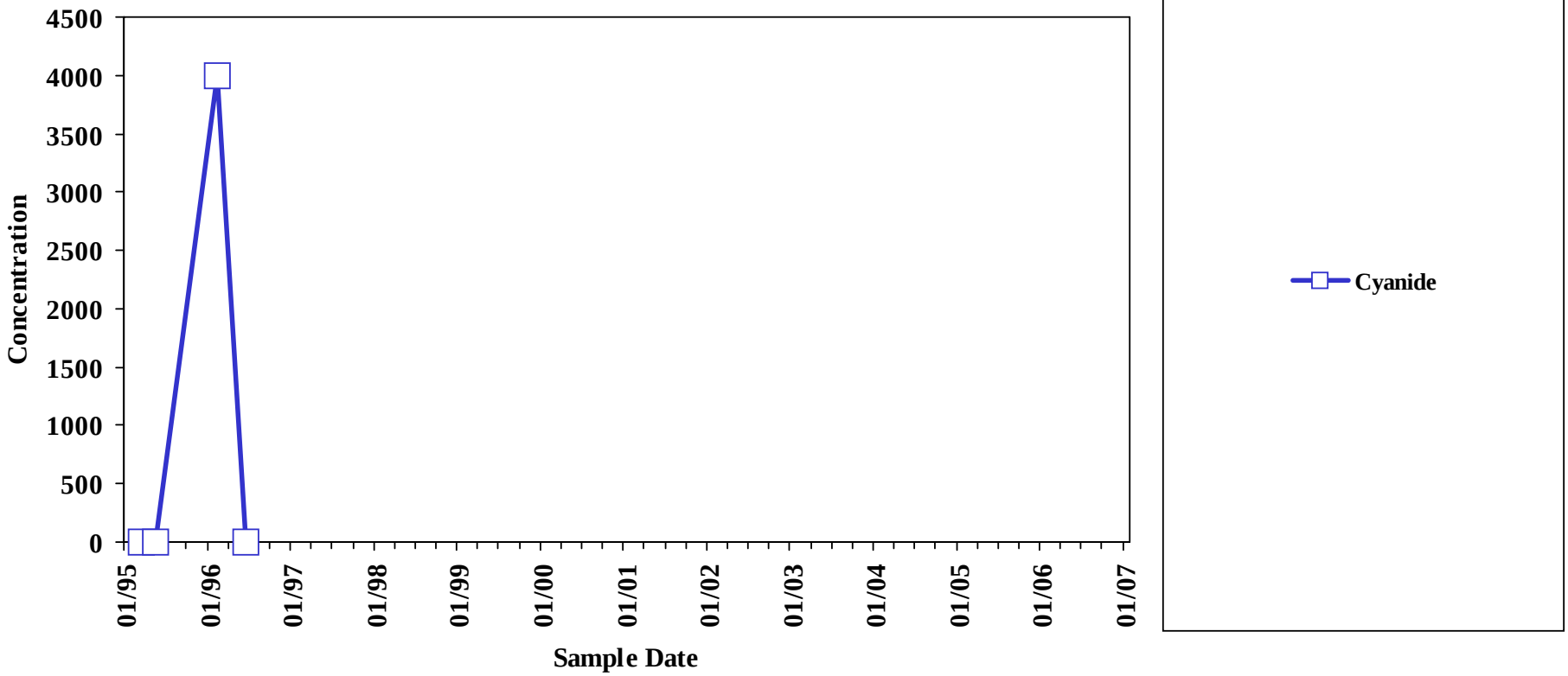
Sample concentration units: µg/L

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.

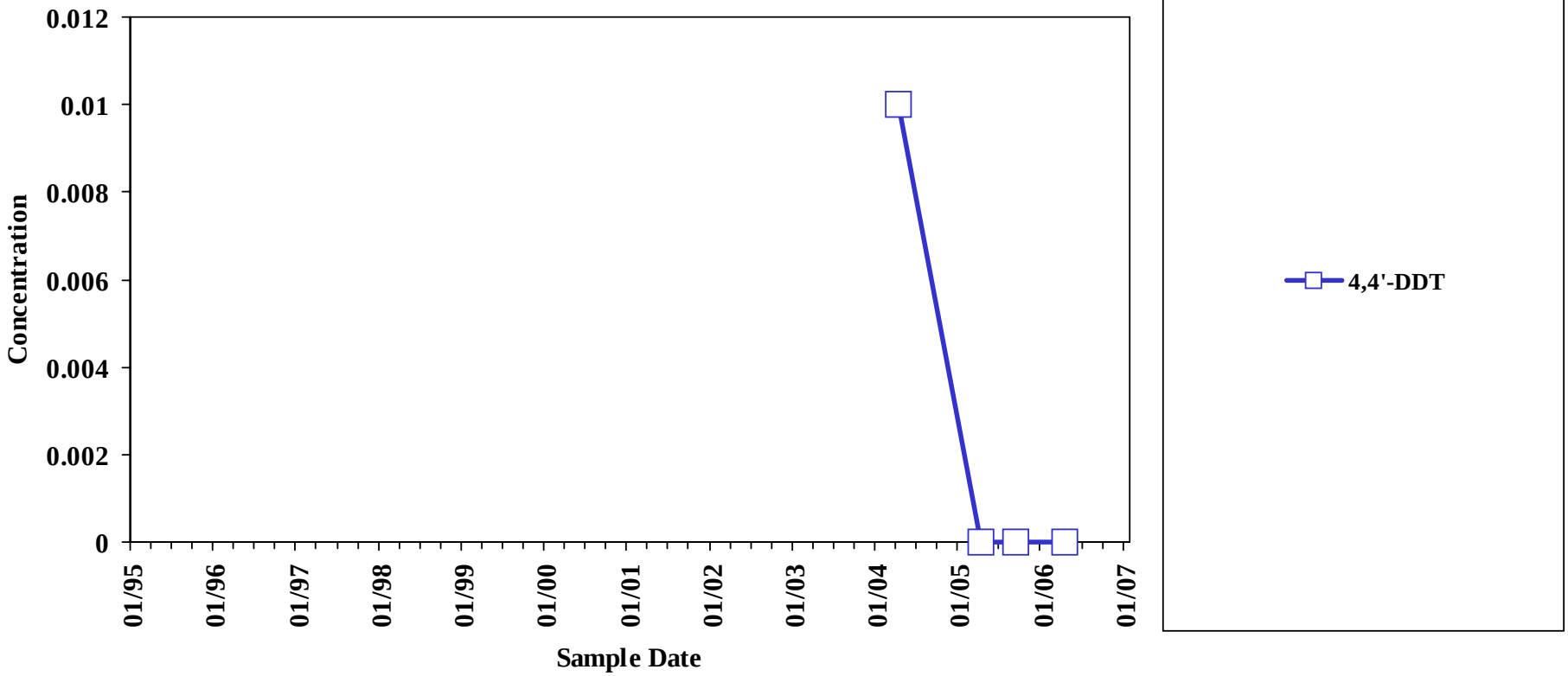
Sample concentration units: µg/L

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.

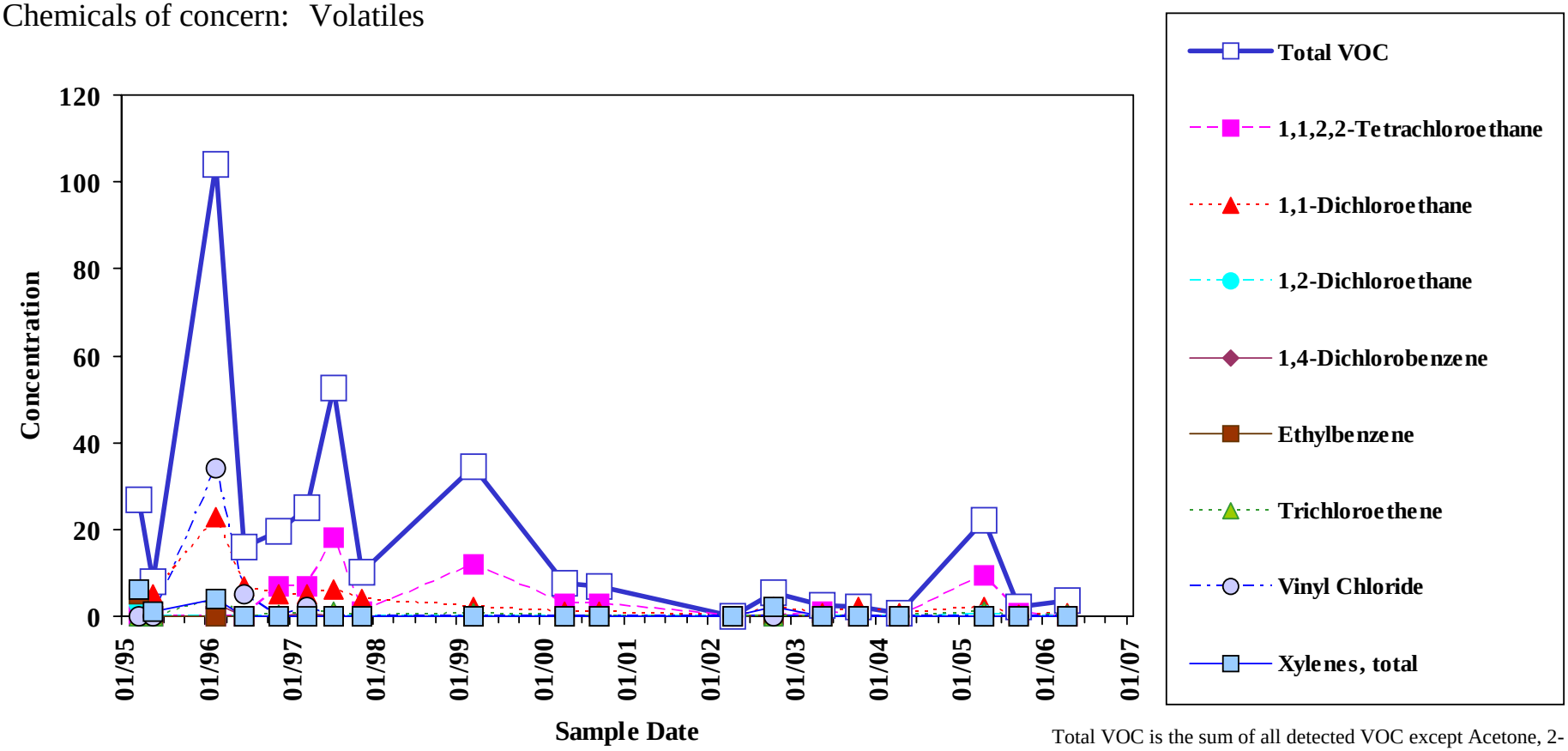
Sample concentration units: µg/l

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.

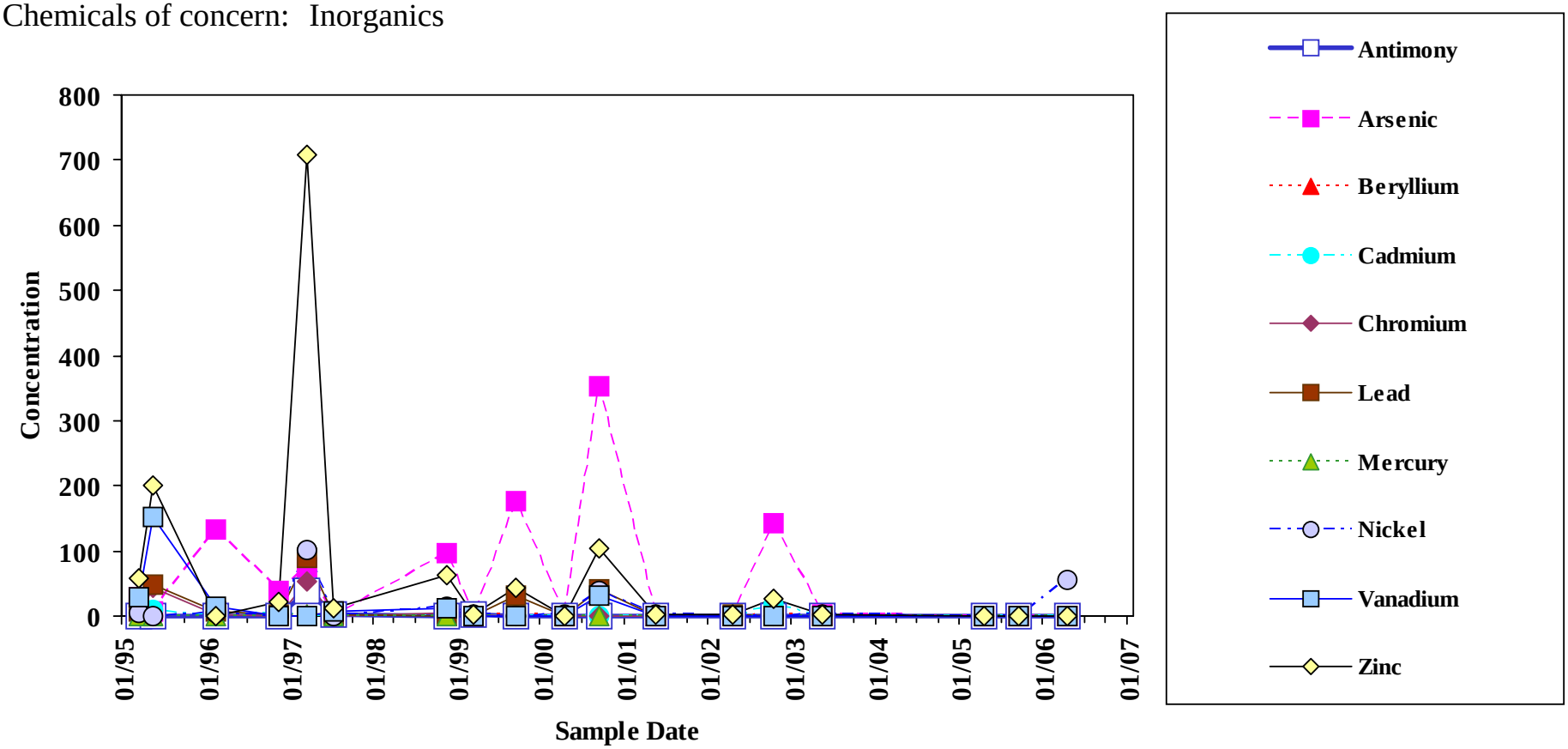
Sample concentration units: µg/L

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.

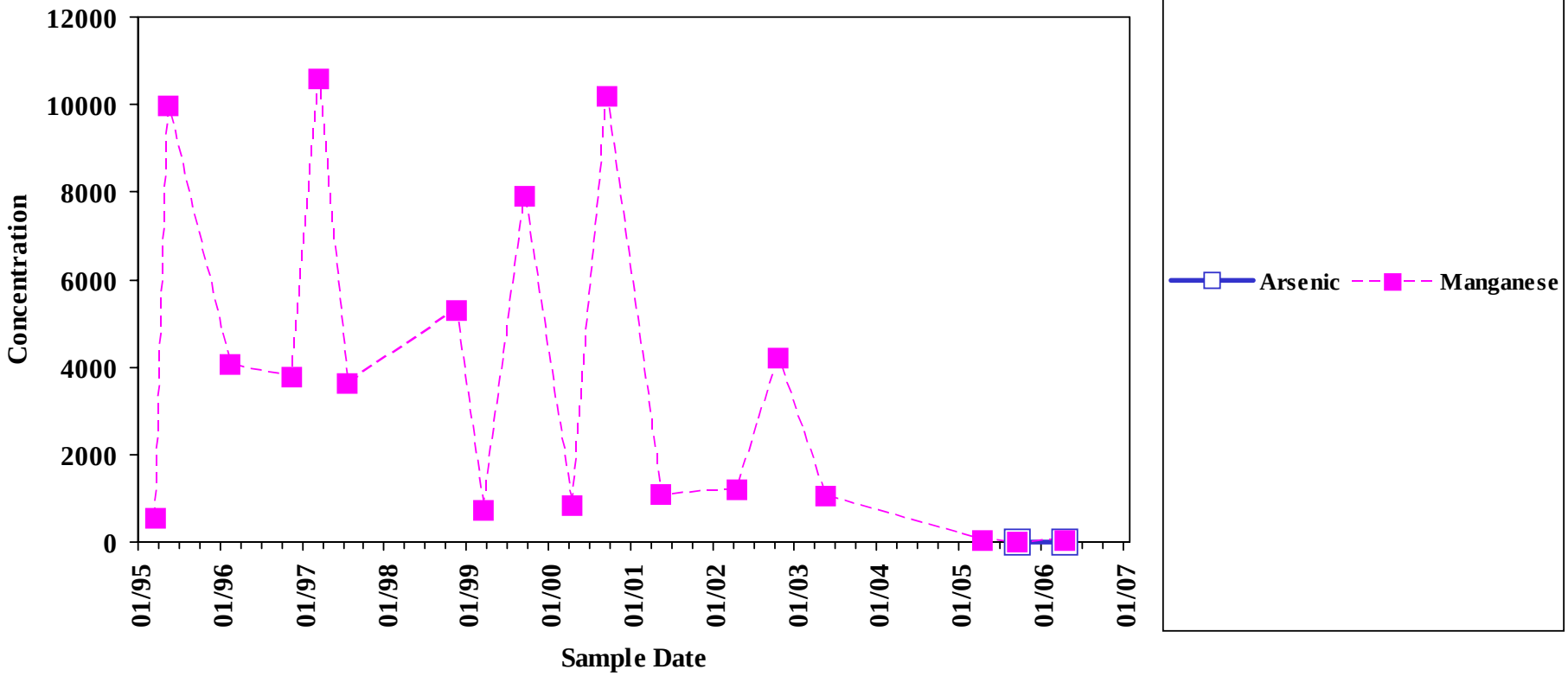
Sample concentration units: µg/L

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.

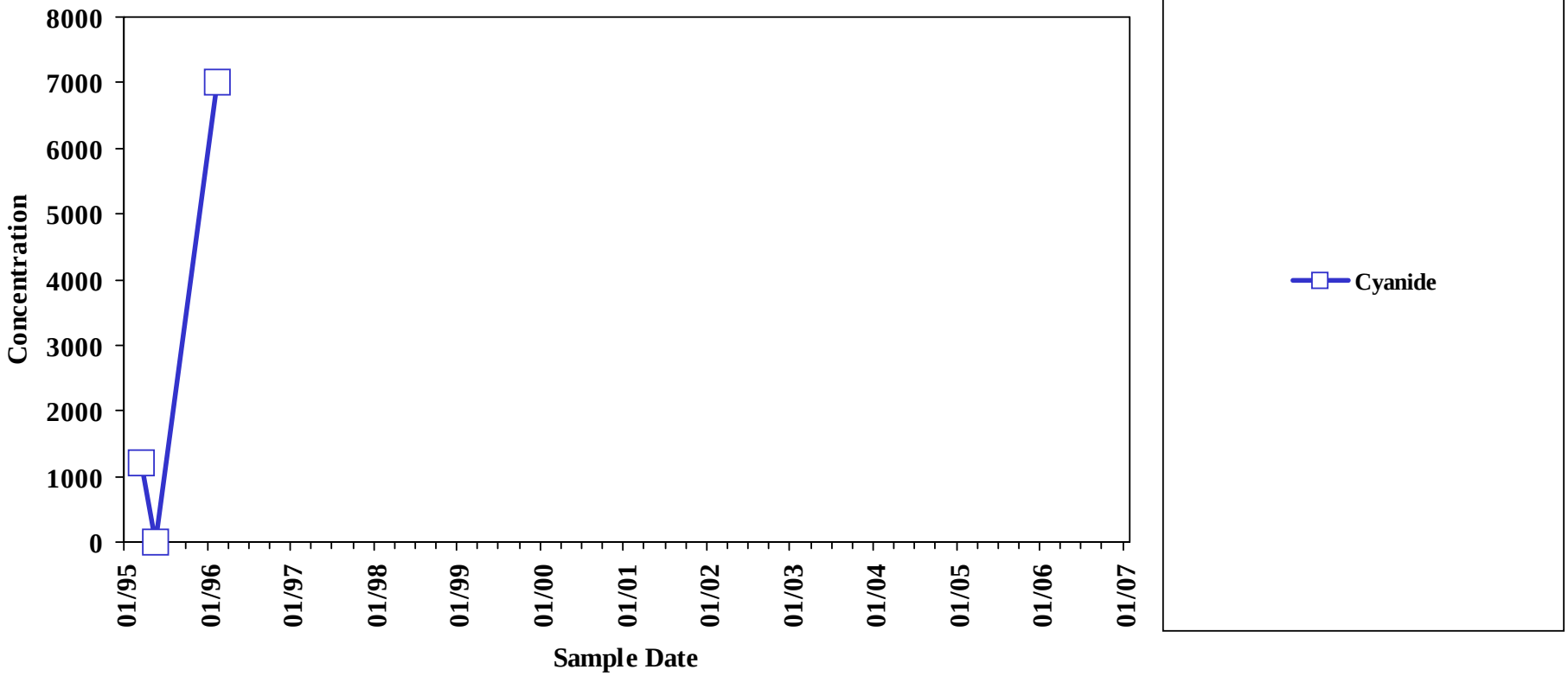
Sample concentration units: µg/L

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.

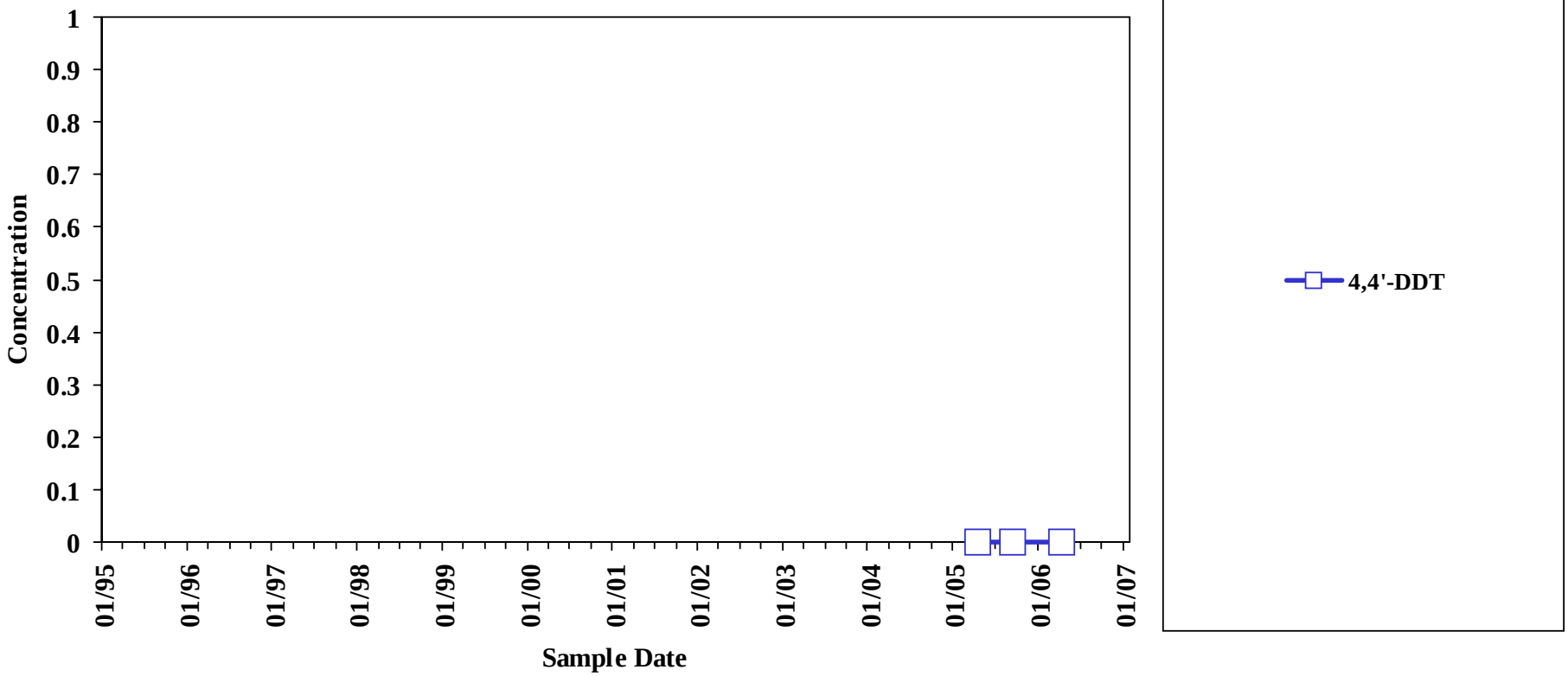
Sample concentration units: µg/L

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.

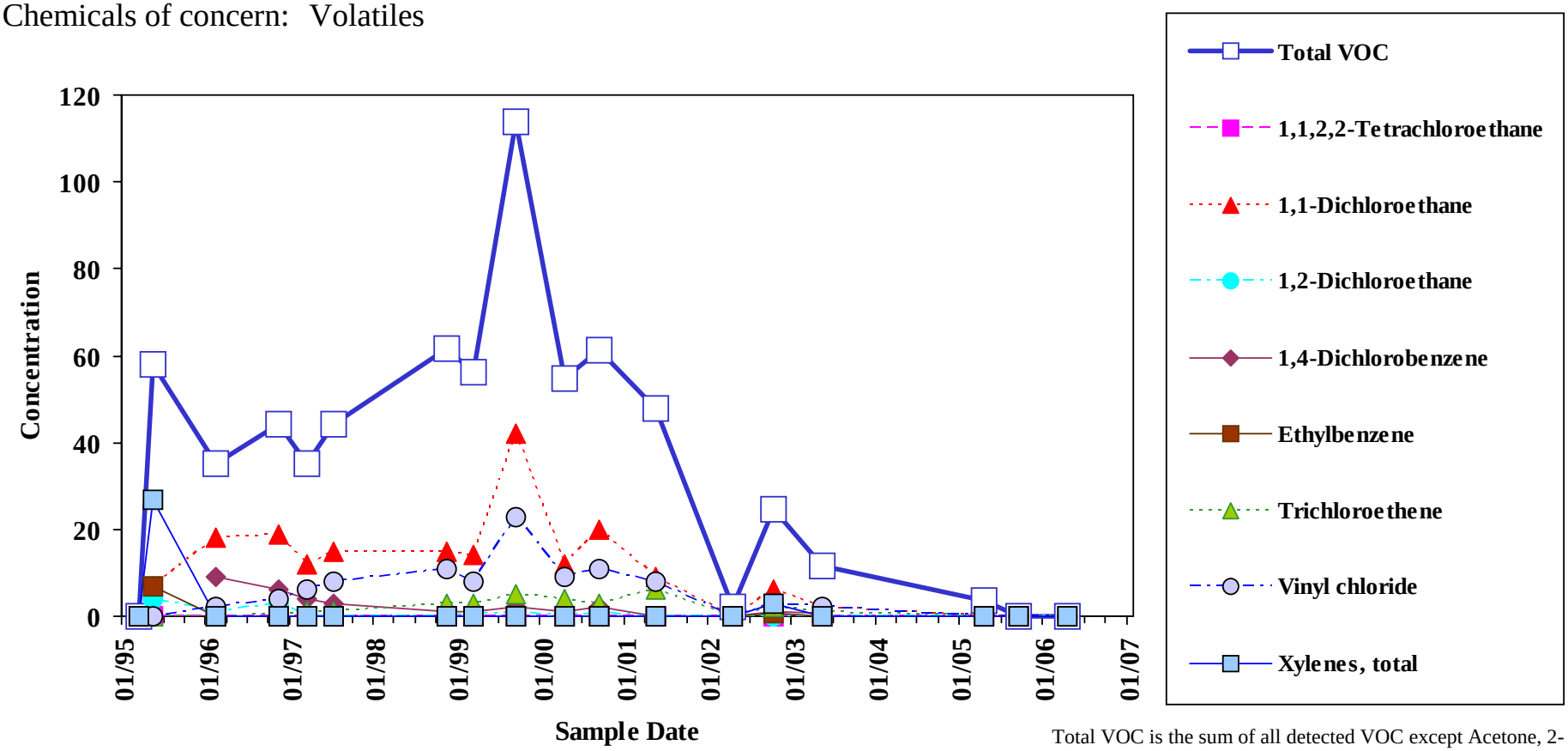
Sample concentration units: µg/L

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.

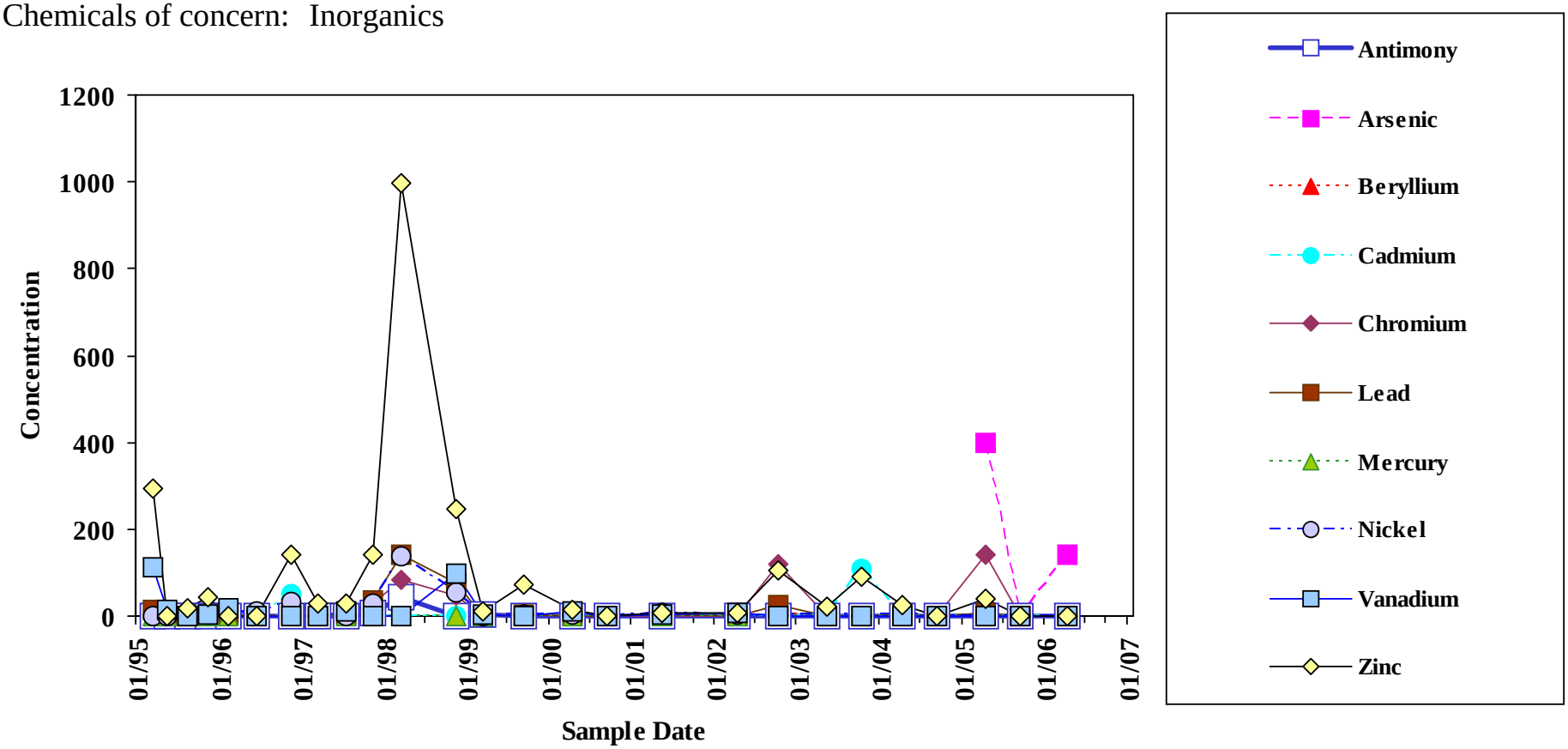
Sample concentration units: µg/L

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.

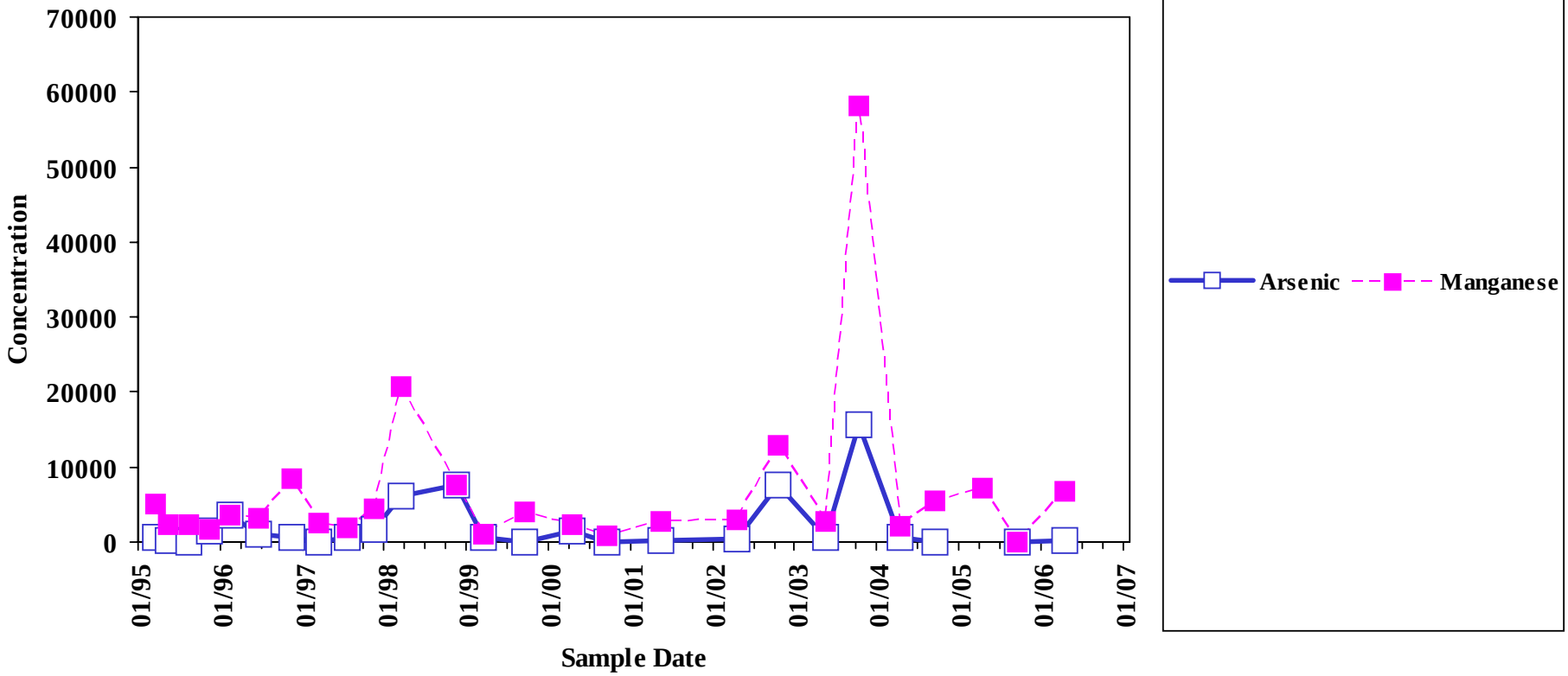
Sample concentration units: µg/L

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.

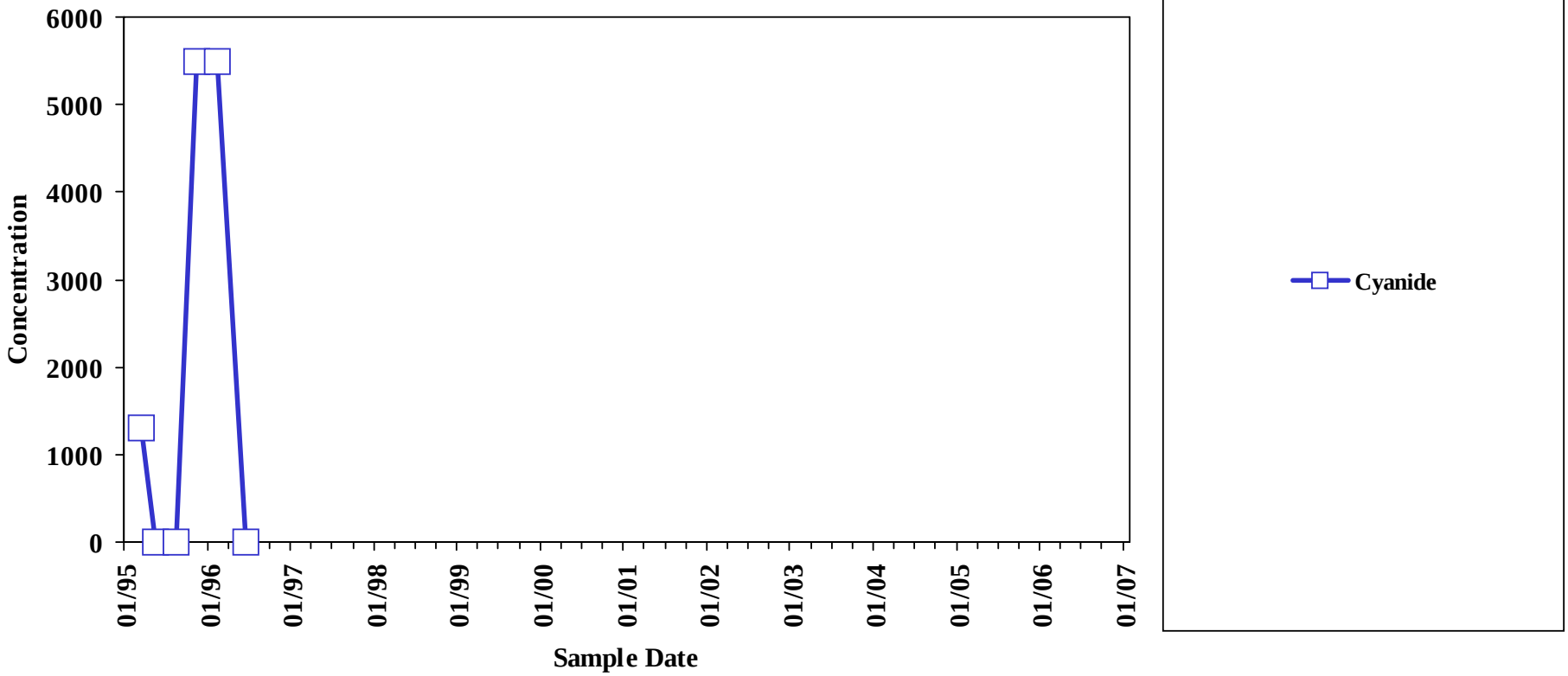
Sample concentration units: µg/L

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.

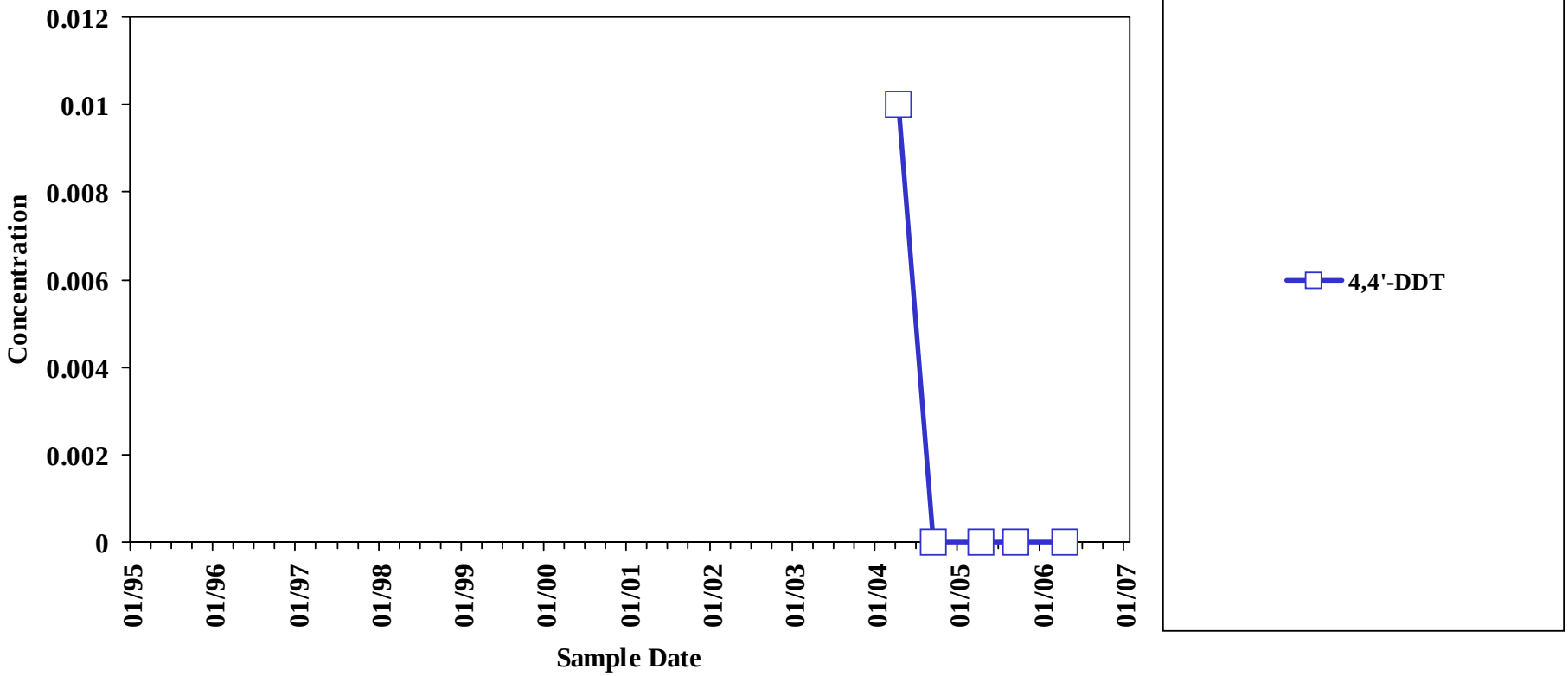
Sample concentration units: µg/L

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.

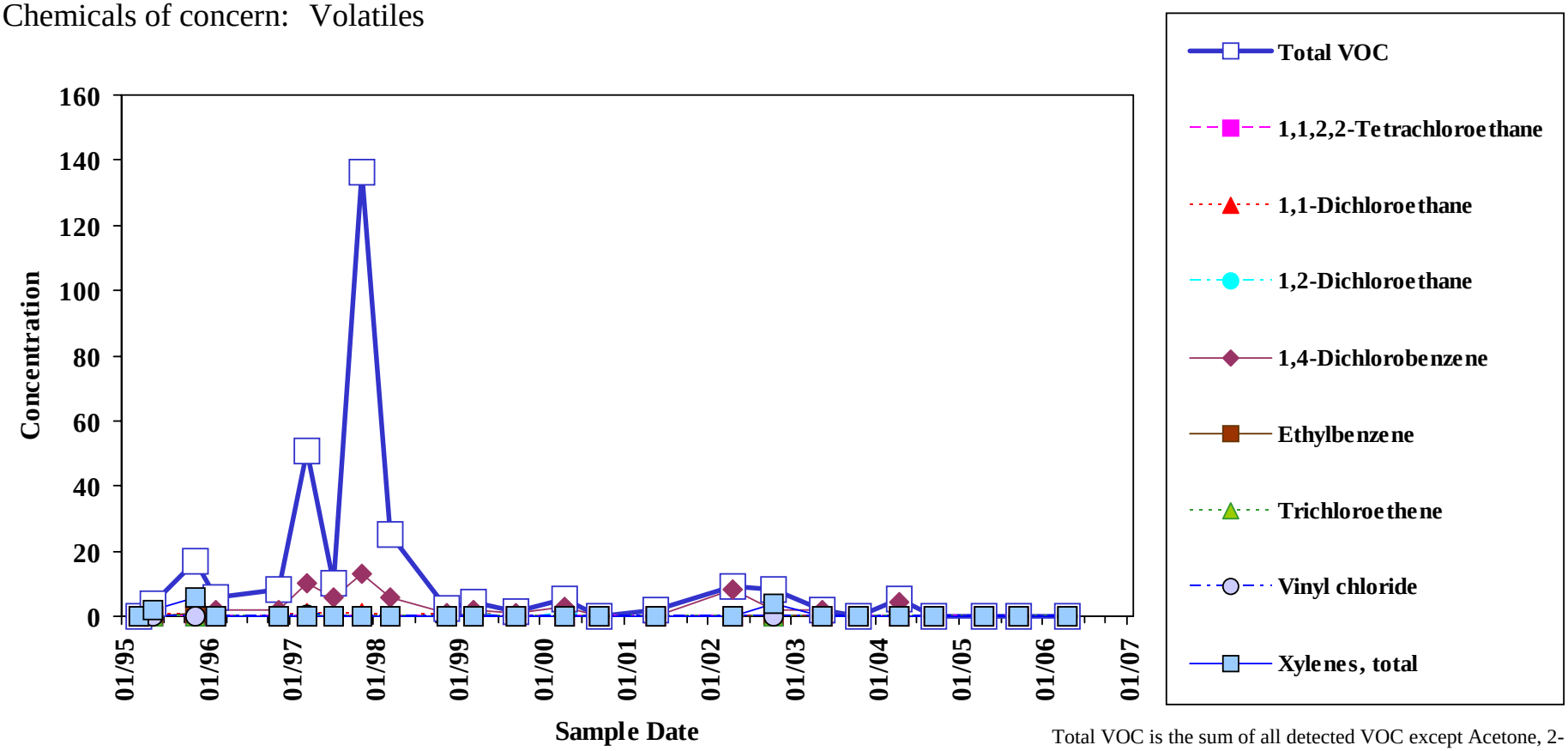
Sample concentration units: µg/l

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.

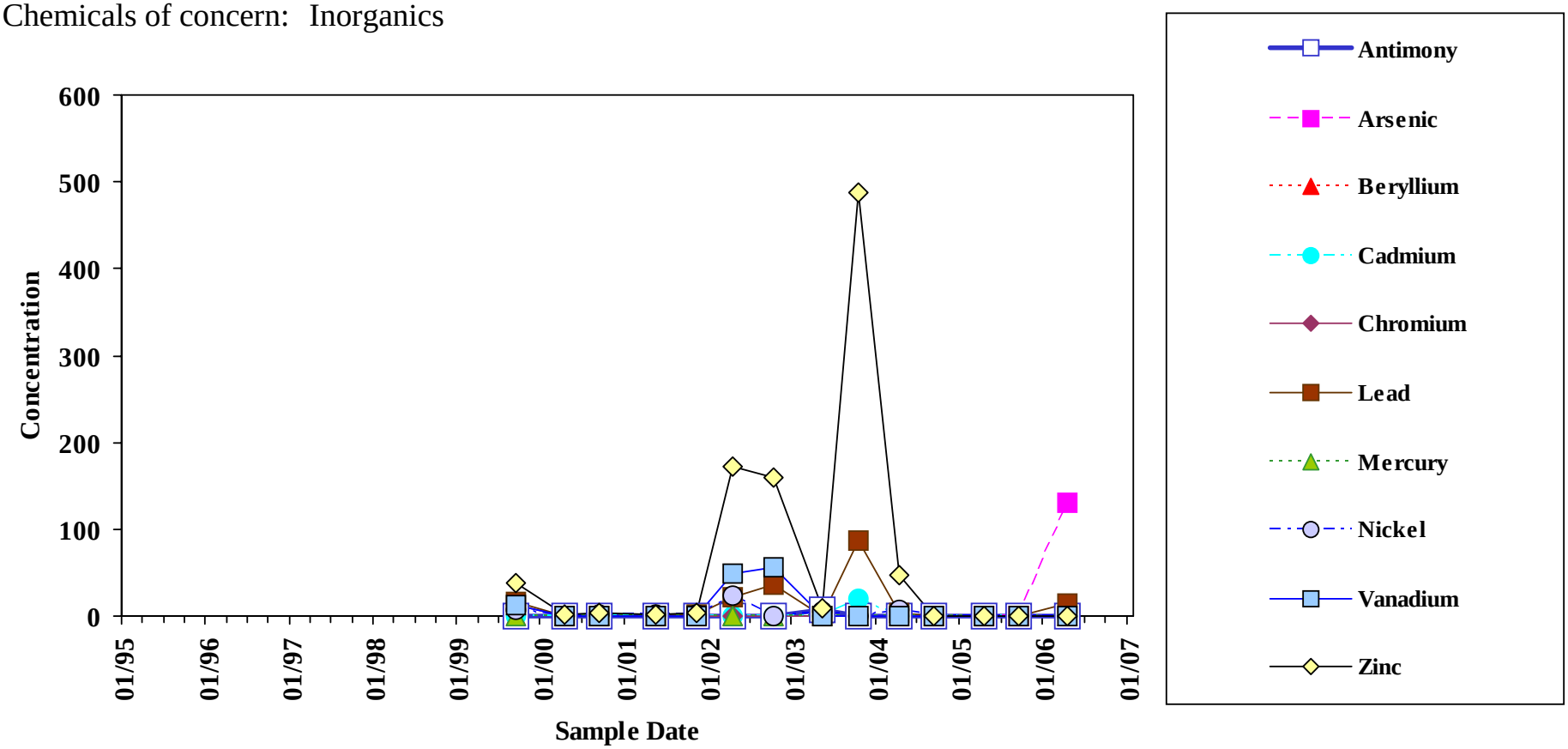
Sample concentration units: µg/L

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.

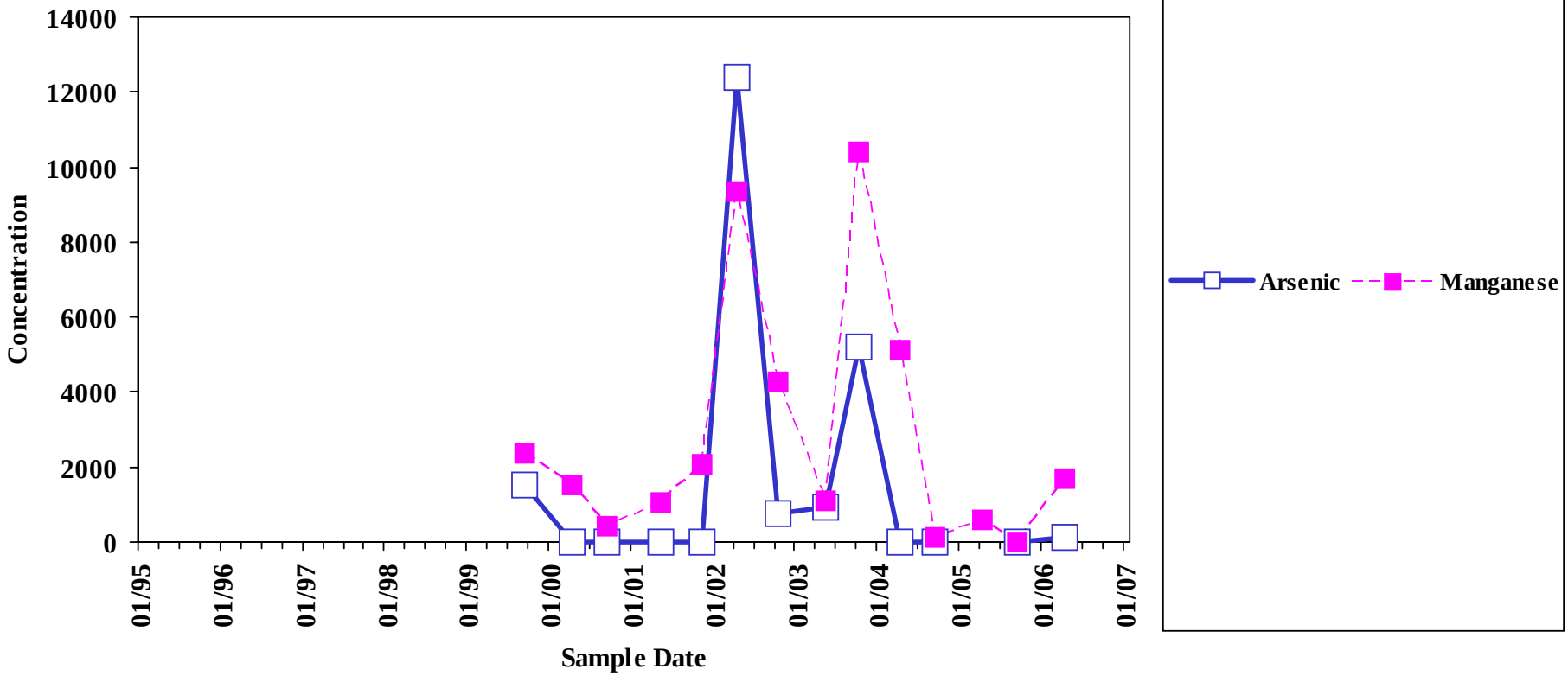
Sample concentration units: µg/L

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.

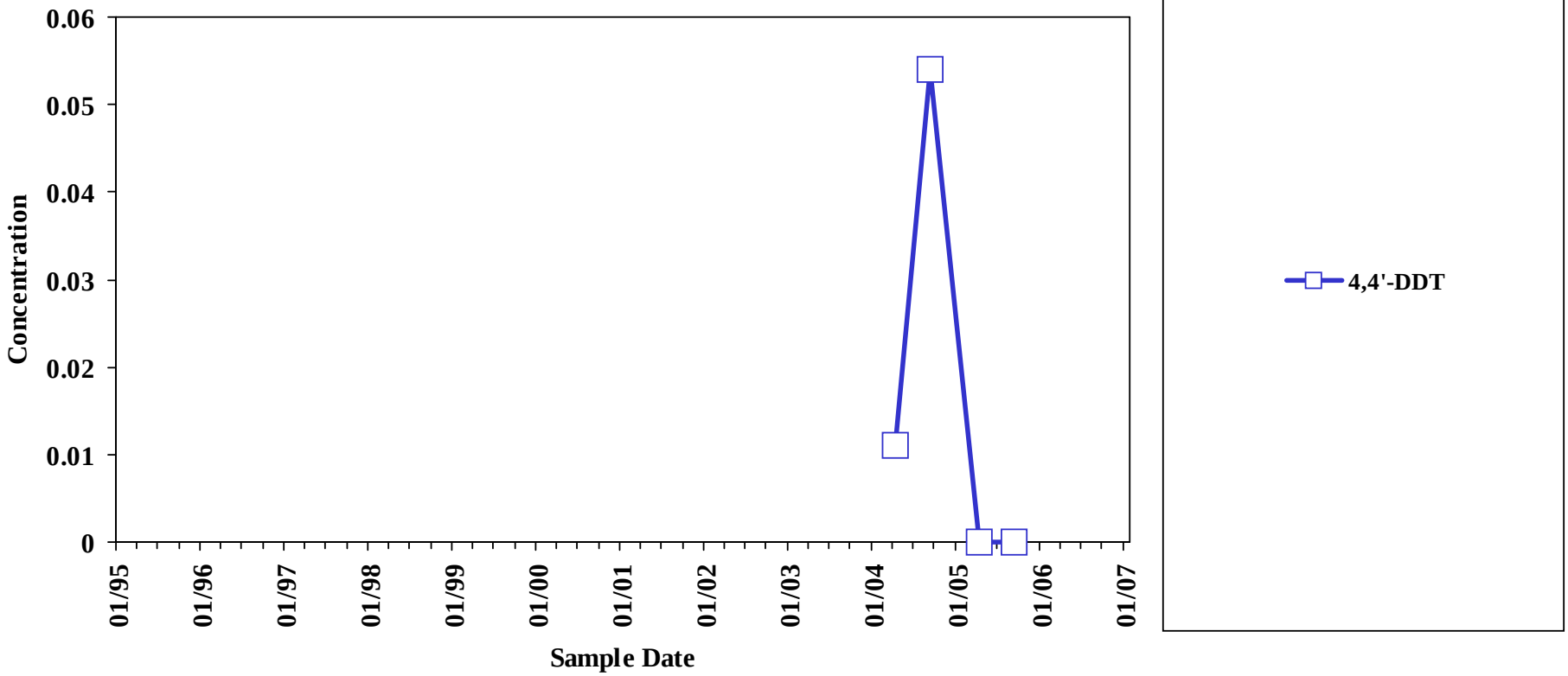
Sample concentration units: µg/L

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.

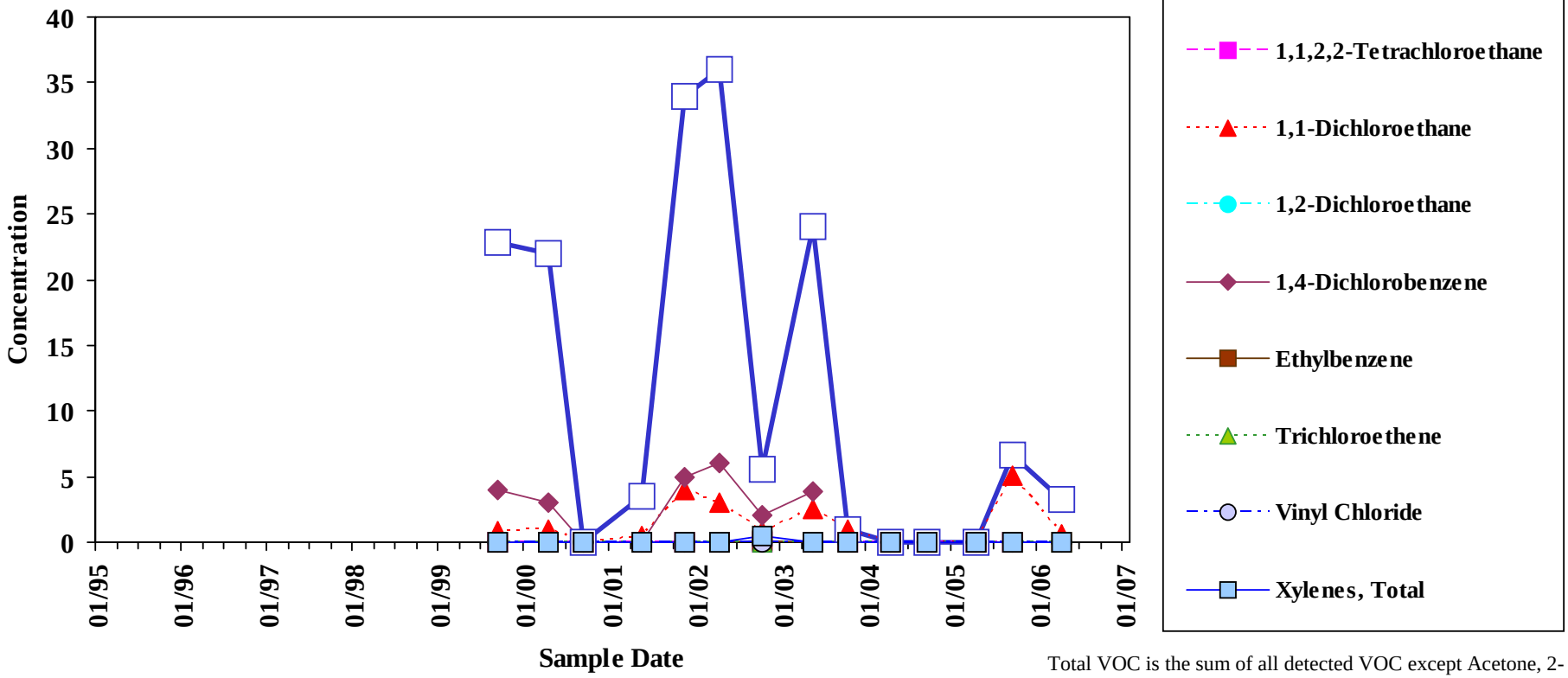
Sample concentration units: µg/l

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.

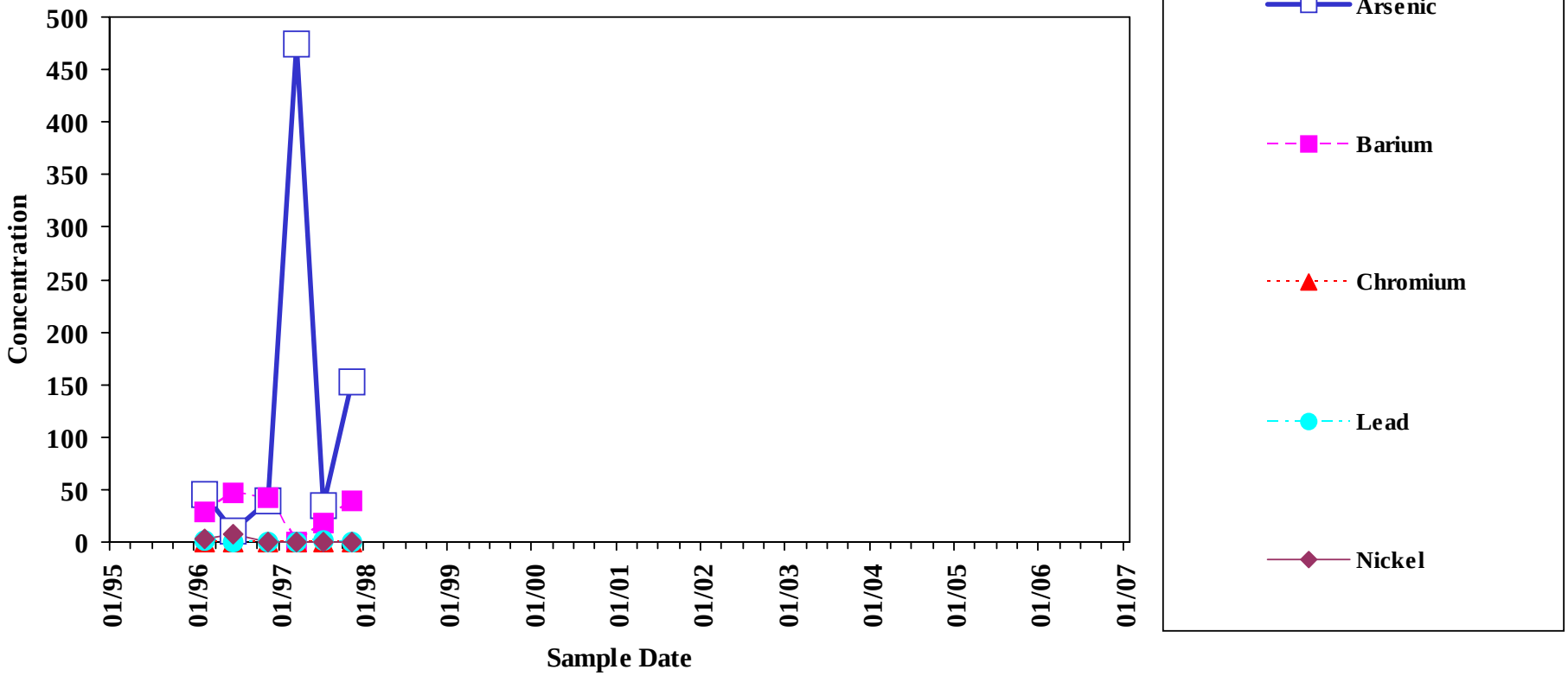
Sample concentration units: µg/L

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

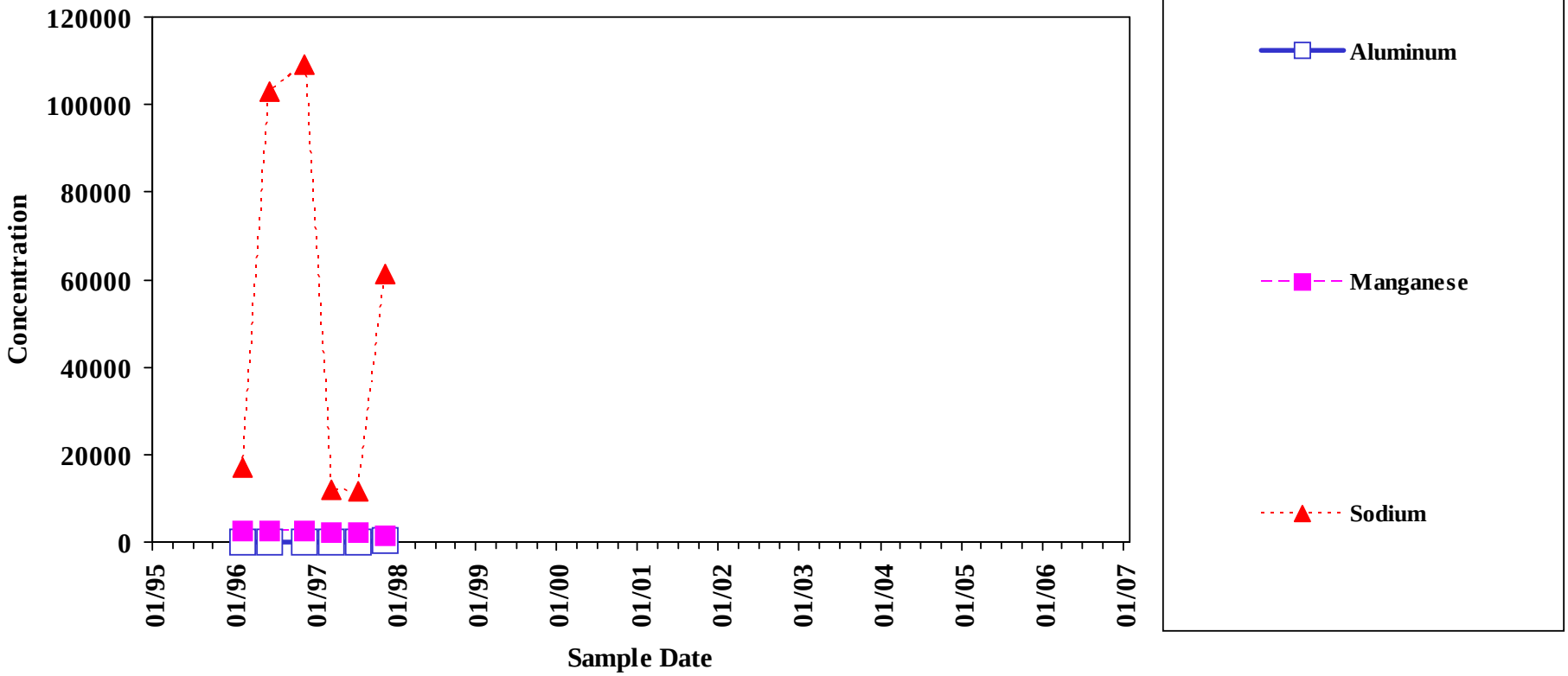
Arsenic		Barium		Chromium		Lead		Nickel	
MEG:	-	MEG:	1500	MEG:	100	MEG:	-	MEG:	100
MCL:	50	MCL:	2000	MCL:	100	MCL:	15	MCL:	100

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

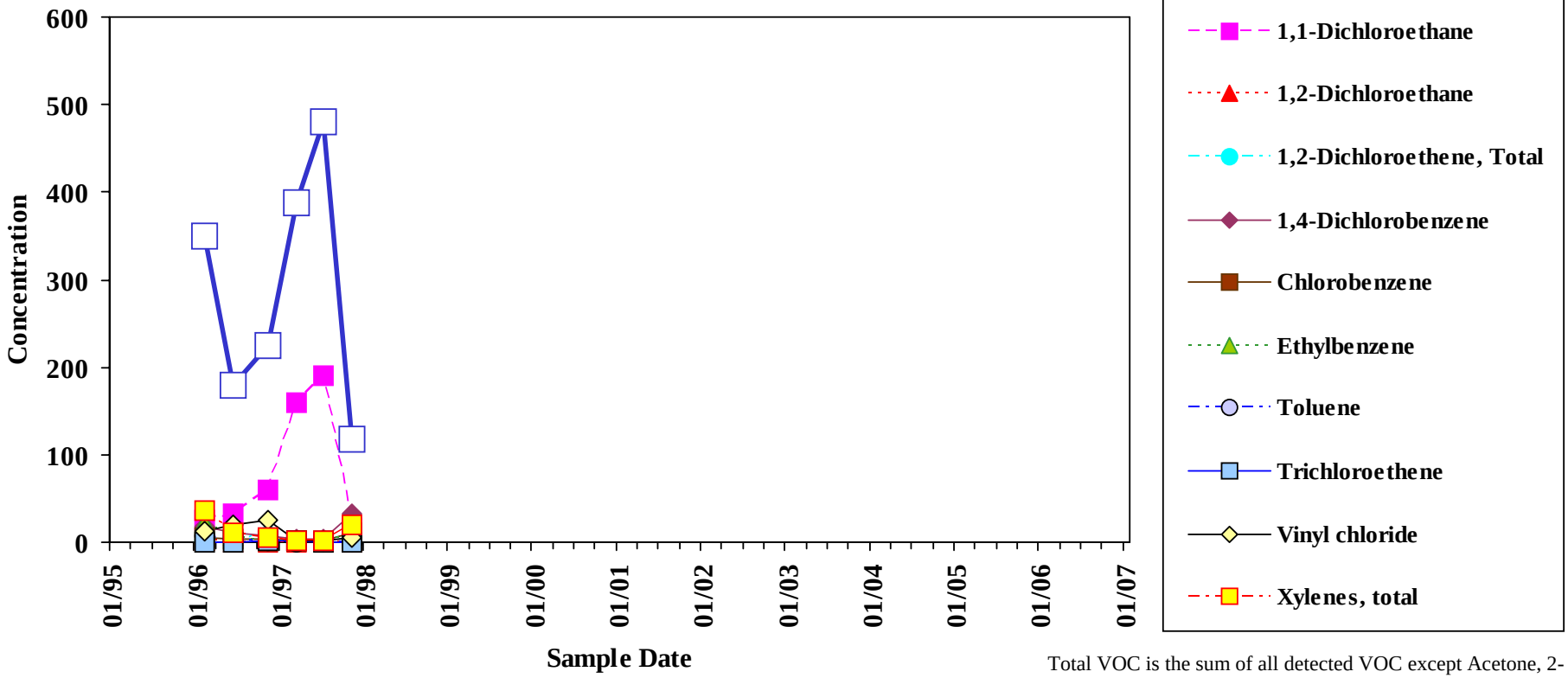
Aluminum		Manganese		Sodium	
MEG:	1430	MEG:	200	MEG:	-
MCL:	200	MCL:	50	MCL:	-

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

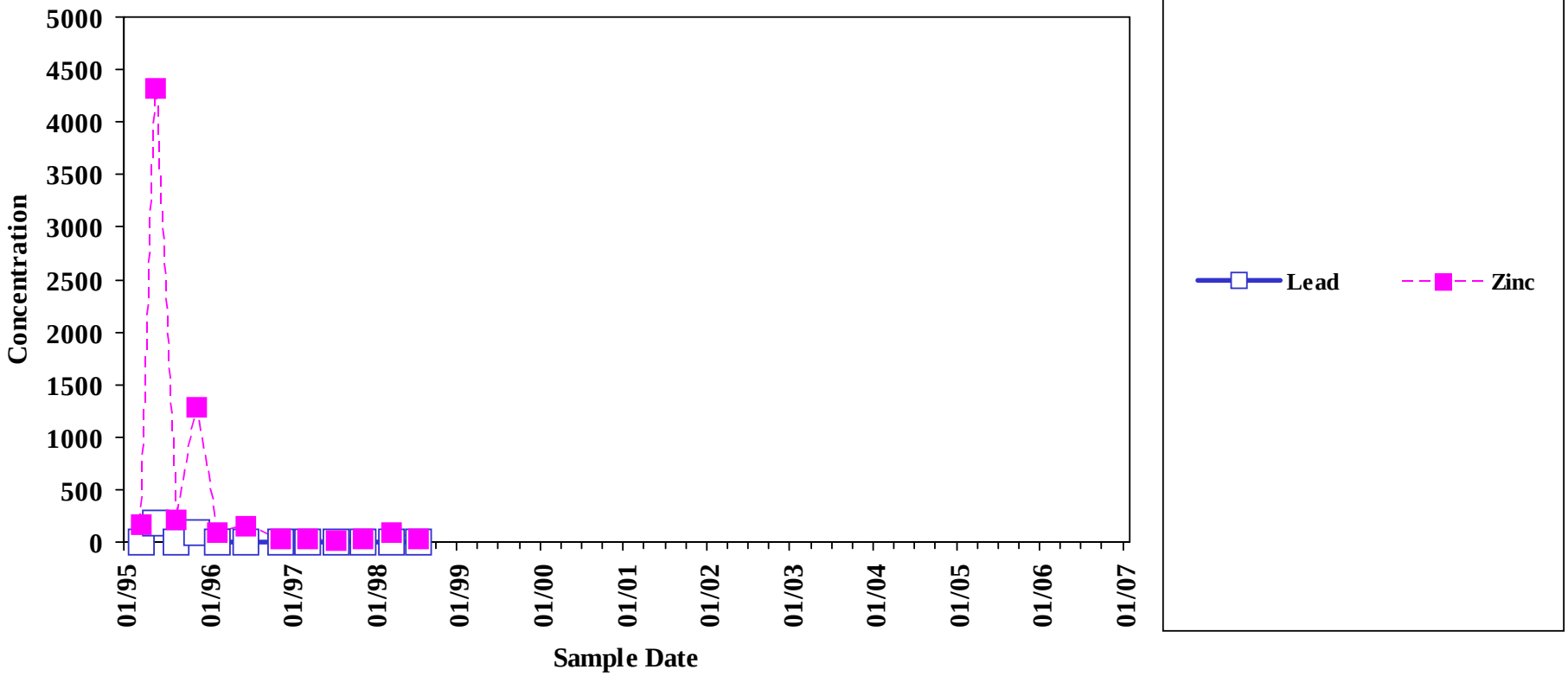
Sample Location:

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

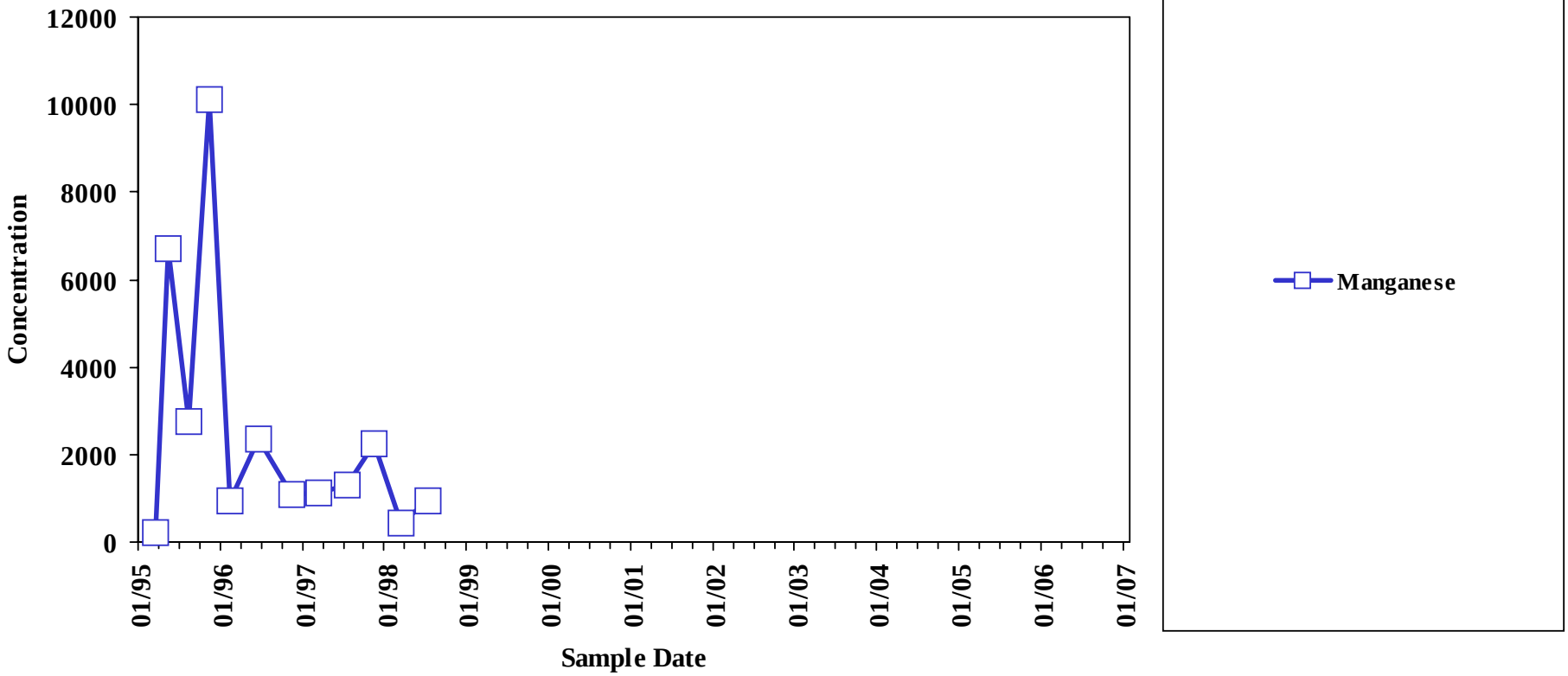
Sample Location:

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

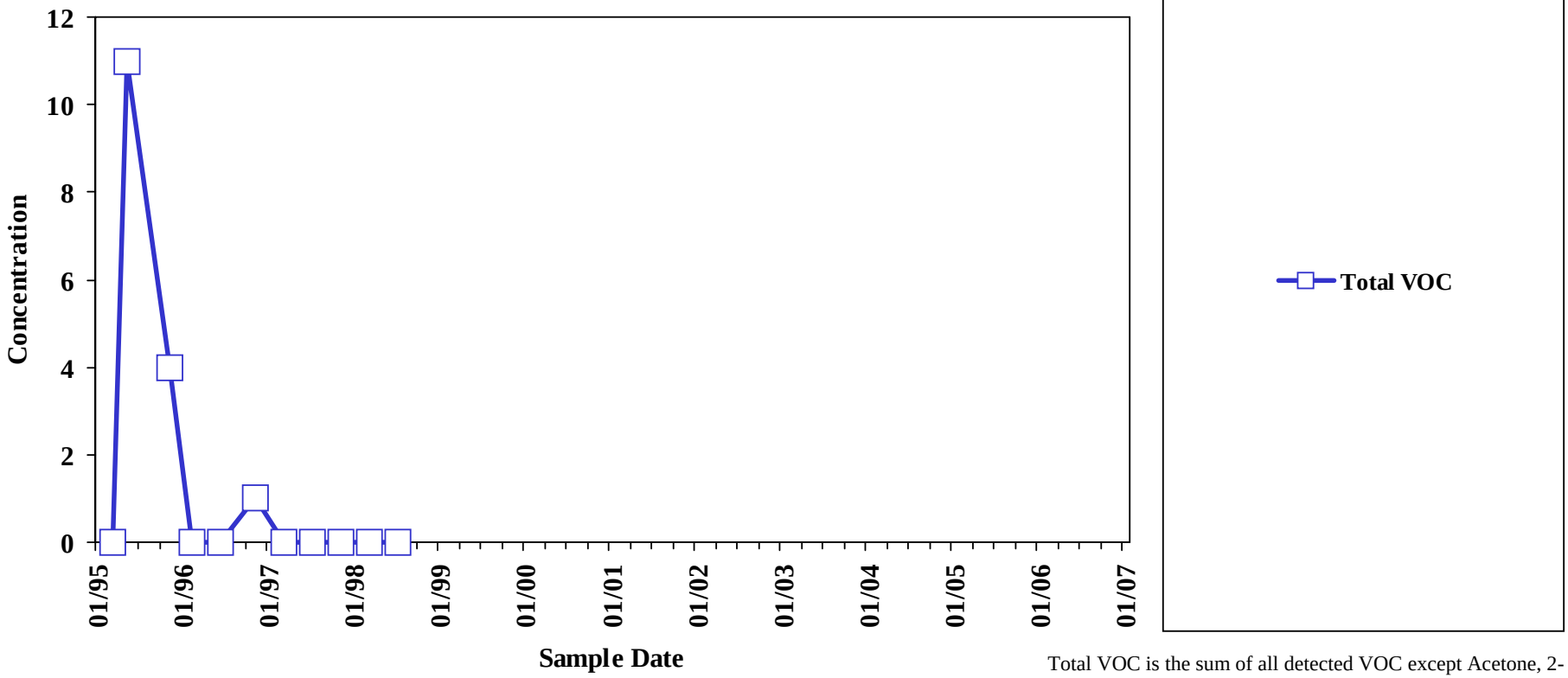
Sample Location:

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

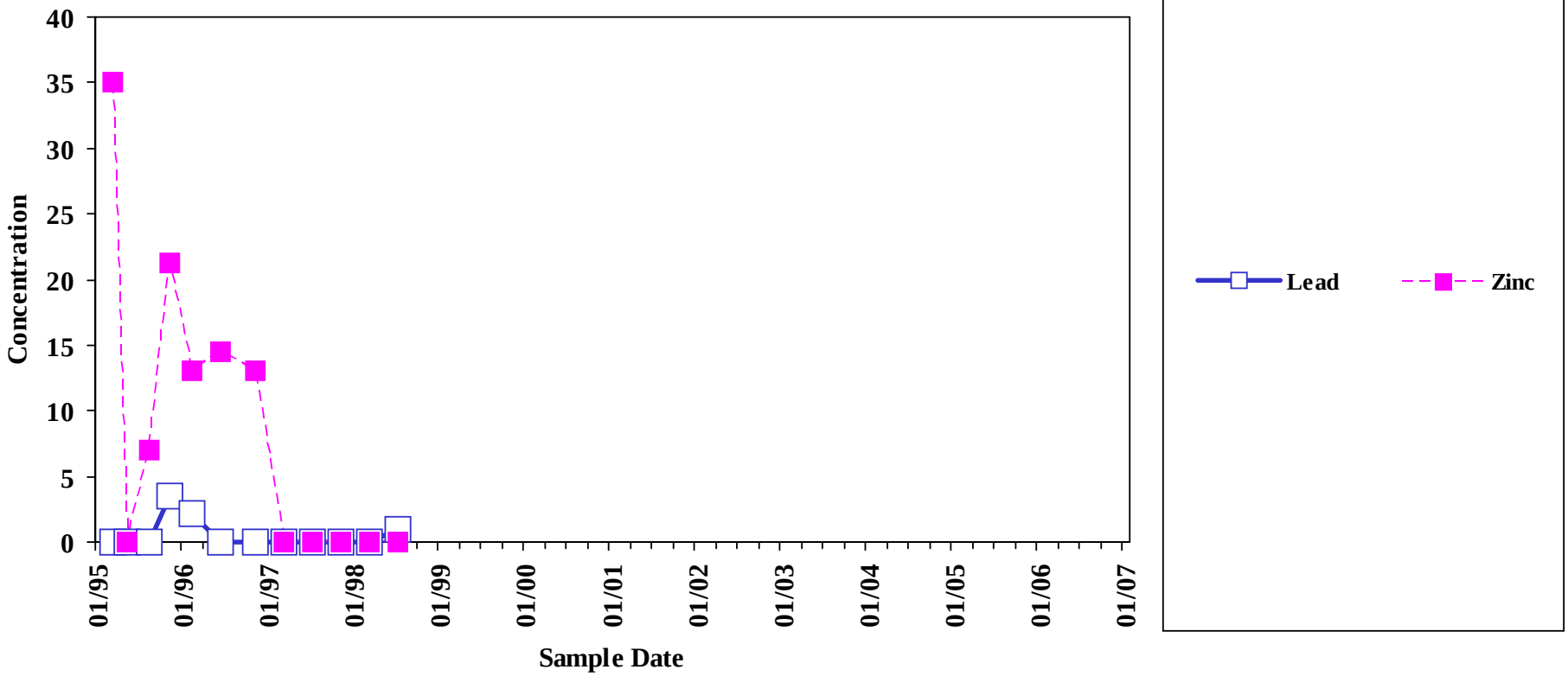
Sample Location:

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

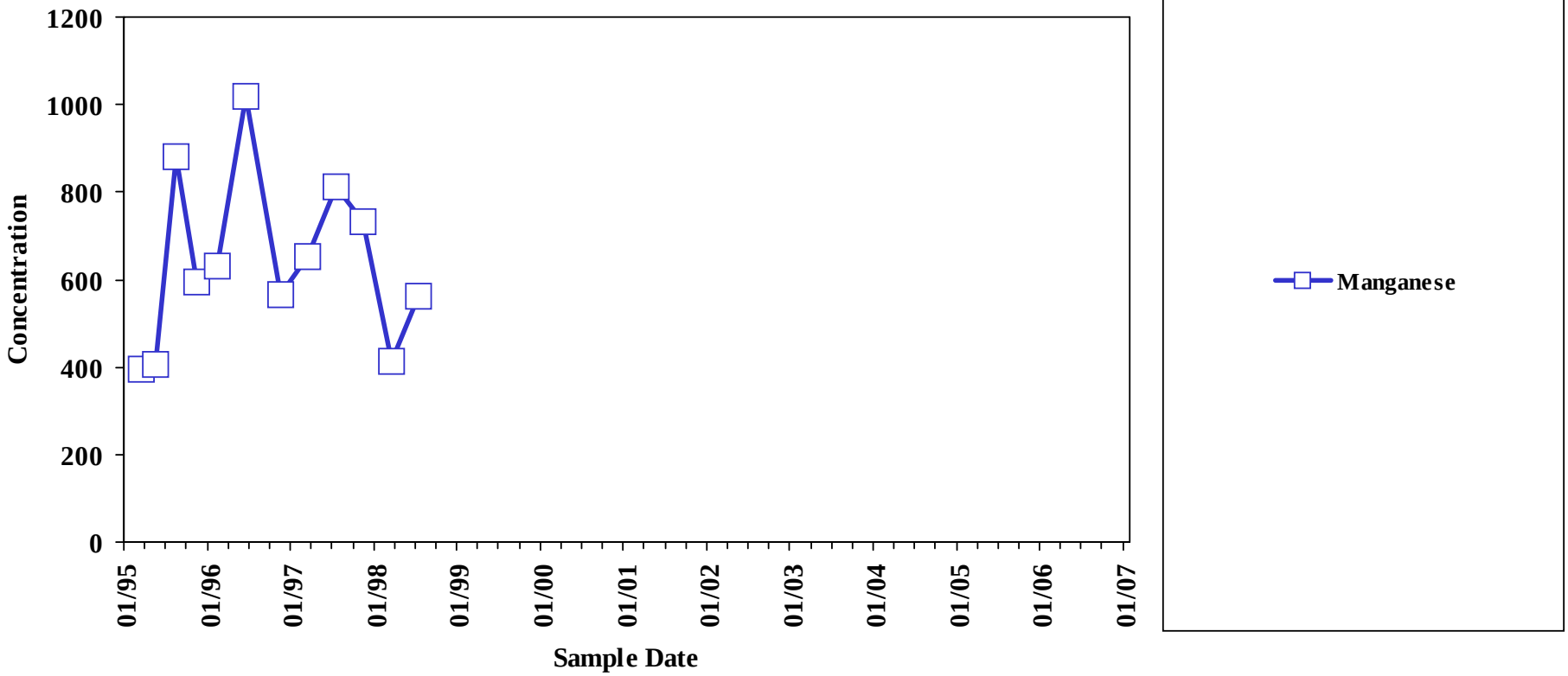
Sample Location:

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

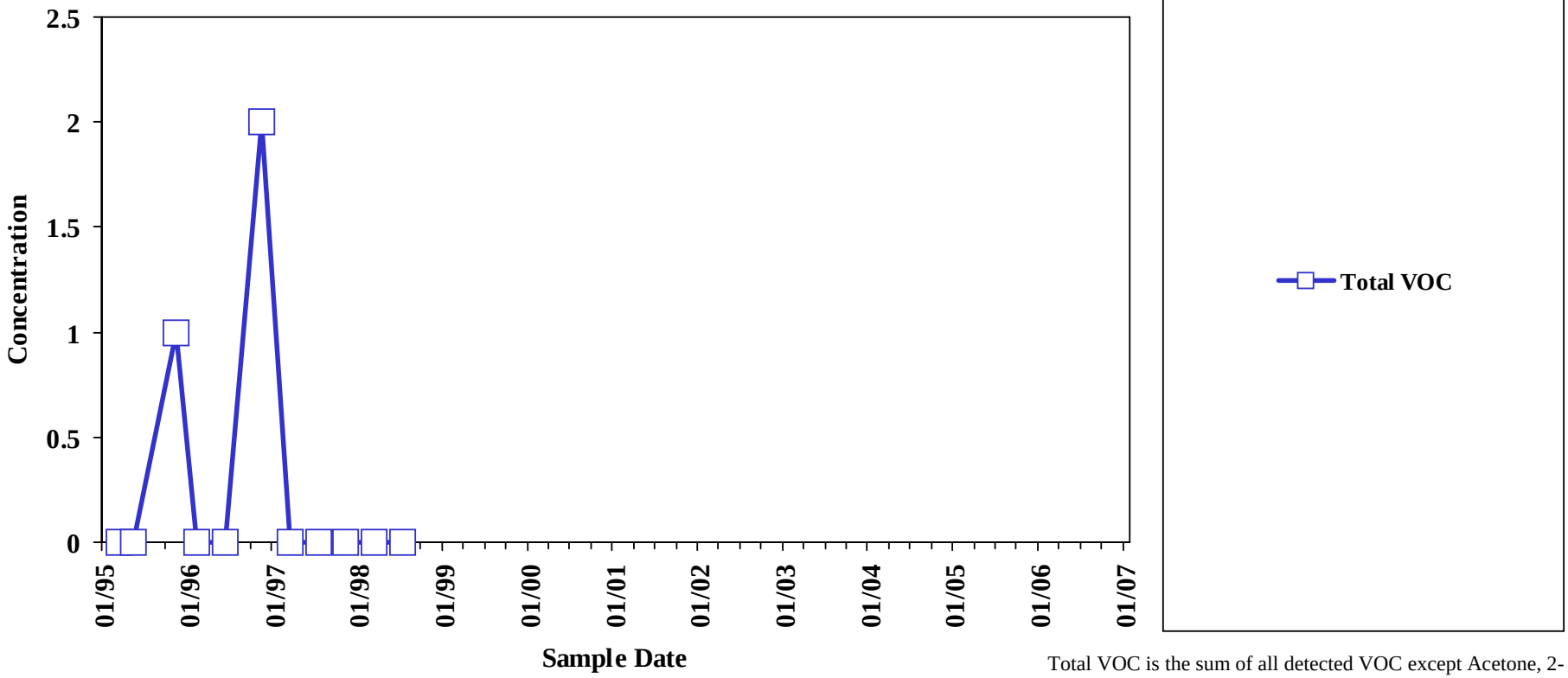
Sample Location:

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

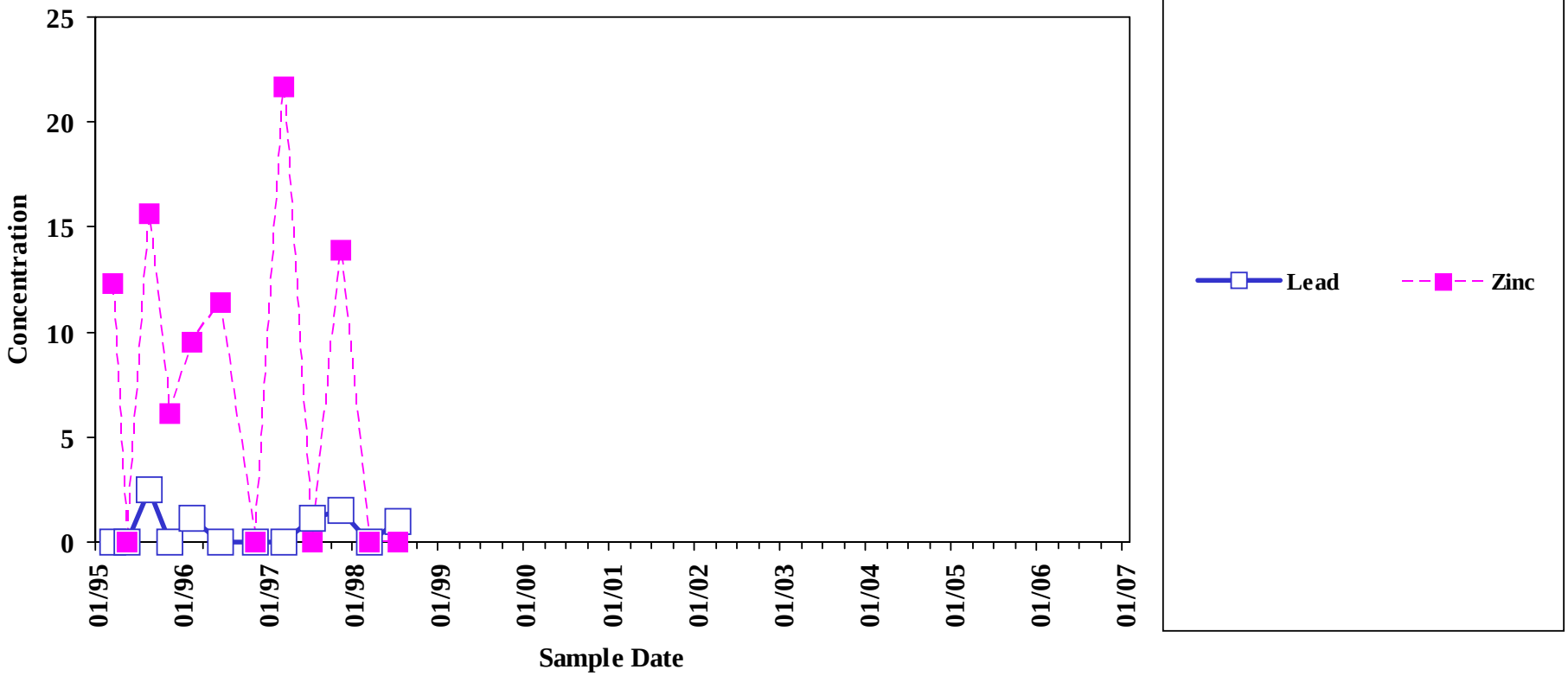
Sample Location:

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

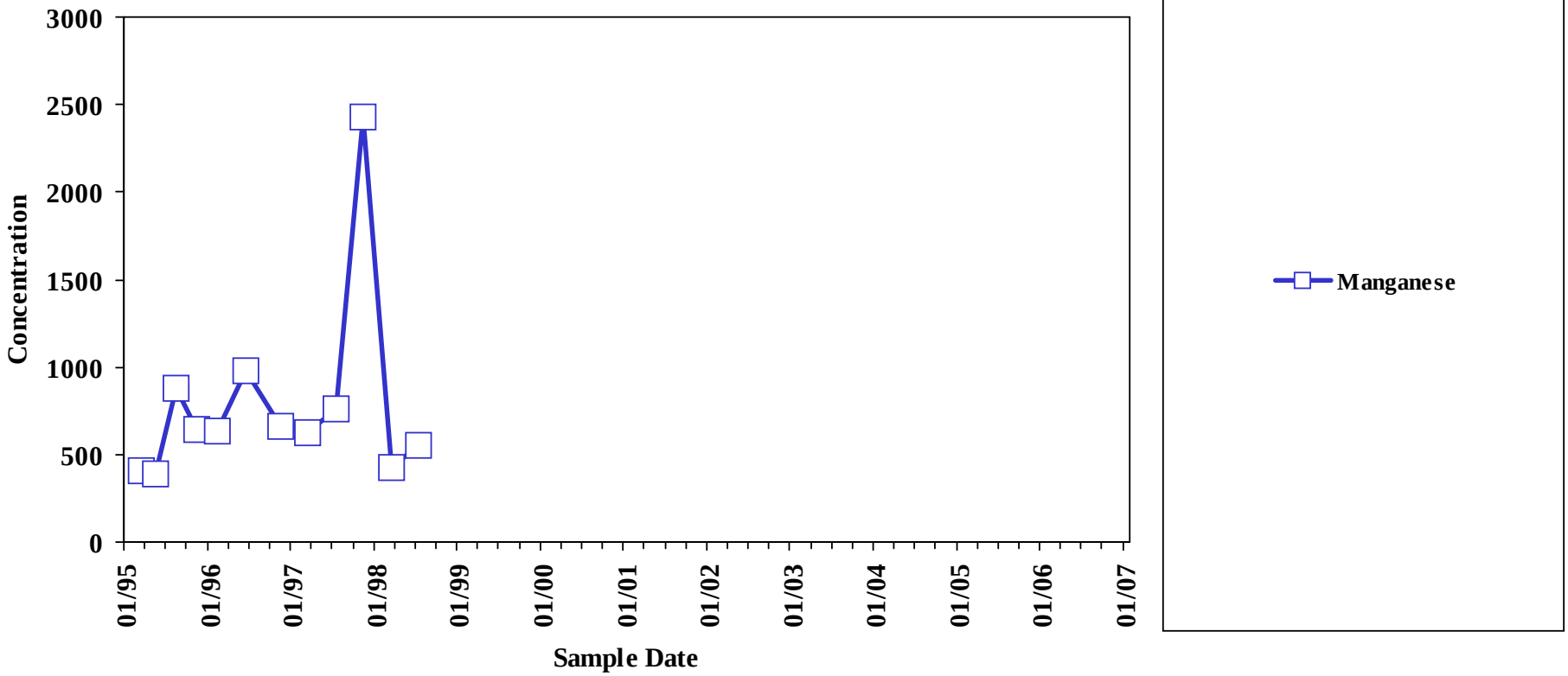
Sample Location:

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

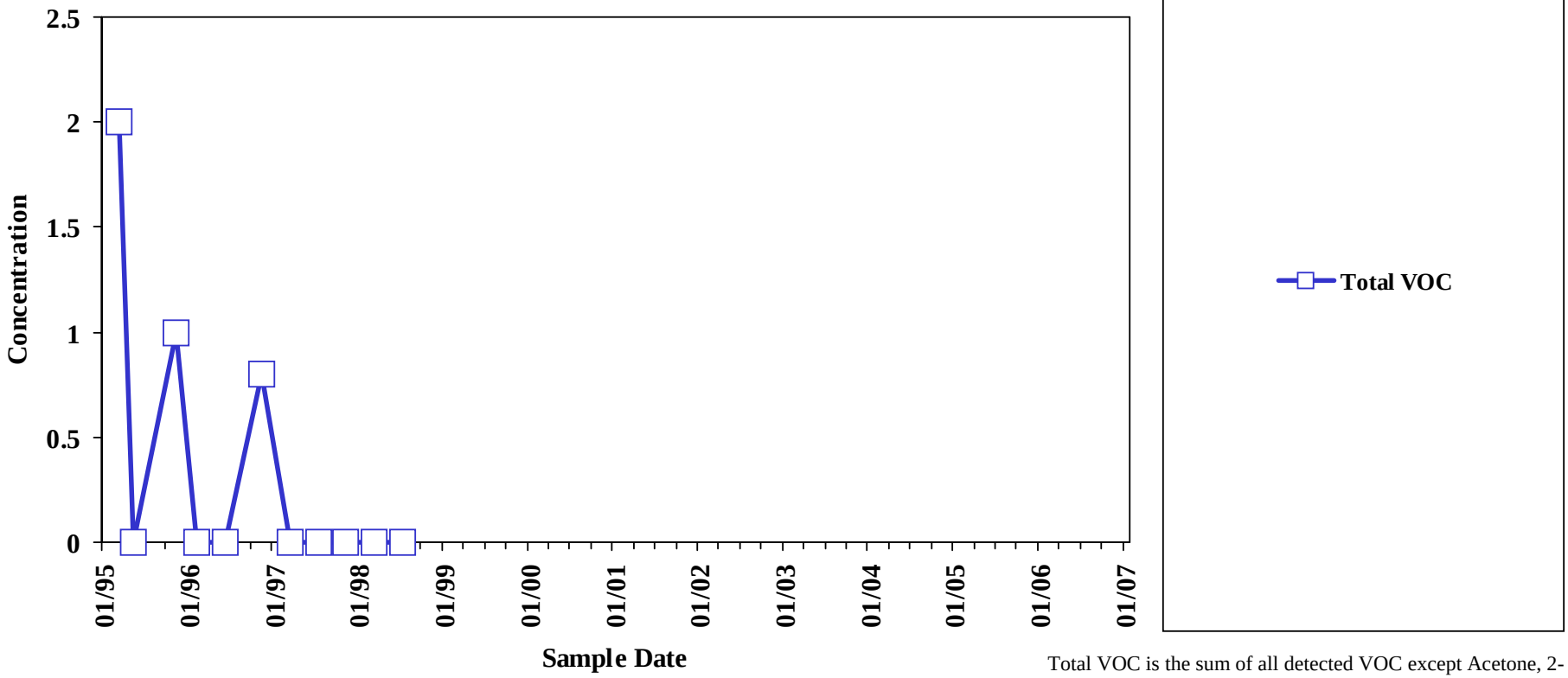
Sample Location:

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

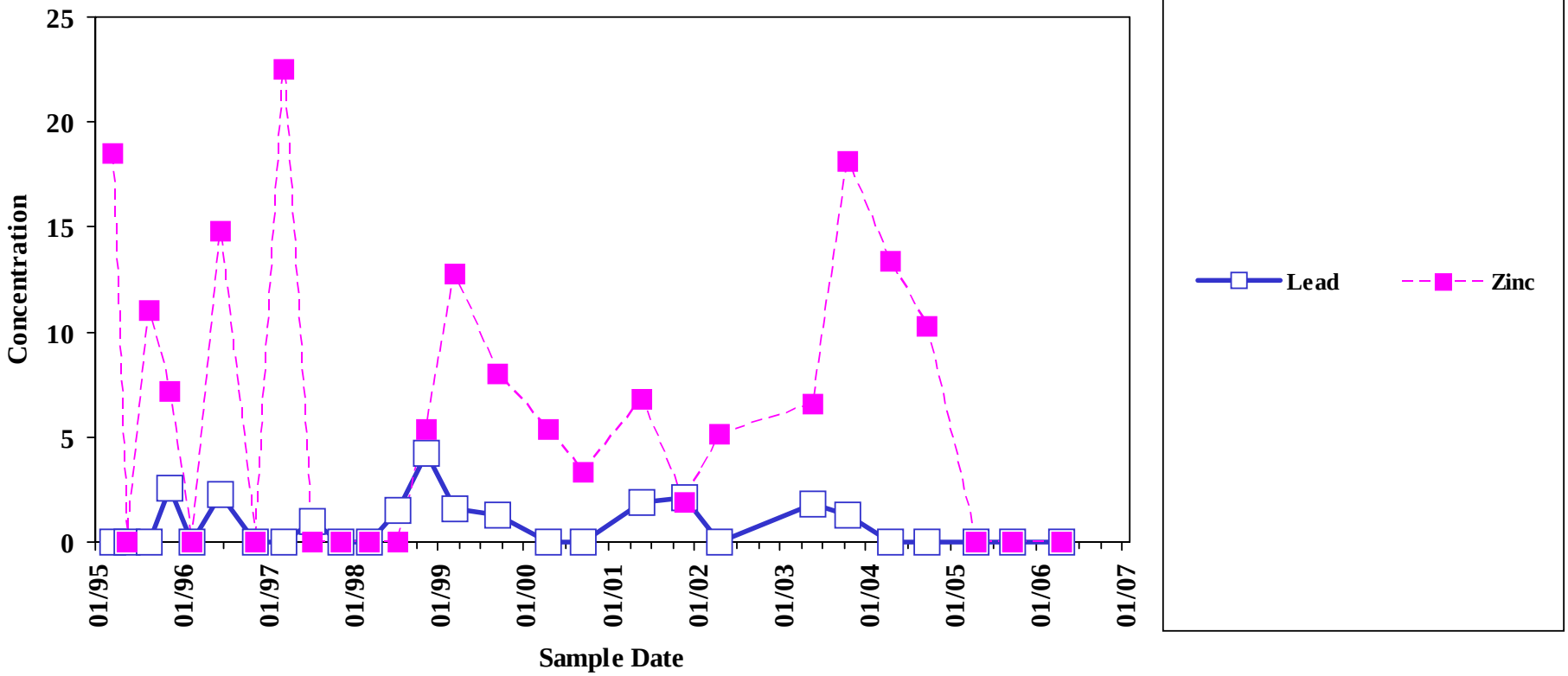
Sample Location:

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

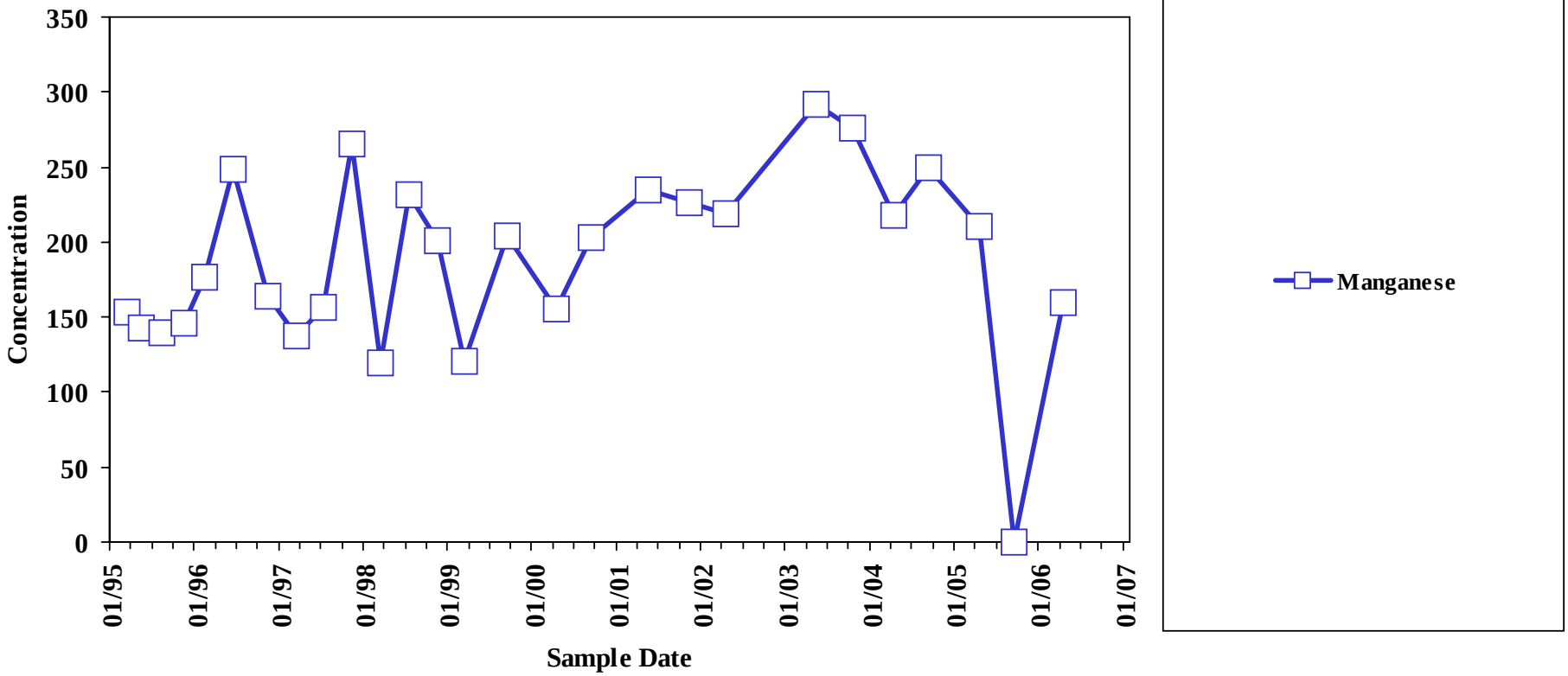
Sample Location:

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

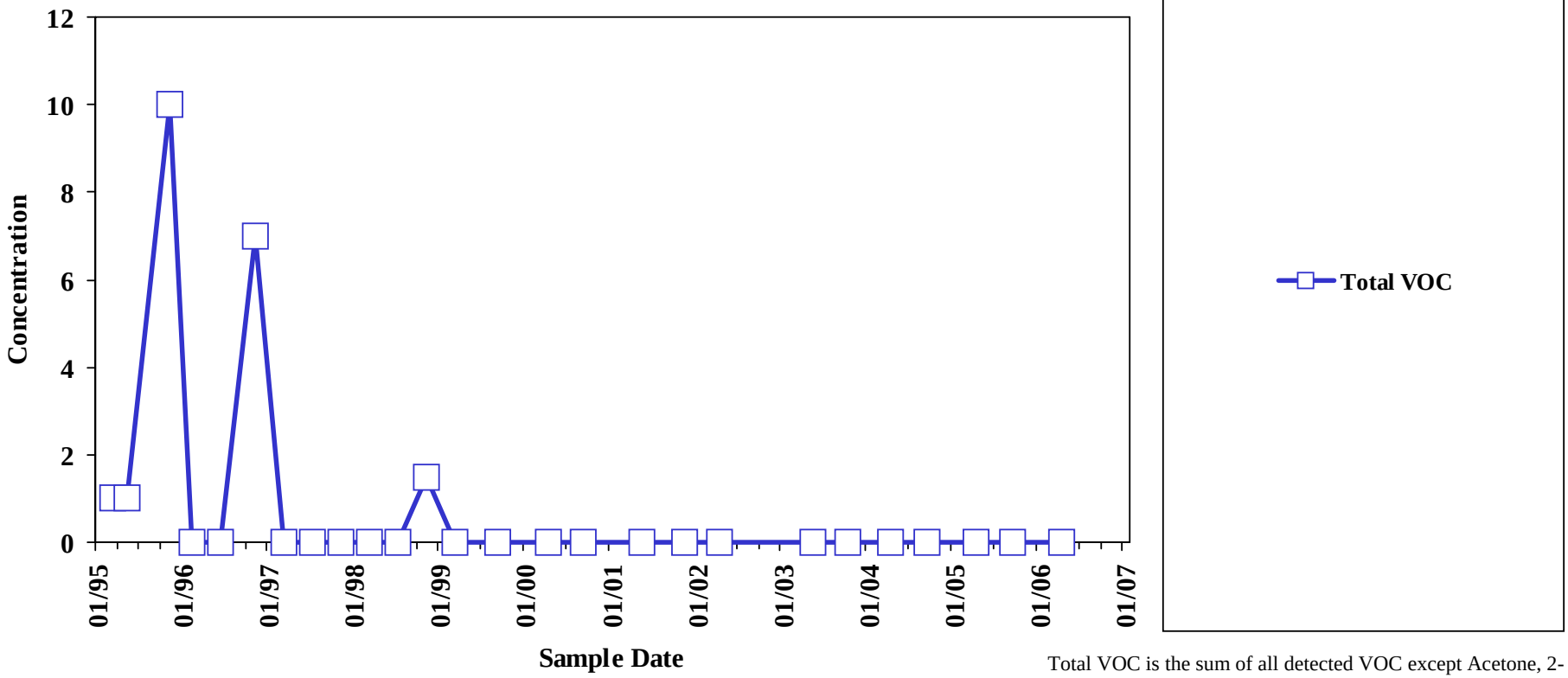
Sample Location:

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

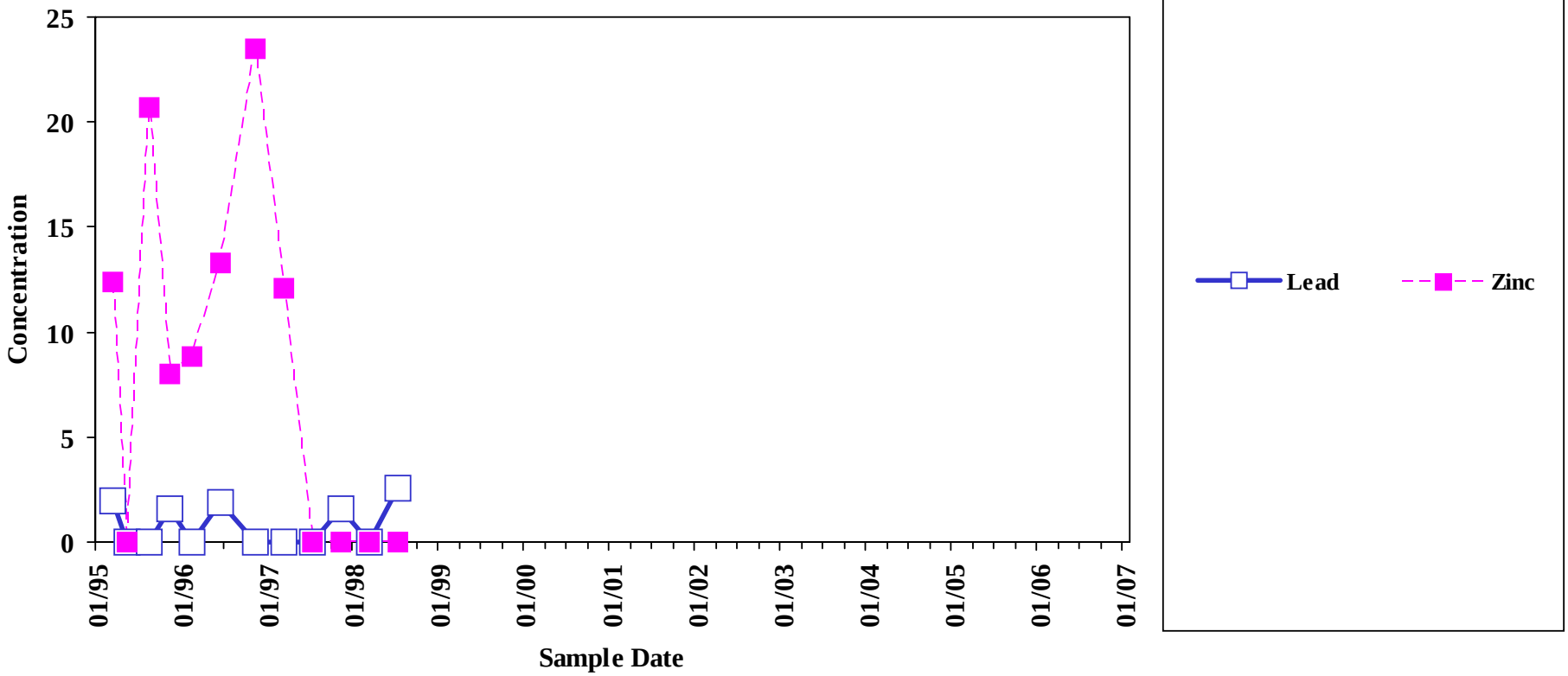
Sample Location:

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

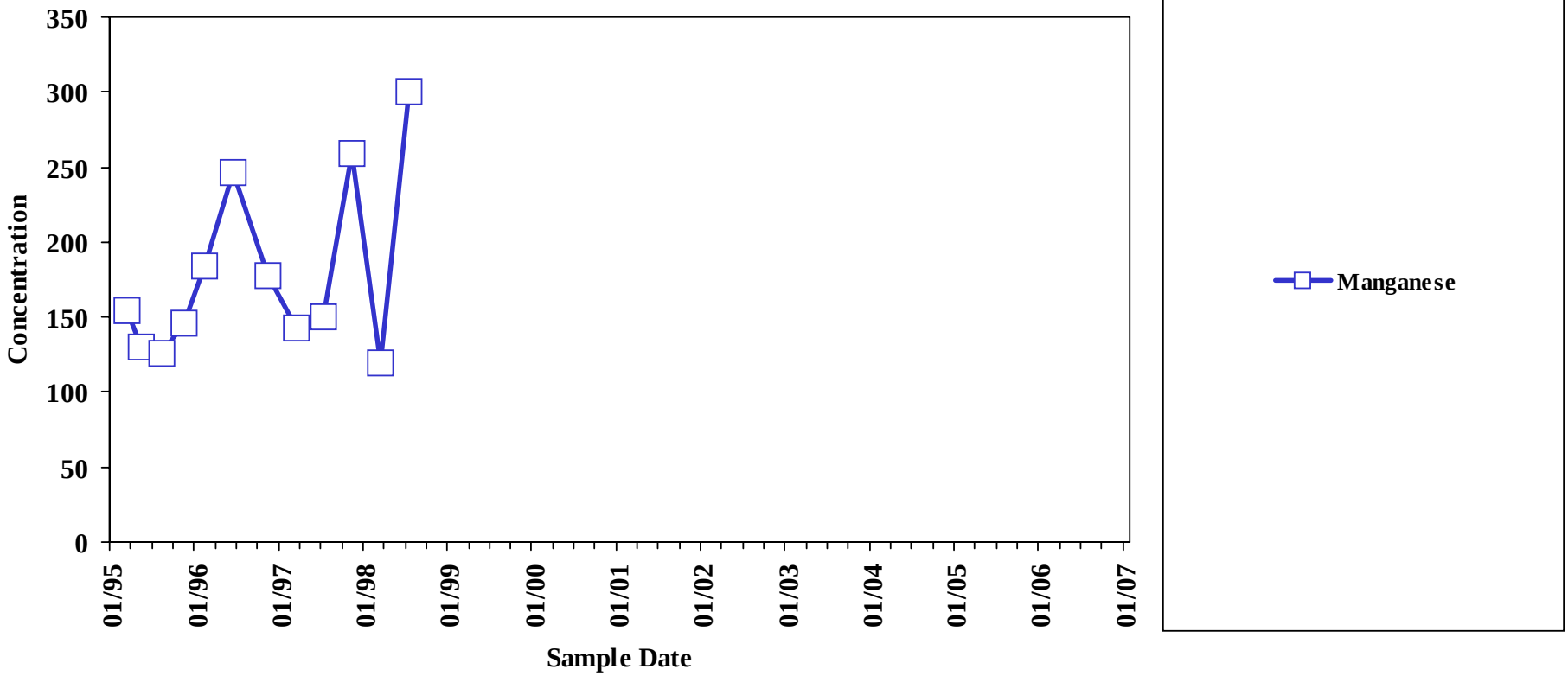
Sample Location:

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

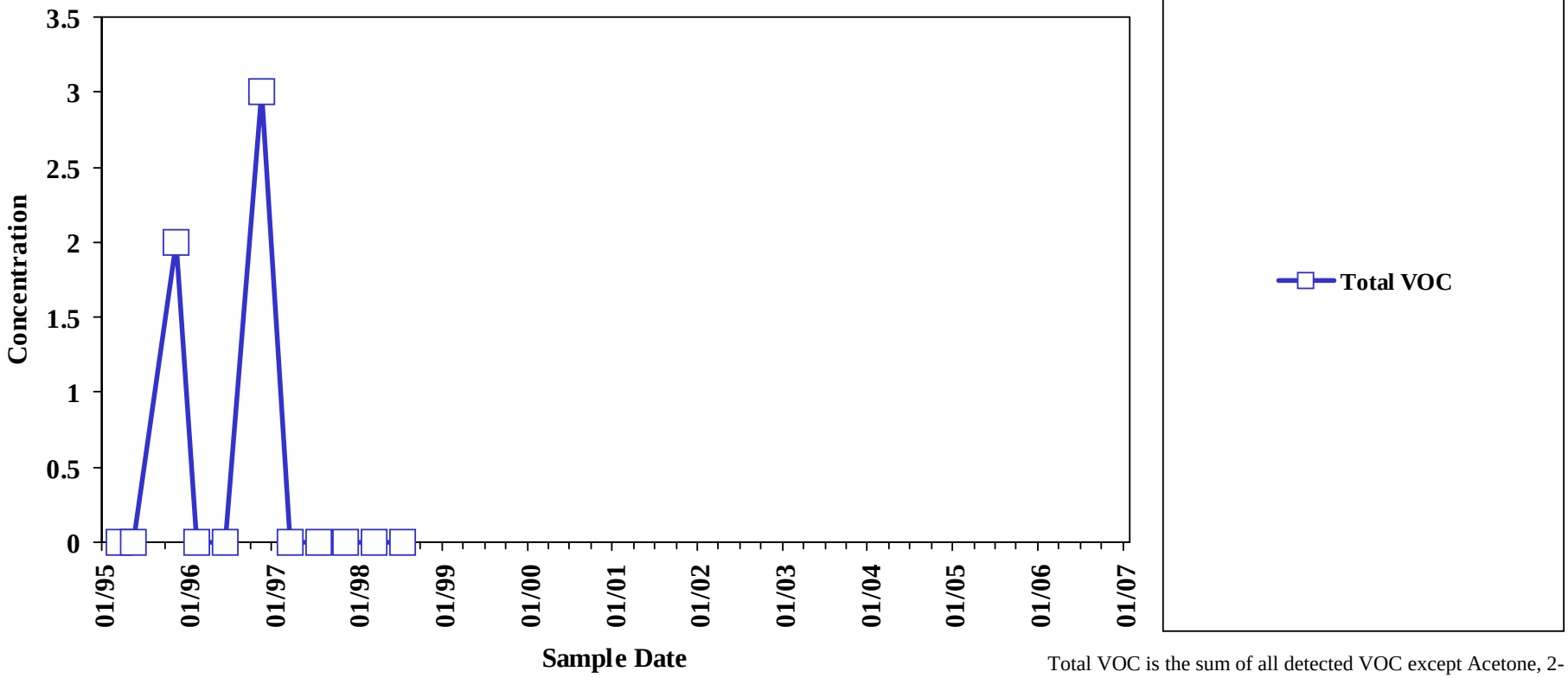
Sample Location:

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

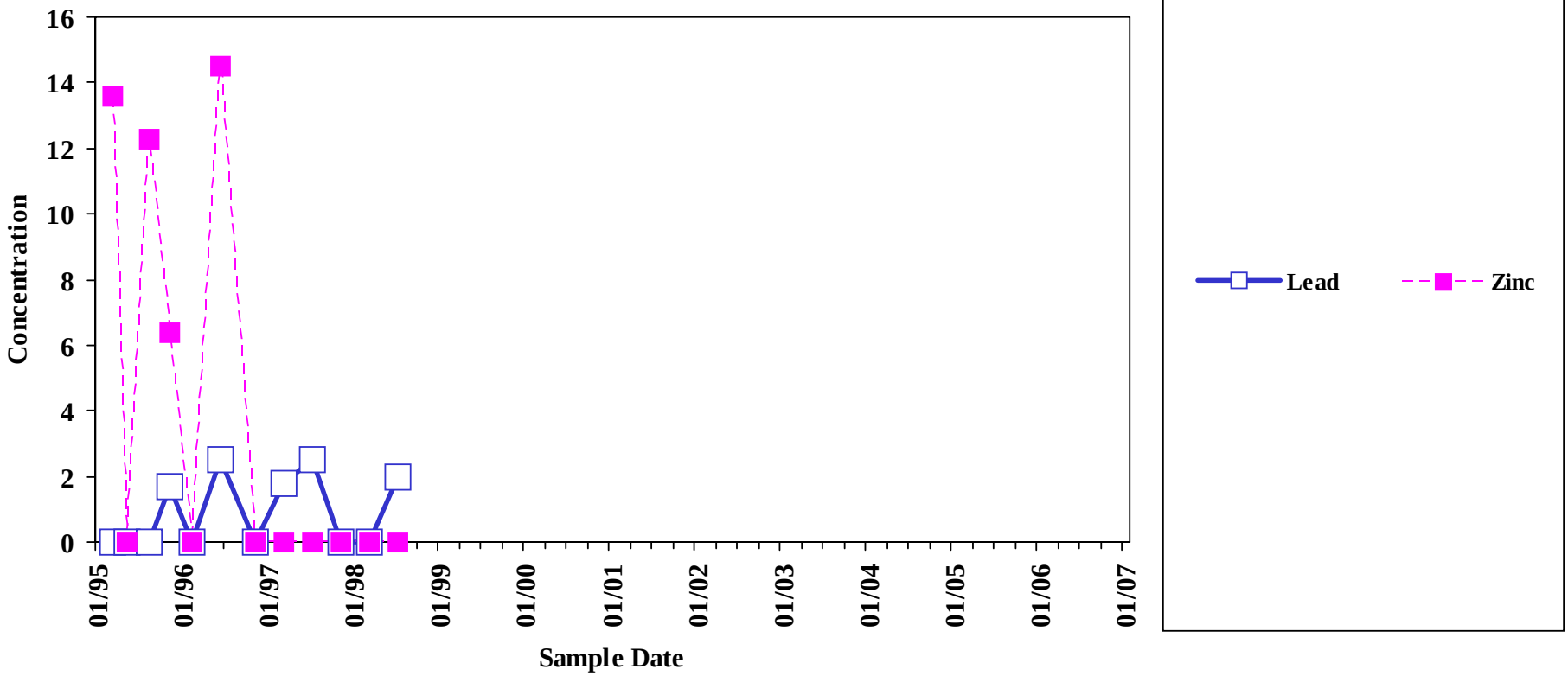
Sample Location:

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

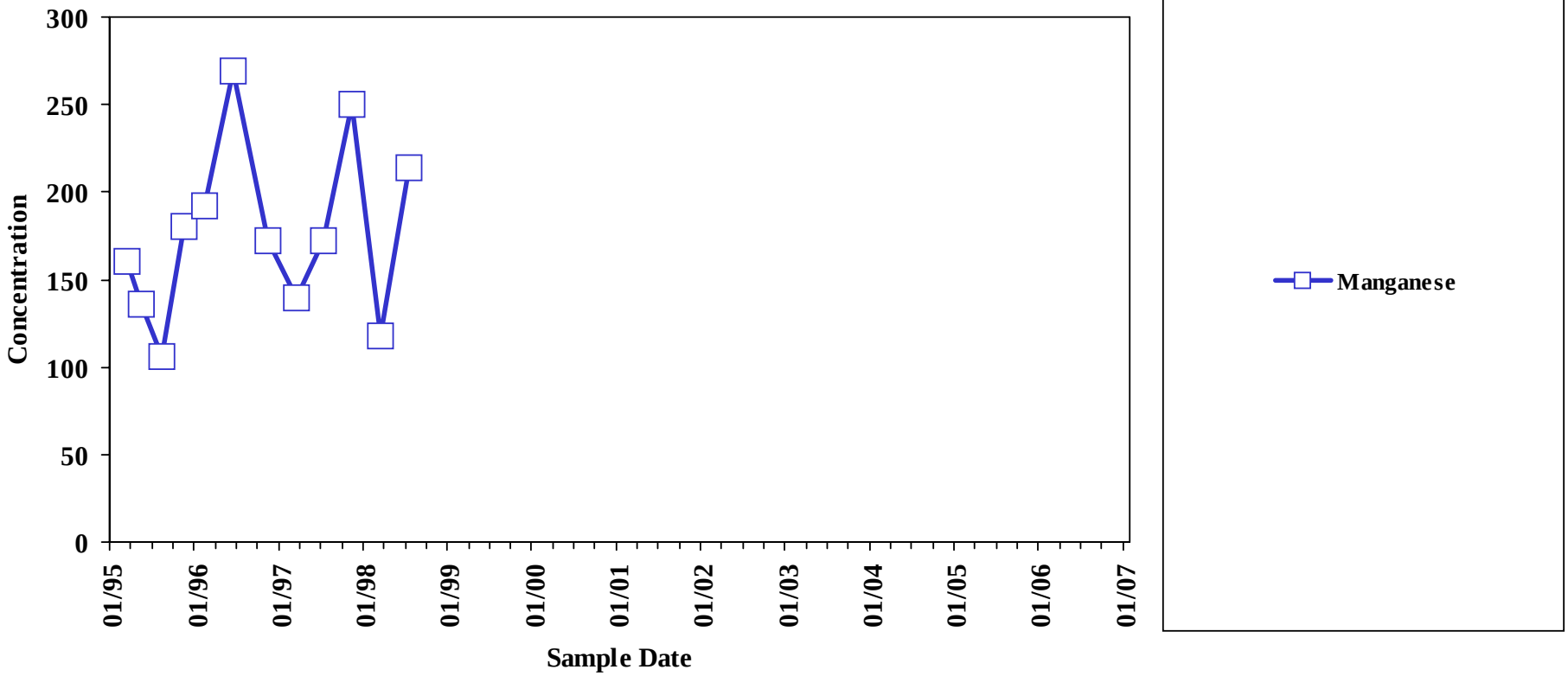
Sample Location:

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

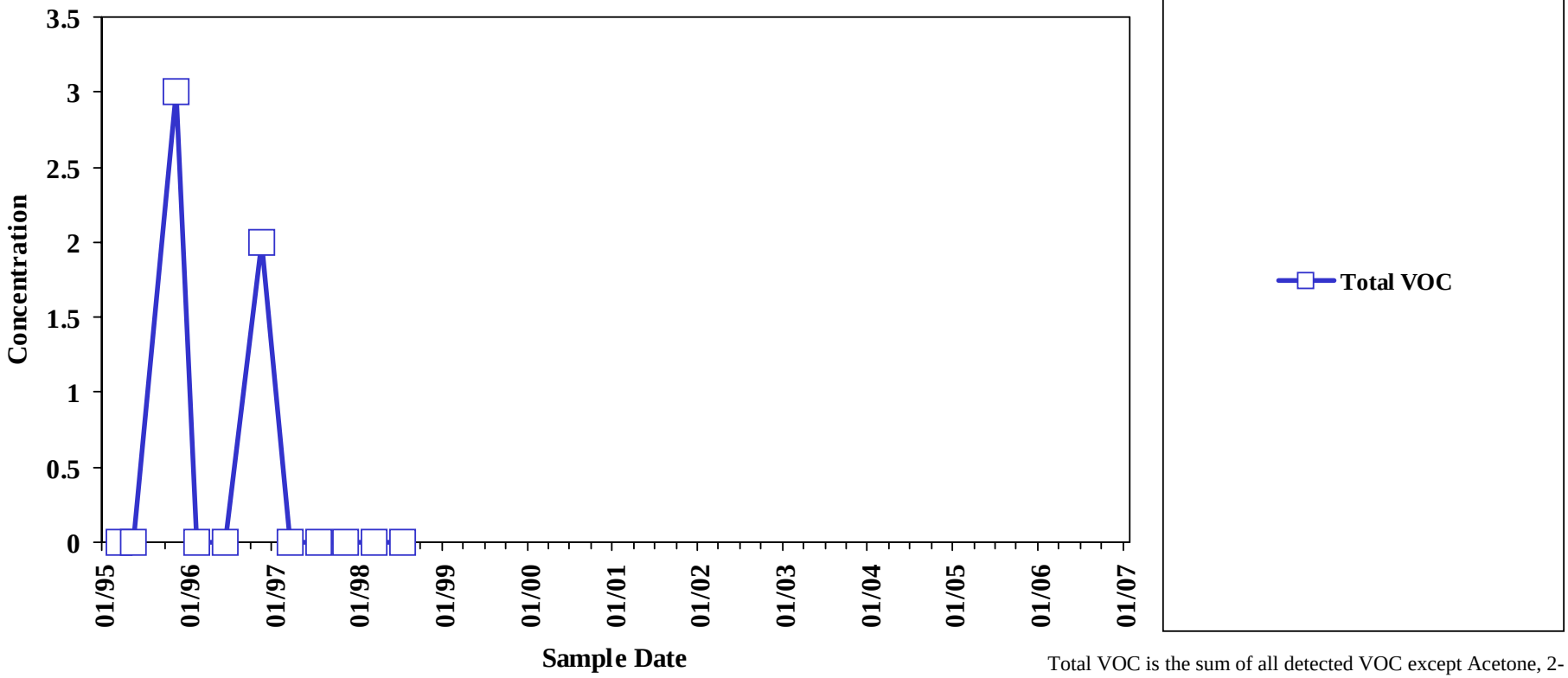
Sample Location:

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

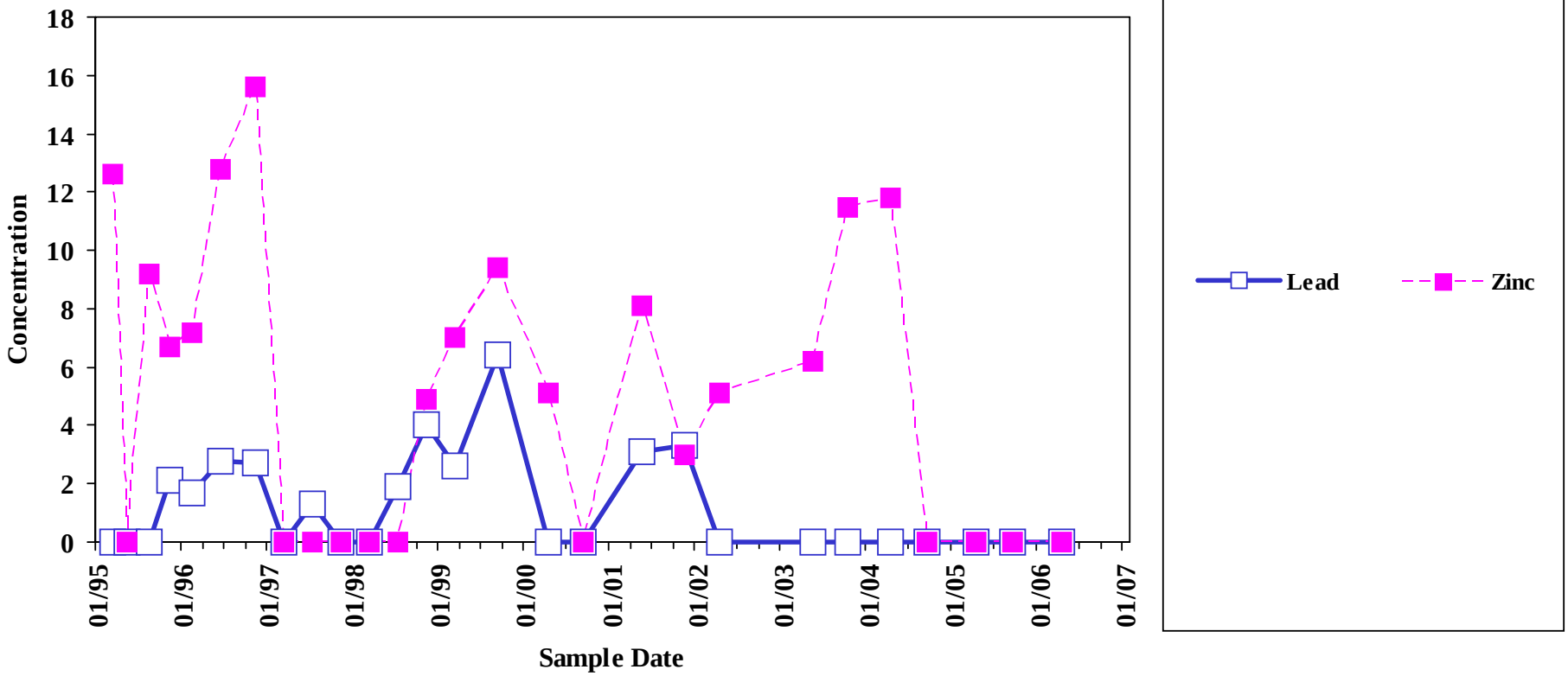
Sample Location:

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

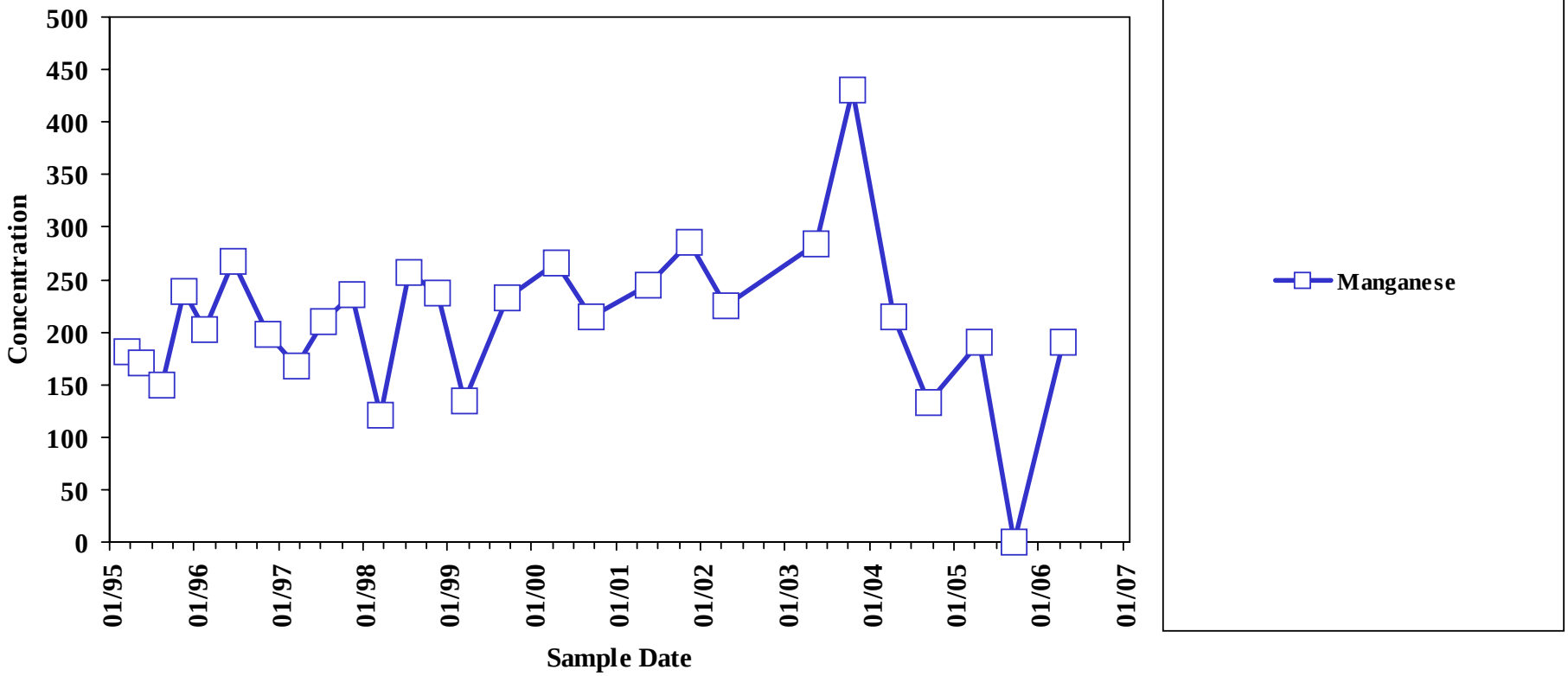
Sample Location:

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

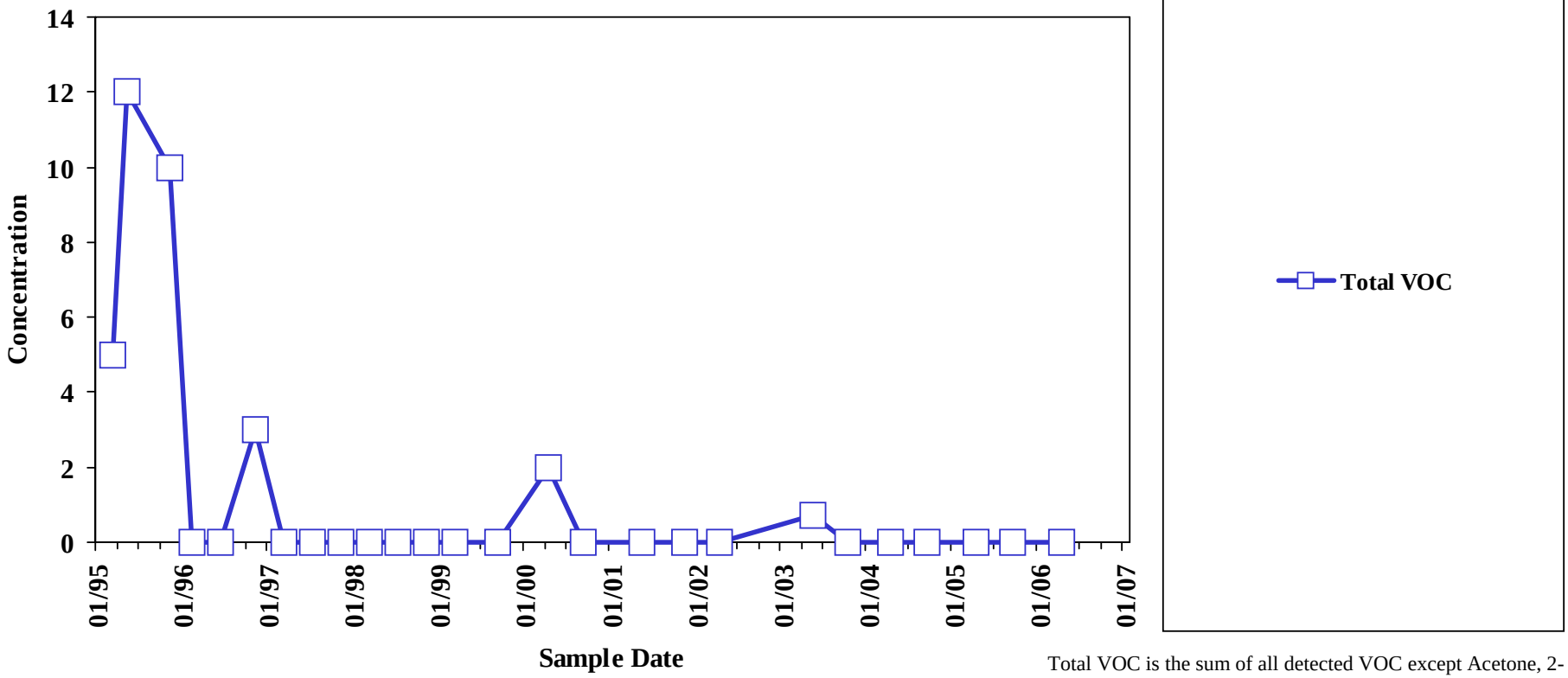
Sample Location:

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

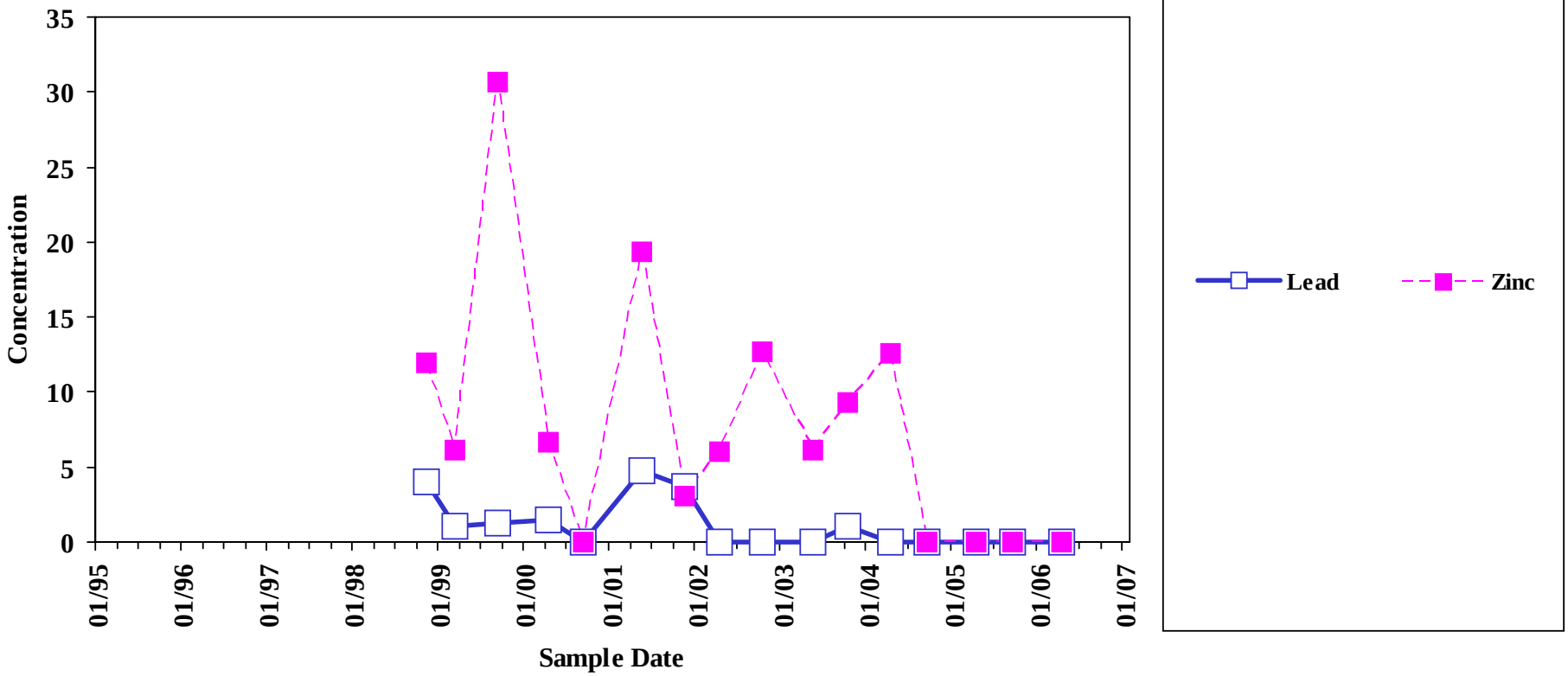
Sample Location:

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

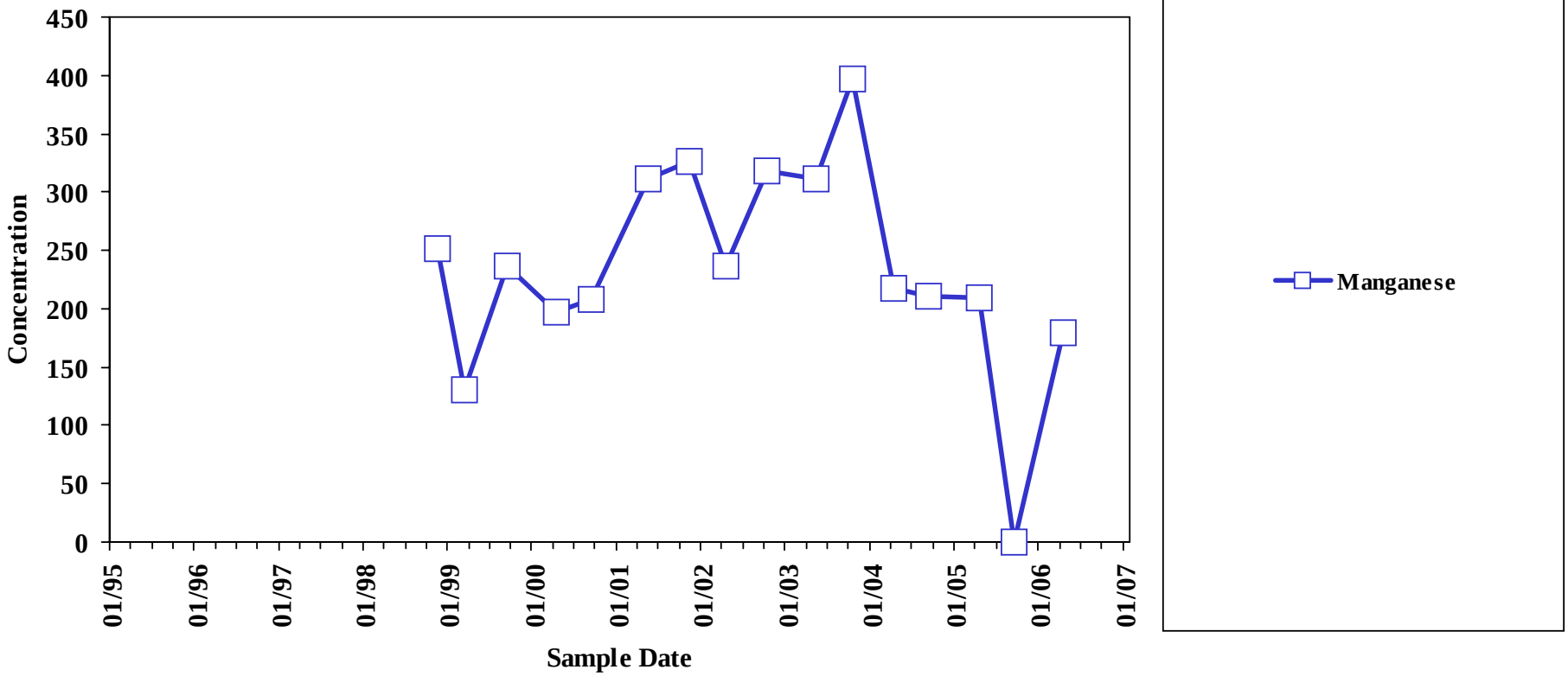
Sample Location:

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

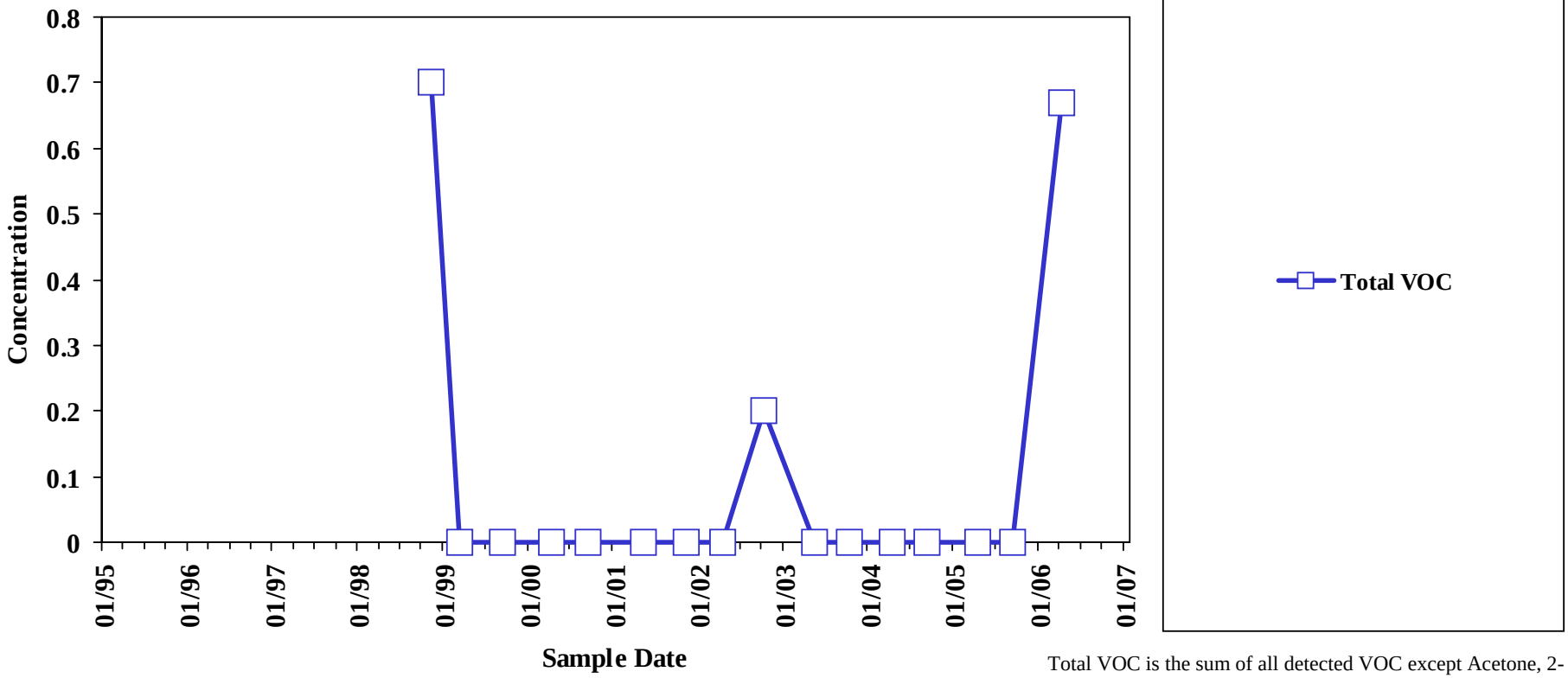
Sample Location:

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

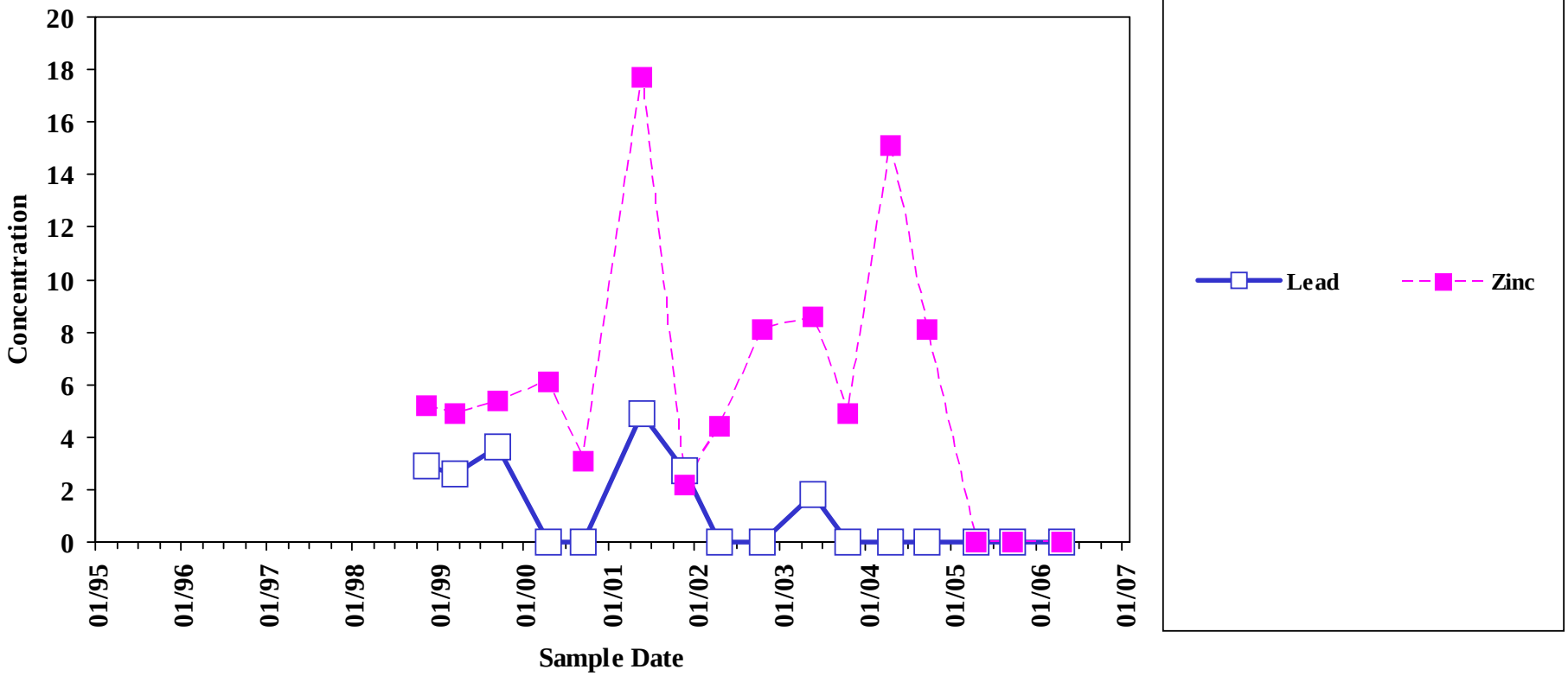
Sample Location:

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

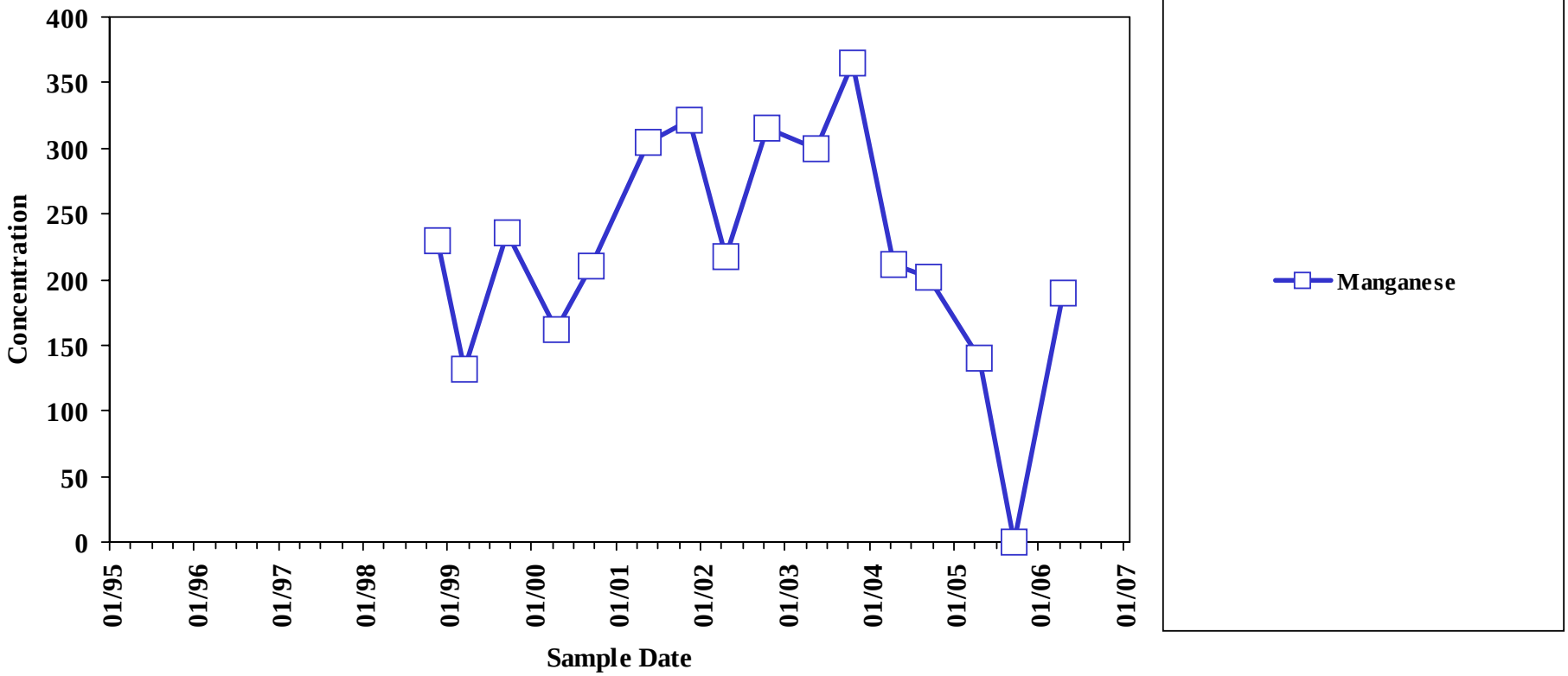
Sample Location:

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

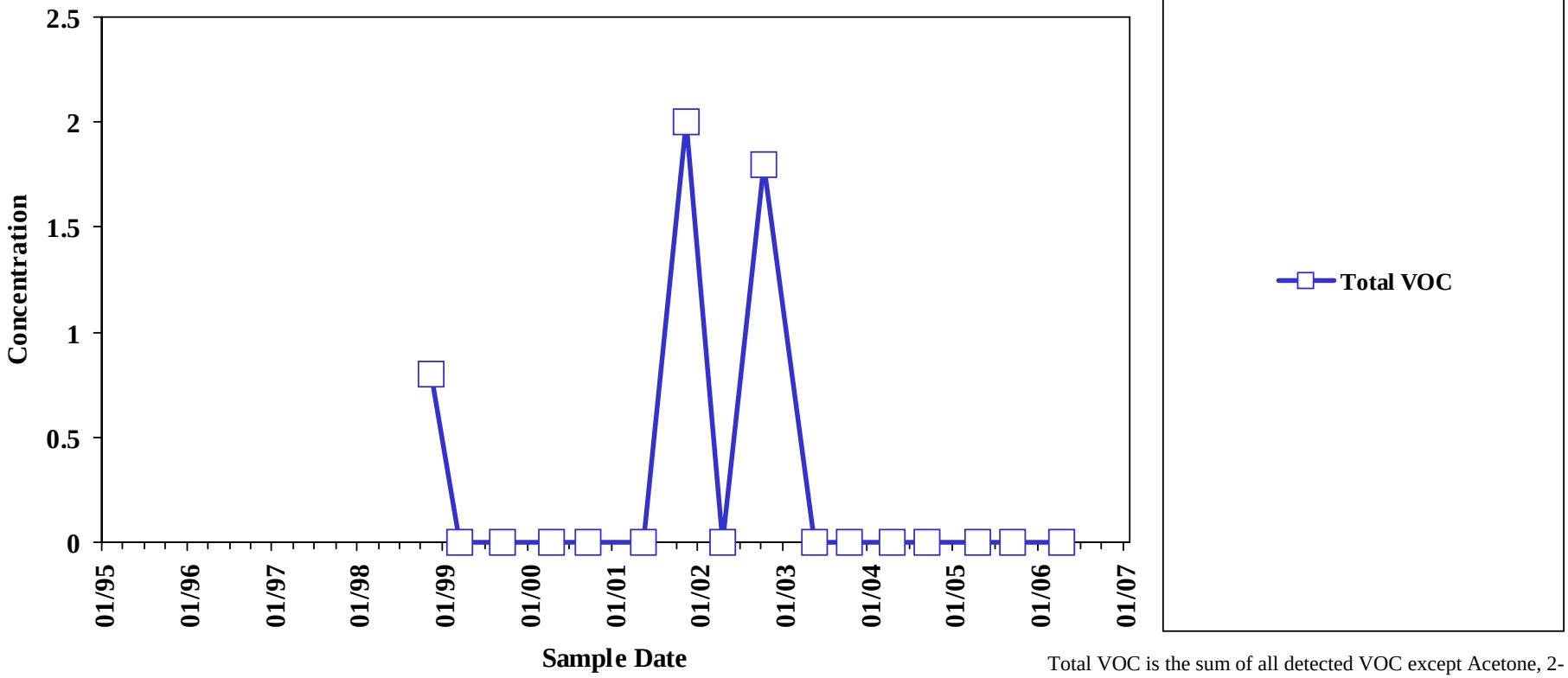
Sample Location:

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

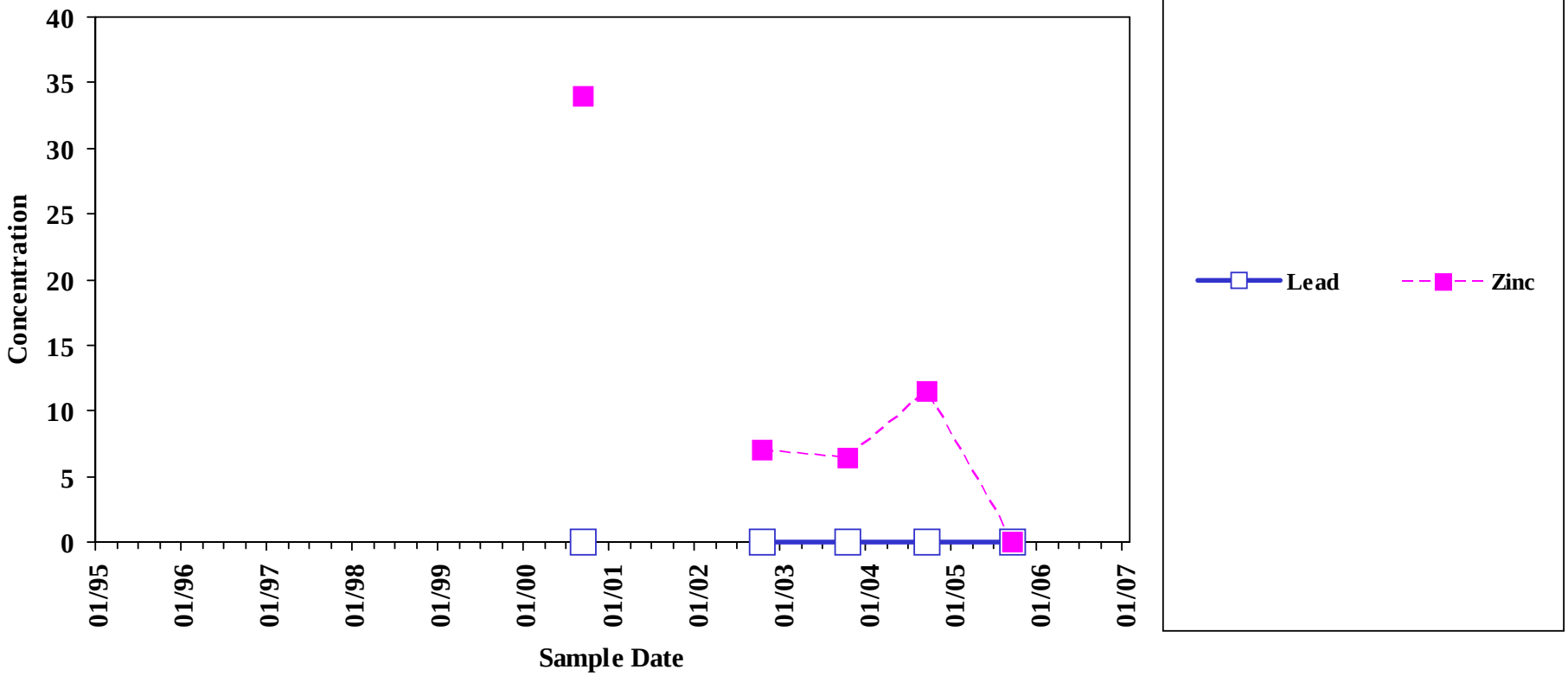
Sample Location:

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

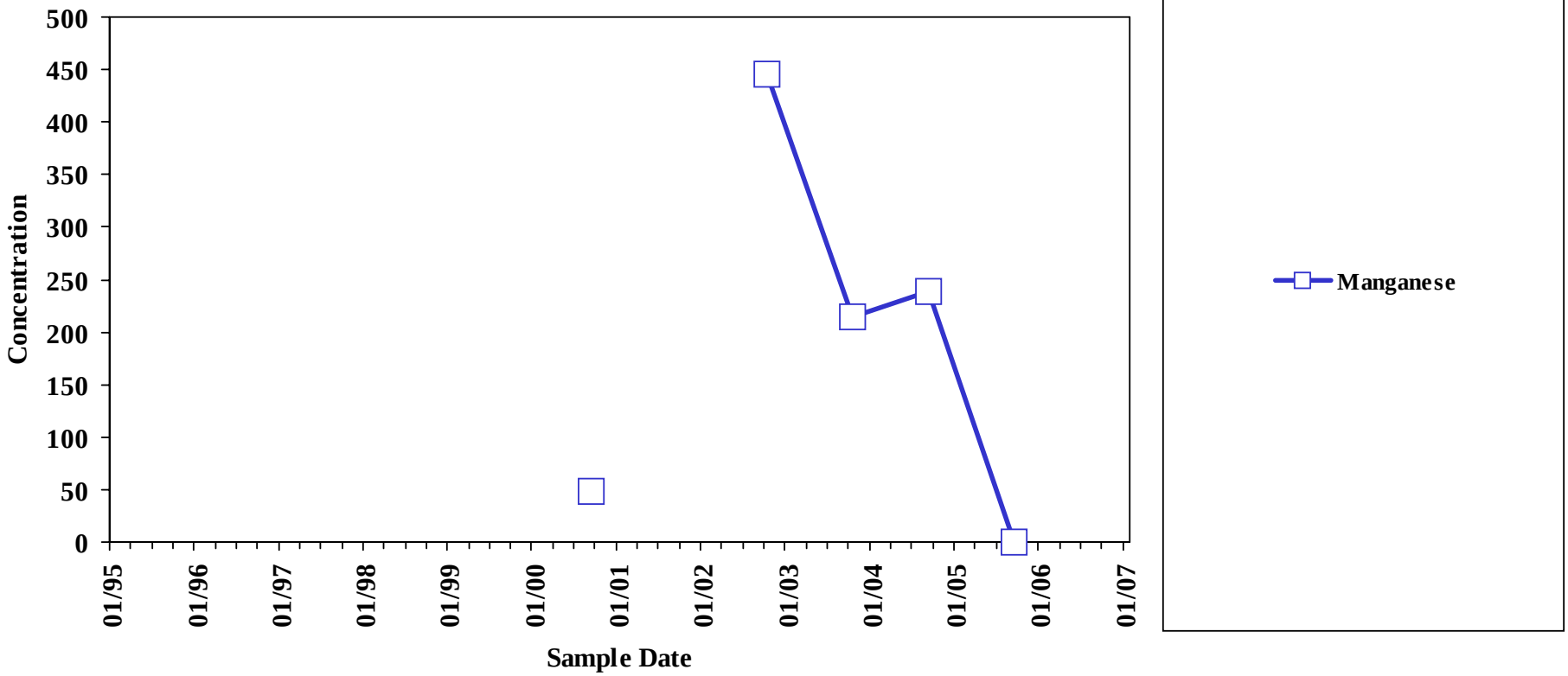
Sample Location:

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

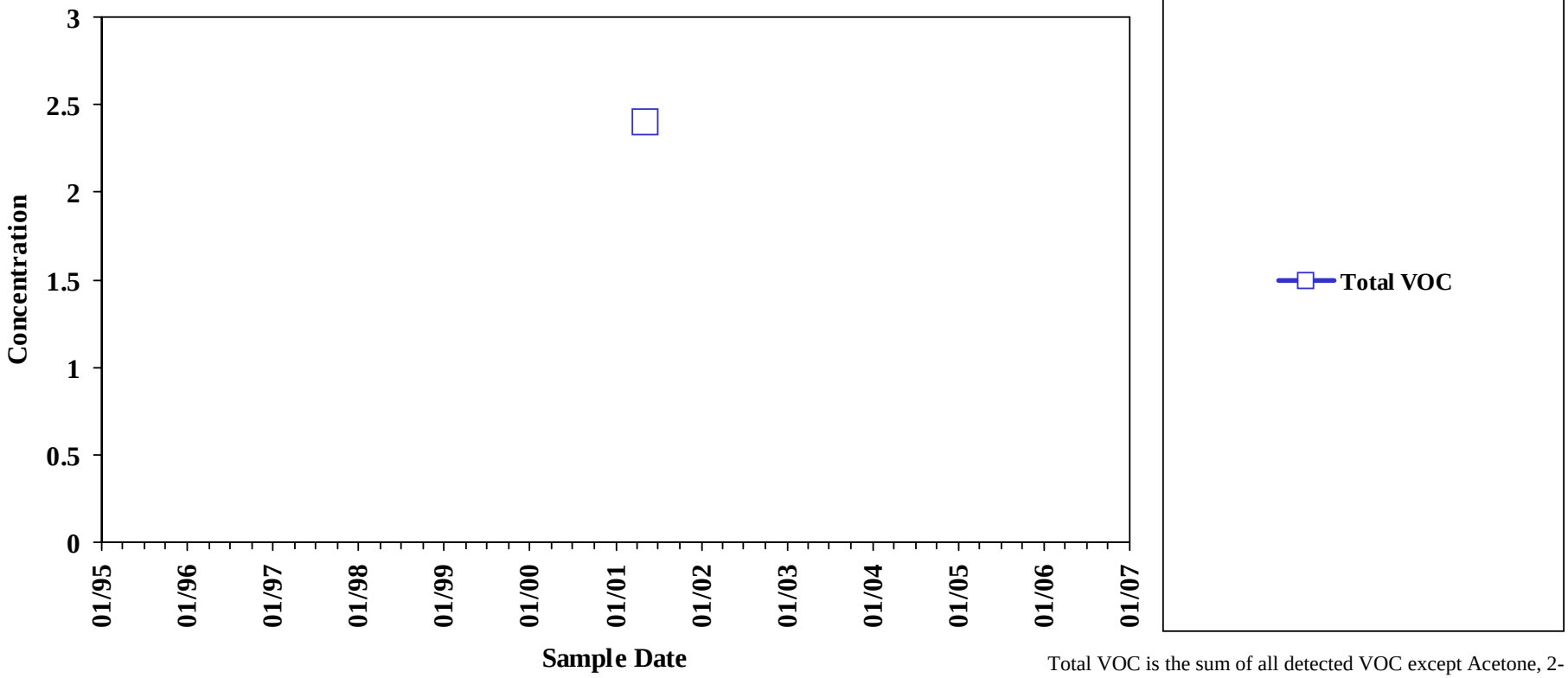
Sample Location:

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

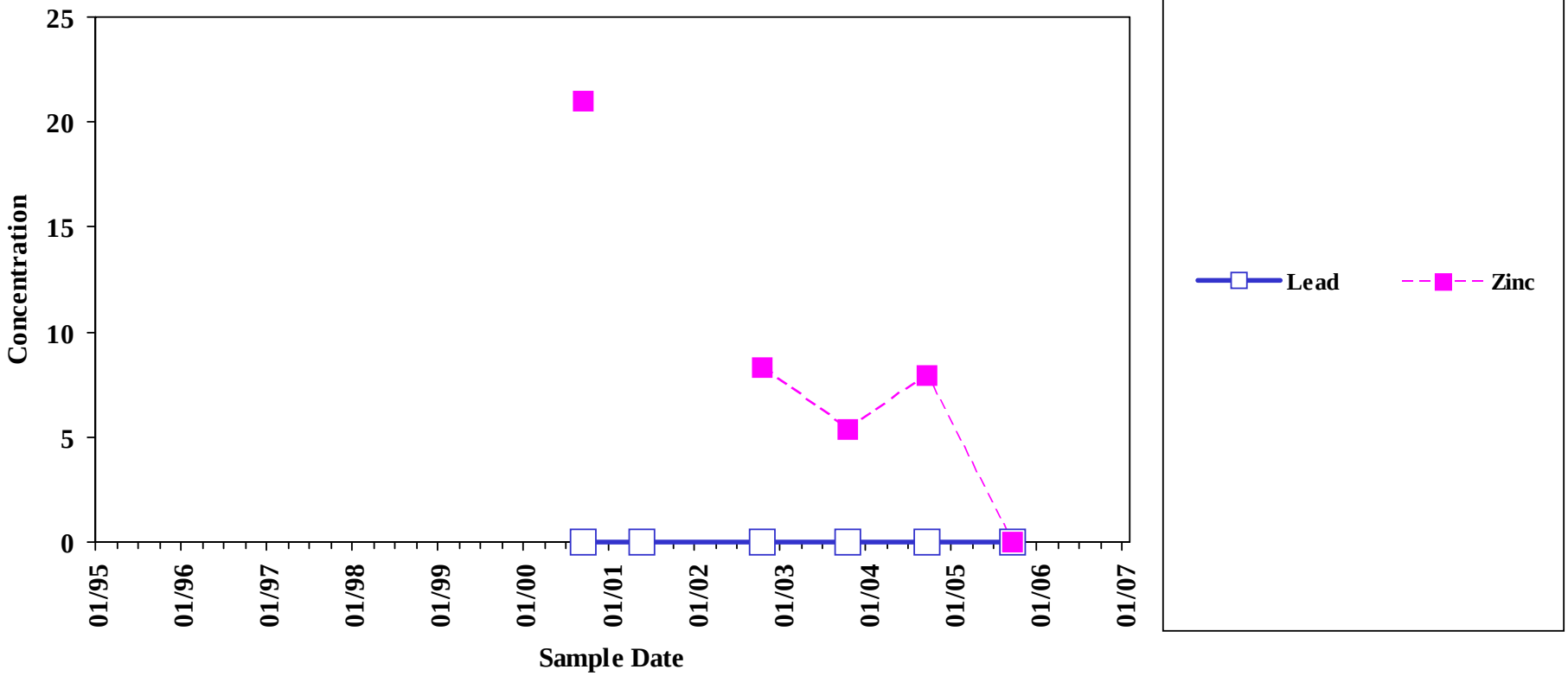
Sample Location:

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

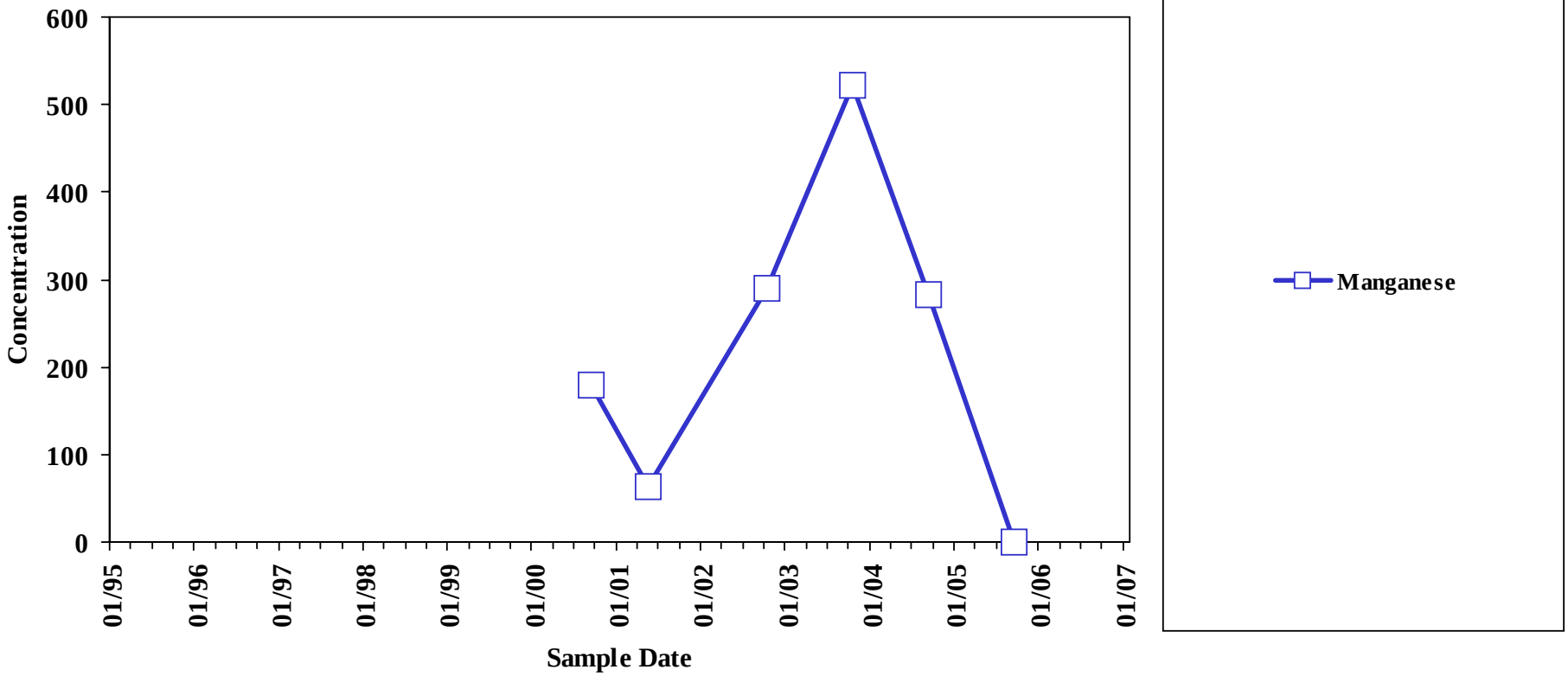
Sample Location:

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

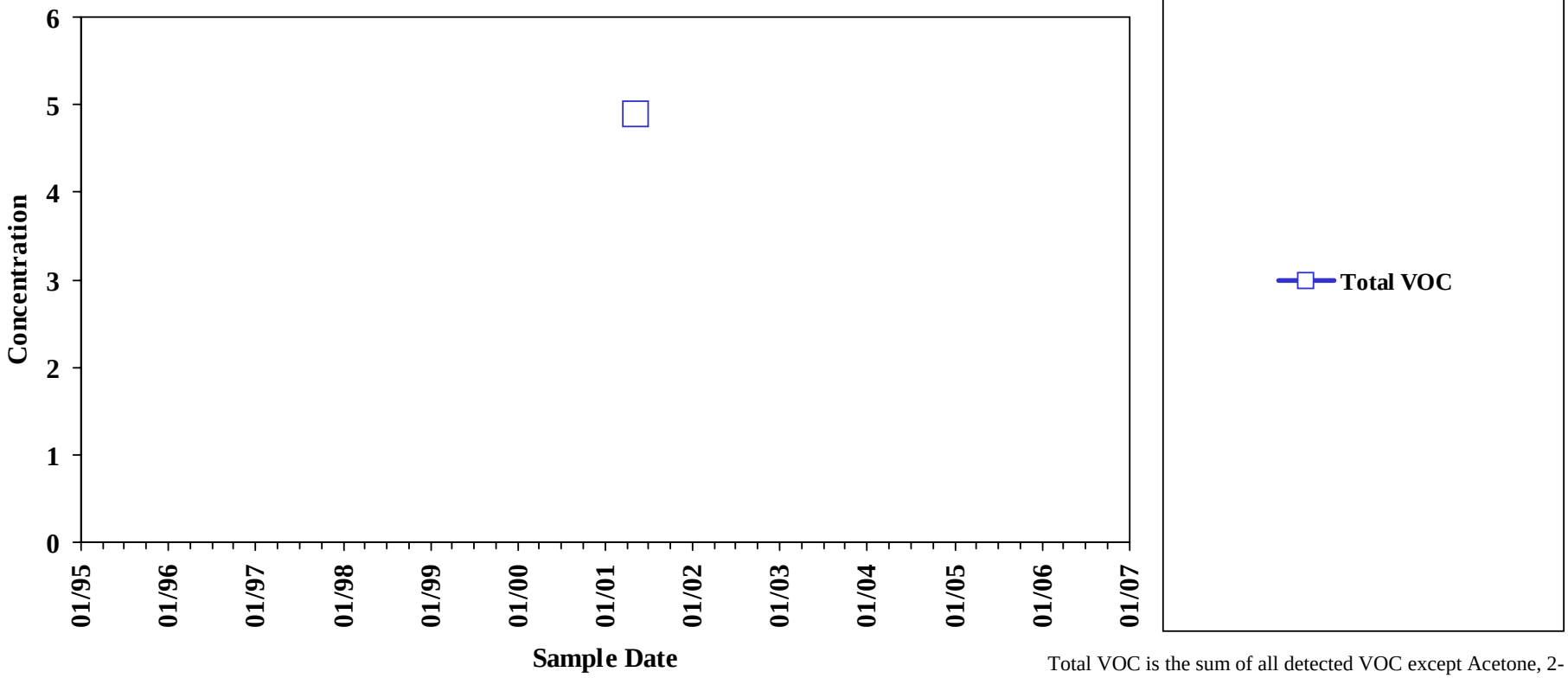
Sample Location:

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

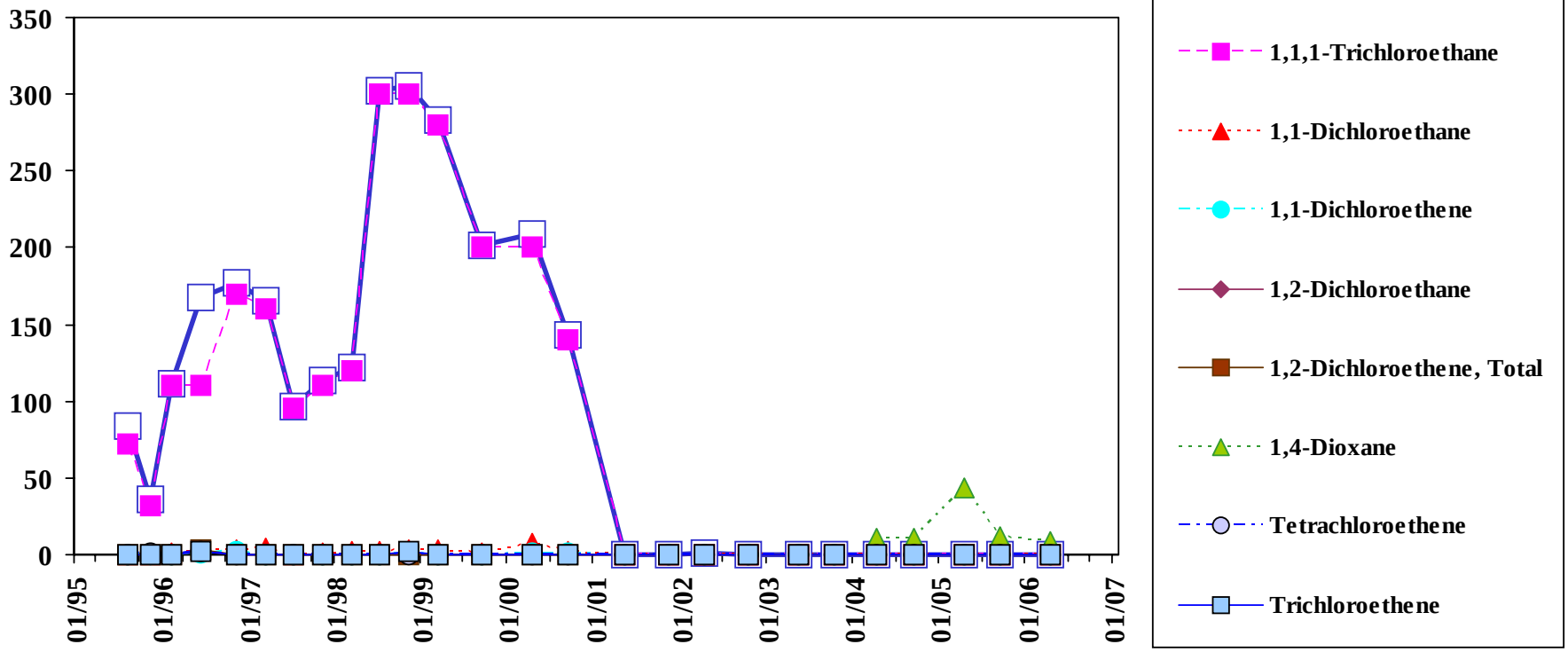
Extraction System Influent/Effluent and Extraction Well Data (EW)
Groundwater Data (MW)

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

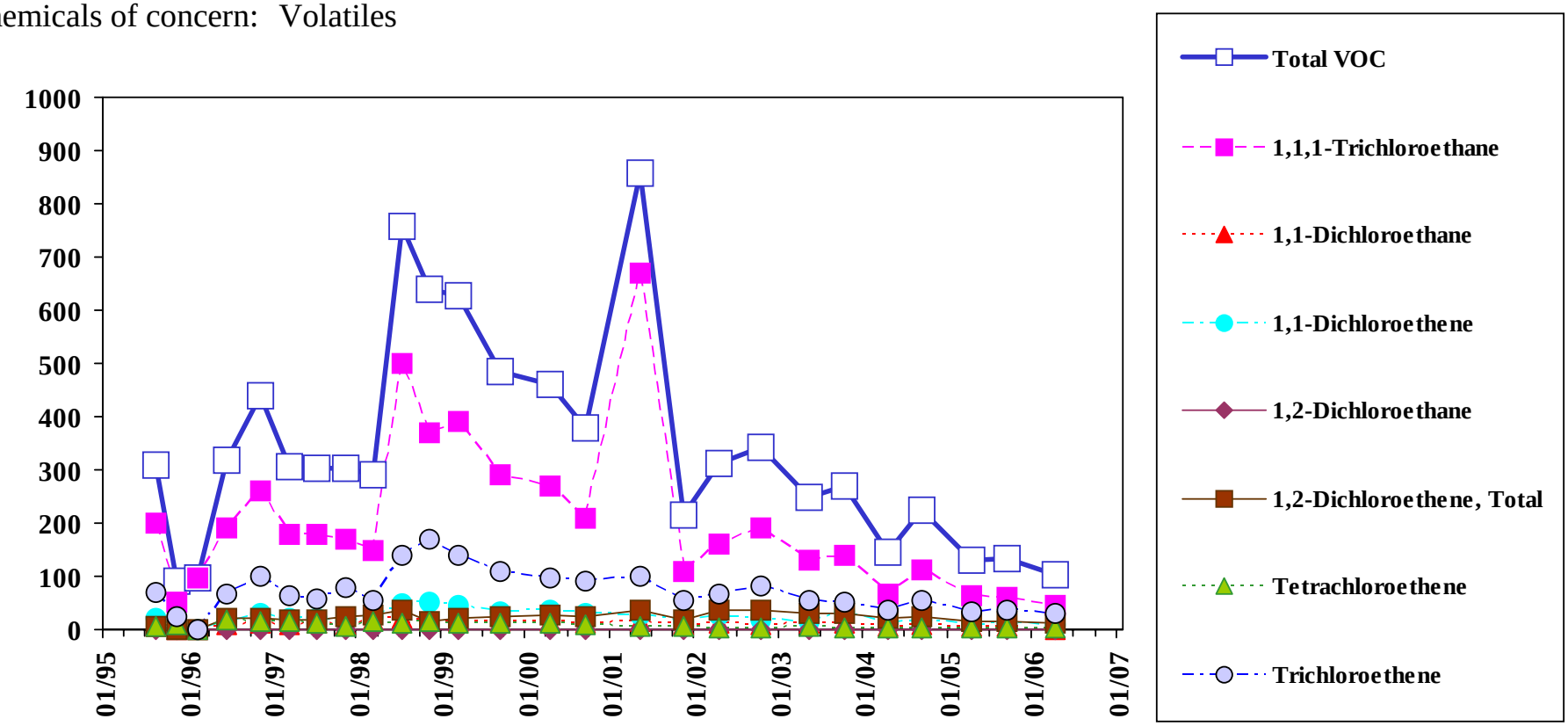
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

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

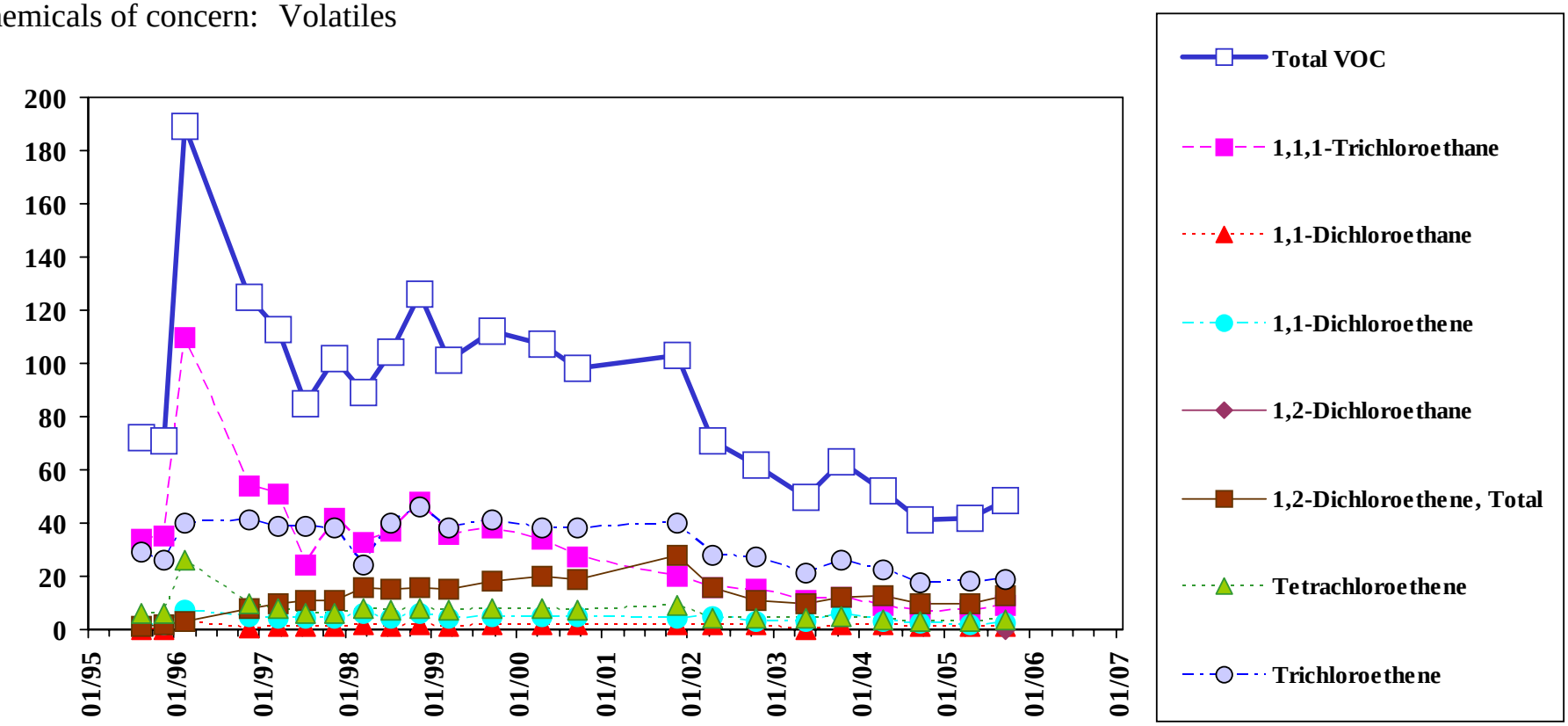
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

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

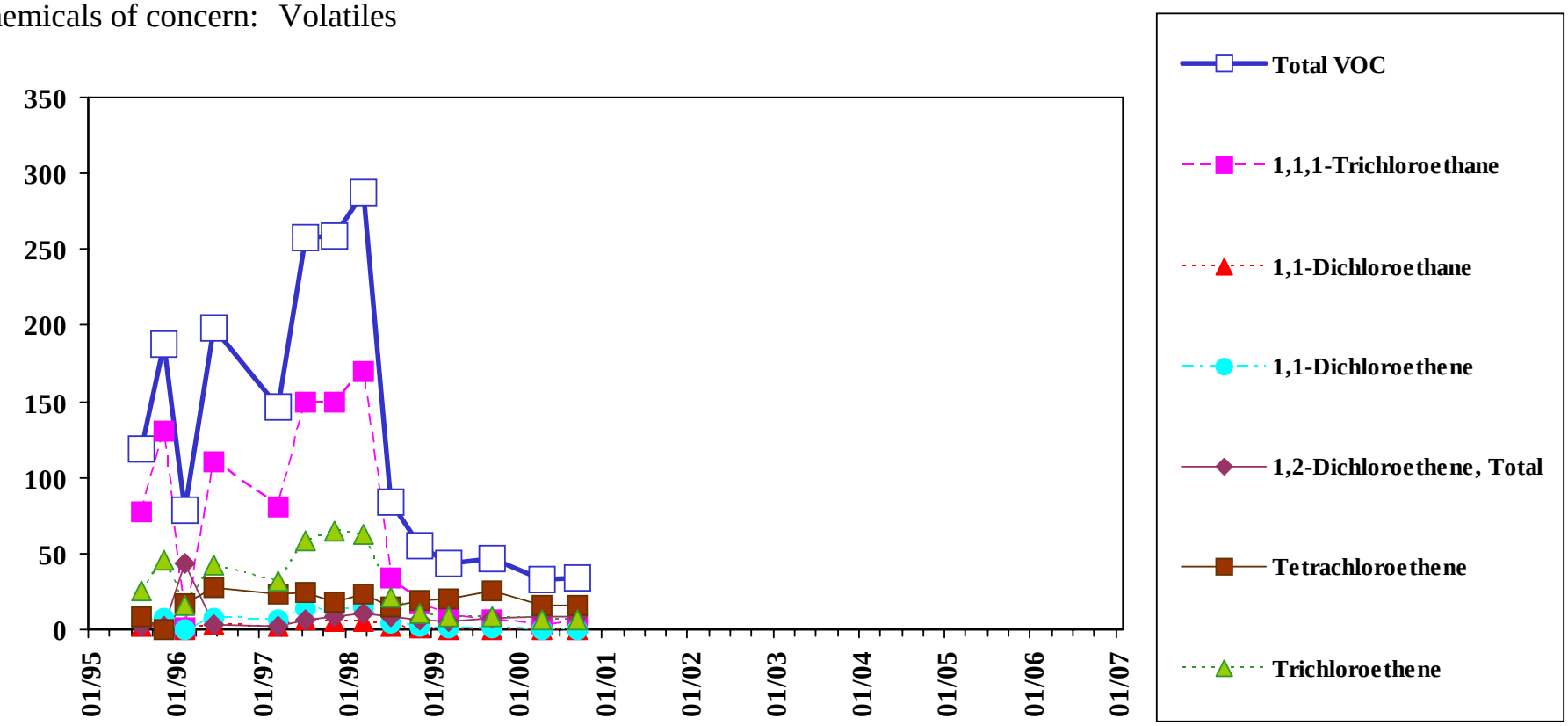
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

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

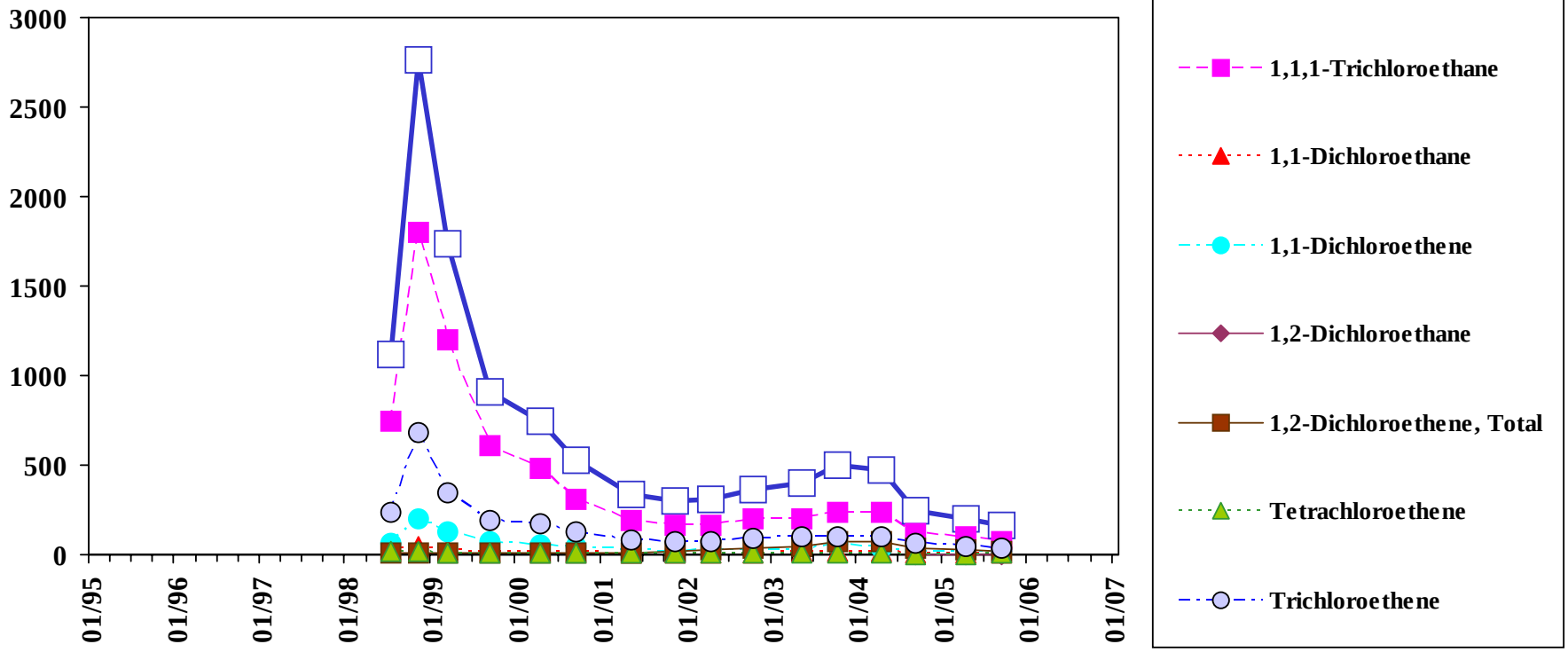
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

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

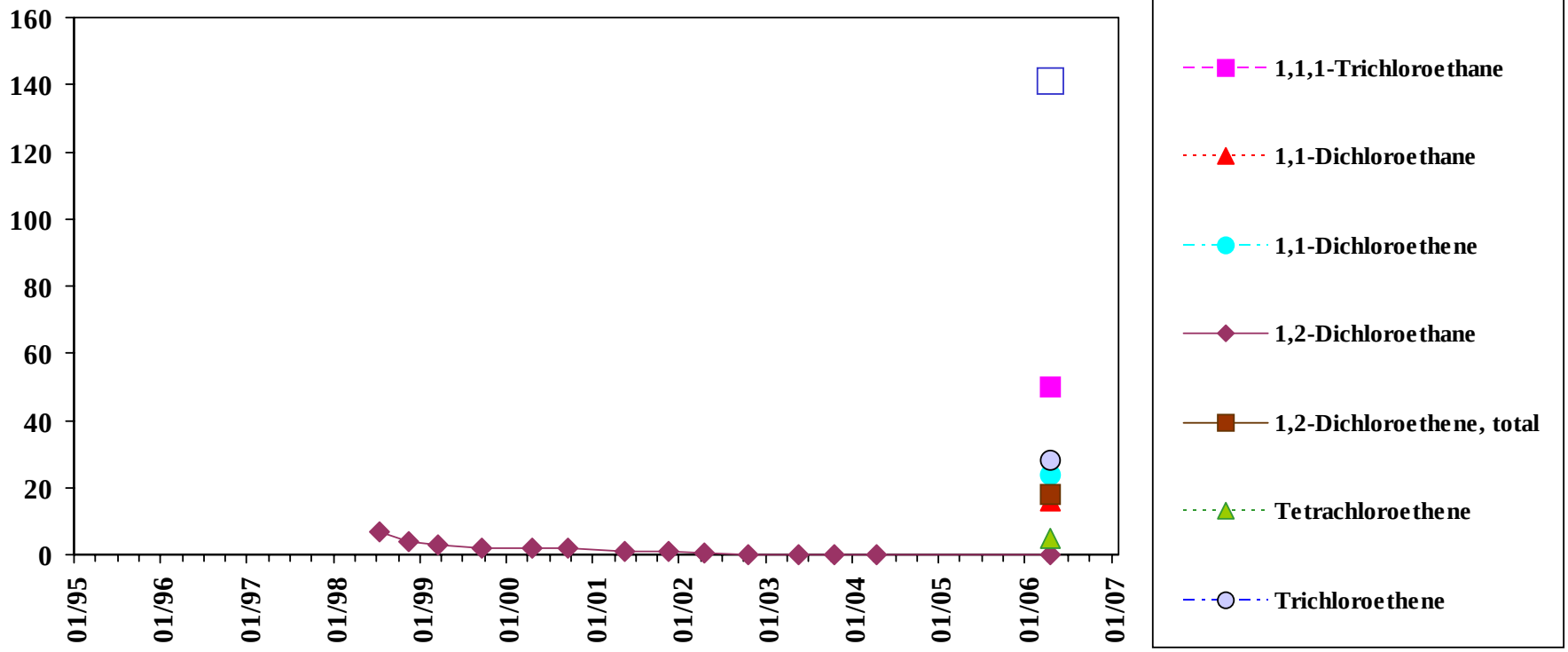
Sample Location:

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

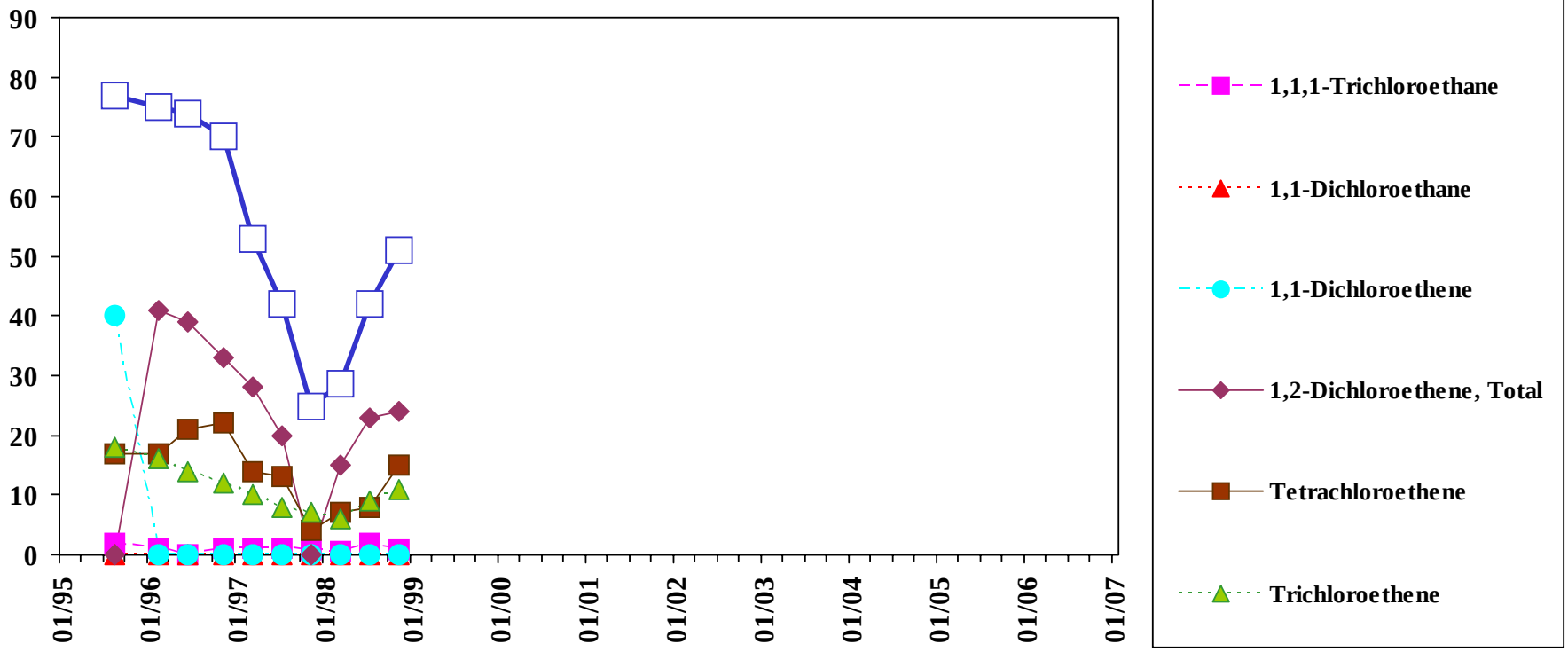
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

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

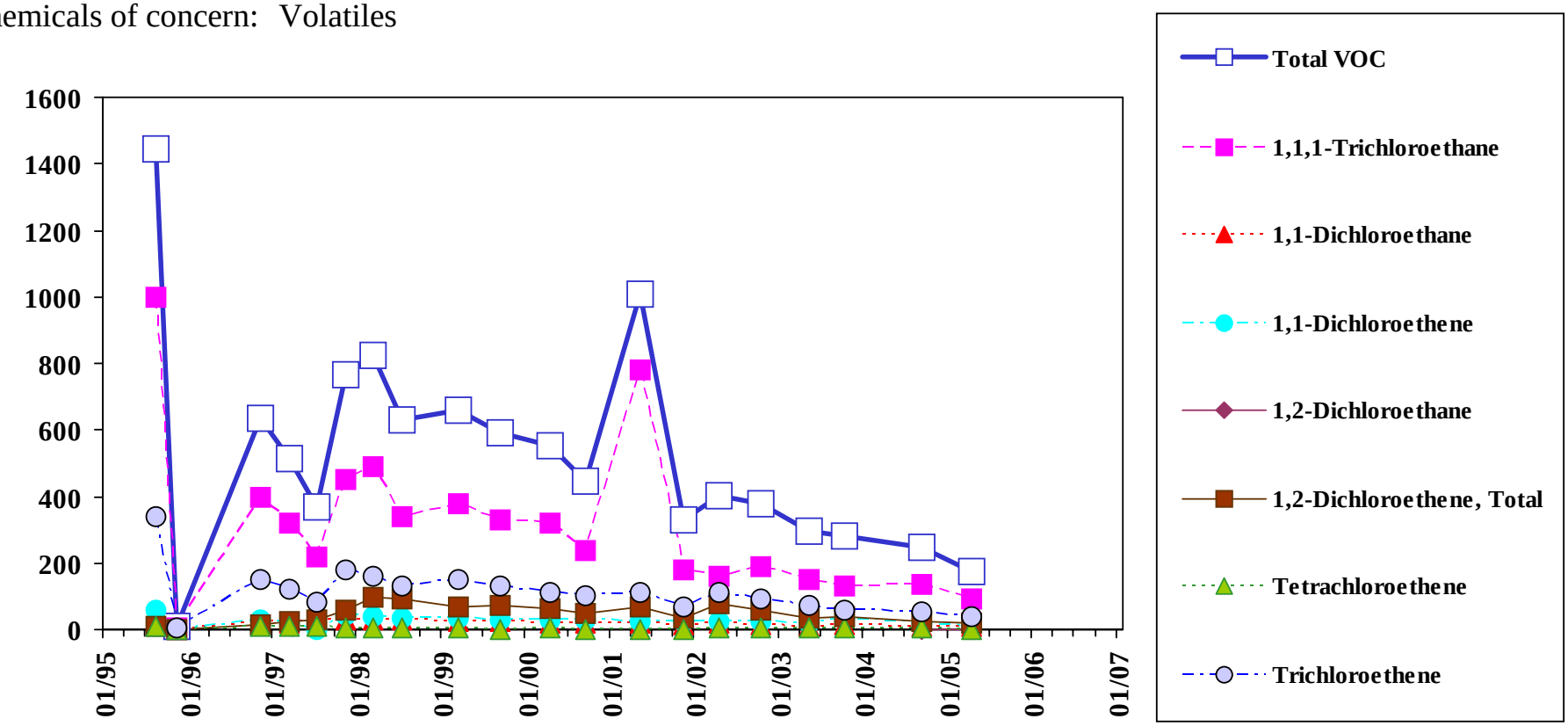
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

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

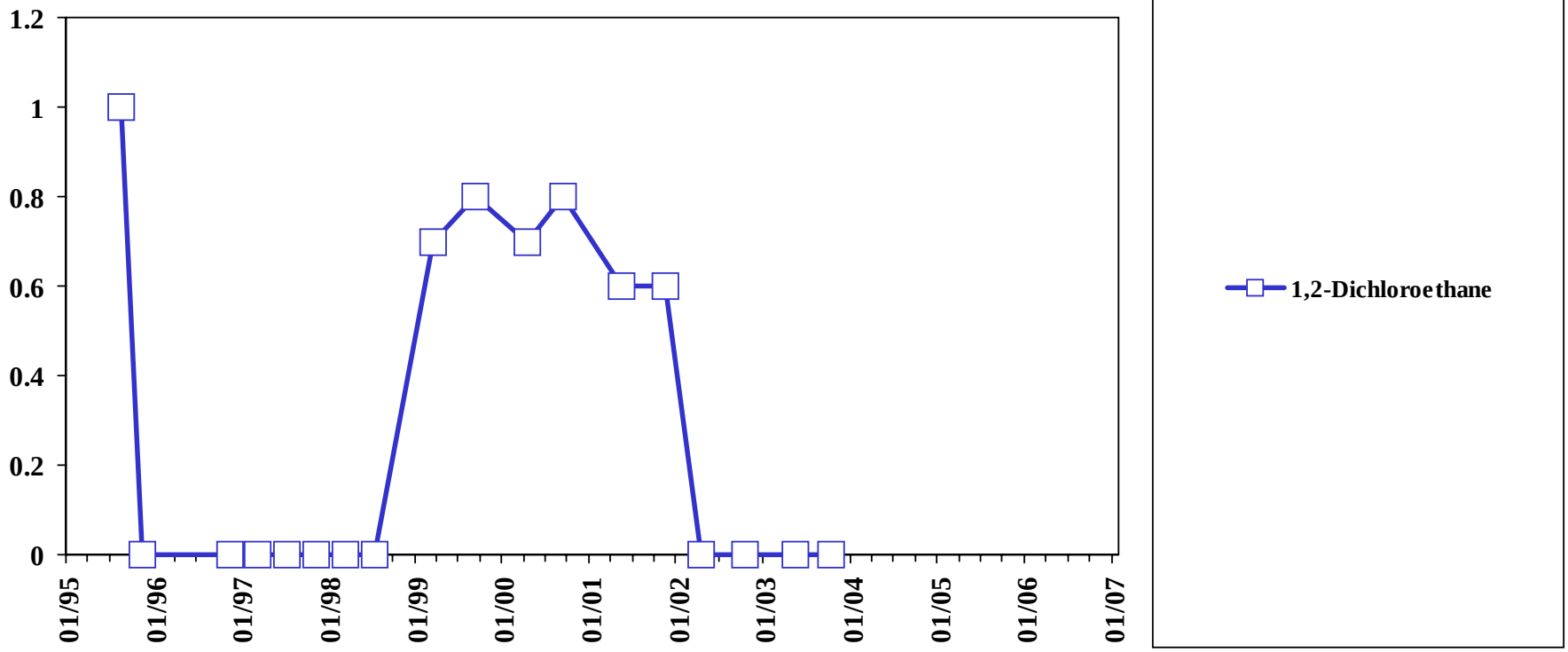
Sample Location:

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

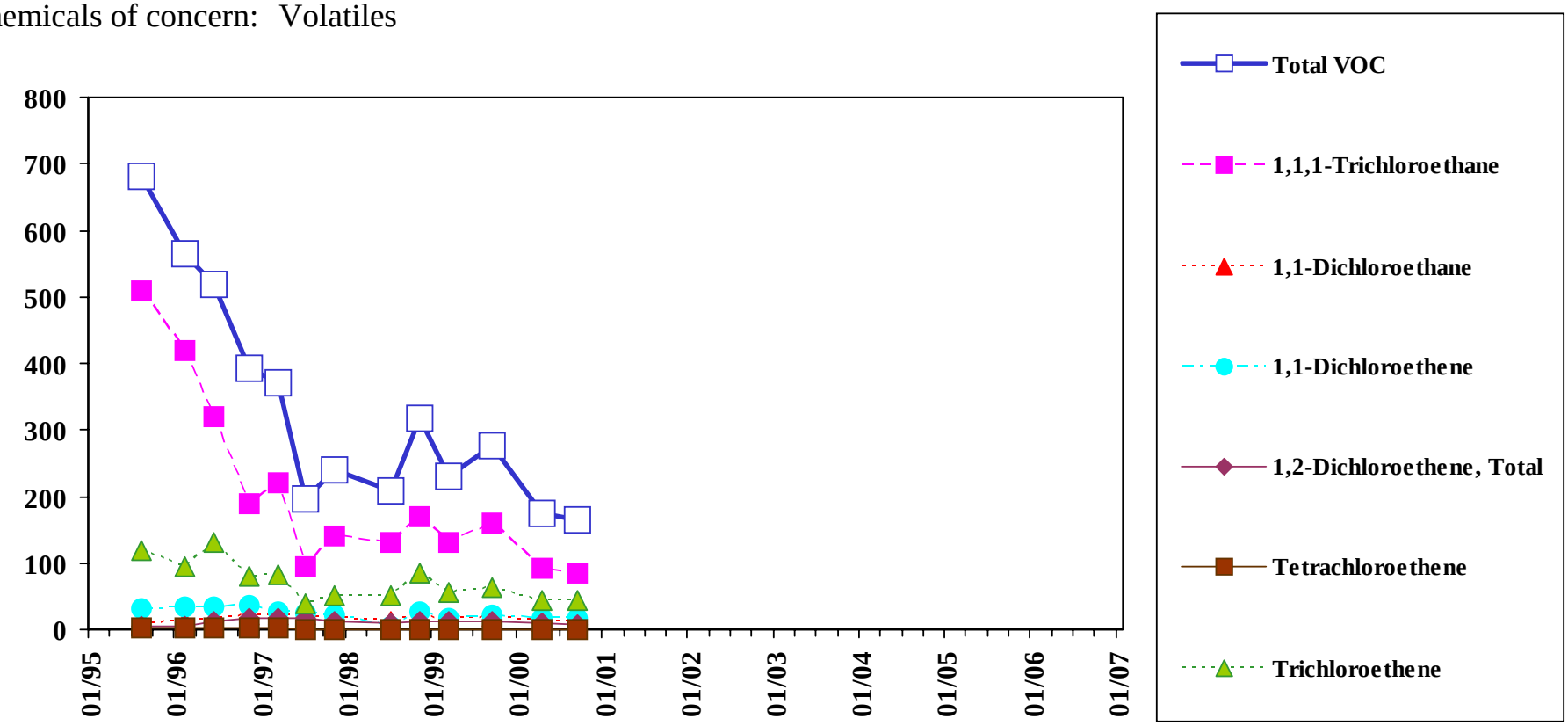
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

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

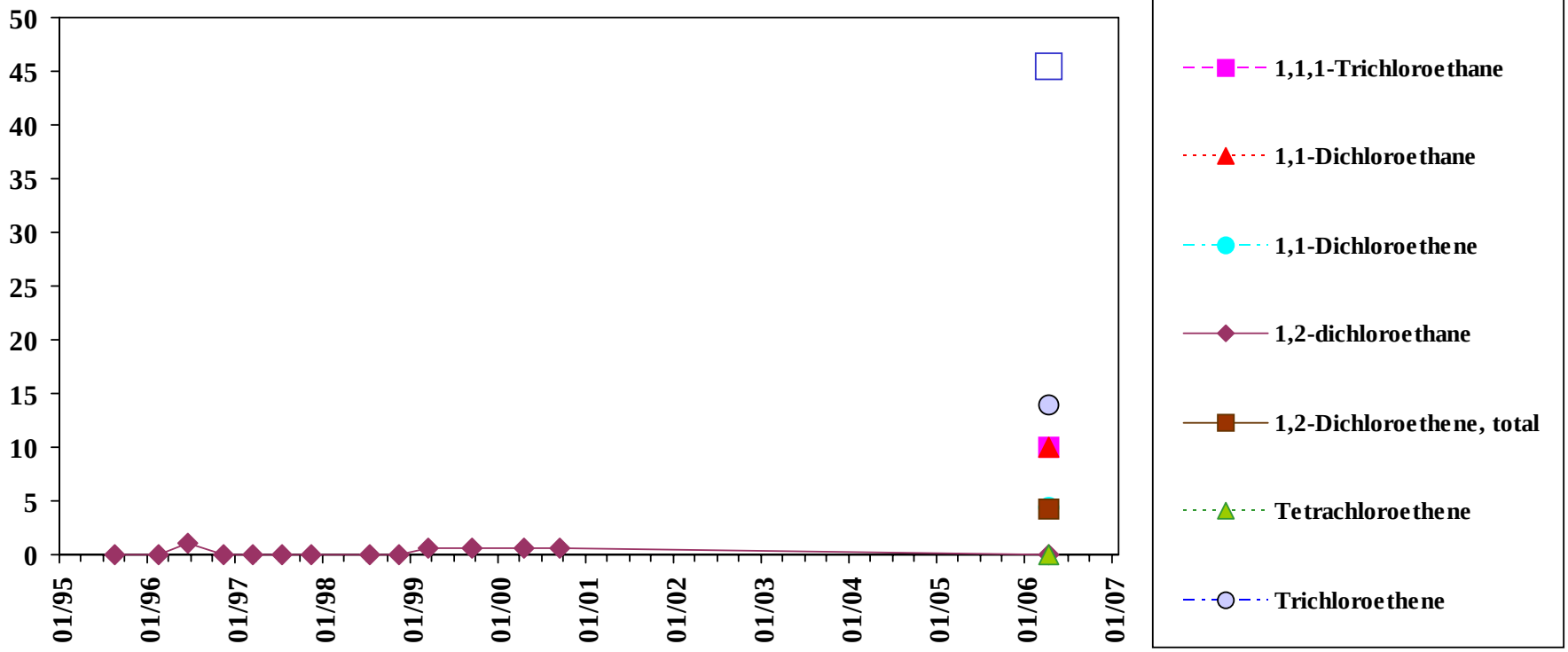
Sample Location:

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

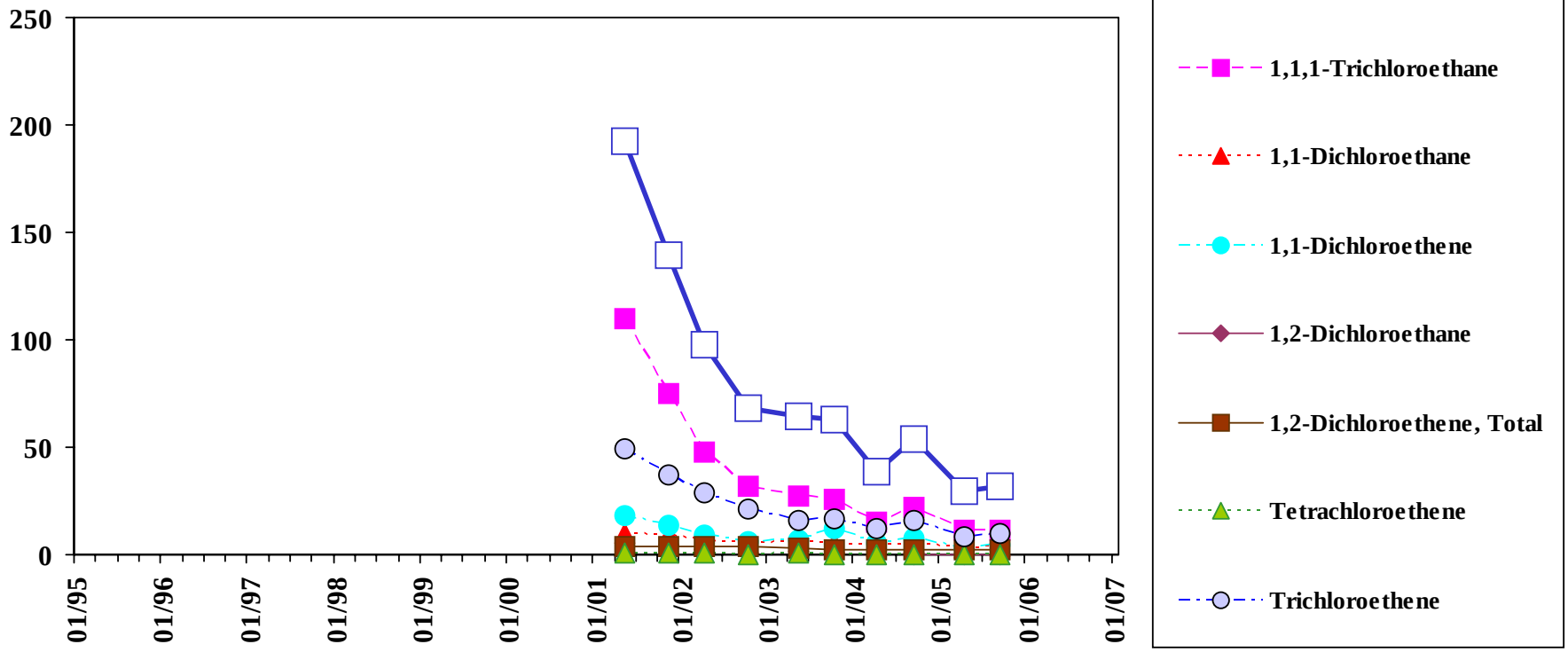
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

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

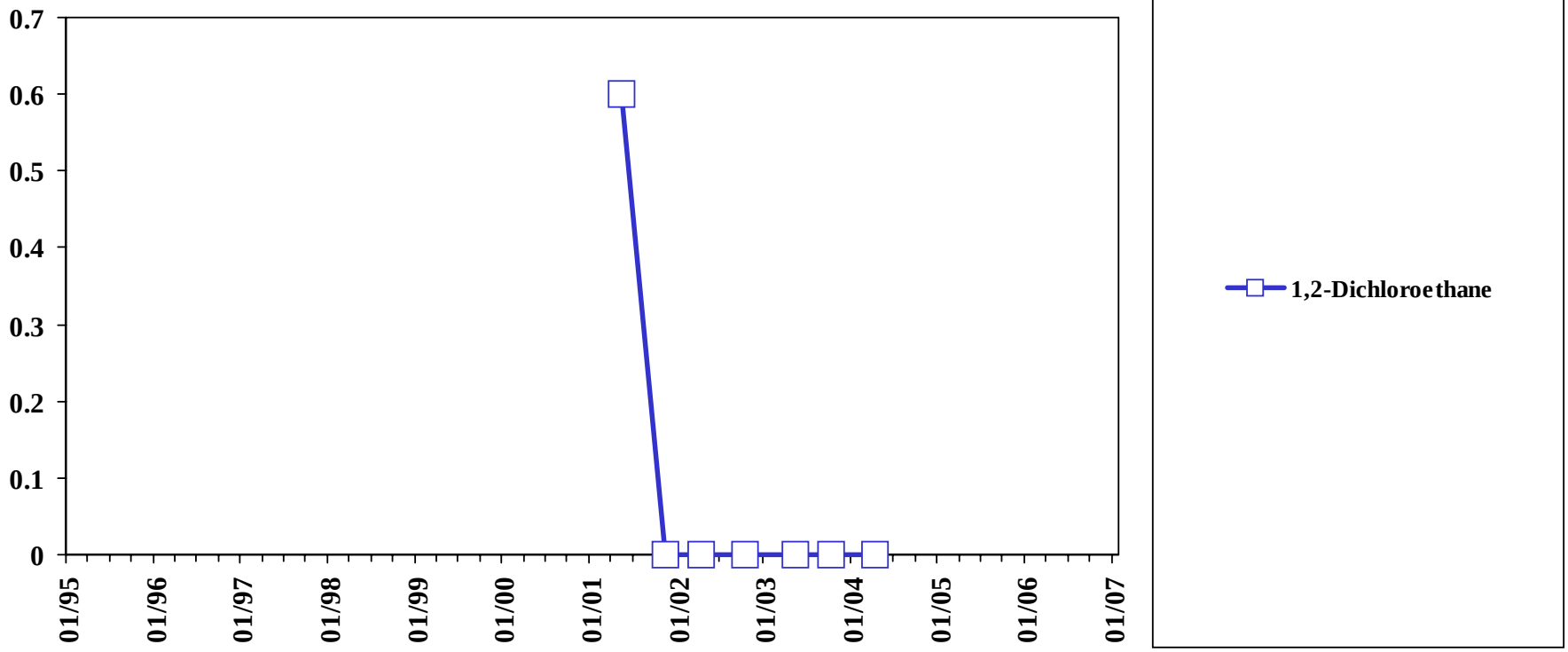
Sample Location:

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

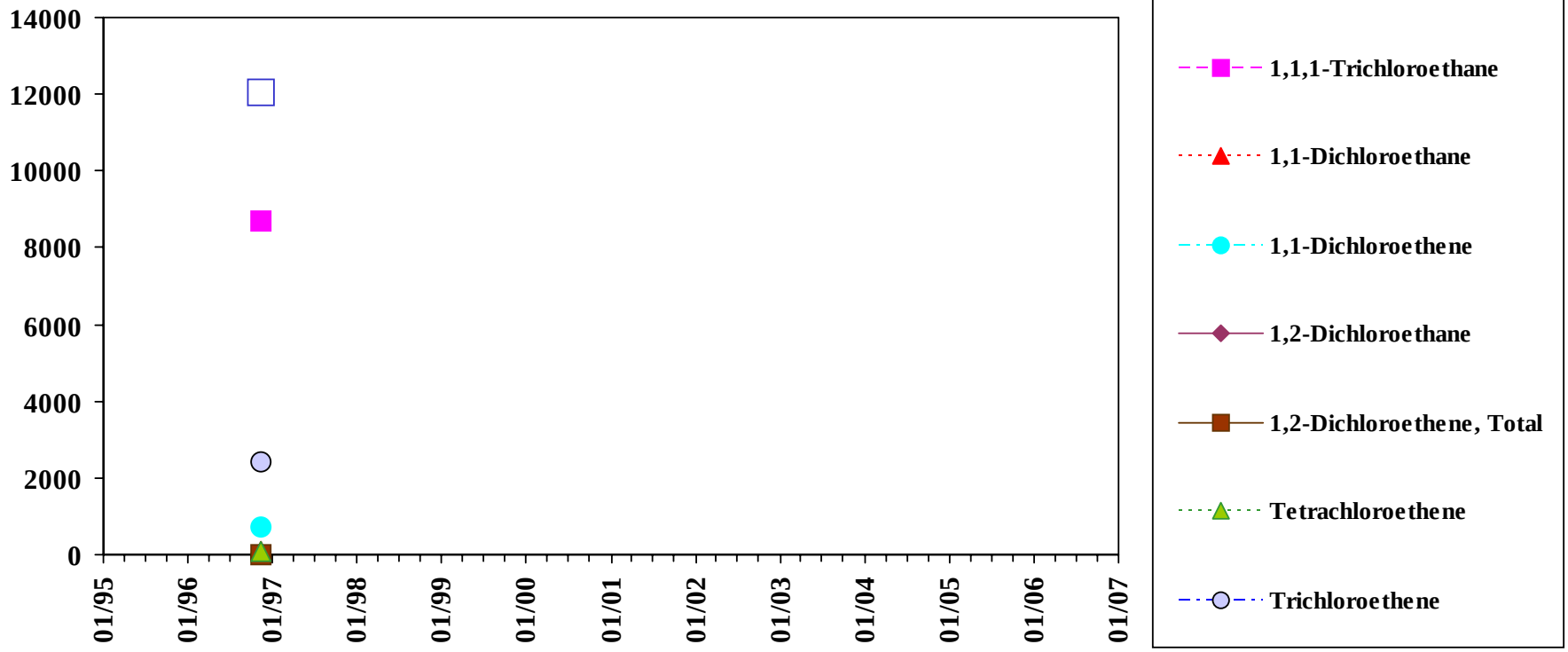
Sample Location:

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

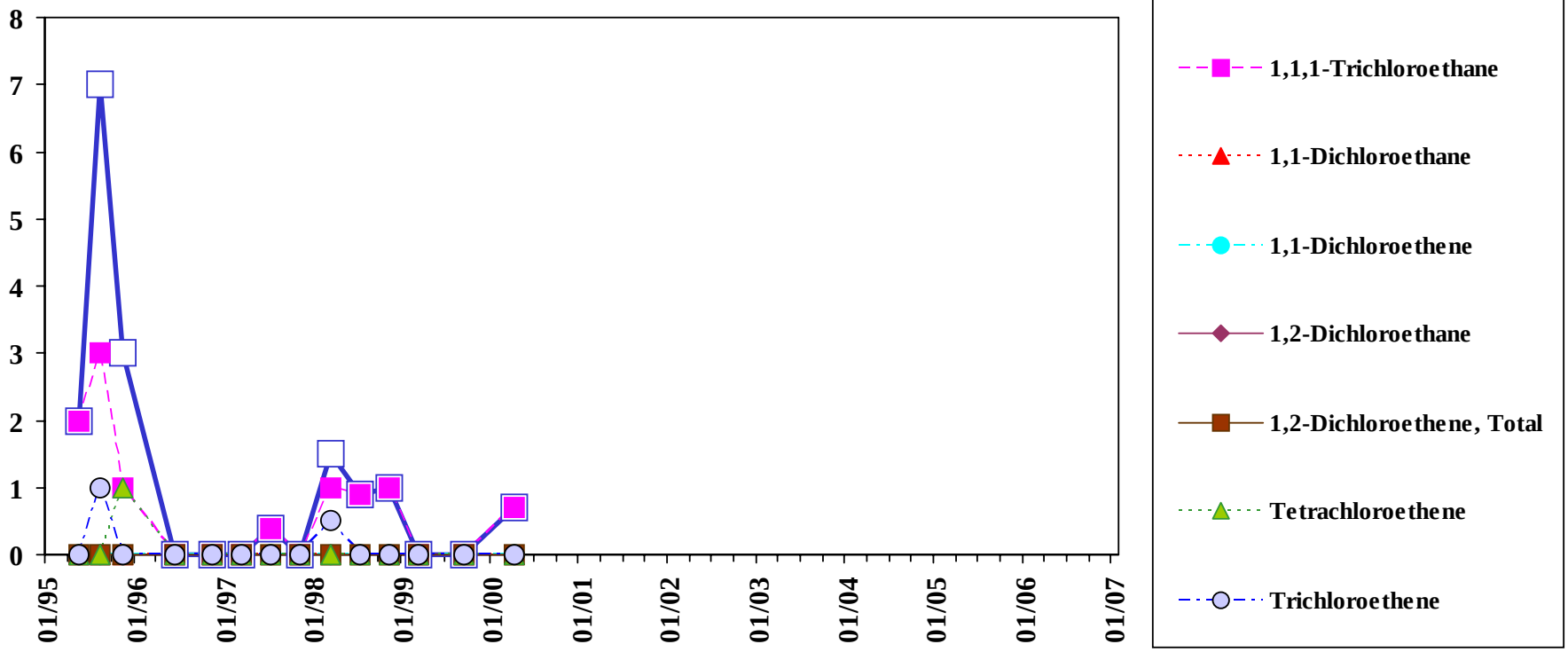
Sample Location:

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

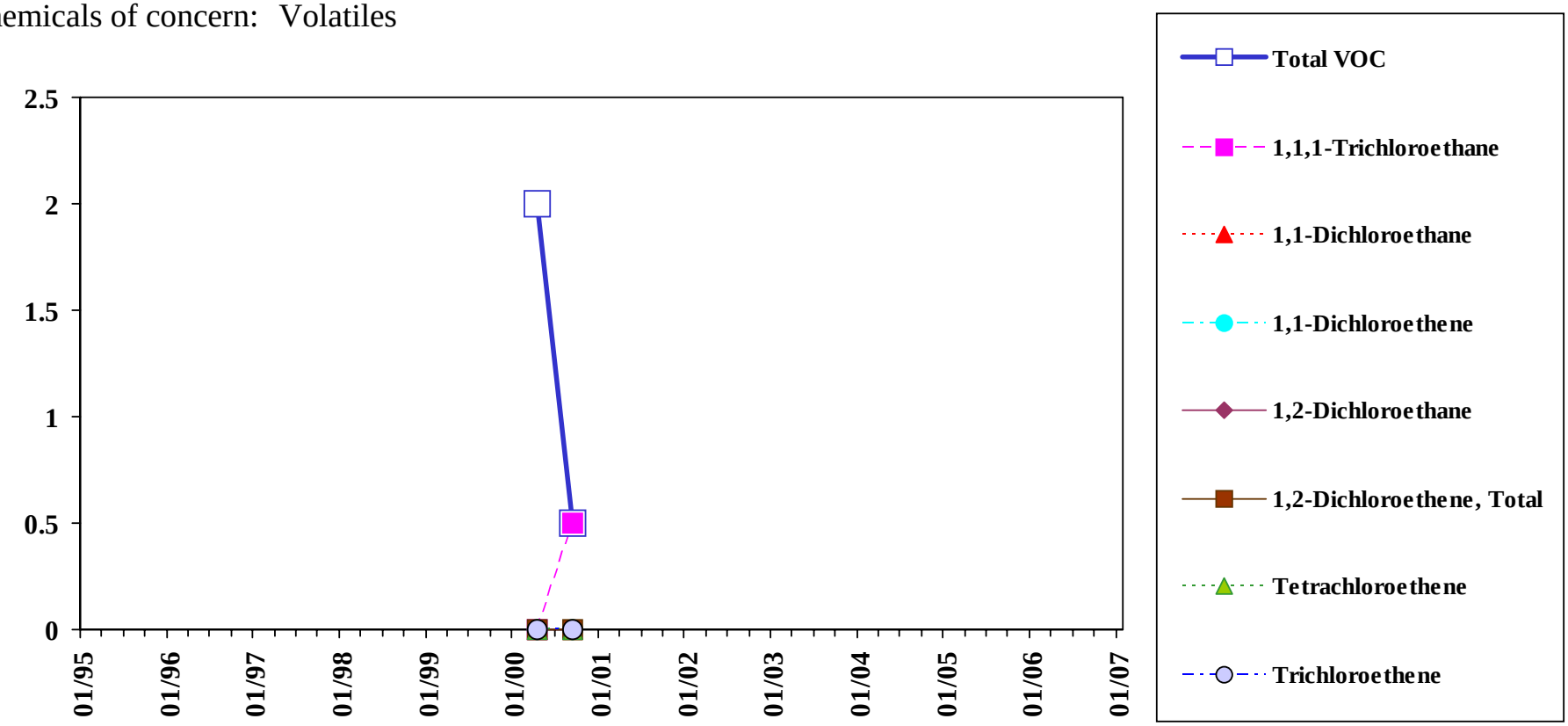
Sample Location:

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

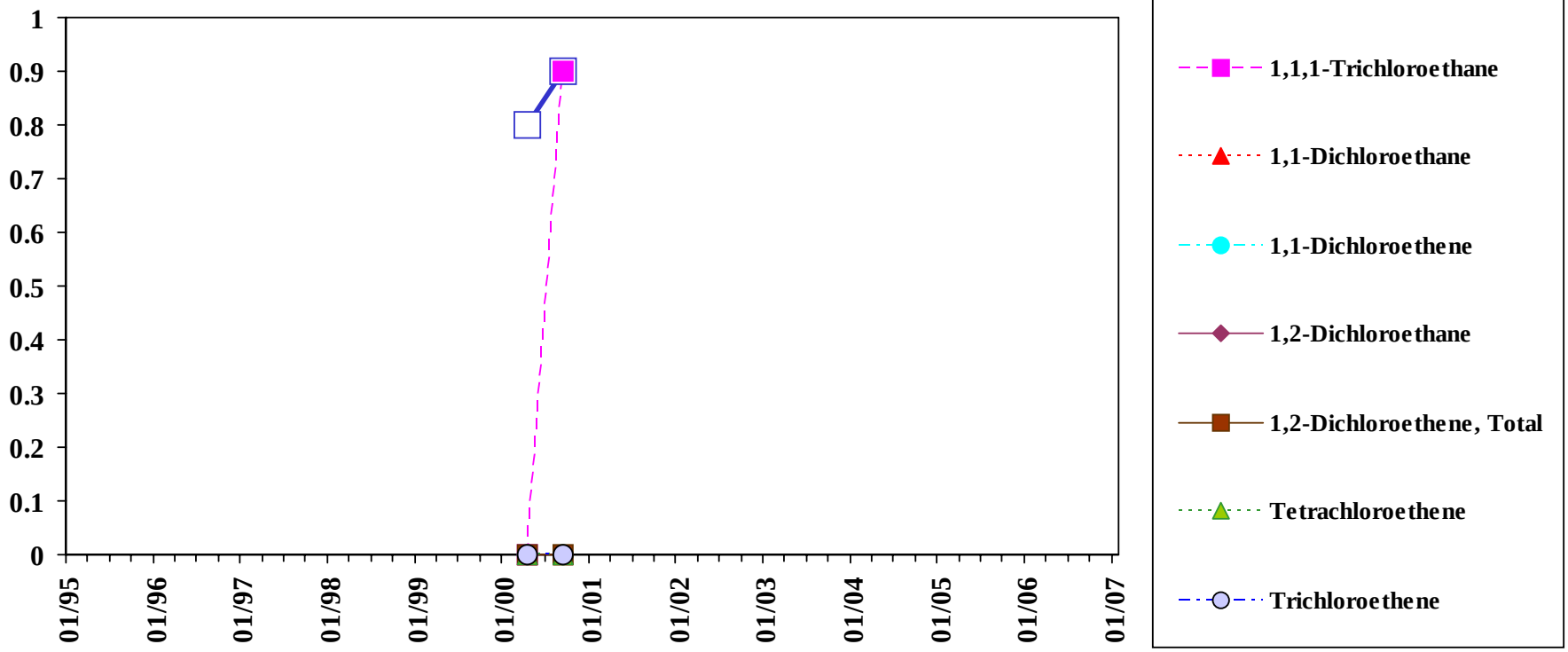
Sample Location:

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

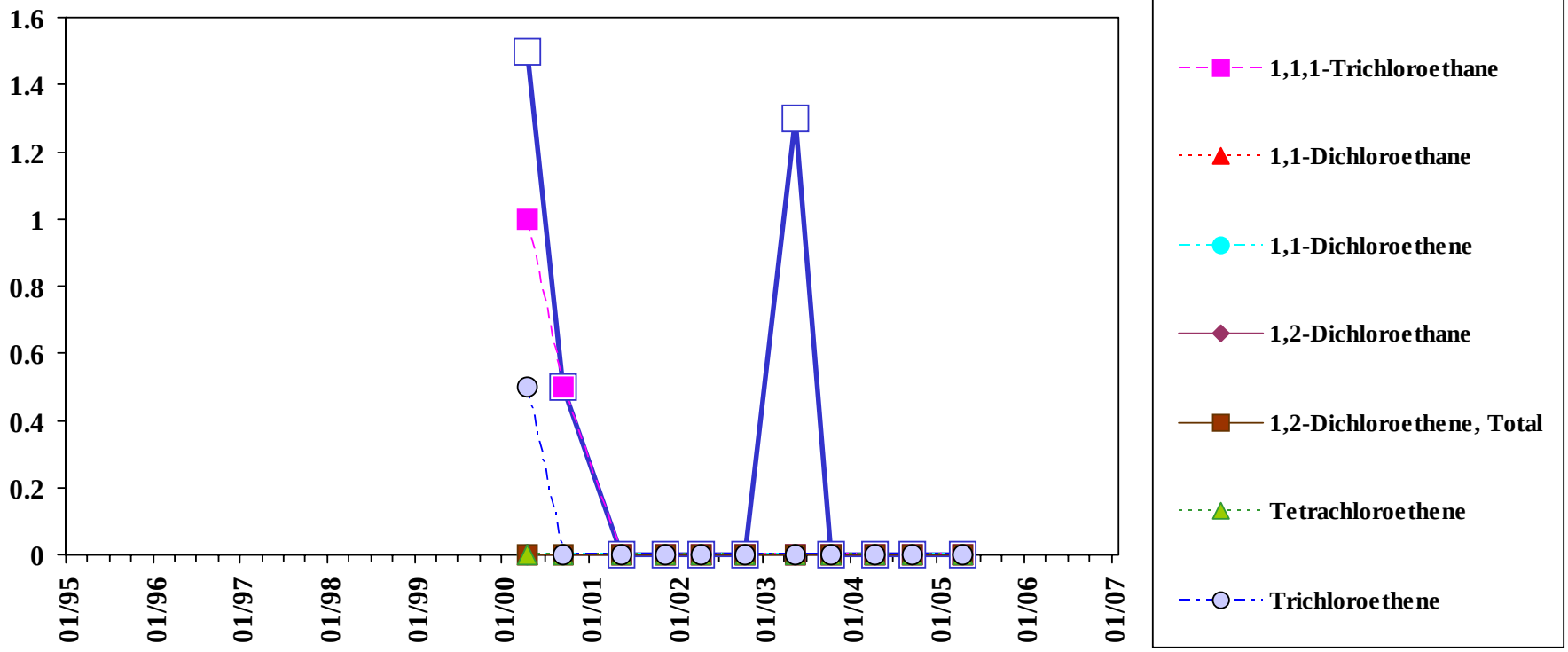
Sample Location:

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

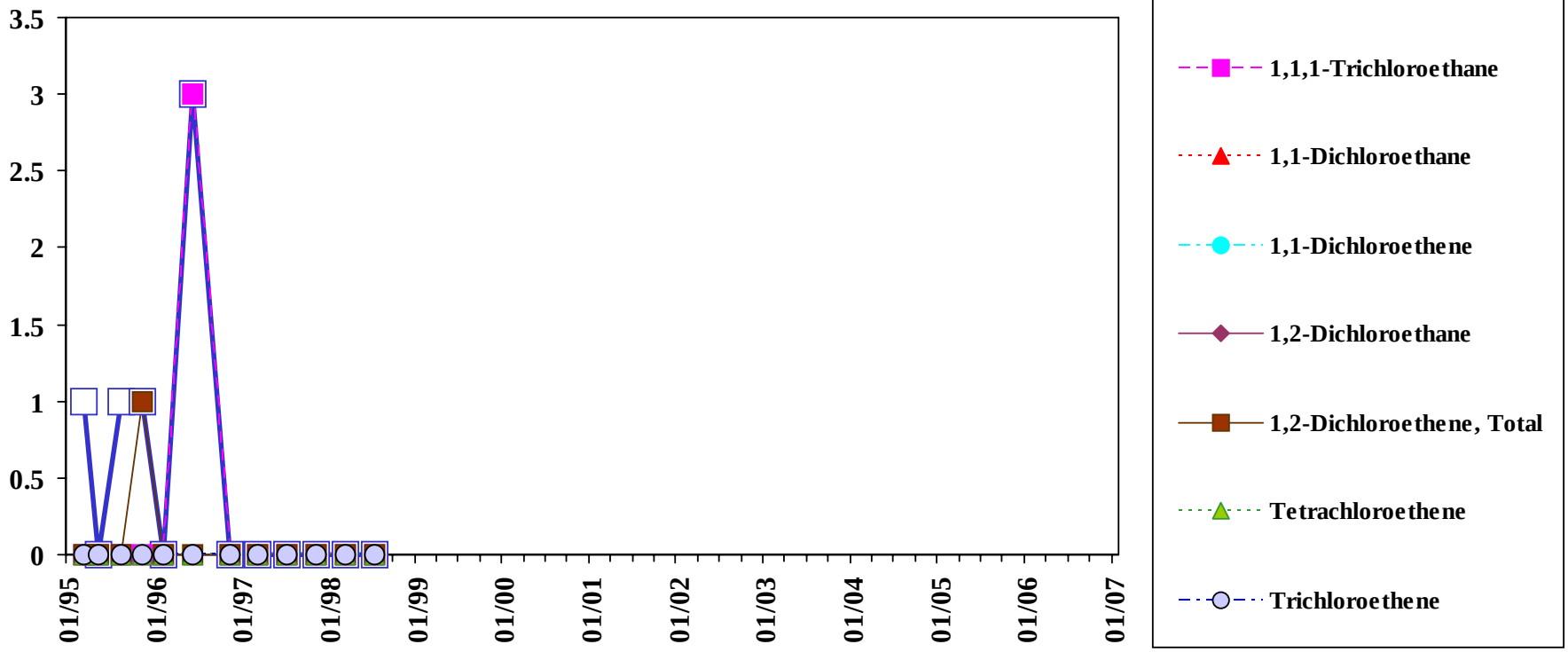
Sample Location:

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

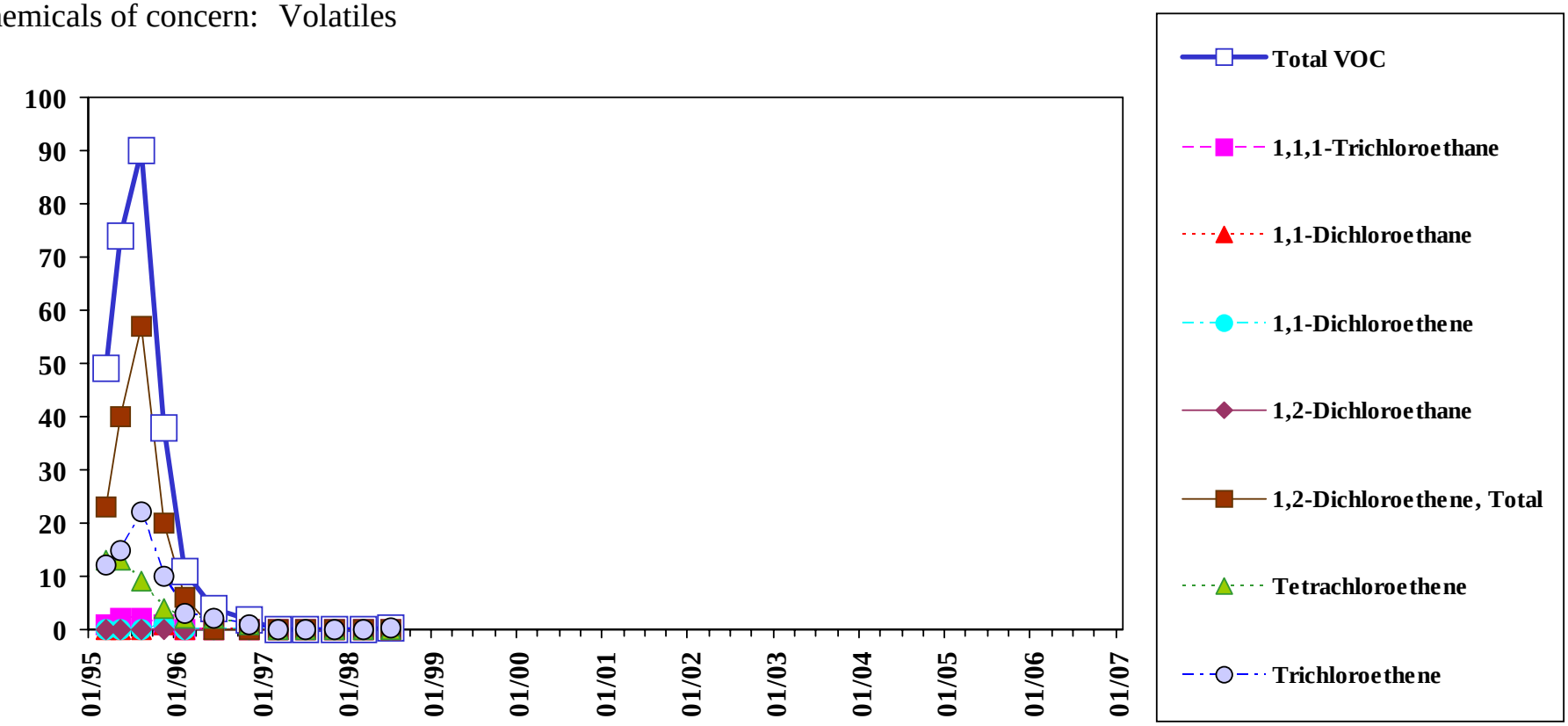
Sample Location:

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

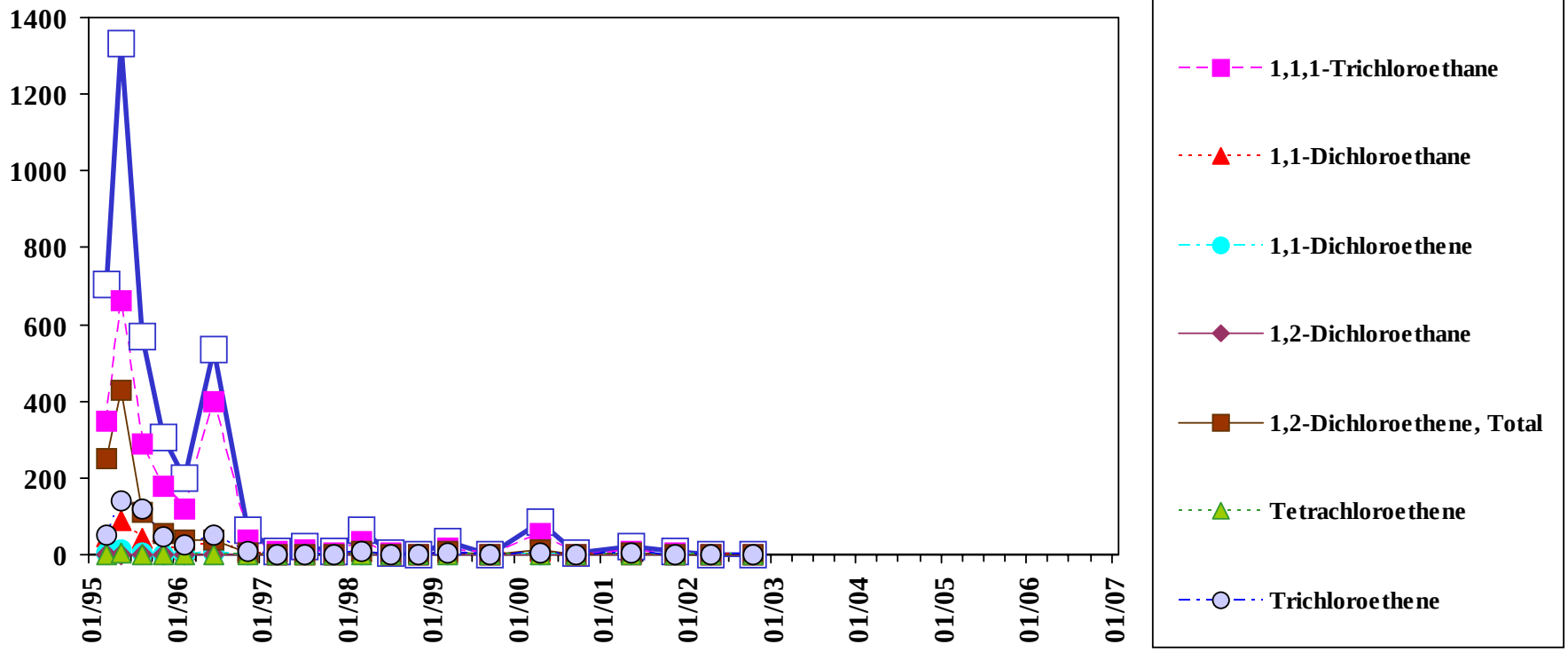
Sample Location:

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

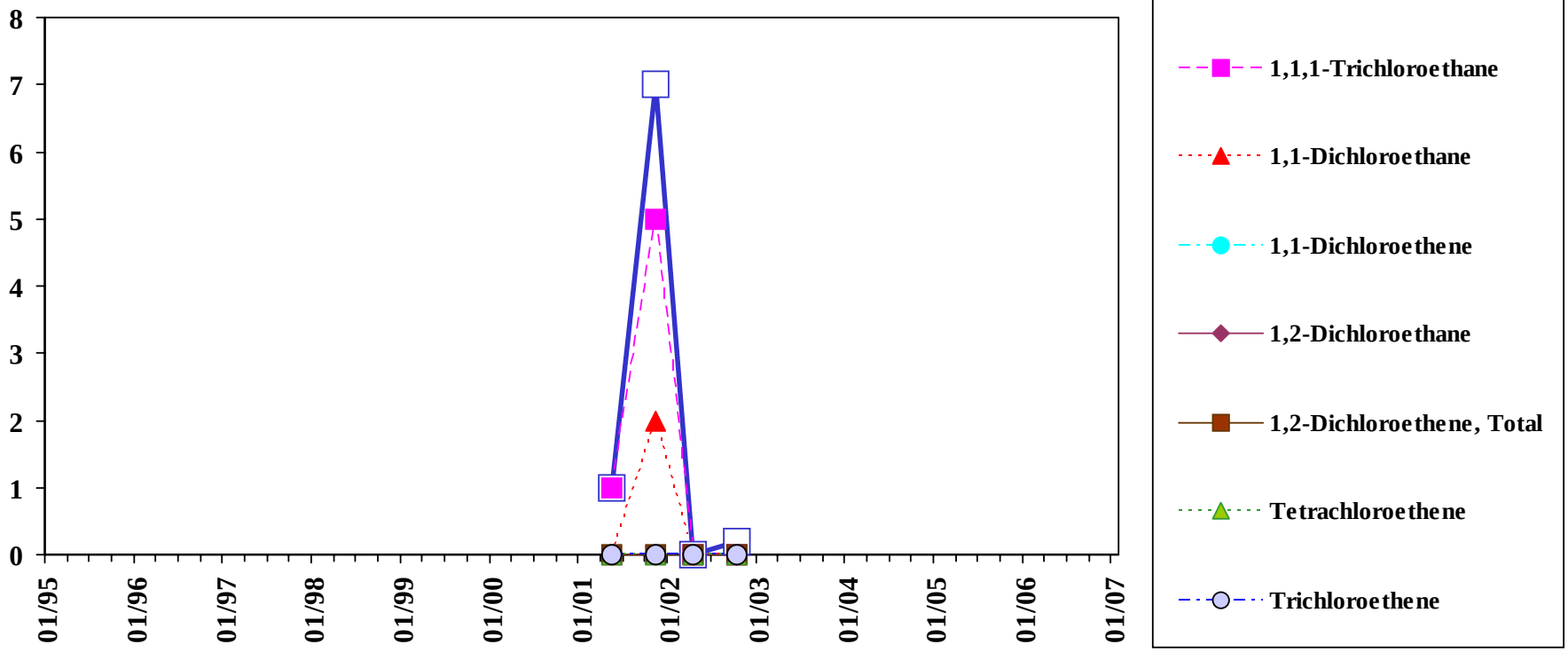
Sample Location:

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

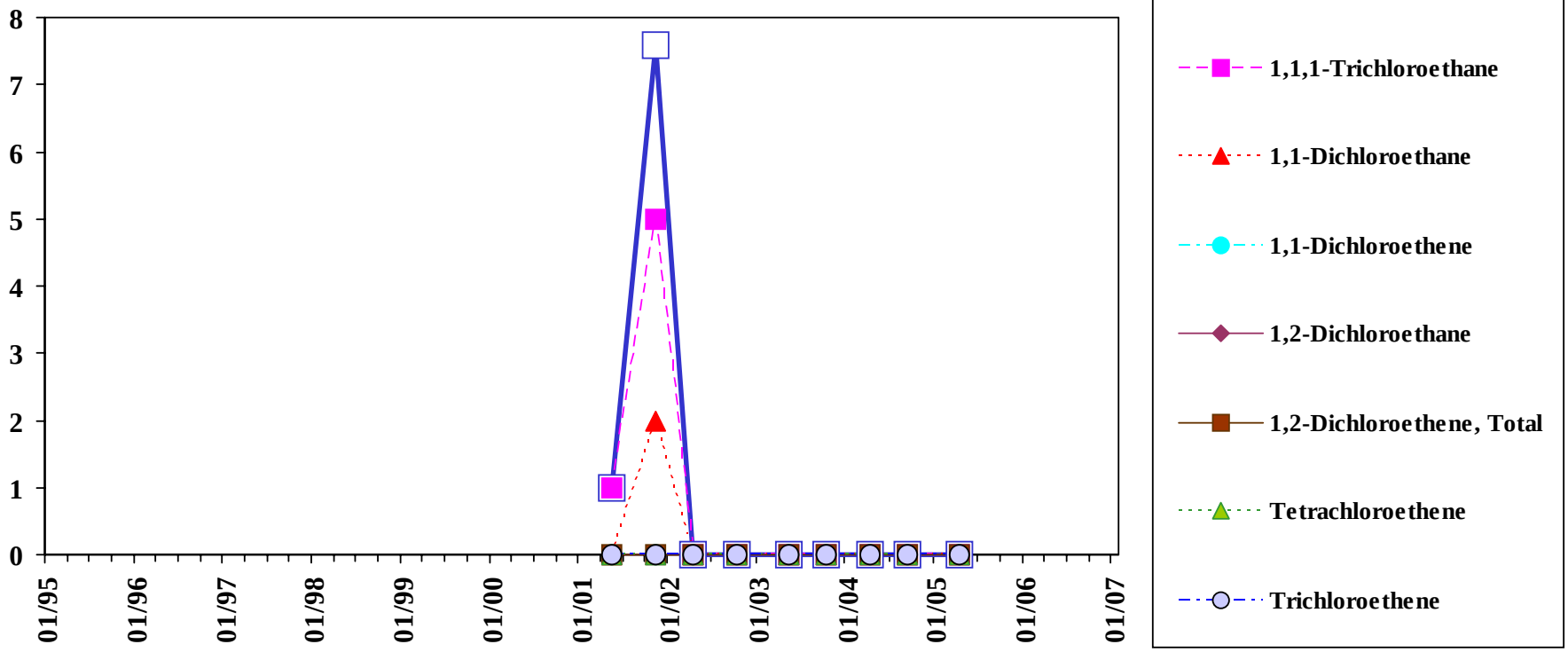
Sample Location:

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

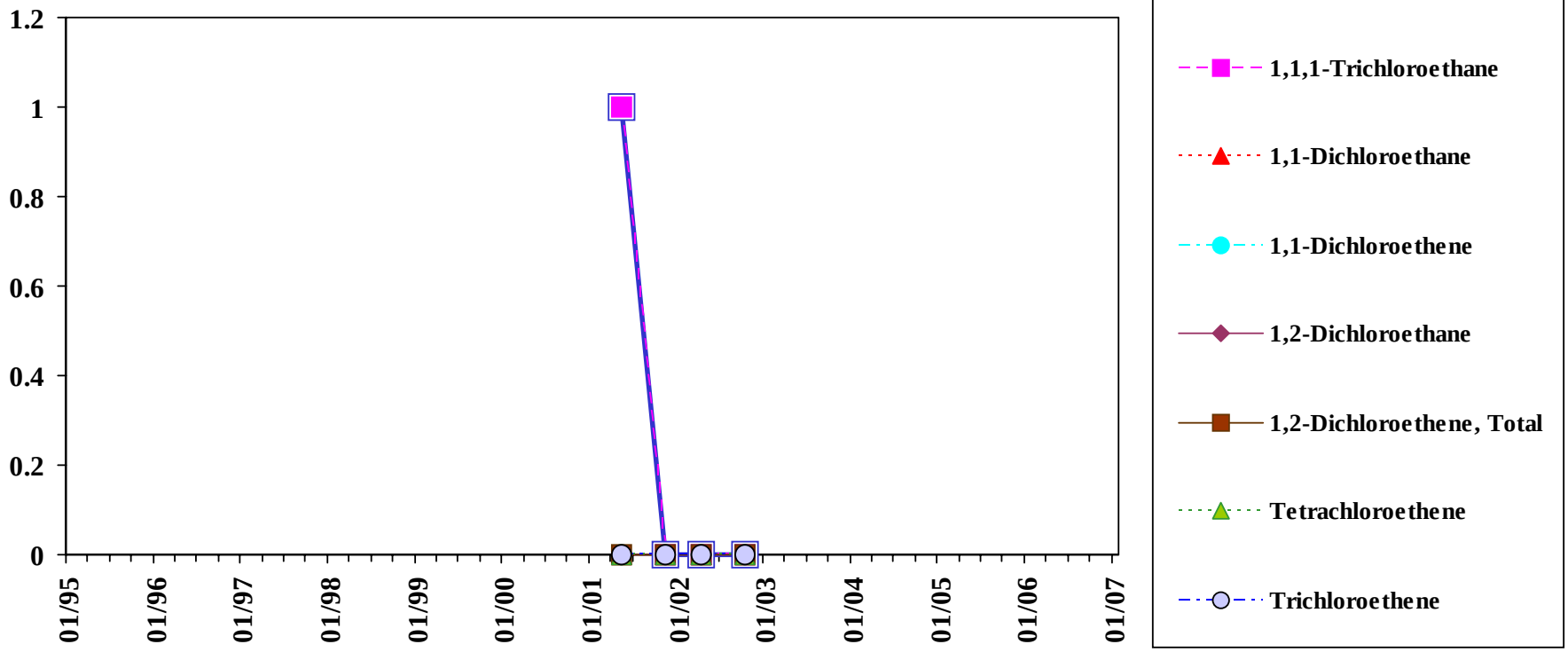
Sample Location:

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

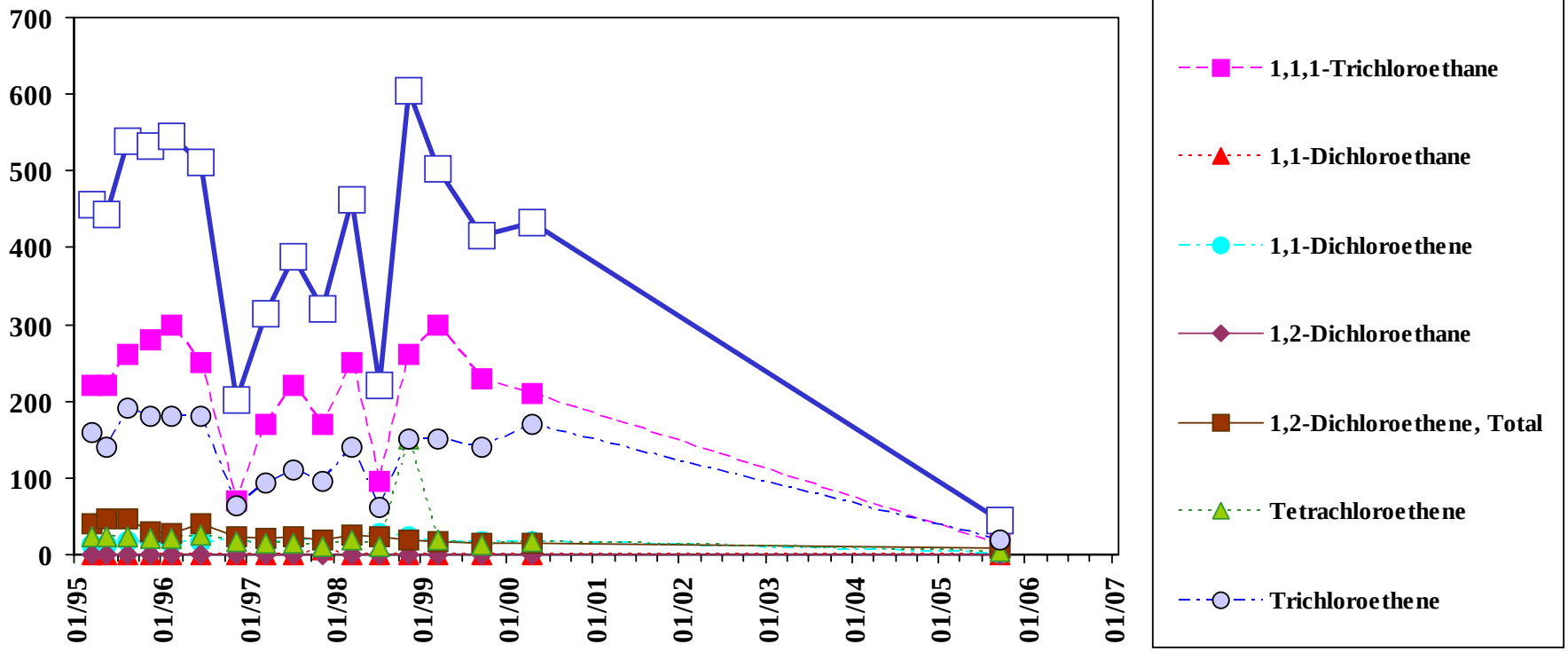
Sample Location:

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

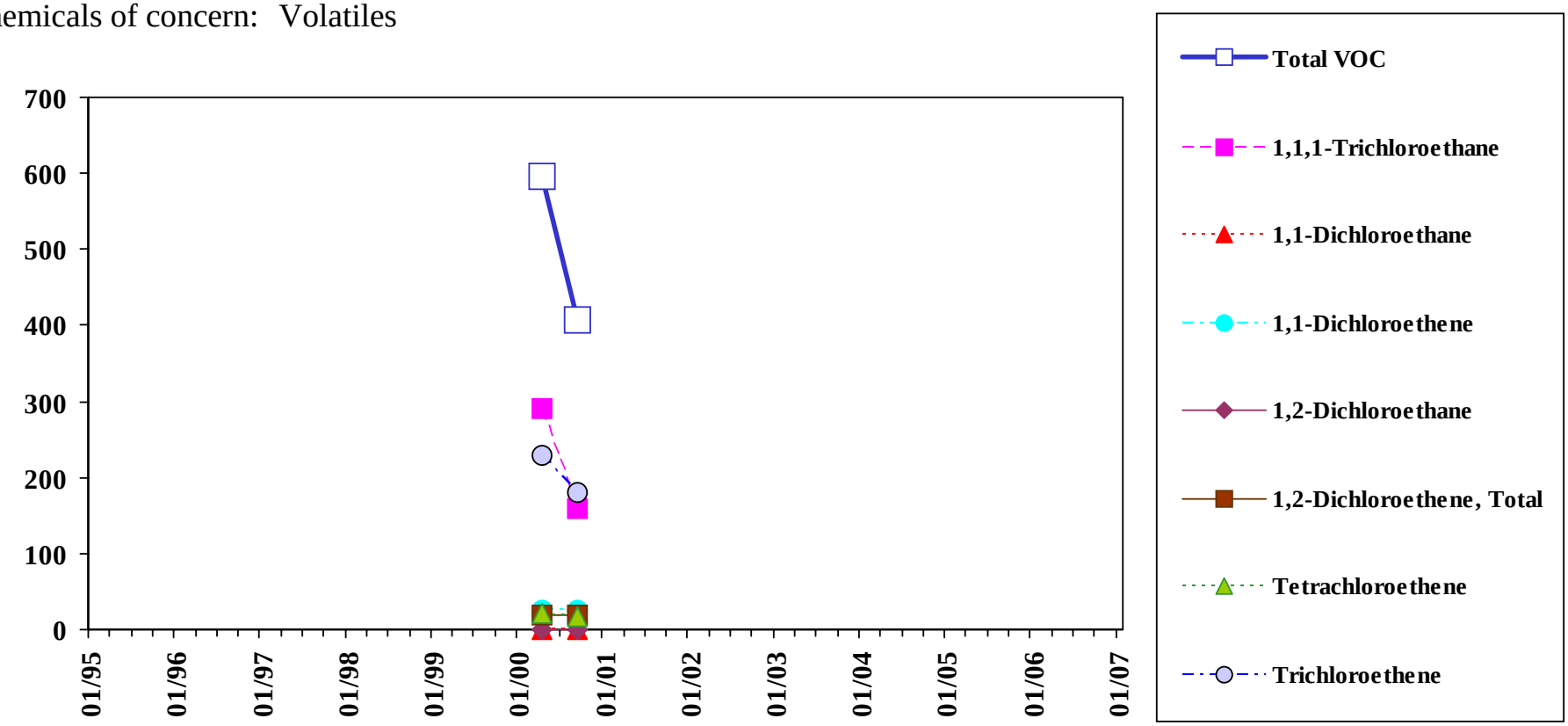
Sample Location:

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

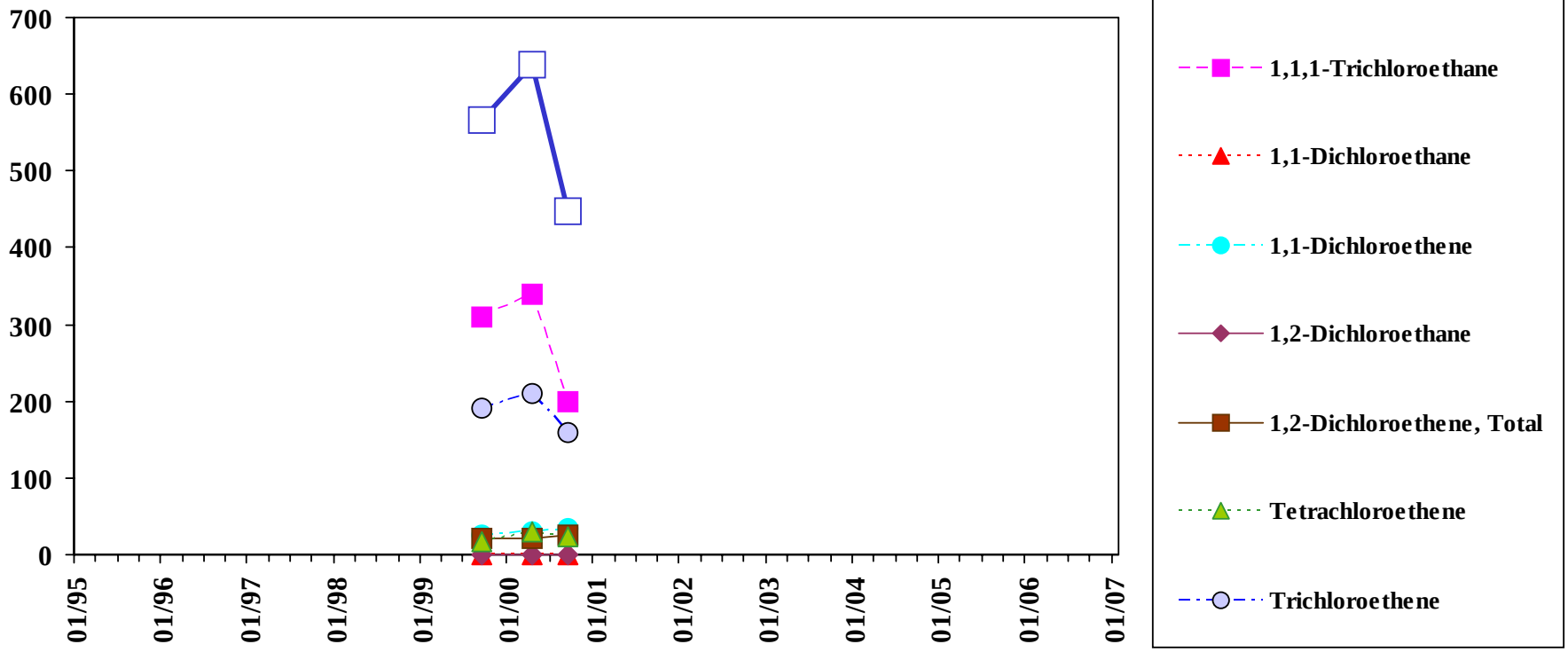
Sample Location:

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

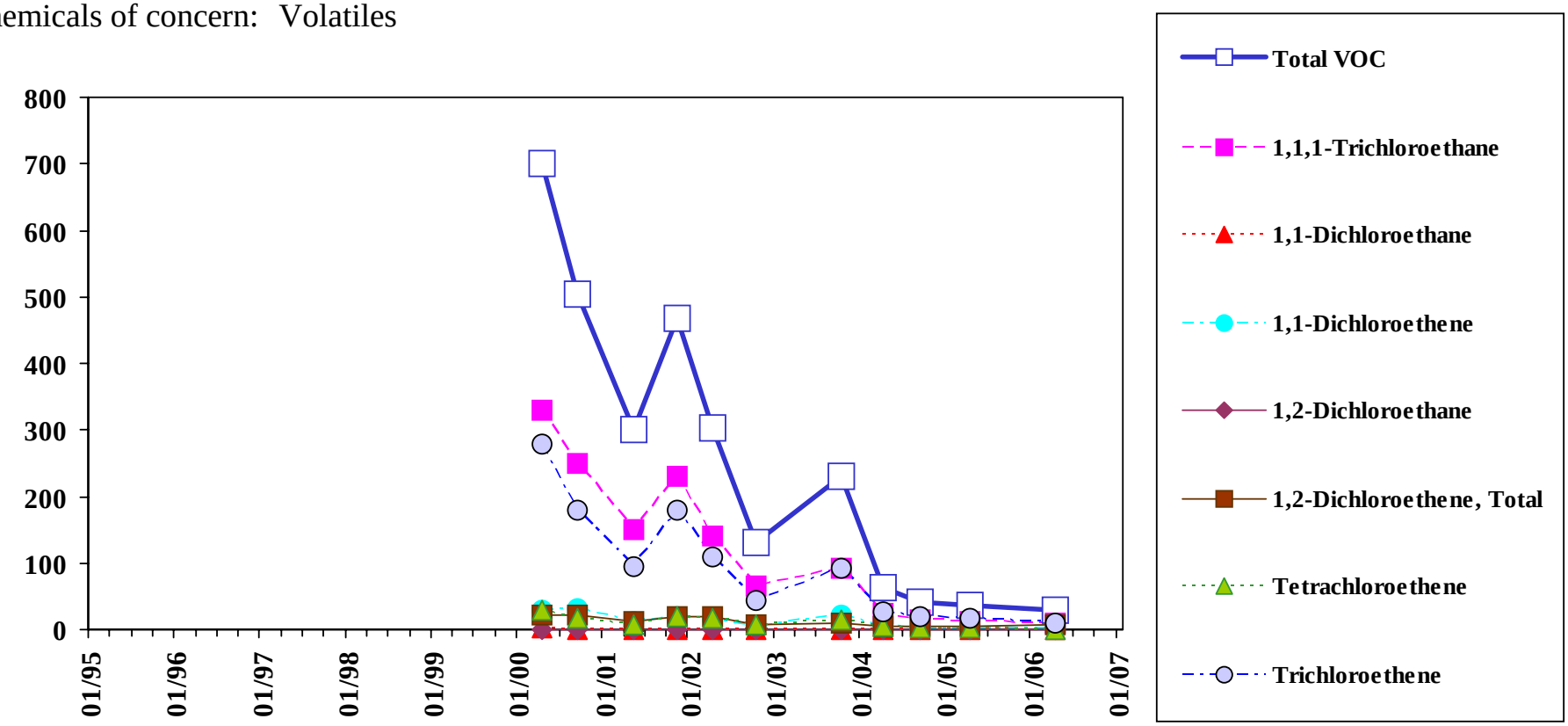
Sample Location:

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

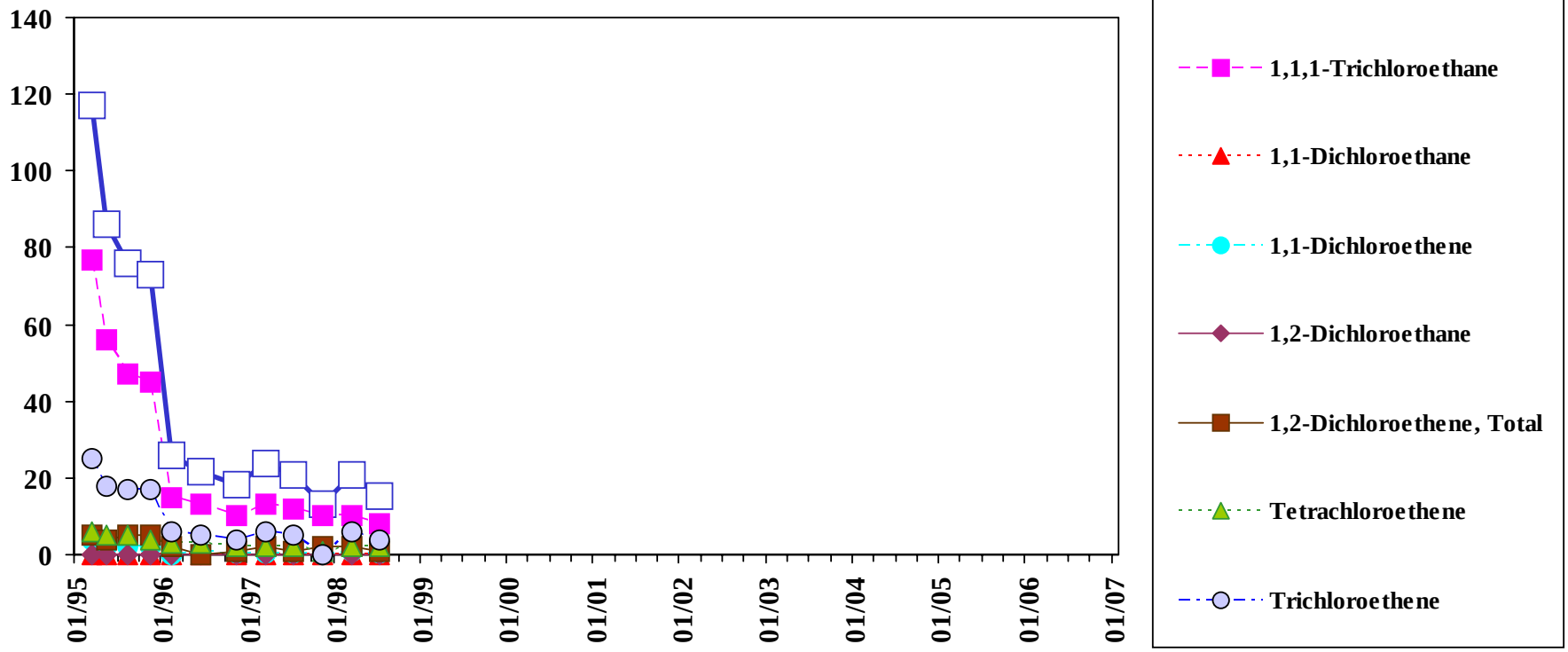
Sample Location:

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

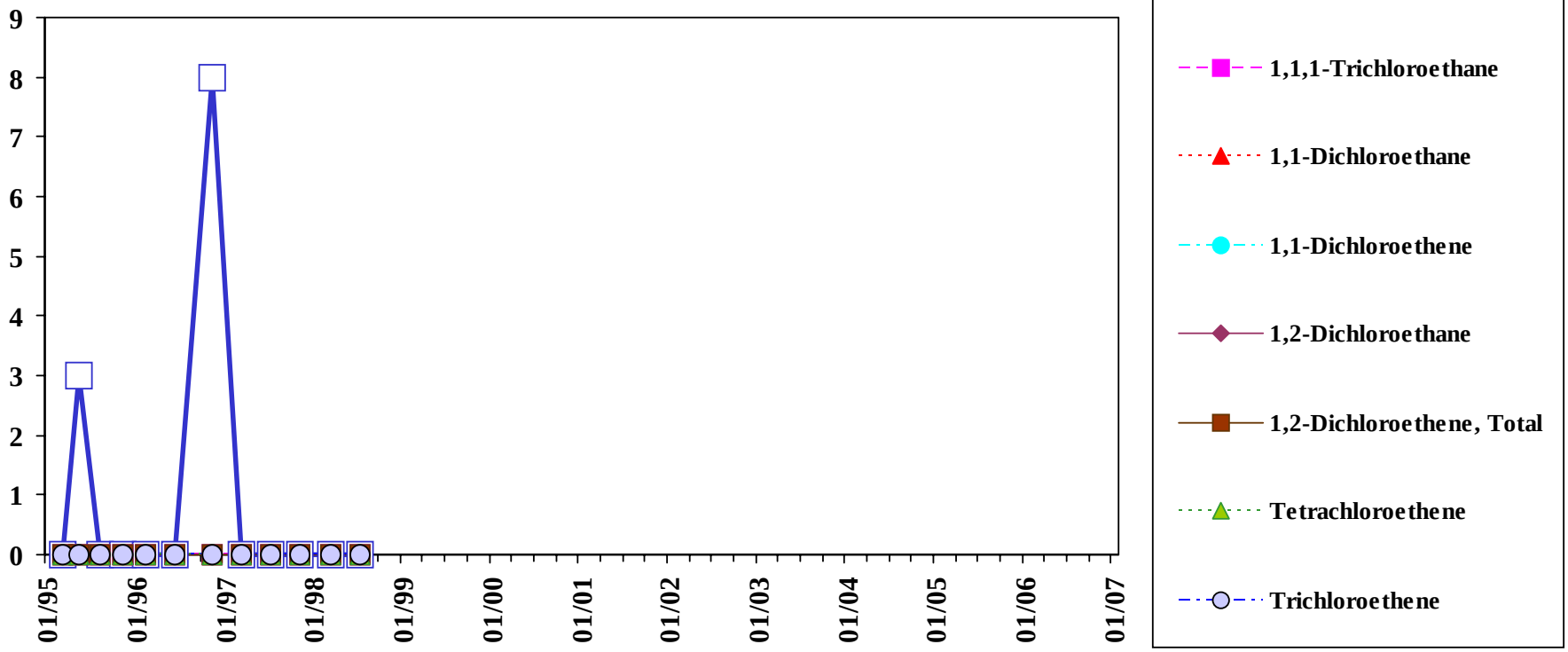
Sample Location:

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

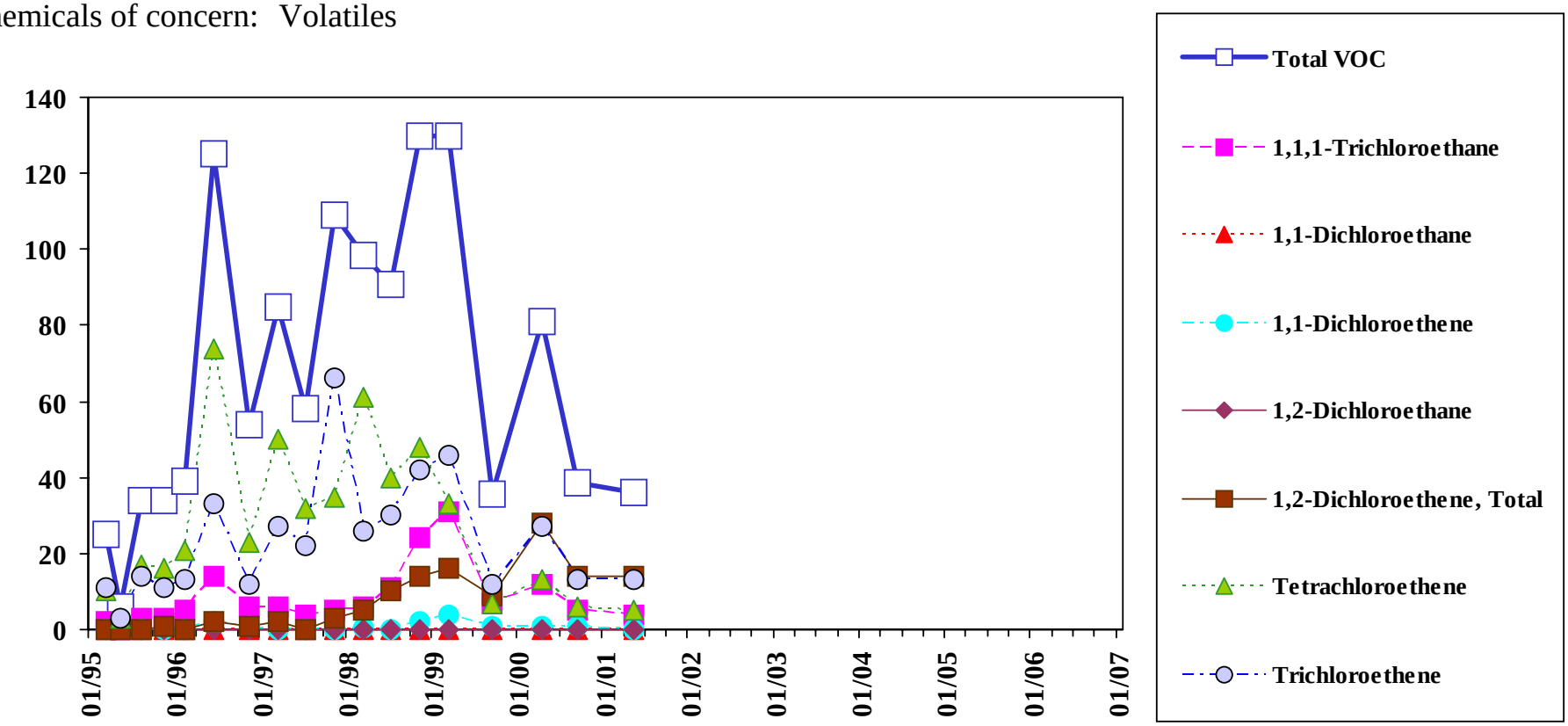
Sample Location:

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

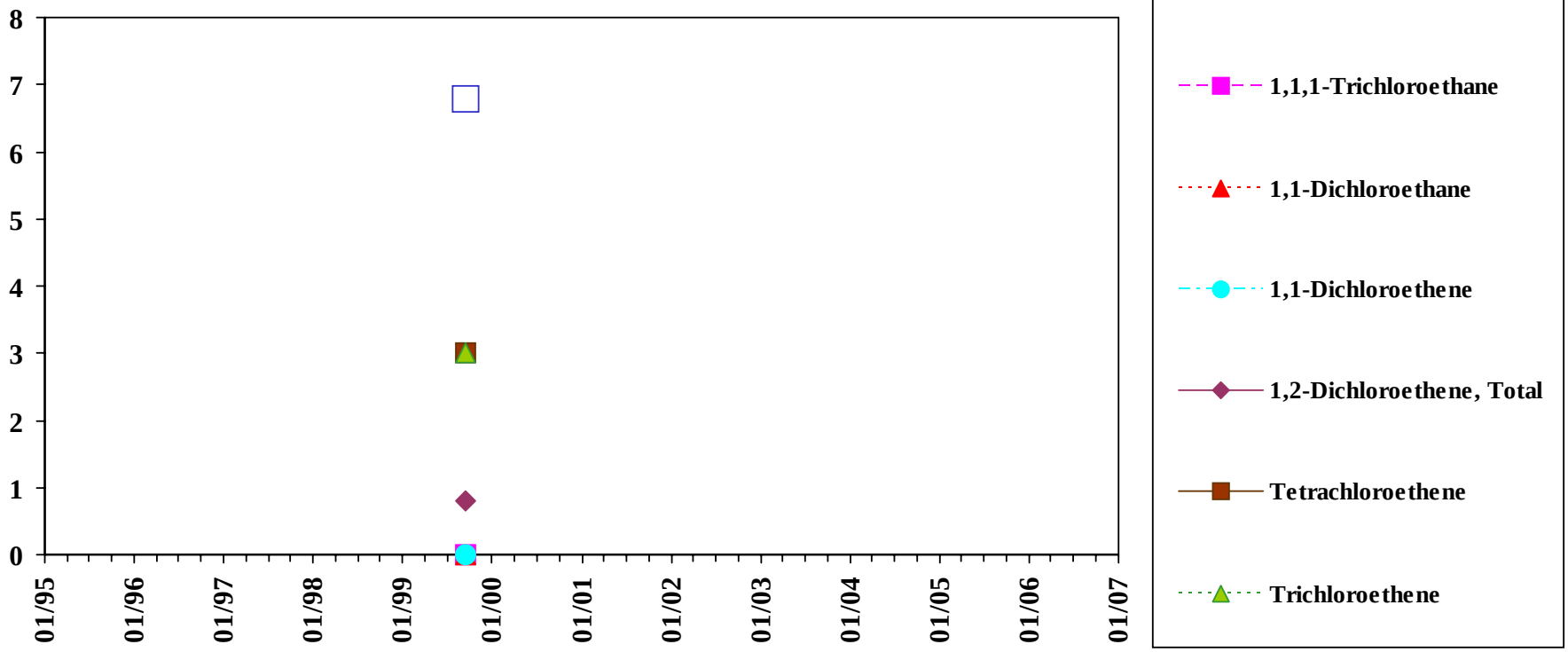
Sample Location:

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

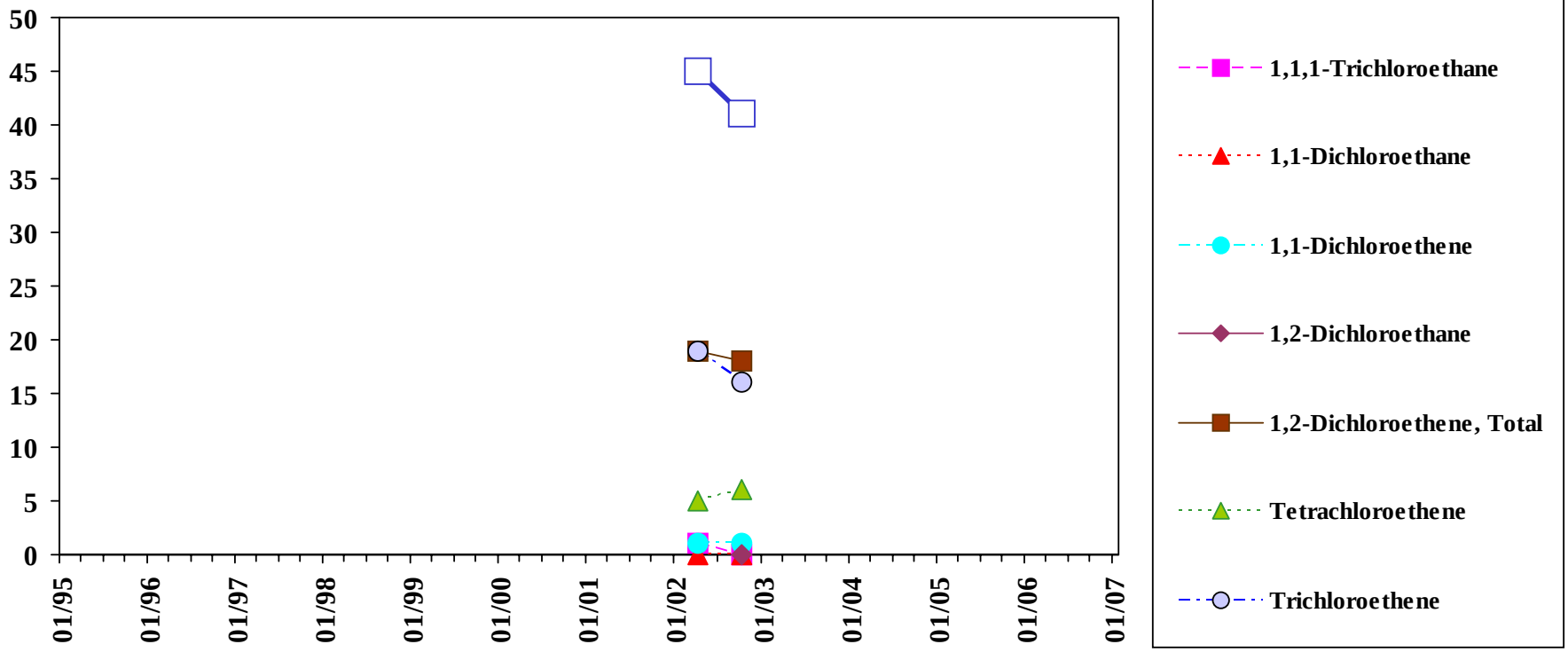
Sample Location:

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

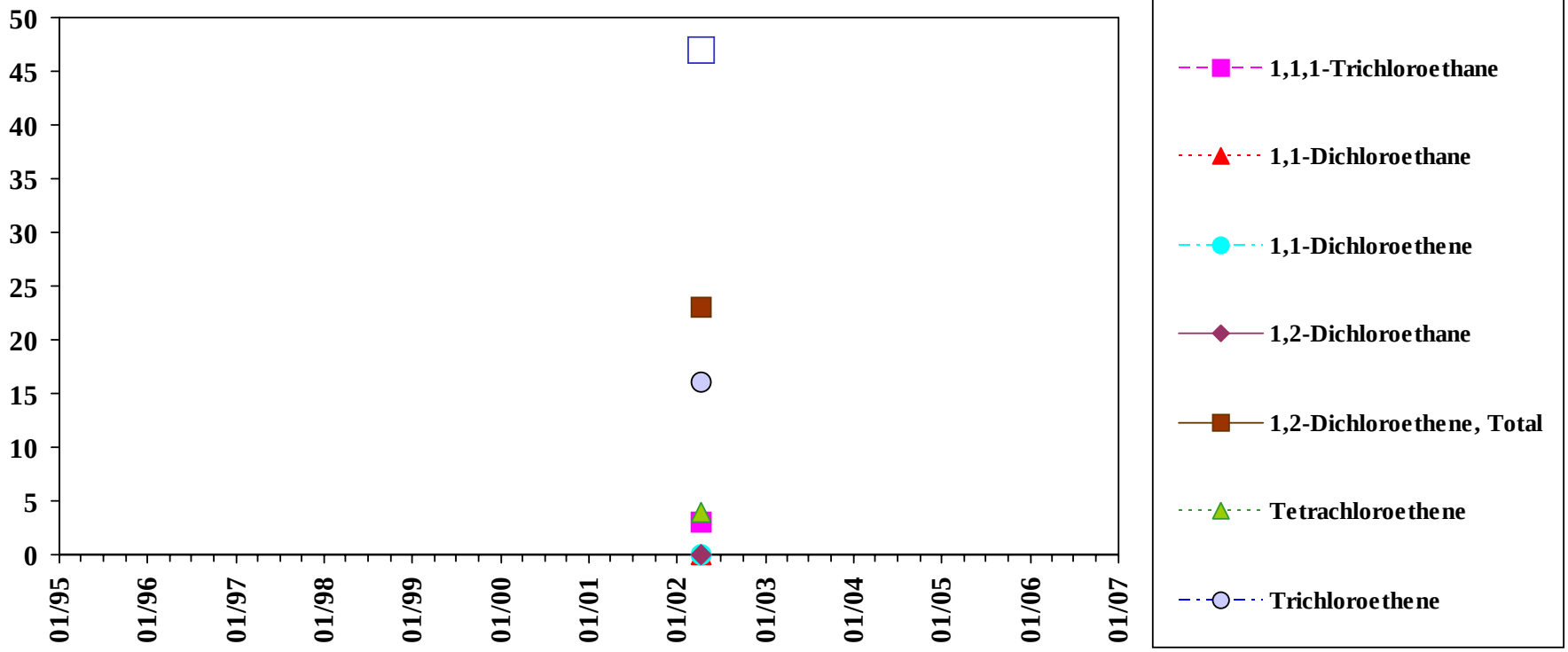
Sample Location:

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

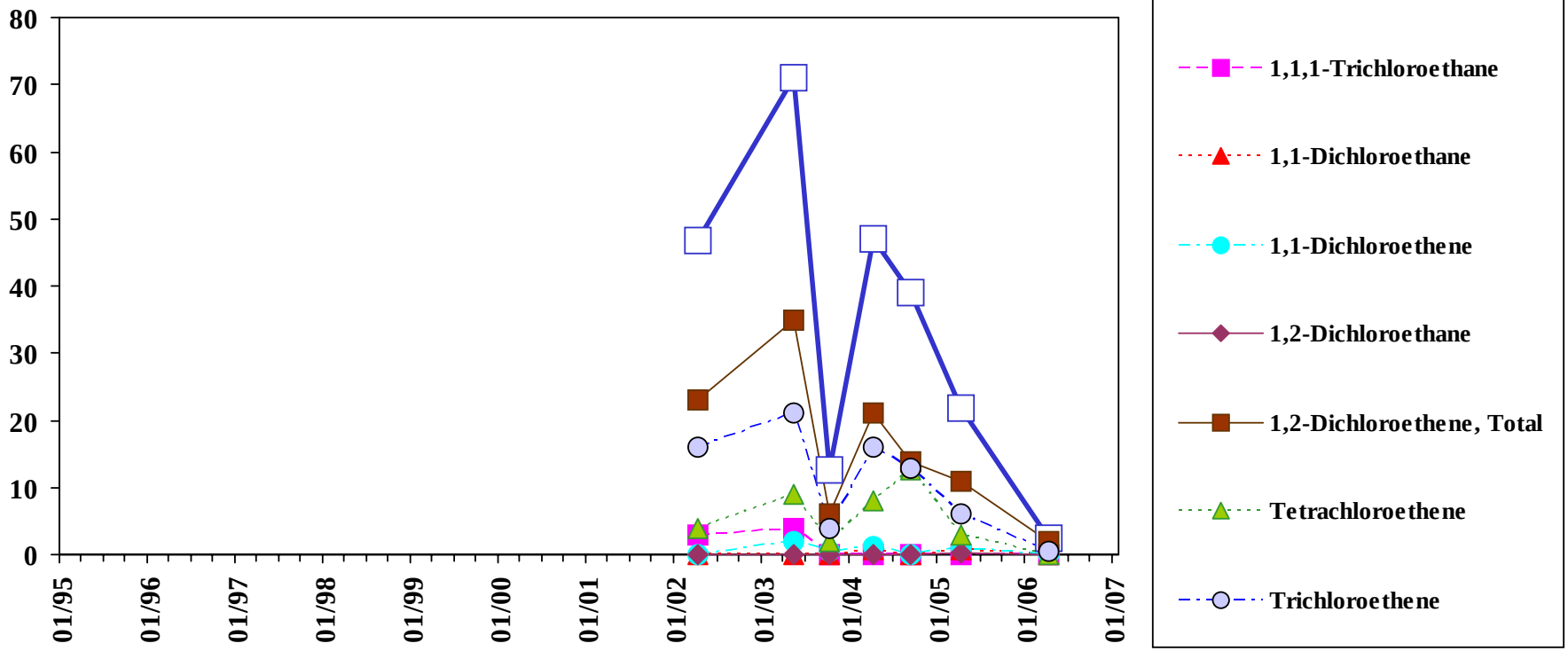
Sample Location:

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

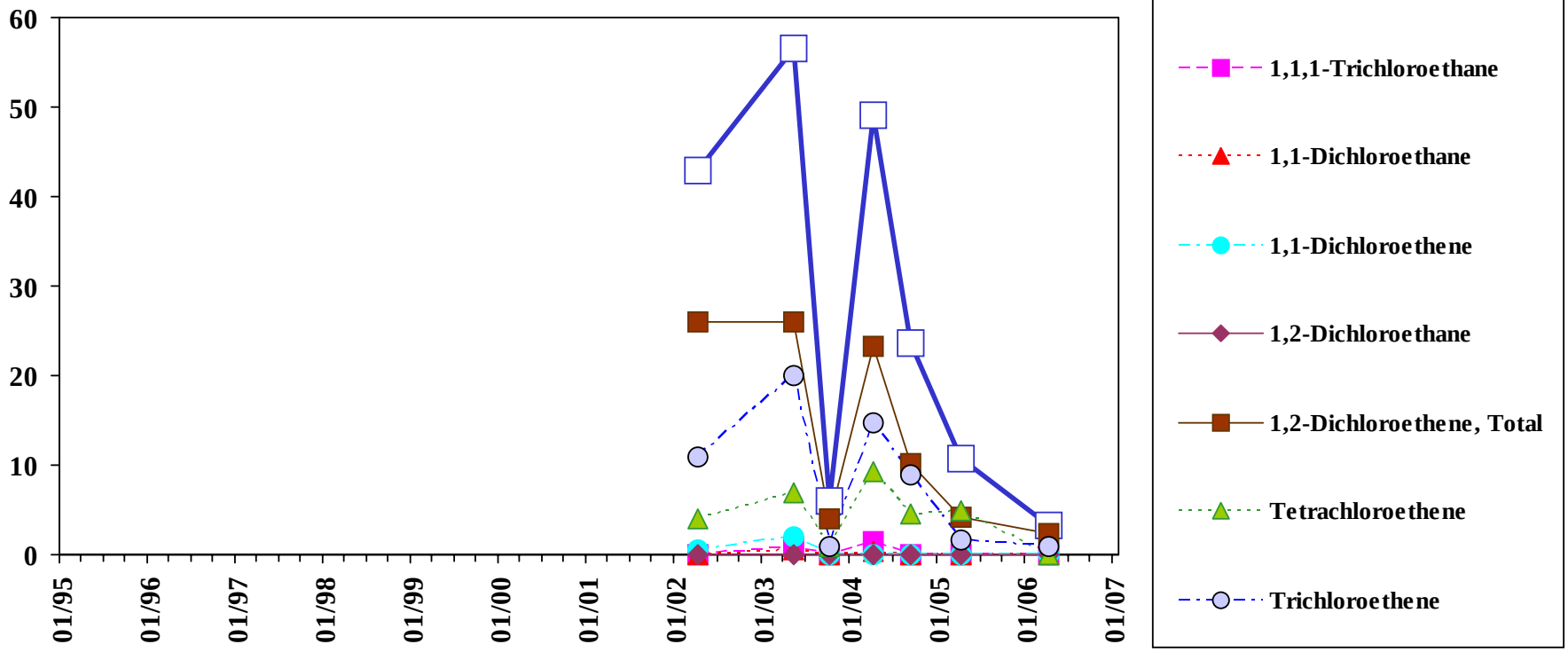
Sample Location:

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

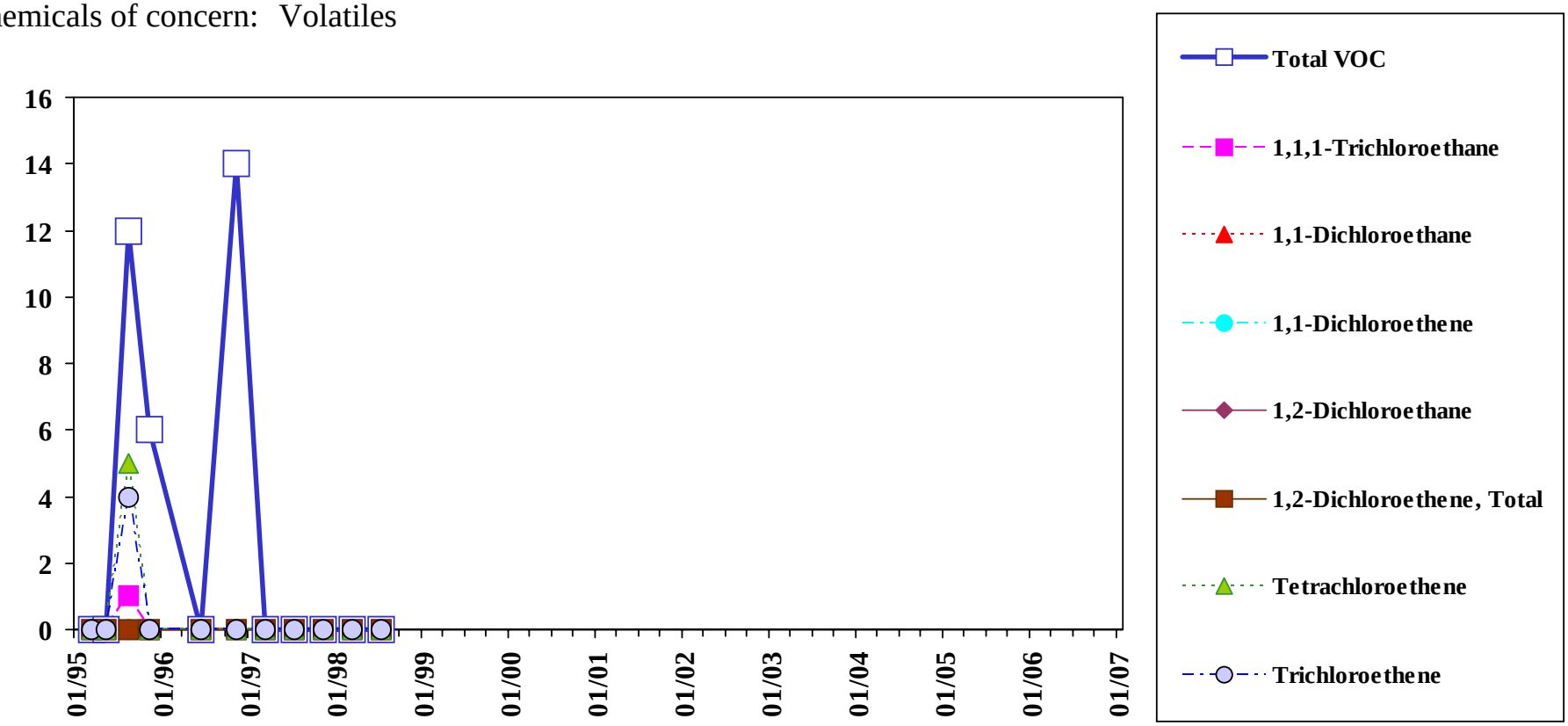
Sample Location:

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

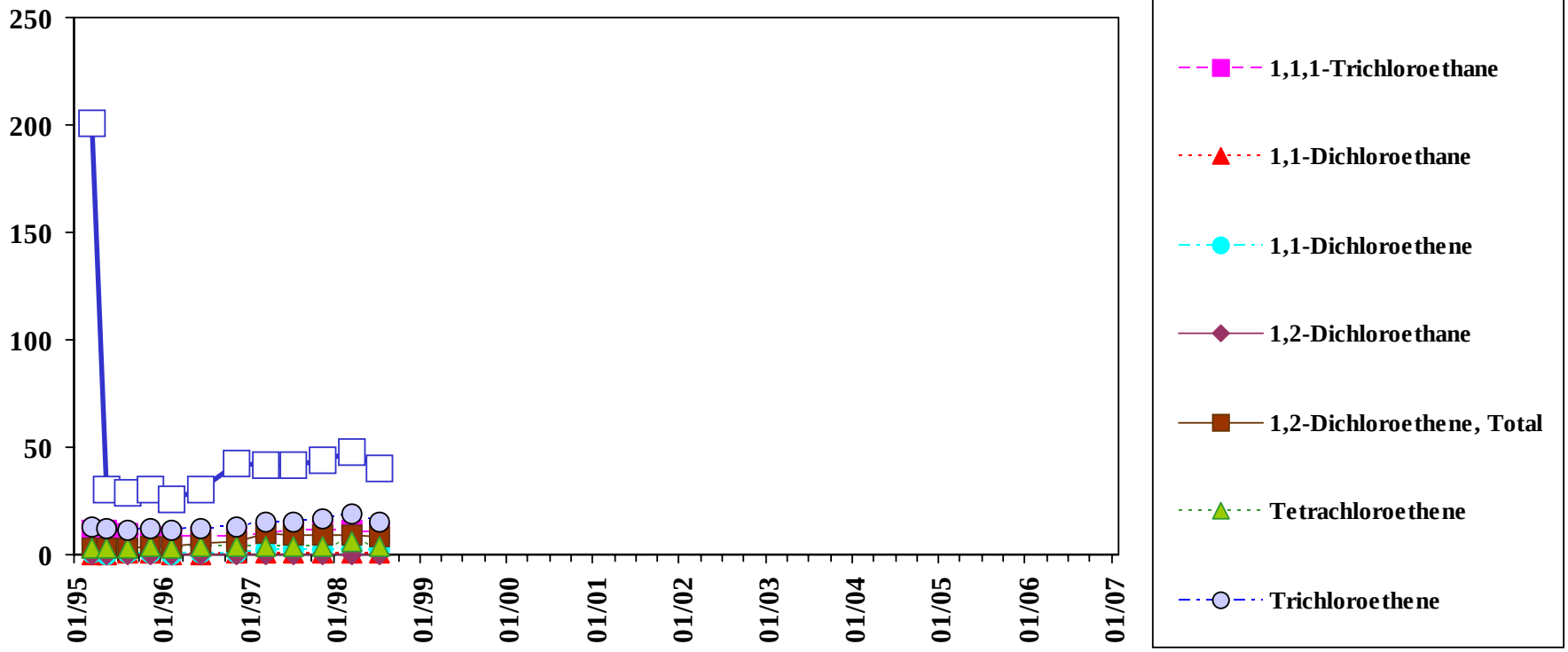
Sample Location:

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

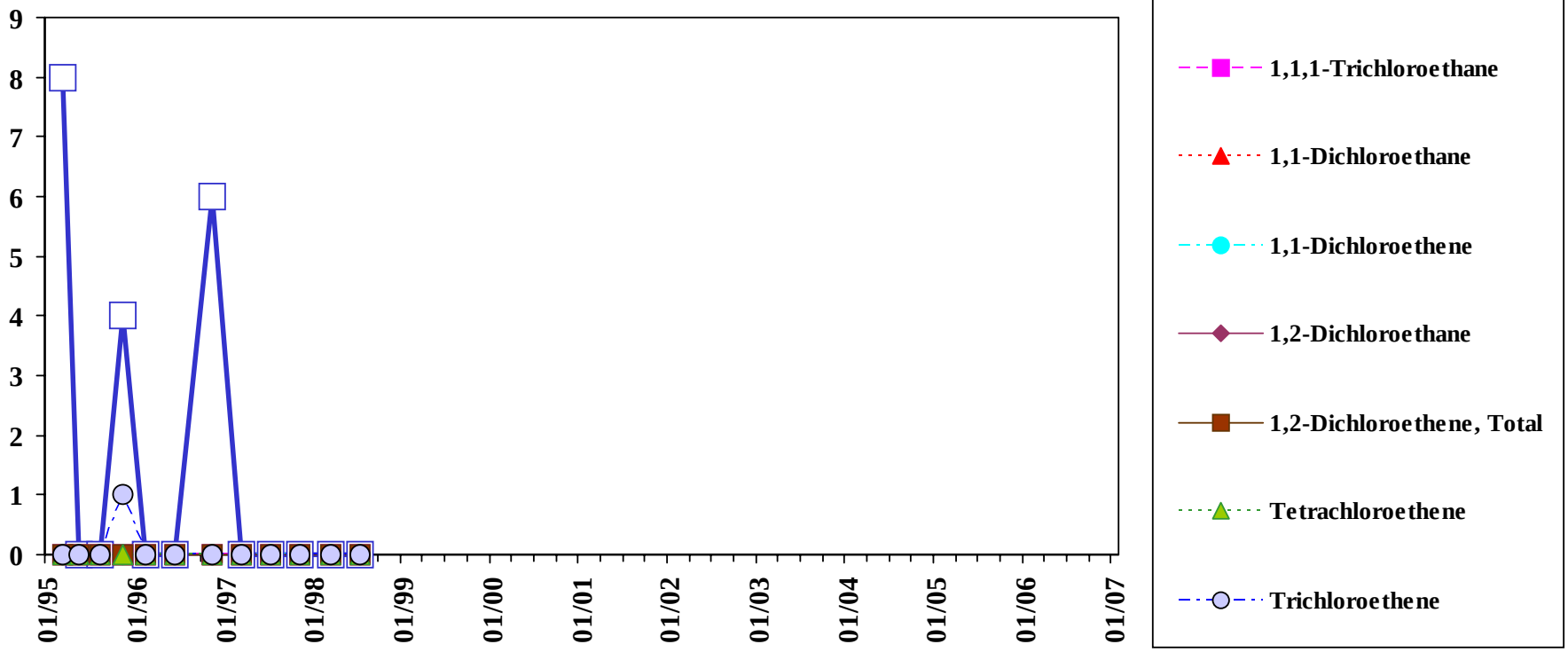
Sample Location:

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

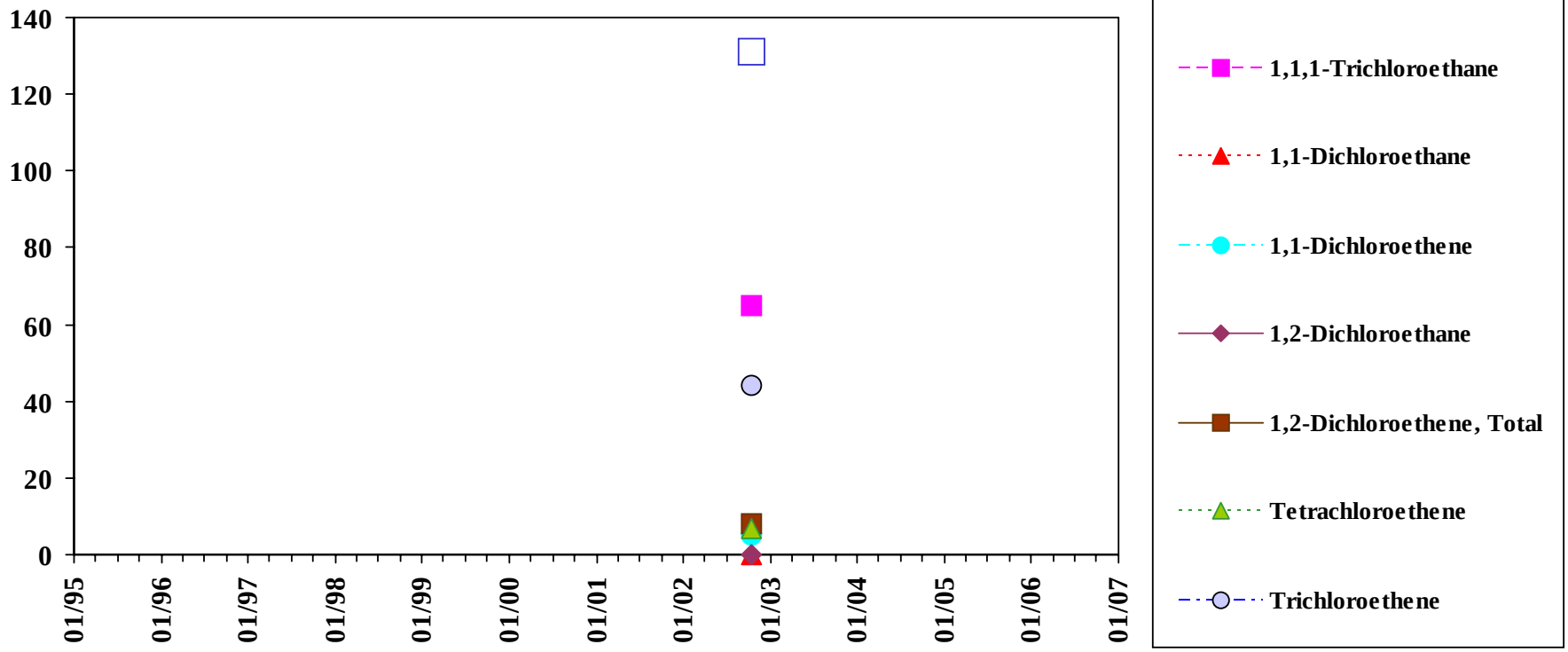
Sample Location:

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

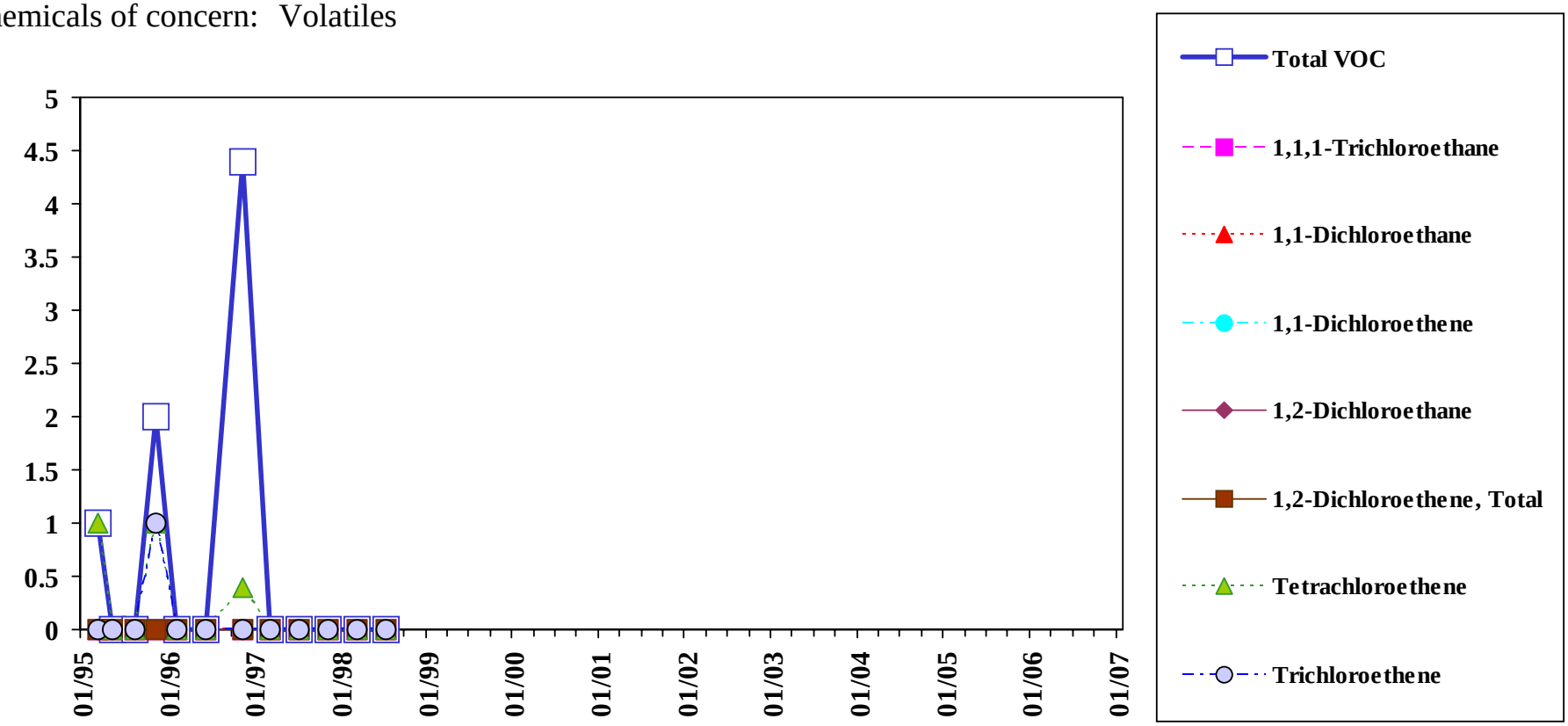
Sample Location:

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

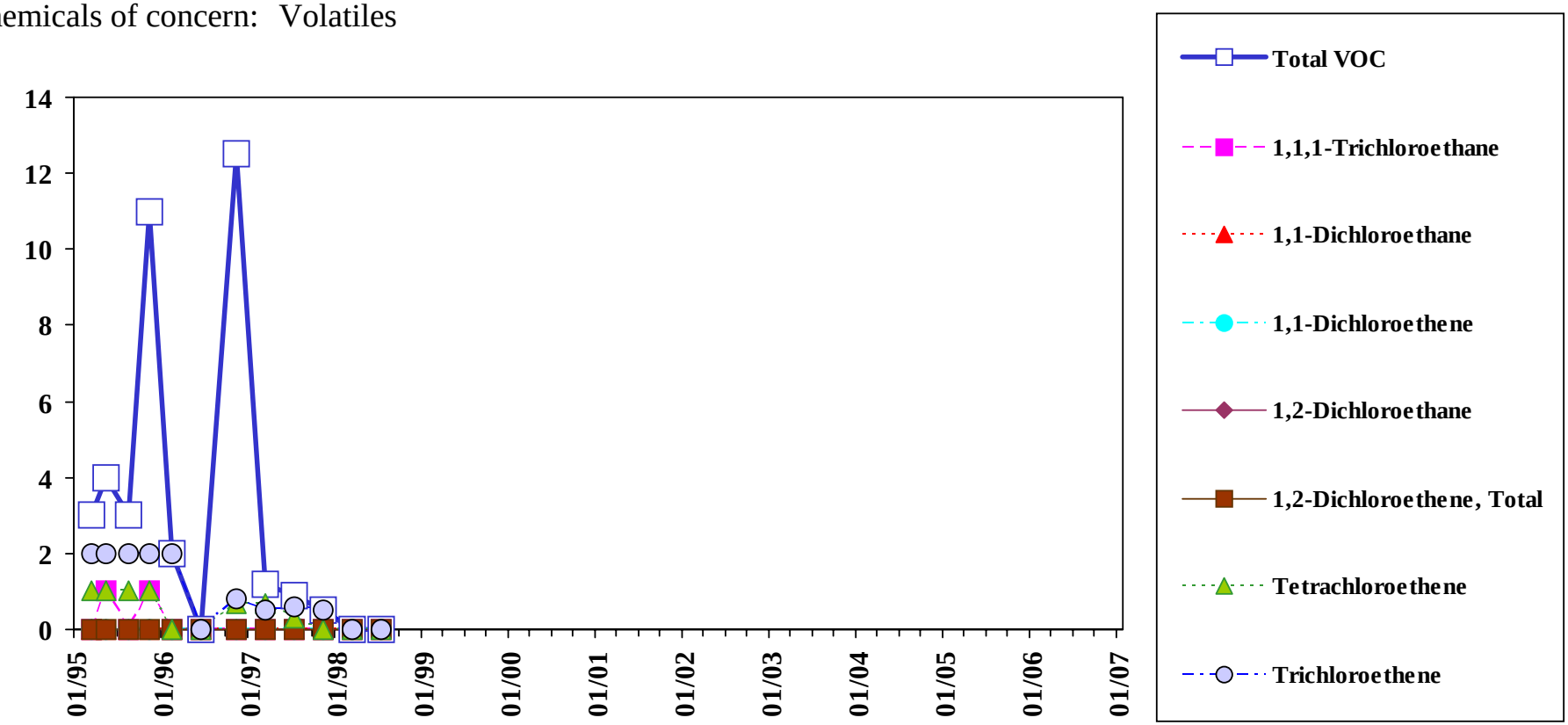
Sample Location:

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

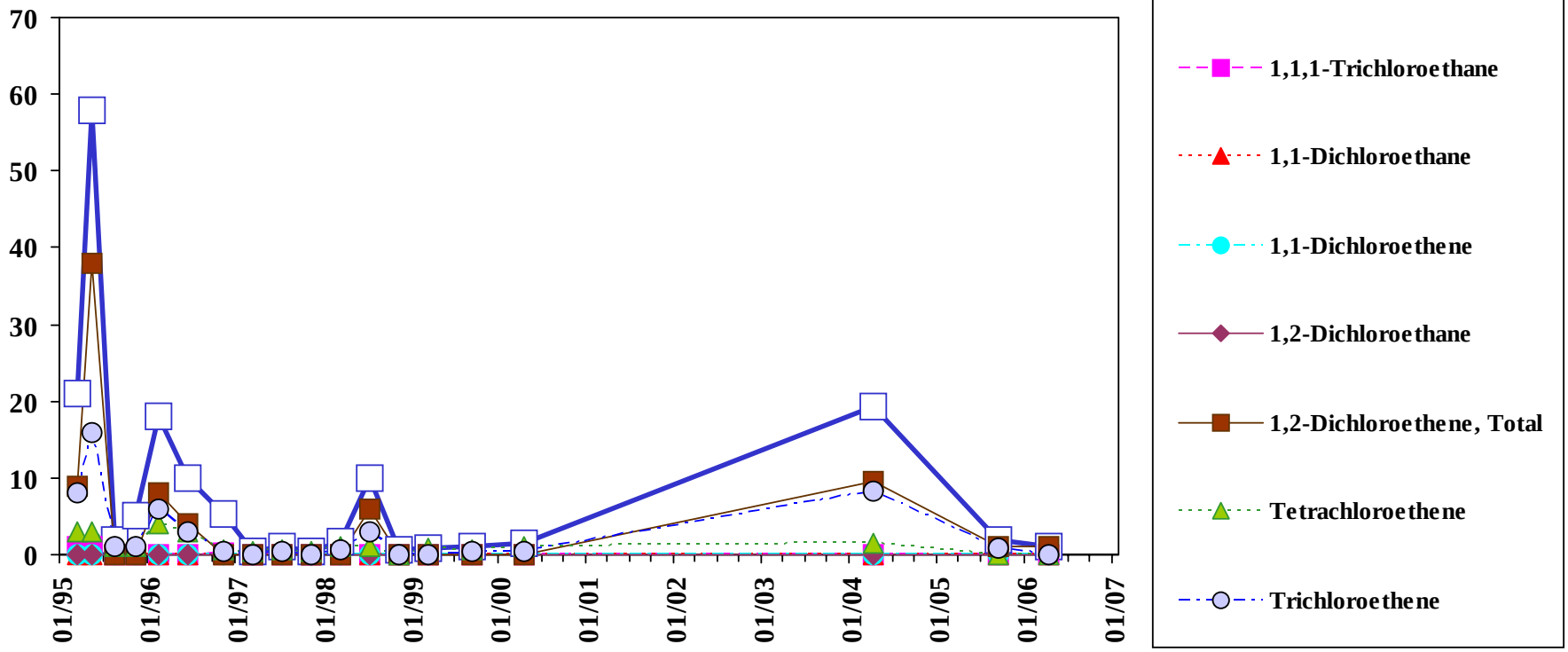
Sample Location:

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

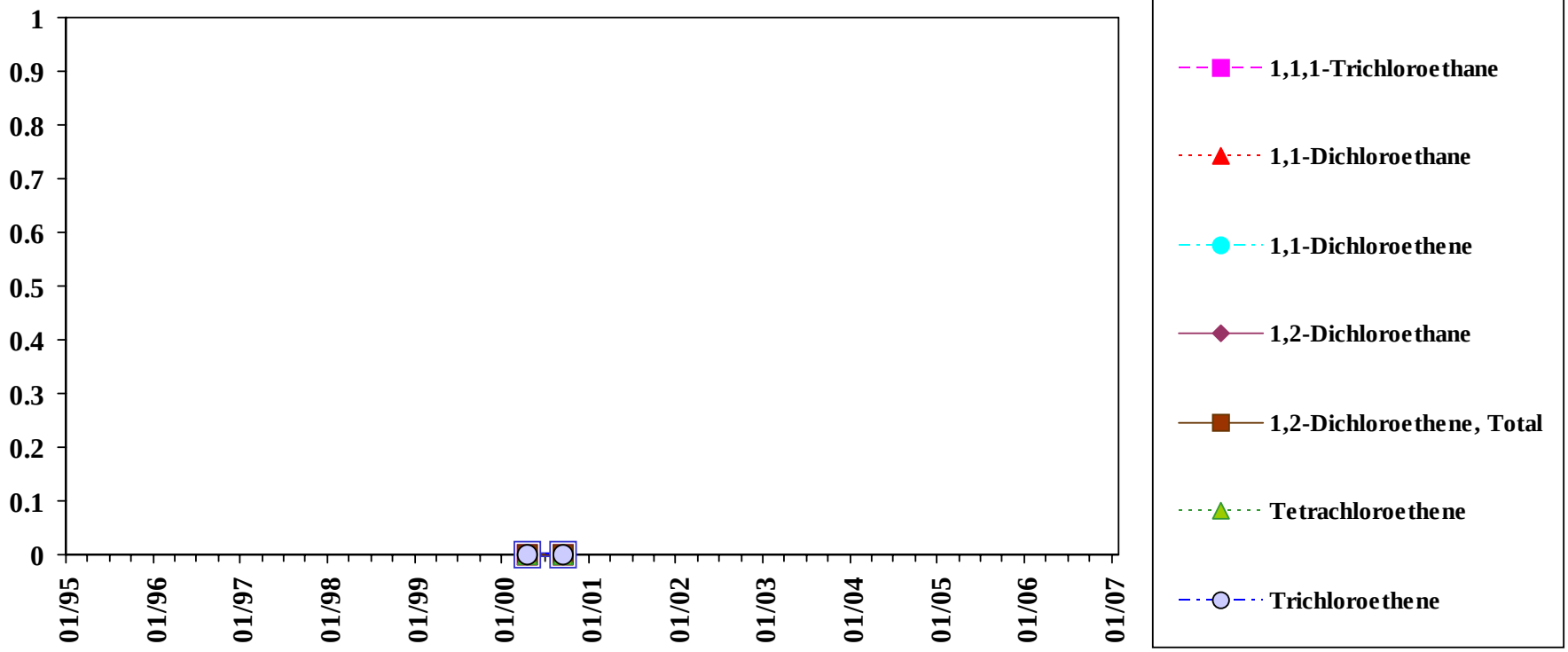
Sample Location:

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

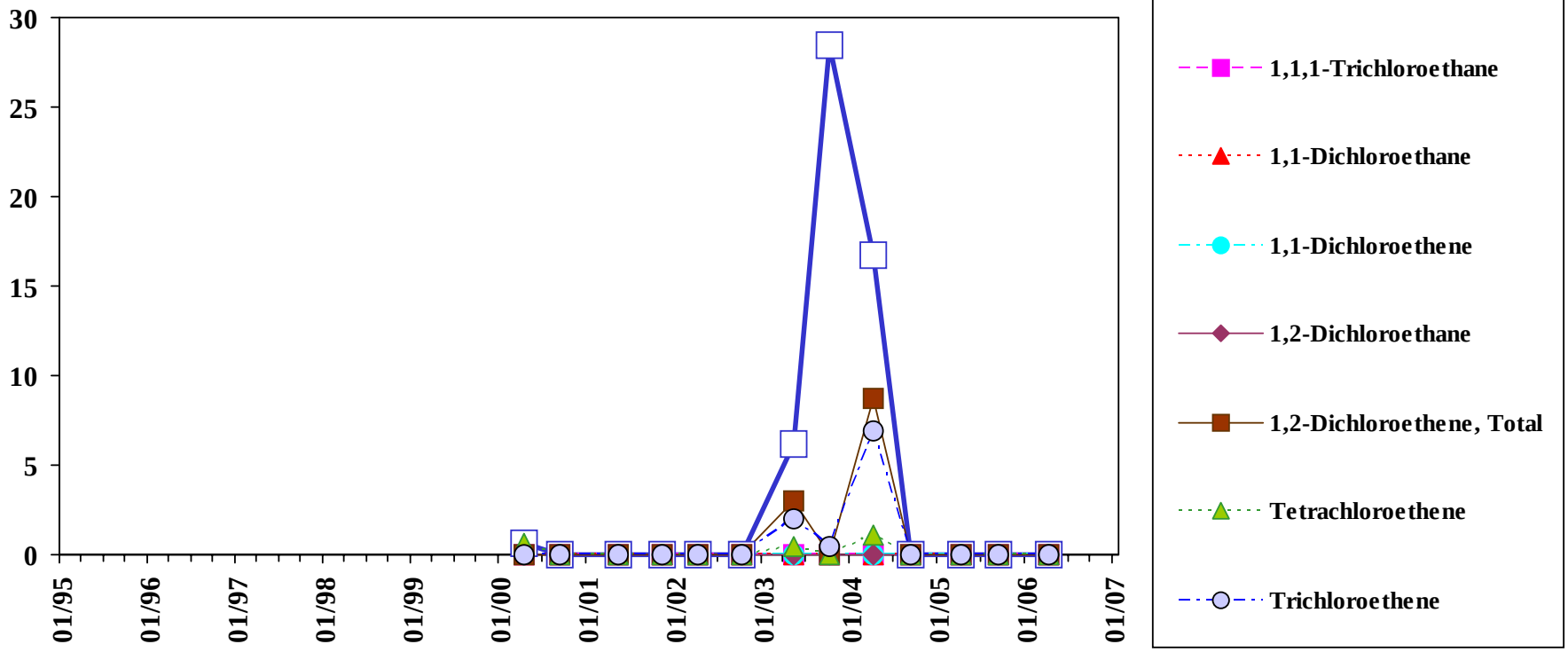
Sample Location:

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

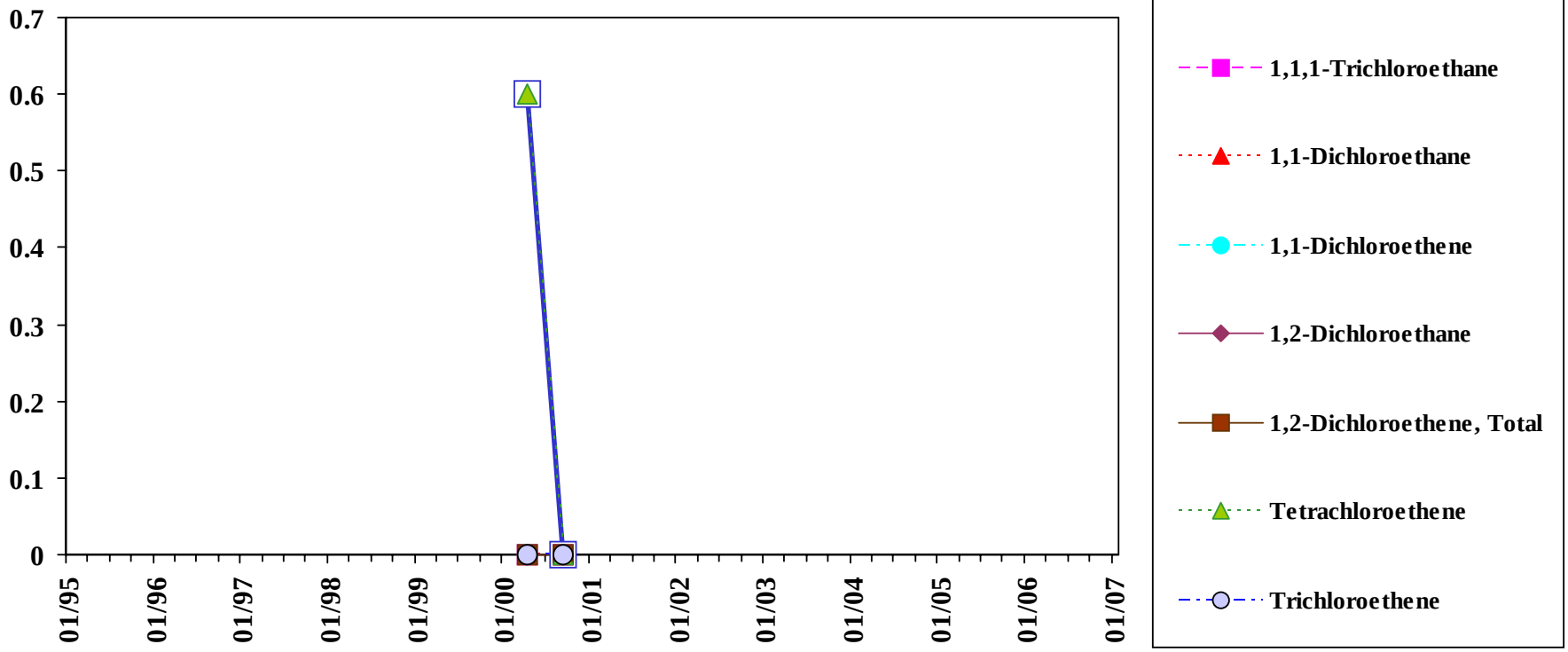
Sample Location:

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

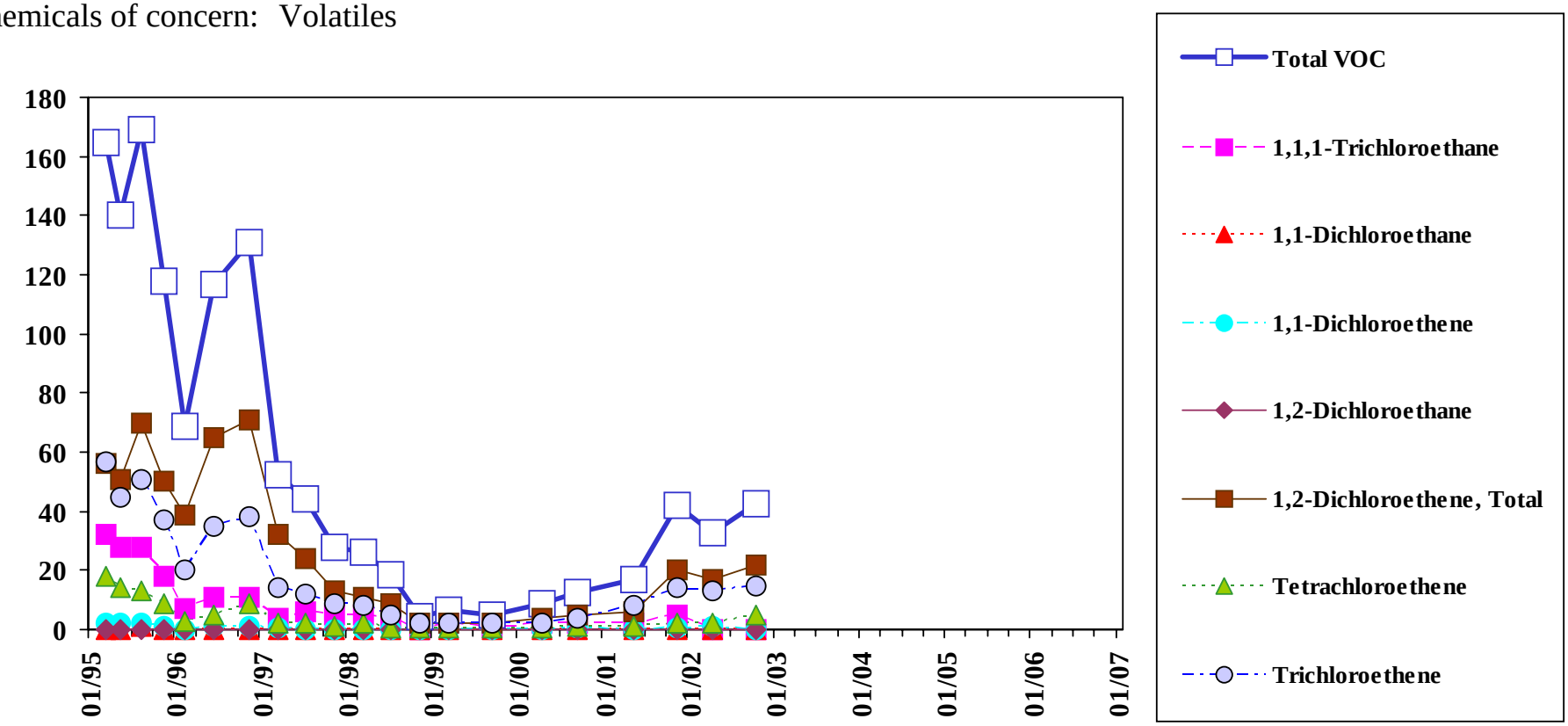
Sample Location:

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

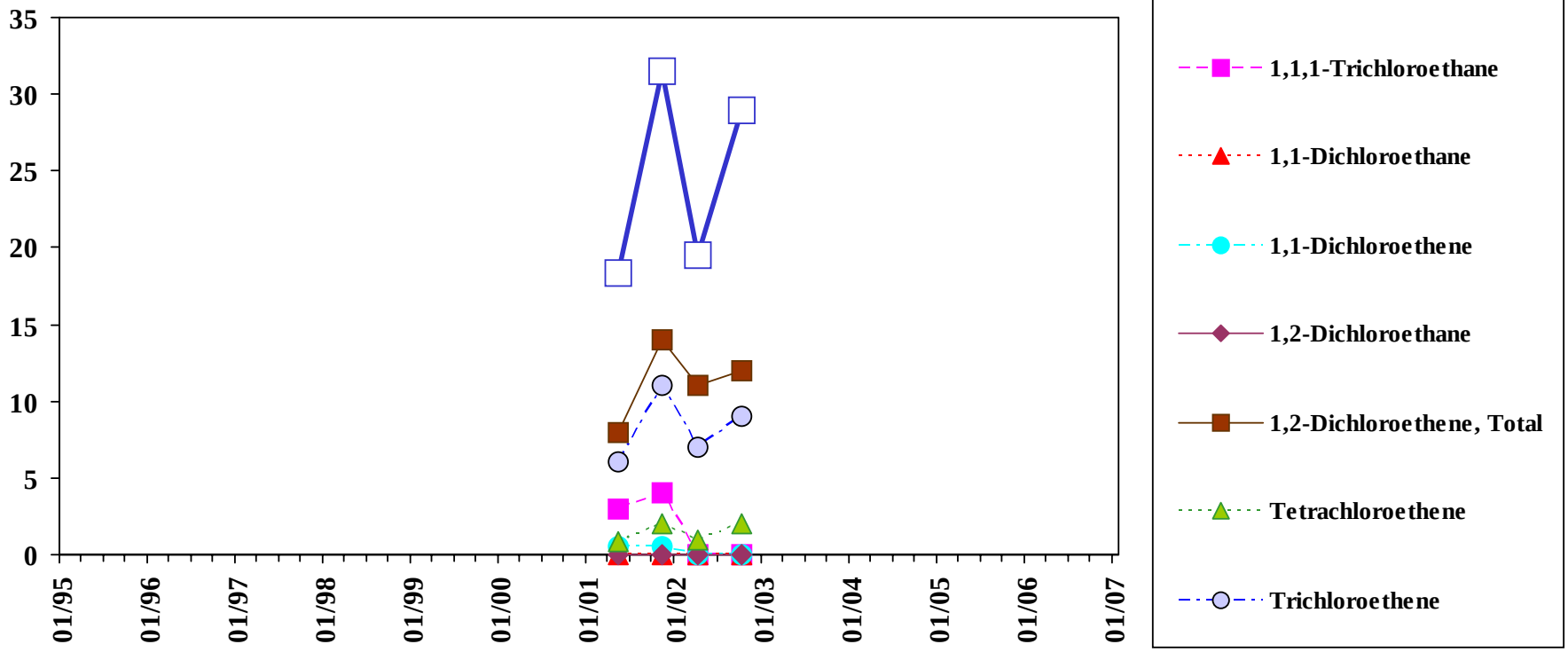
Sample Location:

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

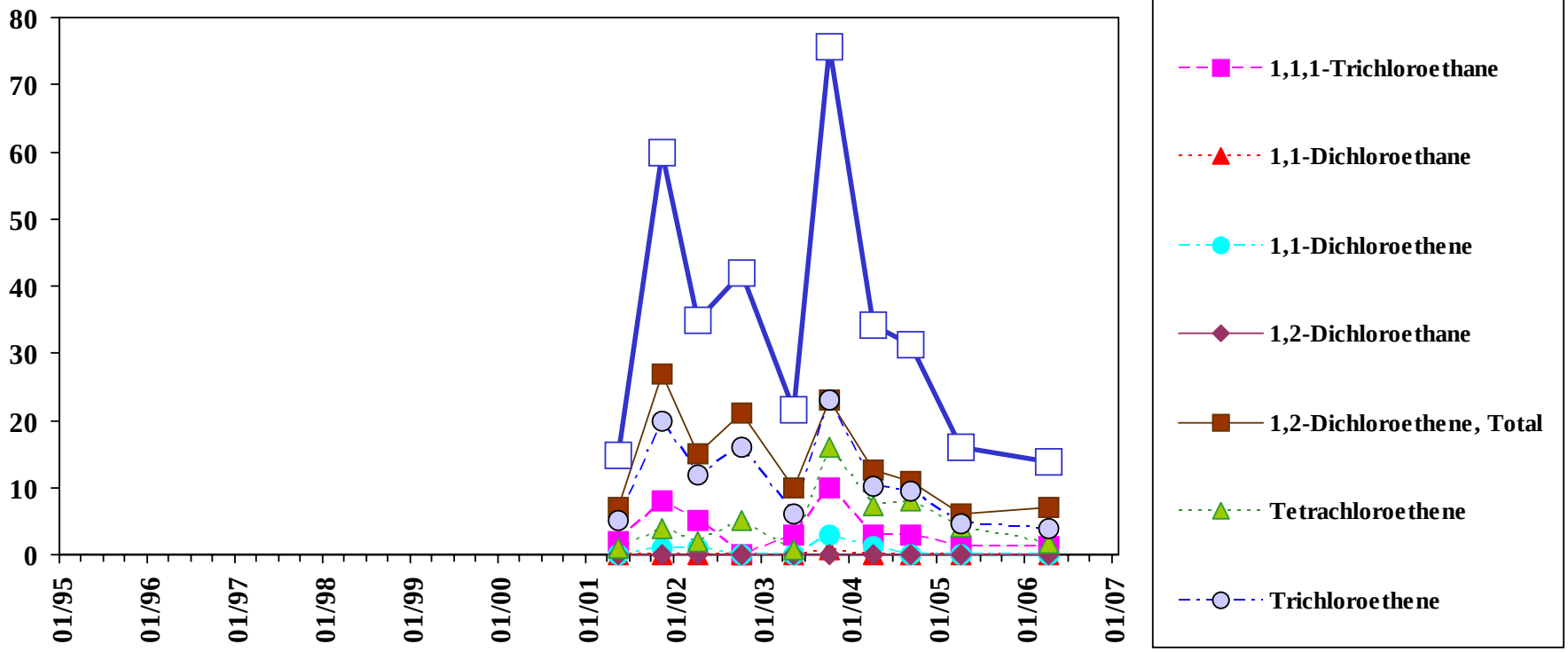
Sample Location:

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

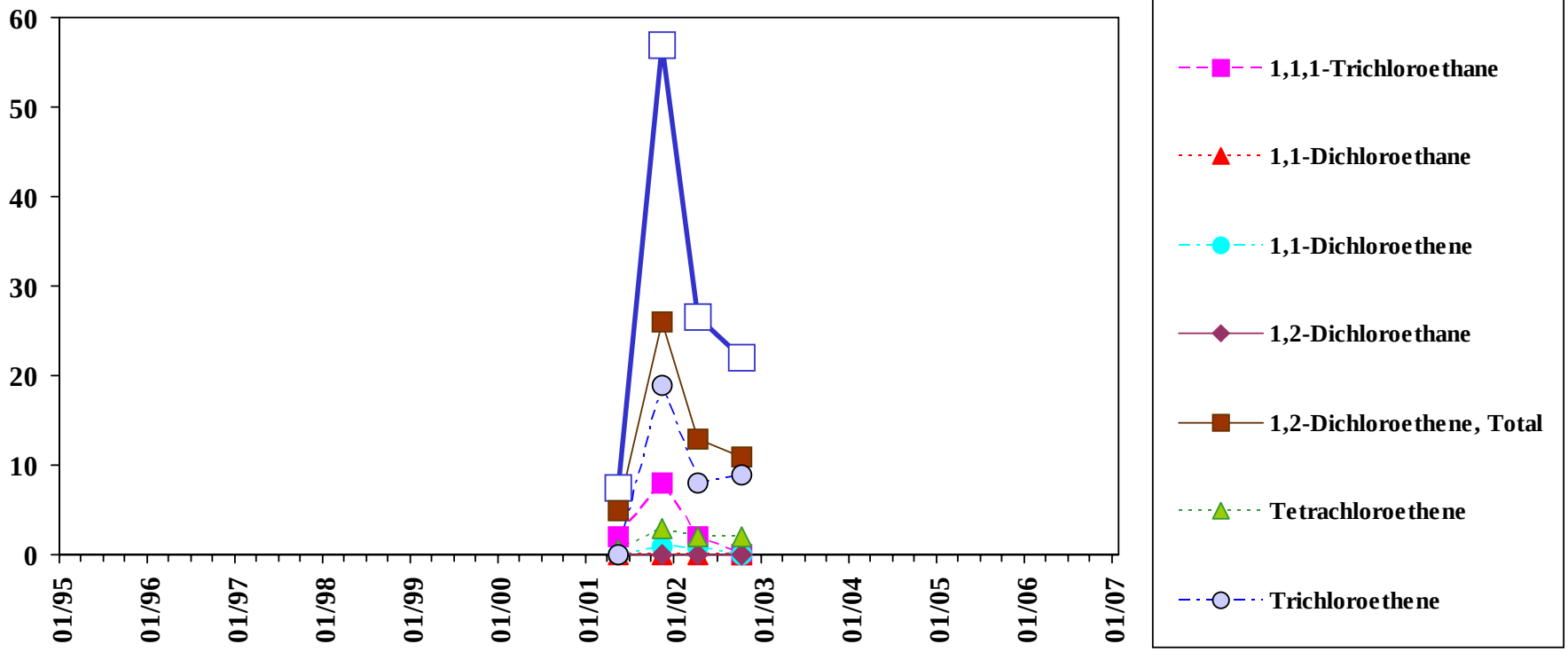
Sample Location:

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

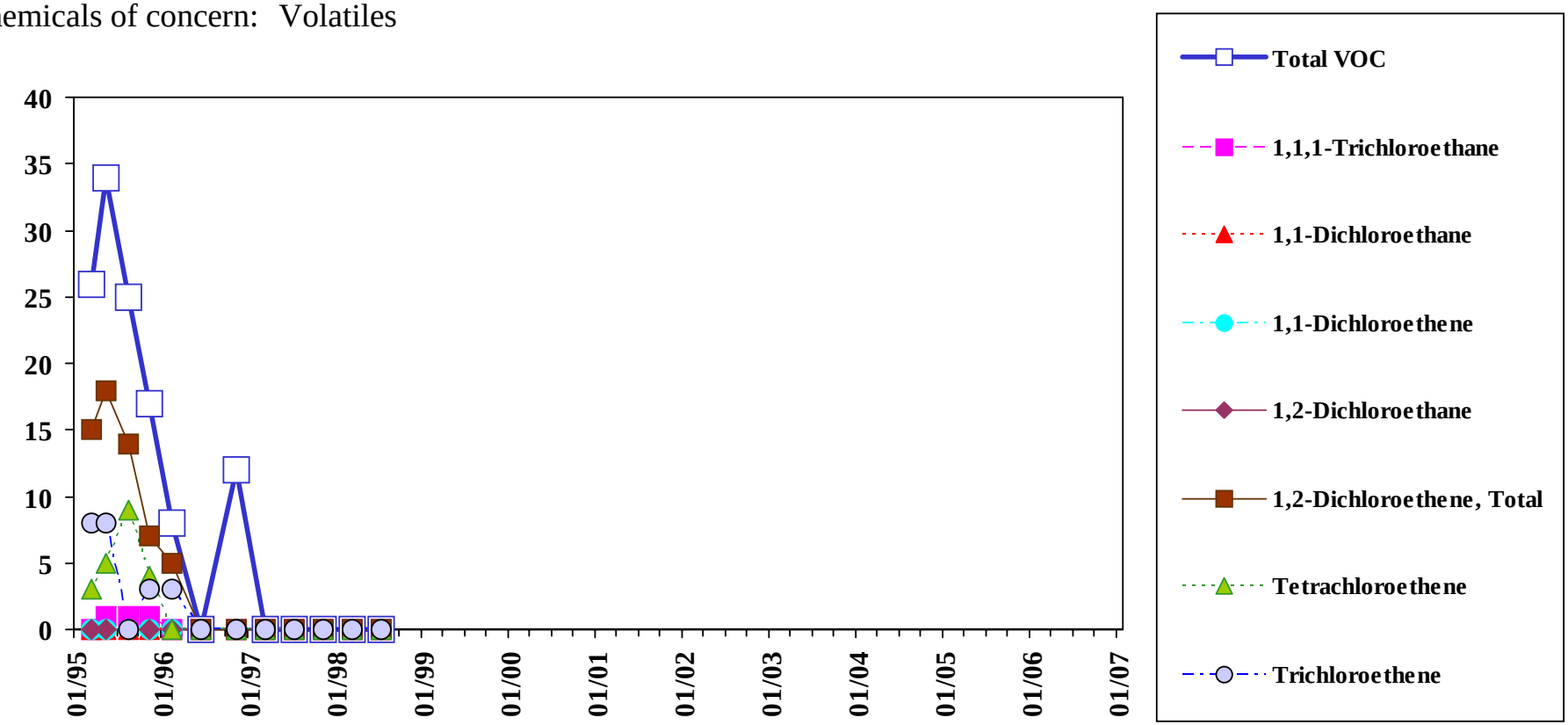
Sample Location:

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

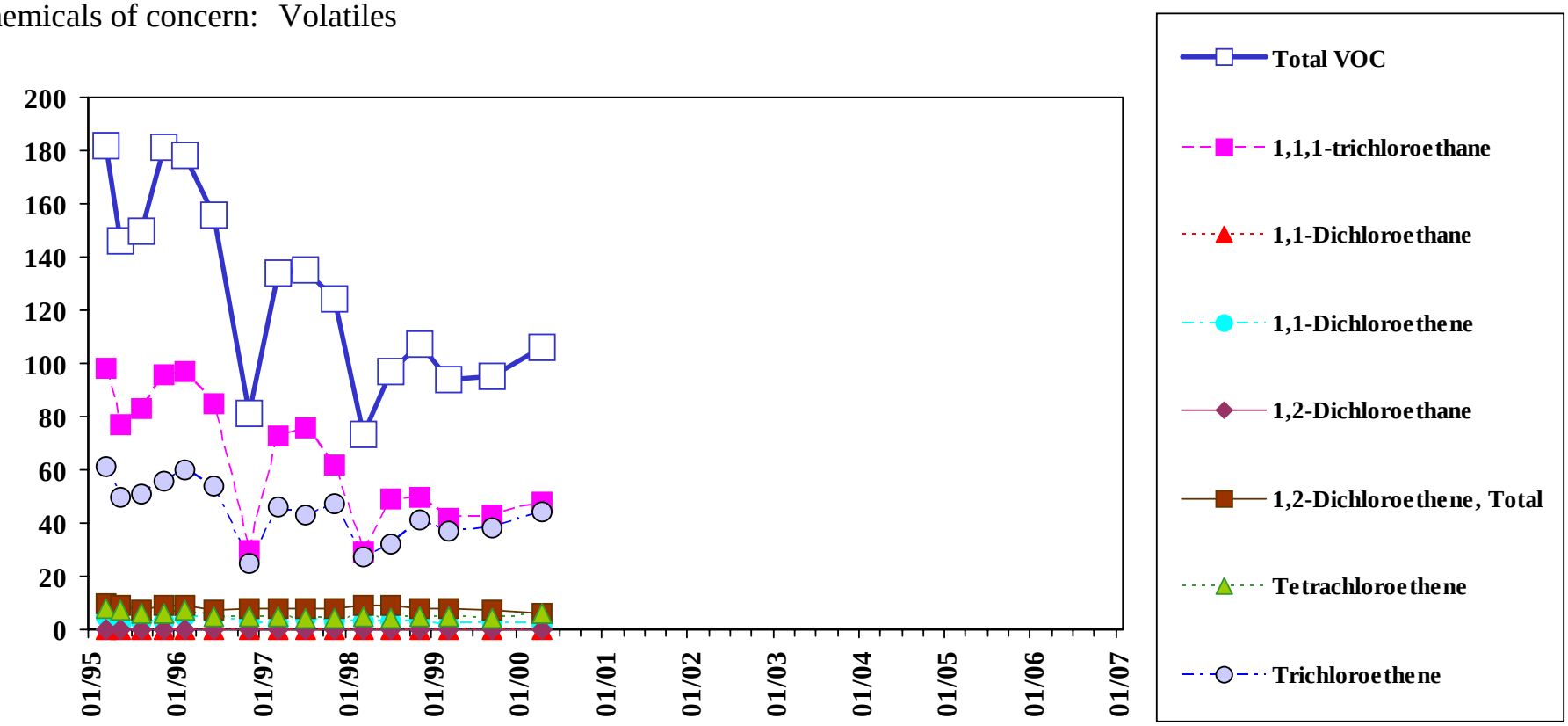
Sample Location:

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

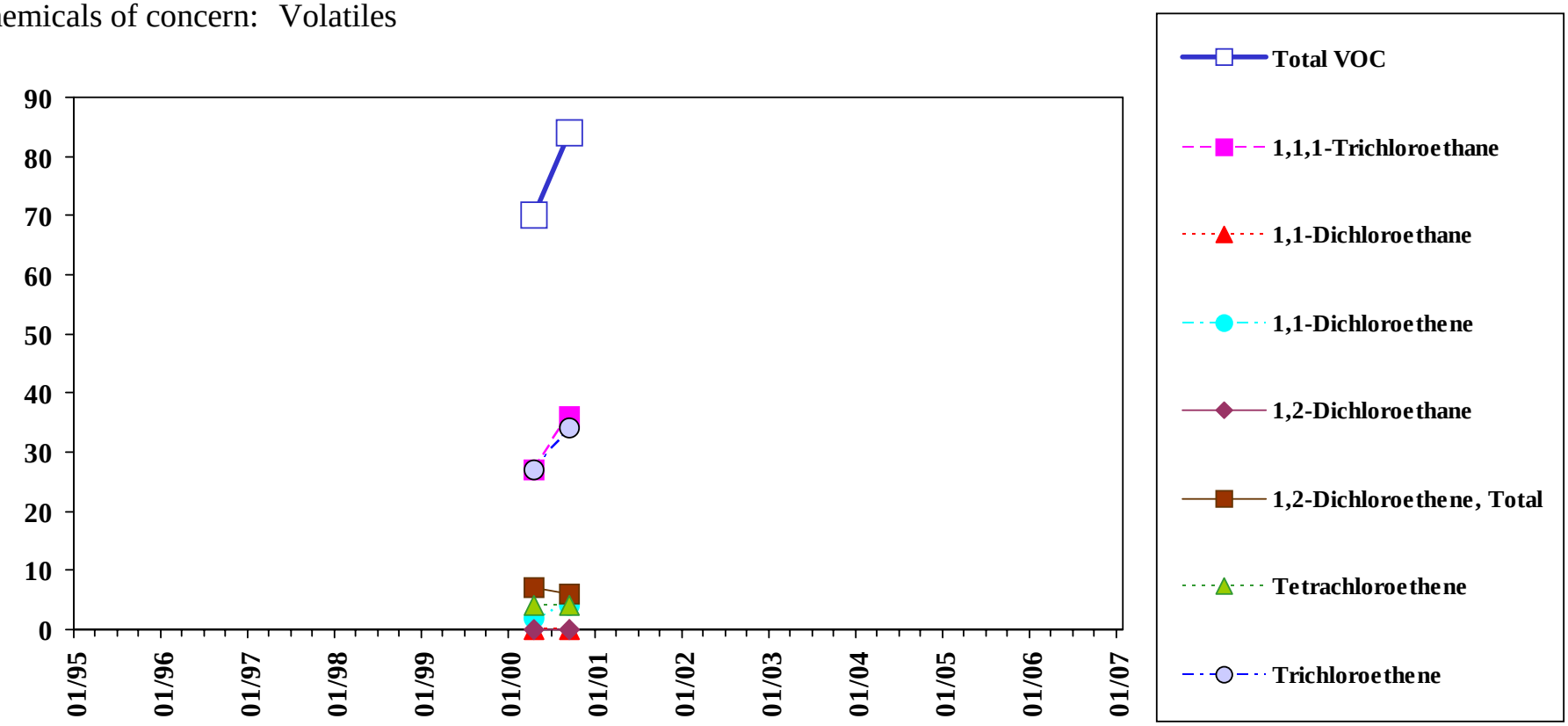
Sample Location:

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

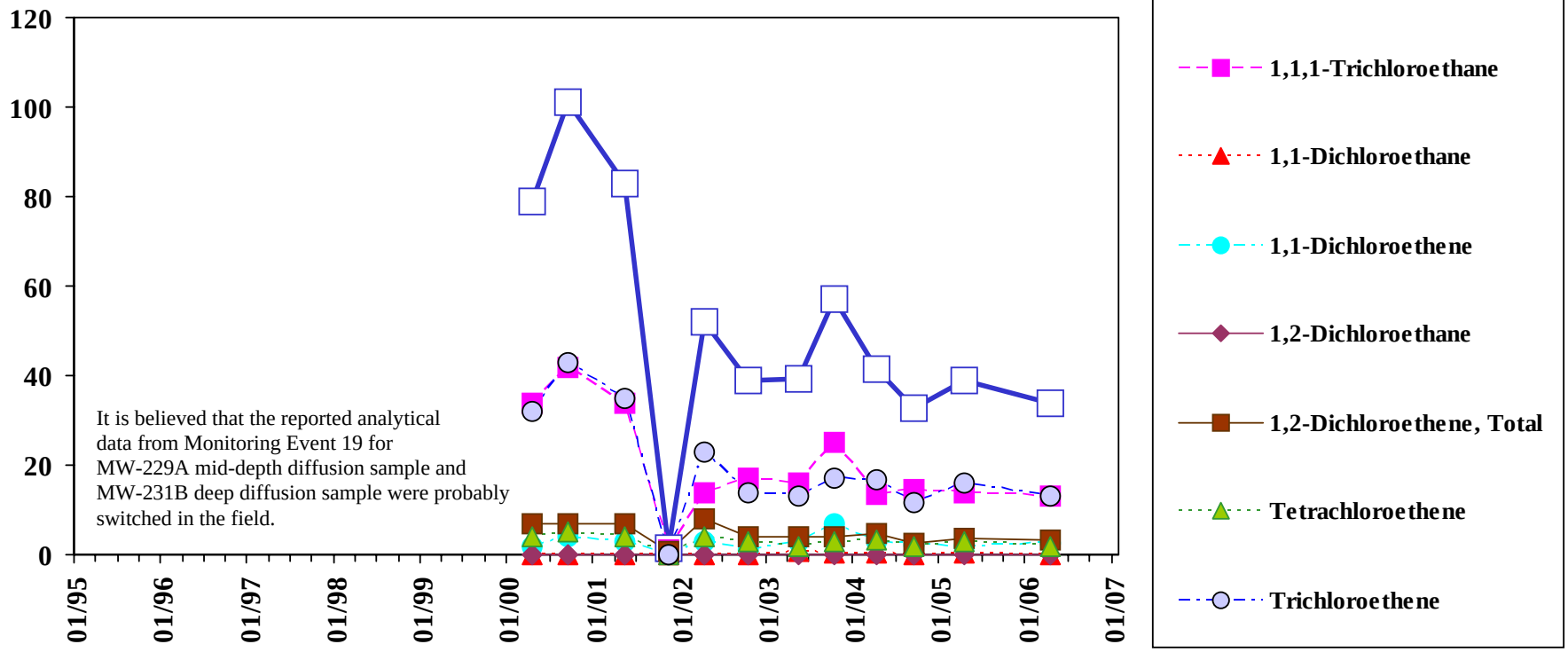
Sample Location:

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

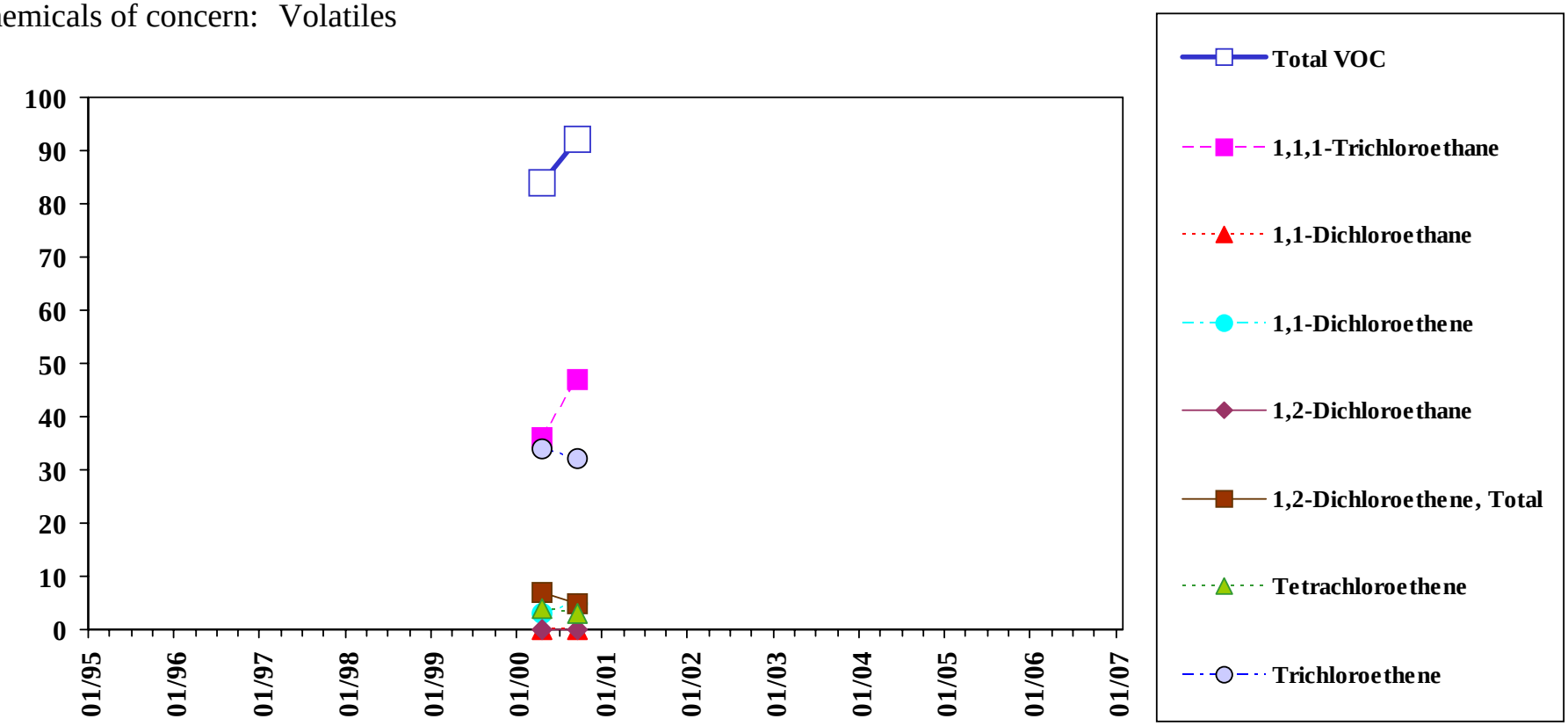
Sample Location:

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

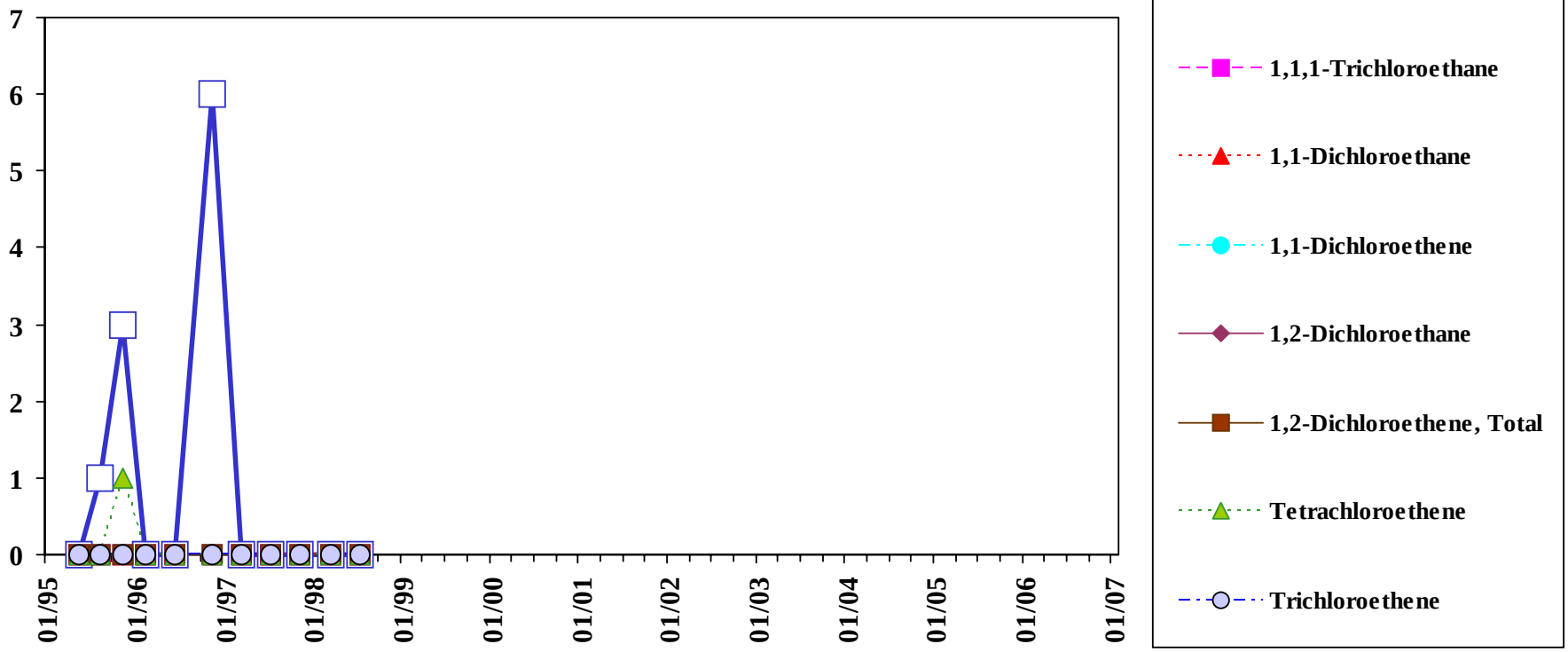
Sample Location:

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

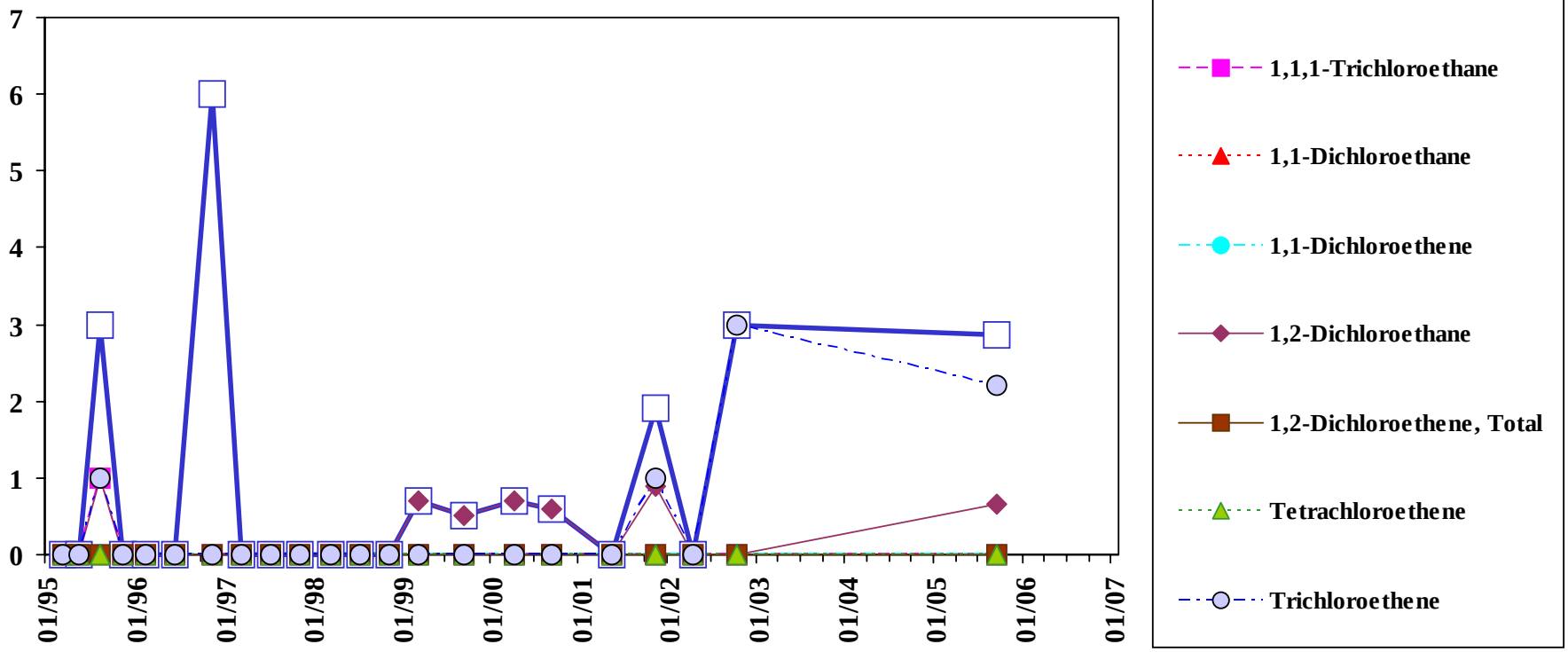
Sample Location:

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

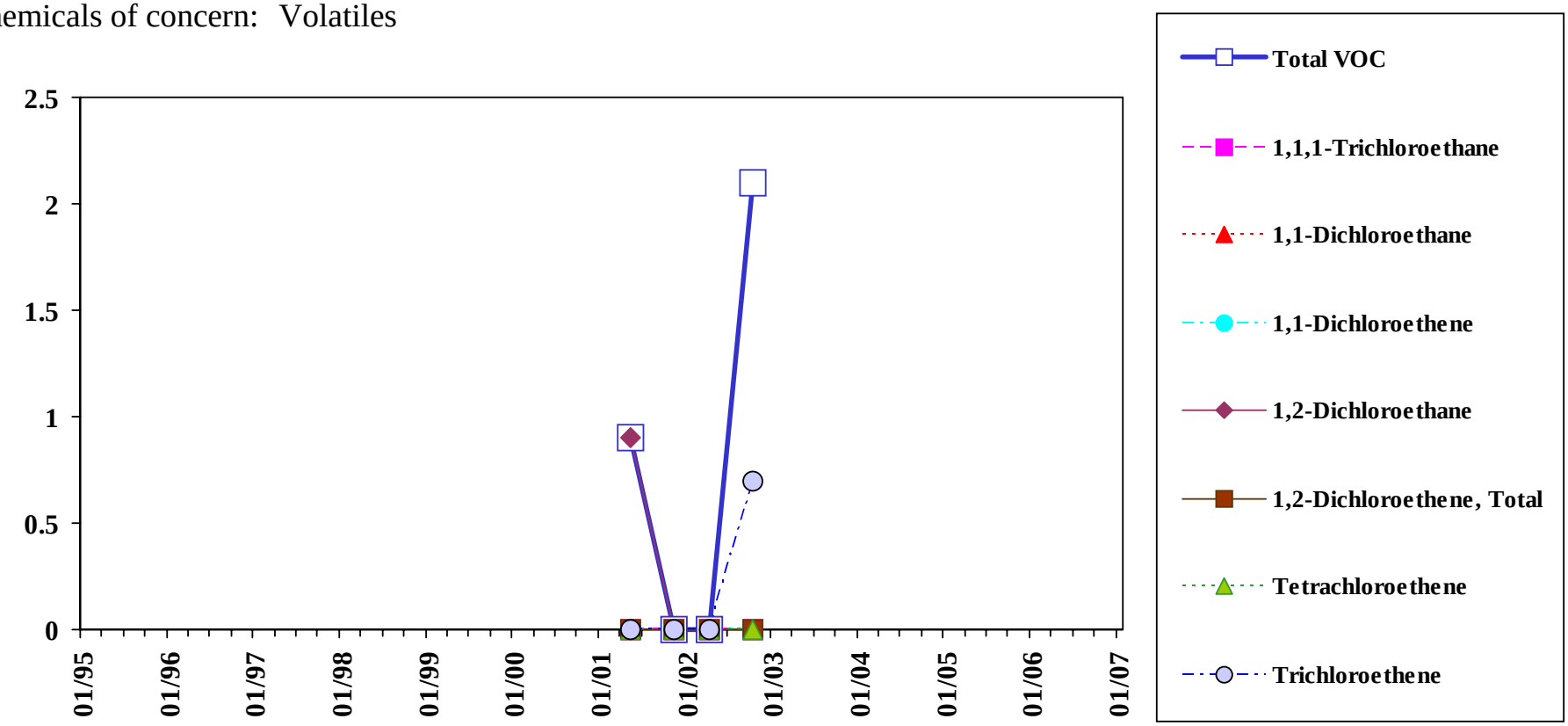
Sample Location:

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

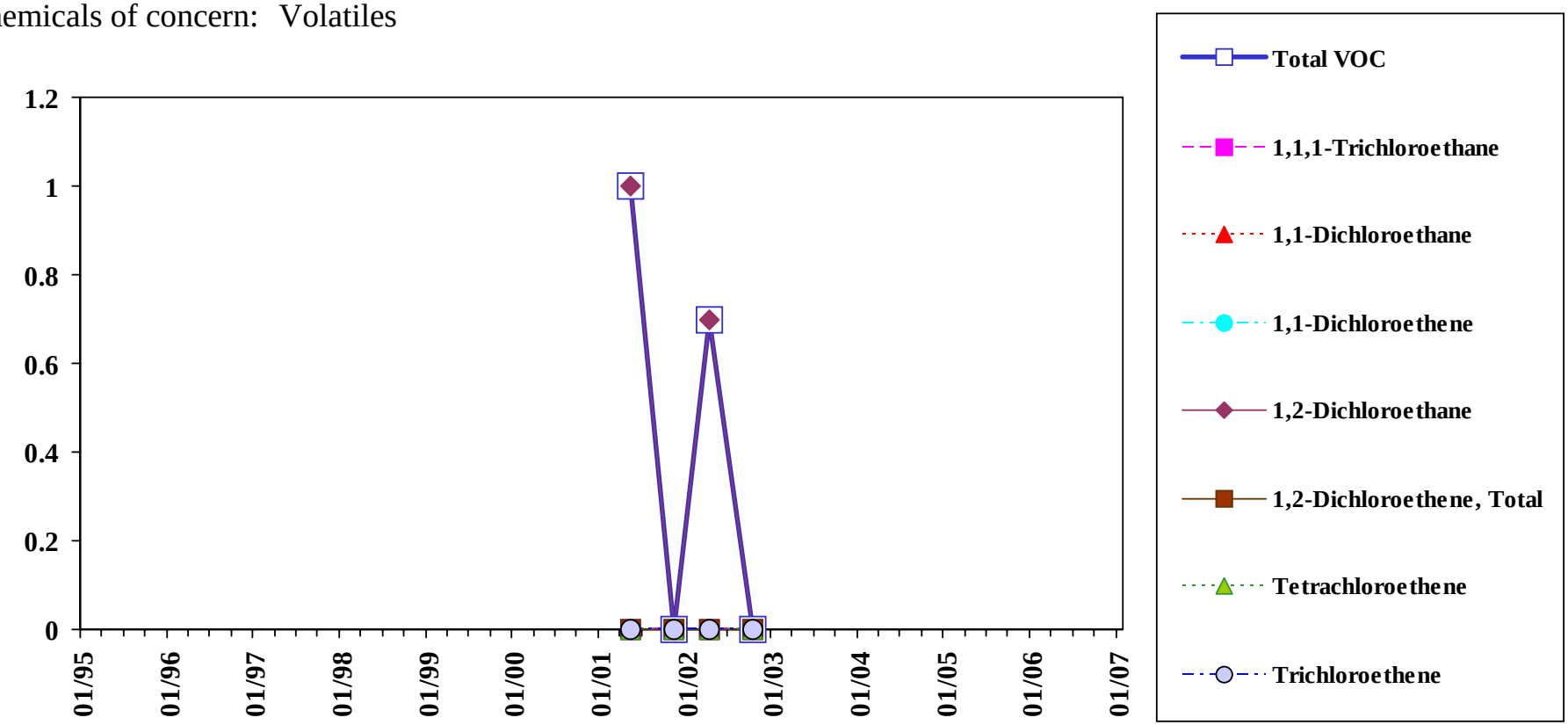
Sample Location:

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

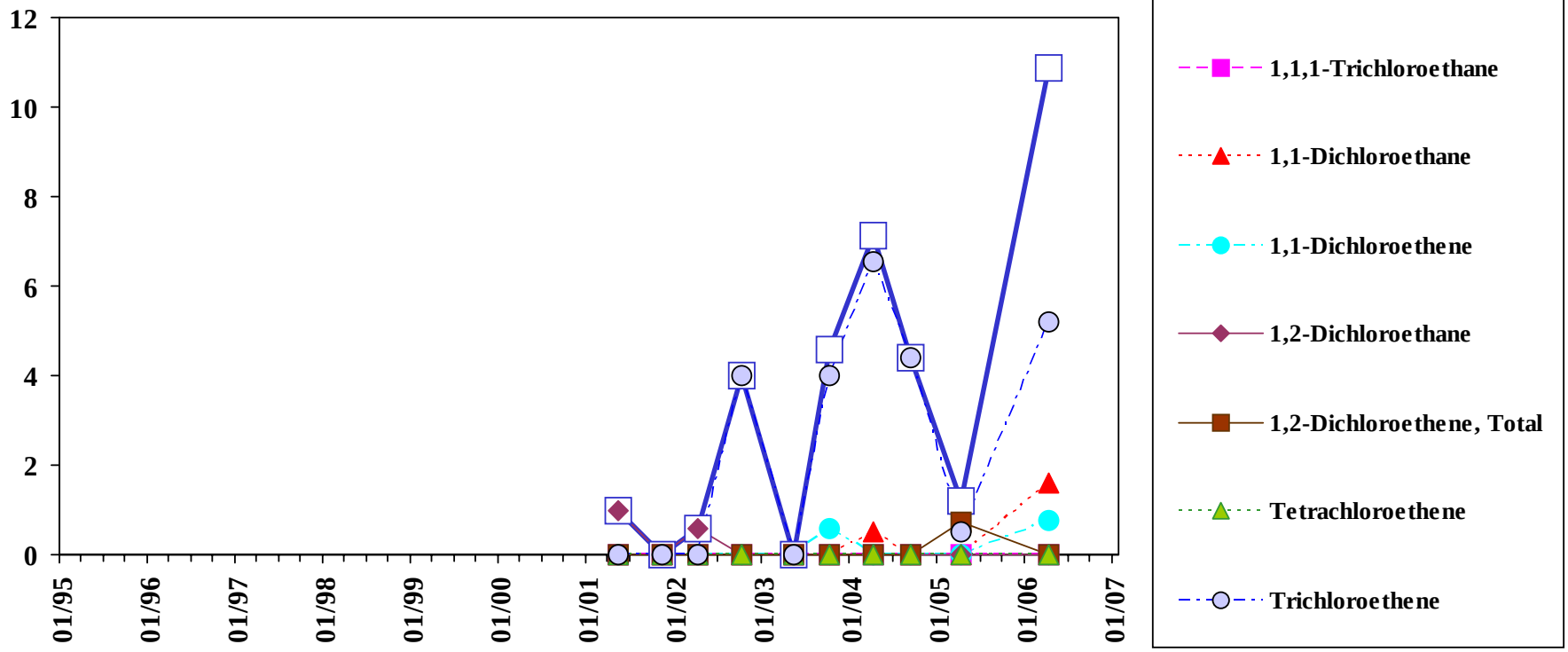
Sample Location:

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

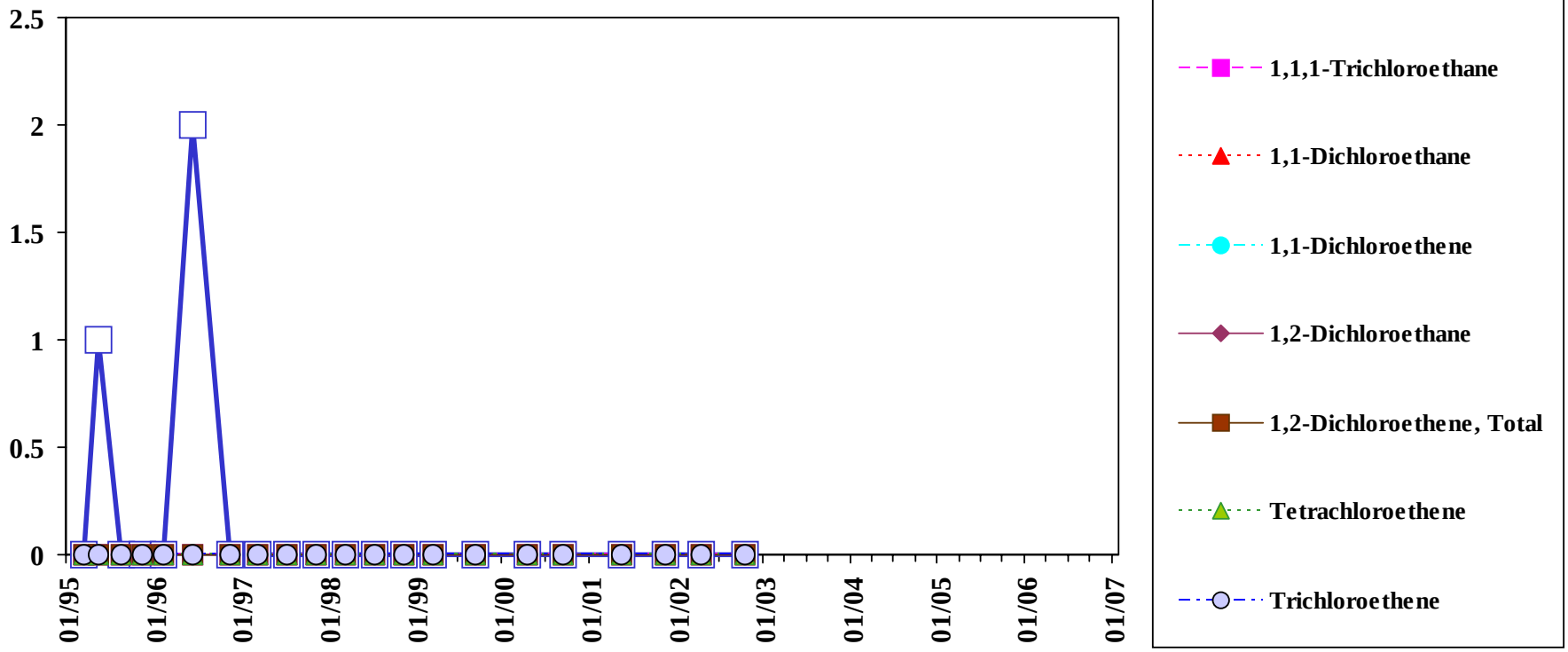
Sample Location:

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

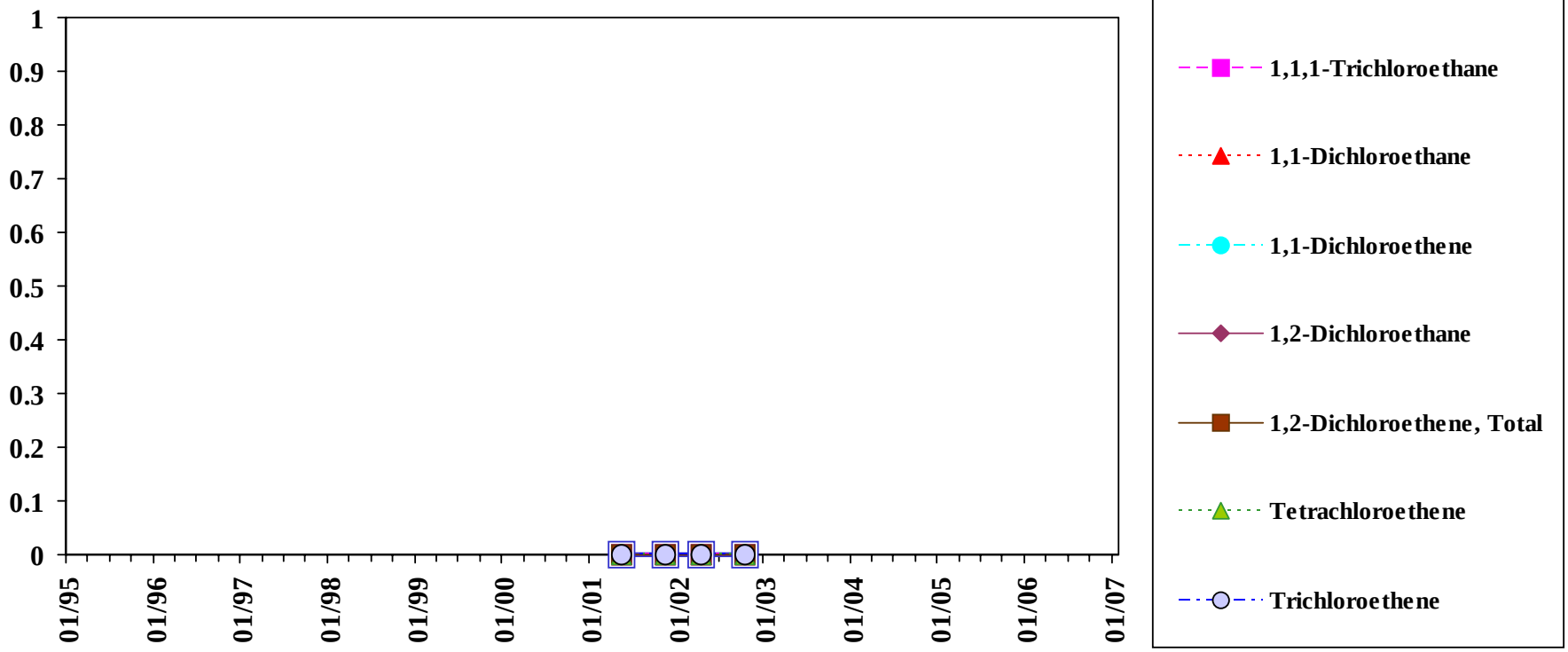
Sample Location:

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

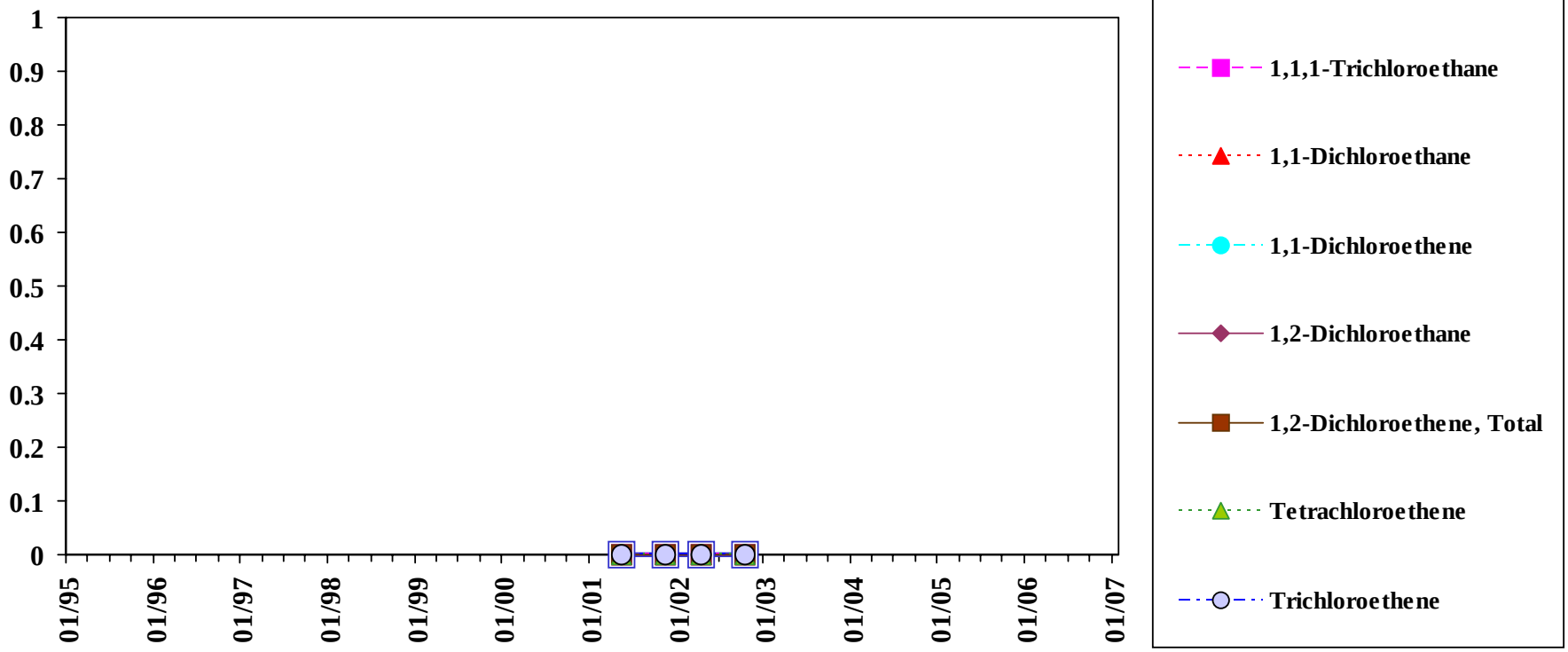
Sample Location:

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

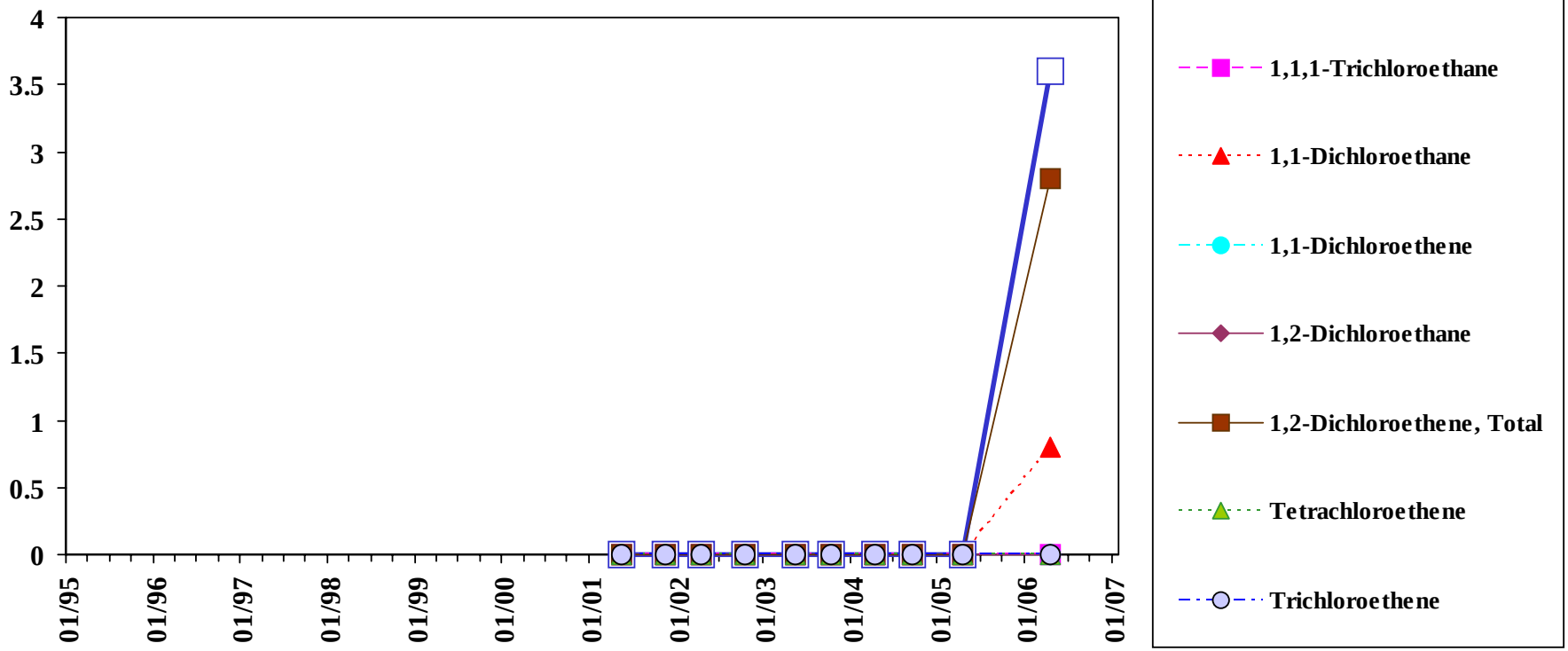
Sample Location:

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

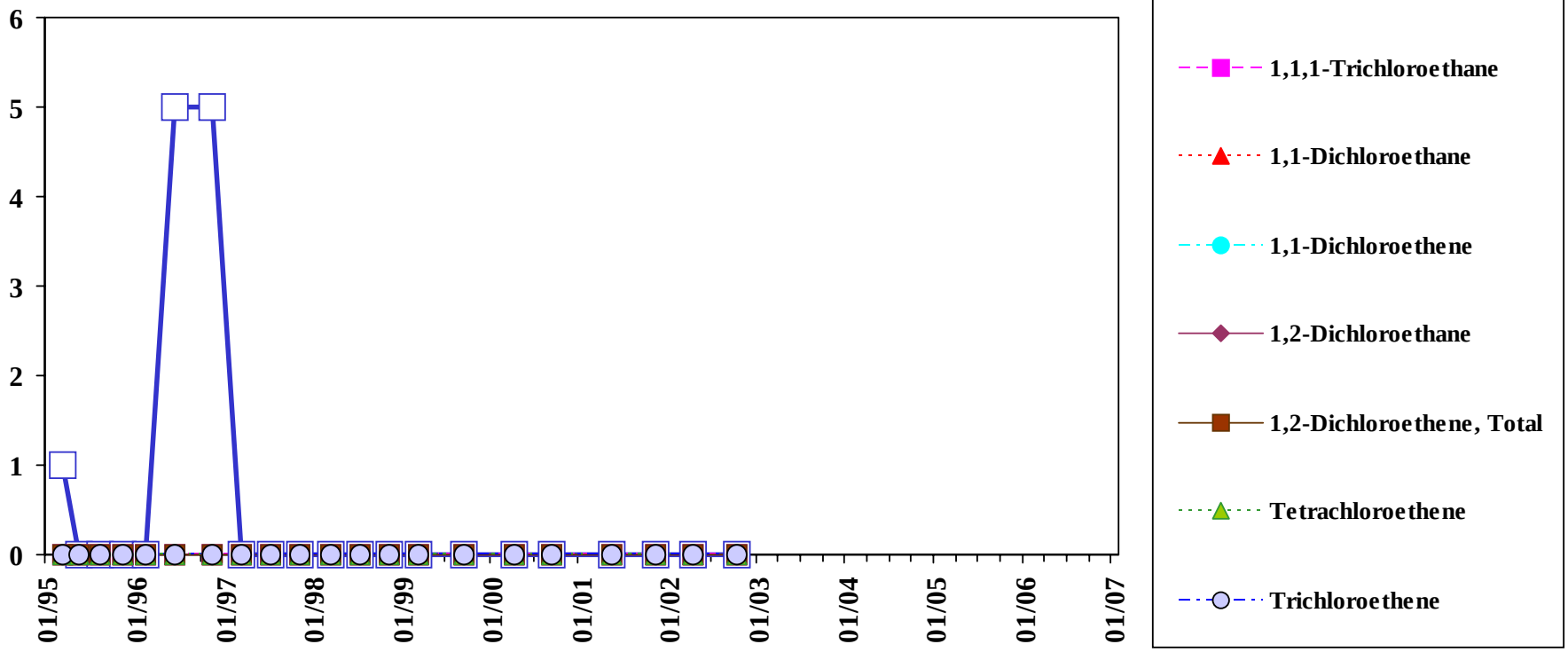
Sample Location:

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

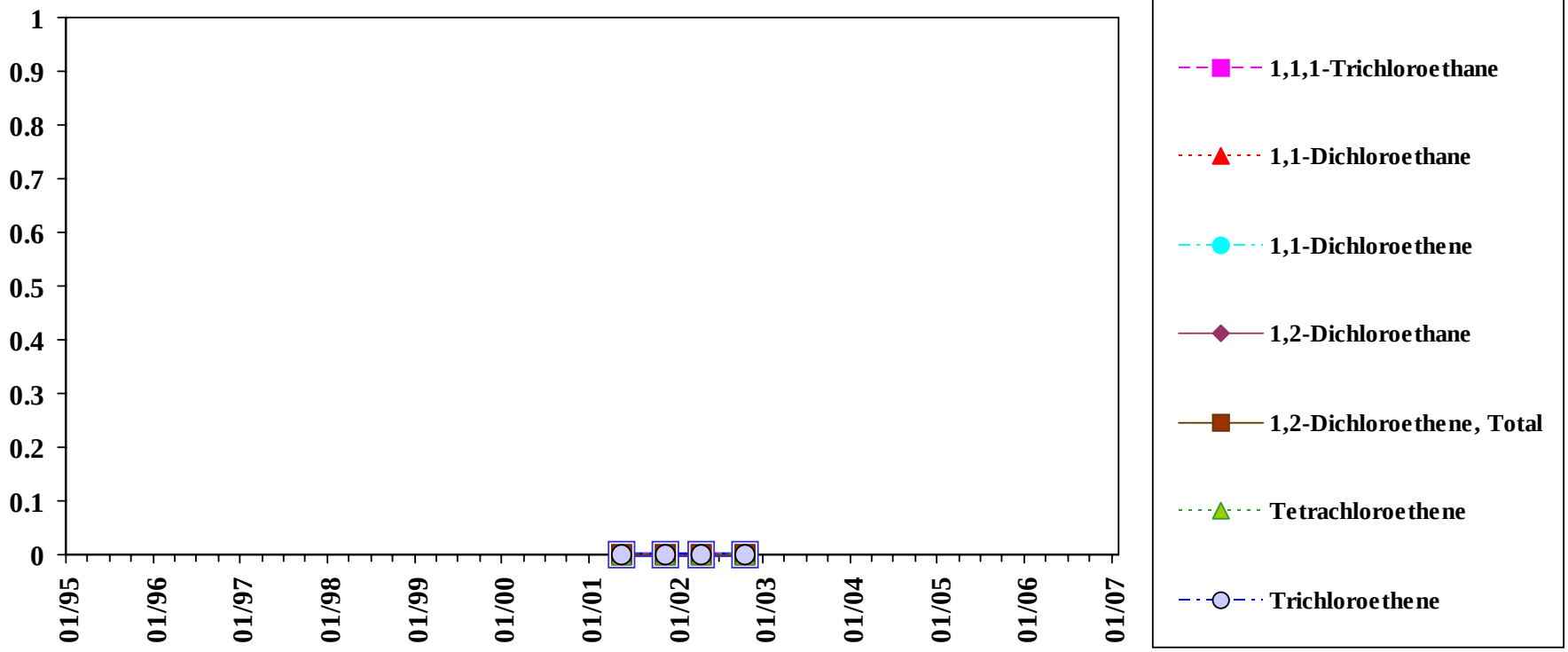
Sample Location:

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

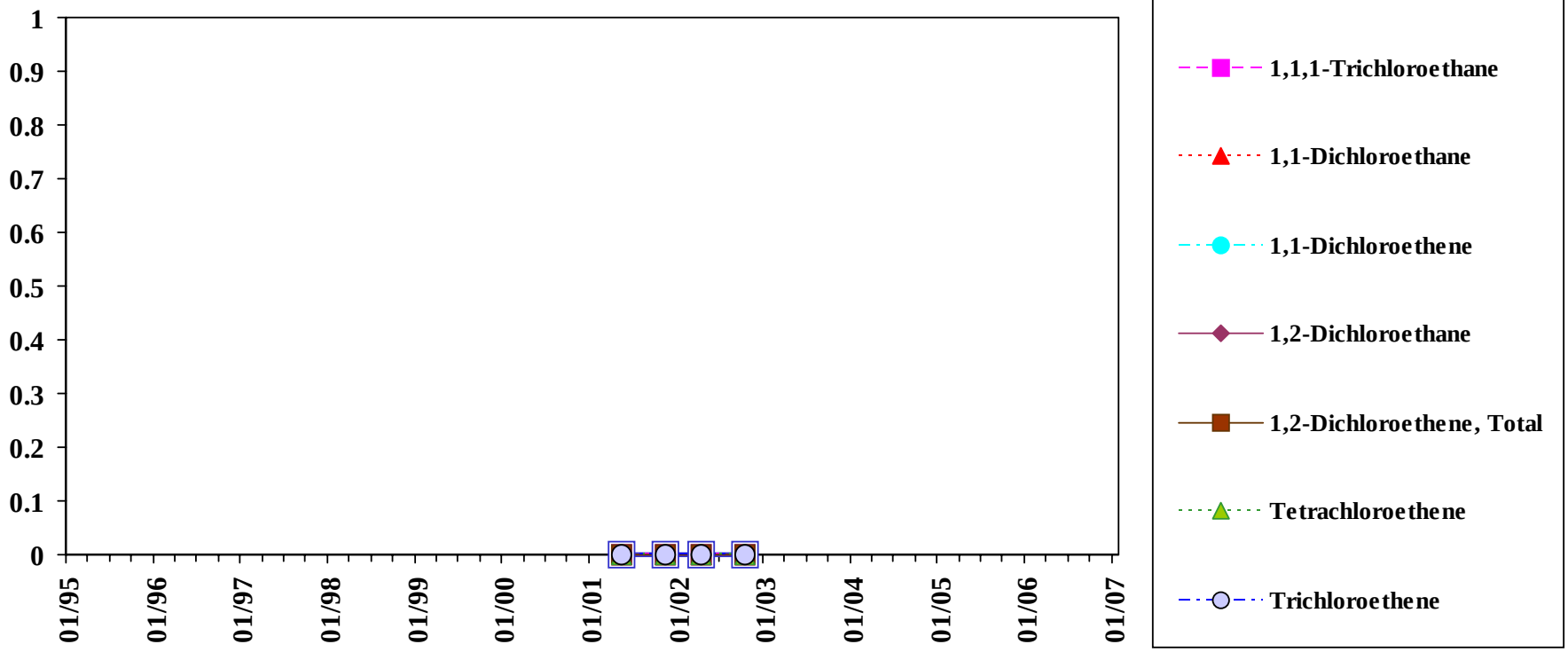
Sample Location:

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

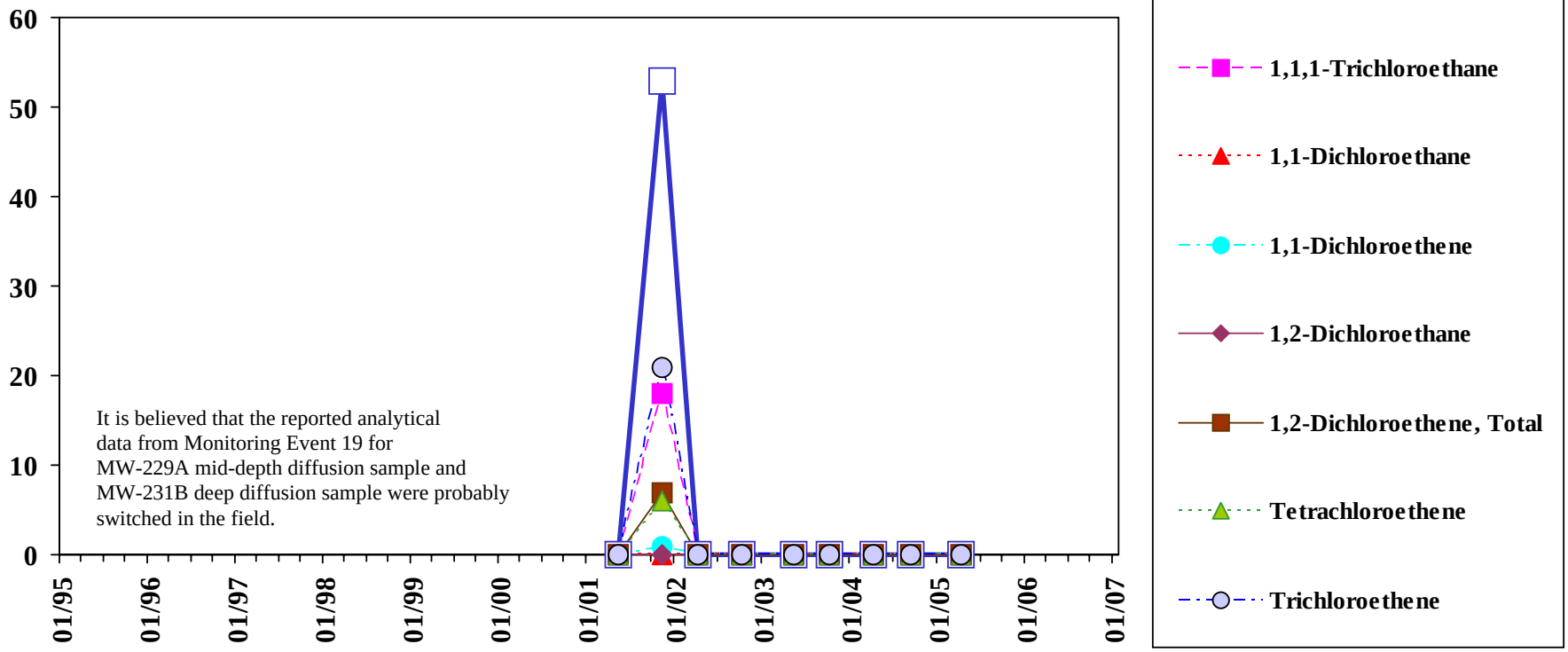
Sample Location:

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

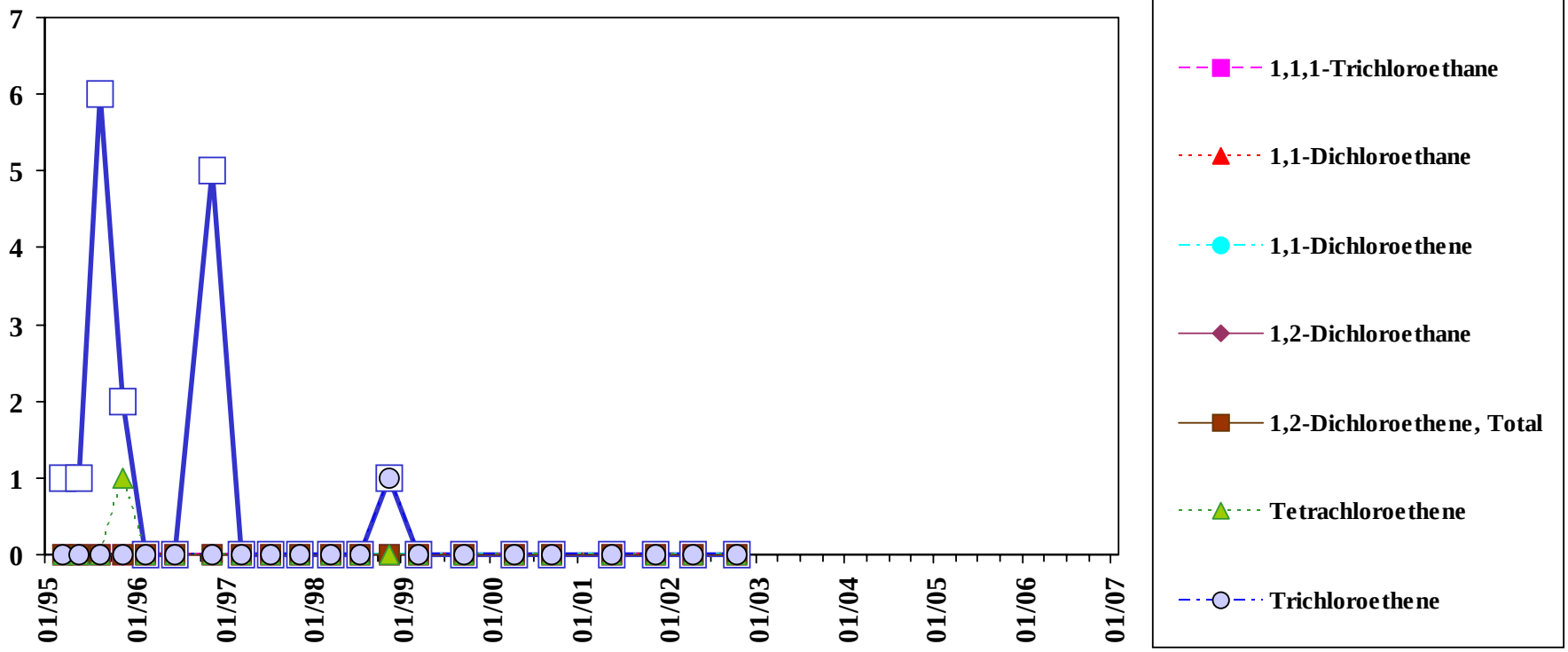
Sample Location:

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

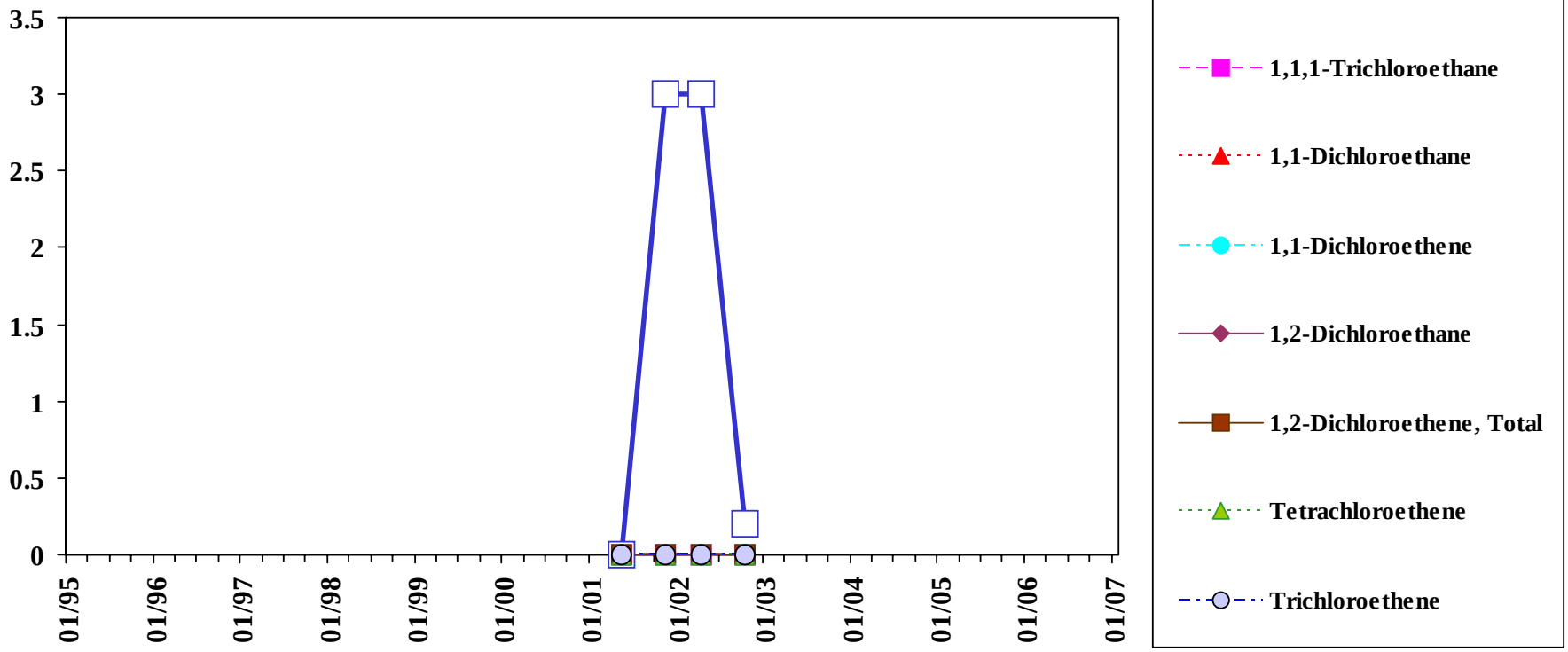
Sample Location:

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

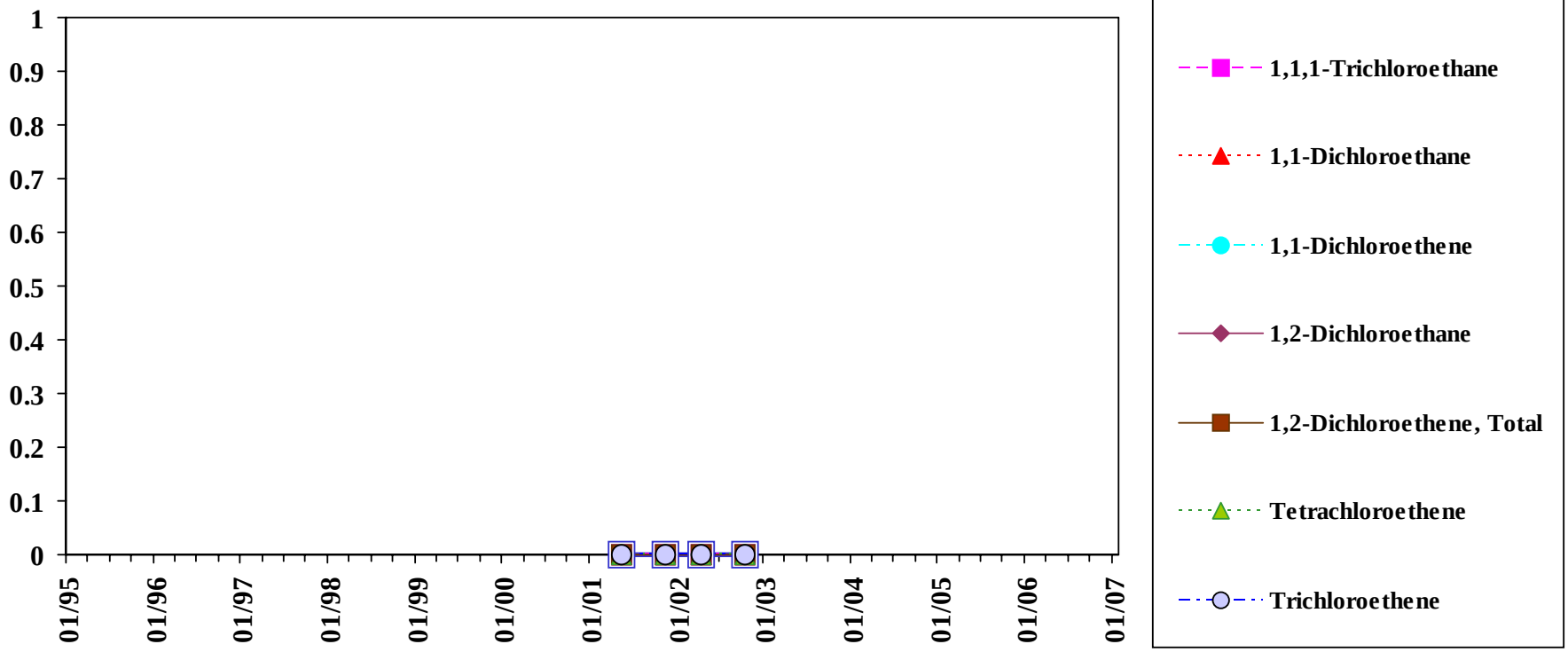
Sample Location:

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

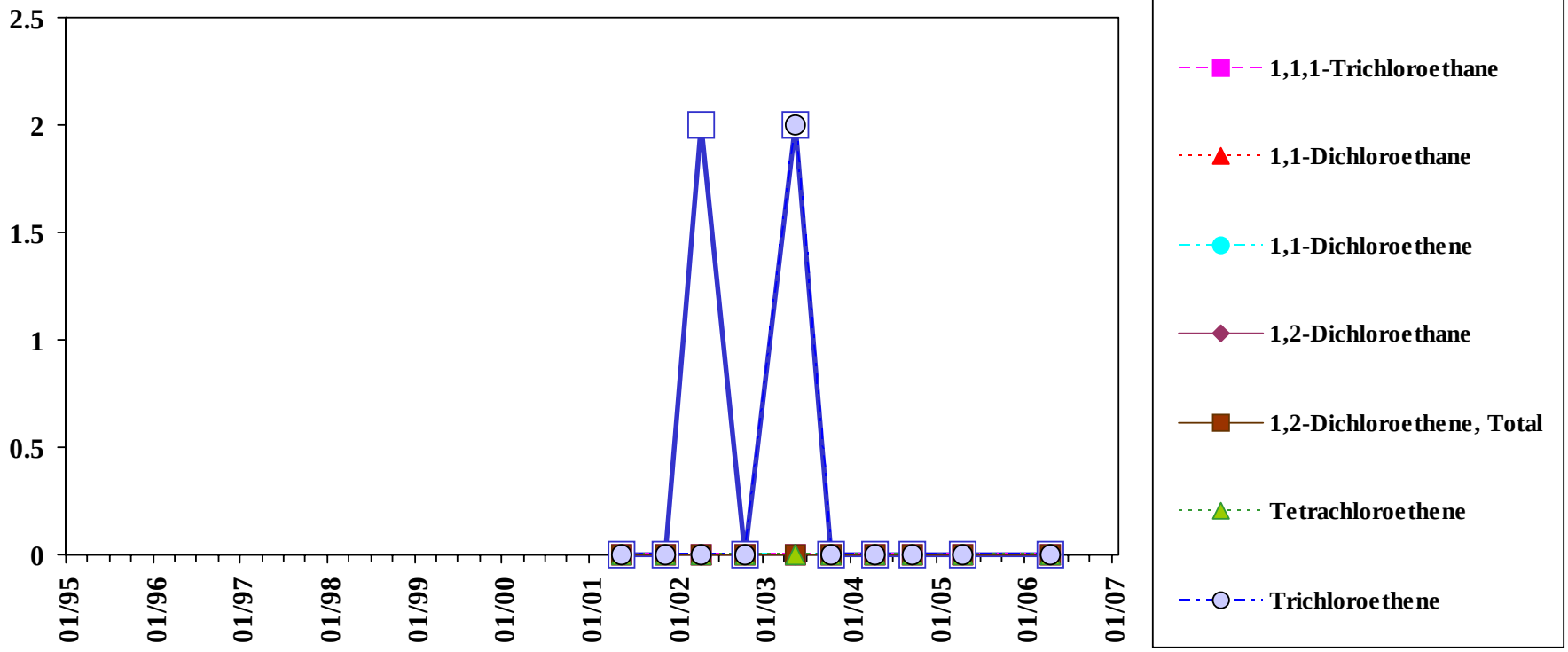
Sample Location:

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

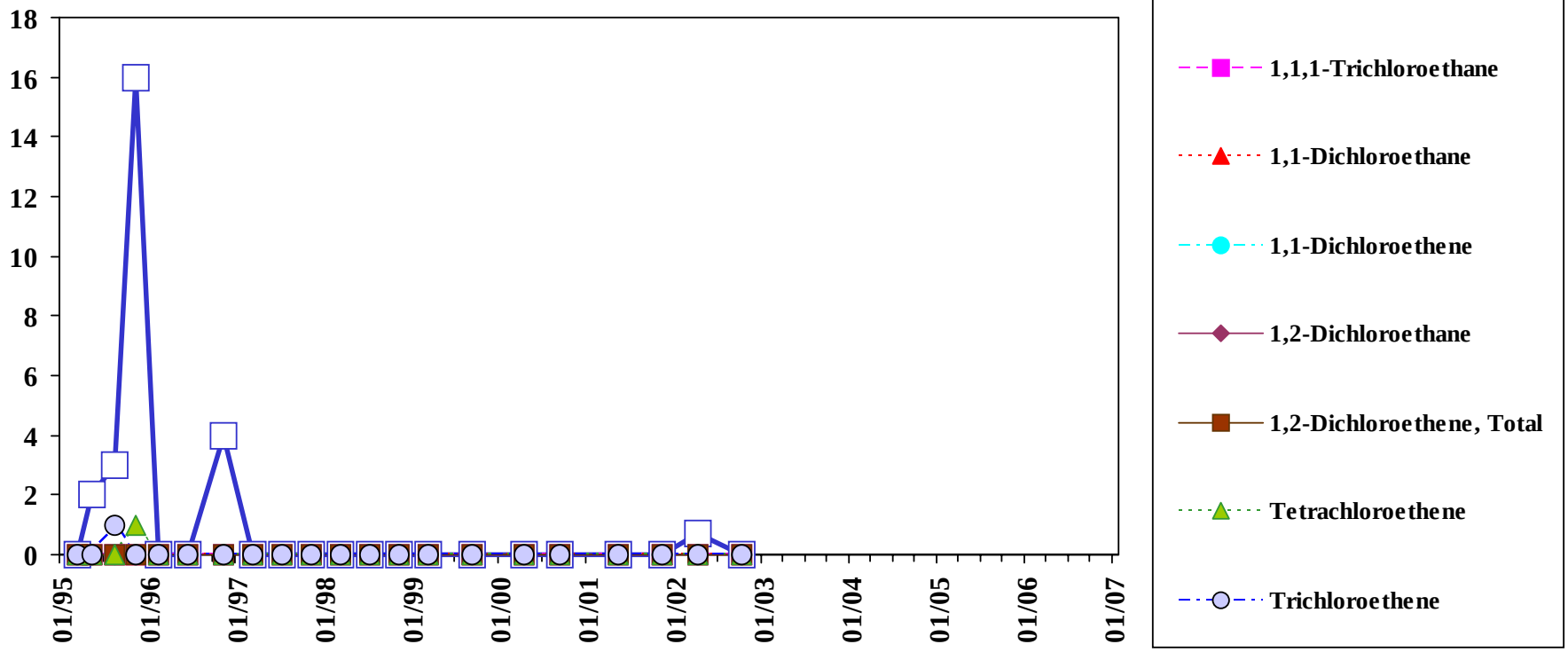
Sample Location:

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

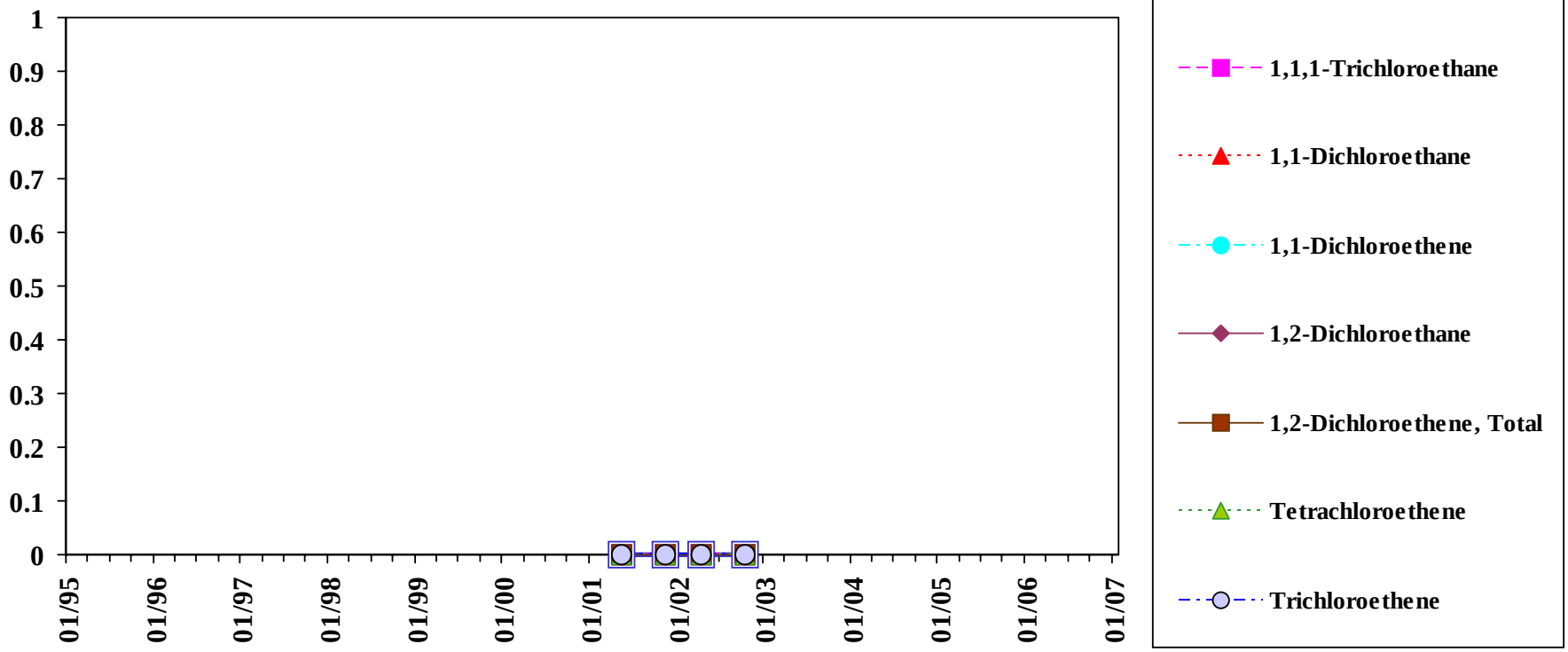
Sample Location:

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

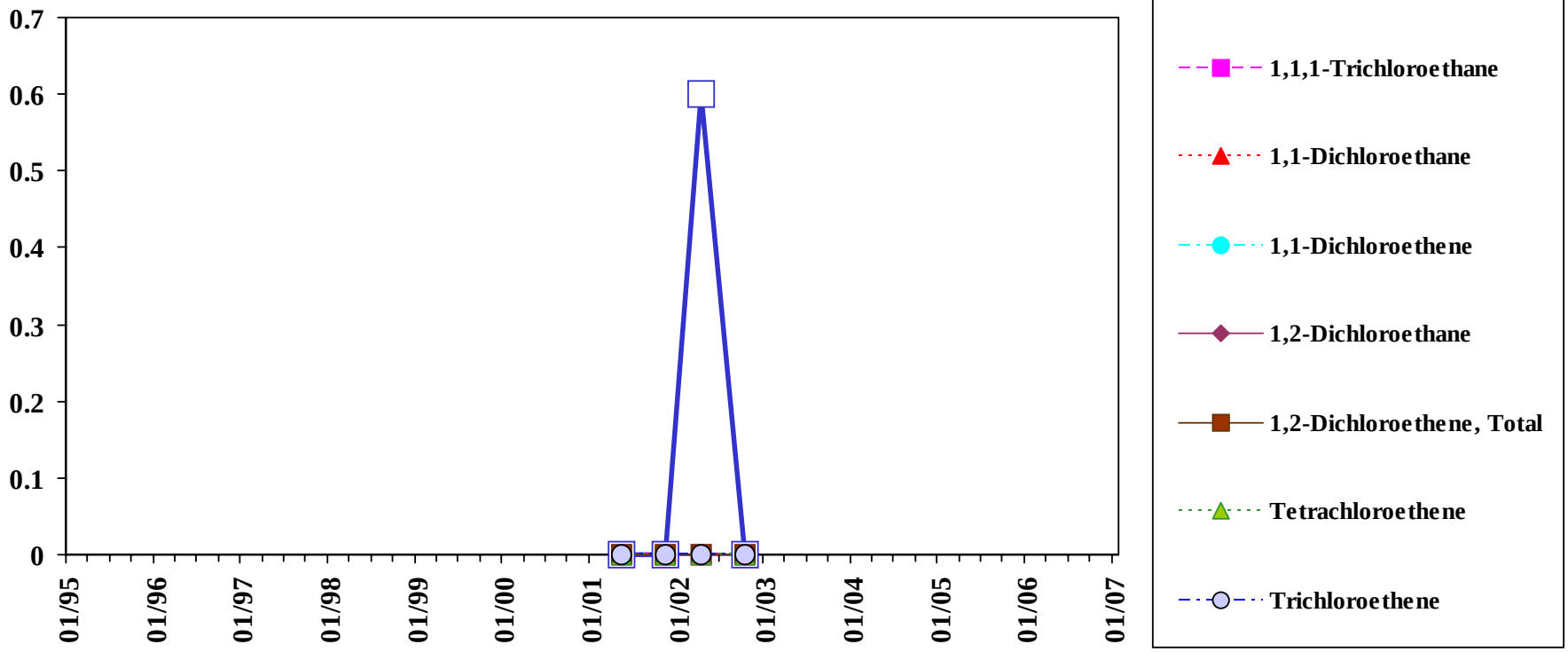
Sample Location:

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

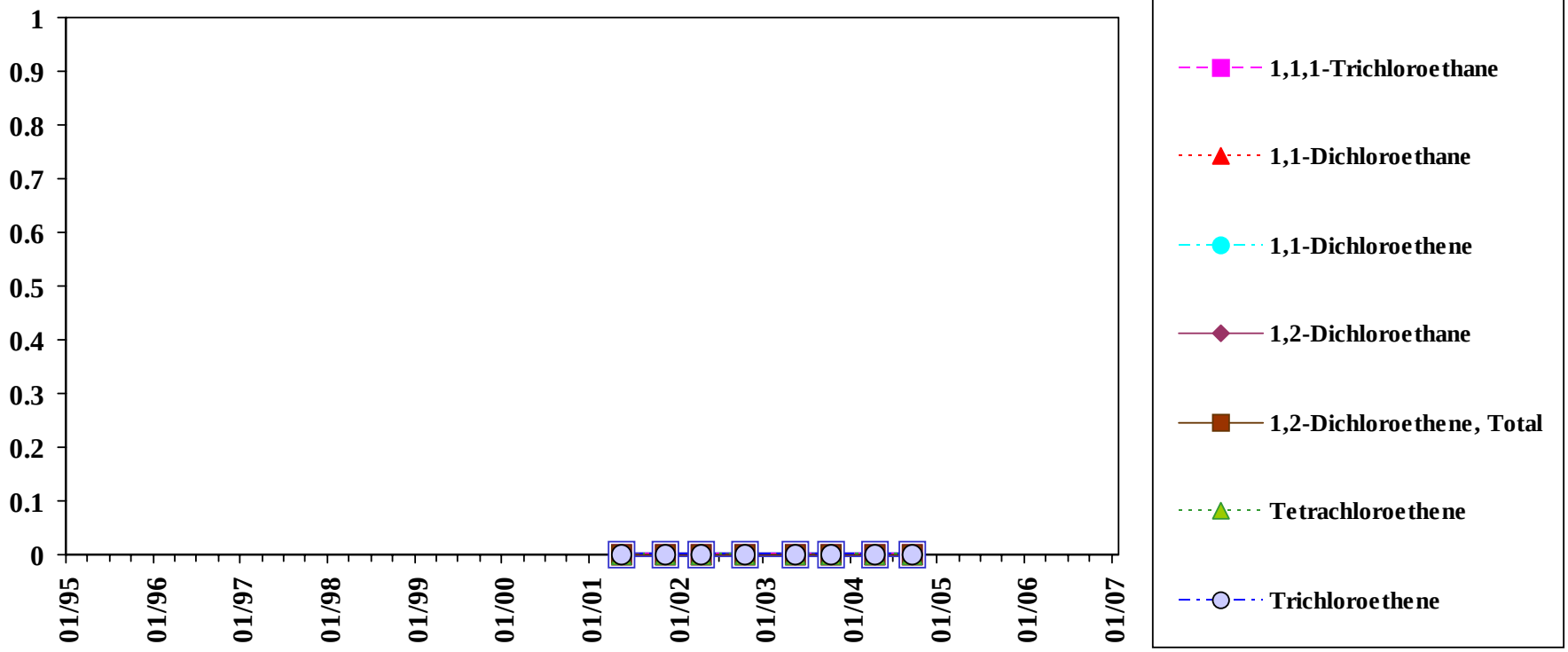
Sample Location:

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

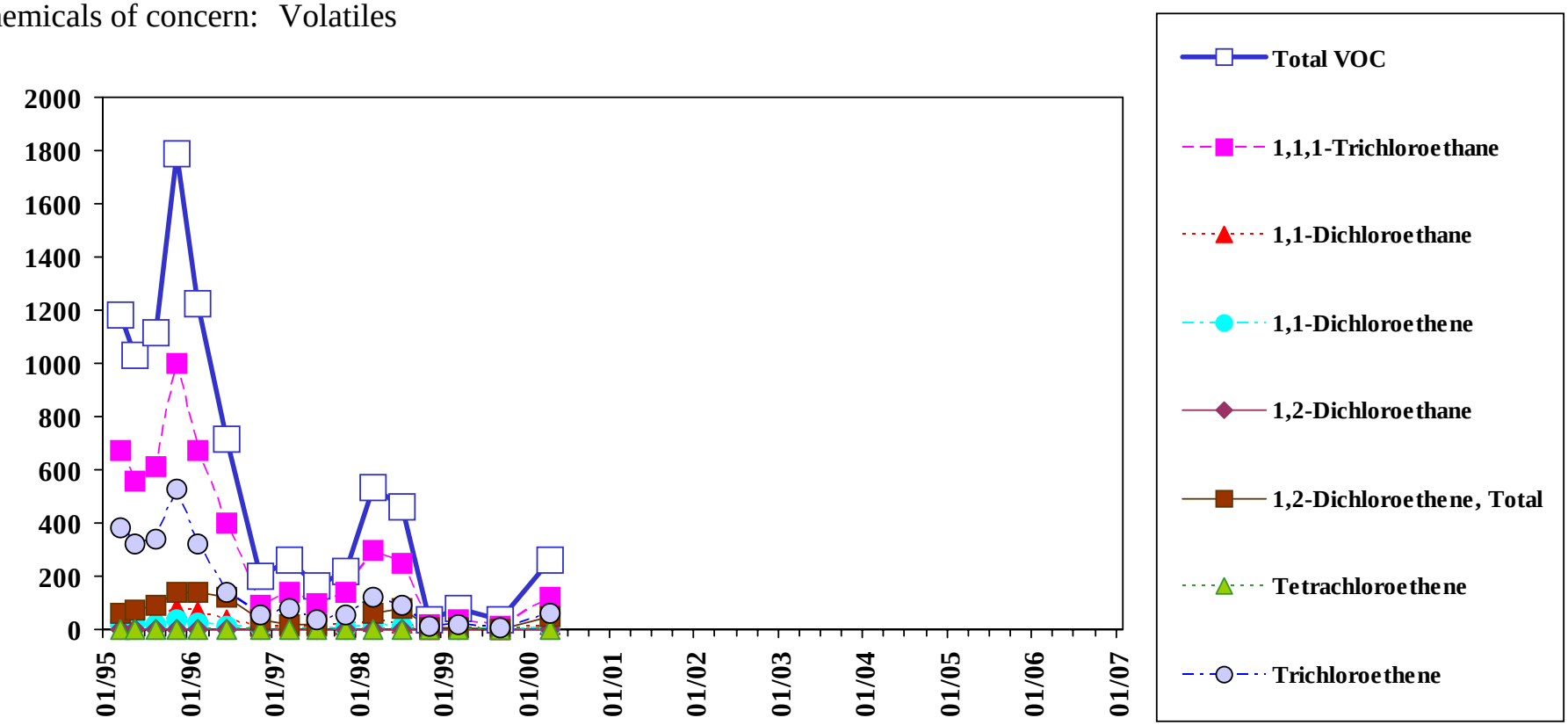
Sample Location:

MW-306

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



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

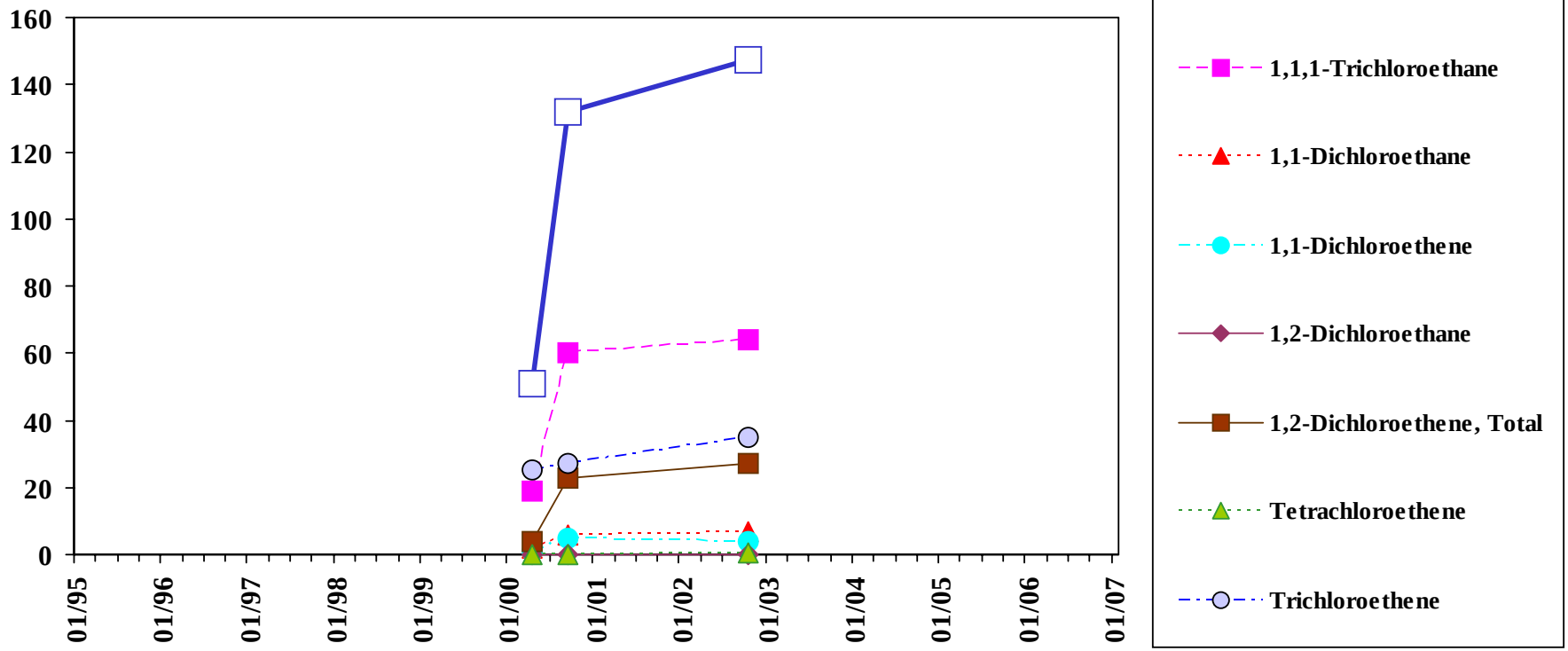
Sample Location:

MW-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

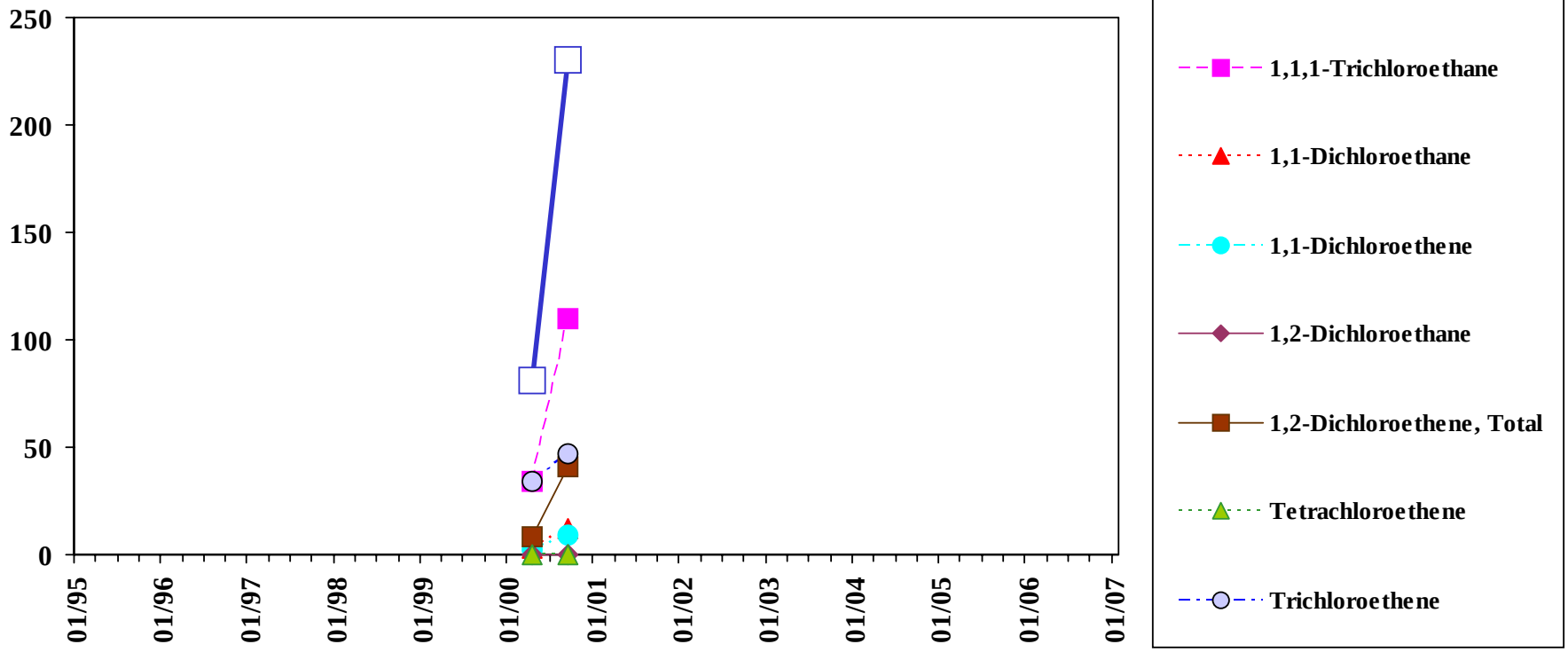
Sample Location:

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

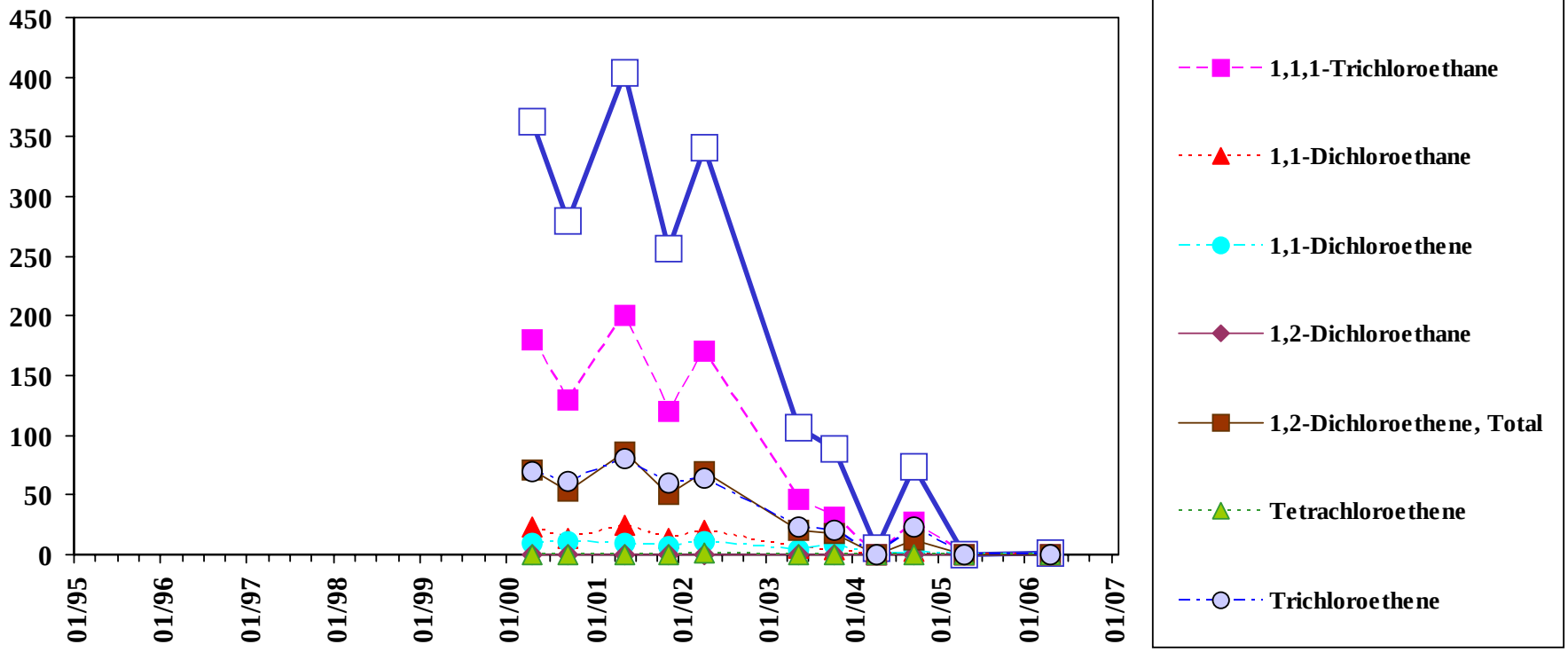
Sample Location:

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

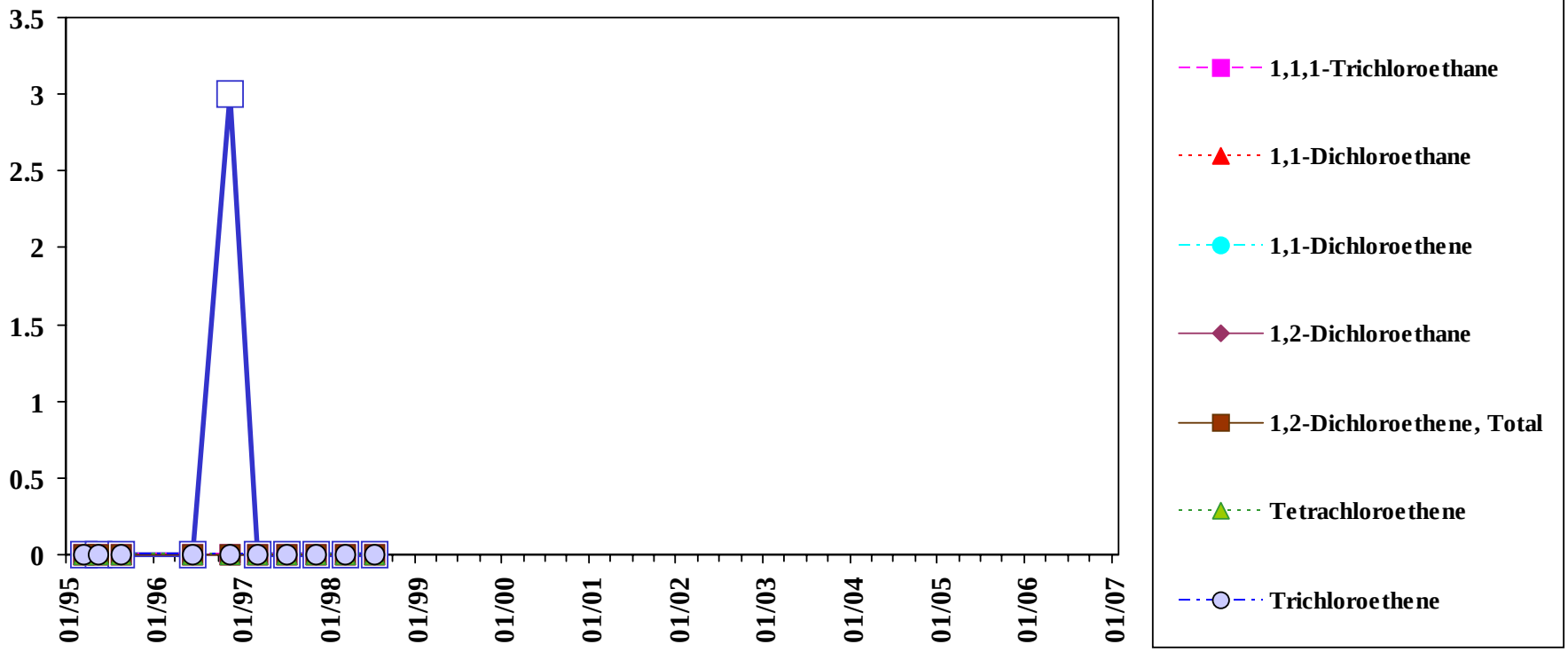
Sample Location:

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

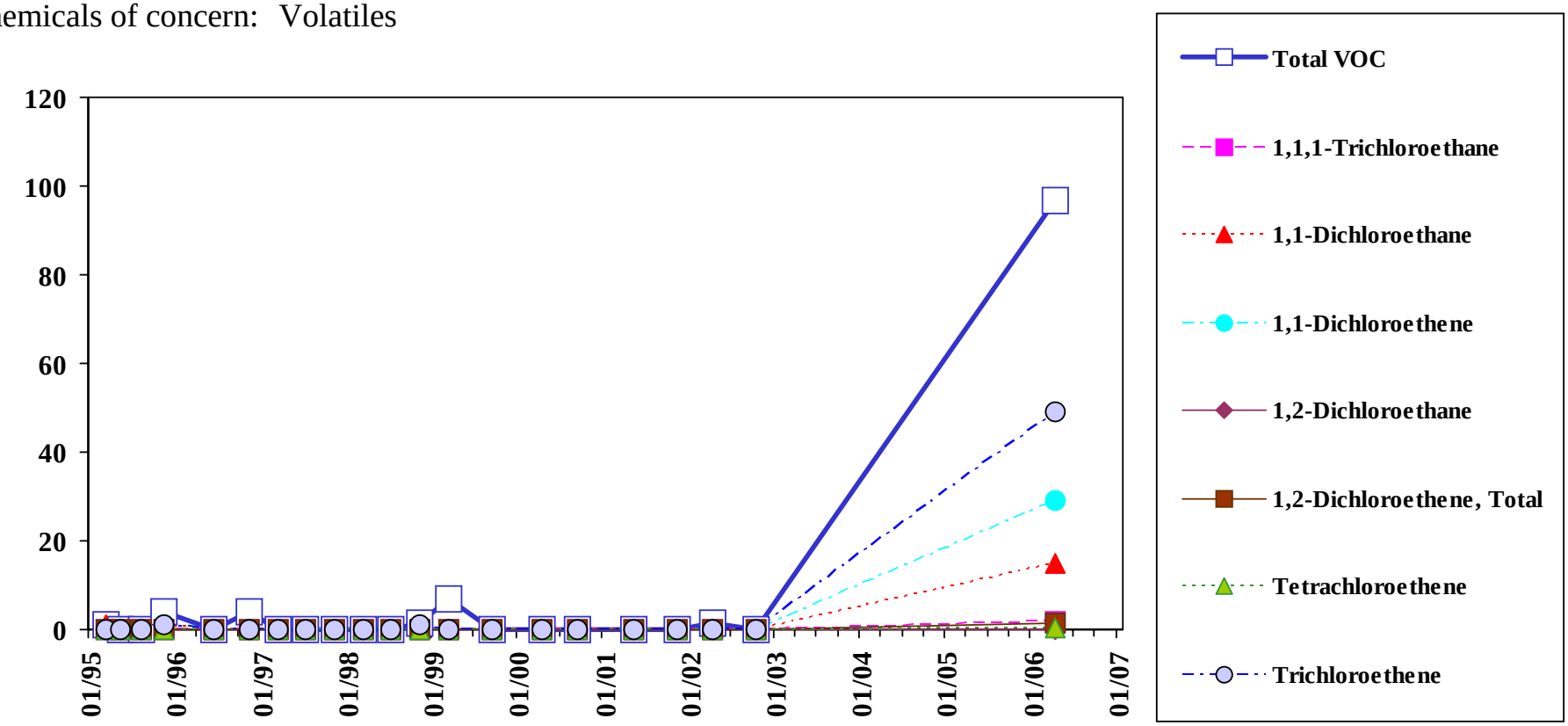
Sample Location:

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

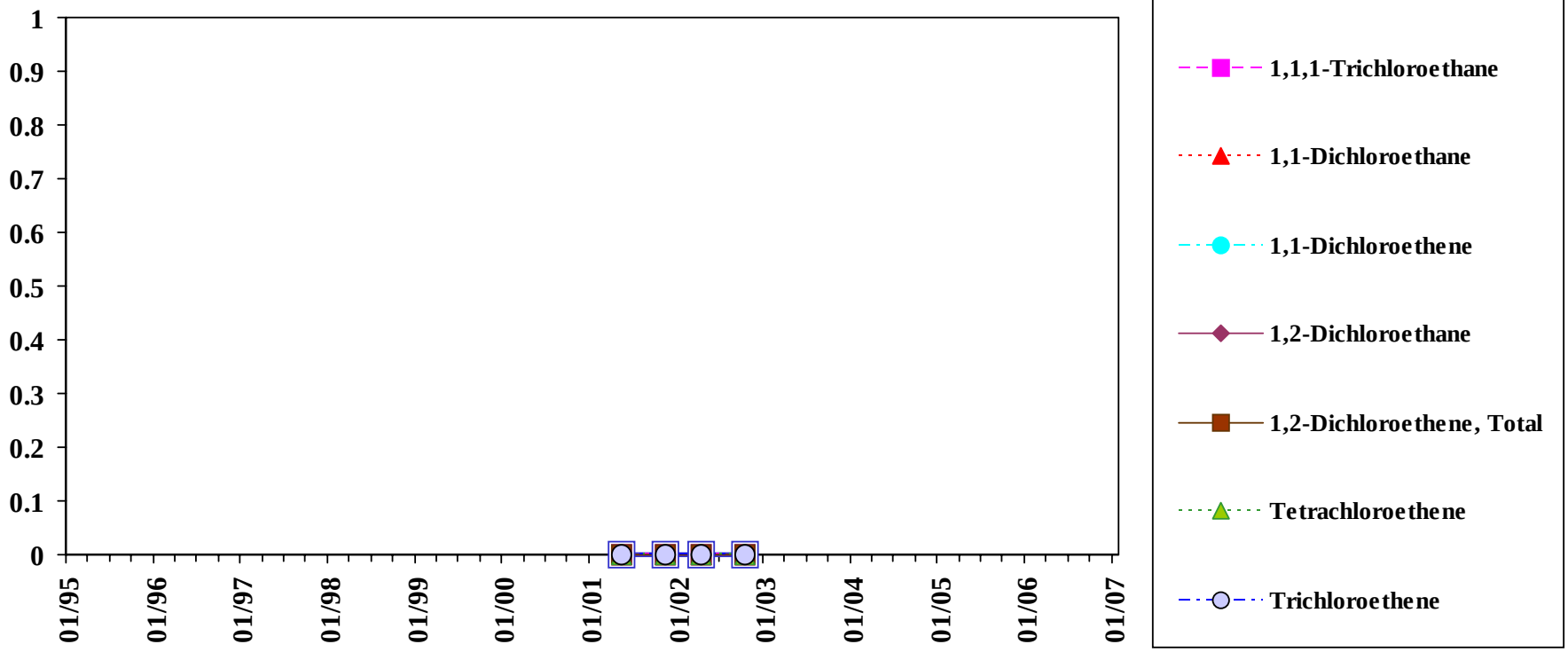
Sample Location:

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

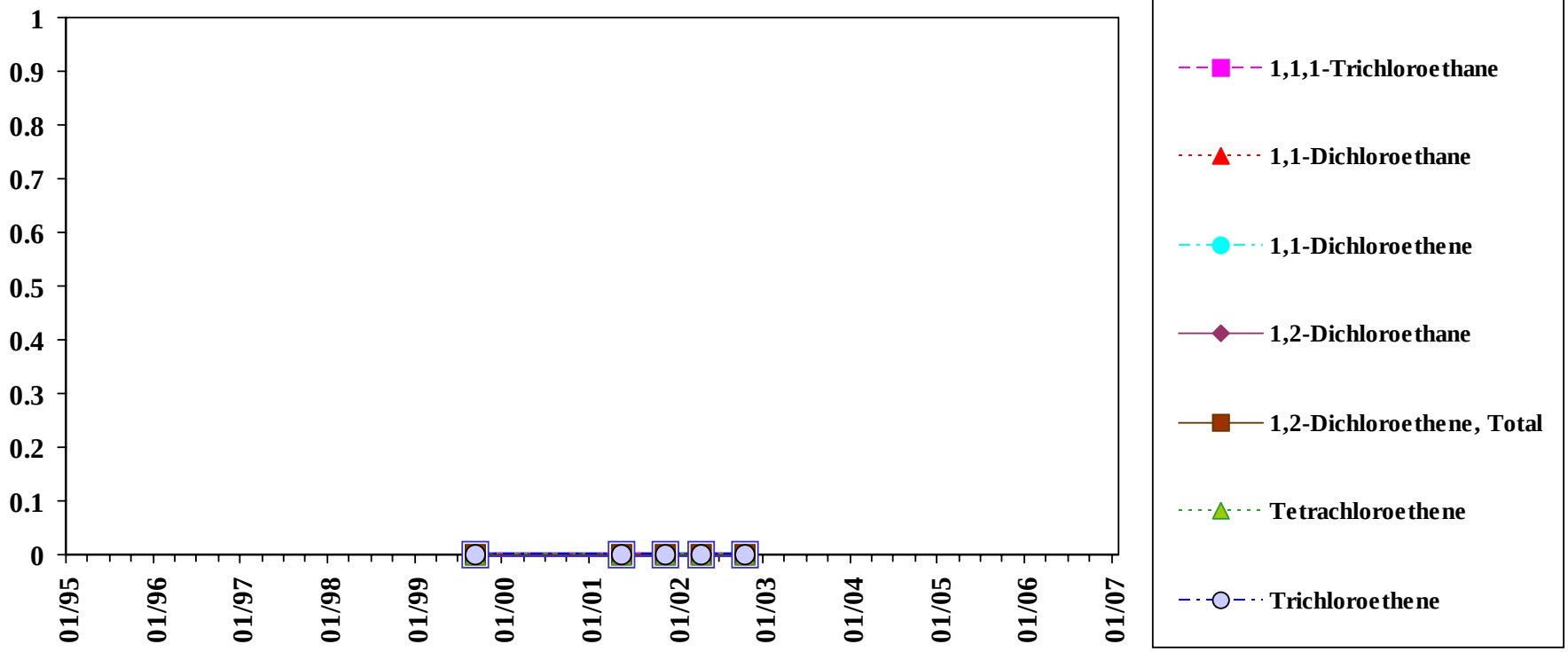
Sample Location:

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

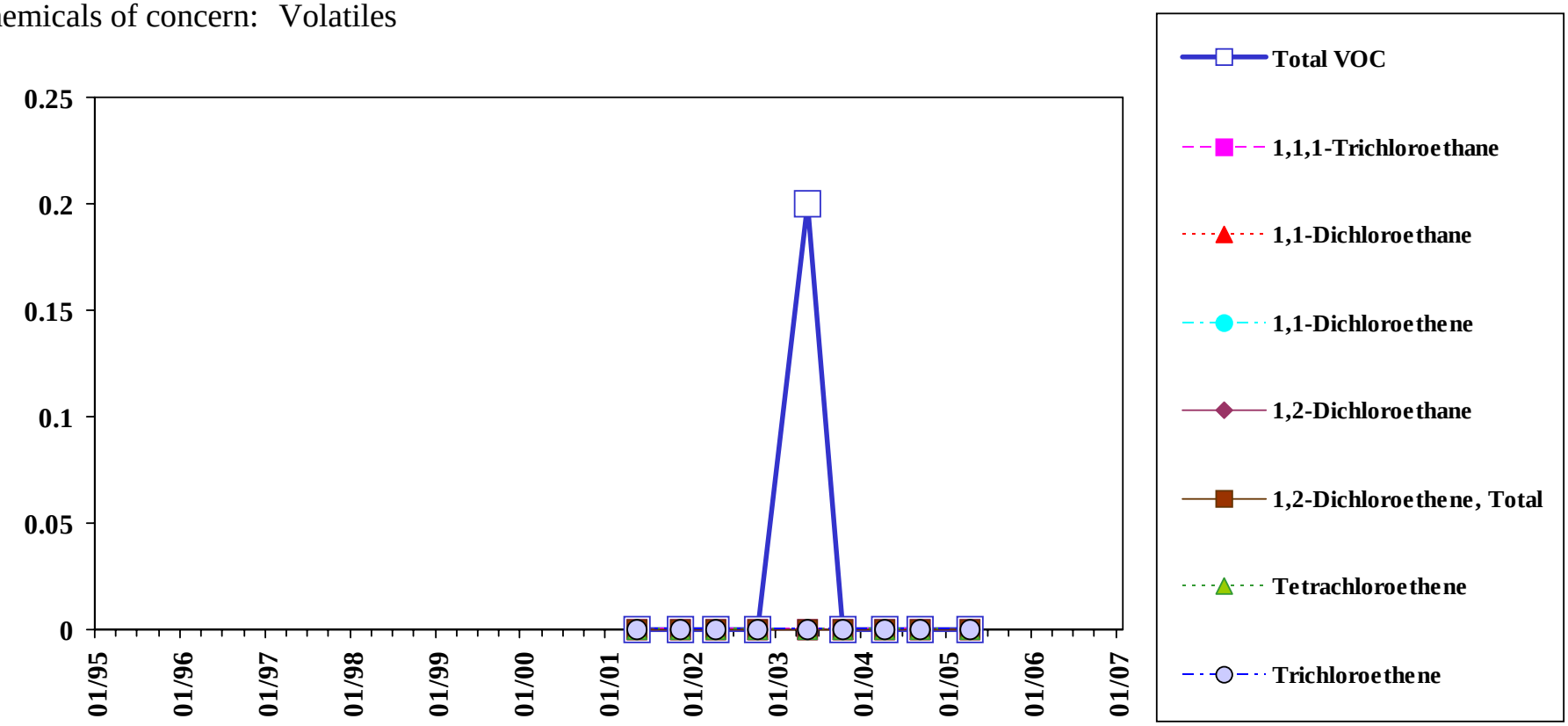
Sample Location:

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

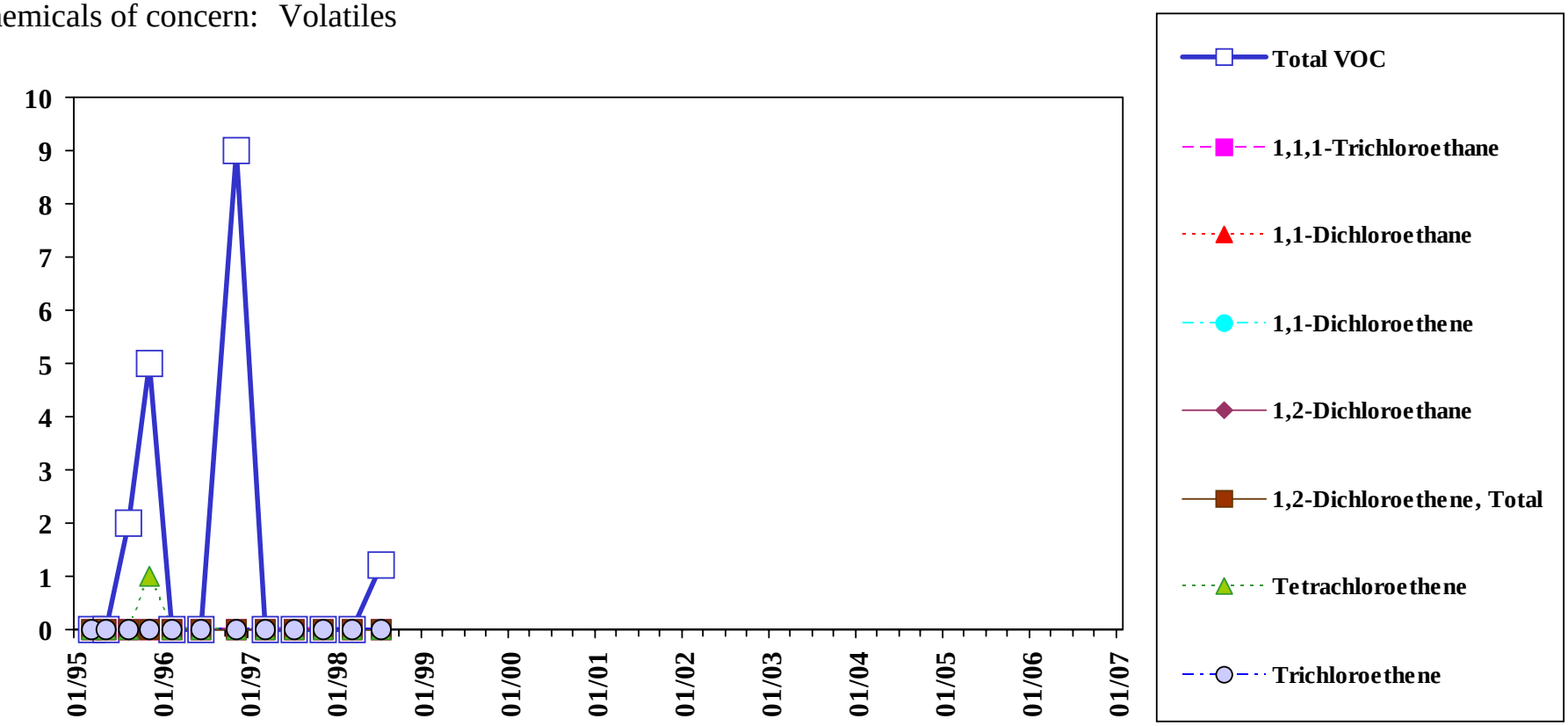
Sample Location:

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

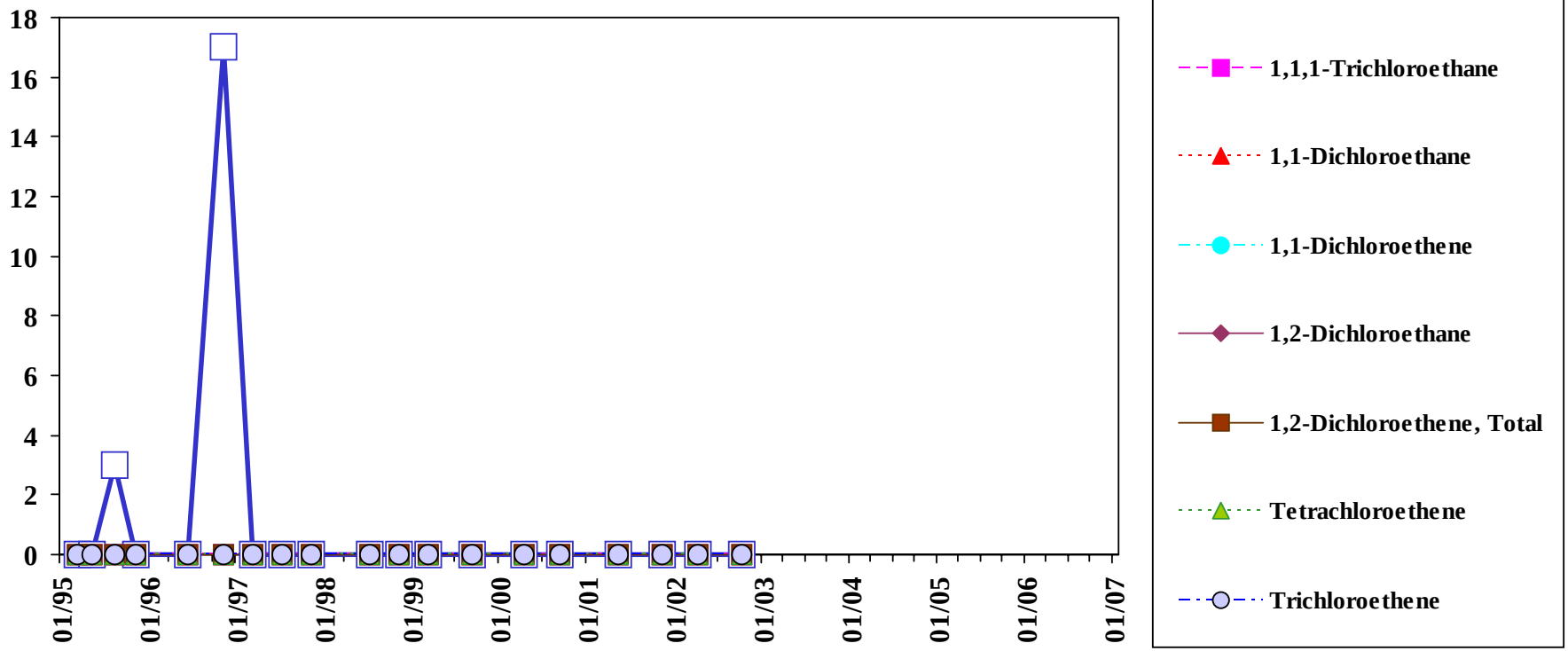
Sample Location:

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

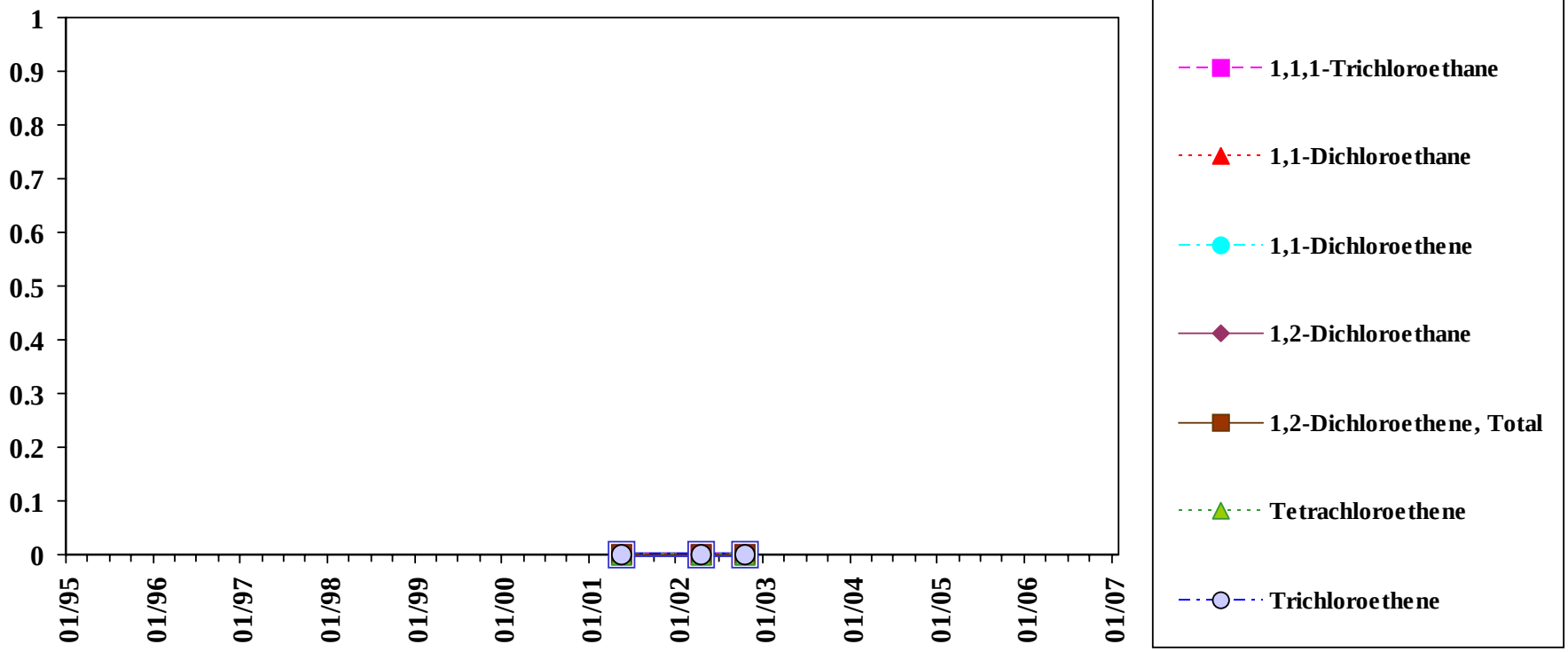
Sample Location:

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

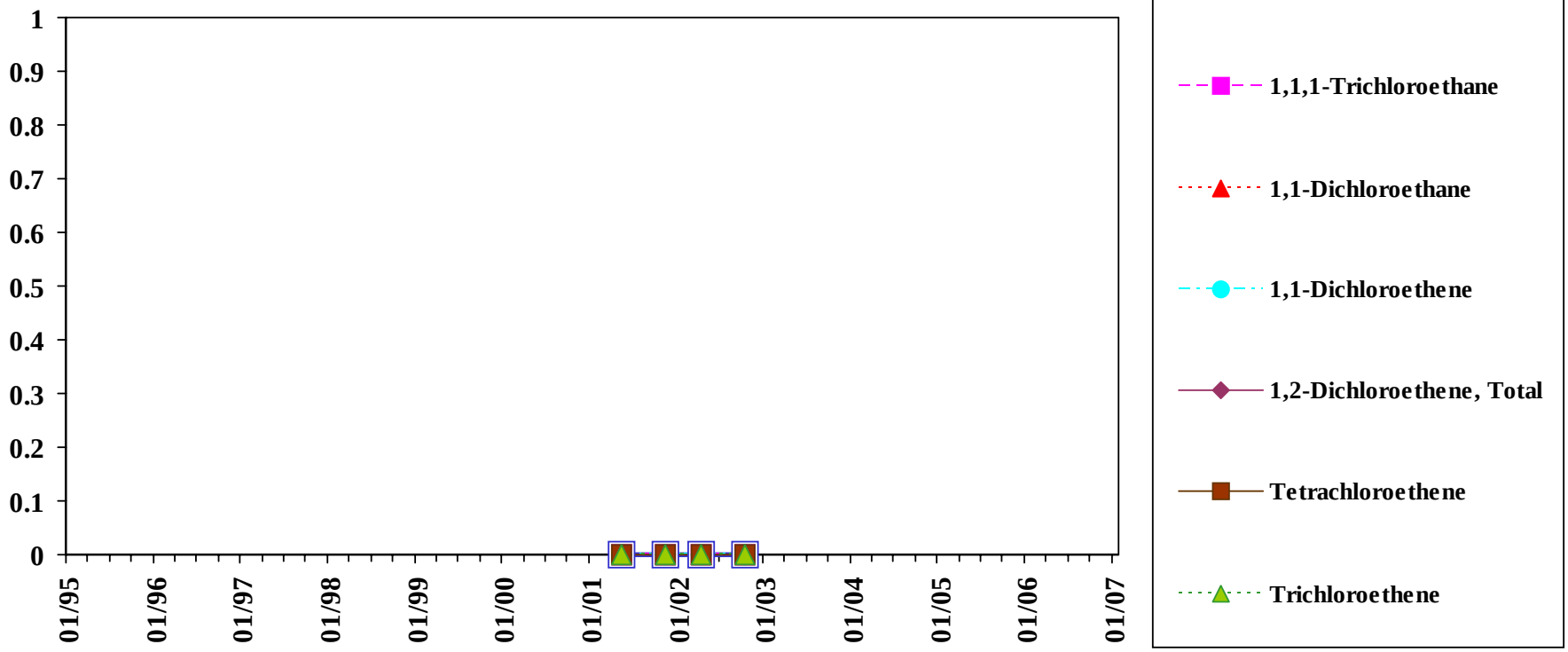
Sample Location:

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

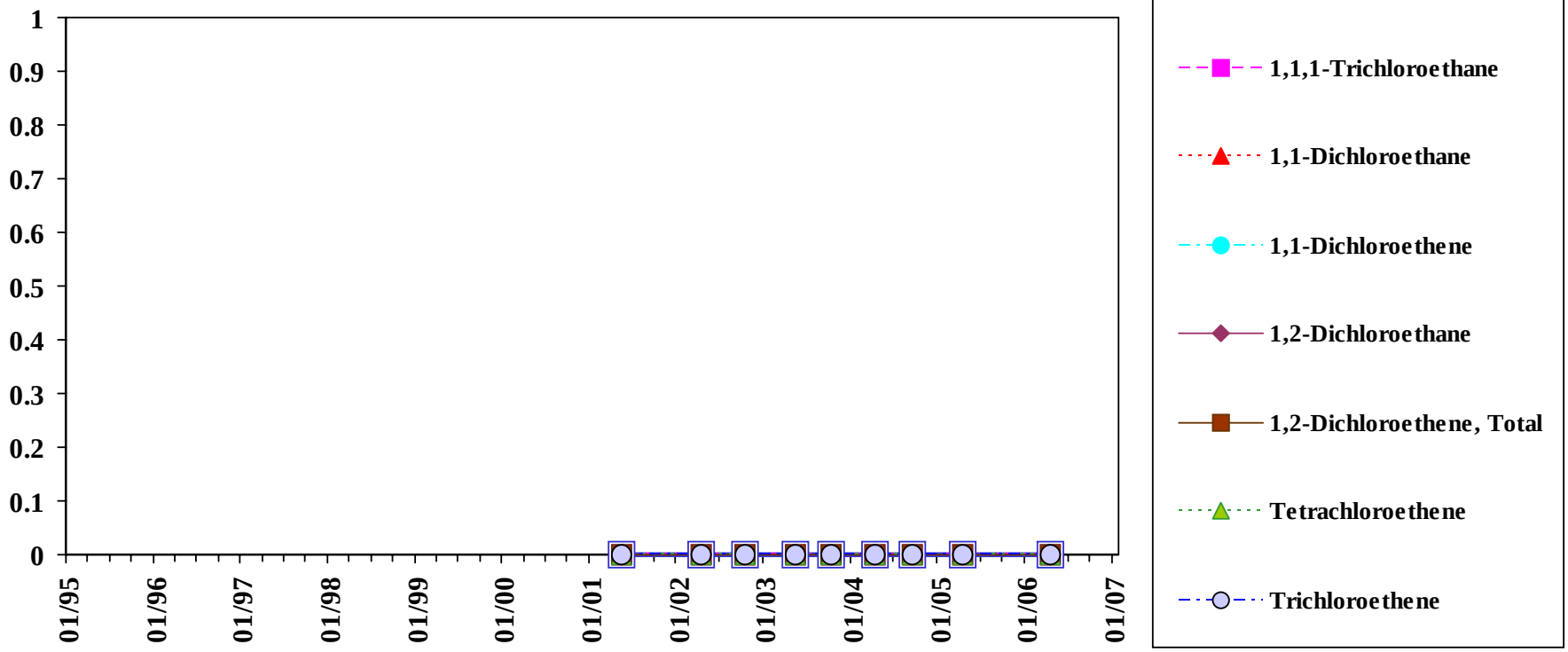
Sample Location:

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

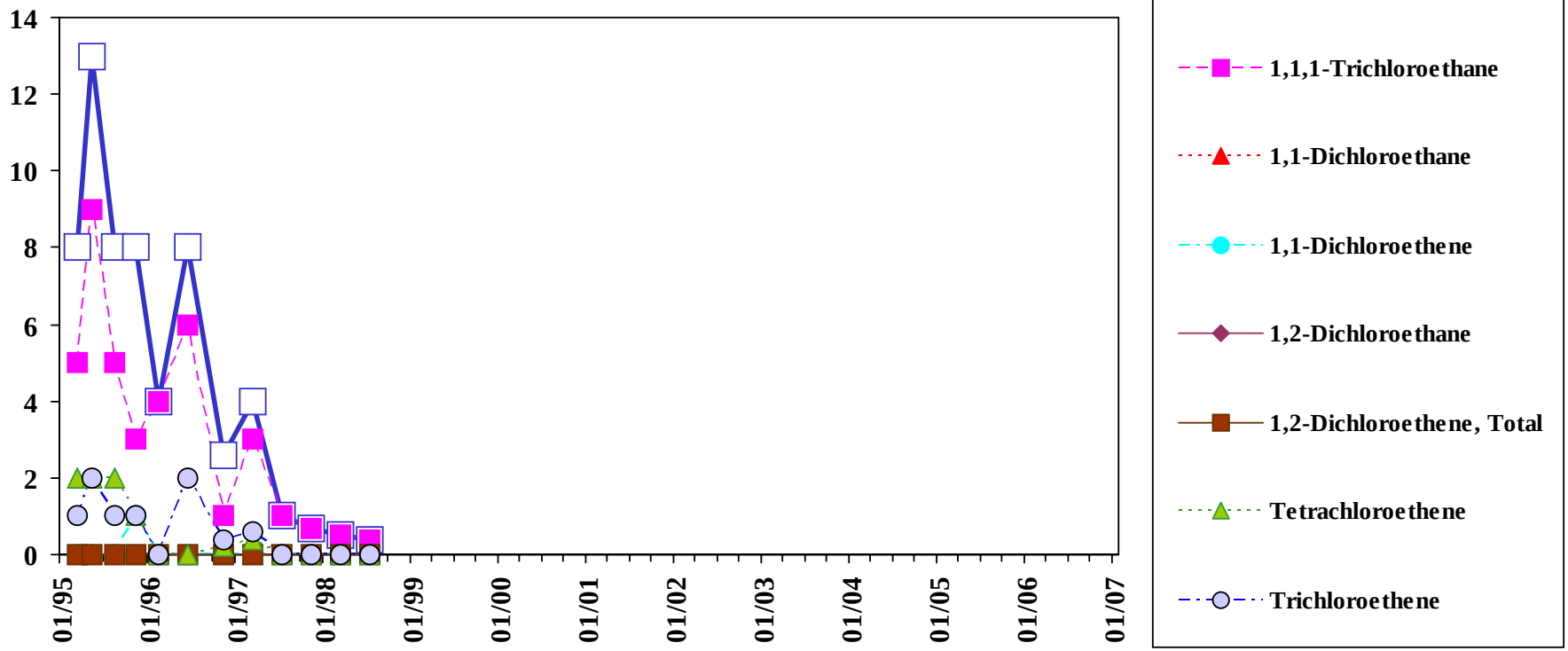
Sample Location:

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

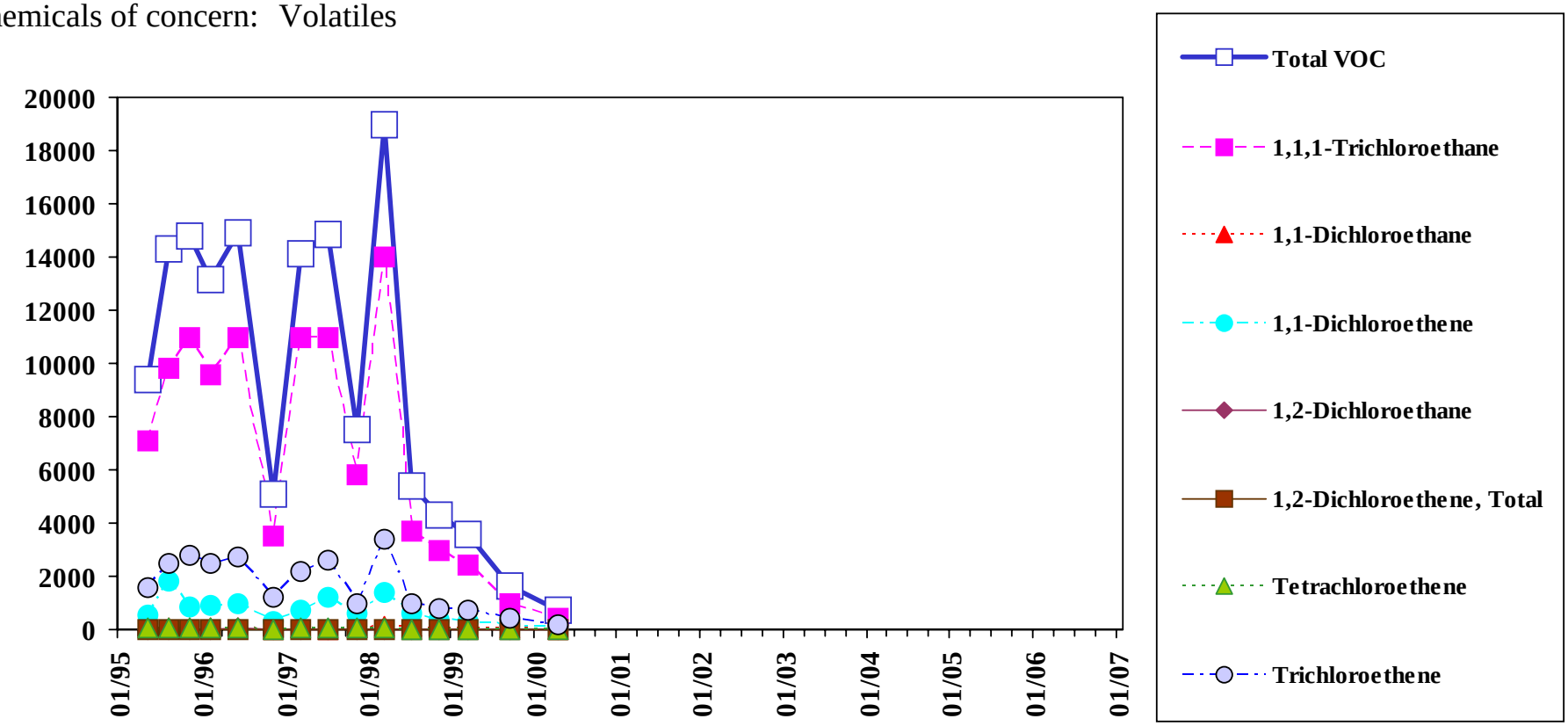
Sample Location:

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

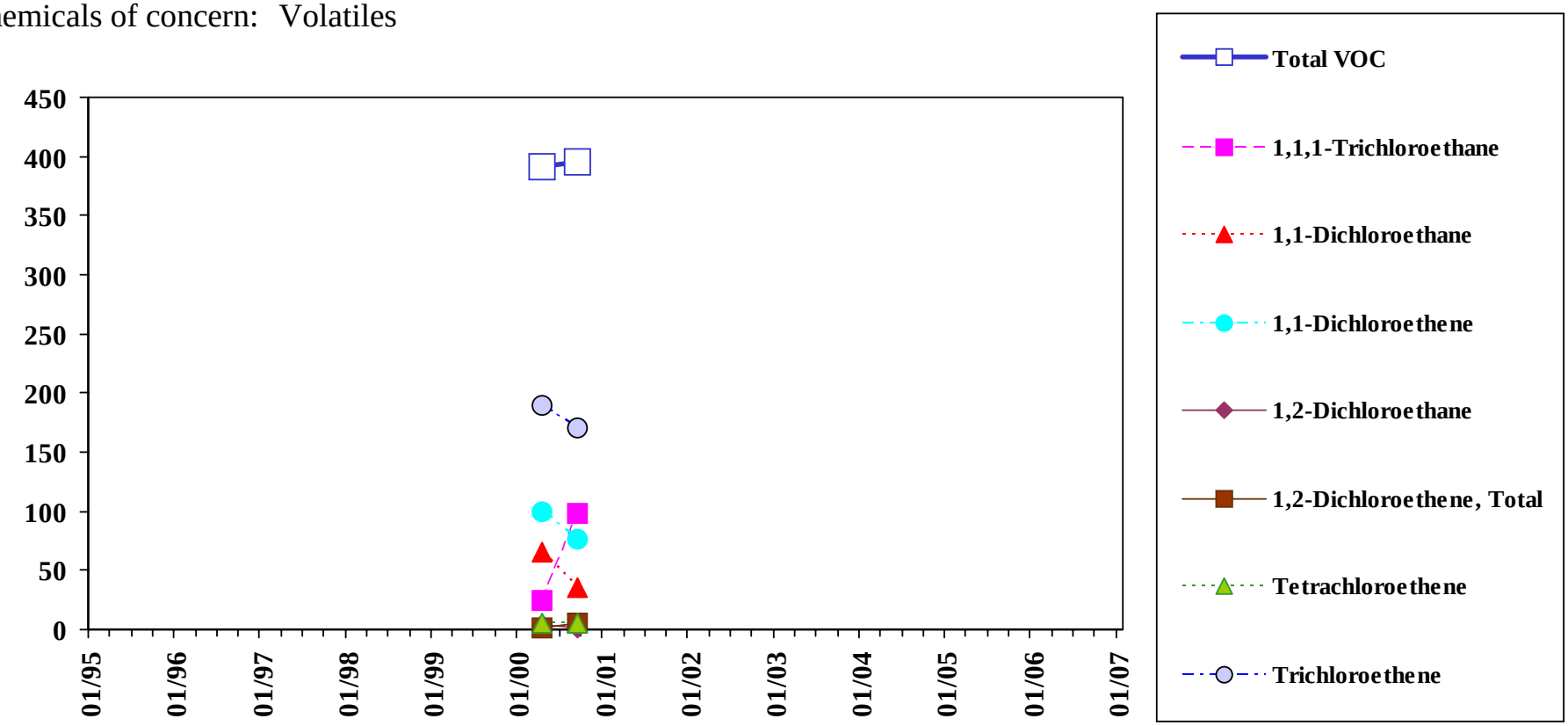
Sample Location:

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

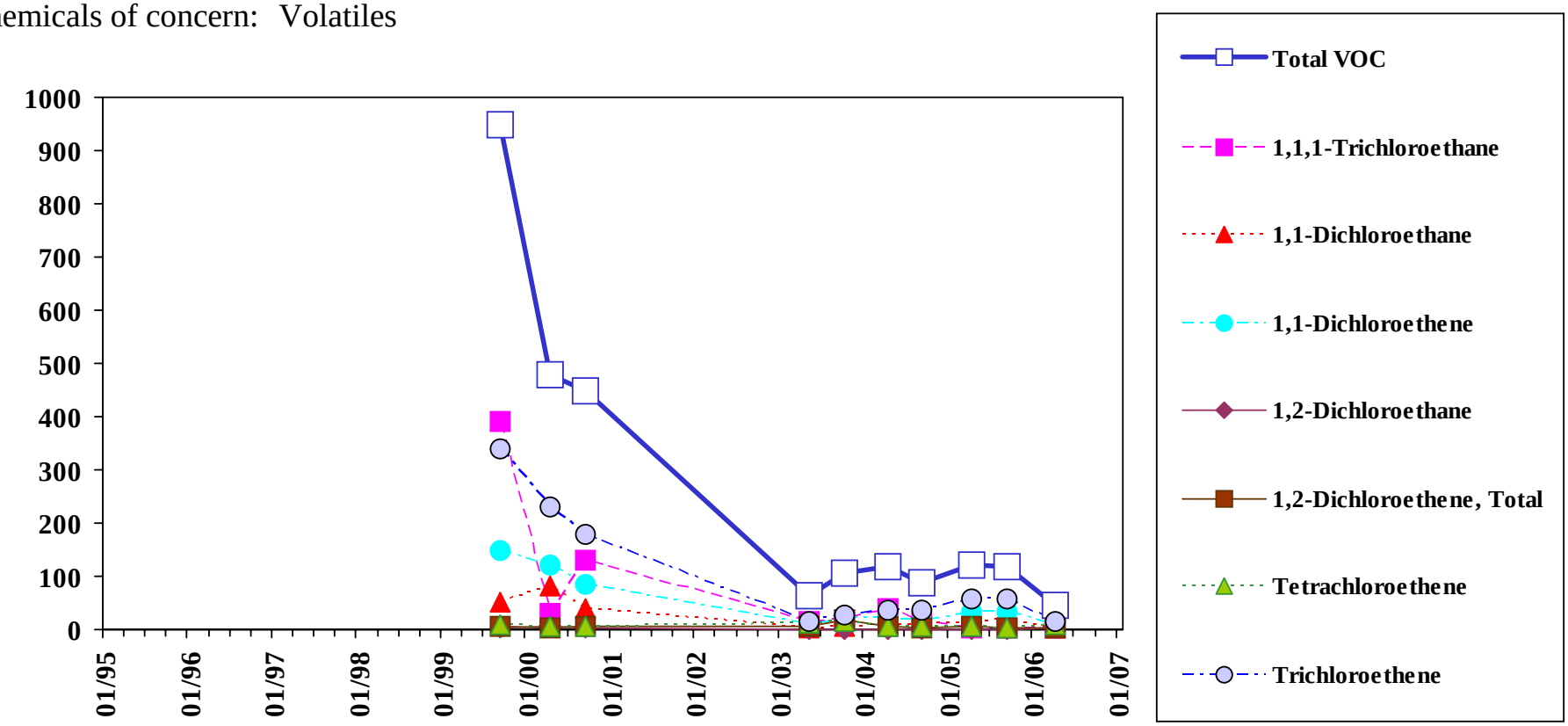
Sample Location:

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

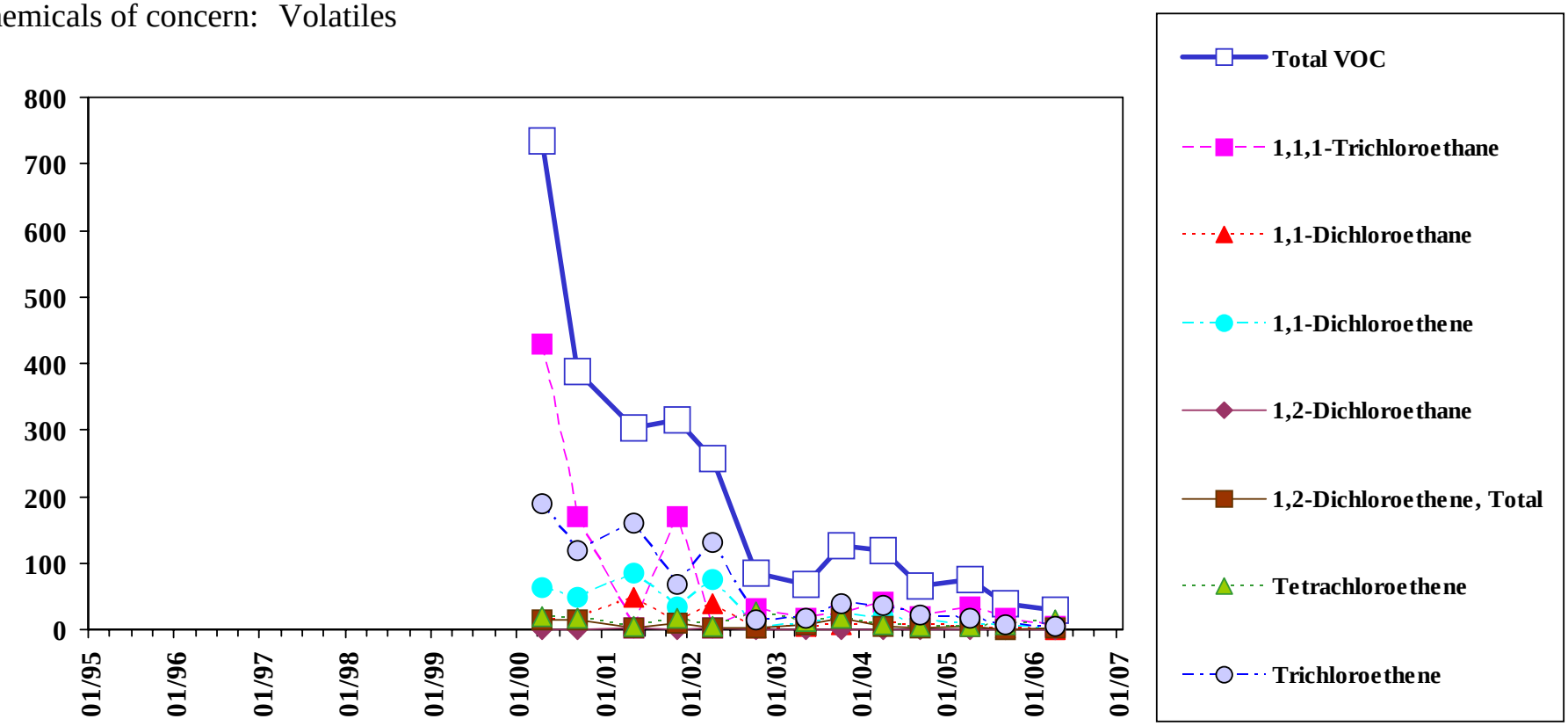
Sample Location:

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

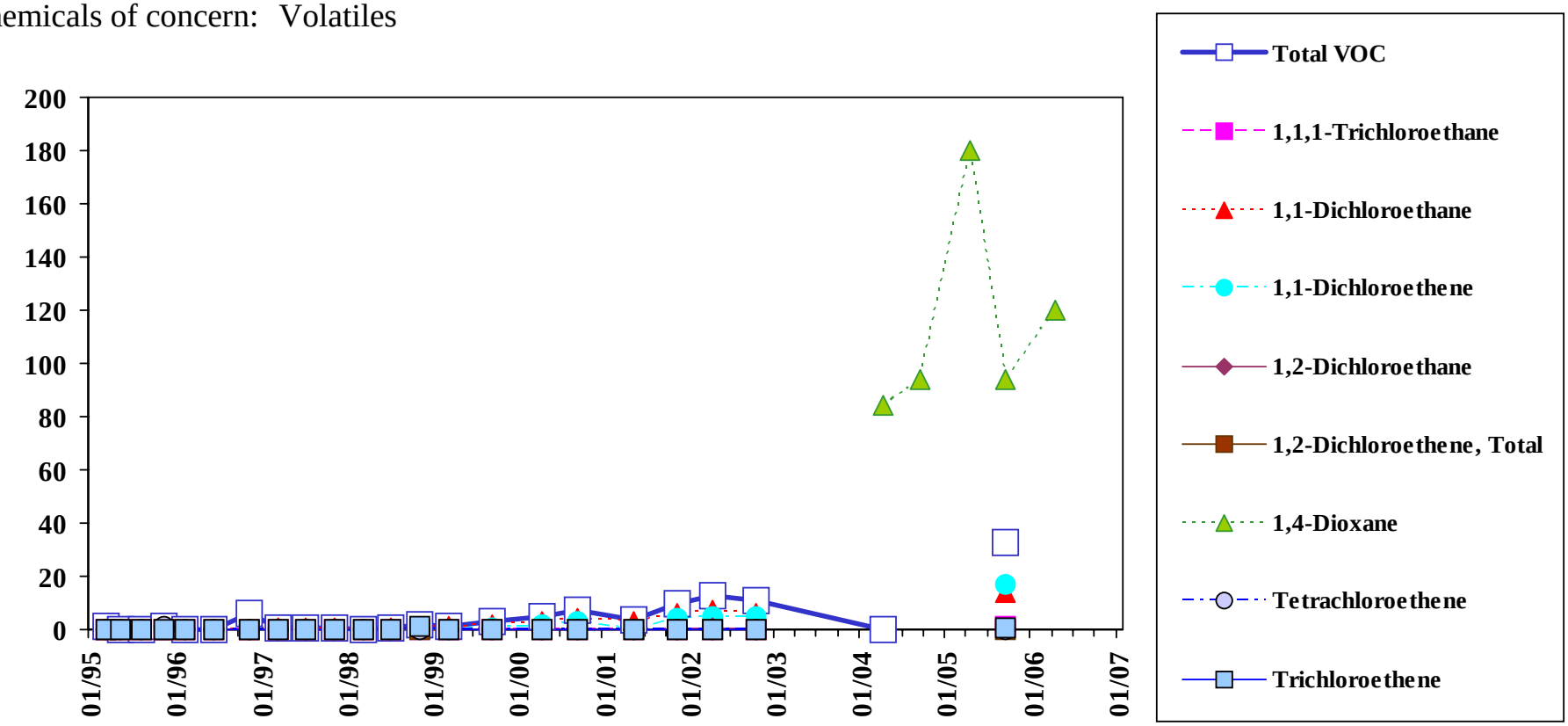
Sample Location:

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

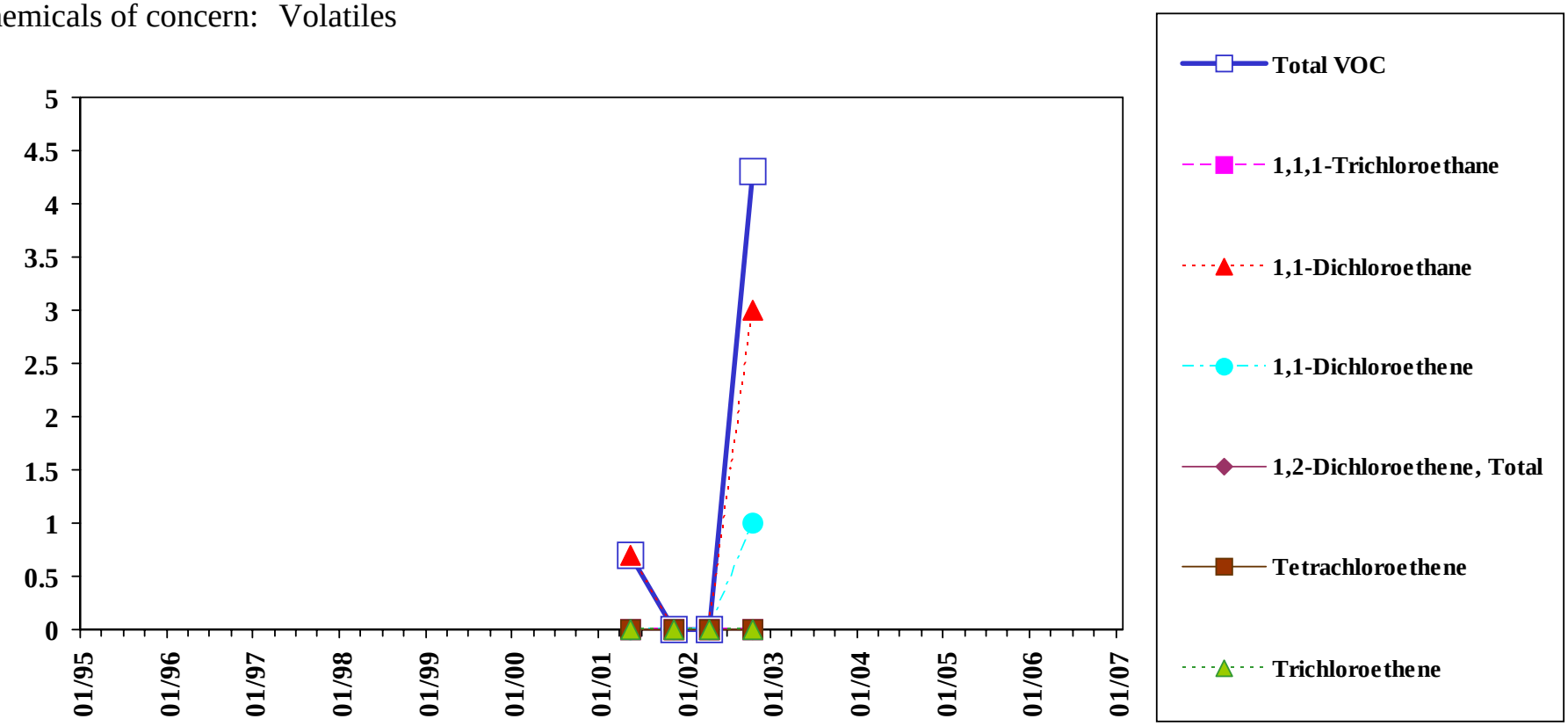
Sample Location:

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

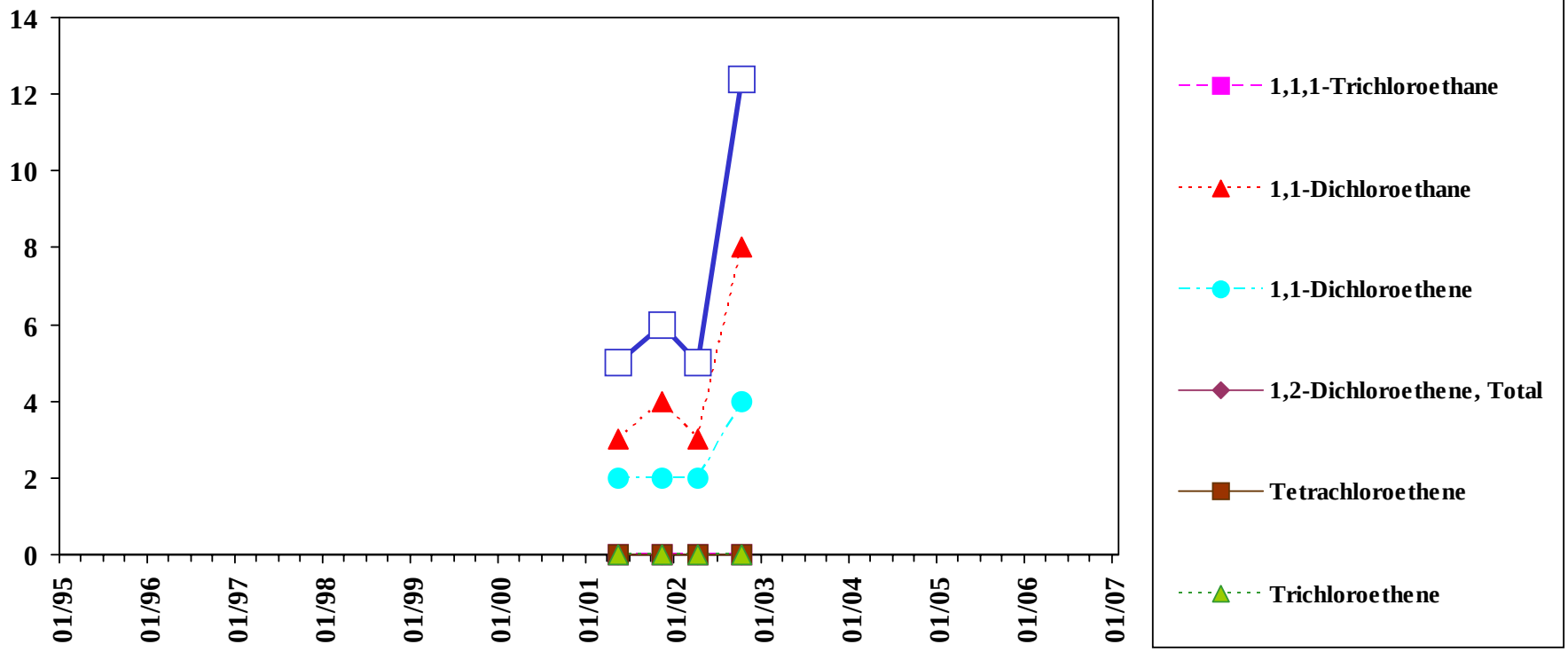
Sample Location:

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

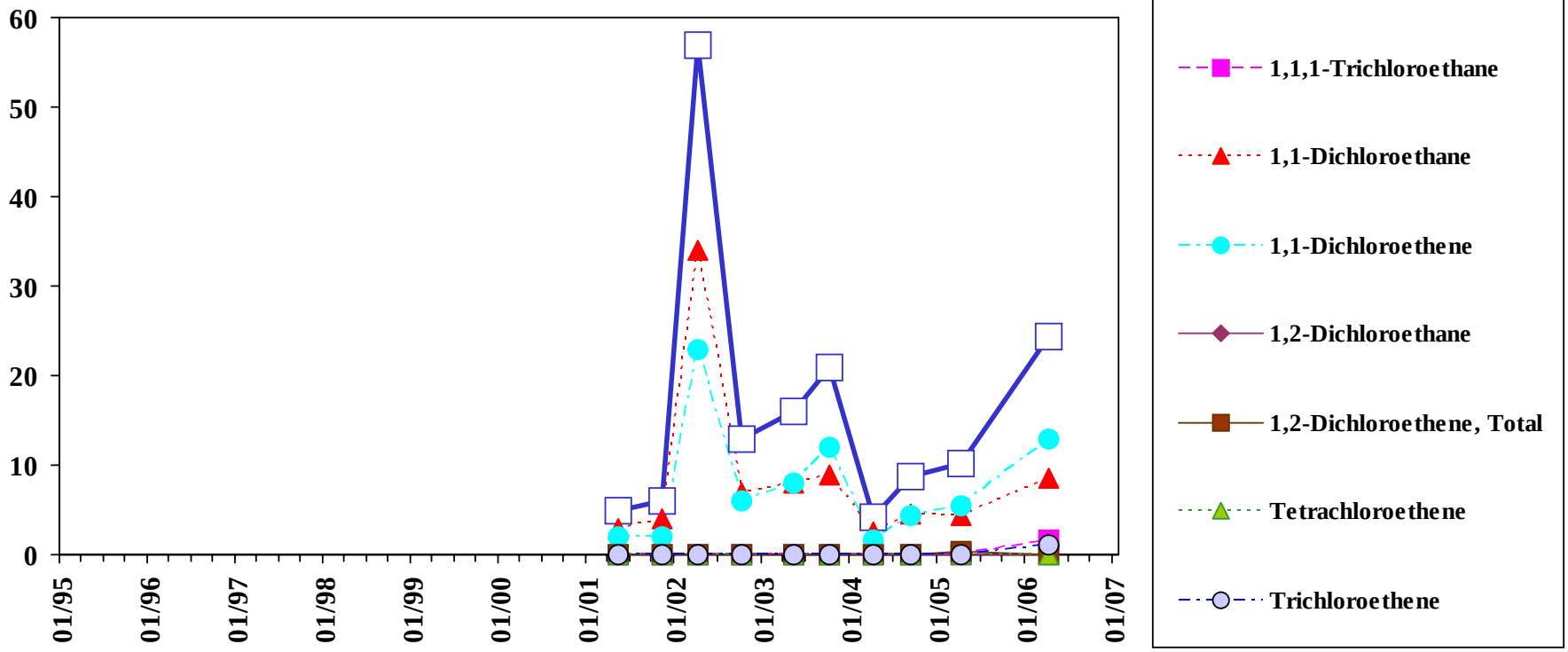
Sample Location:

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

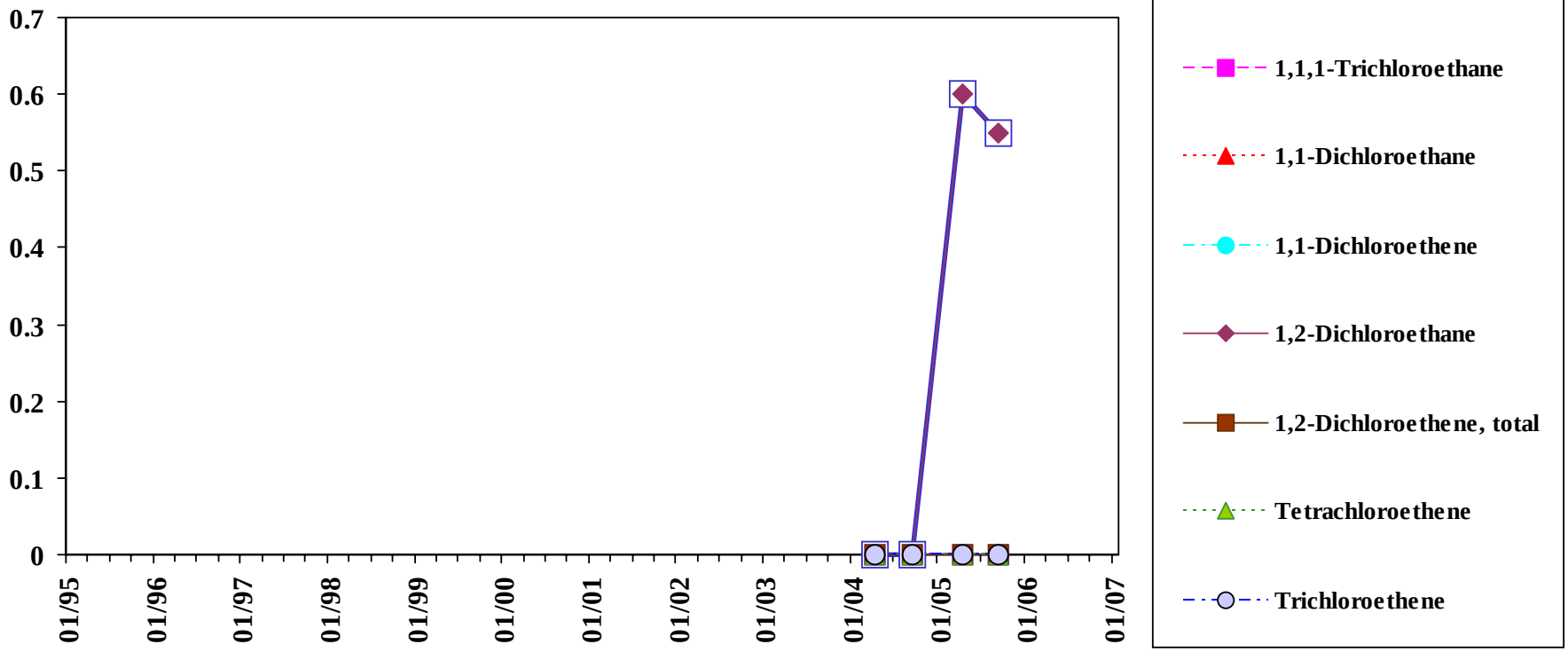
Sample Location:

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

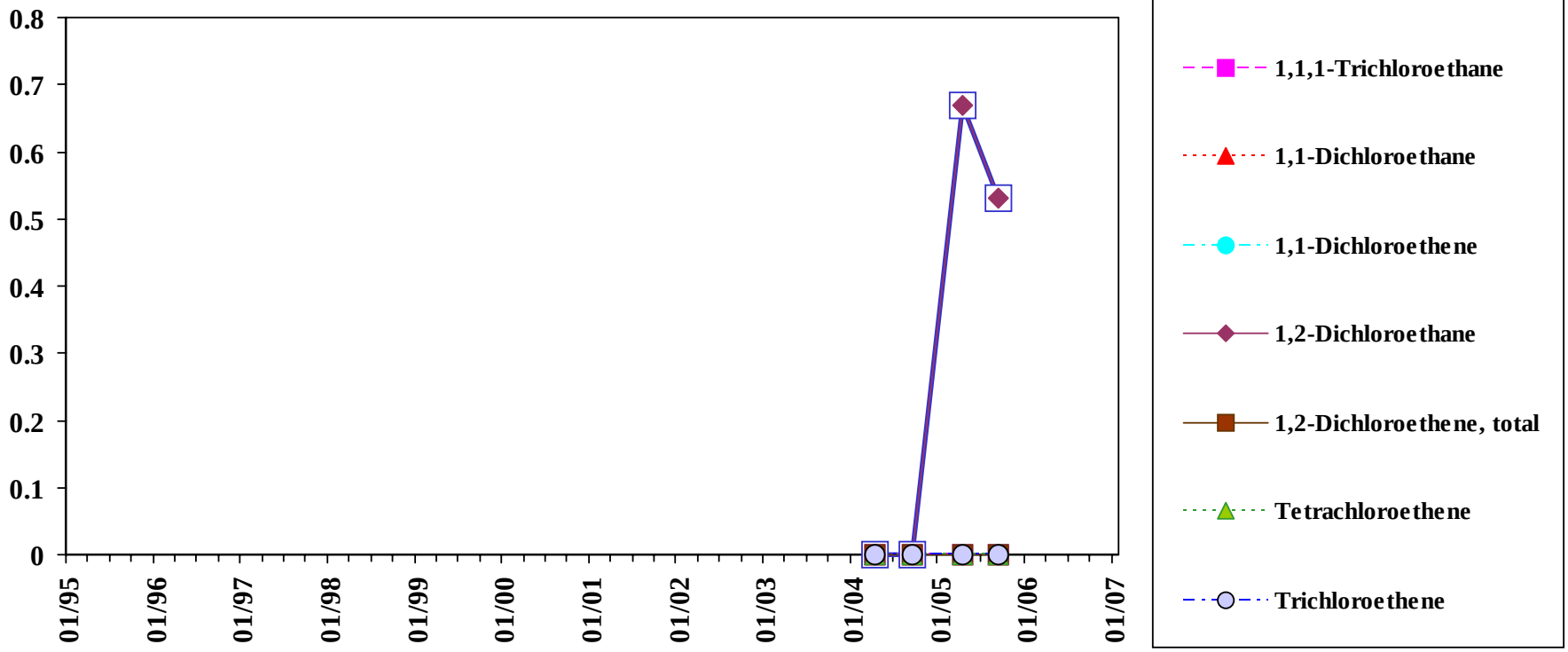
Sample Location:

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

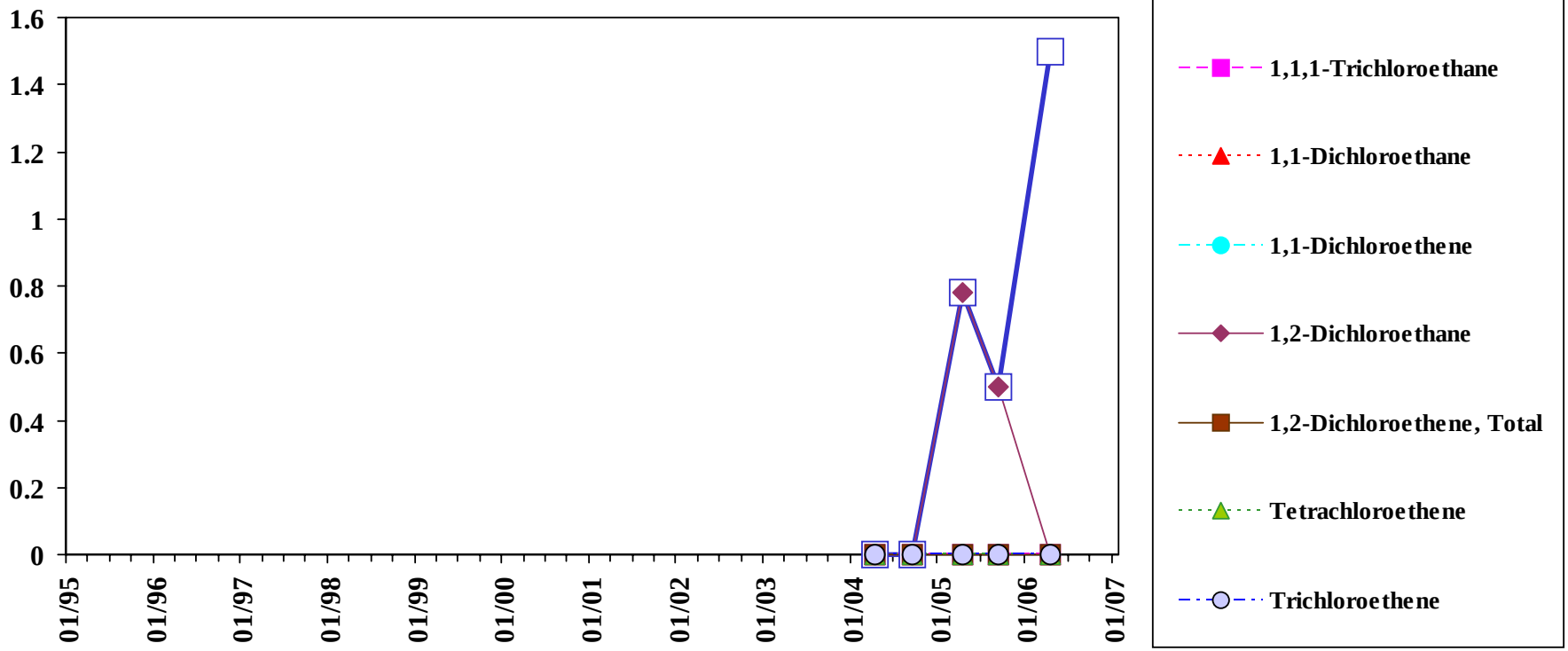
Sample Location:

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

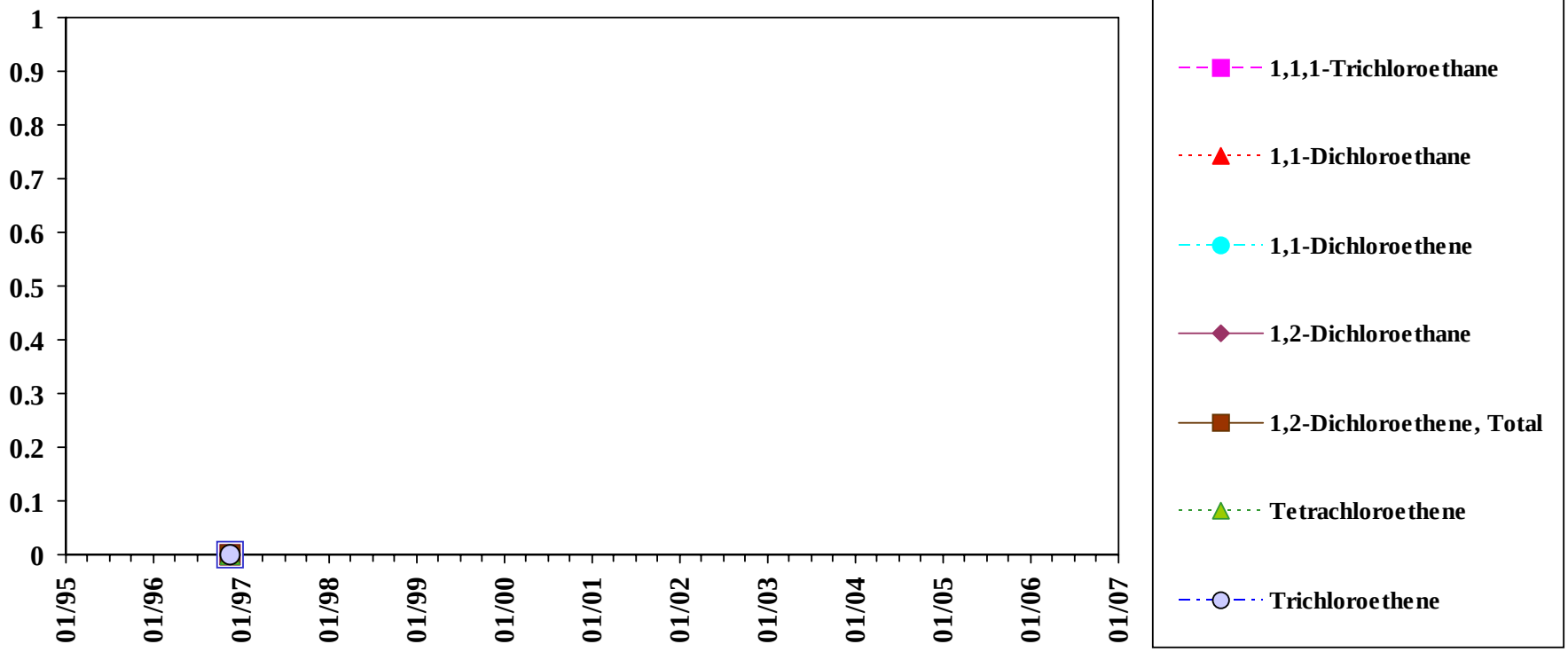
Sample Location:

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

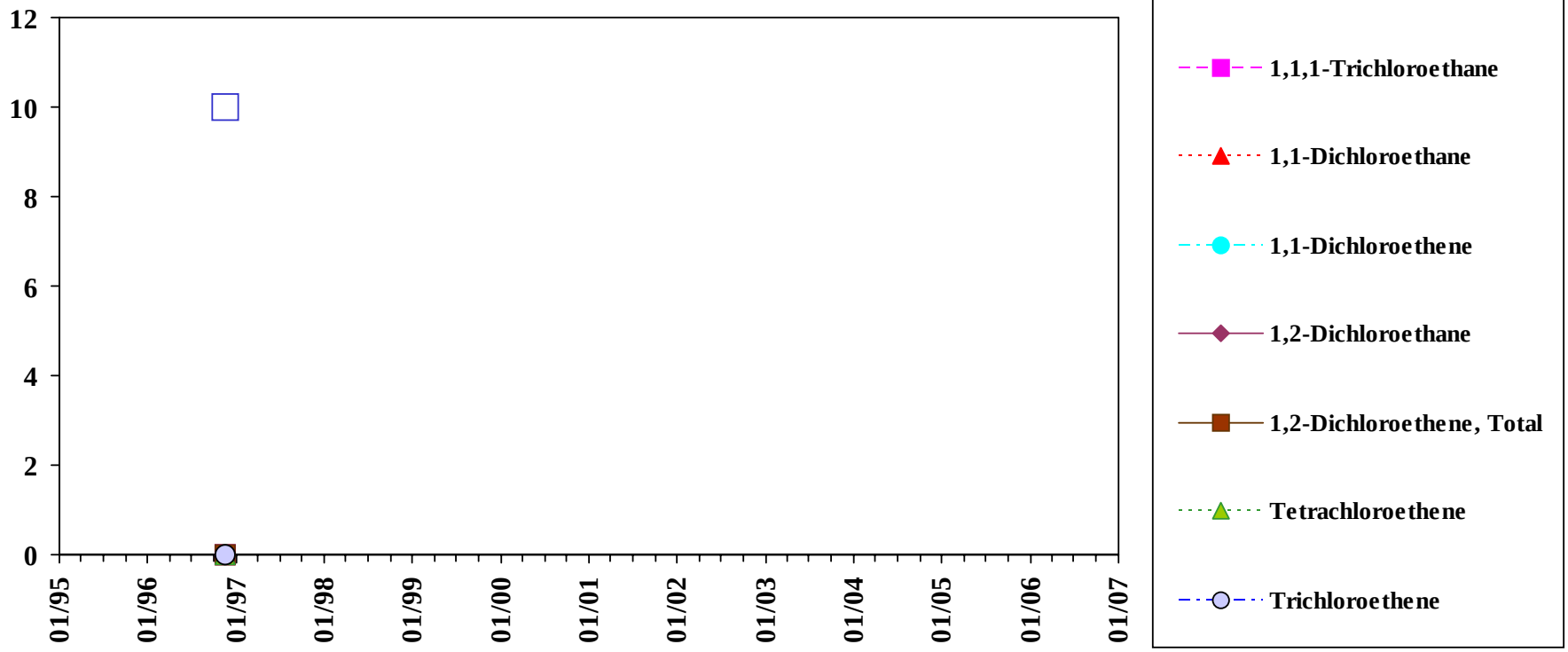
Sample Location:

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

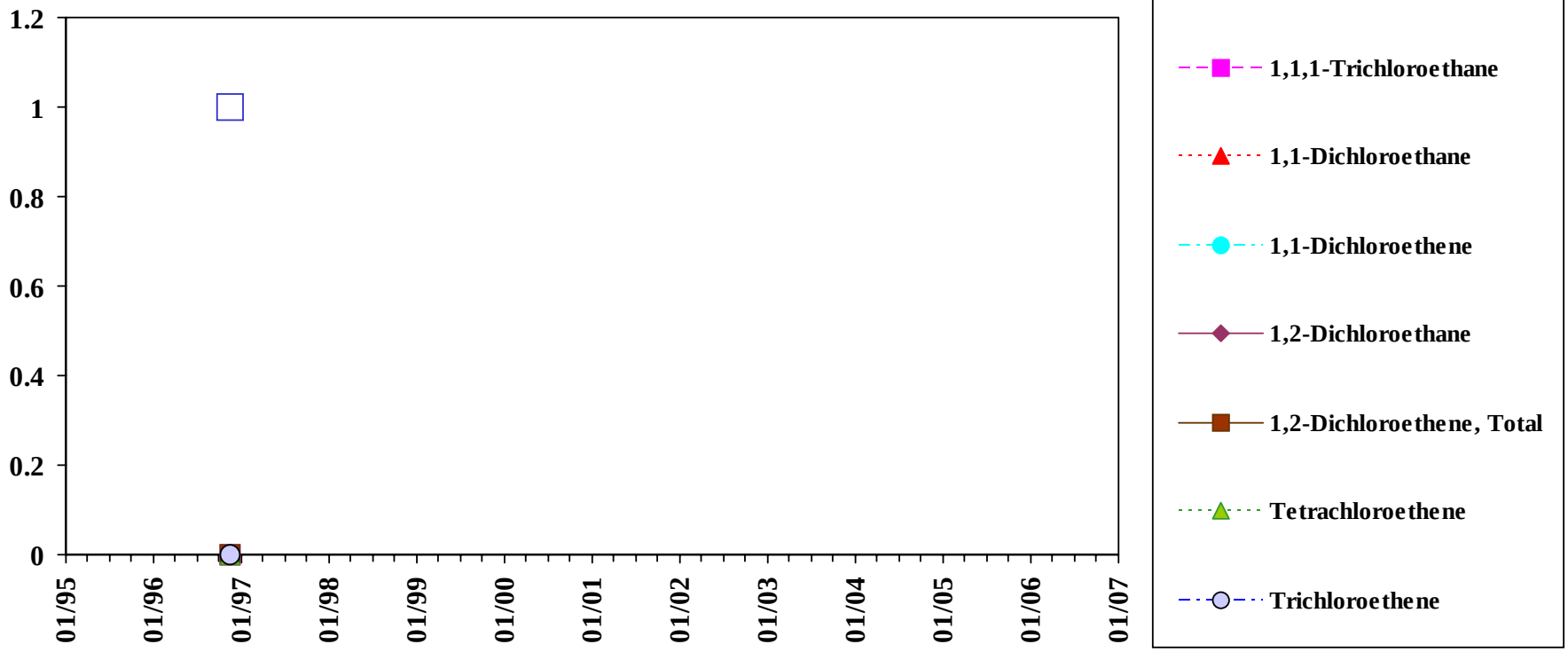
Sample Location:

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

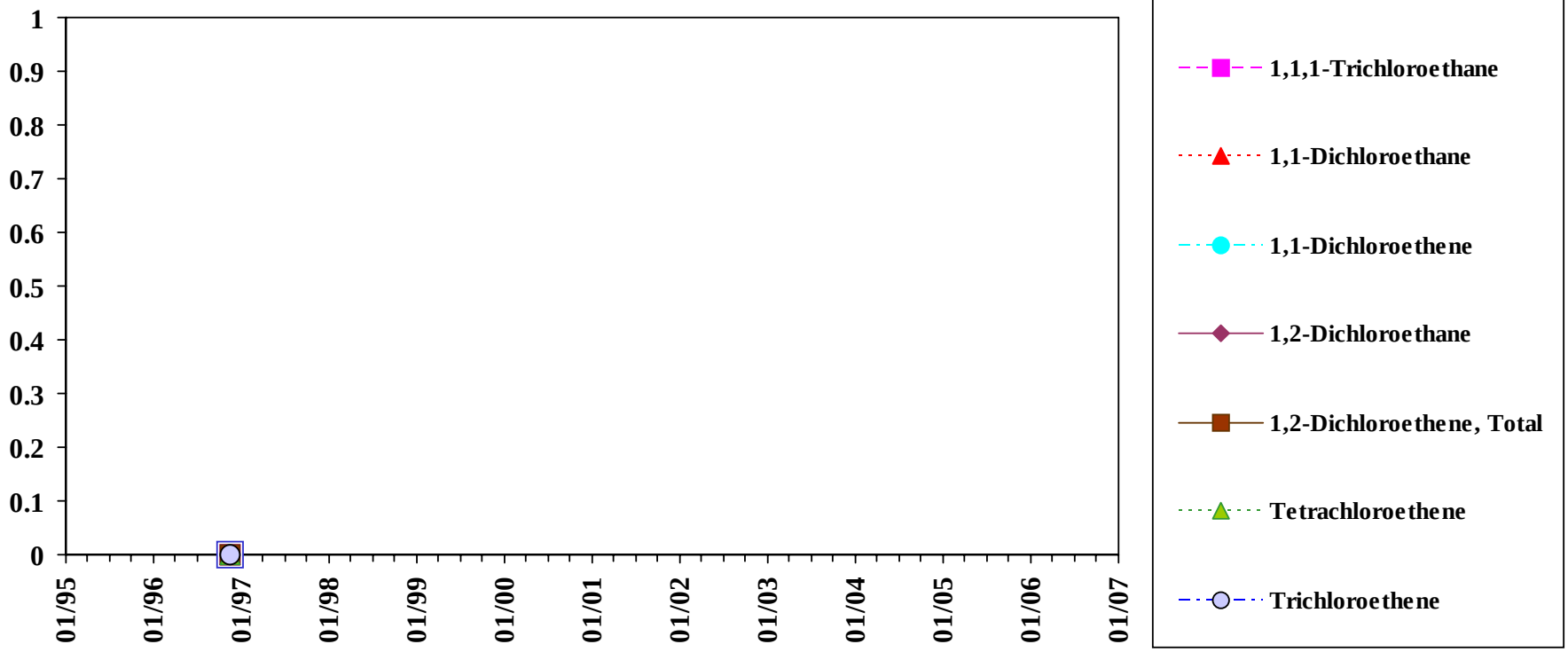
Sample Location:

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

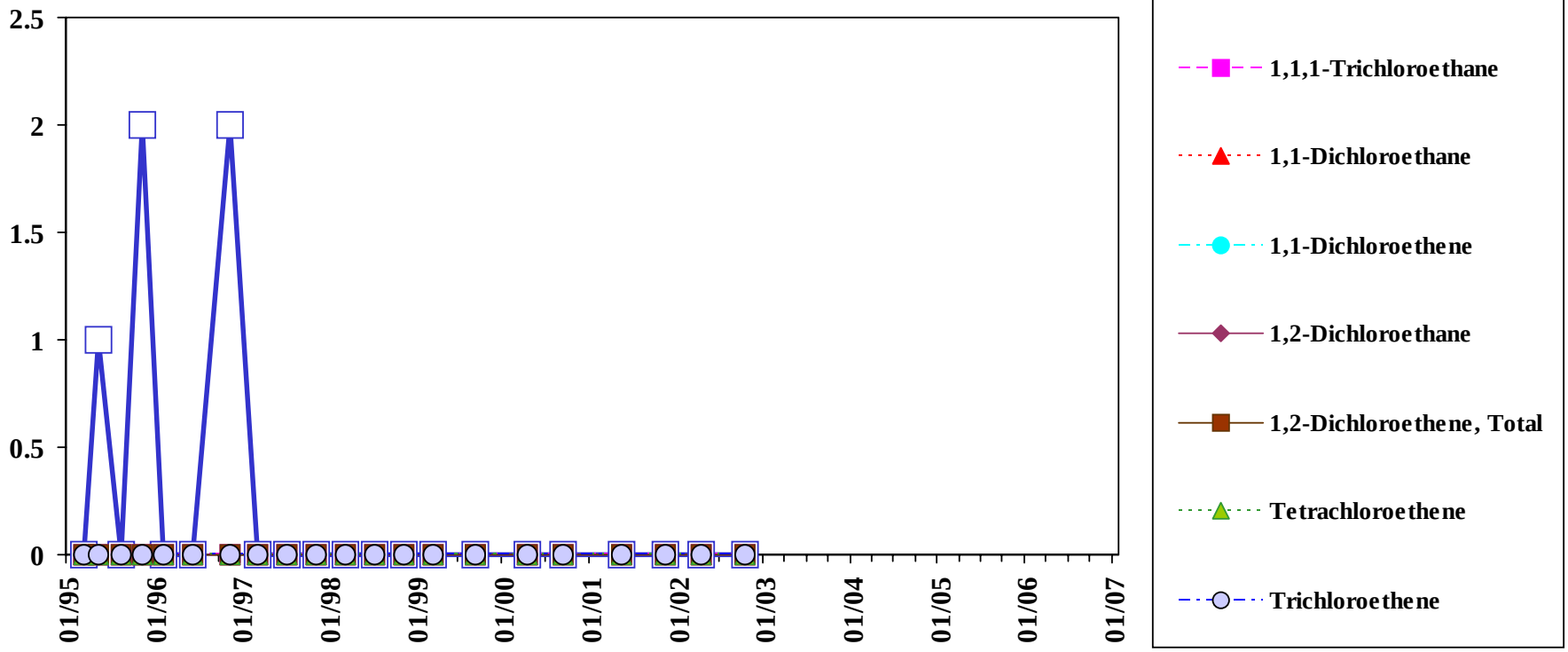
Sample Location:

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

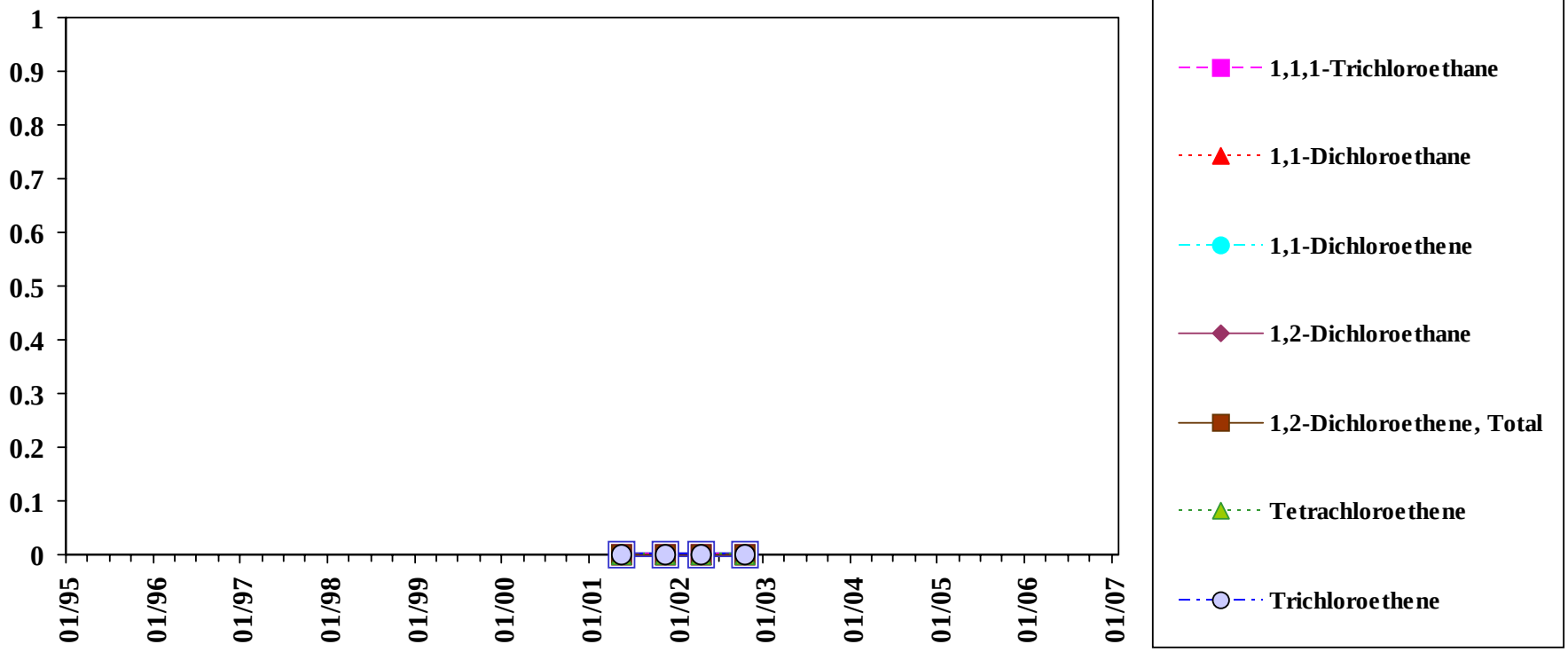
Sample Location:

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

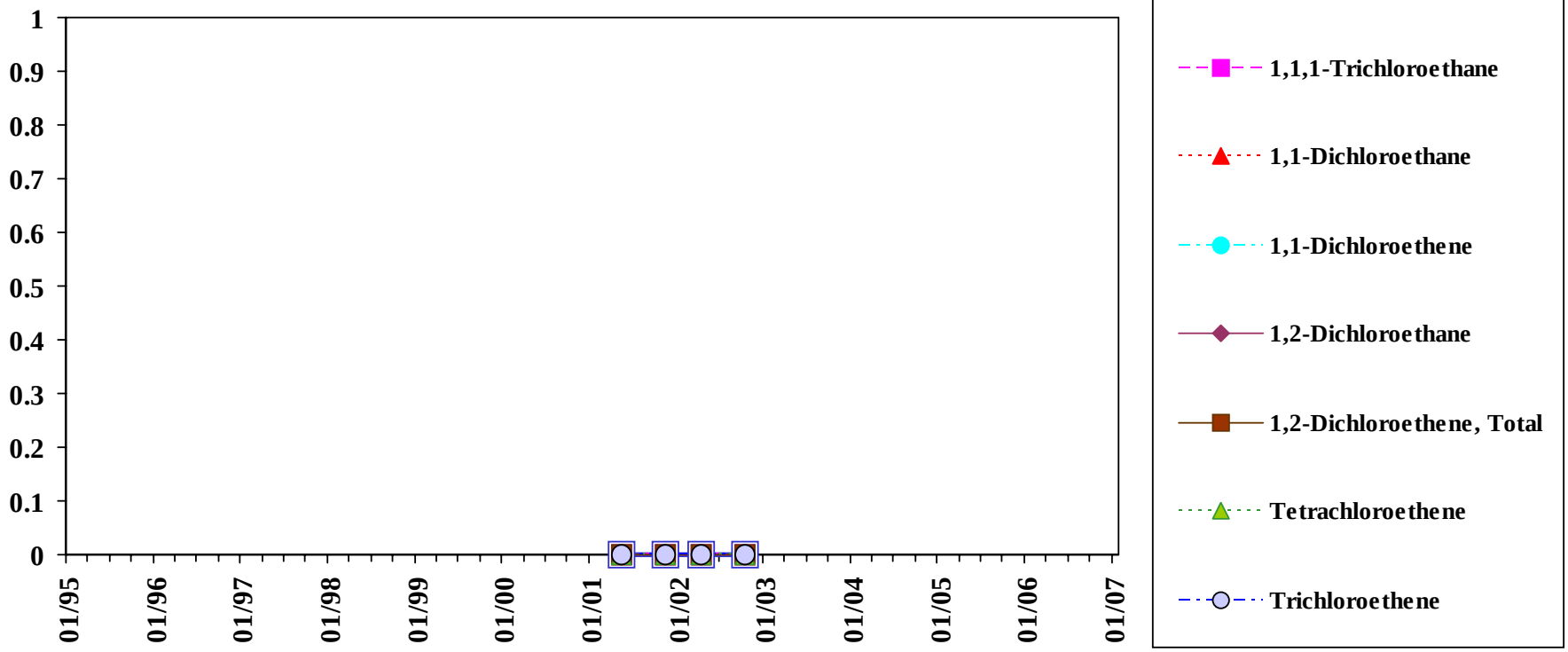
Sample Location:

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

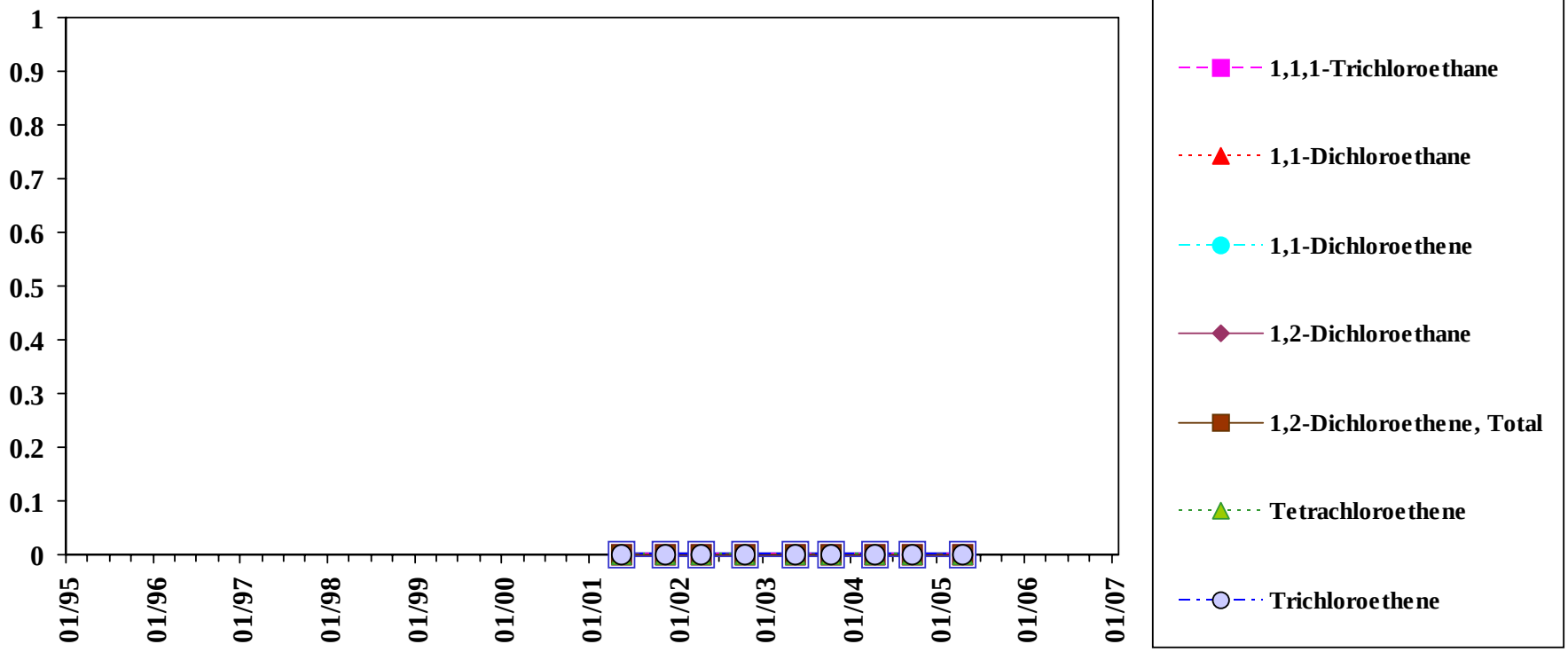
Sample Location:

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

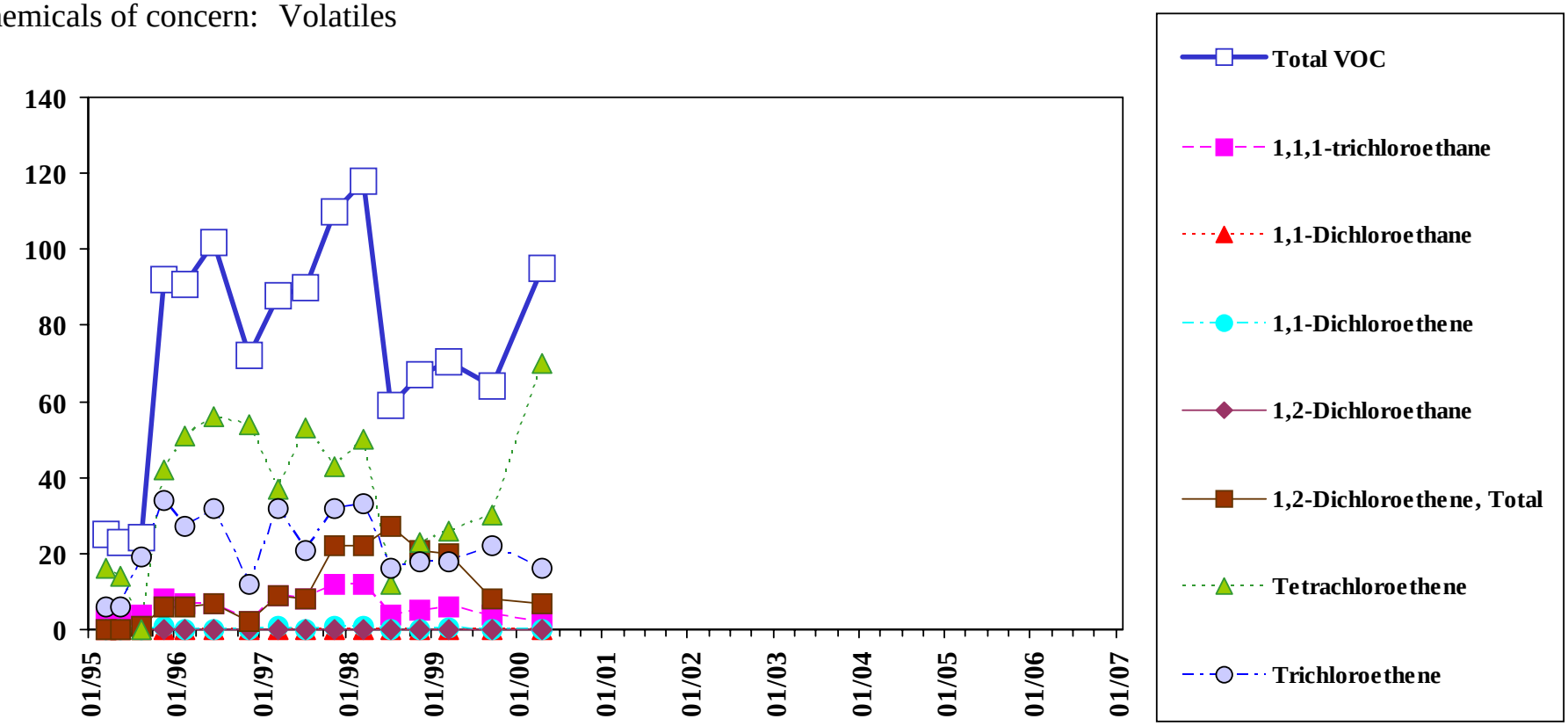
Sample Location:

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

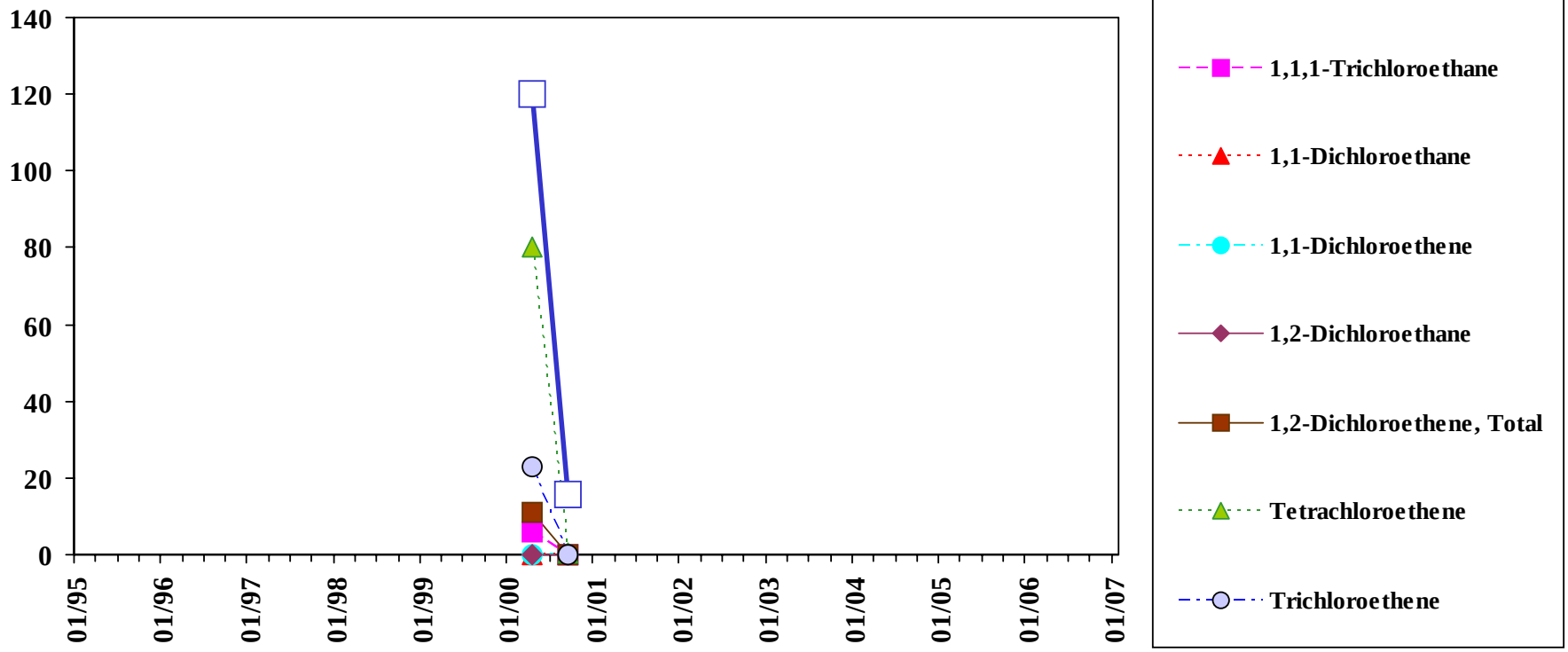
Sample Location:

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

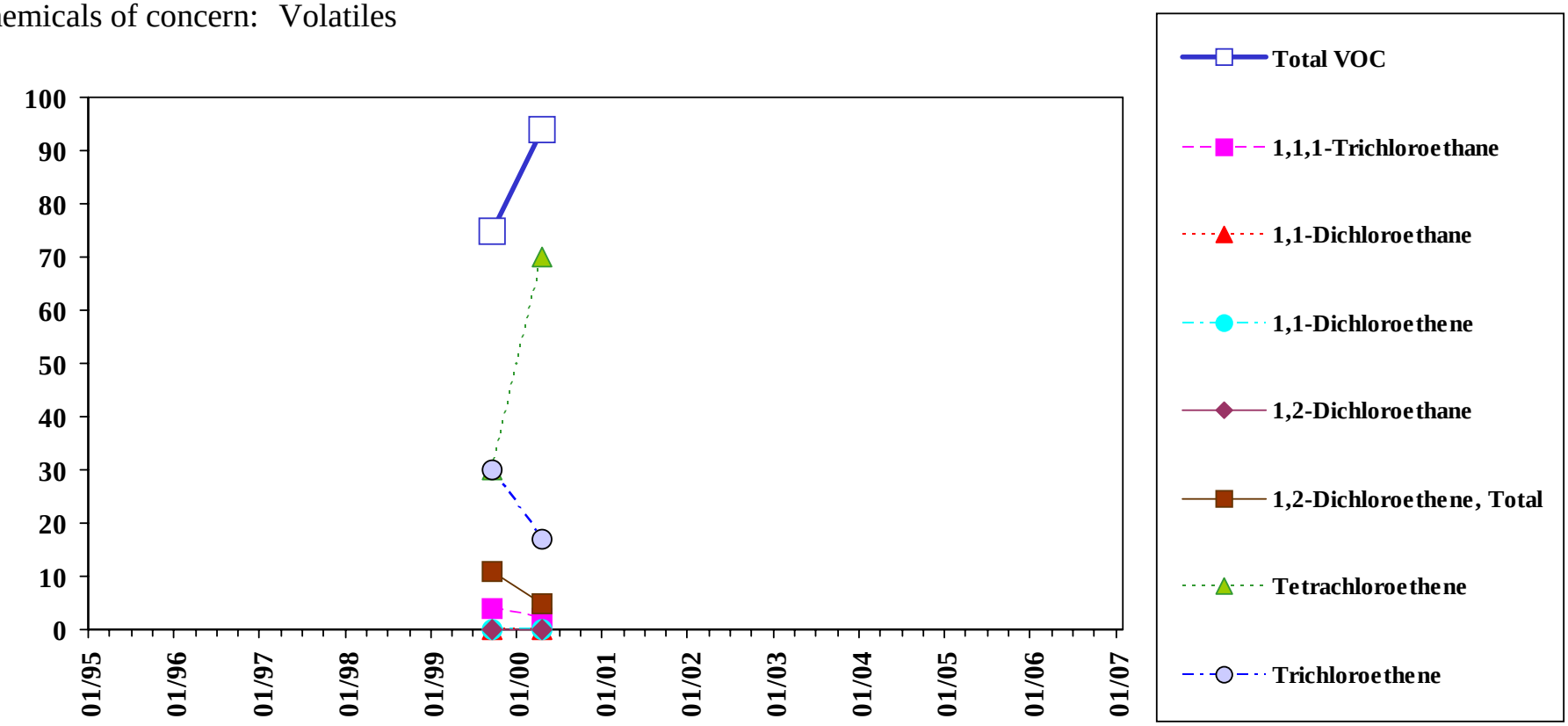
Sample Location:

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

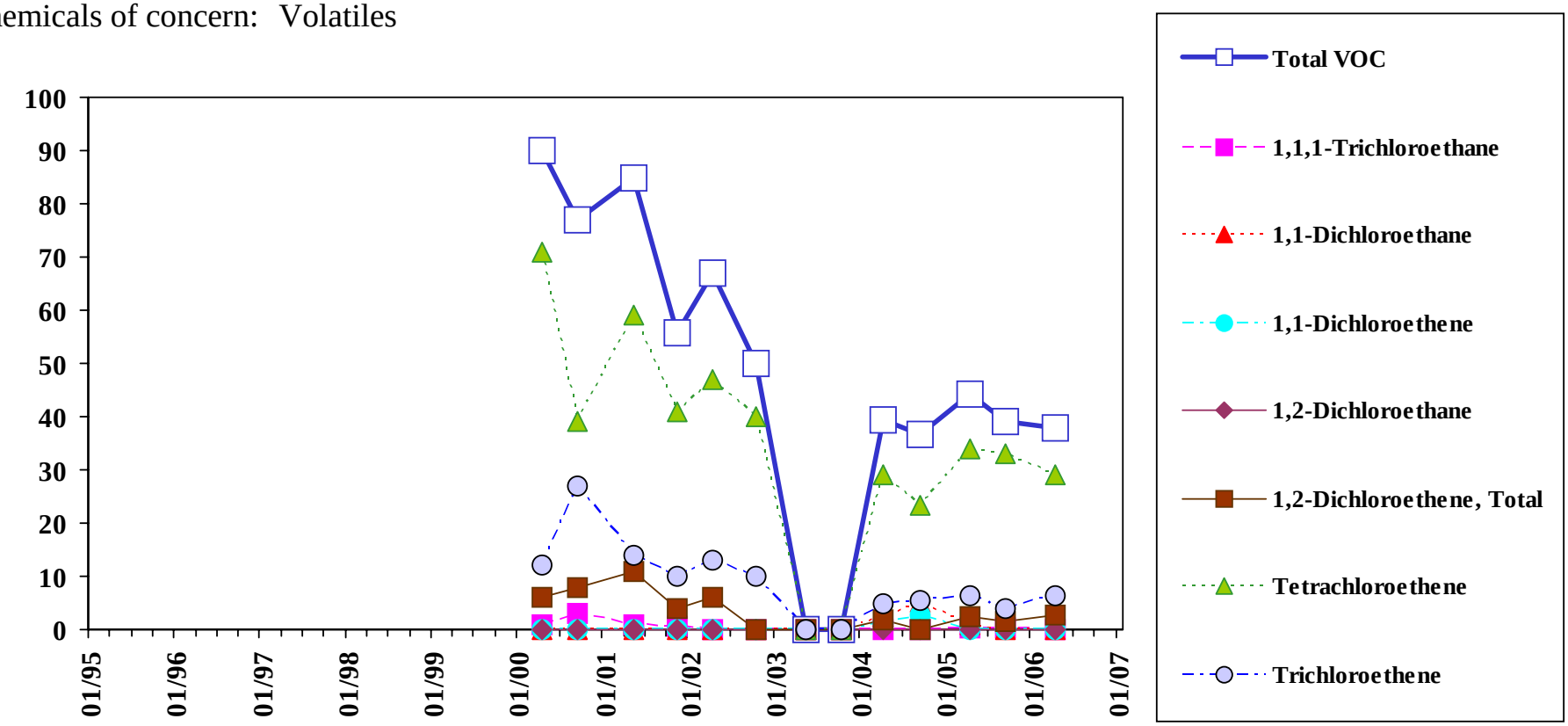
Sample Location:

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

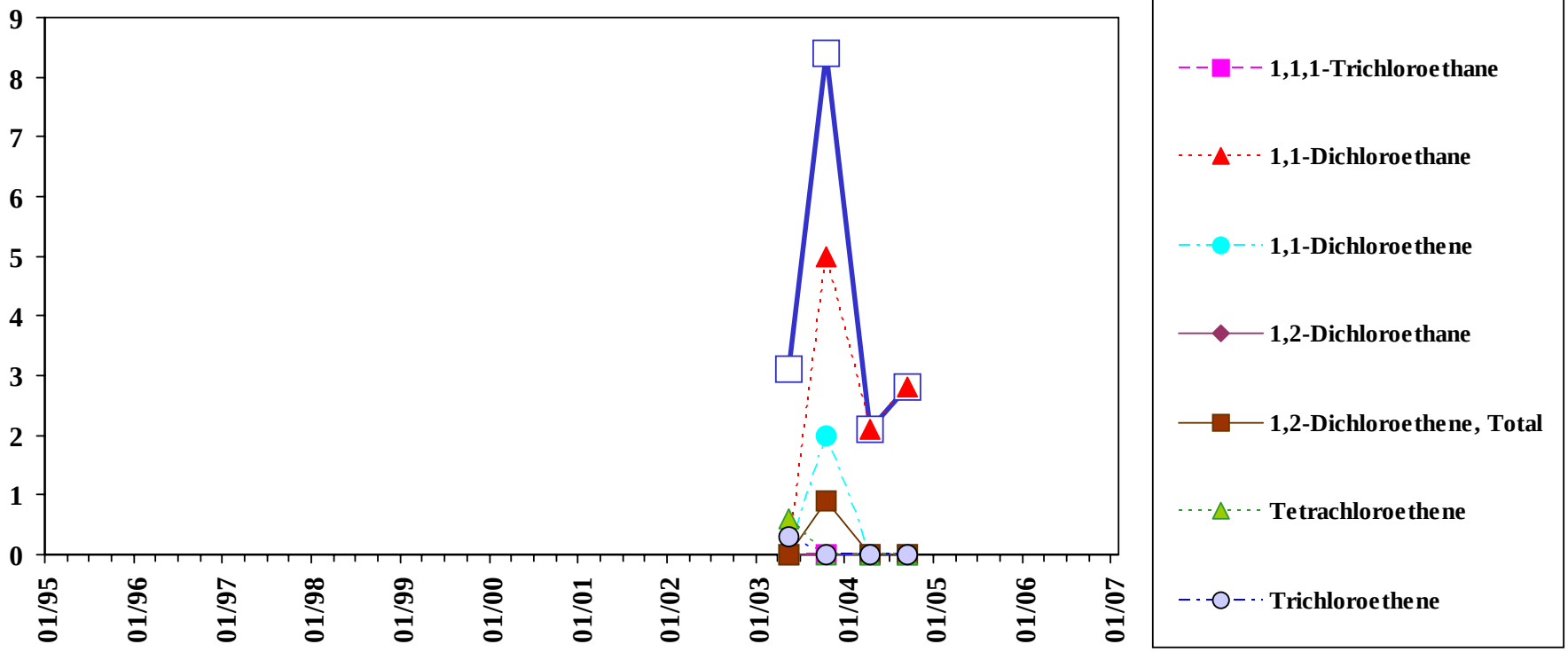
Sample Location:

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

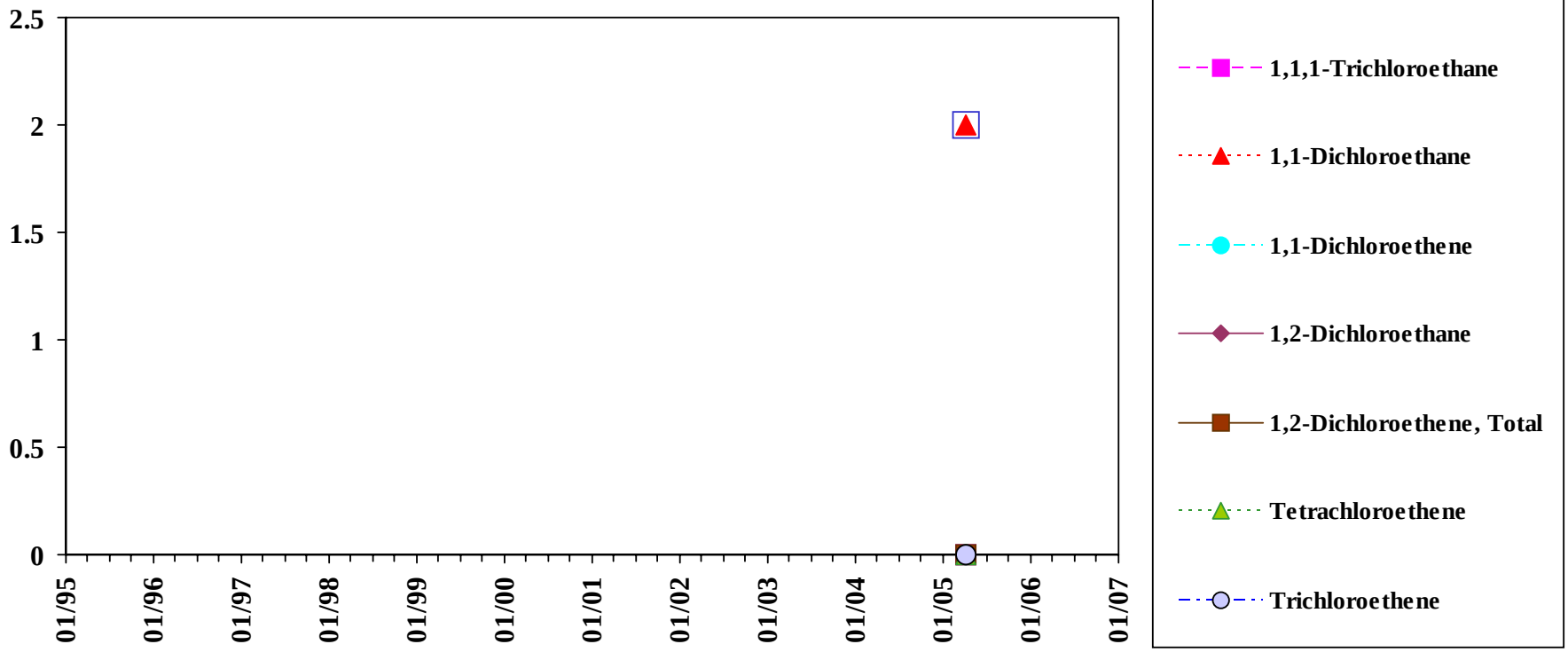
Sample Location:

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

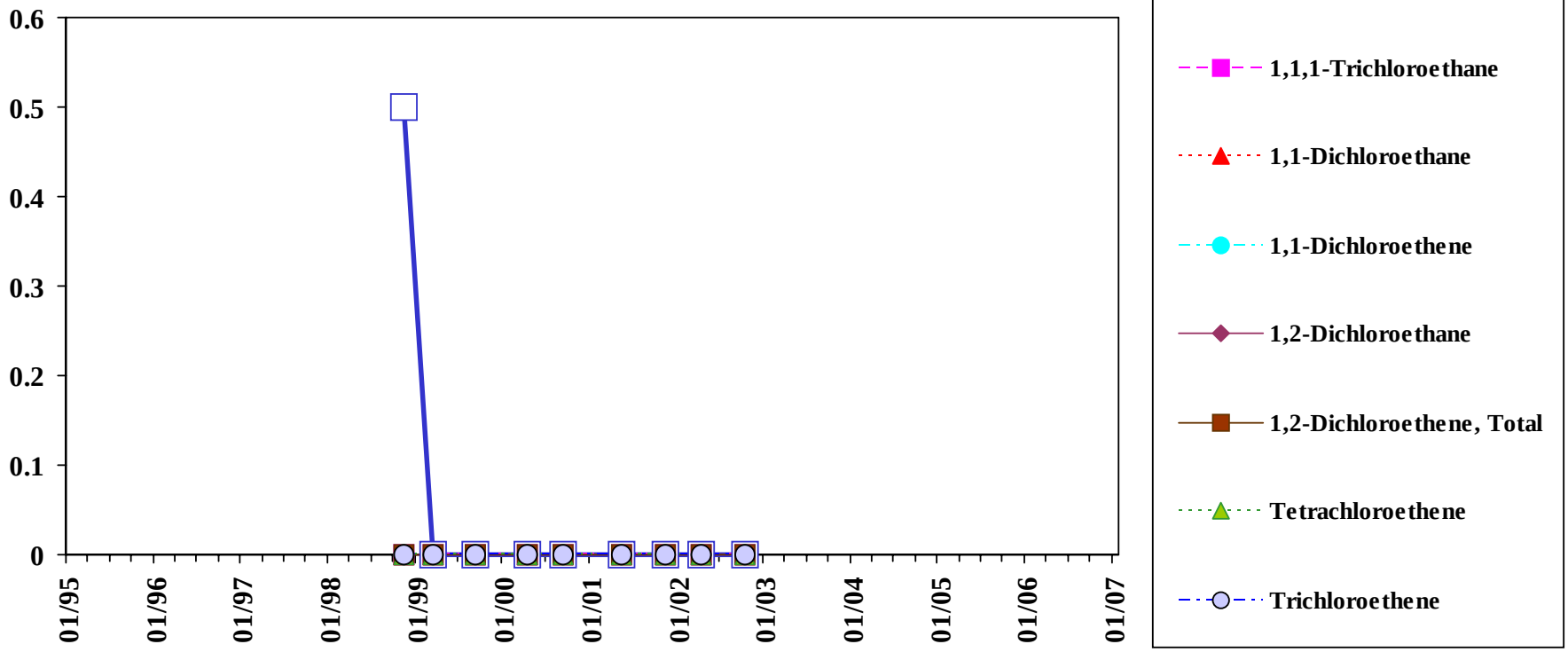
Sample Location:

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

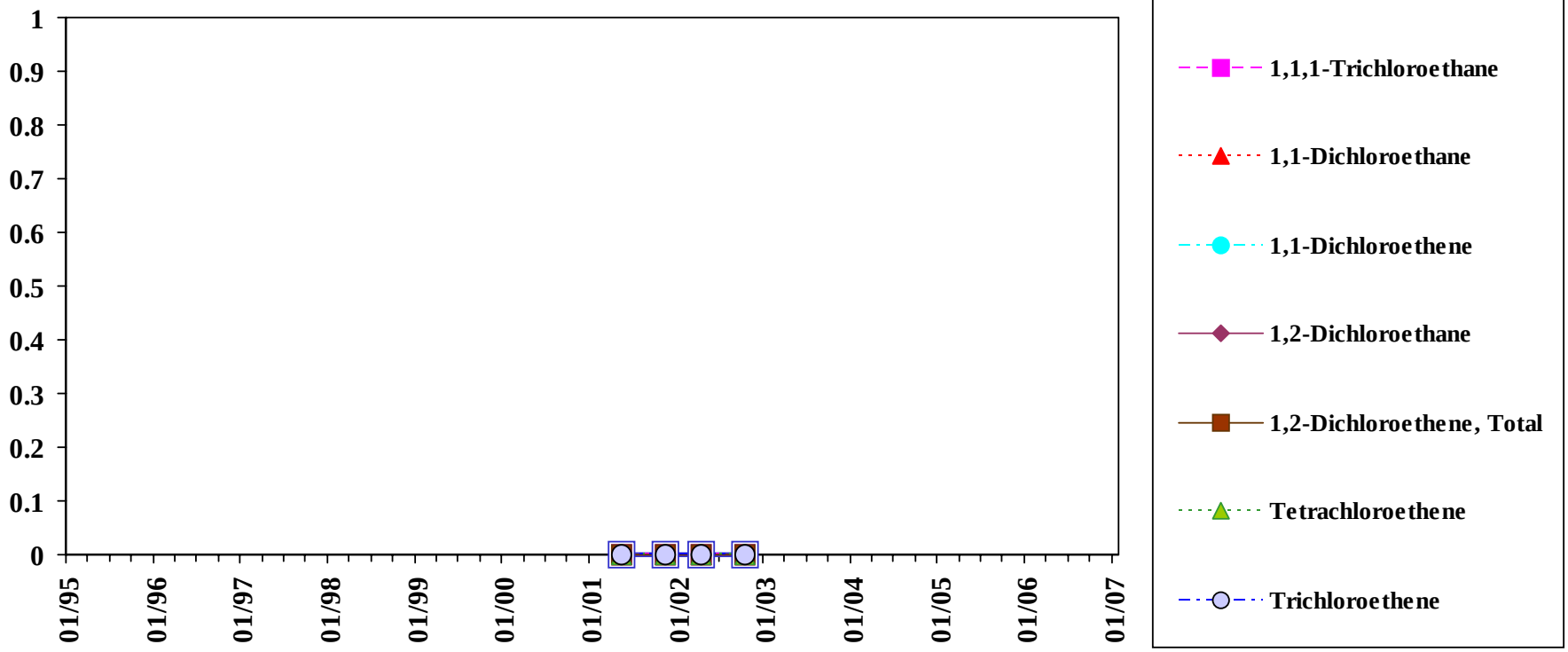
Sample Location:

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

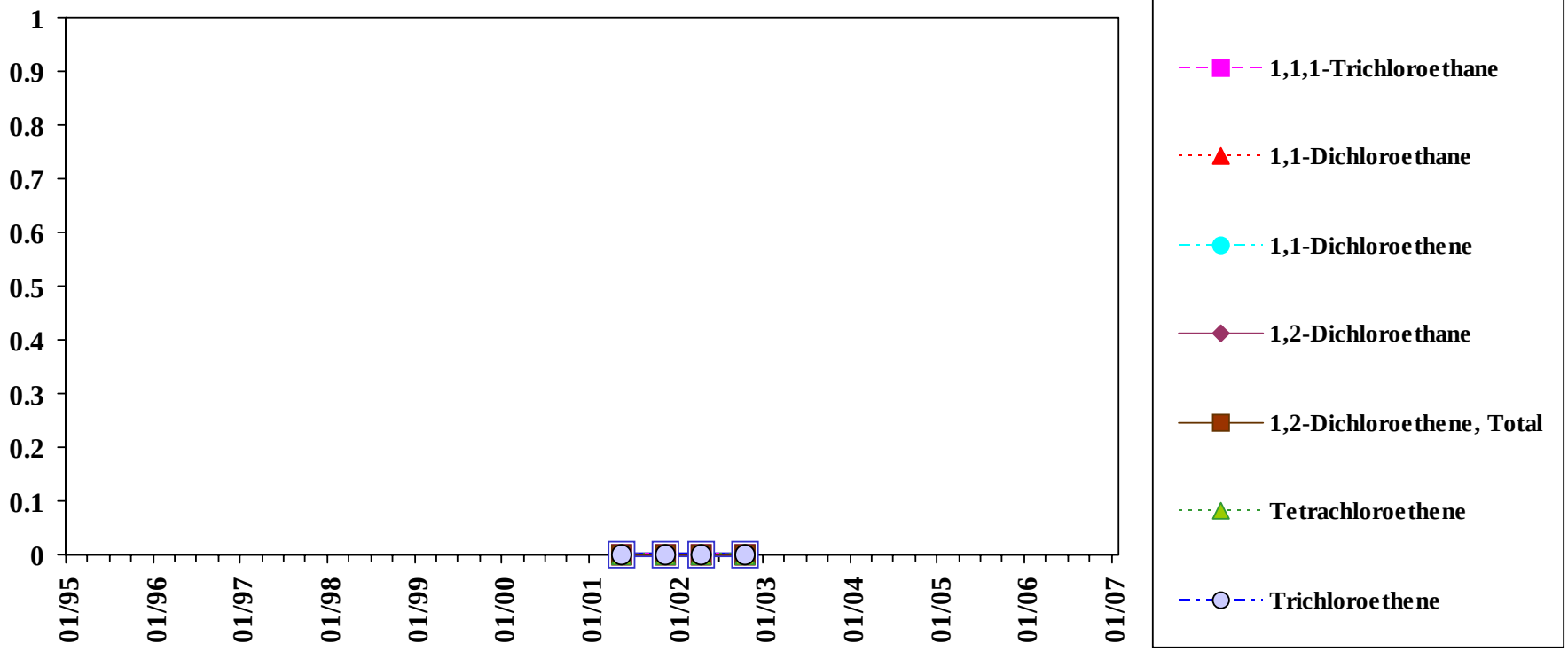
Sample Location:

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

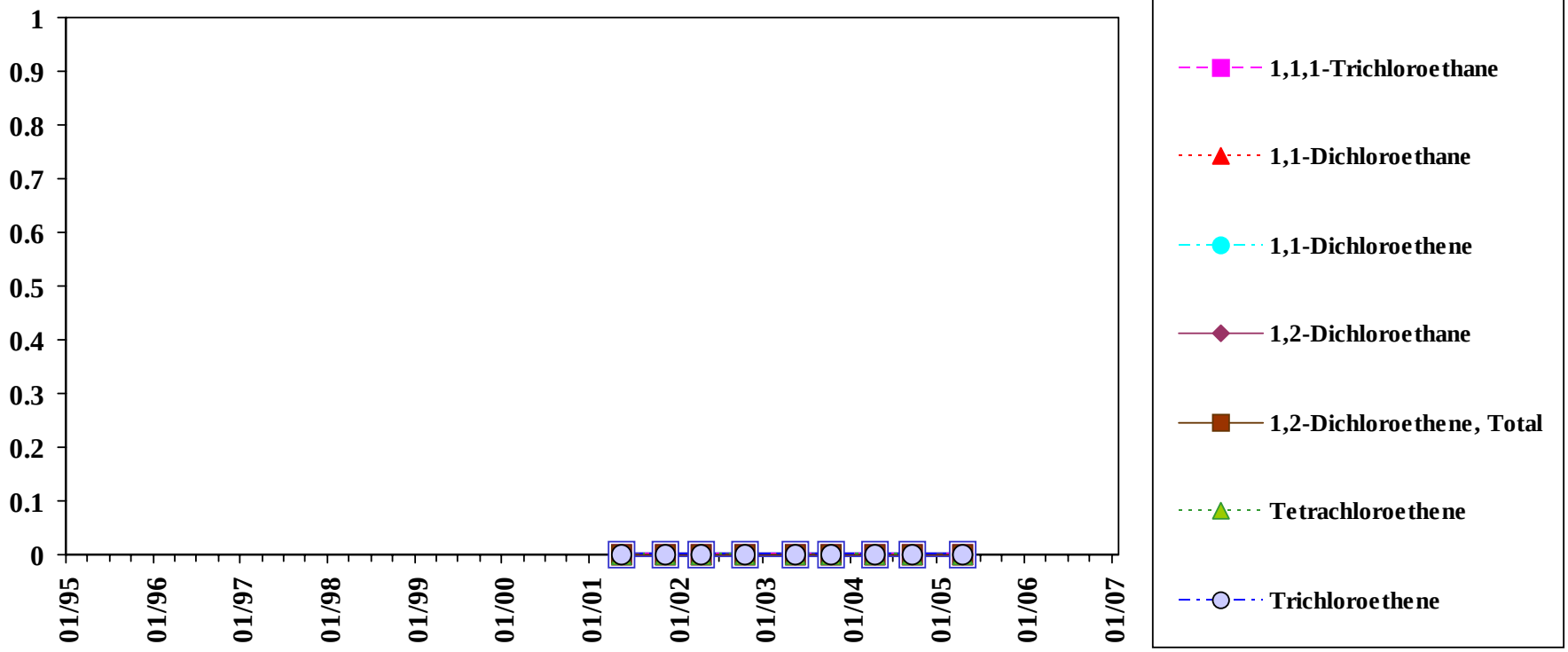
Sample Location:

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

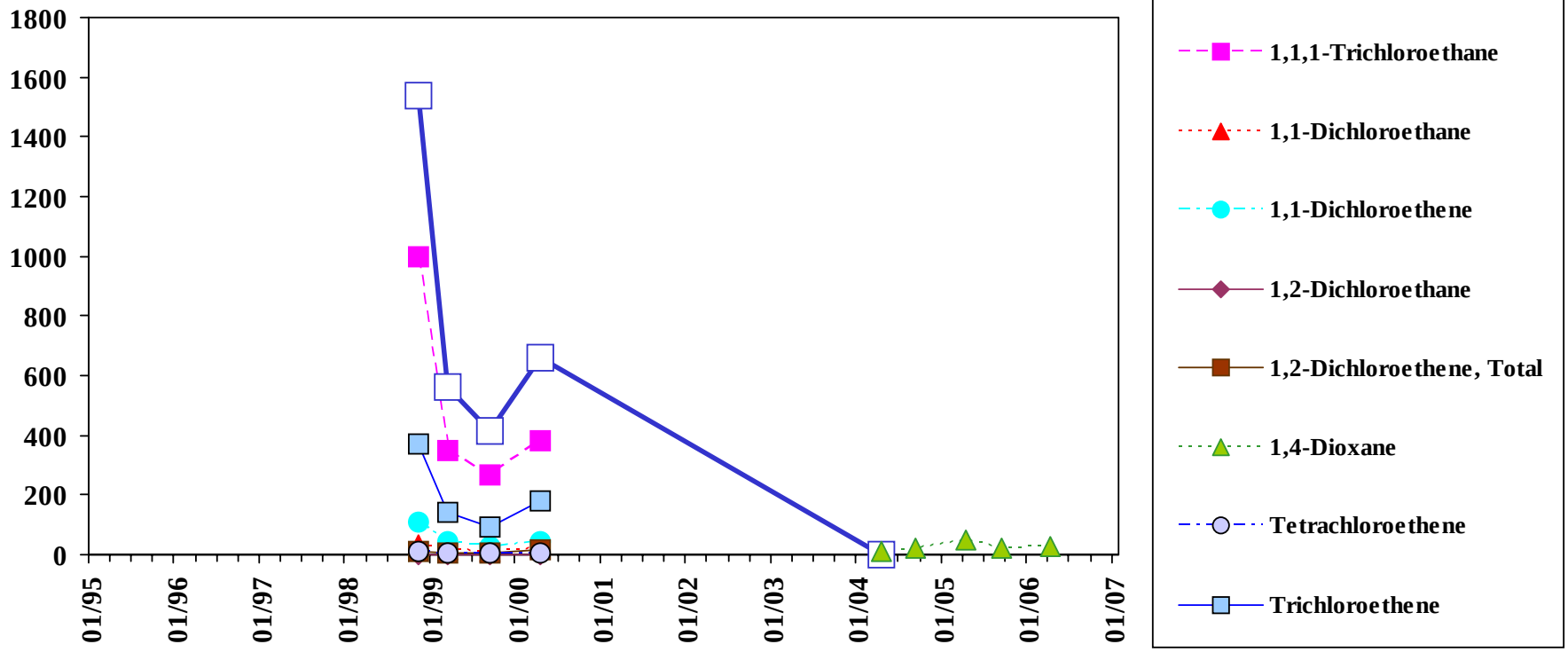
Sample Location:

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

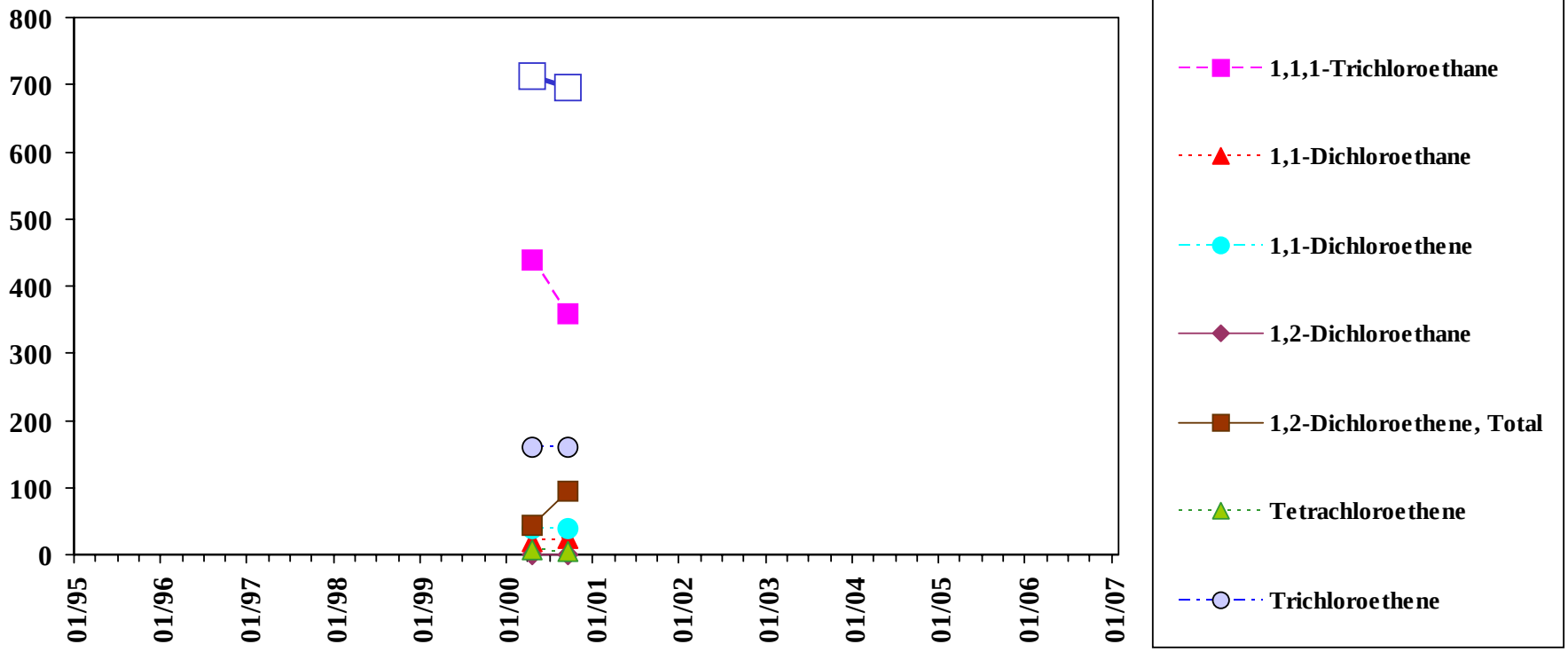
Sample Location:

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

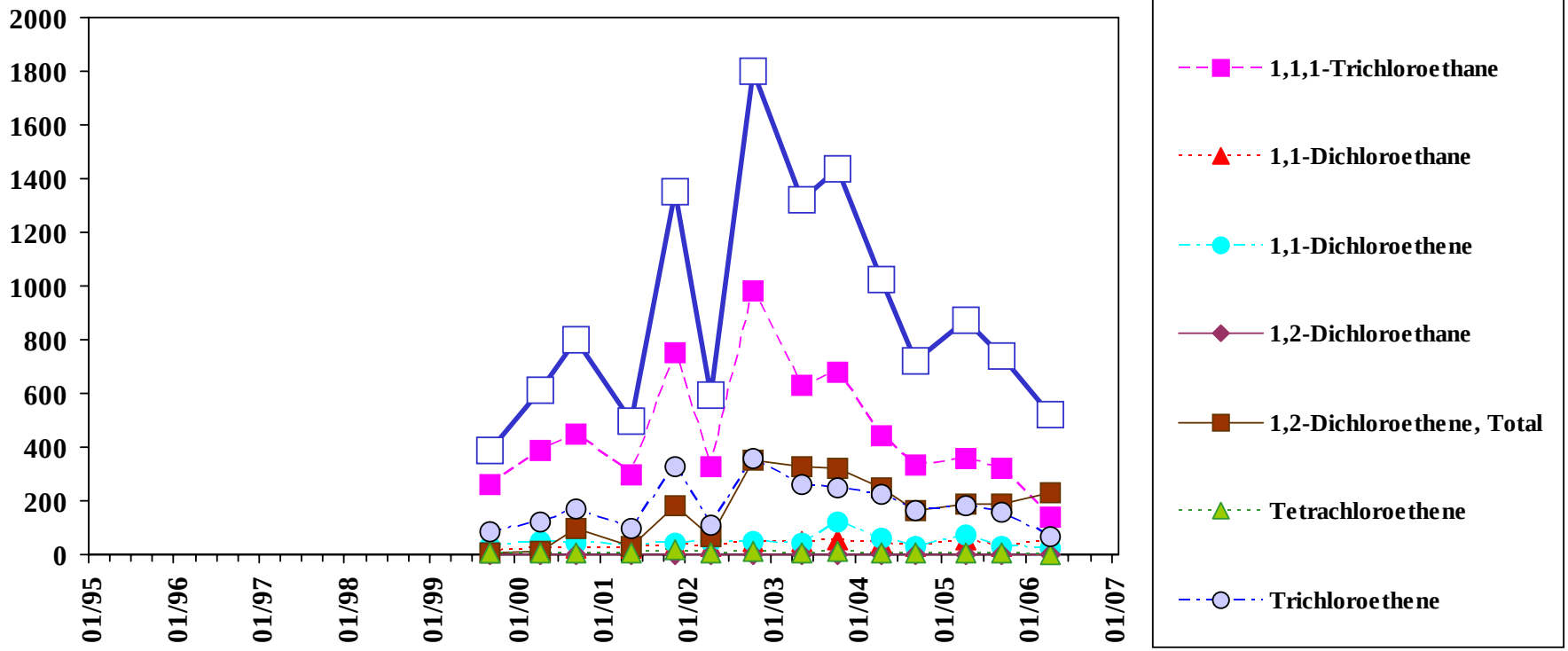
Sample Location:

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

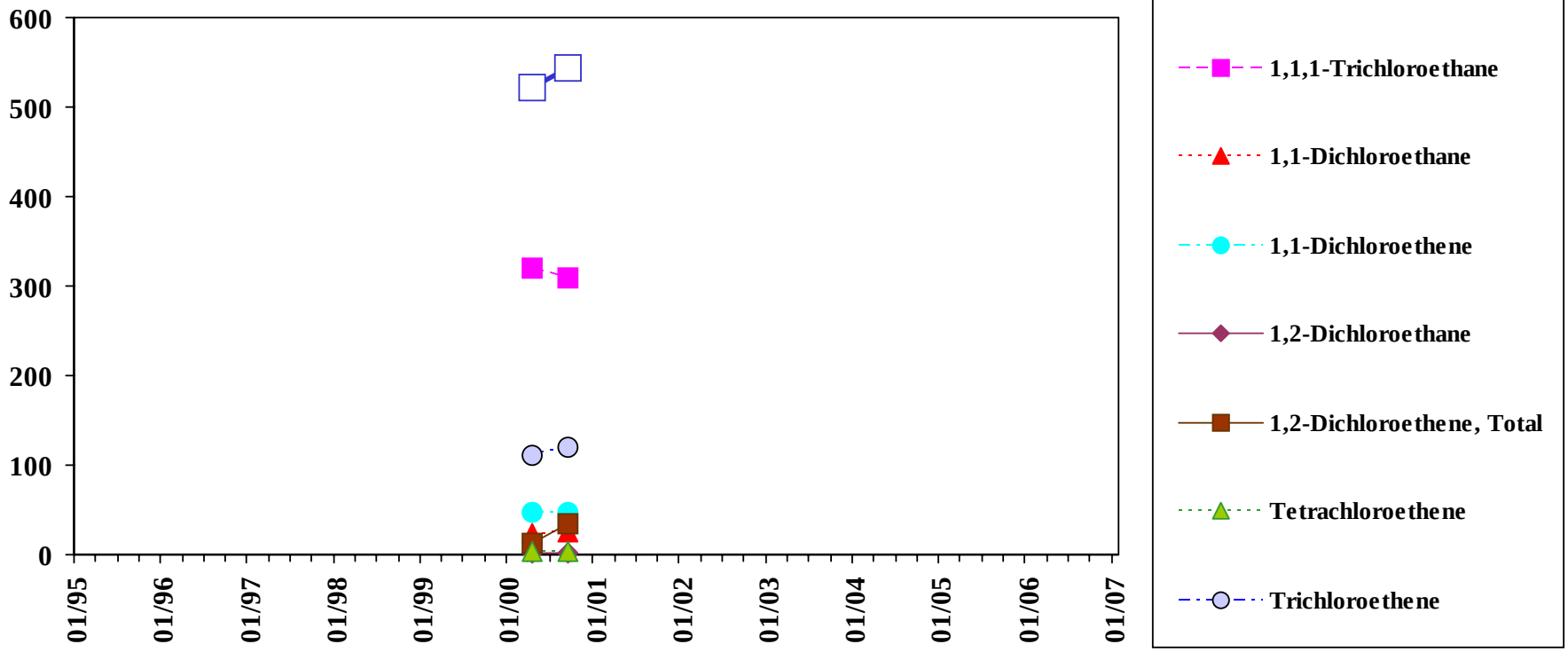
Sample Location:

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

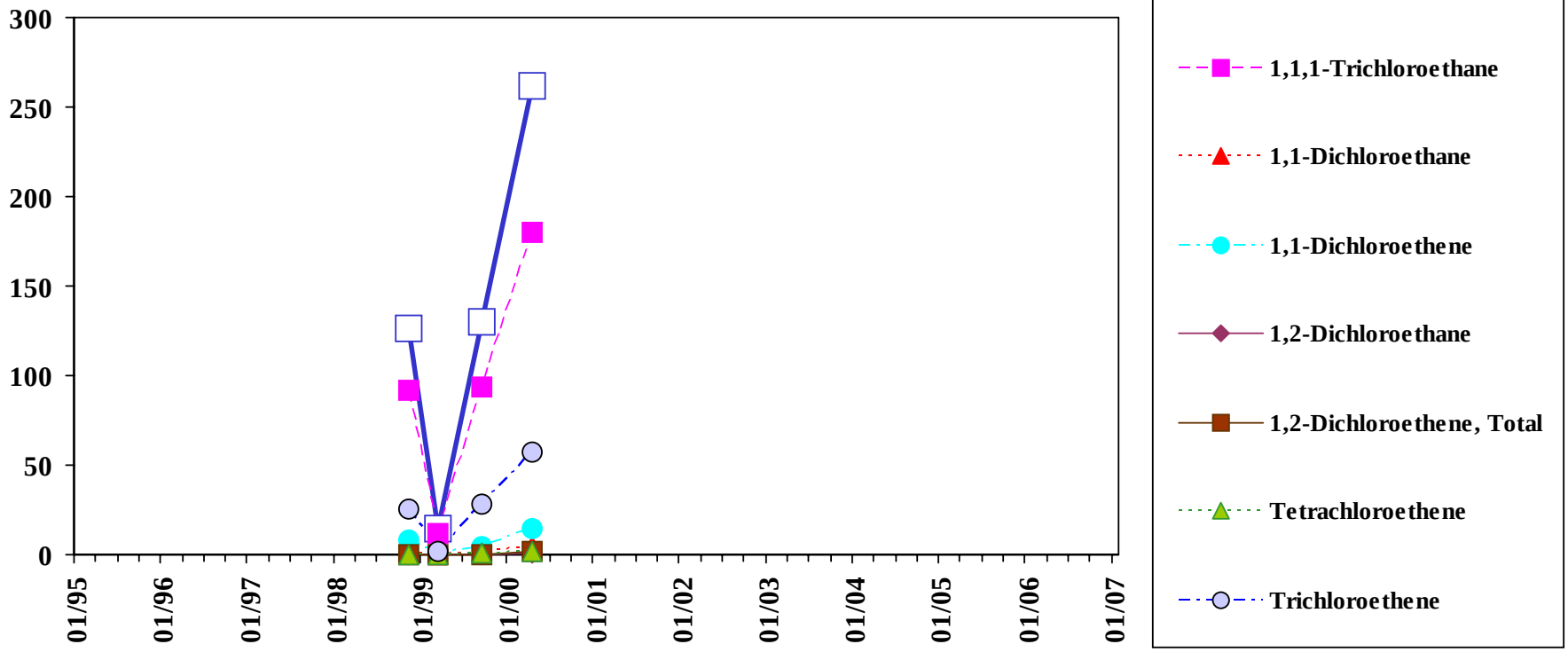
Sample Location:

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

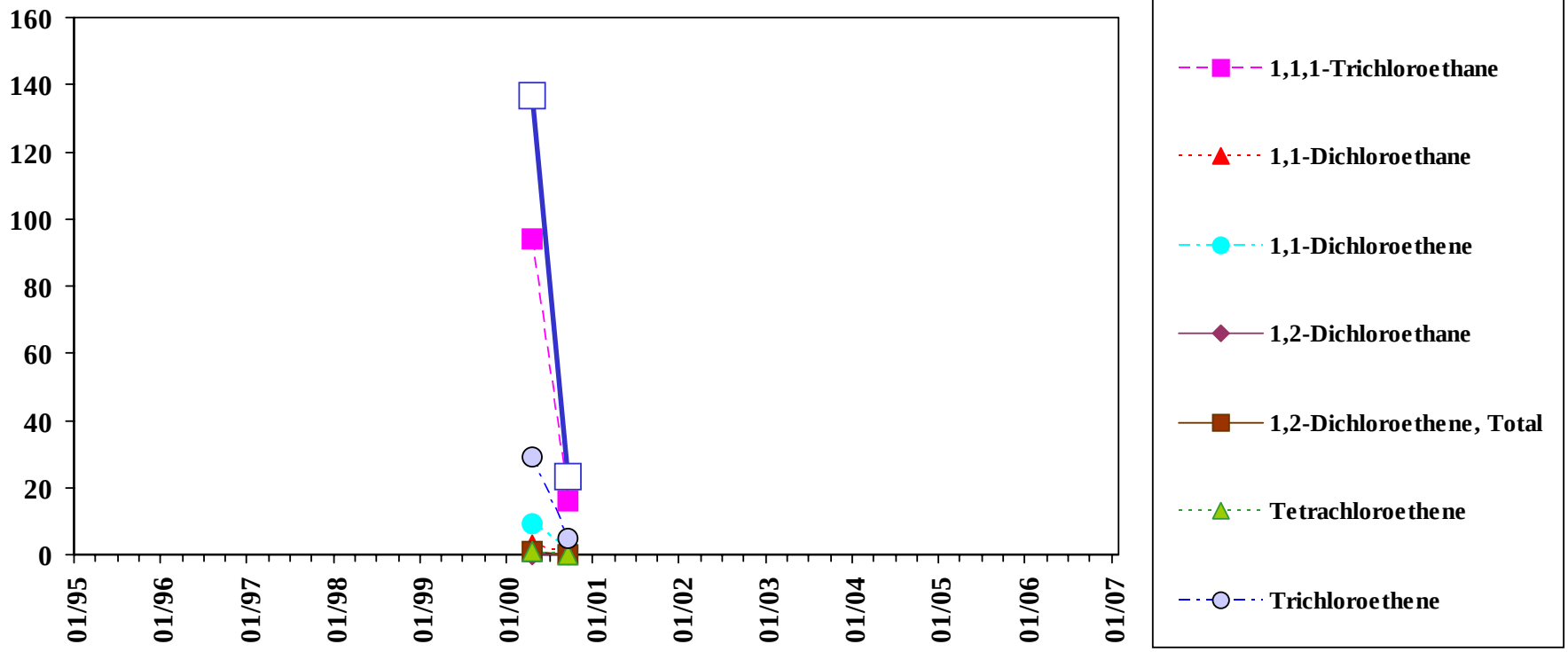
Sample Location:

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

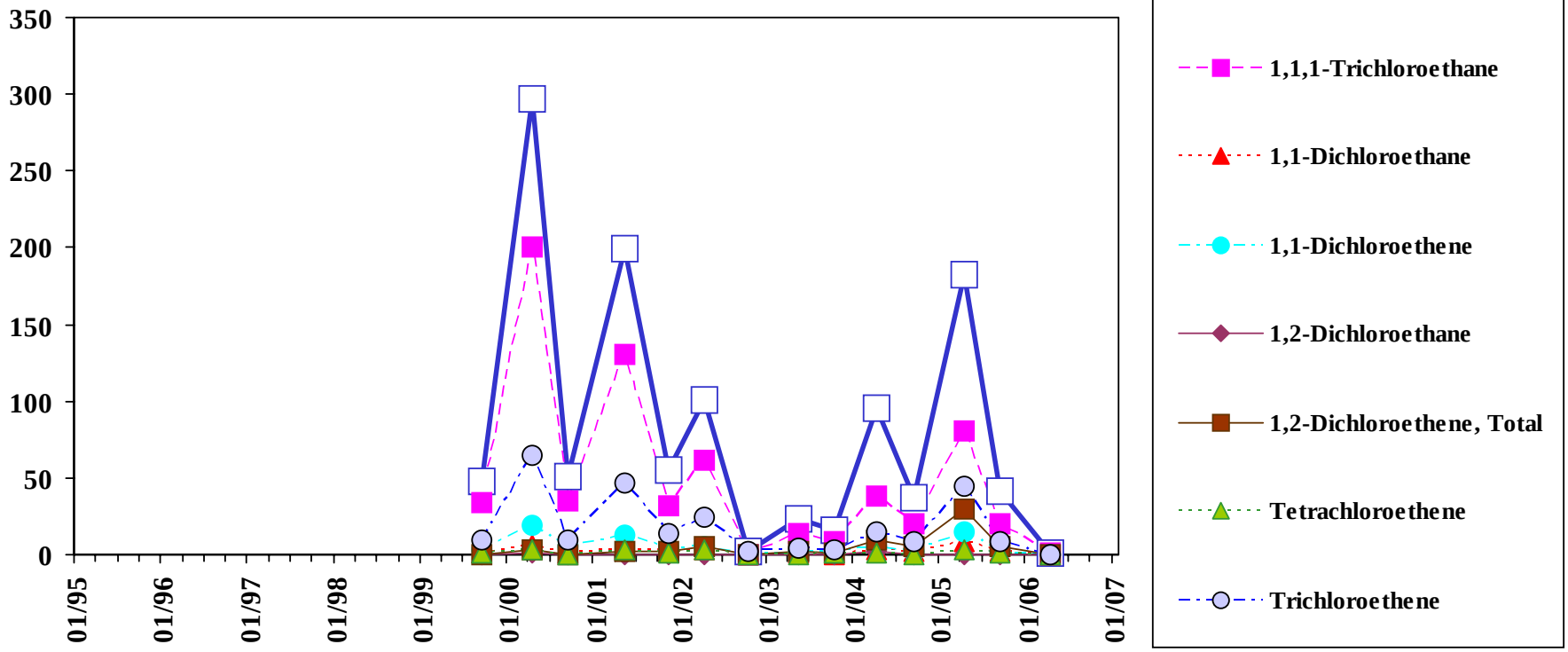
Sample Location:

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

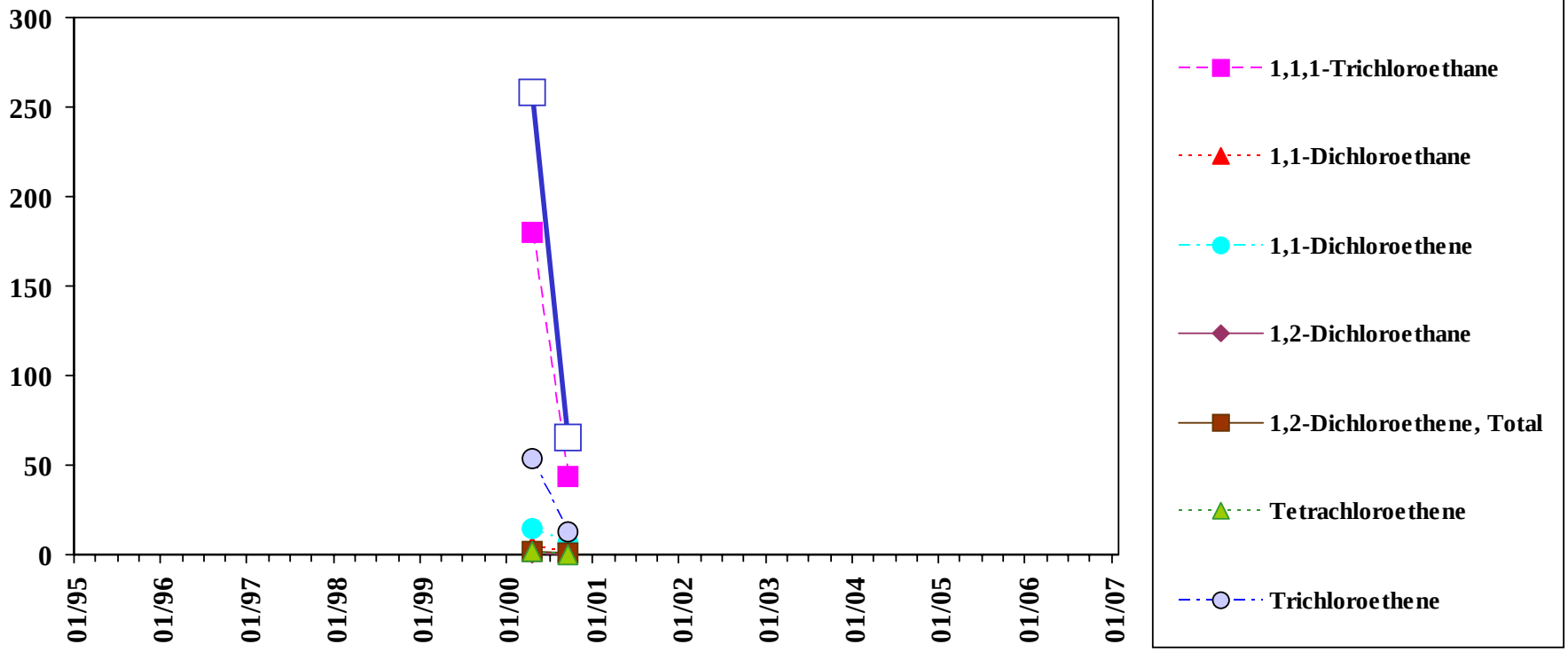
Sample Location:

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

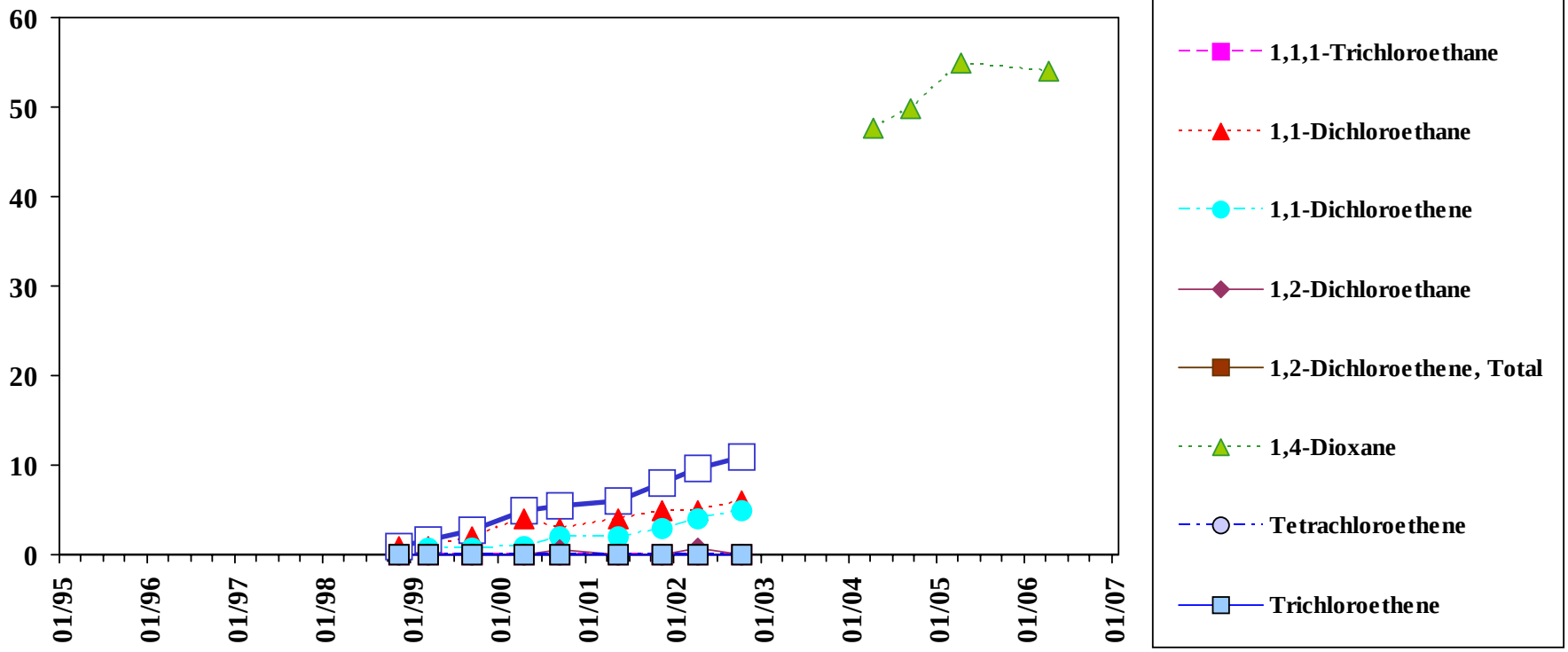
Sample Location:

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

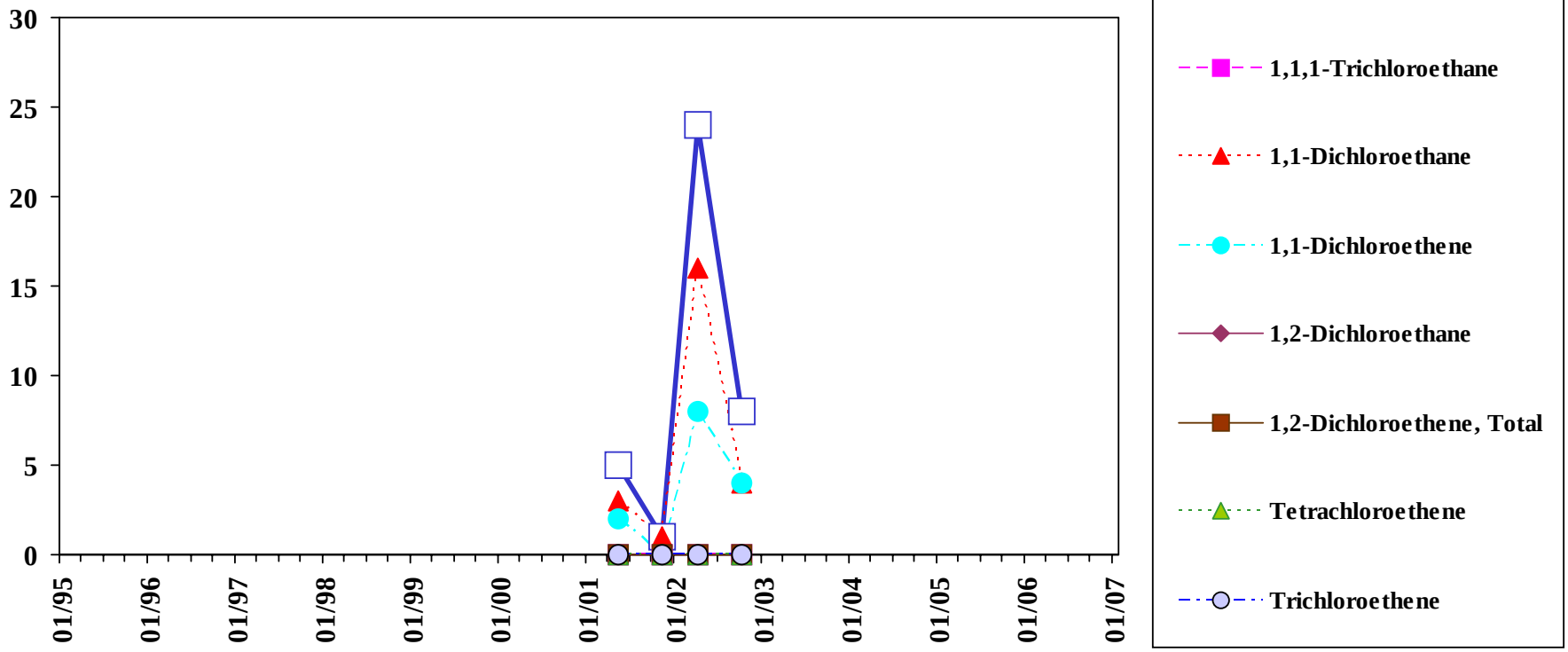
Sample Location:

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

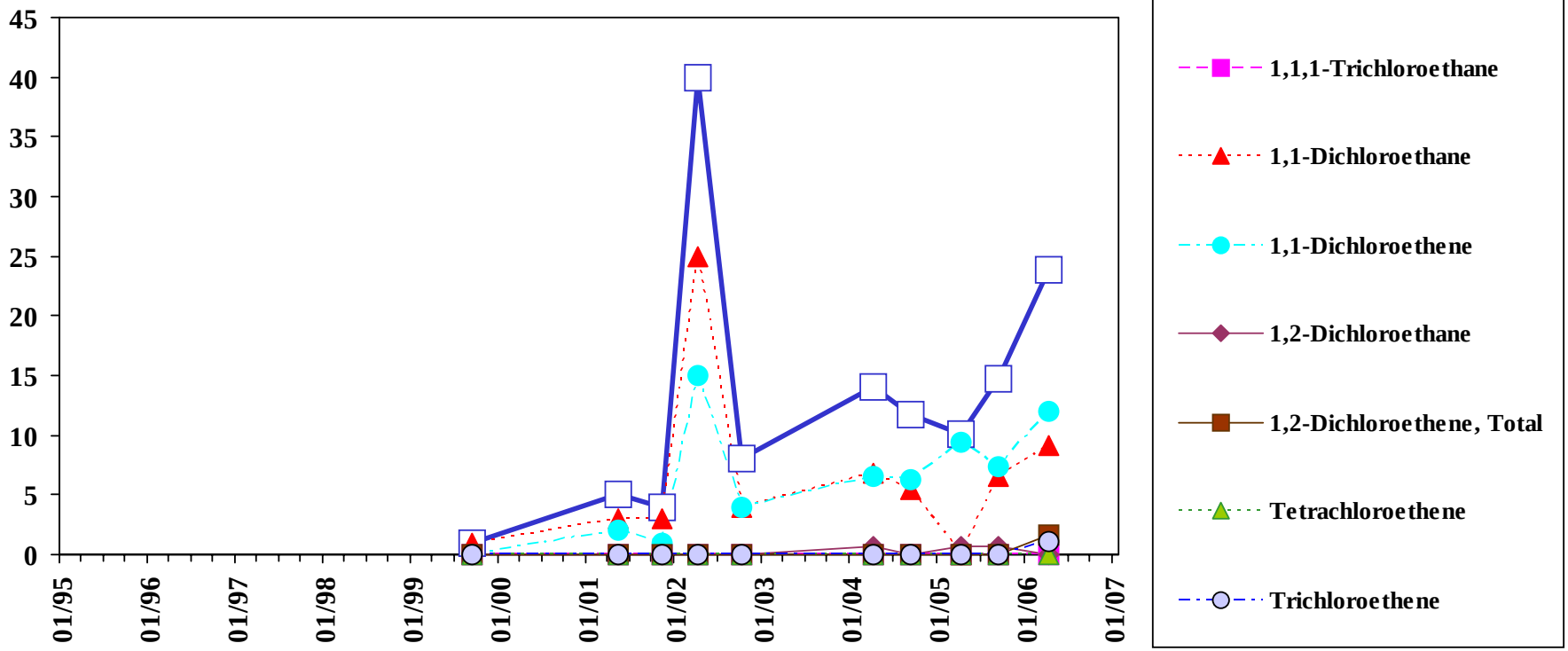
Sample Location:

MW-333

Mid-depth Diffusion Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



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

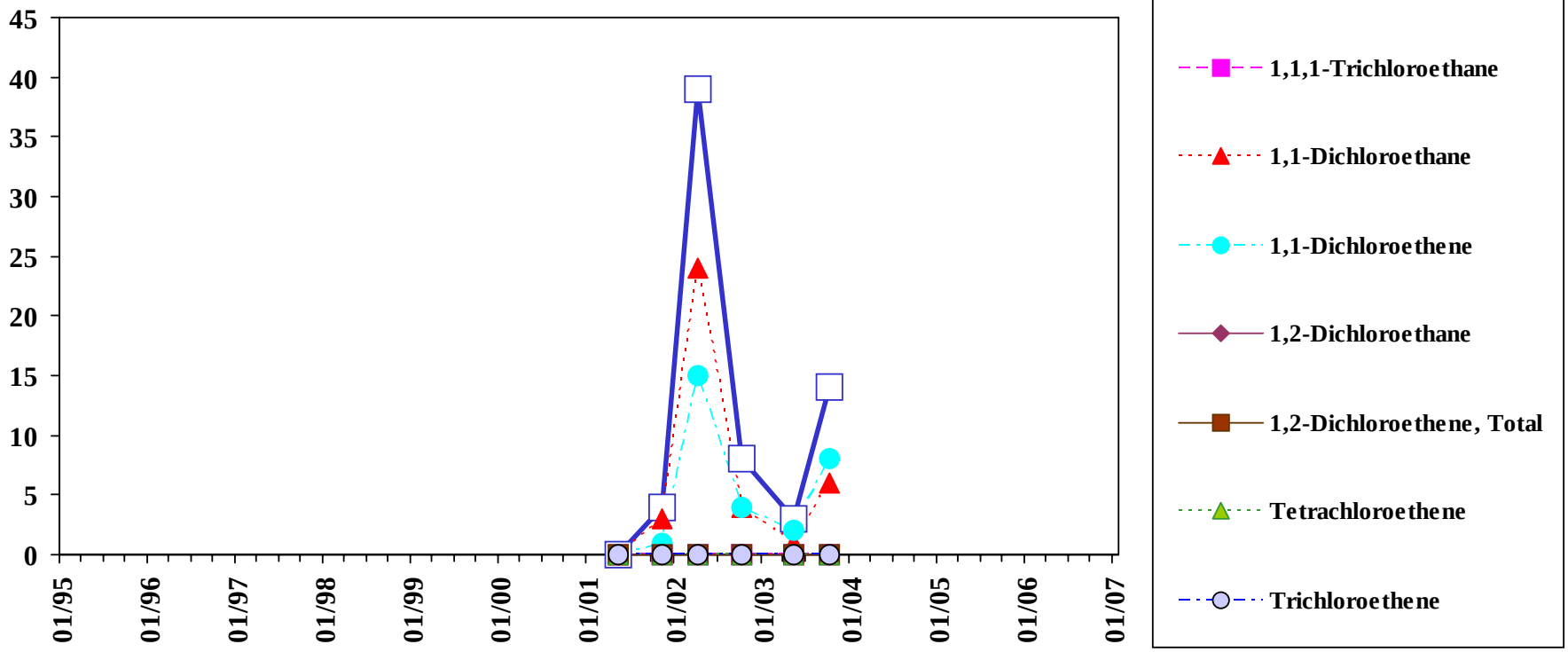
Sample Location:

MW-333

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

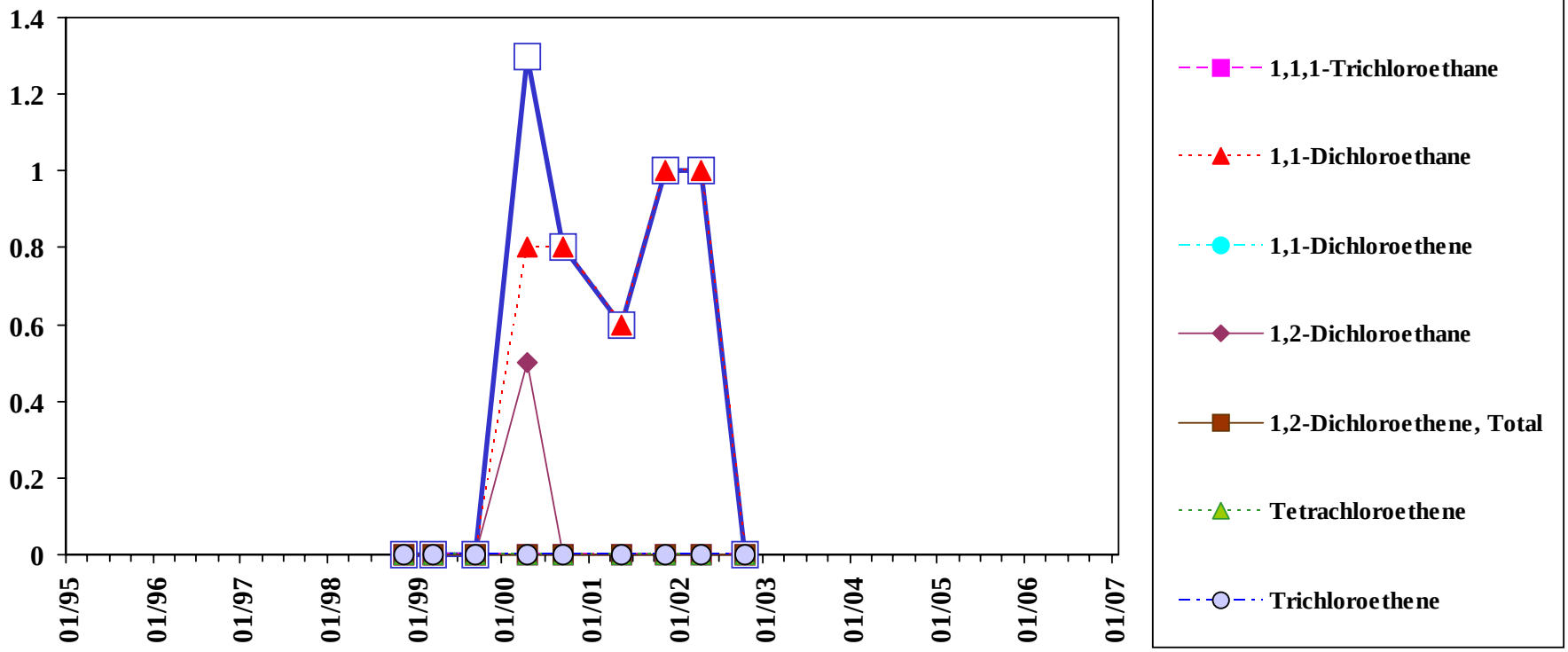
Sample Location:

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

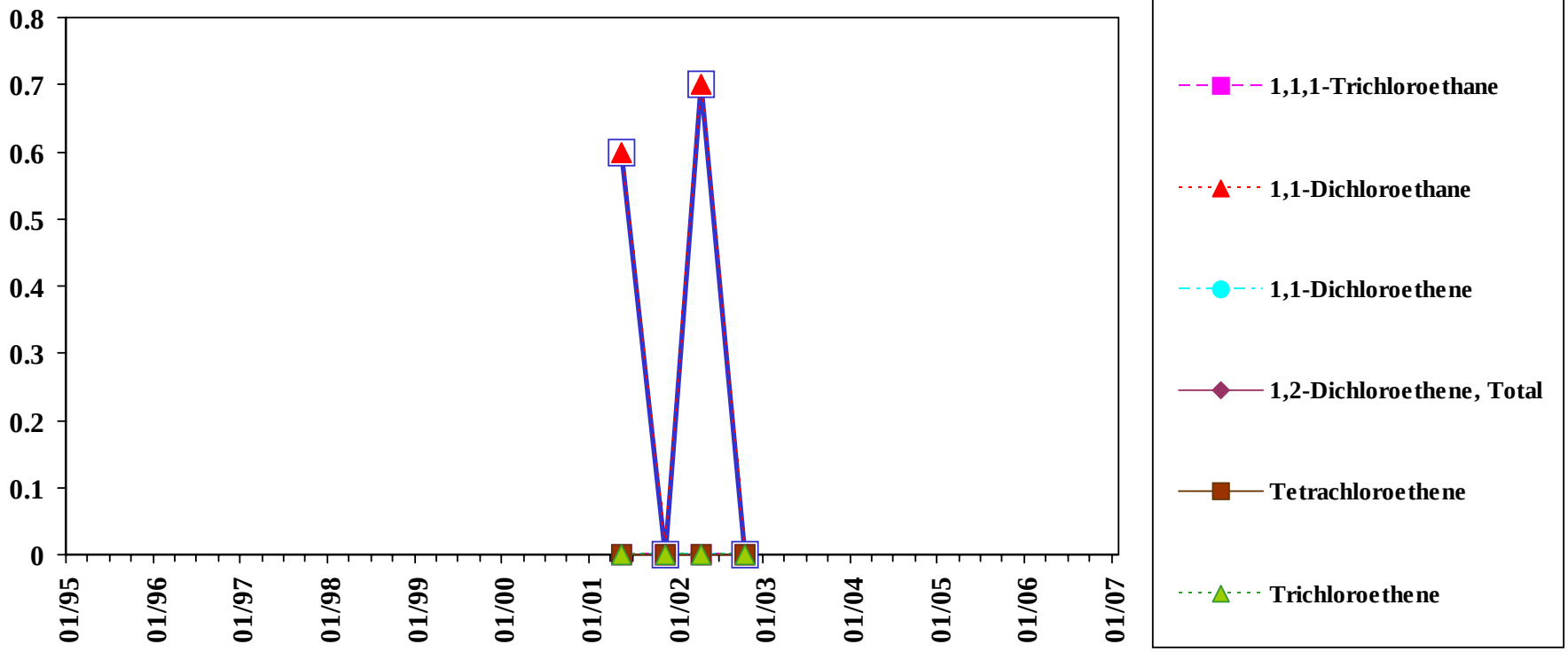
Sample Location:

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

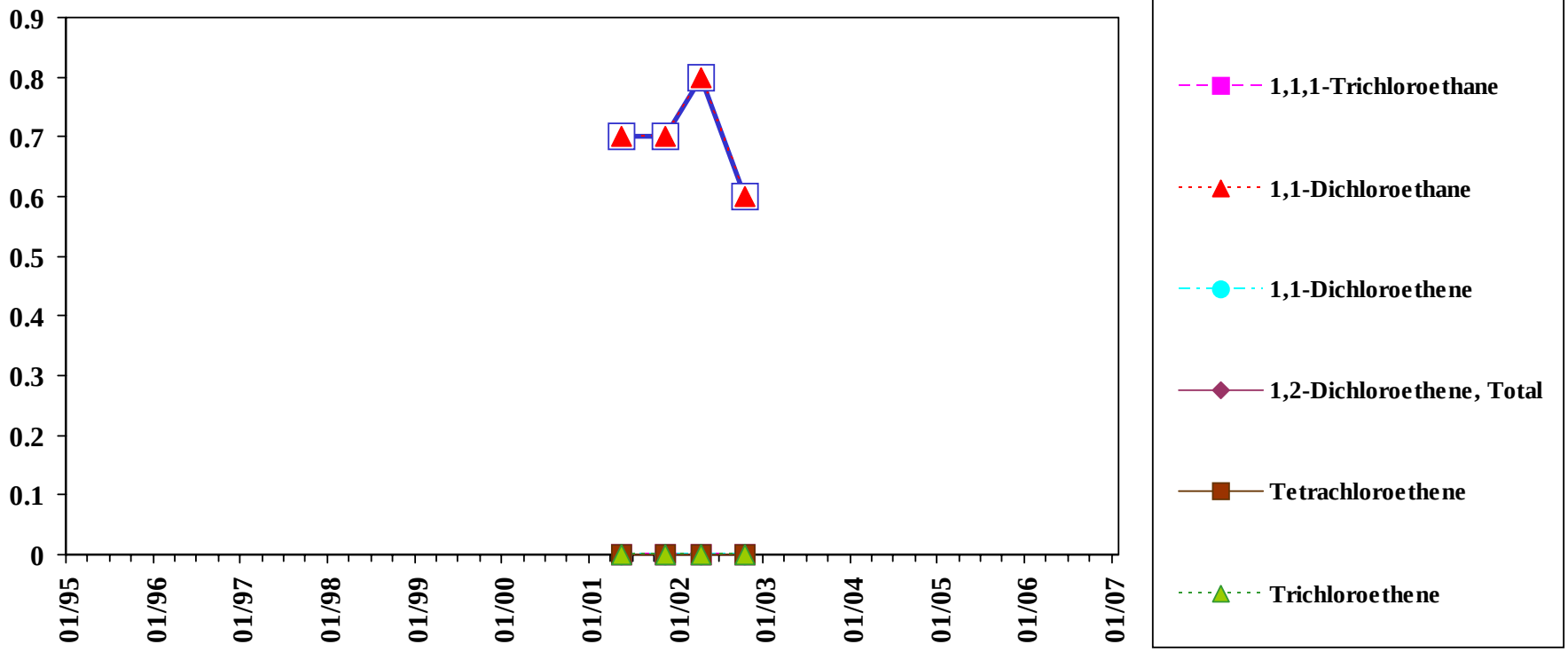
Sample Location:

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

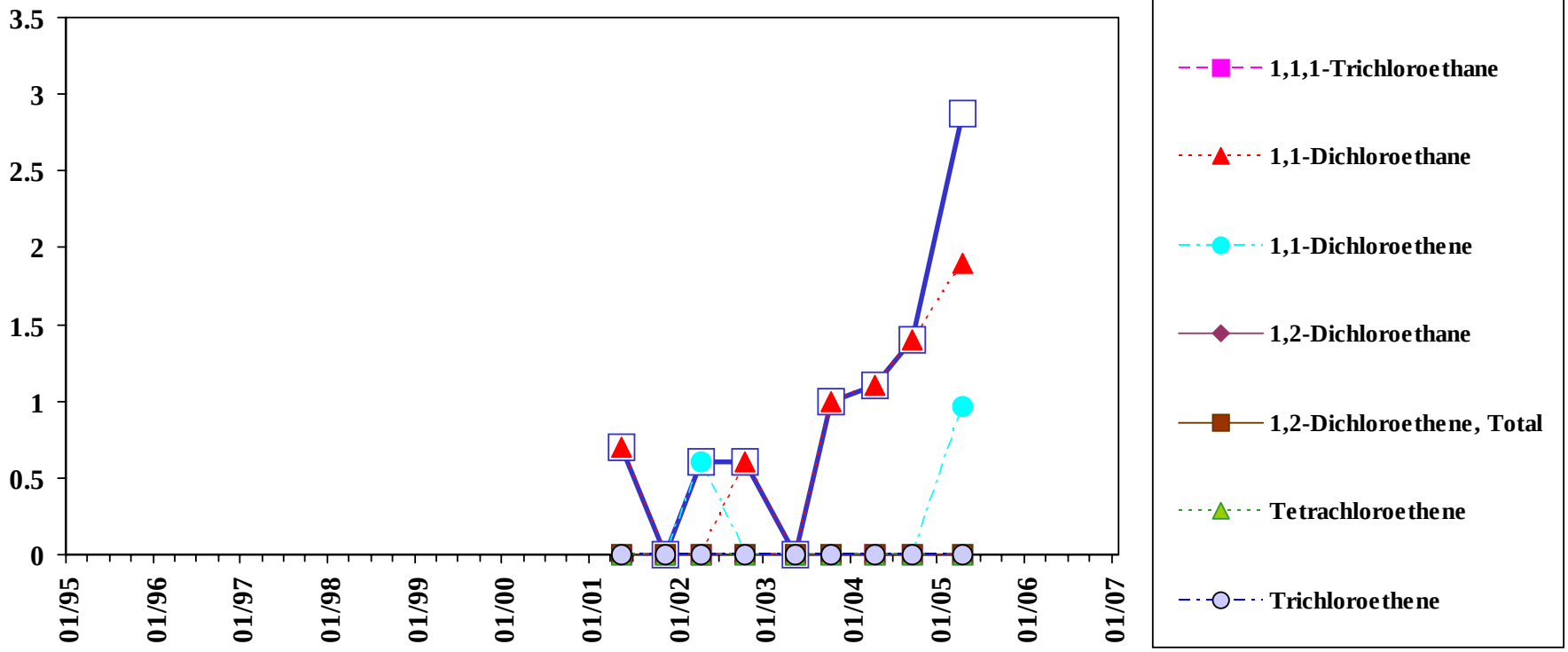
Sample Location:

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

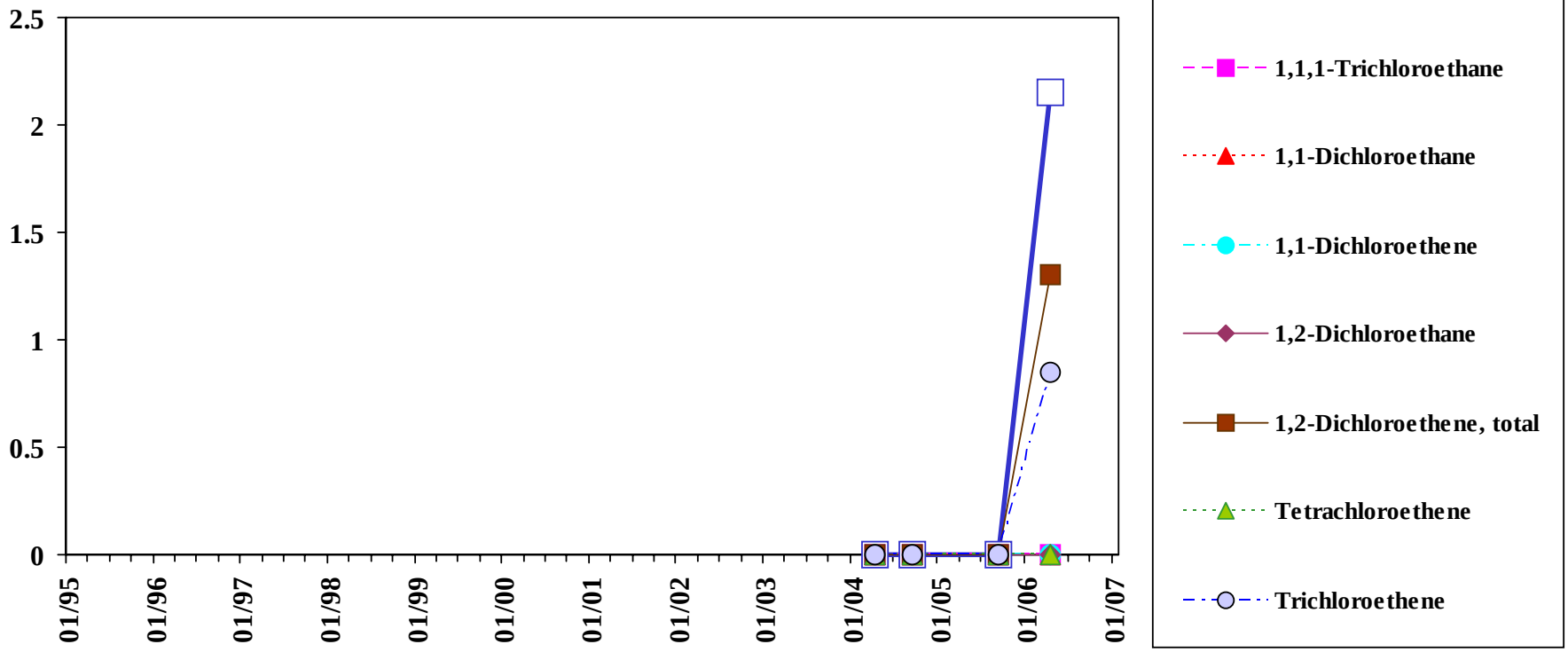
Sample Location:

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

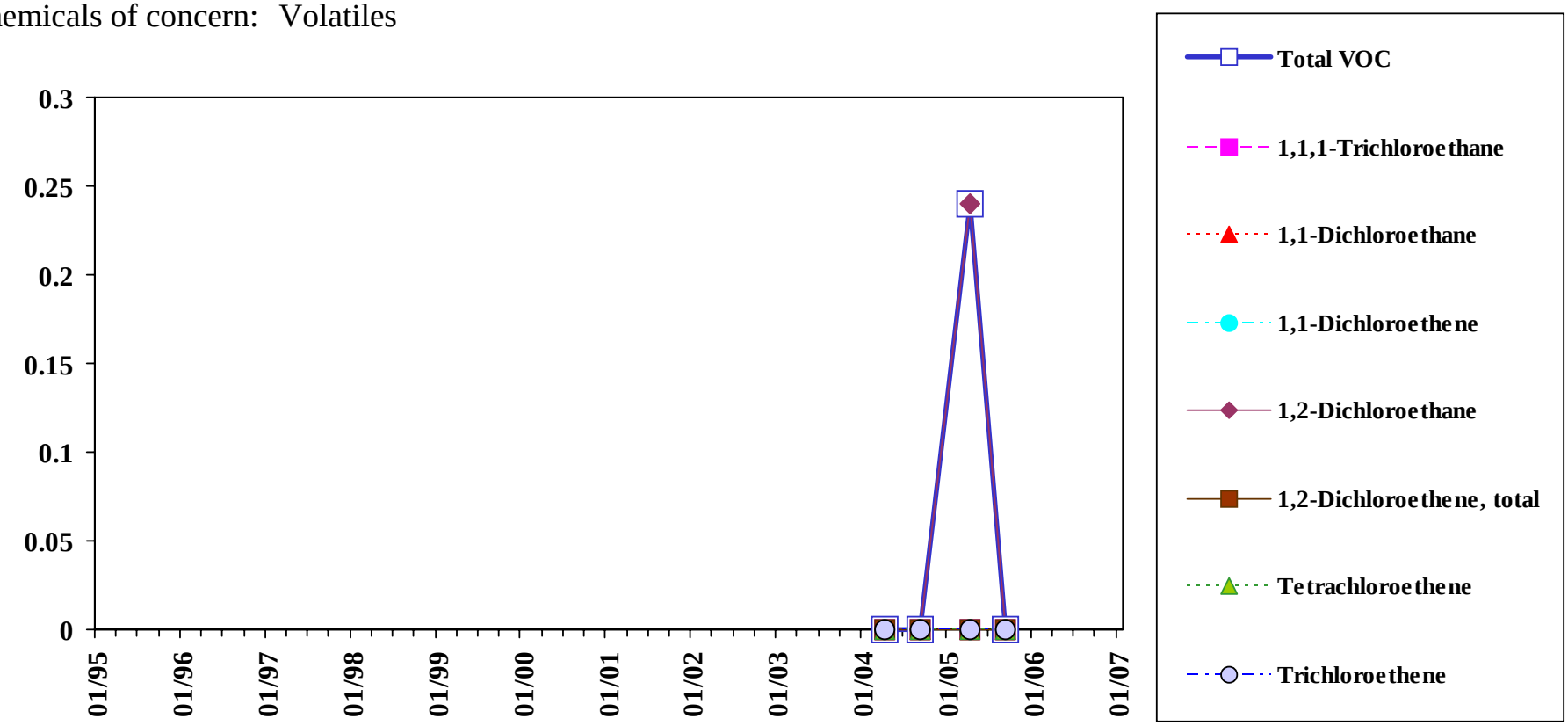
Sample Location:

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

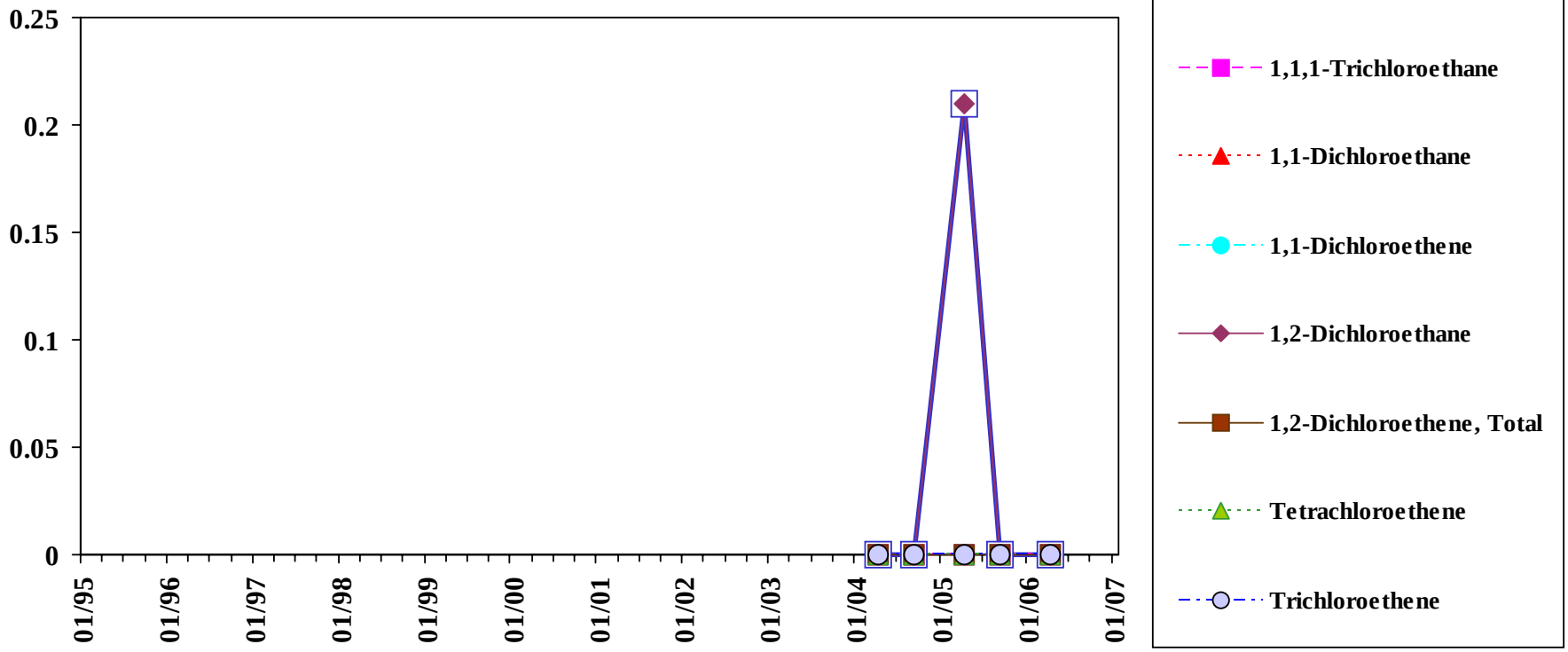
Sample Location:

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

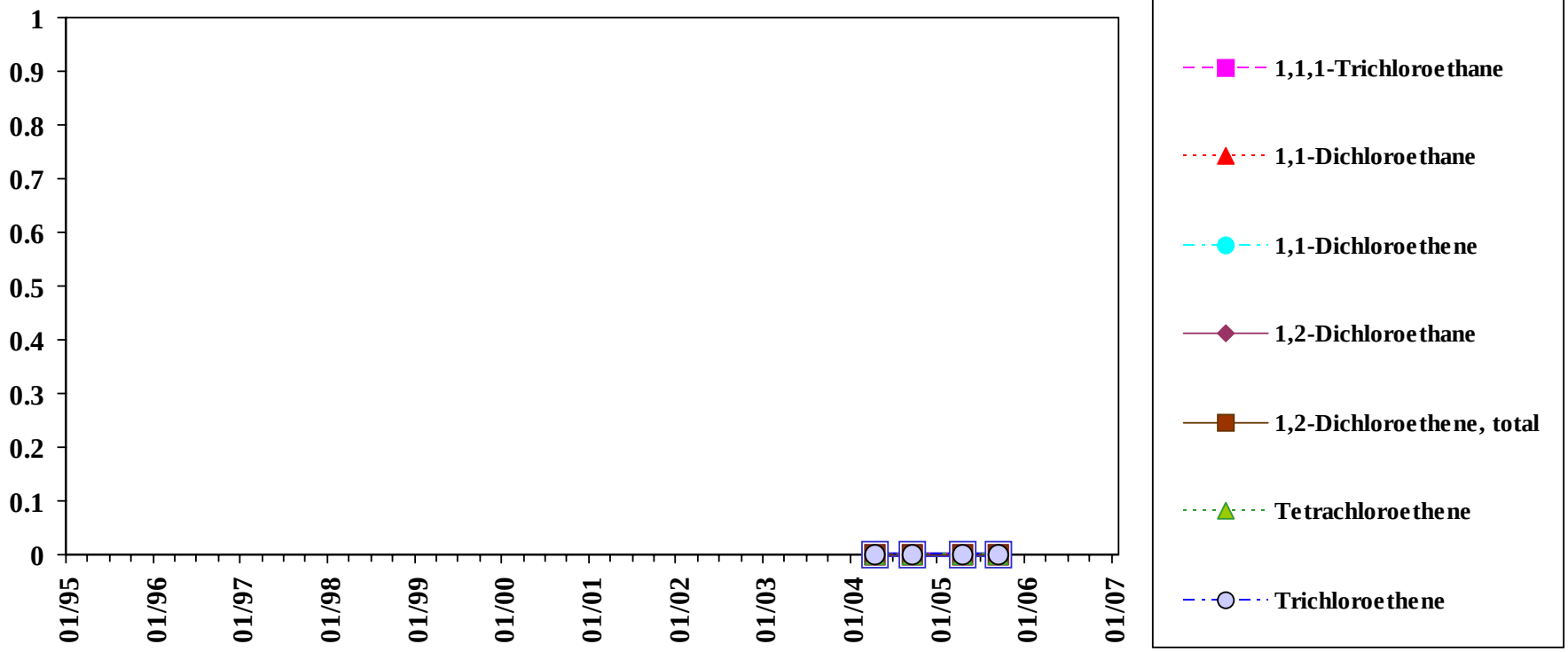
Sample Location:

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

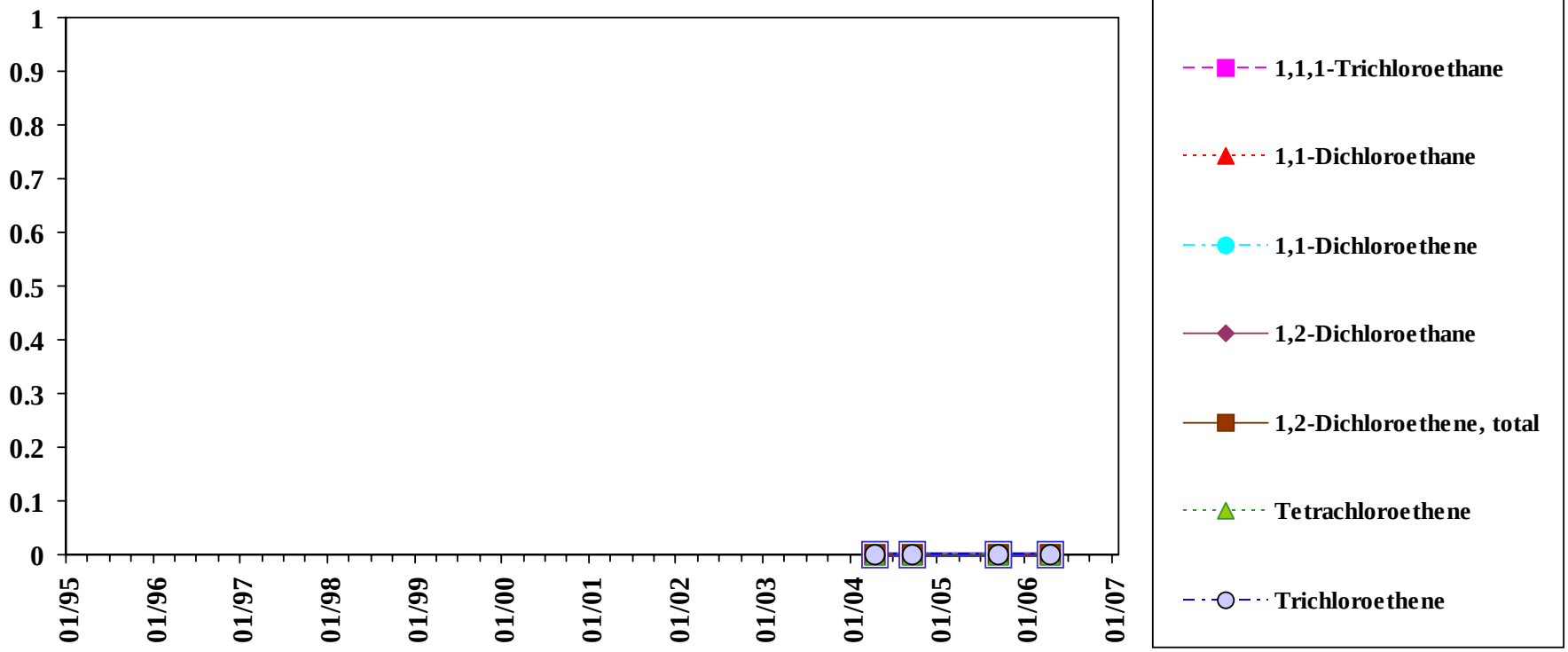
Sample Location:

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

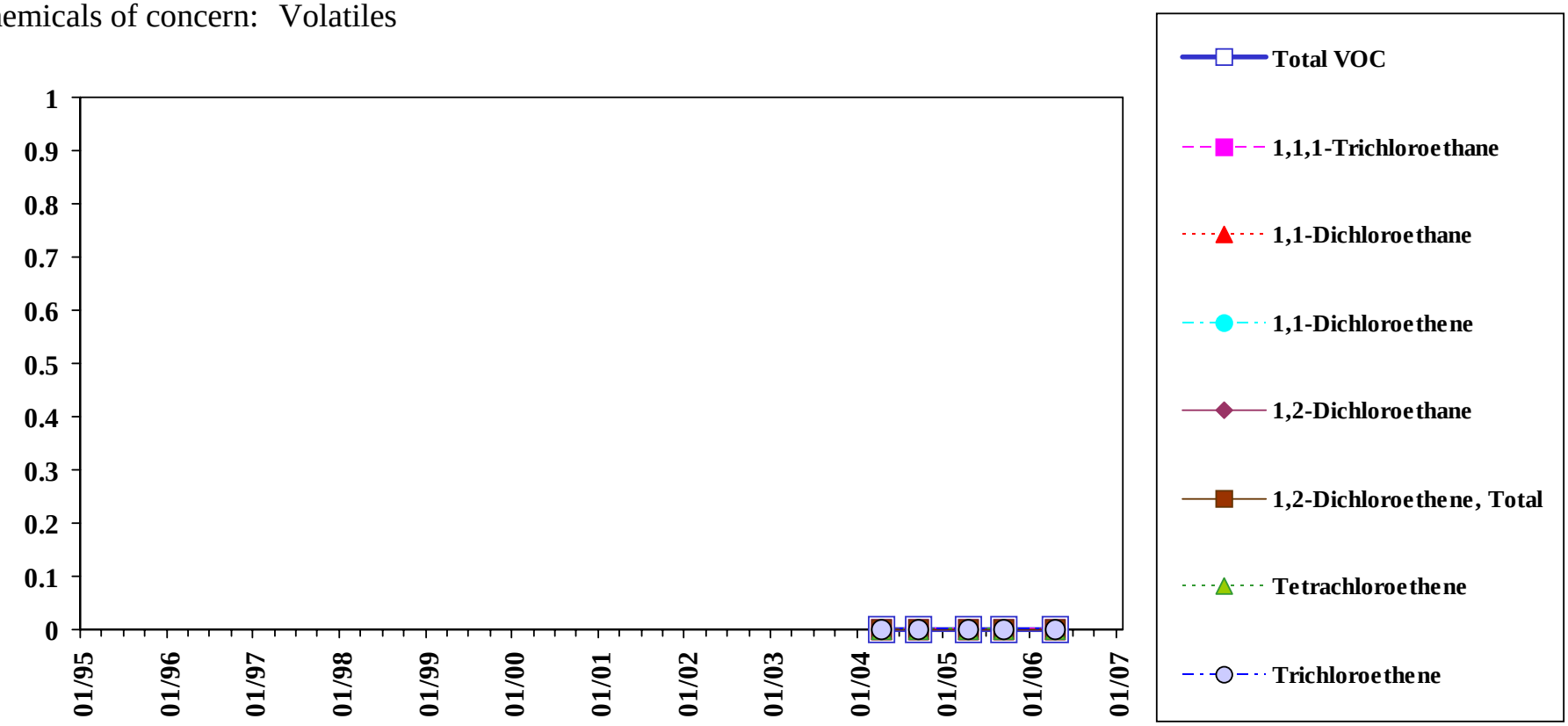
Sample Location:

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

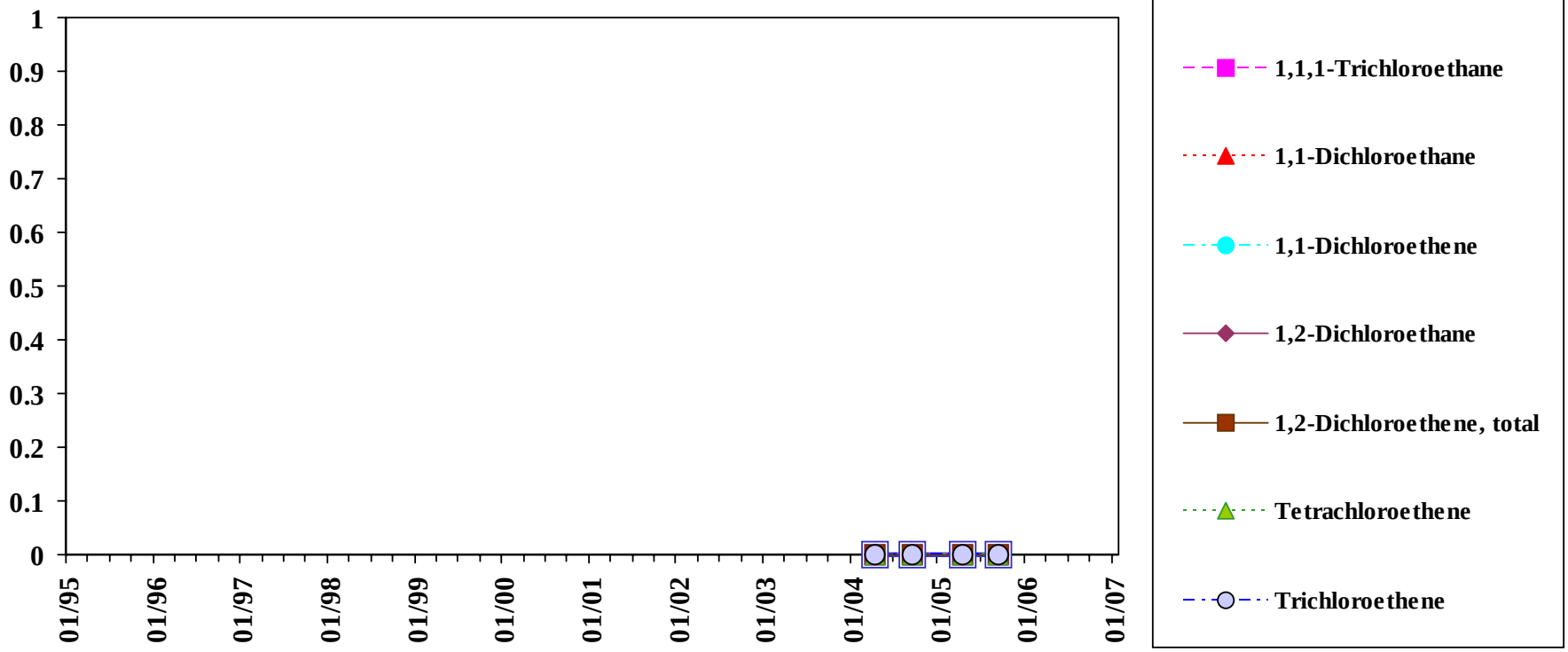
Sample Location:

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

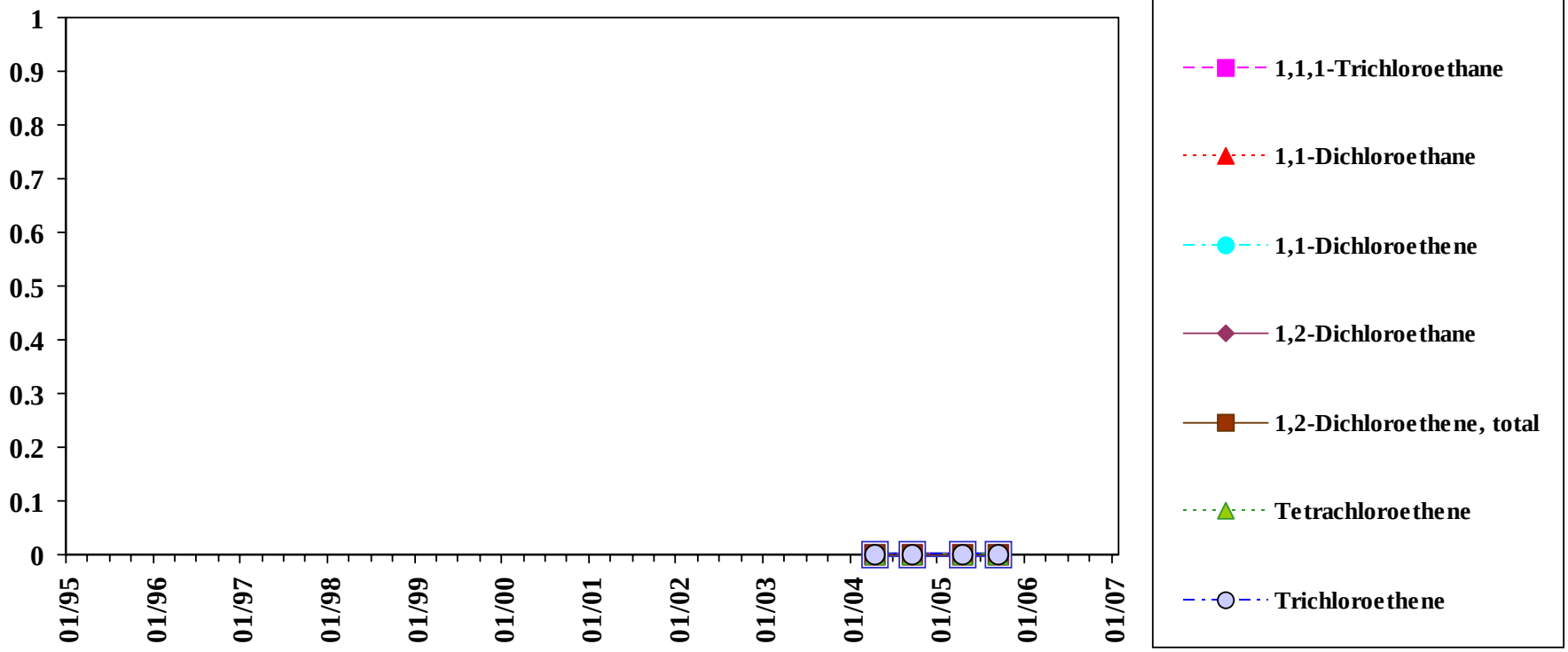
Sample Location:

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

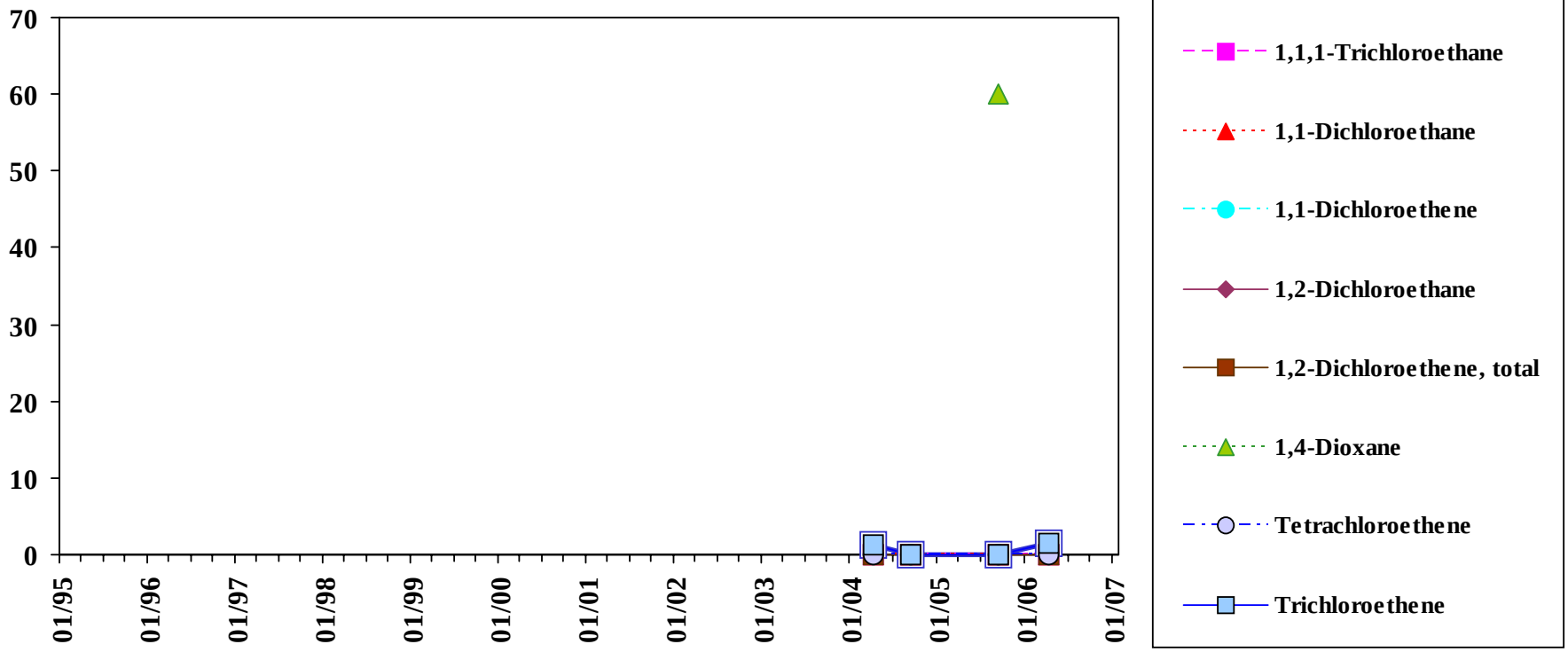
Sample Location:

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

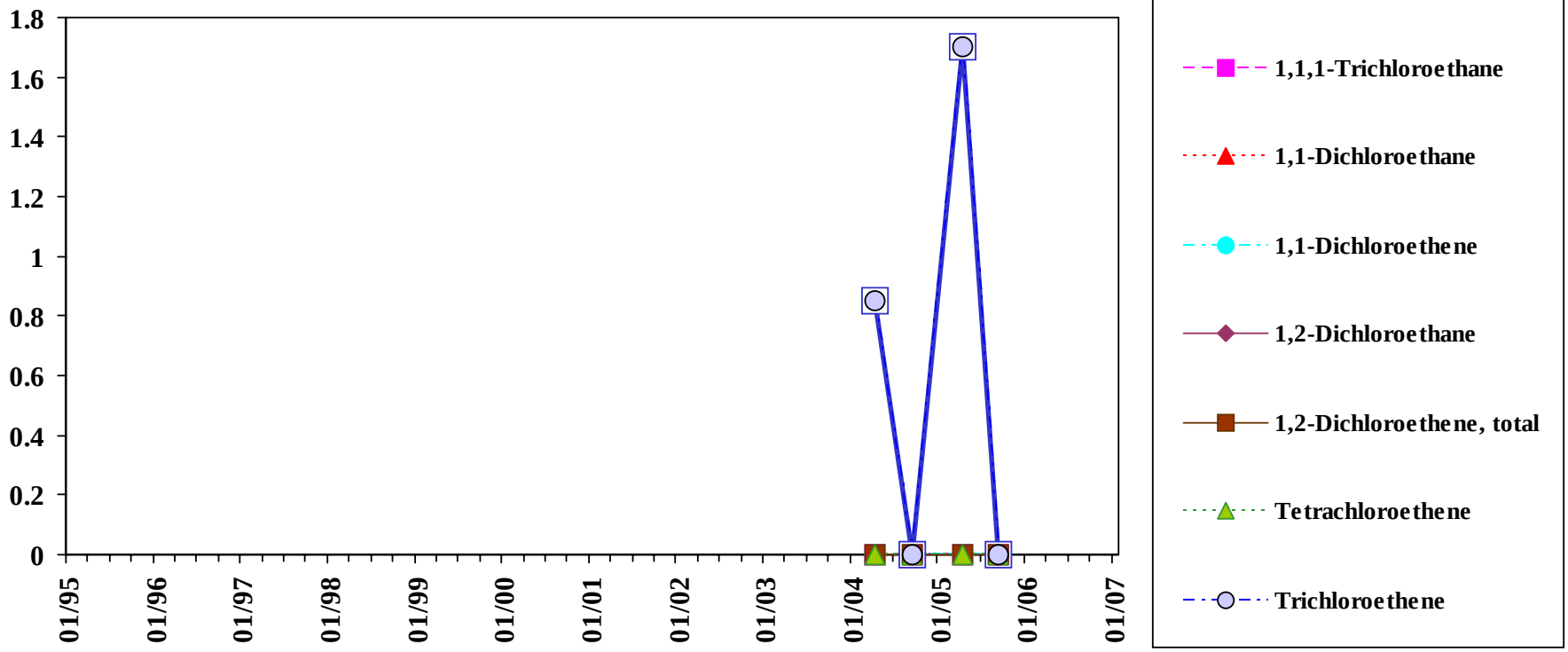
Sample Location:

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

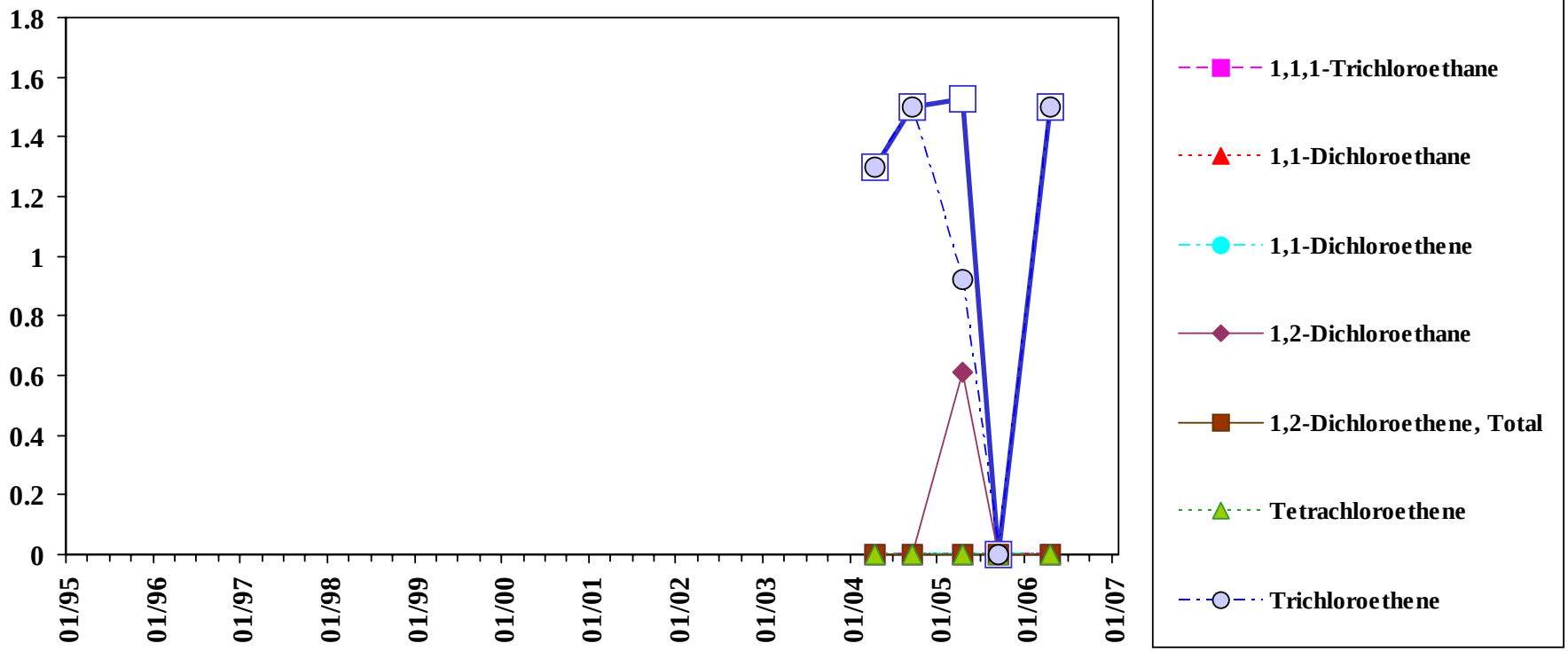
Sample Location:

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

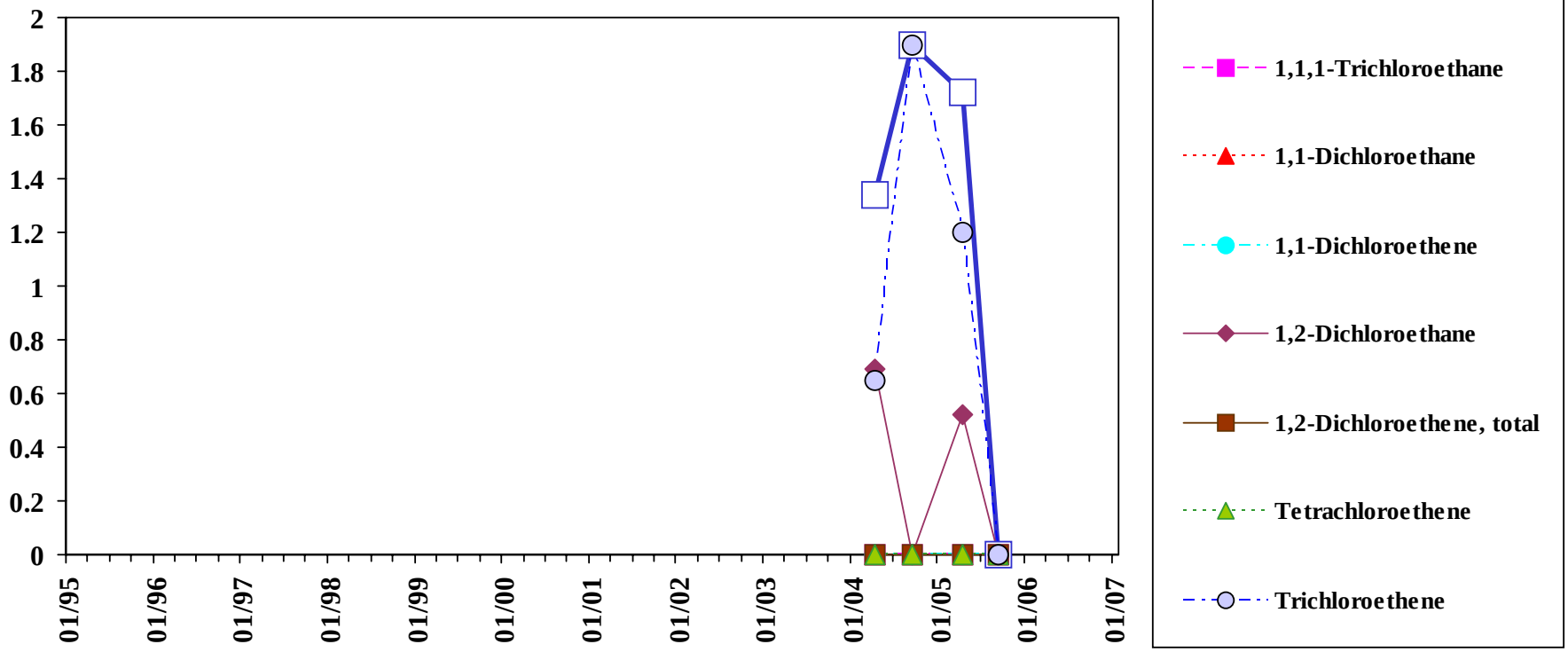
Sample Location:

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

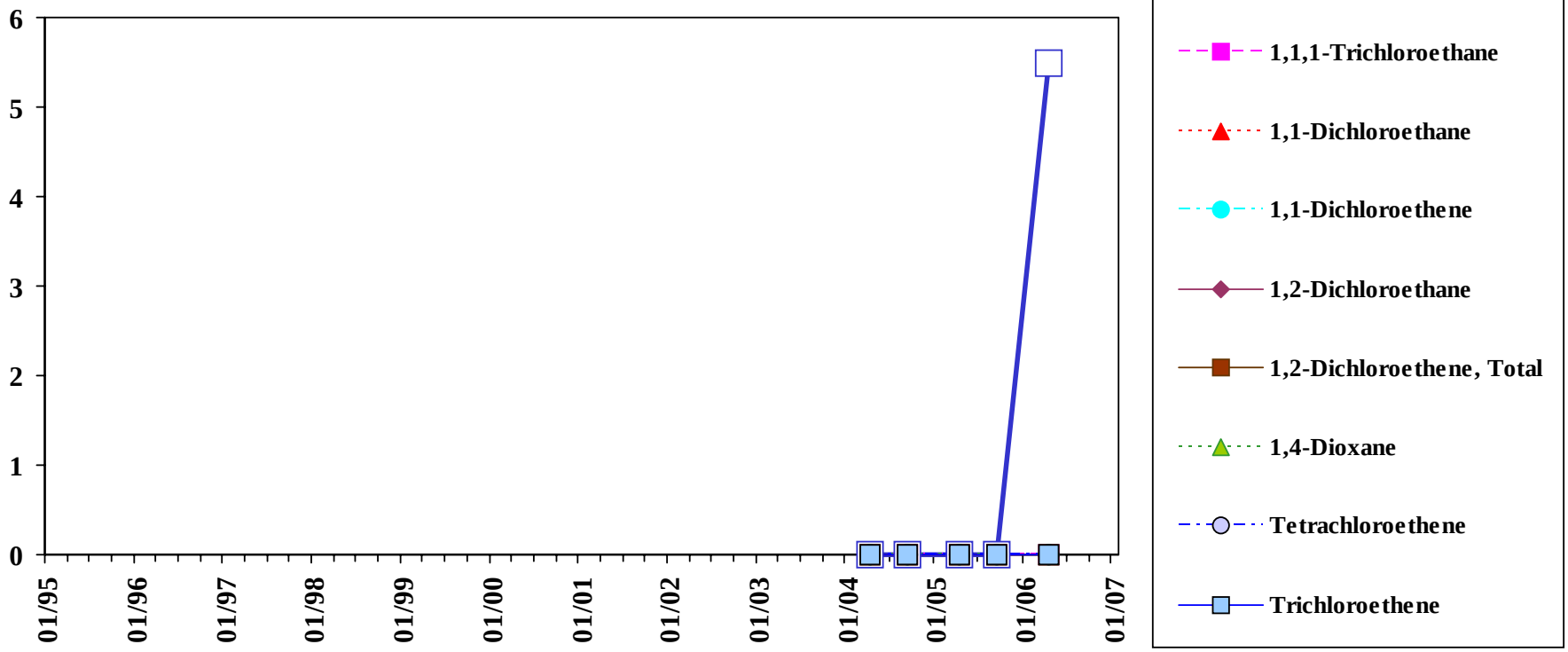
Sample Location:

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

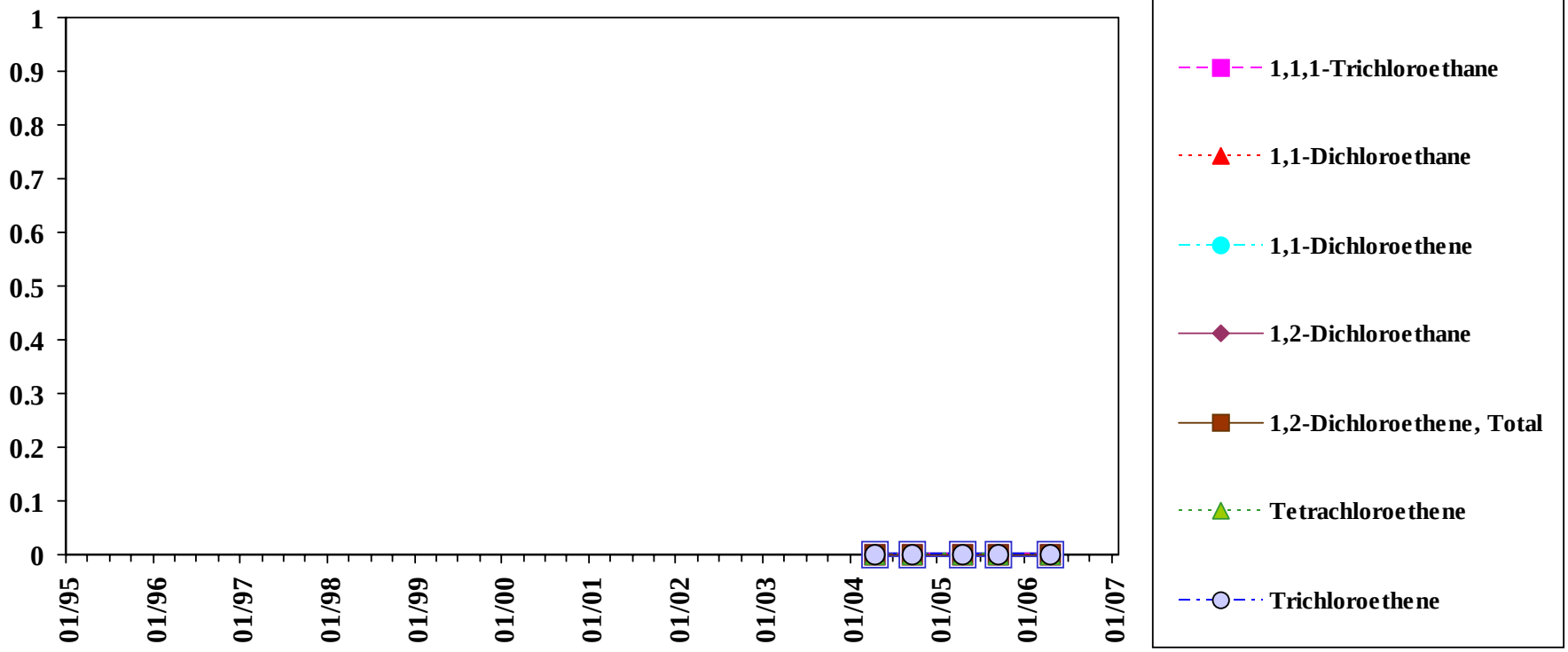
Sample Location:

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

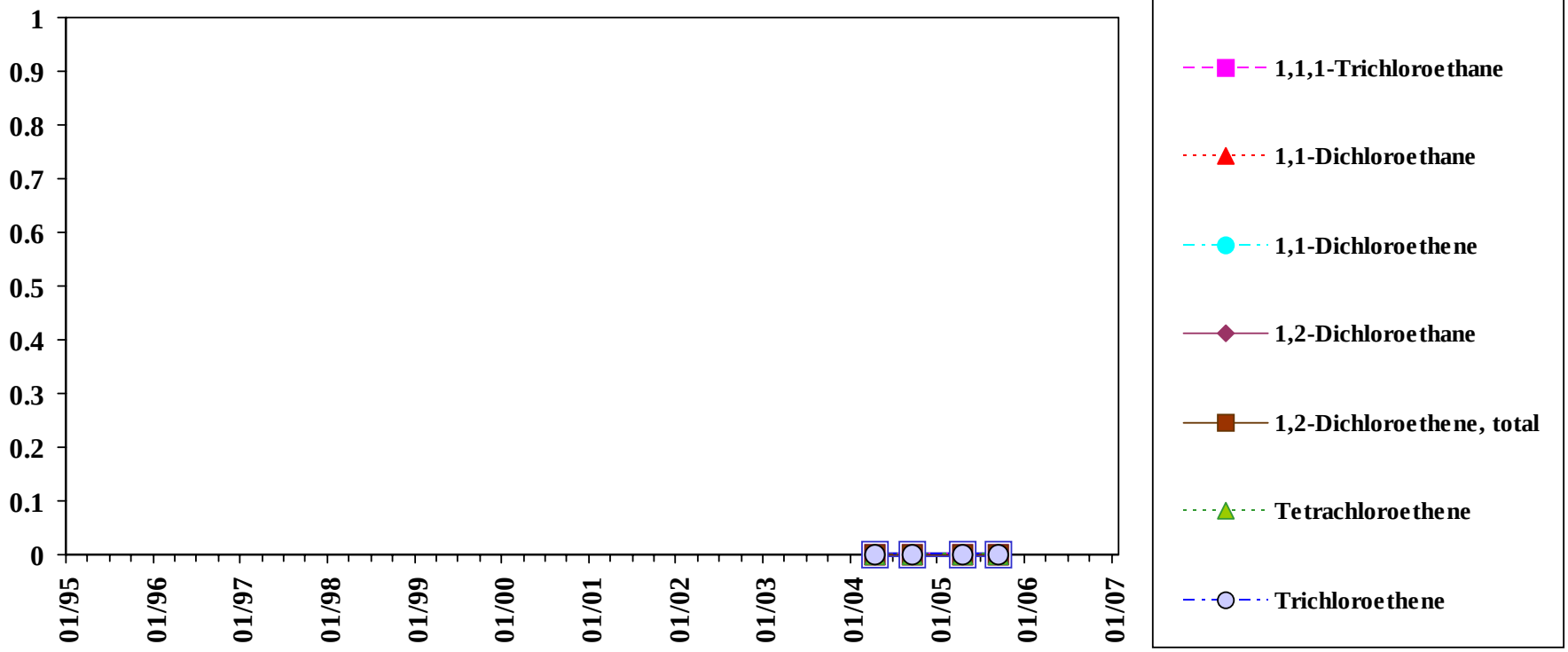
Sample Location:

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

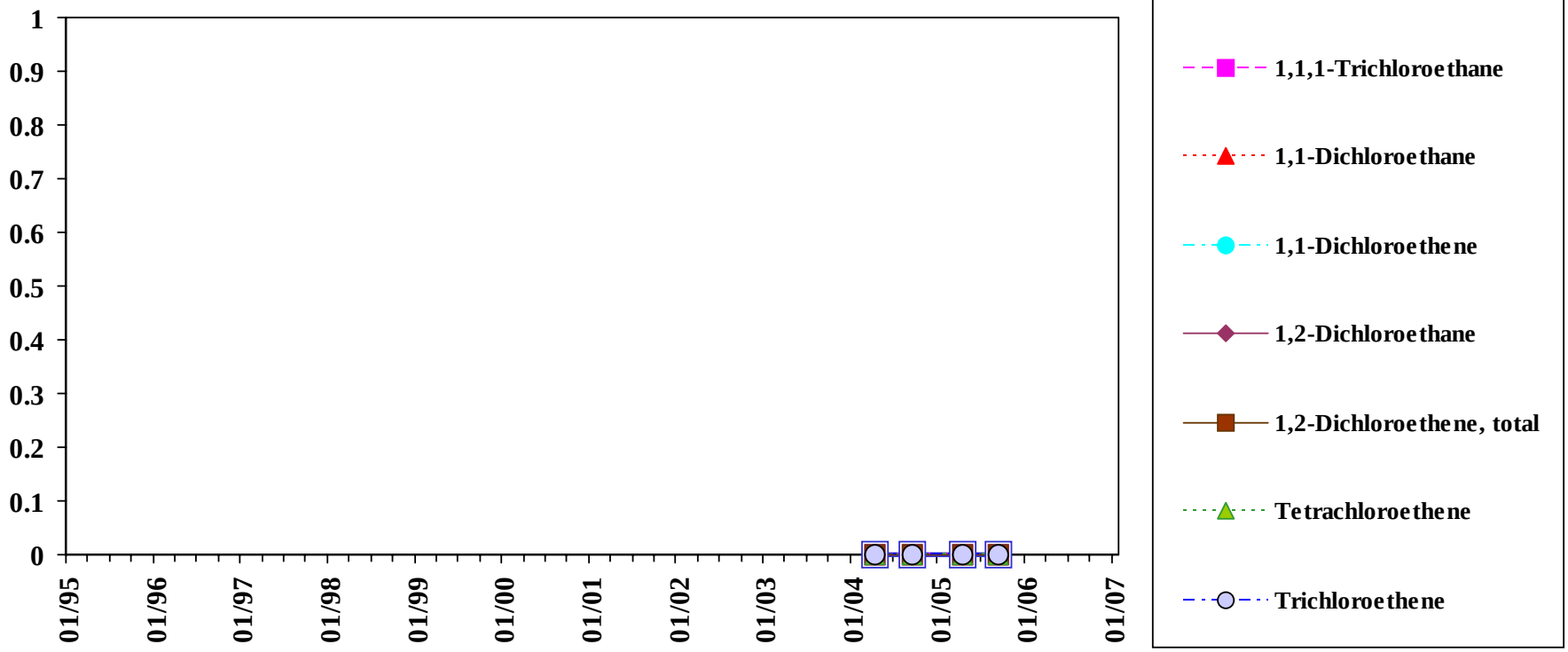
Sample Location:

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

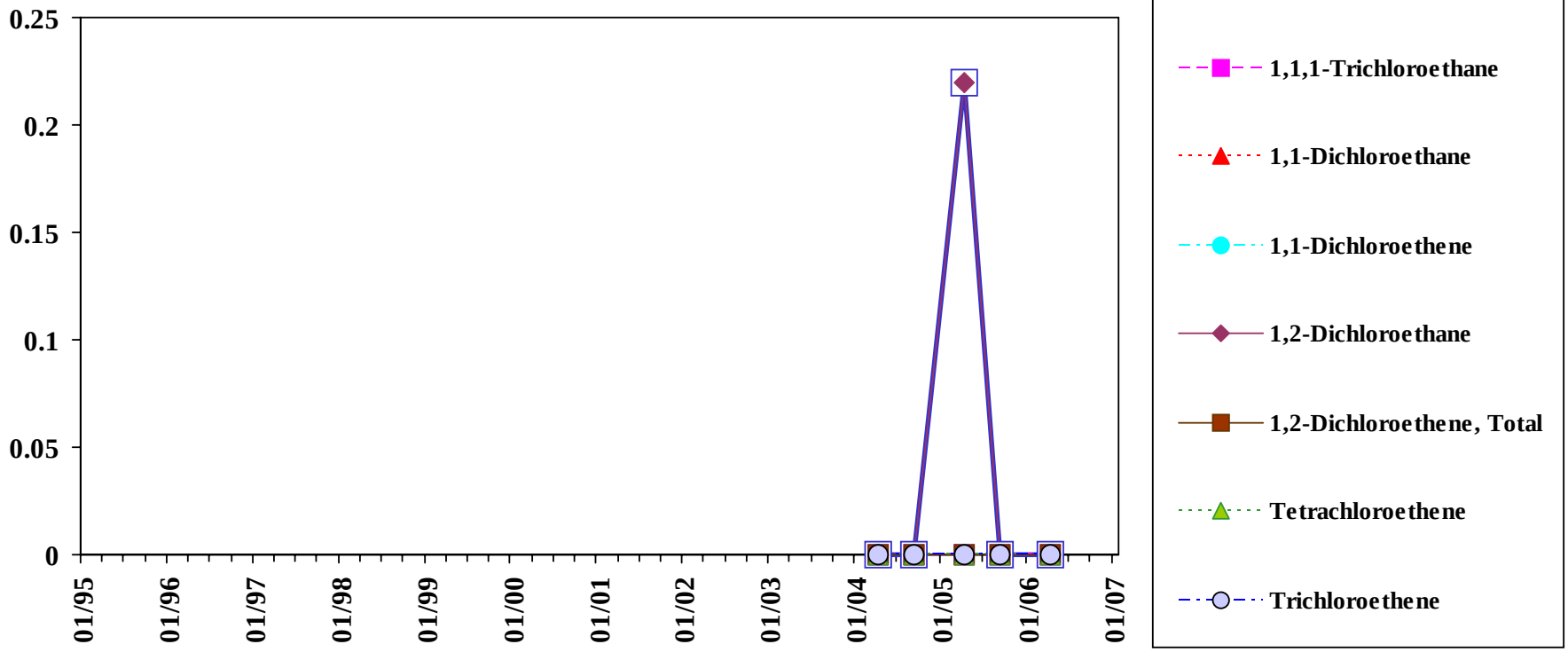
Sample Location:

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

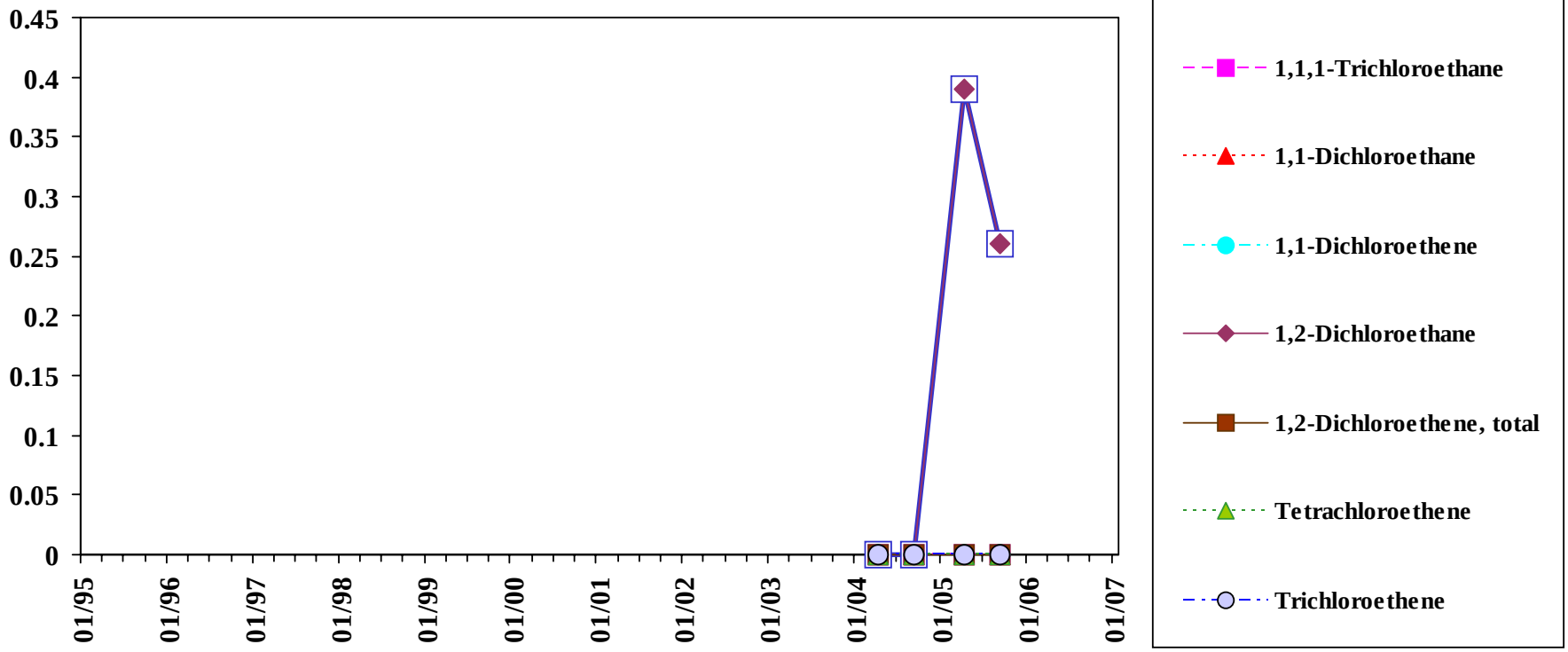
Sample Location:

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

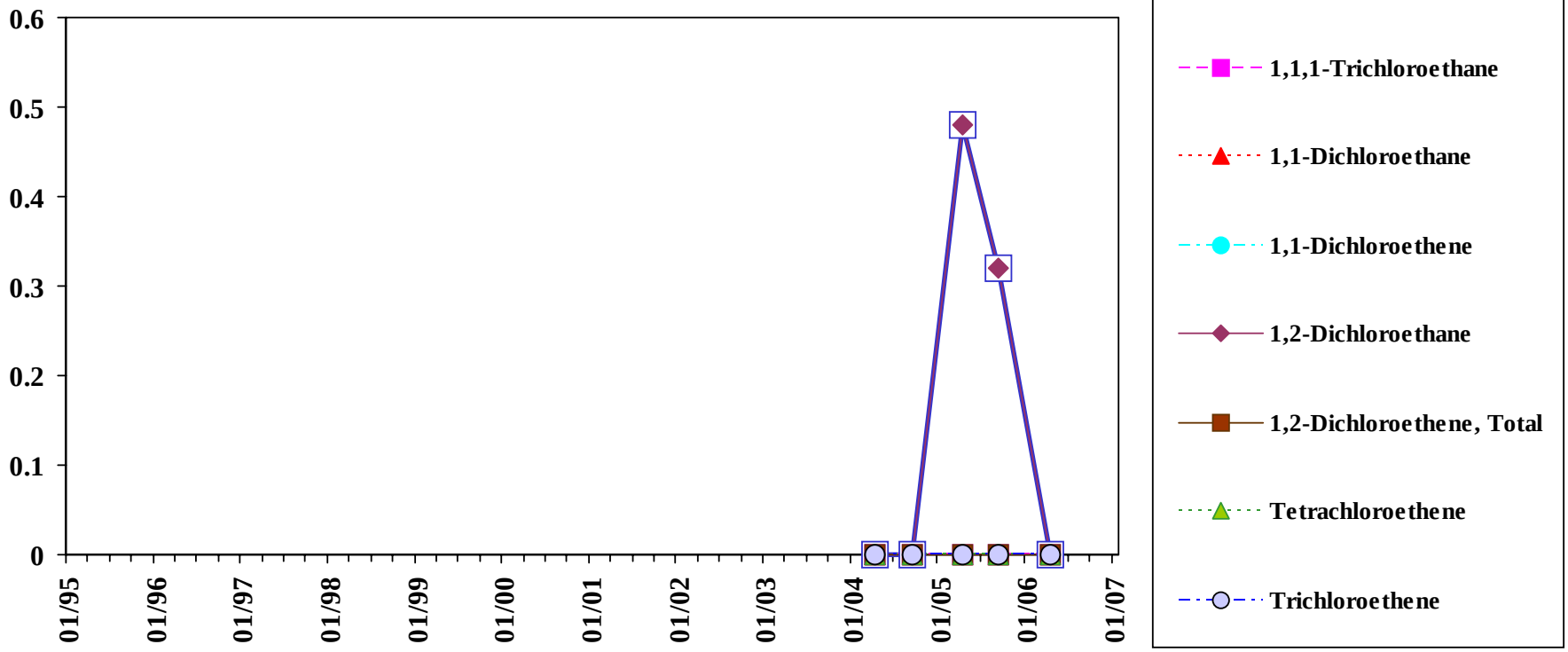
Sample Location:

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

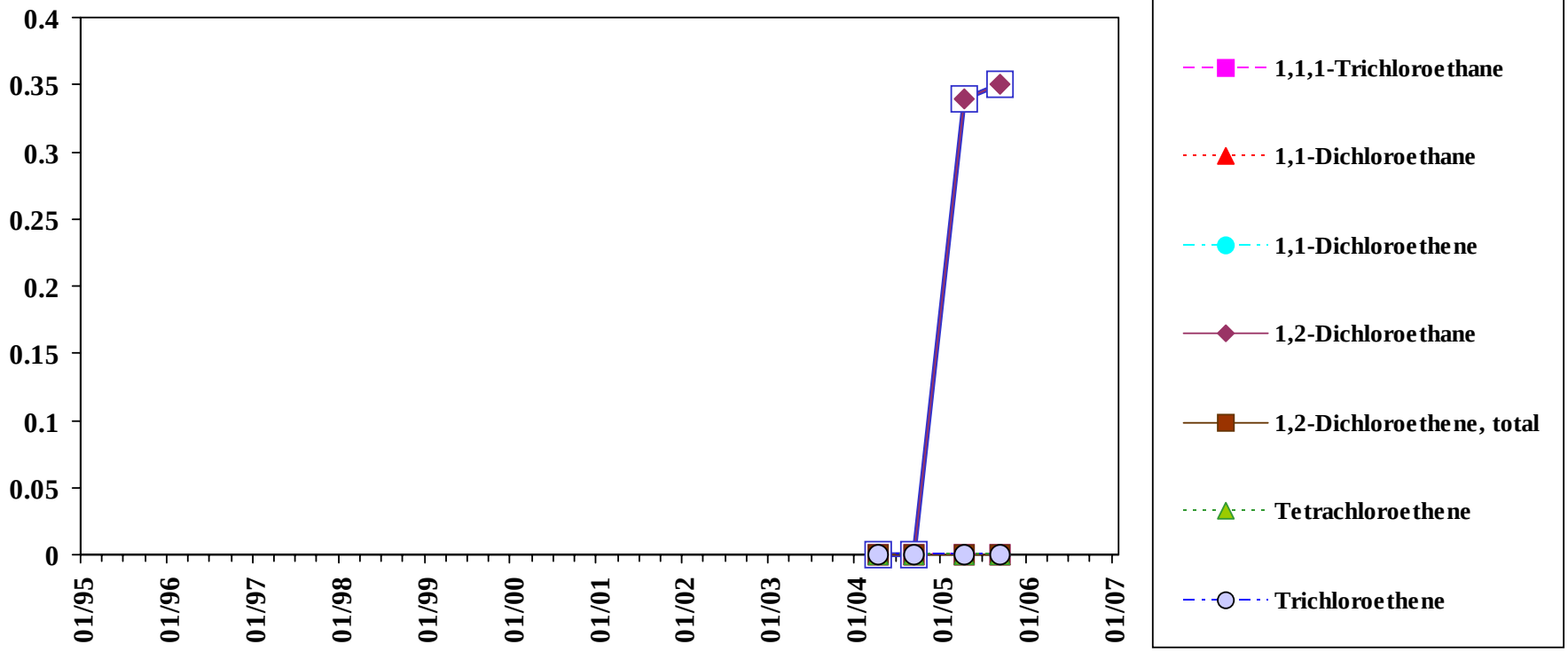
Sample Location:

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

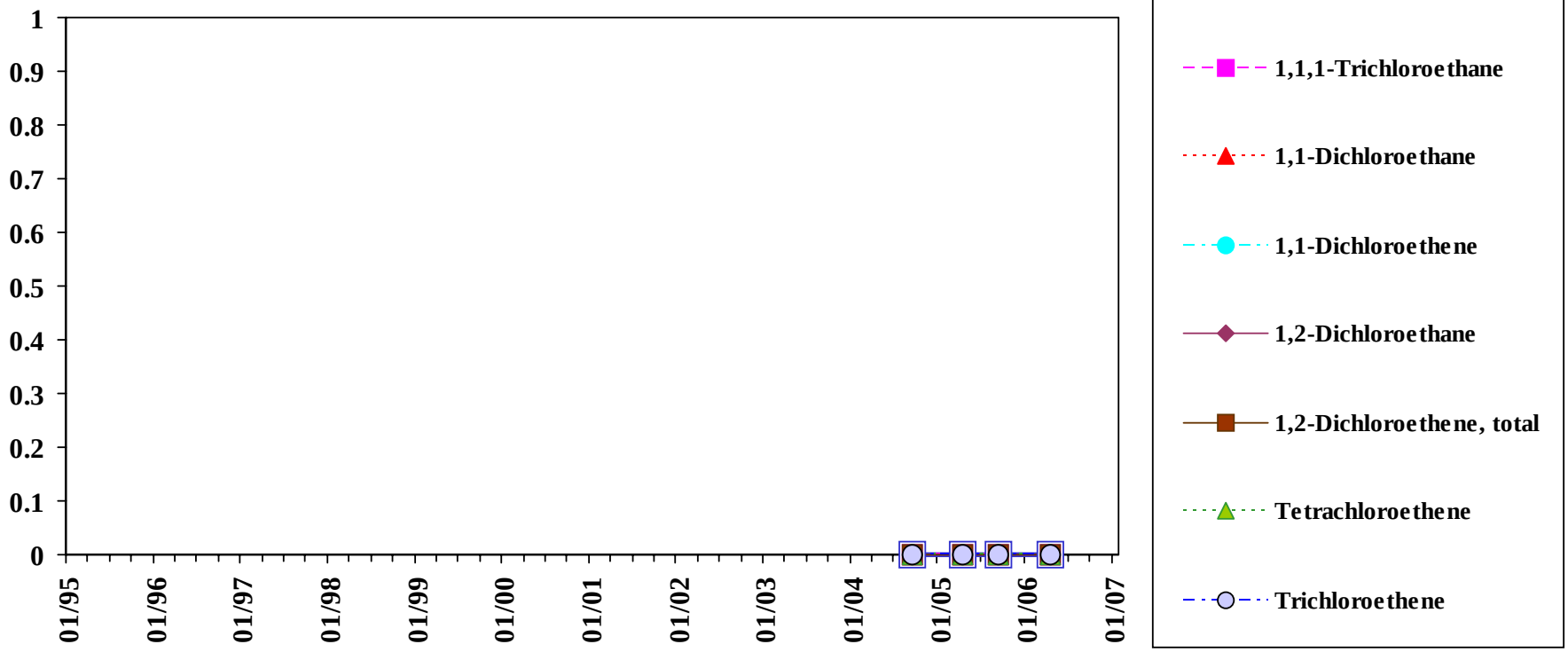
Sample Location:

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

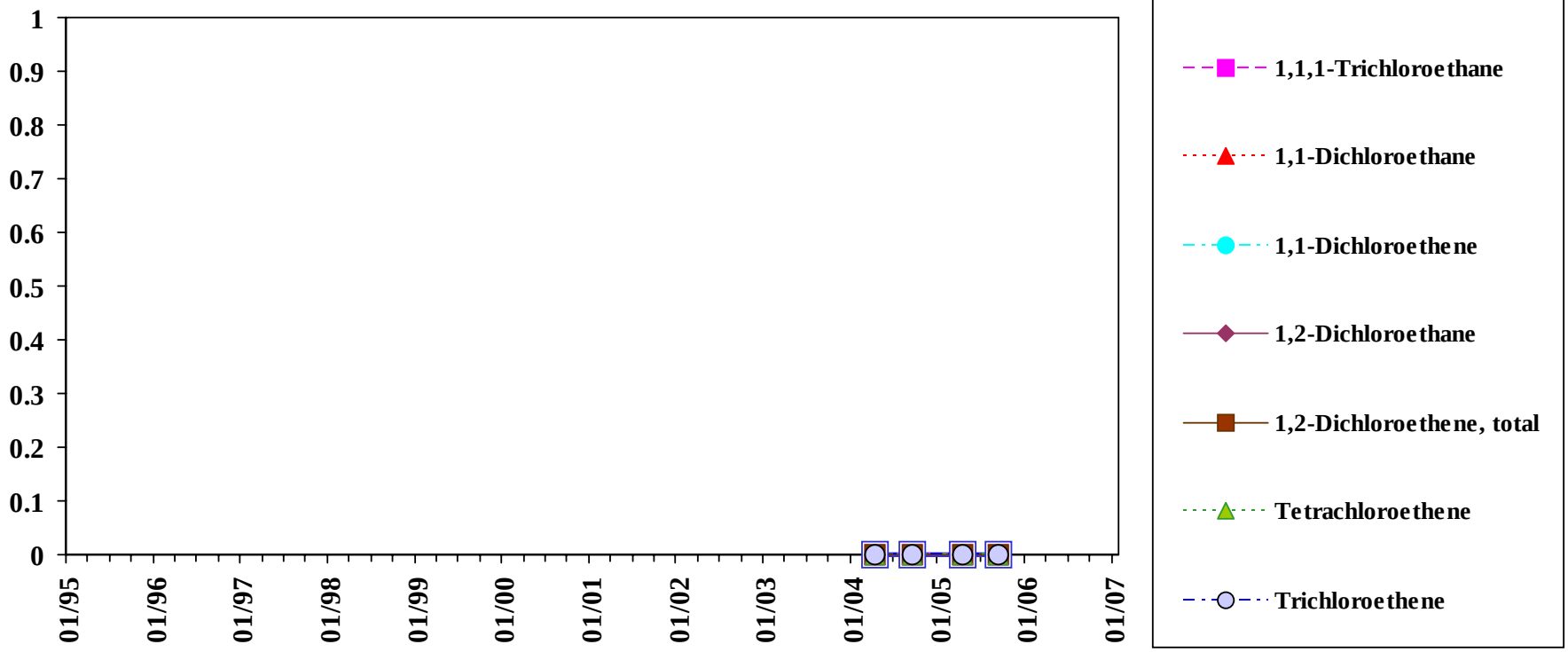
Sample Location:

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

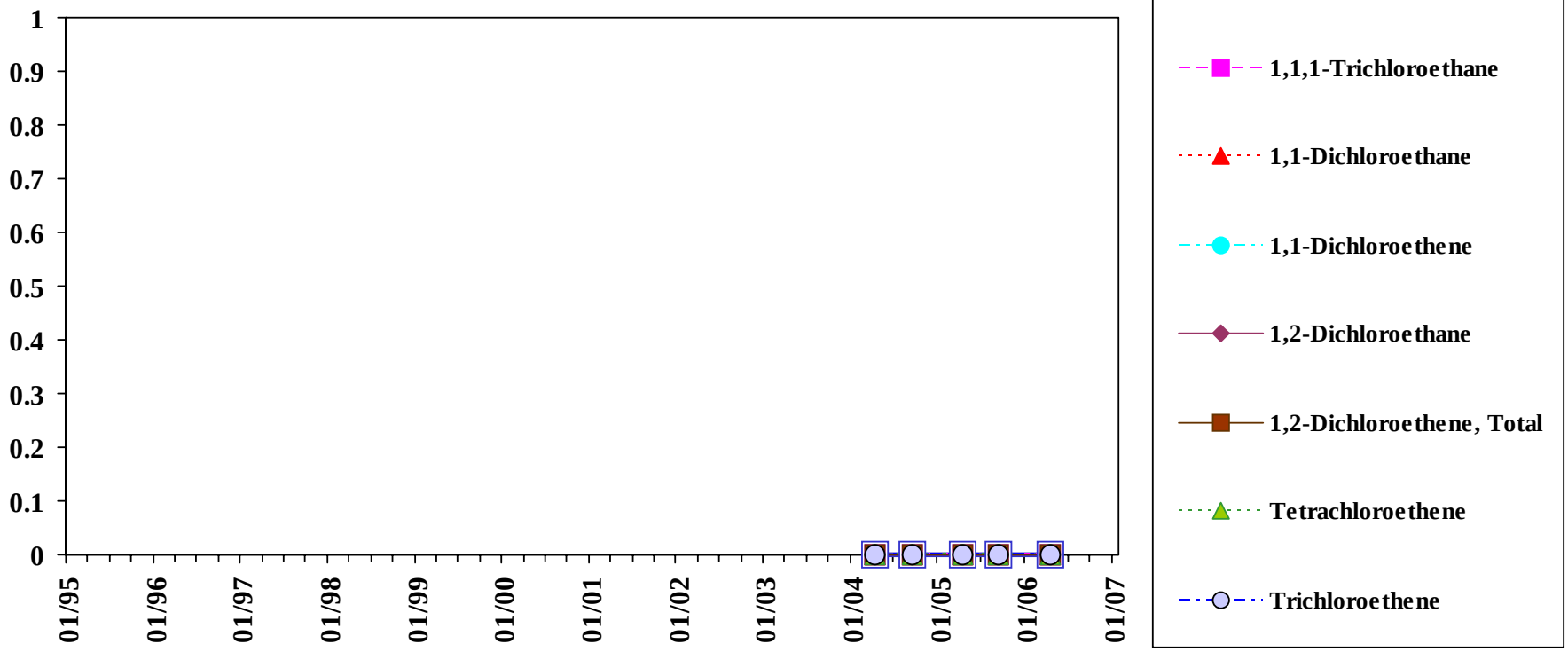
Sample Location:

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

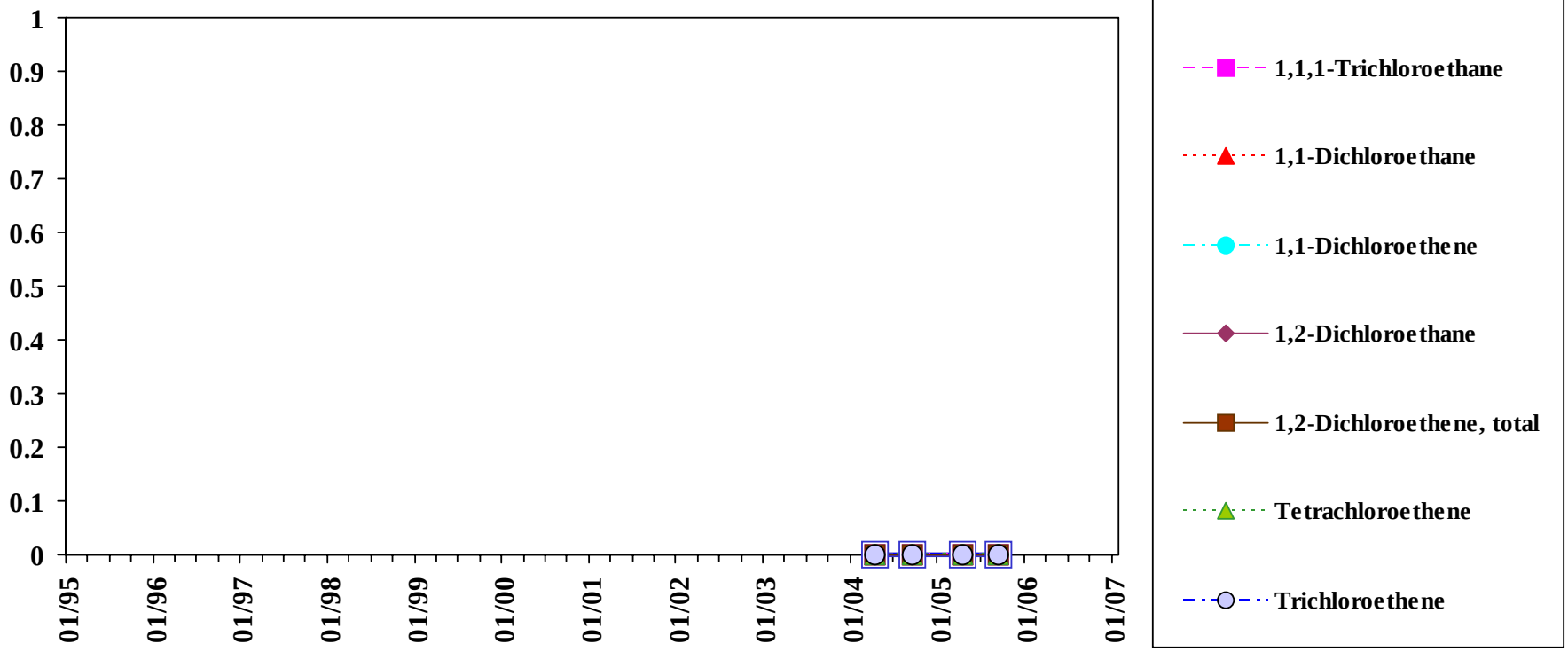
Sample Location:

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

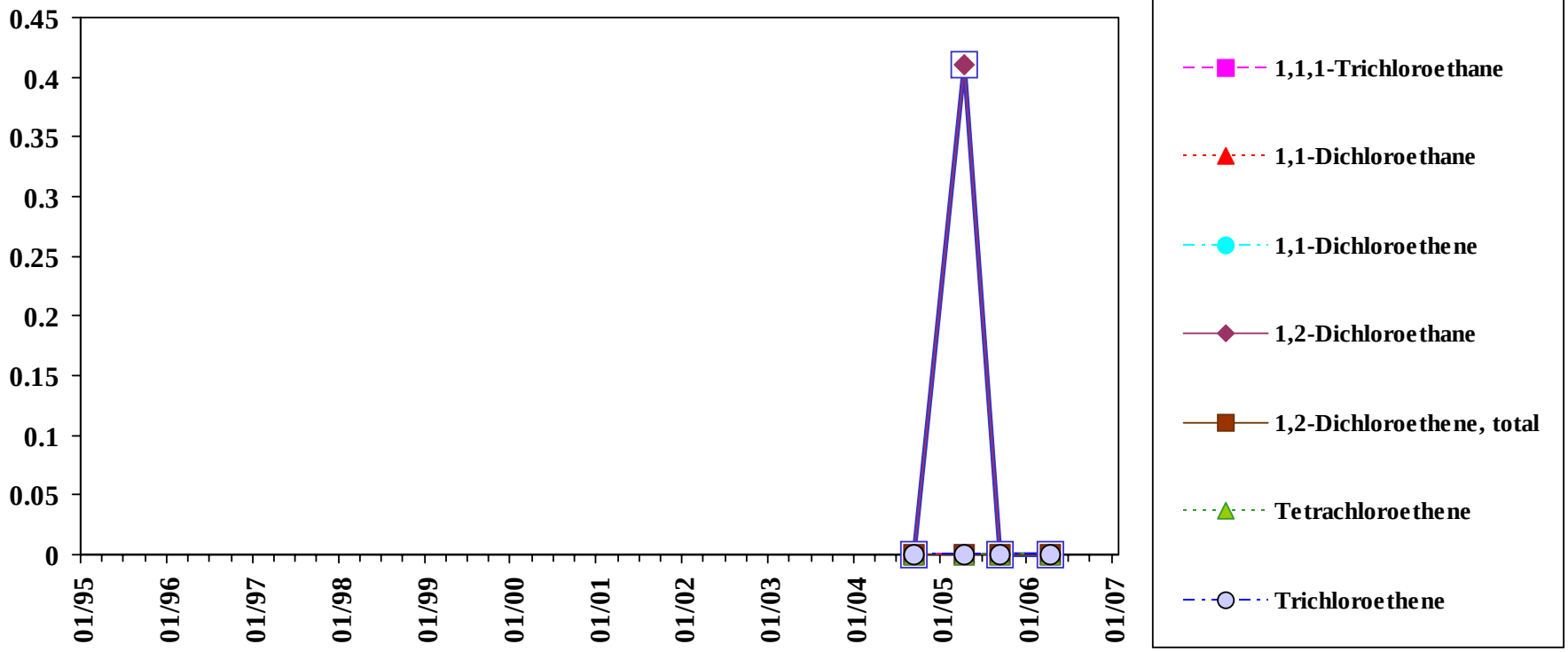
Sample Location:

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

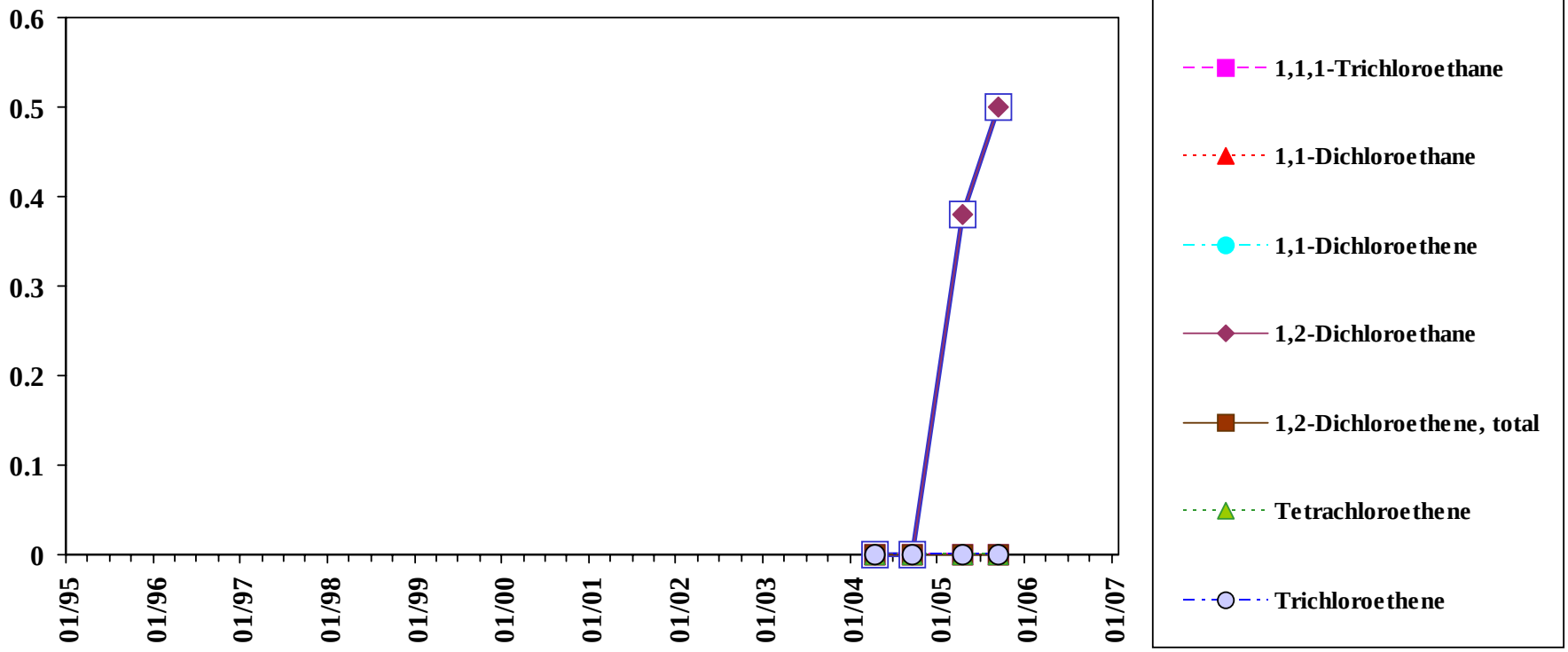
Sample Location:

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

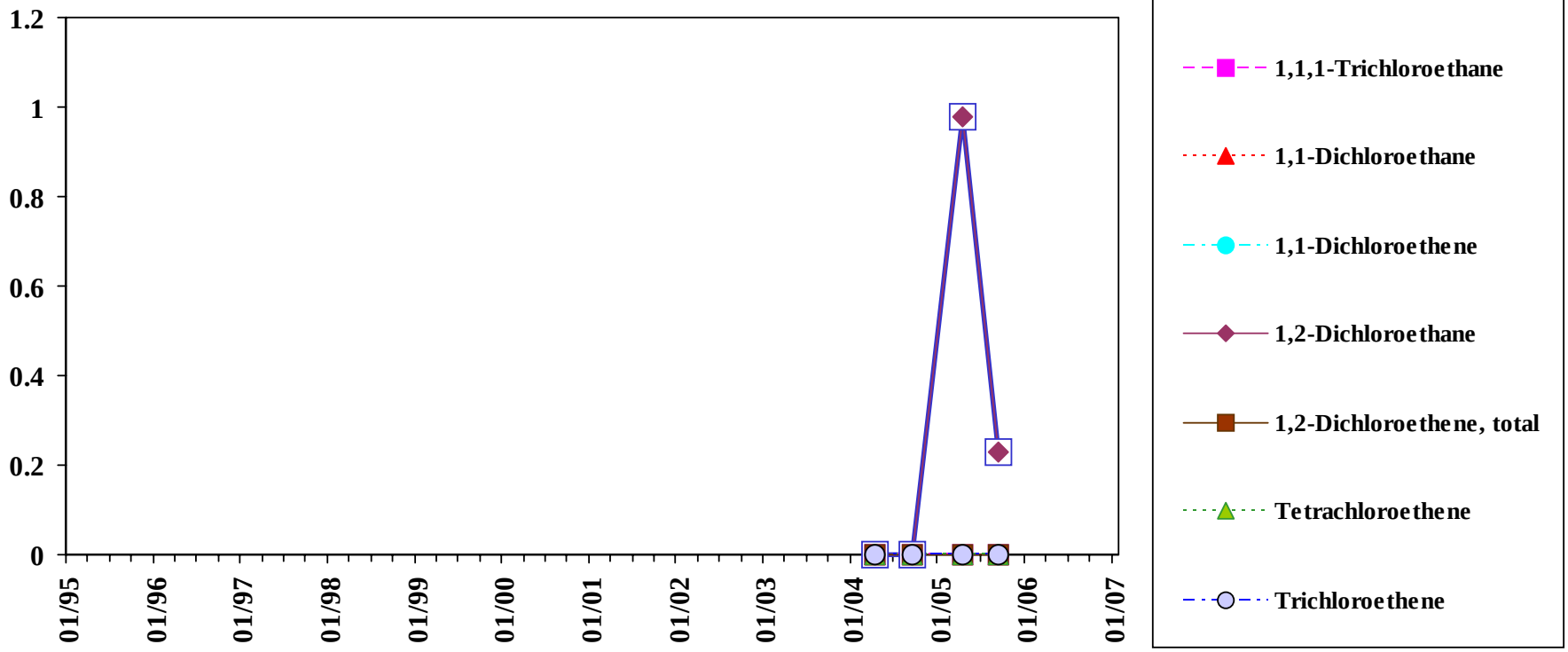
Sample Location:

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

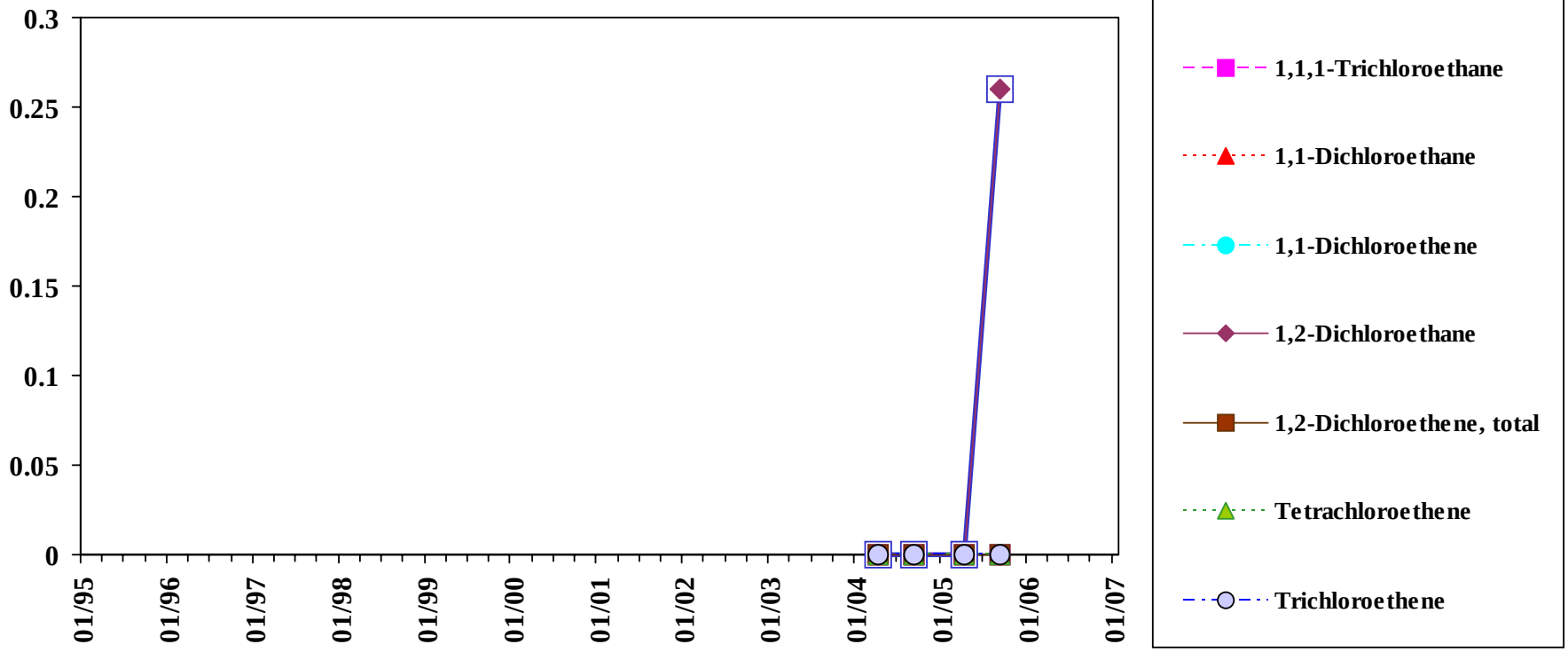
Sample Location:

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

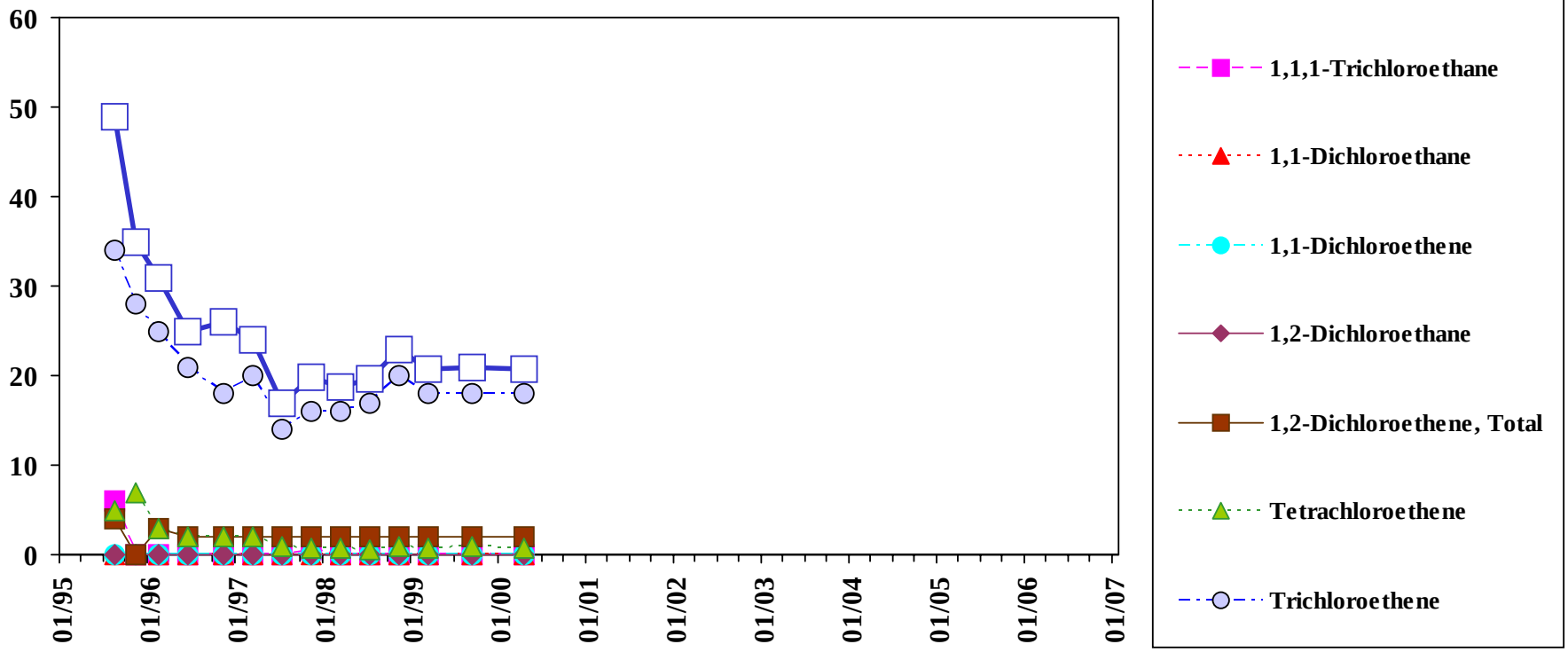
Sample Location:

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

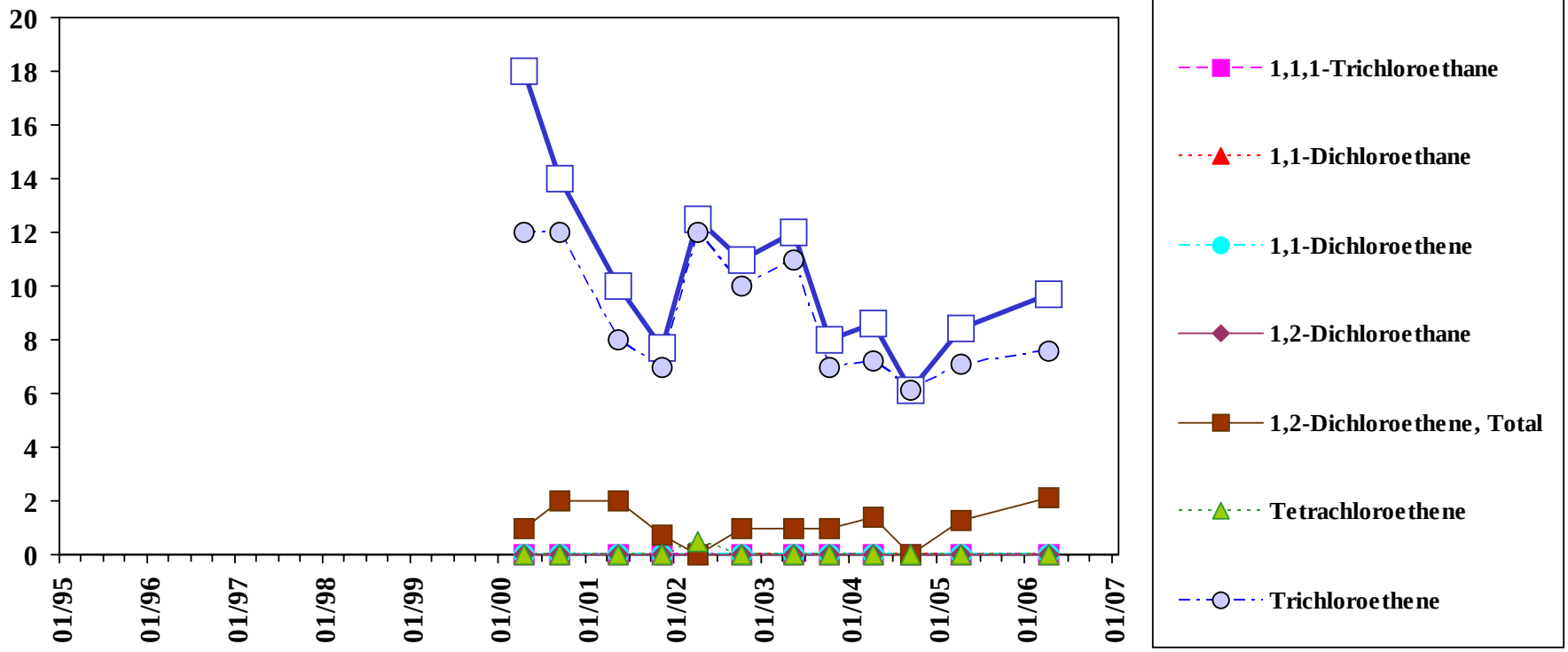
Sample Location:

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

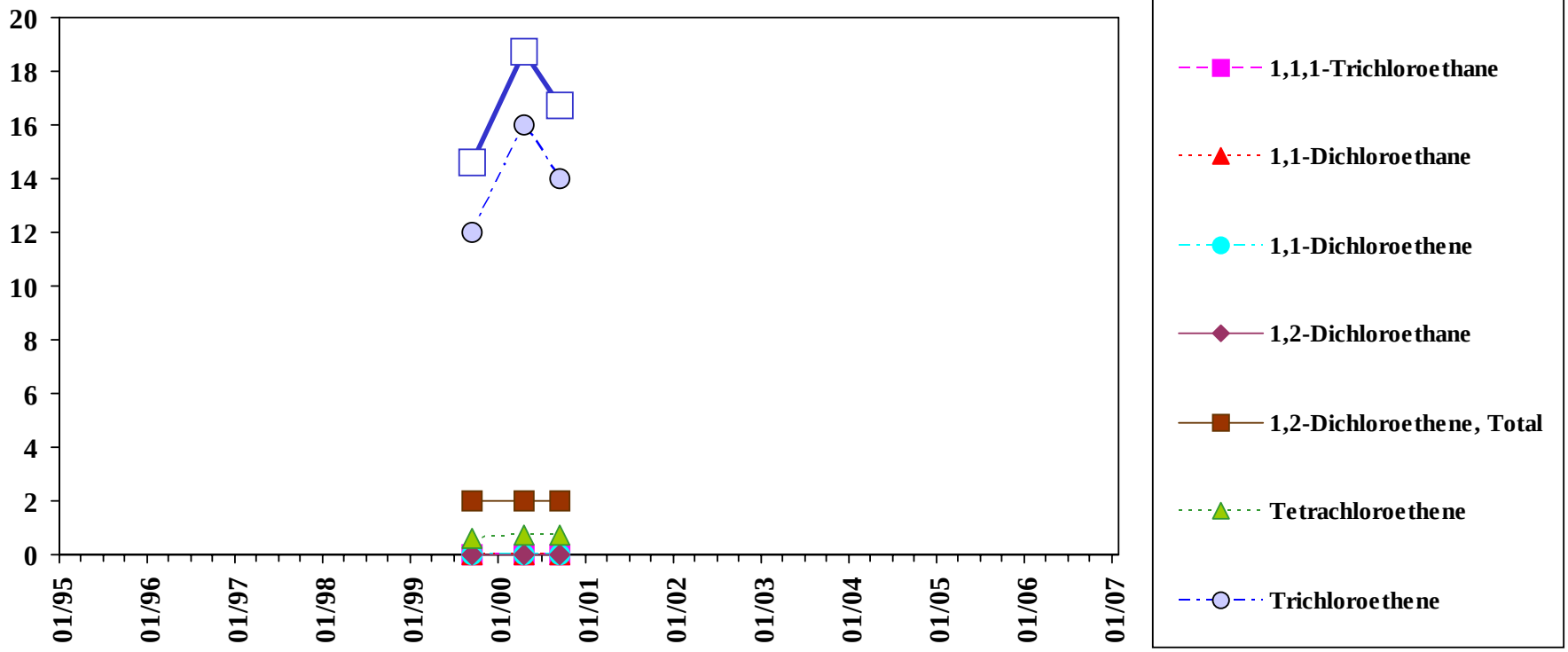
Sample Location:

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

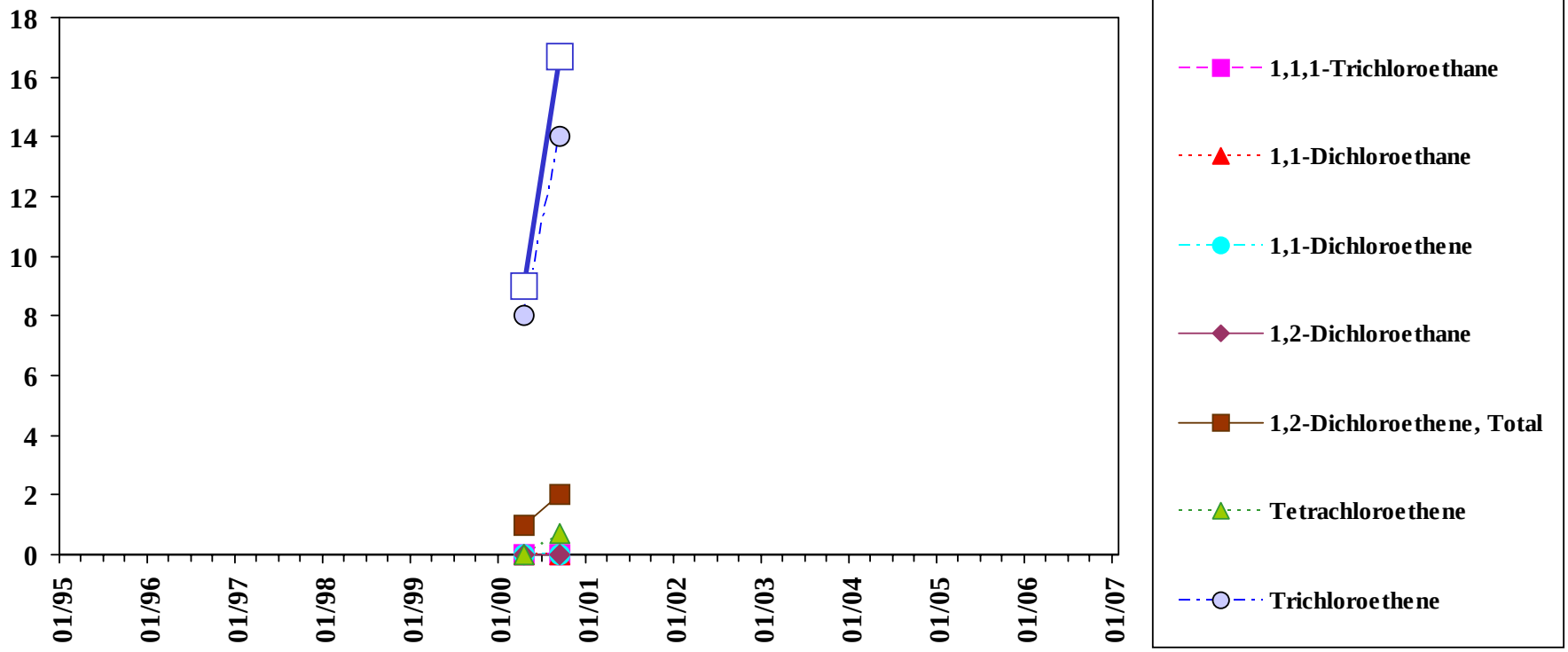
Sample Location:

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

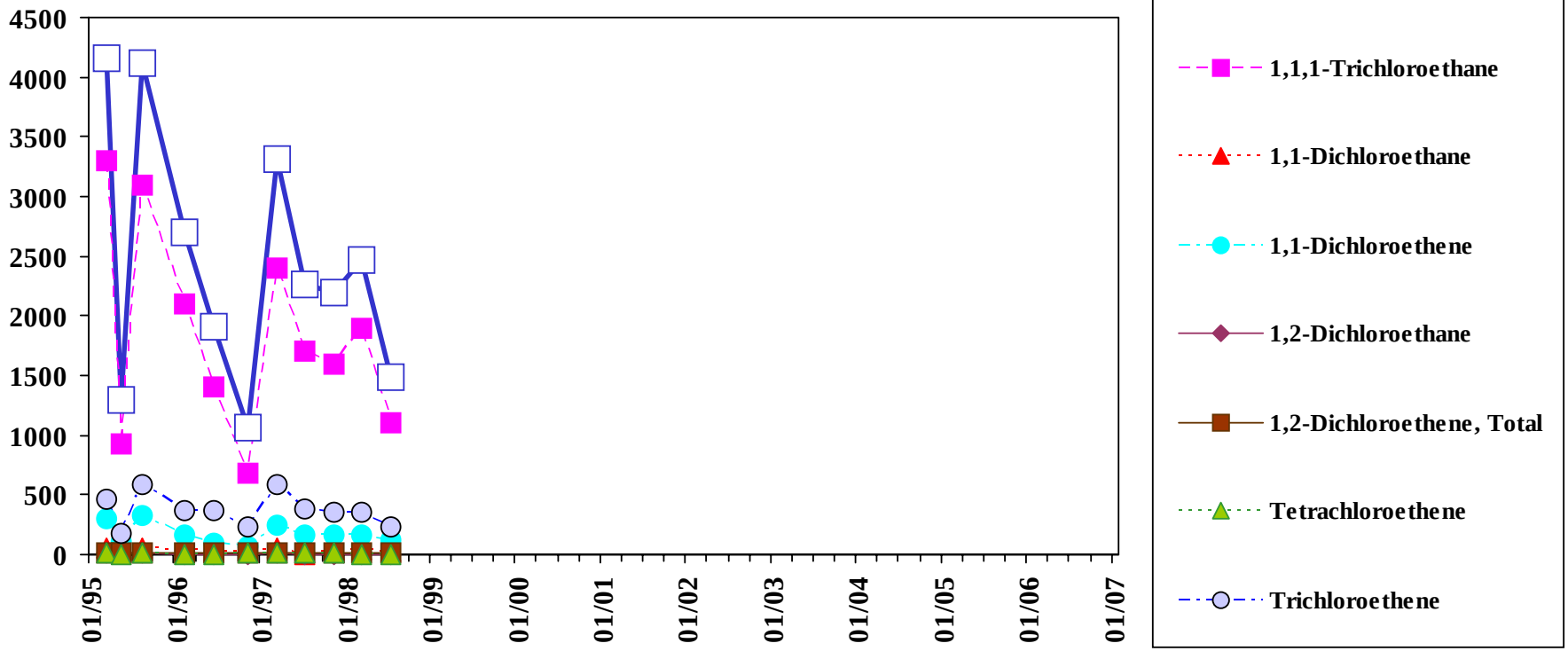
Sample Location:

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

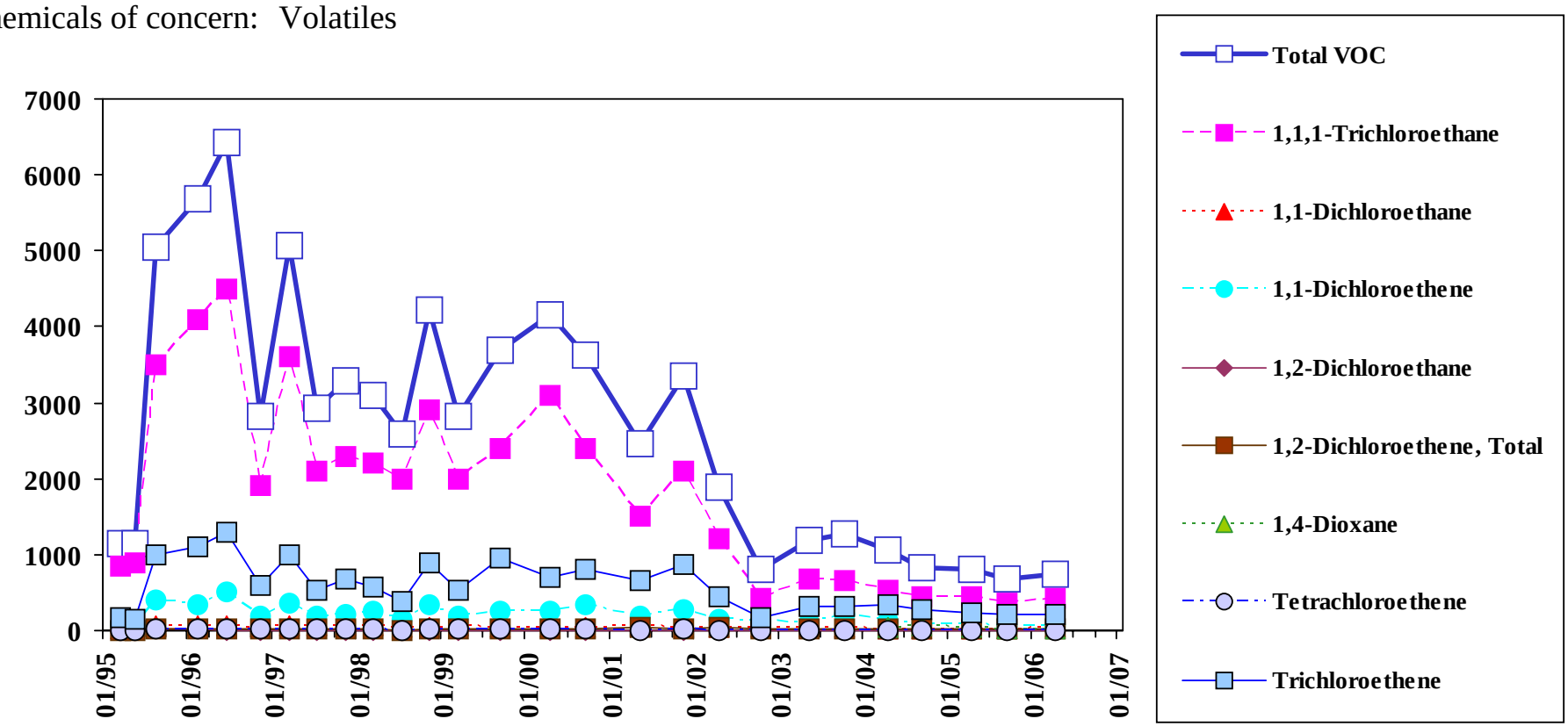
Sample Location:

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

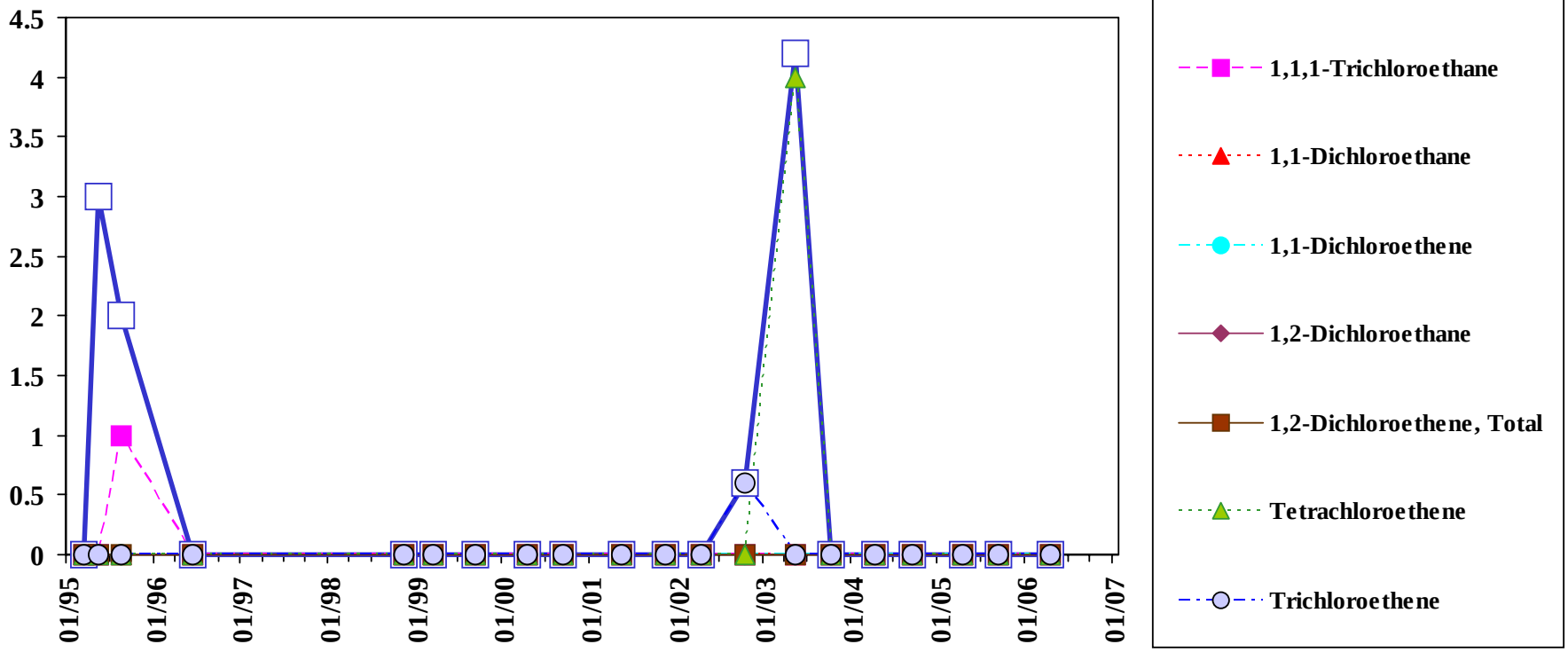
Sample Location:

P-111

Low-flow Sample

Eastern Plume Groundwater

Chemicals of concern: Volatiles



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

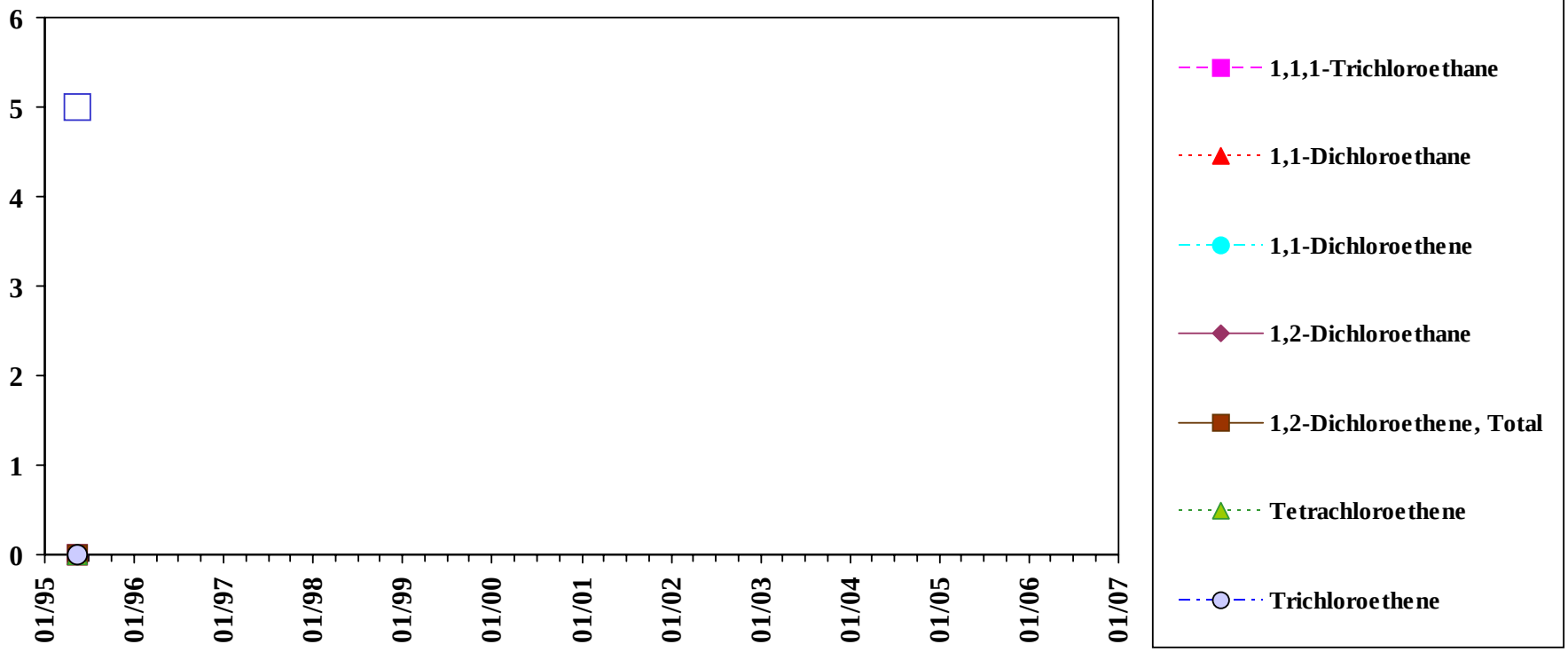
Sample Location:

P-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

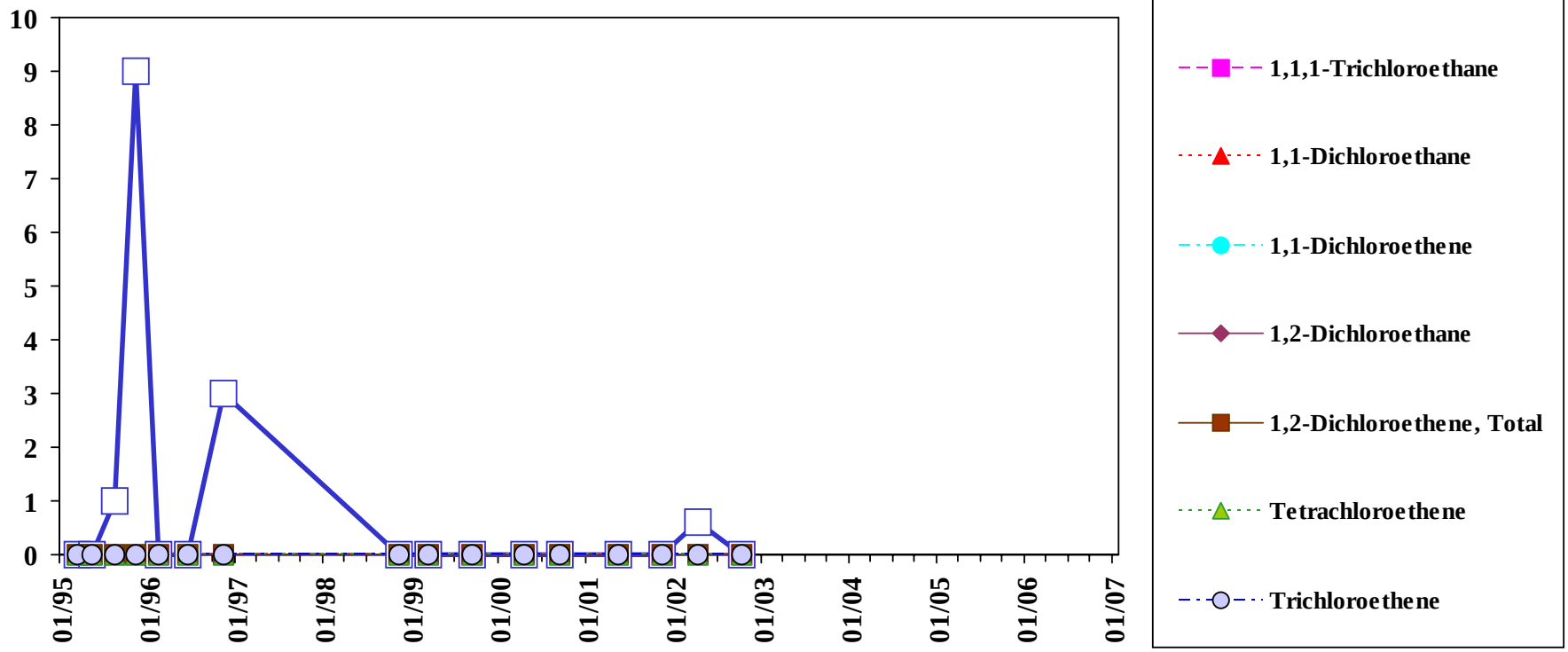
Sample Location:

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

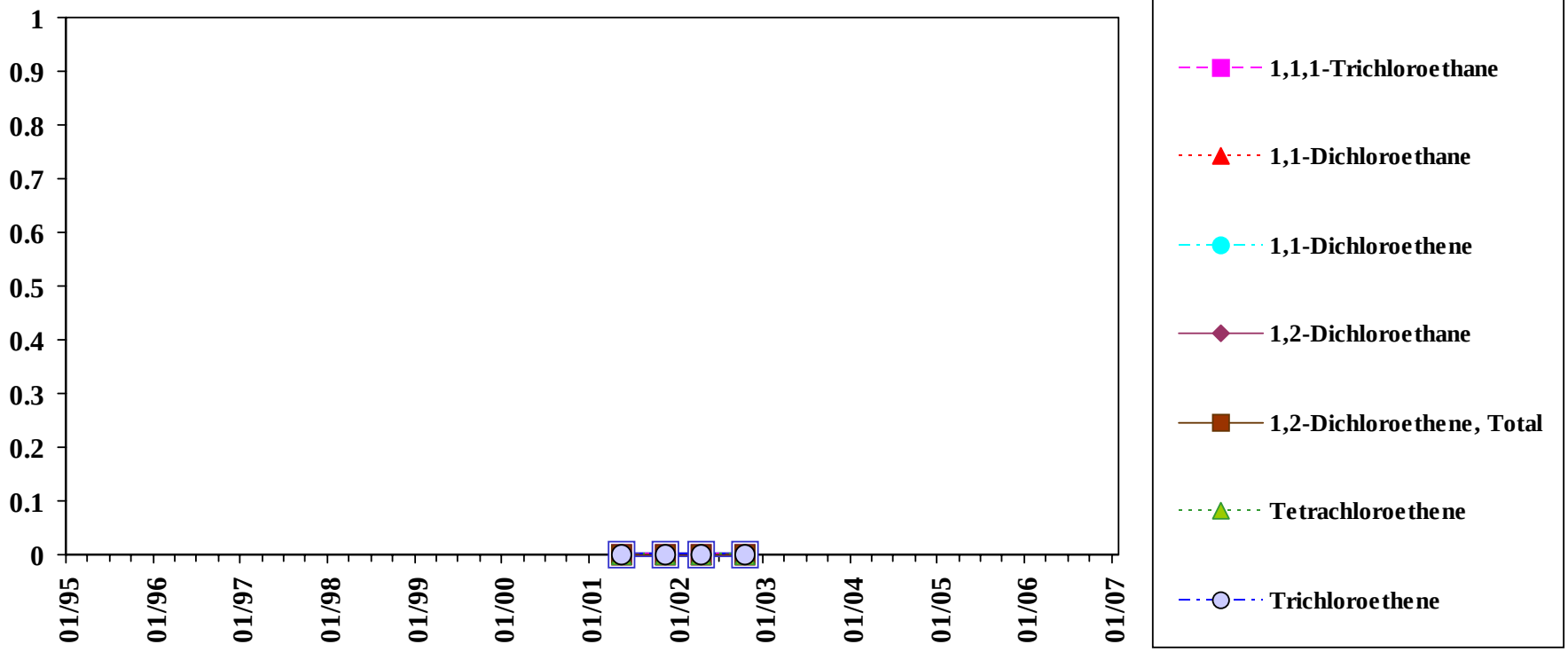
Sample Location:

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

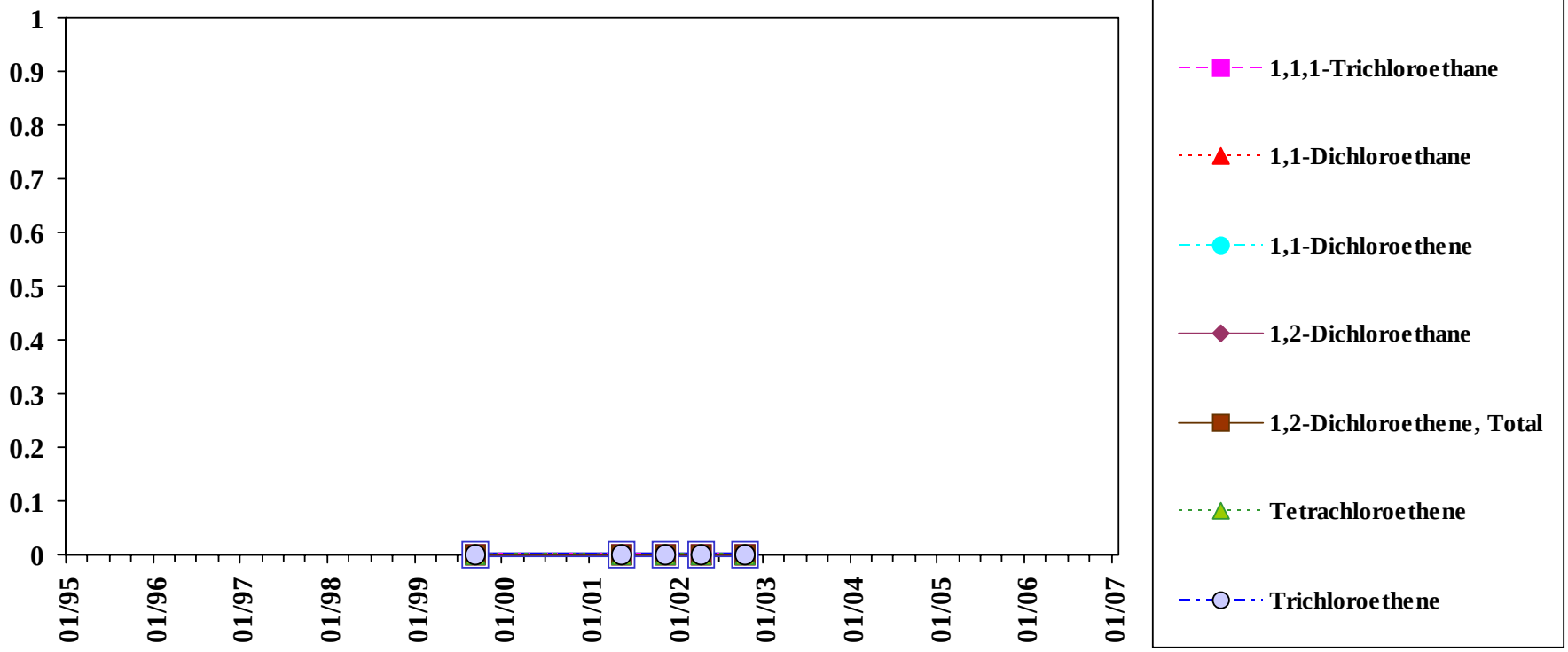
Sample Location:

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

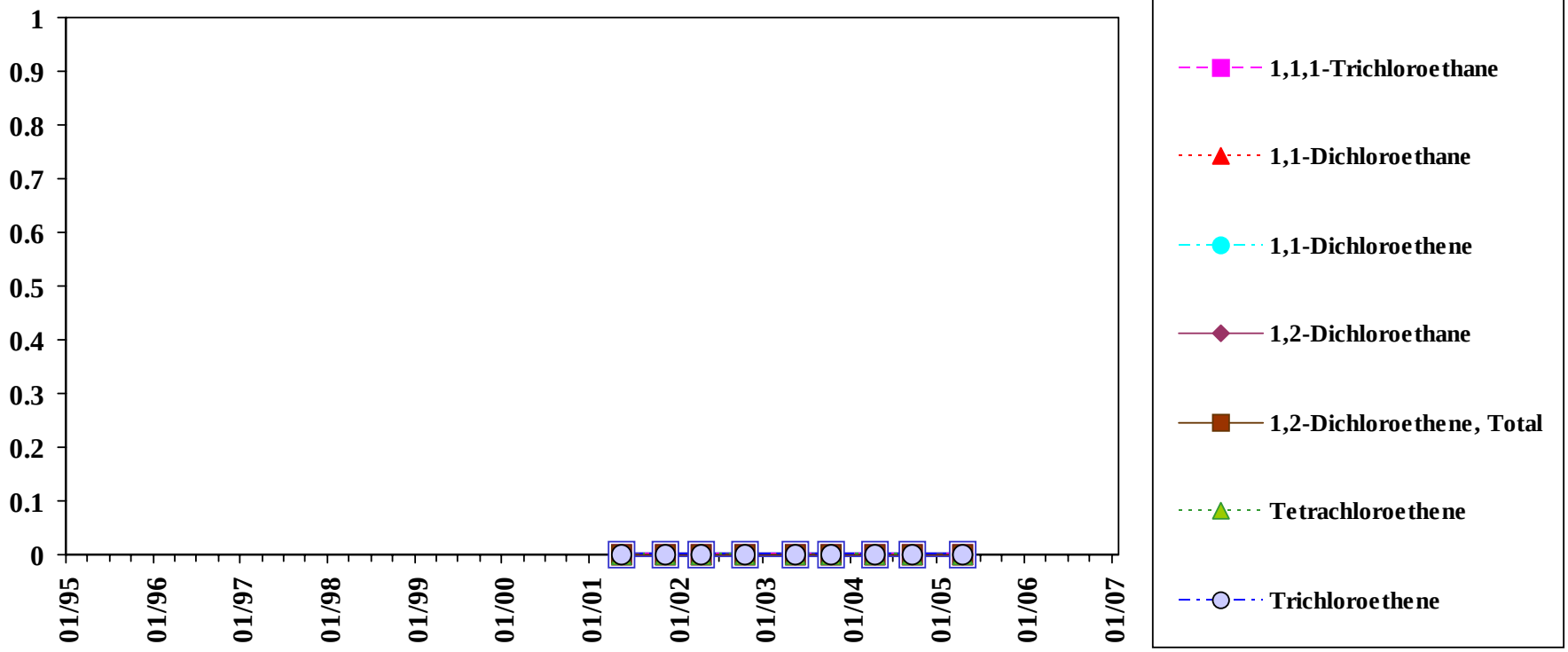
Sample Location:

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

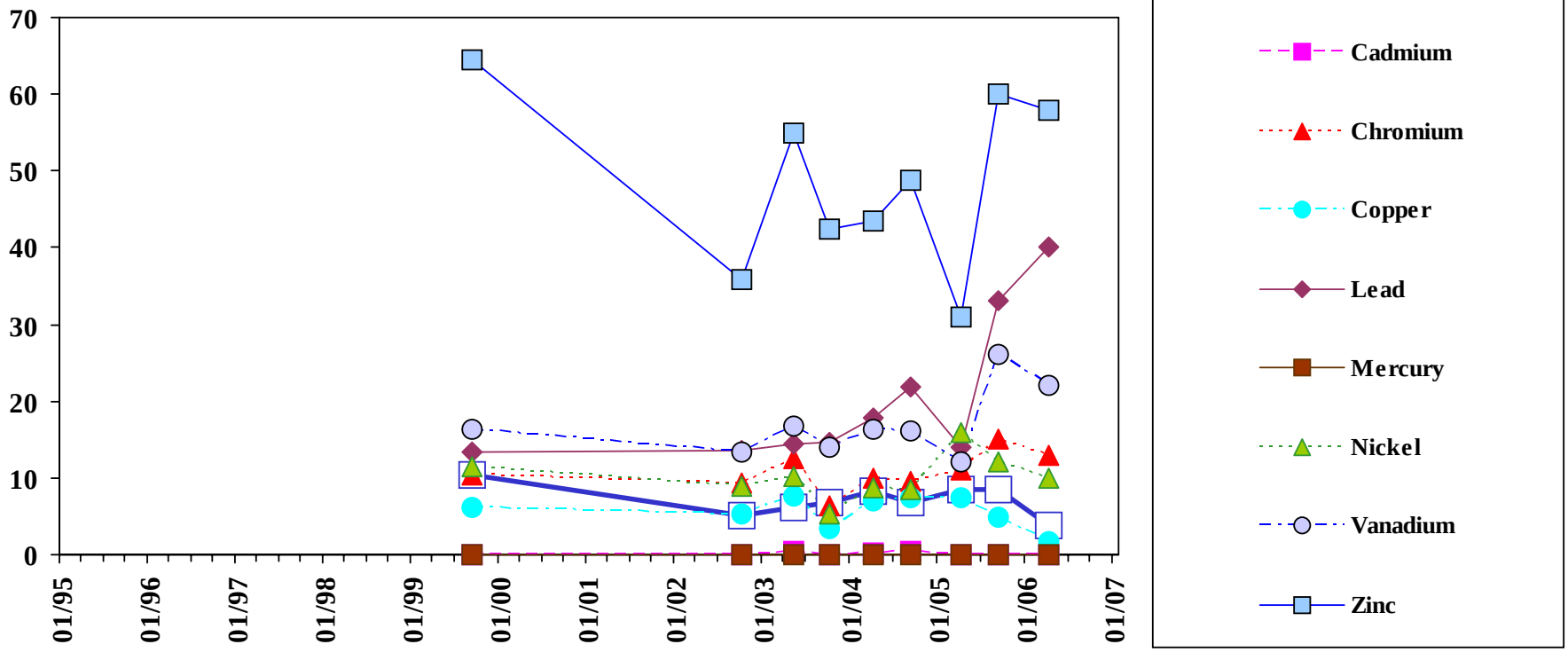
1,1,1-Trichloroethane		1,1-Dichloroethane		1,1-Dichloroethene		1,2-Dichloroethene, total		Tetrachloroethene		Trichloroethene	
MEG:	200	MEG:	70	MEG:	7	MEG:	70	MEG:	3	MEG:	5
MCL:	200	MCL:	-	MCL:	7	MCL:	70	MCL:	5	MCL:	5

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.

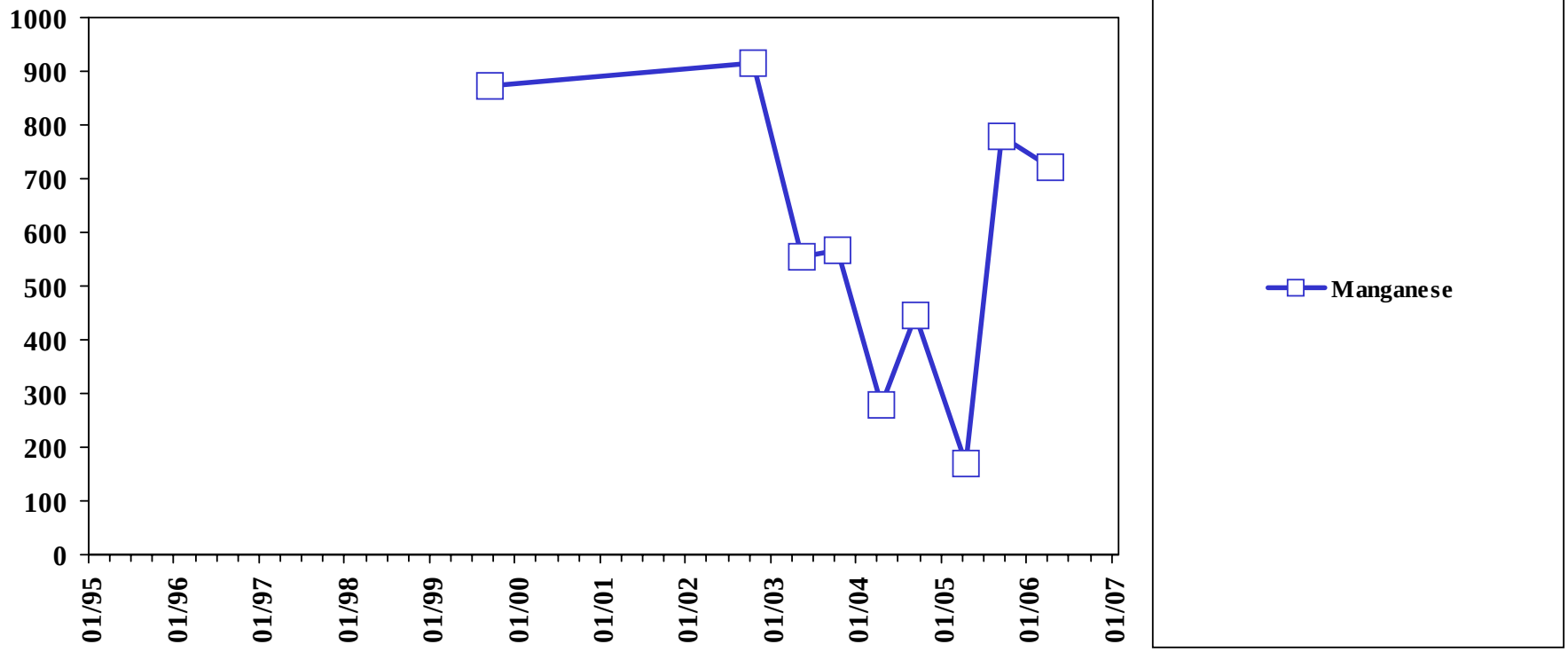
Sample concentration units: mg/Kg

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

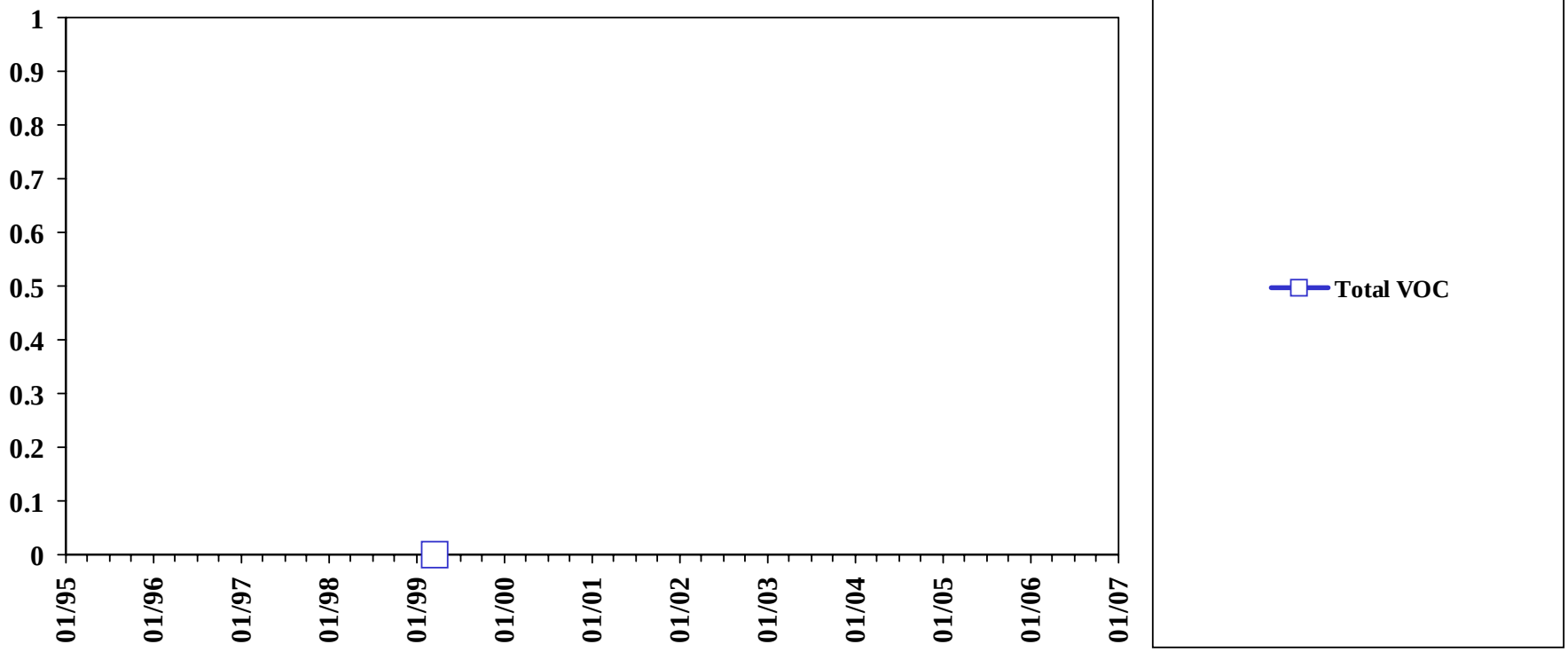
Sample Location:

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

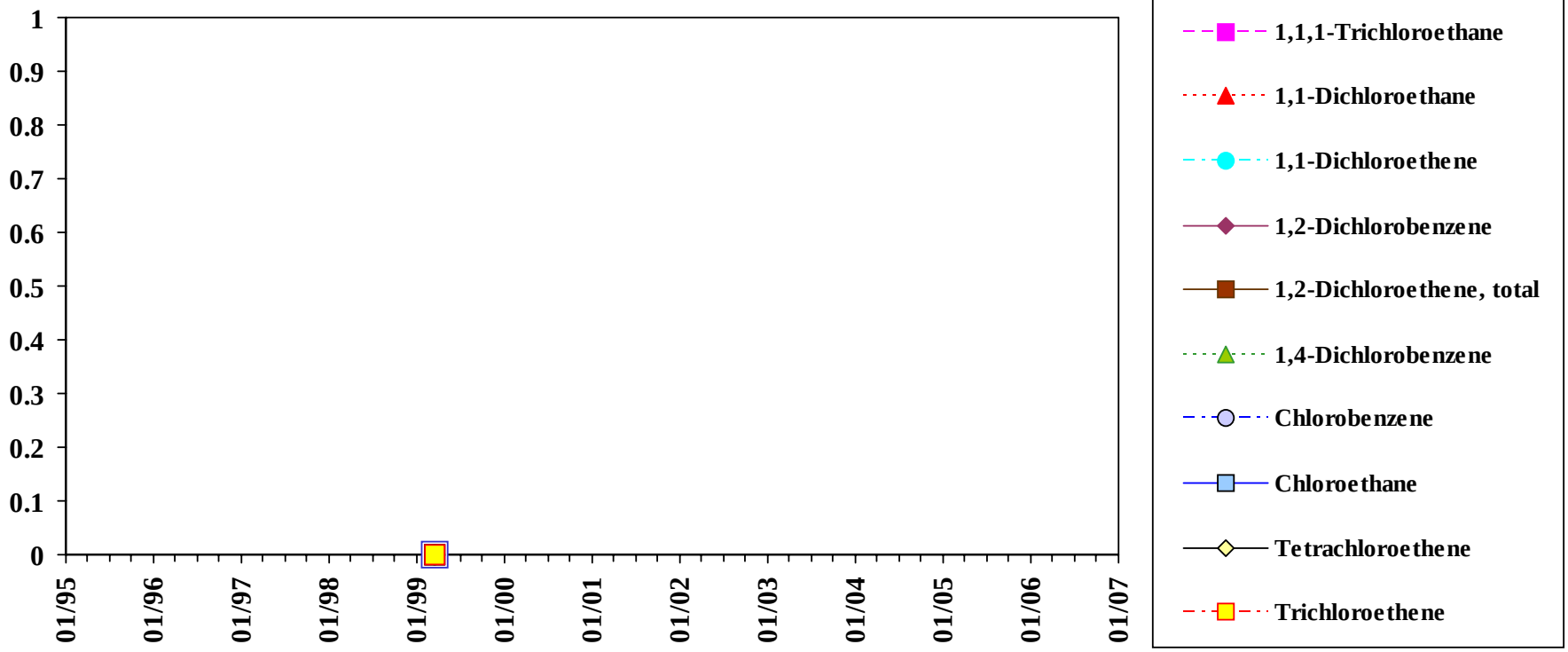
Sample Location:

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

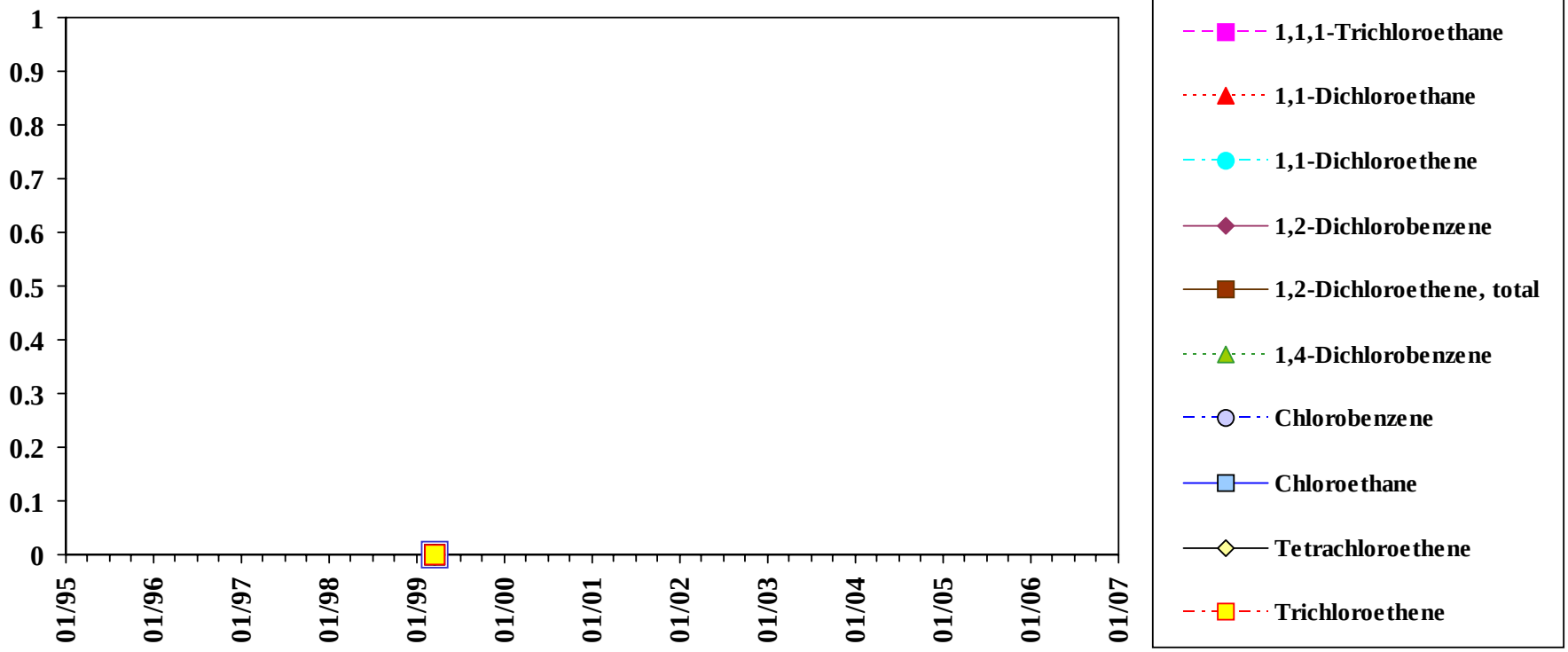
Sample Location:

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

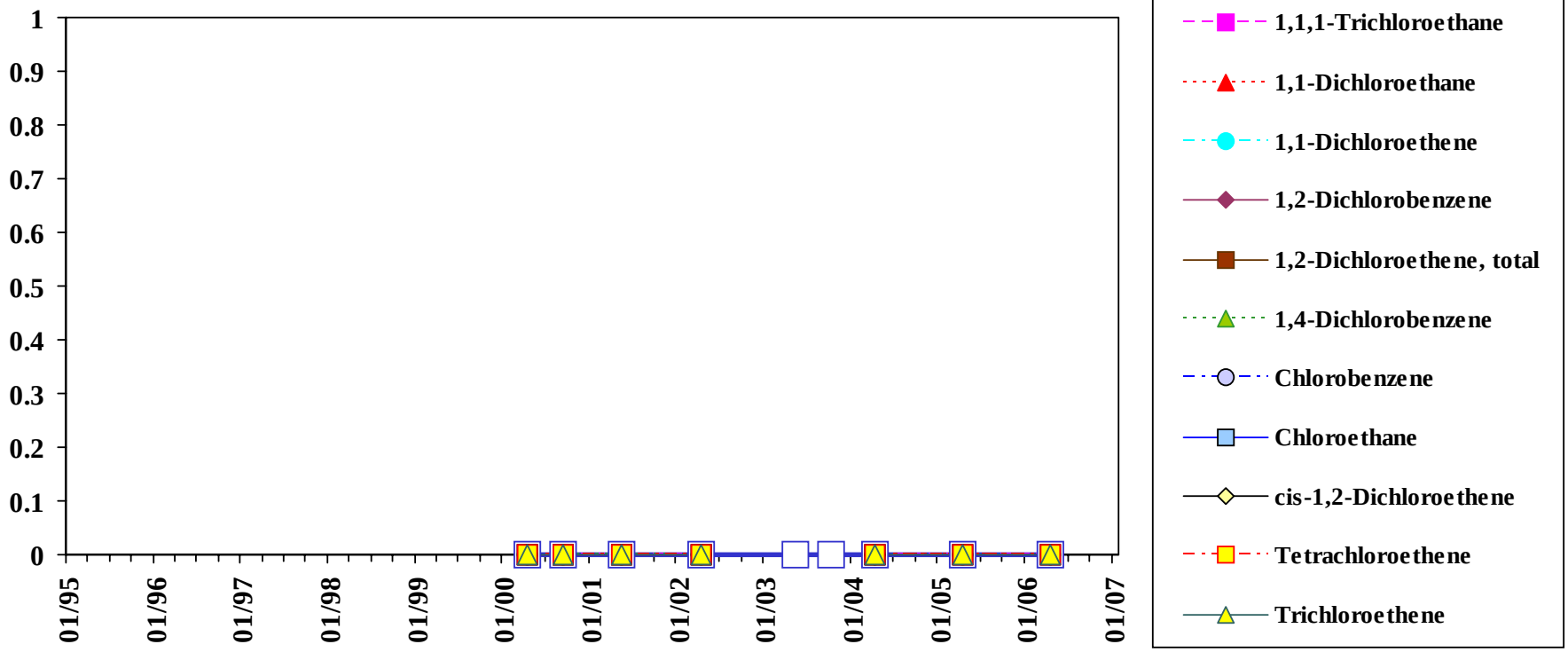
Sample Location:

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

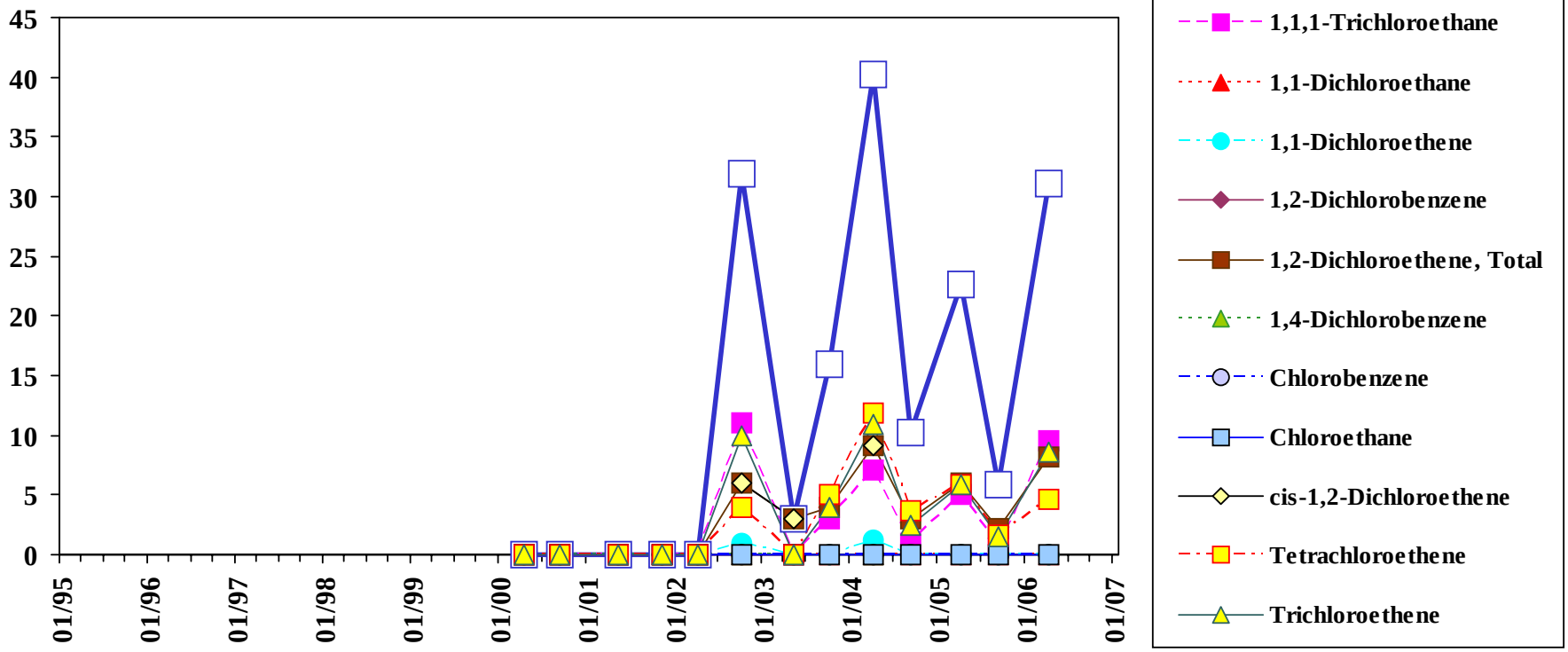
Sample Location:

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

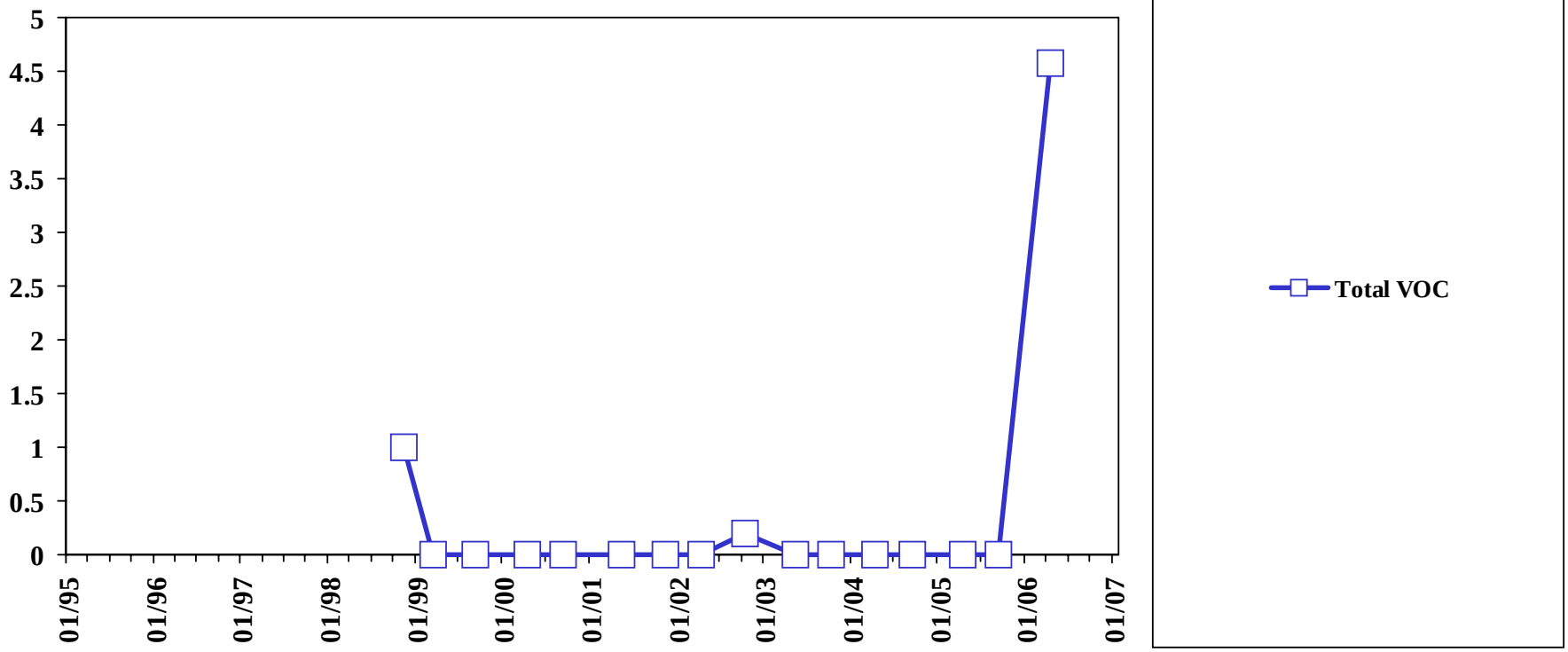
Sample Location:

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

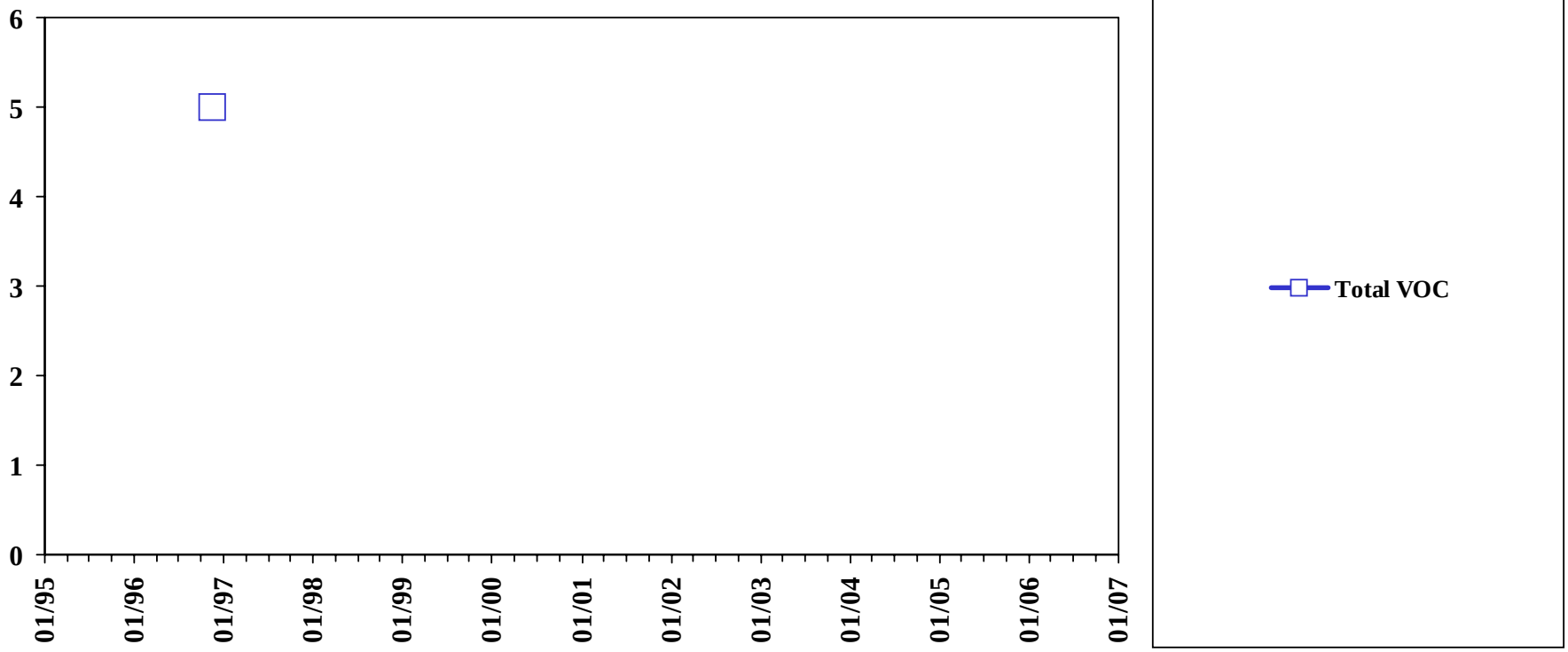
Sample Location:

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

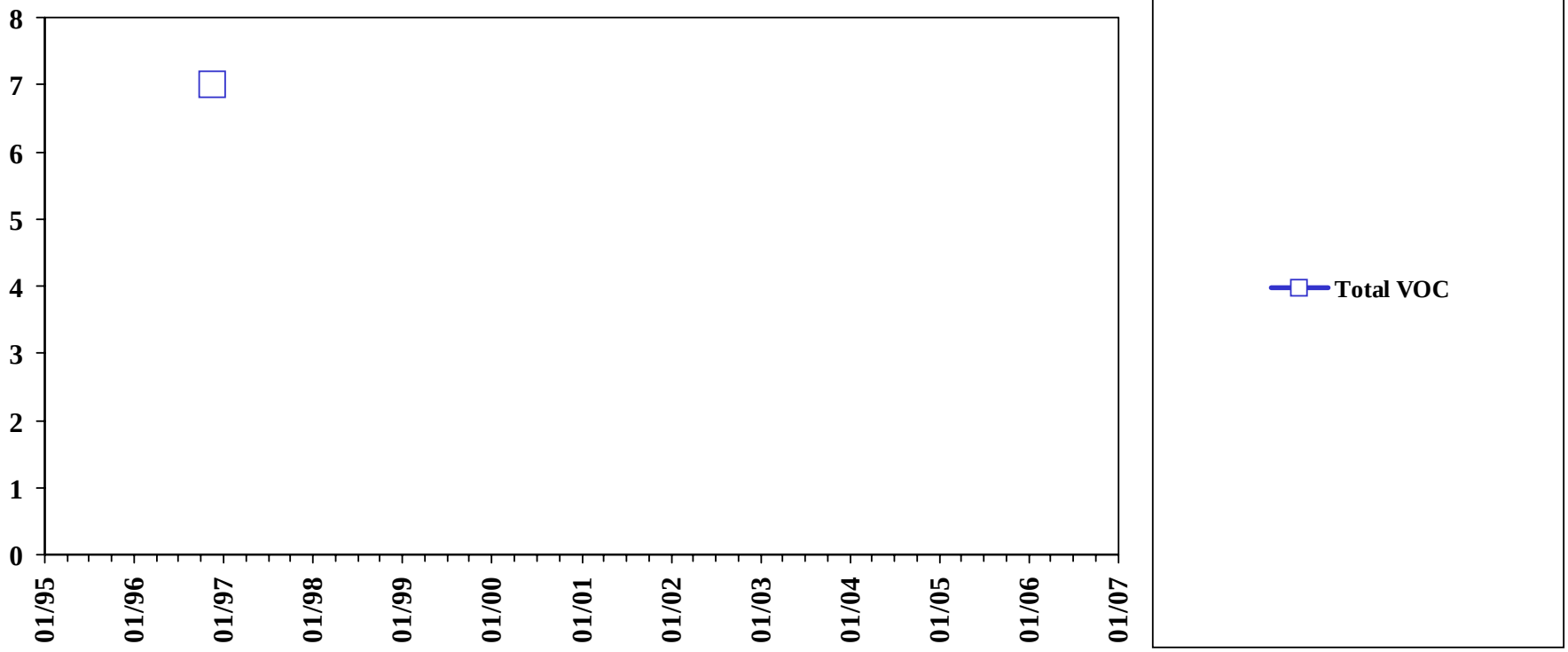
Sample Location:

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

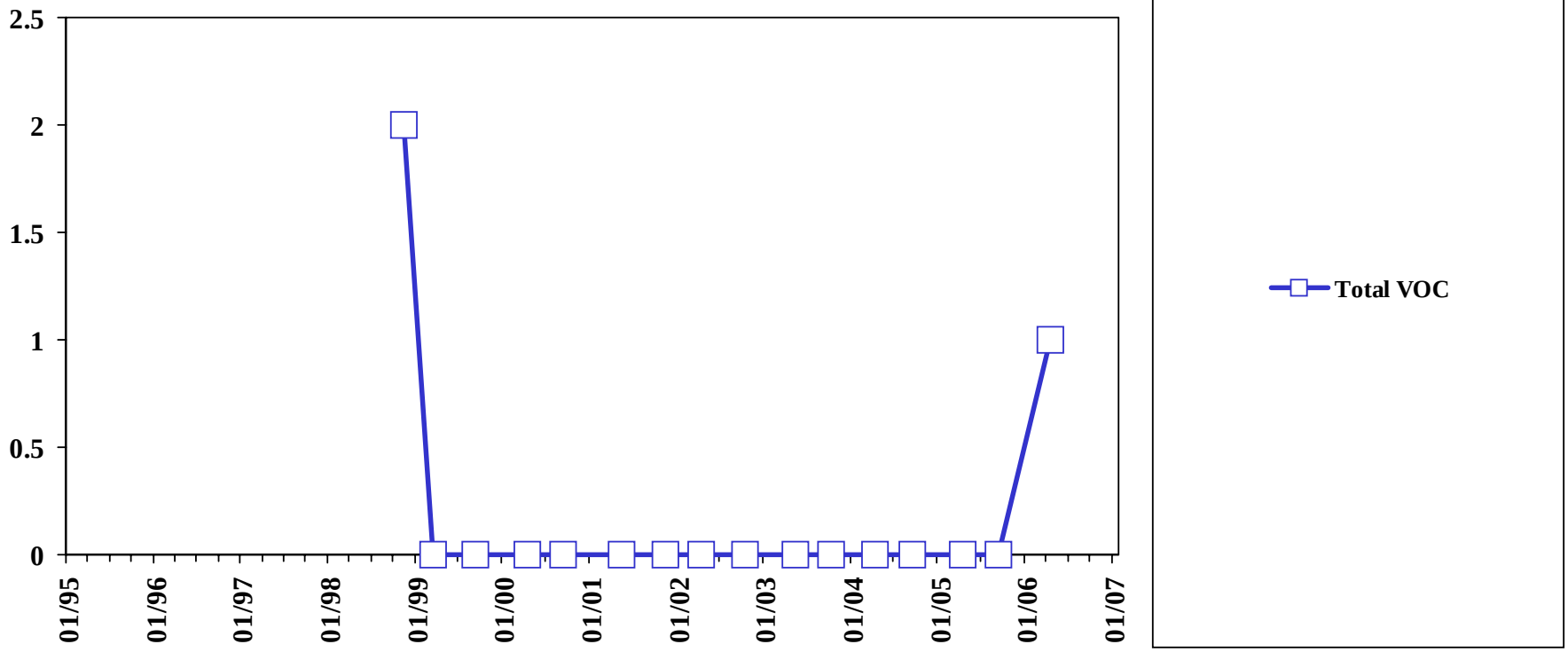
Sample Location:

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

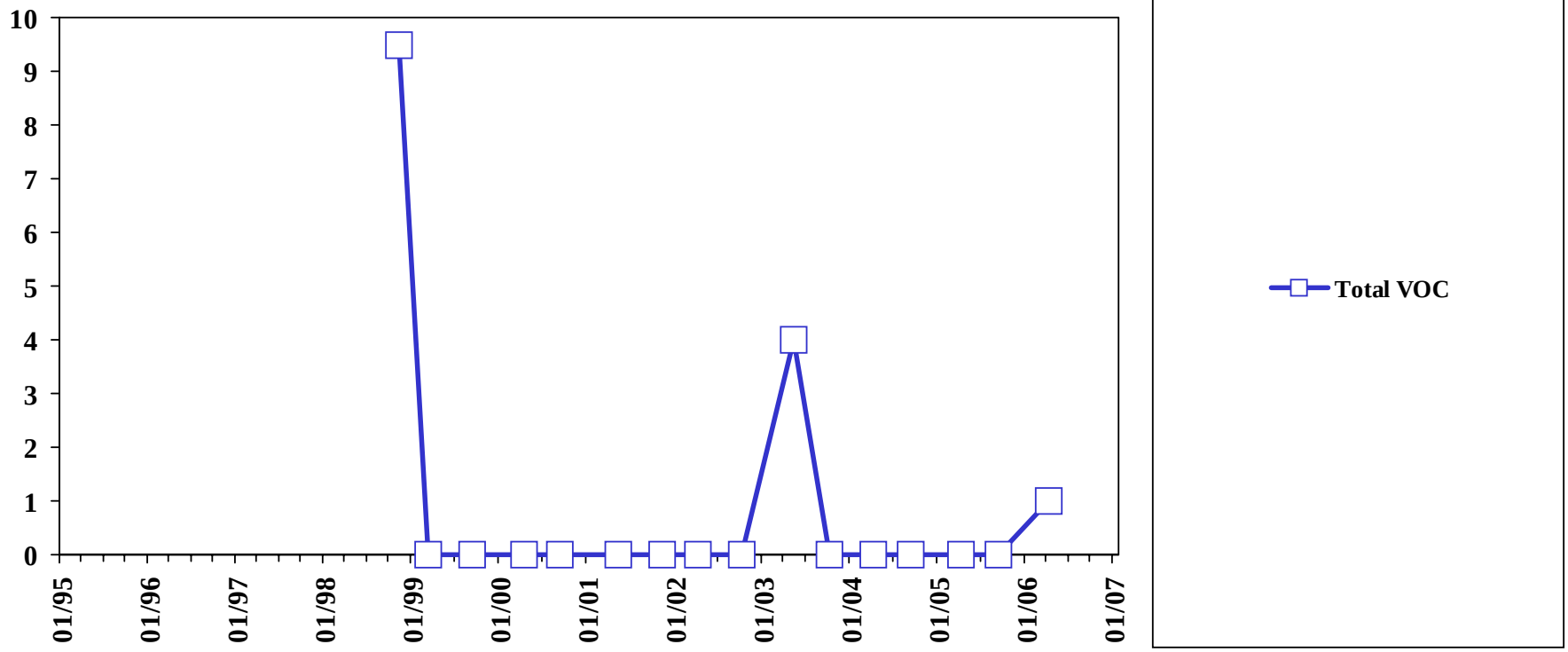
Sample Location:

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

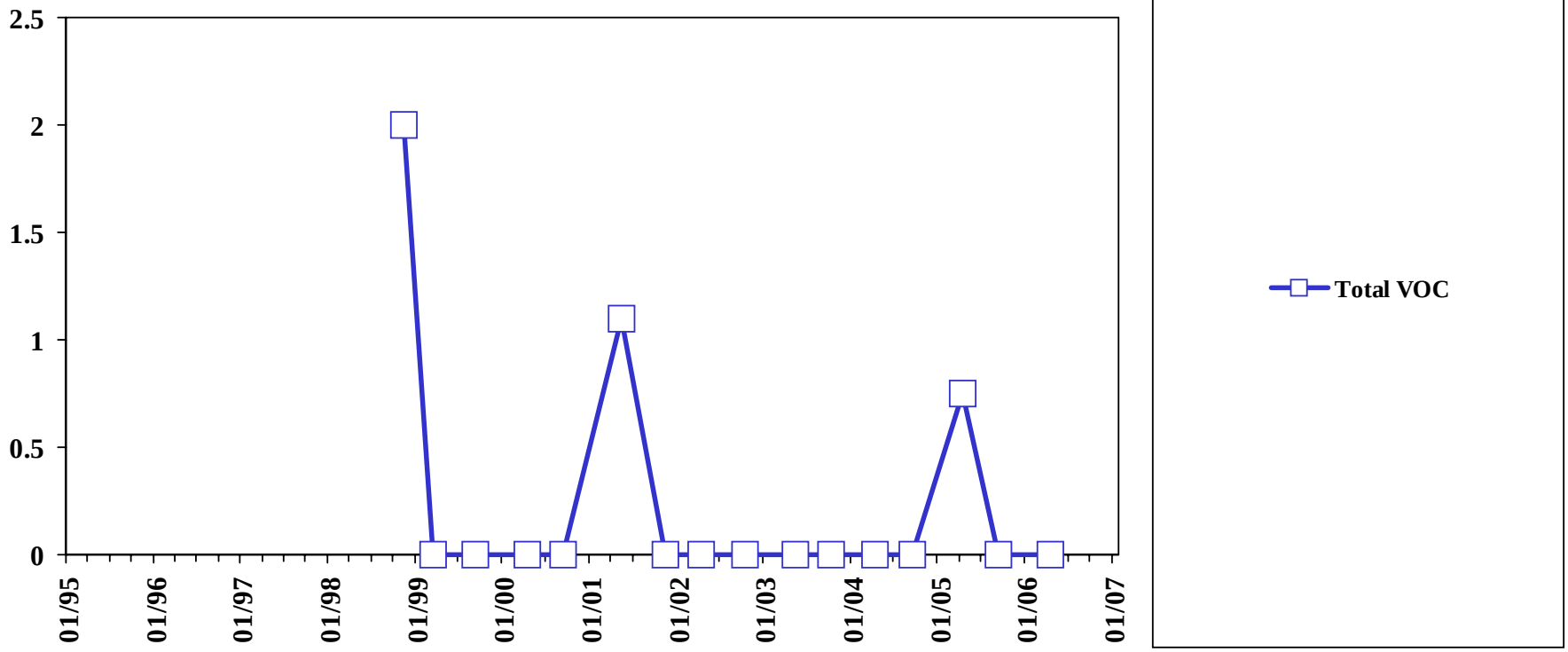
Sample Location:

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

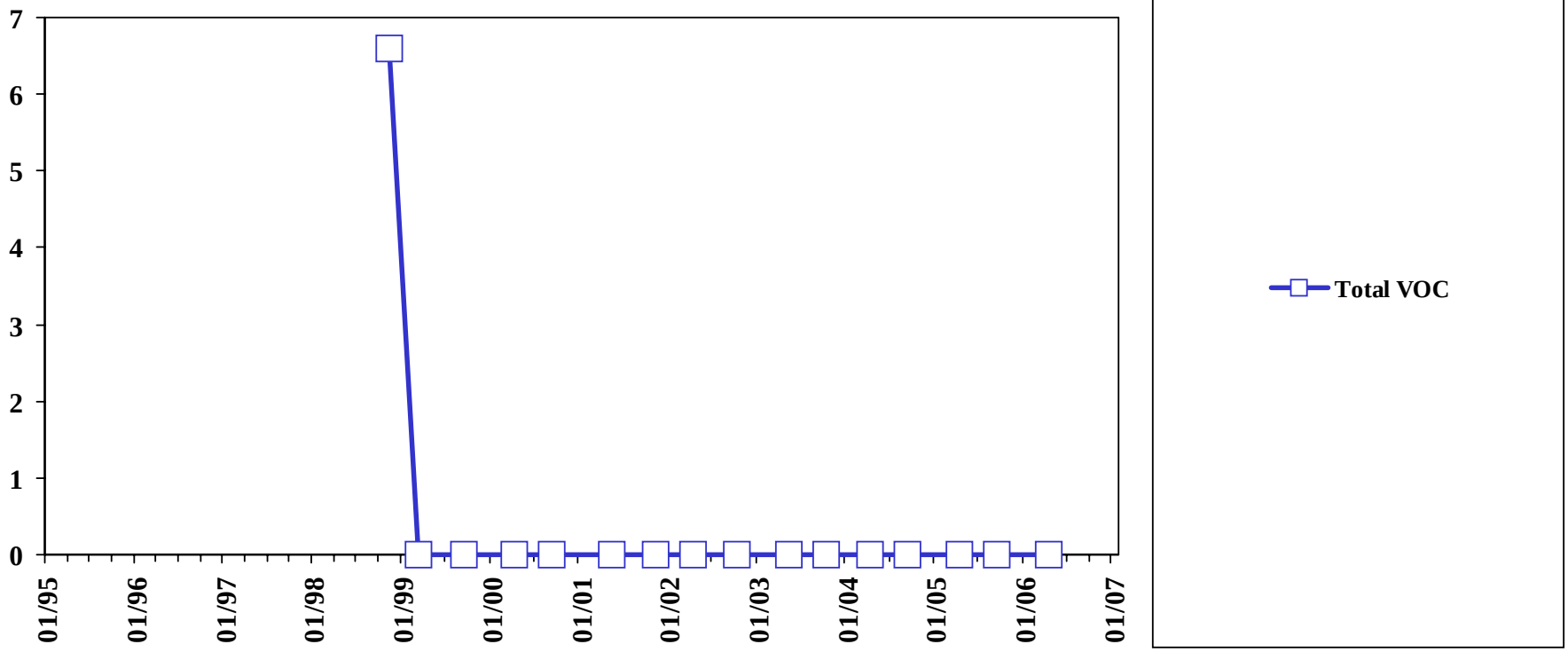
Sample Location:

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
Sites 1, 3, and Eastern Plume
April 2006 Sampling Event

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 28th monitoring event, performed in April 2006, consisted of collecting aqueous samples at 82 sites and sediment samples at 6 locations. The Eastern Plume consisted of 56 aqueous sampling sites and 1 sediment location. Sites 1 and 3 consisted of 20 aqueous sample sites and 5 sediment locations.

For the combined analyses for these sites, the laboratory was provided with all field samples, which included the field quality control samples. Field sample duplicates and trip blanks were collected at the frequency required by the QAPP.

The samples were sent to either Northeast Laboratory in Waterville, Maine or Air Toxics Laboratory in Folsom, California. Both laboratories are NAVFAC and NELAC approved.

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*** – The method detection limit (MDL) 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*** – The practical quantitation limit (PQL) is 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*** – The method reporting limit (MRL) is 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***—The measurement performance criteria (MPC) define the acceptable performance for the data quality indicators- accuracy and precision. The LTMP QAPP specifies the project 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, extraction wells, leachate seeps, and surface waters were analyzed for LTMP (2000a EA) parameters:

- Target Compound List (TCL) volatile organic compounds (VOCs) by EPA SW-846 Method 8260B,
- 1,4-Dioxane by EPA SW-846 Method 8260B SIM,
- Target Analyte List (TAL) Metals by EPA SW-846 6010B/7000 Methods
- Pesticides by EPA SW-846 Method 8081A,
- MNA Parameters Metals (Arsenic, Iron, & Manganese) by EPA SW-846 Method 6010B
- EPA Region 1 SOP for Methane, Ethane, and Ethene (also known as VSK-175)
- Alkalinity by EPA Method 310.1,
- Chloride by EPA Method 325.3,
- Nitrate/Nitrite (NO_2/NO_3) by EPA Method 353.2,
- Nitrite (NO_2) by EPA Method 354.1,
- Sulfate (SO_4) by EPA Method 375.4,
- Total Organic Carbon (TOC) by EPA Method 41.51.

The soil samples collected were analyzed for LTMP (2000a EA) parameters:

- TCL VOCs by EPA SW-846 Method 8260B,
- TAL Metals by EPA SW-846 6010B/7000 Methods,
- Grain Size,
- and TOC by EPA Method 41.51.

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.

Per technical meetings between stakeholders, ECC was directed to collect 1,4-dioxane water samples. This 1,4-dioxane survey was completed by collecting water from four select monitoring wells, one piezometer, and one treatment plant effluent sample and analyzing the sample by EPA SOP-VOADIOX1. 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 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 (UCL), 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 (LCL), 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 UCL, all positive detects are estimated and the non-detects are not effected (U.S. EPA 1996).r
- If the surrogate recovery is greater than or equal to 10 percent, but less than the LCL, 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 UCL, 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 LCL, 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 MNA VOCs, 1,4-Dioxane 8260B-SIM, & Volatile Organic Compounds 8260B

D.2.2.1.1 Surrogates

<u>Region 1 Methane / MNA / VSK-175:</u>
The methane, ethane, and ethene analysis method VSK-175 does not require surrogates.

<u>1,4-Dioxane 8260B-SIM:</u>
The surrogate recoveries for 1,4-dioxane analysis were within MPC.

Volatiles-8260B:

Three surrogates (1,2-dichloroethane-d4; toluene-d8; 4-bromofluorobenzene) were used to measure the ability of the laboratory to purge the target analytes from the environmental samples for Method 8260B. QAPP surrogate dibromofluoromethane was not spiked; however, the surrogates used were adequate for assessing sample-specific method accuracy. The surrogate control limits for data assessment were the limits identified in the QAPP.

The recovery for surrogate 1,2-dichloroethane-D4 was slightly outside the laboratory established QC limits in 11 samples in sample delivery group (SDG) BNASSITES1. No qualifications were required because the surrogate recovery was within the QAPP limits.

The recovery for surrogate 1,2-dichloroethane-D4 was high in the diluted analyses for samples BN-1&3-28-MW1-301S and BN-EP-28-MW315A-D. The acetone detect in the diluted analysis of sample BN-1&3-28-MW1-301S was qualified (J). The hexachlorobutadiene and acetone detects in sample BN-EP-28-MW315A-D were qualified (J).

The recovery for surrogate toluene-d8 was less than the LCL in source water blank BN-EP-28-MWQS1 and the diluted reanalysis of the source water blank. Both analyses (QS1 and QS1-Dilution) had all of the non-detects qualified (UJ).

The recoveries for surrogates 1,2-dichloroethane and 4-bromofluorobenzene were greater than the UCL and less than the LCL, respectively, in sample BN-EP-28-MW338B-M; the sample was reanalyzed with similar results. No qualifications were applied because these compounds were qualified for outlier system performance check compound (SPCC) values.

The analyses associated with SDGs BNASEP042006A and BNASEP04206 had outlier surrogate recoveries for one or more surrogates in multiple samples (original/reanalyses/or dilutions). No qualifications were applied because the affected results were qualified for outlier SPCC limits.

The surrogate recoveries for samples associated with SDG BNASEP042106A were acceptable, except as follows:

- The 1,2-dichloroethane-D4 recovery exceeded the UCL of the laboratory limits in all samples;
- The 4-bromofluorobenzene recovery was less than the LCL in the following samples (all identifiers [IDs] begin with "BN-EP-28"):
  SW10, SW12, SW12-RE, SW13Dup-RE, SW14RE, MW205D-RE, MW230AD, MW230AD-RE, MW224, MW224-RE, MW225-AM, MW225AM-RE, SEEP10, SEEP10RE, SEEP11, SEEP11Dup, SEEP11Dup-Re, EW-2A-RE, and QT3-RE;

- and the toluene-d8 recovery was less than the LCL in the following samples (all IDs begin with "BN-EP-28"):
  MW230AD, MW230AD-RE, MW205D-RE, MW225AM-RE, EW-2ARE, MW224M-RE, MW224, MW224-RE, MW224Dup-RE, MW224Dup-RE, QT3, WT3-RE, SEEP10-RE, and SEEP11-RE, .

The surrogate dibromofluoromethane was not fortified in the samples.

Acetone detects were qualified (J) in samples SW10-RE, SW13, SW13-RE, SW14, SW13Dup, MW231AD-RE, and acetone and 1,1-dichloroethane detects were qualified (J) in sample MW231AD.

All results were qualified J for detects and UJ for non-detects in samples SW10, SW14RE, SW13-RE, SEEP11, SEEP11-RE, SEEP11Dup, SEEP11Dup-RE, SW12, SW12-RE, SEEP10, and SEEP10-RE.

D.2.2.1.2 MS/MSD

Region 1 Methane / MNA / VSK-175:
The groundwater sample BN-EP-28-MW337 was analyzed as an MS/MSD by the laboratory. The percent recoveries for the MS and MSD were within the accepted QC limits. No qualifications were required. Laboratory accuracy was acceptable.

1,4-Dioxane 8260B-SIM:
Two sets of MS/MSD were analyzed for 1,4-dioxane. Sample BN-EP-28-COMB EFFLUENT had acceptable recoveries in the MS and MSD. No qualifications were required.

Groundwater sample BN-EP-28-MW313 was also analyzed as an MS/MSD; but the recoveries were not calculated by the laboratory. The native concentrations were greater than 4x the matrix spike concentrations; thereby, masking the laboratory fortified values used to evaluate the laboratory accuracy. No qualifications were required.

Volatiles-8260B
Eight sets of MS/MSDs were associated with volatile-8260B analyses: BN-1&3-28-MW203, BN-1&3-28-LT9, BN-1&3-26-SEEP9, BN-EP-28-SEEP11, BN-EP-28-MW332M, BN-EP-28-MW331M, BN-EP-28-COMB-EFFLUENT, and BN-EP-28-SW-13.

The MS/MSD performed on groundwater sample BN-1&3-28-MW203 had high recoveries for chloroethane in both the MS and MSD. No qualifications were required because the outlier compound was not detected in the associated site samples.

The MS/MSD performed on leachate station sediment sample BN-1&3-26-LT9 had a low recovery for chloroethane. The sample had chloroethane qualified (UJ).

The MS/MSD performed on leachate station seep BN-1&3-26-SEEP9 had high recoveries for chloroethane, carbon disulfide, and methylene chloride and low recoveries for hexachlorobutadiene. No qualifications were applied as the compounds were previously qualified other outliers.

The MS/MSD performed on groundwater sample BN-EP-28-MW332M had outlier recoveries for 30 compounds. No qualifications were required because the compounds were previously qualified as estimated due to SPCC values above the MPC limits.

The MS/MSD performed on groundwater sample BN-EP-28-MW331M had outlier recoveries for 15 compounds. No qualifications were required because the compounds were previously qualified as estimated due to SPCC values above the MPC limits.

The MS/MSD performed on effluent sample BN-EP-28-COMB EFFLUENT had outlier recoveries for 16 compounds. No qualifications were required because the compounds were previously qualified as estimated due to SPCC values above the MPC limits.

The MS/MSD performed on surface water sample BN-EP-28-SW-13 had percent recoveries above the UCL for acetone, 1,1-dichloroethene, carbon disulfide, methylene chloride, trans-1,2-dichloroethane, and 1,1,2,2-tetrachloroethane. Chloromethane and vinyl chloride had percent recoveries below the LCL, and hexachlorobutadiene had a recovery below 10%. The following compounds were qualified (UJ) for nondetect and (J) for detects in the native analysis only of SW-13: acetone, methylene chloride, 1,1-dichloroethane, 1,2-dichloroethane, chloromethane, and vinyl chloride. 1,1,2,2-Tetrachloroethane was rejected (R) due to a calibration outlier.

The MS/MSD performed on BN-EP-28-SEEP11 had high MS/MSD recoveries for acetone, methylene chloride, trans-1,2-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,2,2-tetrachloroethane and low recoveries for chloromethane and vinyl chloride. The following compounds were qualified (UJ) for nondetect and (J) for detects in the native analysis only of SEEP11: acetone, methylene chloride, ,1-dichloroethane, 1,2-dichloroethane, chloromethane, and vinyl chloride. 1,1,2,2-Tetrachloroethane was rejected (R) due to a calibration outlier.

D.2.2.1.3 LCS/LCSD

<u>MNA-VOCs / Region 1 Methane / VSK-175:</u>
All LCS/LCSD analyses had percent recoveries within the accepted QC limits. No qualifications were required.

<u>1,4-Dioxane 8260B-SIM:</u>
All LCS/LCSD analyses had percent recoveries within the accepted QC limits. No qualifications were required.

Volatiles-8260B:

The LCS/LCSD analyzed in association with SDG BNAS061906EP had low percent recoveries for chloromethane and vinyl chloride. Chloromethane and vinyl chloride were qualified (UJ) in BN-EP-28-MW308 and BN-EP-28-TRIPBLANK.

Six sets of LCS/LCSDs were associated with the SDG BNASEP0421A, with outlier recoveries as follows:

- The LCS dated 05/02/06 had outlier recoveries for chloroethane, acetone, trans-1,2-dichloroethene, 1,1-dichloroethane, 2-butanone, cis-1,2-dichloroethene, chloroform, 1,2-dichloroethane, and 1,1,2,2-tetrachloroethane.
- The LCS dated 05/03/06 had outlier recoveries for chloromethane, vinyl chloride, acetone, methylene chloride, 1,1-dichloroethane, cis-1,2-dichloroethene, chloroform, carbon tetrachloride, 1,2-dichloroethane, and 1,1,2,2-tetrachloroethane.
- The LCS dated 05/04/06 (08:44) had outlier recoveries for chloroethane, acetone, methylene chloride, 1,1-dichloroethane, and 1,1,2,2-tetrachloroetrhane.
- The LCS dated 05/04/06 (18:32) had outlier recoveries for chloromethane, vinyl chloride, acetone, methylene chloride, 1,1-dichloroethane, cis-1,2-dichloroethene, chloroform, 1,2-dichloroethane, and 1,1,2,2-tetrachloroethane.
- The LCS dated 05/05/06 (09:14) had outlier recoveries for chloromethane, vinyl chloride, acetone, methylene chloride, trans-1,2-dichloroethene, 1,1-dichloroethane, 2-butanone, cis-1,2-dichloroethene, chloroform, 1,1,1-trichloroethane, carbon tetrachloride, 1,2-dichloroethane, benzene, and 1,1,2,2-tetrachloroethane.
- The LCS dated 05/05/06 (16:37) had outlier recoveries for chloromethane, vinyl chloride, acetone, methylene chloride, trans-1,2-dichloroethene, 1,1-dichloroethane, chloroform, 1,2-dichloroethane, and 1,1,2,2-tetrachloroethane.

Chloromethane was qualified (UJ) in the following samples: BN-EP-28-SW10-RE, BN-EP-28-SW11-RE, BN-EP-28-SW13-RE, BN-EP-28-MW231AD, and BN-EP-28-MW231AD-RE. Vinyl Chloride was qualified (UJ) in BN-EP-28-SW11-RE, BN-EP-28-SW13-RE, BN-EP-28-MW231AD, and BN-EP-28-MW231AD-RE. No other qualifications were required.

Two sets of LCS analyses were associated with the samples in SDG BNASEP041906. The LCS dated 04/28/06 had an outlier recovery for acetone. The LCS dated 05/01/06 had outlier recoveries for six compounds. No qualifications were required because the two sets of outliers were previously qualified due to SPCC values above the MPC.

Six sets of LCS analyses were associated with the samples in SDG BNASEP042006A. The LCSs analyzed on 04/30/06, 05/02/06, 05/03/06 (08:30 & 17:40), 05/04/06, and 05/05/06 all had numerous outlier recoveries. No qualifications were required because the samples were either non-detect in the associated samples (for outliers greater than UCL) or were previously qualified for SPCC outliers.

The LCS associated with SDG BNASEP050506 had an outlier recovery for chloroethane. Chloroethane was qualified (UJ) in BN-EP-28-M-315A-D and trip blank BN-EP-28-QT4.

The LCS associated with SDG BNASEP04246 had outlier recoveries for chloromethane, vinyl chloride, acetone, methylene chloride, trans-1,2-dichloroethene, 1,1-dichloroethane, chloroform, 1,2-dichloroethane, and 1,1,2,2-tetrachloroethane. Chloromethane and vinyl chloride were qualified (UJ) in field blank BN-EP-28-MWQS1.

Four sets of LCS samples were associated with SDG BNASEP04206. Three sets, performed on 04/28/06, 05/01/06, and 05/02/06 all had outlier recoveries, but no qualifications were applied because the samples were previously qualified for SPCC outliers. The fourth LCS set, analyzed on 05/01/06 had outlier recoveries for acetone, methylene chloride, 1,1-dichloroethane, chloroform, carbon tetrachloride, and 1,1,2,2-tetrachloroethane. Groundwater sample BN-EP-28-MW319D had methylene chloride qualified (UJ). No other qualifications were required.

Three sets of LCSs were associated with SDG BNASSITES1. The LCS dated 05/09/06 had outlier recoveries for chloroethane and acetone. The LCS dated 05/11/06 had outlier recoveries for chloroethane. The LCS dated 05/10/06 had an outlier recovery for chloroethane. Chloroethane and acetone were qualified (UJ) for nondetects and (J) for detects in the following samples: BN-1&3-26-SW04, BN-1&3-26-SW04DUP, BN-1&3-26-SW07, BN-1&3-26-SW08, BN-1&3-26-SW09, MWQT2 (trip blank), BN-1&3-26-MW1302S, BN-1&3-26MW1302SDUP, and BN-1&3-28-MWQS1 (field blank).

Three sets of LCS samples associated with SDG BNAS1&3042. The LCS dated 05/07/06 had outlier recoveries for chloroethane and dichloroethane. The LCS dated 05/08/06 had outlier recoveries chloroethane, 1,1-dichloroethane, acetone, and 2-hexanone. The LCS dated 05/09/06 had an outlier recovery for chloroethane. Acetone and 1,1-dichloroethane was qualified (J) in samples BN-1&3-28-MW1301D and BN-1&3-28-MW1302D. Chloroethane was qualified (J) for detects and (UJ) for nondetects in BN-1&3-28MW1302D and BN-1&3-28MW1301S. No other qualifications were required.

D.2.2.1.4 Method Blanks

Volatiles-8260B

Two method blanks were associated with SDG BNASEP0421A. Both method blanks were dated 05/05/06 and had multiple detects. No qualifications were required because the outlier compounds were either non-detect or greater than 5x the concentrations in the blank.

Three method blanks were associated with SDG BNASEP04206A. Two method blanks were dated 05/03/06. Both 05/03/06 method blanks had detects for 1,1,2-trichloroethane at 0.71 ug/L and one detect for bromoform at 0.58 ug/L. 1,1,2-Trichloroethane was qualified (U) in BN-EP-28-MW336S and BN-EP-28-P-106DUP. Bromoform was qualified (U) BN-EP-28-MW336S.

Three method blanks were associated with SDG BNASITES1. The method blank dated 05/11/06 had detects, but no qualifications were required because the same compounds

were not detected in the associated site samples. The method blanks dated 05/09/06 and 05/10/06 had detects for methylene chloride and 1,1,2,2-tetrachloroethane. Methylene chloride was qualified (U) in BN-1&3-26-SEEP9, SEEP9DUP, and Trip Blank MWQT2. 1,1,2,2-Trichloroethane was qualified (U) in samples BN-1&3-28-SEEP3, BN-1&3-26-MW1302S, and MW1302SDUP.

The method blanks associated SDG BNASEP050506, BNASEP04246, BNASEP04206, had detects, but no qualifications were required because the same compounds were not detected in the associated site samples.

Region 1 Methane / MNA / VSK-175:
All of the method blanks associated with site samples analyzed for VSK-175 had nondetects for all methane, ethane, and ethane. No qualifications were required.

1,4-Dioxane 8260B-SIM:
The method blank associated with SDG BNASEP042006A had a detect for 1,4-dioxane at 0.90 ug/L. No qualifications were required as the associated site samples had detects greater than 5x the concentration in the method blank.

The method blank associated with SDG BNASEP04246 had a detect for 1,4-dioxane at 0.90 ug/L. Field blank MWQS1 had 1,4-dioxane qualified (U). No other qualifications were required.

D.2.2.2 MNA Metals & TCL Metals

D.2.2.2.1 MS/MSD

MNA Metals
Three MS analyses, performed on BN-EP-28-MW313, BN-EP-28-MW337, and BN-EP-28-SED-11, were associated with the MNA metals analyses. MW313MS had an outlier recovery for iron, but no qualifications were required because the native sample levels were greater than 4x the MS value. MW337MS had an outlier recovery for iron and manganese, but no qualifications were required because the native sample levels were greater than 4x the MS value. The MS associated with the sediment samples, SED-11MS, was analyzed for the full list of TCL metals. There were outlier recoveries for MNA metal iron, but the associated native sample level was greater than 4x the MS concentration, so no qualifications were required.

TCL Metals
Three MS analyses (performed on BN-1&3-26-LT9, BN-1&3-26-SW04, and BN-1&3-26-SEEP4) were performed in association with SDG BNASSITES1.

BN-1&3-26-SEEP4MS/MSD had 0% recoveries for Thallium, but the matrix spike was not greater than 4x the native sample concentration. Results for thallium were rejected (R). Silver and copper percent recoveries were less than the LCL and aluminum, magnesium, manganese, sodium, and zinc had percent recoveries above the UCL.

Aluminum was previously qualified due to high a LCS percent recovery. Calcium, iron, and potassium recoveries were not calculated due to a calibration exceedance and field sample results which were greater than 4x the MS level. Barium percent recoveries were not calculated since the MS and MSD were non-detect for this element.

The surface water MS, BN-1&3-26-SW04MS, had percent recoveries for aluminum, potassium, sodium, and magnesium above UCL. Silver detects were previously qualified due to high LCS percent recoveries.

The leachate sediment MS, BN-1&3-26-LT9MS, had percent recoveries below the LCL for potassium, magnesium, and sodium and percent recoveries above the UCL for Manganese. The percent recoveries for aluminum and iron were not calculated because of calibration exceedances.

Thallium detects were rejected (R) and silver and copper were qualified (UJ) samples BN-1&3-26-SEEP9, BN-1&3-28-SEEP1, BN-1&3-28-SEEP3, BN-1&3-28-SEEP5, BN-1&3-26-SEEP9DUP, and BN-1&3-26-SEEP4. Magnesium results were qualified (J) for detects and (UJ) for nondetects and manganese detects were qualified (J) in samples BN-1&3-26-SEEP9, BN-1&3-28-SEEP1, BN-1&3-28-SEEP3, BN-1&3-28-SEEP5, BN-1&3-26-SEEP9DUP, BN-1&3-26-LT1, BN-1&3-26-LT3, BN-1&3-26-LT4, BN-1&3-26-LT5, BN-1&3-26-LT9, and BN-1&3-26-LT9DUP. Manganese was also qualified (J) BN-1&3-26-SEEP4. Sodium detects were qualified (J) in samples SEEP9, SEEP5, and SEEP9DUP. Potassium and sodium results qualified (J) for detects and (UJ) for non-detects in samples LT1, LT3, LT4, LT5, LT9, and LT9DUP.

D.2.2.2.2 LCS

<u>MNA Metals</u>
The LCSs were analyzed at the correct frequency and the accuracy limits used to evaluate the data were taken from the QAPP. All of the LCS analyses had acceptable recoveries. No qualifications were required. MNA aqueous sample data have acceptable accuracy based on review of the LCS accuracy.

<u>TCL Metals</u>
The LCS samples were analyzed at the correct frequency and the accuracy limits used to evaluate the data were taken from the QAPP.

All LCS percent recoveries in SDG BNASEP0421A were within the MPC, except for iron and zinc which had recoveries above the UCL. Sediment samples BN-EP-28-SED-11 and SED-11Dup had results for iron & zinc qualified as (J). Laboratory precision was acceptable.

All LCS percent recoveries in SDG BNASS1&3042 were within the MPC, except for copper which had recoveries above the UCL. Groundwater sample BN-1&3-28-MW1301D had the detect for copper qualified (J). All other associated samples had non-detect for the outlier compound. .

All LCS percent recoveries in SDG BNASSITES1 were within the MPC, except for the LCS dated 05/16/06 which had percent recoveries above the UCL for silver, copper, iron, and zinc. Aluminum detects were qualified (J) in samples BN-1&3-28-SEEP3, BN-1&3-28-SEEP5, BN-1&3-26-SEEP9, BN-1&3-26-SEEP9DUP, BN-1&3-26-SEEP4, BN-1&3-26-SW04DUP, BN-1&3-26-MW1302S, and MW1302SDUP. Iron detects were qualified (J) in samples BN-1&3-28-SEEP1, BN-1&3-28-SEEP3, BN-1&3-28-SEEP5, BN-1&3-26-SW08, BN-1&3-26-SW09, BN-1&3-26-SEEP9, SEEP9DUP, BN-1&3-26-SW07, BN-1&3-26-SEEP4, BN-1&3-26-SW04, SW04DUP, BN-1&3-26-MW1302S, and MW1302SDUP. No other qualifications were required .

D.2.2.2.2 Method/Preparation Blanks

MNA Metals

The method/preparation blanks associated with SDG BNASEP04216A, BNASEP042006A, BNASEP04206, BNASEP04246 had non-detects for all MNA metals (arsenic, iron, manganese). No qualifications were required.

The method/preparation blank associated with SDG BNASEP041906 had a detect for iron at 29 ug/L. The iron results in the groundwater sites samples associated with the outlier method/preparation blank were detect at concentrations greater than 5x the detected concentration of 29 ug/L; therefore, no qualifications were required.

TCL Metals

The method/preparation blanks associated SDG BNASSITES1 were non-detect for all TCL metals, except zinc at 0.68 mg/kg and at 0.04 mg/L in two blanks. Zinc was qualified (U) in samples BN-1&3-28-SEEP3, BN-1&3-26-SW08, BN-1&3-26-SW09, BN-1&3-26-SEEP9DUP, BN-1&3-26-SW07, BN-1&3-26-SW04, SW04DUP, and BN-1&3-26-MW1302S.

The method/prep blanks associated with the site samples in SDG BNASEP04216A and BNASS1&3042 had non-detects for all TCL metals. No qualifications were required.

D.2.2.3 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 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. Sediment sample BN-EP-28-SED-11 was the parent sample for the MS/MSD analysis. All MS/MSD recoveries for sediment 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. There was no apparent cross-contamination in the laboratory for the aqueous samples analyzed.

D.2.2.4 MNA - Water Quality 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, except for chlorine. Chlorine matrix spike recovery was greater than the MPC, but within the QAPP limits. No qualifications were required because chlorine was within the QAPP limits.

LCS:
LCS recoveries were within the limits of the applicable analytical methods. No qualifications were required.

Method Blank;
The alkalinity method blank associated with SDGs BNASEP04206, BNASEP041906, BNASEP041906A, and BNASEP04206 had detects; however, no qualification was required because the site sample detects were at concentrations greater than 5x that in the blank. All other method blanks were non-detect for the applicable analytical methods.

D.2.3 LABORATORY PRECISION EVALUATION

D.2.3.1 MNA VOCs, 1,4-Dioxane 8260B-SIM, & Volatile Organic Compounds 8260B

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.

MNA-VOCs / Region 1 Methane / VSK-175
Groundwater sample BN-EP-28-MW337 was analyzed as an MS/MSD by the laboratory. The RPDS associated with MS/MSD analysis were within the accepted MPC limits. Laboratory precision was acceptable.

1,4-Dioxane 8260B-SIM:
Two sets of MS/MSD were analyzed for 1,4-dioxane. The MS/MSD analysis on BN-EP-28-COMB EFFLUENT had an RPD above the accepted QC limits of 20% for 1,4-dioxane. The detect for 1,4-dioxane was qualified (J) in the native sample analysis of BN-EP-28-COMB EFFLUENT. No other qualifications were required.

Groundwater sample BN-EP-28-MW313 was also analyzed as an MS/MSD; but the recoveries were not calculated by the laboratory. The native concentrations were greater than 4x the matrix spike concentrations; thereby, masking the laboratory fortified values used to evaluate the laboratory precision.

VOCs-8260B
Eight sets of MS/MSDs were associated with volatile-8260B analyses: BN-1&3-28-MW203, BN-1&3-28-LT9, BN-1&3-26-SEEP9, BN-EP-28-SEEP11, BN-EP-28-MW332M, BN-EP-28-MW331M, BN-EP-28-COMB-EFFLUENT, and BN-EP-28-SW-13.

SDG BNASEP0421A
The MS./MSD RPDs for sample BN-EP-28-SW-13 had acceptable values (less than 20%) for all compounds except chloromethane, 1,1-dichloroethene, carbon disulfide, and hexachlorobutadiene. All four three compounds were qualified (UJ) due to the RPD outlier. The laboratory precision was acceptable except for chloromethane, 1,,1-dichloroethene, carbon disulfide, and hexachlorobutadiene.

The MS/MSD RPDs for sample BN-EP-28-SEEP11 had acceptable values (less than 20%) for all compounds except chloromethane, chloroethane, acetone, and methylene chloride. The detect for acetone was qualified (J), the nondetects for chloromethane, chloroethane, and methylene chloride were qualified (UJ) due to the RPD outlier. The laboratory precision was acceptable except for the aforementioned compounds.

The LCS/LCSDs associated with MS/MSD BN-EP-28-SW-13 and BN-EP-28-SEEP11 analysis had high RPDs for chloroethane (analyzed on 05/02/06), chloromethane (05/05/06), and methylene chloride (05/05/06). The three outlier compounds were not detected in the associated site samples, so no qualifications were required. The

laboratory precision was determined to be acceptable except for chloroethane, chloromethane, and methylene chloride.

SDG BNASEP042006

The MS/MSD RPDs for BN-EP-28-MW332M had outlier RPD values for all compounds except m,p-xylenes. No qualifications were applied due to previous outliers applied for continuing calibration outlier values. The LCS/LCSD associated with the aforementioned MS/MSD had acceptable RPDs for most compounds; therefore, the RPD outliers were attributed to matrix interference. The laboratory precision was acceptable.

The MS/MSD RPDs for BN-EP-28-MW331M had acceptable RPD values for all compounds except chloroethane, acetone, 1,1-dichloroethene, carbon disulfide, trichloroethene, and hexachlorobutadiene. No qualifications were applied due to previous outliers in applied for continuing calibration outlier values. The LCS/LCSD associated with the aforementioned MS/MSD had acceptable RPDs for most compounds; therefore, the RPD outliers were attributed to matrix interference. The laboratory precision was acceptable.

The MS/MSD RPDs for BN-EP-28-COMB EFFLUENT had acceptable RPD values for all compounds except chloromethane. No qualifications were applied due to previous outliers in the continuing calibration. The LCS/LCSD associated with the aforementioned MS/MSD had acceptable RPDs for most compounds; therefore, the RPD outliers were attributed to matrix interference. The laboratory precision was acceptable.

SDG BNASSITES1

The MS/MSD RPDs for BN-1&3-28-LT9 had acceptable RPD values for all compounds. No qualifications were required.

The MS/MSD RPDs for BN-1&3-26-SEEP9 had an outlier RPD for hexachlorobutadiene; which was qualified (UJ) in the native sample. No other qualifications were required.

The LCS/LCSD had high RPDs for acetone, bromomethane, 1,1-dichloroethane. Bromomethane and 1,1-dichloroethane were qualified (UJ) in BN-1&3-28-SEEP1,, BN-1&3-28-SEEP3, BN-1&3-28-SEEP5, BN-1&3-26-SEEP9, SEEP9DUP, BN-1&3-26-SEEP4, and trip blank MWQT2. Acetone was qualified (J) in BN-1&3-26-LT1, BN-1&3-28-LT3, BN-1&3-28-LT4, LT4-RE, BN-1&3-28-LT5, LT5-RE, BN-1&3-28-LT9, LT9DUP, and LT9DUP-RE.

SDG BNAS1&3042

The MS/MSD RPDs for BN-1&3-28-MW203 had an outlier (greater than 20%) RPD value for 1,1-dichloroethane. Three sets of LCS /LCSDs were associated with this SDG, on May 7th, 8th, and 9th. The LCS dated 05/07/06 had high recoveries for acetone and 1,1-dichloroethane. The LCS dated 05/08/06 had high recoveries for acetone, 1,1-dichloroethane, 2-hexanone, and tetrachloroethene. The LCS dated 05/09/06 had high recoveries for chloroethane, acetone, and 1,1-dichloroethane. Acetone was qualified (J)

in BN-1&3-28-MW217BD and BN-1&3-28-MW1301S-DL. Acetone was qualified (UJ) in BN-1&3-28-MW202, BN-1&3-28-MW203, MW203DUP, and BN-1&3-28-MW1302D-DL.
1,1-Dichloroethane was qualified (J) in BN-1&3-28-MW1302D-DL and (UJ) in BN-1&3-28-MW202, BN-1&3-28-MW203, MW203DUP, BN-1&3-28-MW217BD, BN-1&3-28-MW1301S, BN-1&3-28-MW1303AD, BN-1&3-28-MW1303AS, BN-1&3-28-MW218, and BN-1&3-28-MWQT1 (Trip Blank). 2-Hexanone and tetrachloroethane were qualified (UJ) in BN-1&3-28-MW1302D, BN-1&3-28-MW1301S, BN-1&3-28-MW1301D, BN-1&3-28-MW1303AD, BN-1&3-28-MW1303AS, BN-1&3-28-MW218, and BN-1&3-28-MWQT1 (Trip Blank).

D.2.3.2 MNA Metals & Target Analyte List Metals

TAL Metals

SDG BNASSITES1
Three sets of MS/MSD were associated with SDG BNASSITES1: BN-1&3-28-LT9, BN-1&3-26-SEEP9, and BN-1&3-26-SW04. The MS/MSD RPDs associated with LT9 had high values for iron and manganese. Iron was qualified (UJ) in the associated leachate samples, BN-1&3-28-LT1, BN-1&3-28-LT3, BN-1&3-28-LT4, BN-1&3-28-LT5, BN-1&3-28-LT9, and LT9DUP.

The MS/MSD RPDs associated with BN-1&3-26-SEEP9 had high values for copper. No qualifications were required because the element was previously qualified for an MS outlier.

The MS/MSD RPDs associated with BN-1&3-26-SW04 were all acceptable (less than 20%). No qualifications were required.

The LCS/LCSD RPDs associated with SDG BNASSITES1 had acceptable values except for zinc on 05/16/06. The nondetects for zinc were qualified (UJ) in BN-1&3-28-SEEP1, BN-1&3-28-SEEP3, BN-1&3-26-SEEP4, BN-1&3-28-SEEP5, BN-1&3-26-SEEP9, SEEP9DUP, BN-1&3-26-SW04, SW04DUP, BN-1&3-26-SW07, BN-1&3-26-SW08, BN-1&3-26-SW09, BN-1&3-26-MW1302S, MW1302SDUP, and BN-1&3-29-MWQS1 (Field Blank).

SDG BNASS1&3A
The MS/MSD RPD for zinc was above the MPC limit of 20%; however, no qualifications were required because it was previously qualified for a MS recovery outlier. All LCS/LCSD RPD values were acceptable (less than 20%).

SDG BNASEP04216A
The MS/MSD and LCS/LCSD RPDs were all acceptable (less than 20%). No qualifications were required.

MNA Metals

No MS/MSD was associated with SDGs BNASEP041906 and BNASEP042406 , but LCS/LCSDs were analyzed. The LCS/LCSD RPD values were used to assess the laboratory precision in the two SDGs, which were acceptable (Less than 20%). No qualifications were required.

Site sample MW313 was analyzed as an MS/MSD for MNA-Metals, in SDG BNASEP04206. The RPDs were acceptable, as well as the associated LCS/LCSD RPDs. No qualifications were required.

Site sample BN-EP-28-MW337 was also analyzed as an MS/MSD for MNA-metals in SDG BNASEP042006A. The RPDs were acceptable, as well as the associated LCS/LCSD RPDs. No qualifications were required.

D.2.3.3 LTMP Pesticides

All LTMP QAPP pesticide compounds were used to assess the MS/MSD RPD. The MS/MSD RPD was within MPC for the analysis of seep water and sediment samples. The laboratory precision is acceptable.

D.2.3.4 MNA Parameters

For all applicable methods, the laboratory replicate precision was within limits, and the laboratory precision was 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, piezometers, leachate station seep, effluent, and sediment. The field duplicate sets were 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 sample for analysis of VOCs, 1,4-dioxane, and methane/ethane/ethene. The trip blanks were analyzed by EPA SW-846 Method 8260B for VOCS, by Method 8260B-SIM for 1,4-dioxane, and by VSK-175 for methane/ethane/ethene.

D.3.1 FIELD PRECISION EVALUATION

Duplicate field samples were collected during the LTMP in Sites 1, 3, and the Eastern Plume. 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 RPD between the field sample and corresponding field duplicate 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 field duplicate pair results with detections.
- The overall precision was evaluated as being acceptable if the 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

Seventeen field samples and corresponding field duplicate samples, listed in the table below, were collected during the 28th monitoring event.

Site Sample	Duplicate Sample	SDG	Analyses
BN-1&3-26-SEEP9	BN-1&3-26-SEEPXD1	BNASSITE1	TAL-Metals, VOCs
BN-1&3-26-LT9	BN-1&3-26-LTXD1		TAL-Metals, VOCs
BN-1&3-28-SW4	BN-1&3-28-SW-XD1		TAL-Metals, VOCs
BN-1&3-26-MW1302S	BN-1&3-26-MWXD2		TAL-Metals, VOCs
BNA-1&3-28-MW203	BN-1&3-28-MWXD1	BNASS1&3042	TAL-Metals, VOCs
BN-EP-26-MW339	BN-EP-26-MWXD5	BNASEP041906	VOCs
BN-EP-28-P106	BN-EP-28-MWXD6	BNASEP0406A	VOCs
BN-EP-28-MW337	BN-EP-28-MNAXD2		TAL-Metals, MNA-WaterQuality, VSK-175
BN-EP-28MW331	BN-EP-28-MNAXD1		TAL-Metals, MNA-WaterQuality
BN-EP-28-MW332M	BN-EP-28-MWXD4	BNASEP0406	VOCs
BN-EP-28-MW311D	BN-EP-28-MWXD2		VOCs
BN-EP-28-COMB EFFLUENT	BN-EP-28-EFFLUENT-XD1		VOCs, 1,4-Dioxane
BN-EP-28-MW224	BN-EP-28-MWXD1	BNASEP0421A	VOCs
BN-EP-28-SW13	BN-EP-28-SW-XD1		VOCs
BN-EP-28-SEEP11	BN-EP-28-SEEPXD1		VOCs
BN-EP-28-SED11	BN-EP-SED-XD1		TAL-Metals, Pesticides
BN-EP-28-MW313	BN-EP-MWXD3	BNASEP04206	1,4-Dioxane

The following tables show the detected analyte(s) in the field sample and corresponding field duplicate sample.

NOTE: Analytes qualified as (J) by the laboratory are concentrations detected in the analysis, below the lowest concentration calibration point but above the method detection limit, so the values are considered estimated.

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qualifier	FD RPD (%)
BN-EP-28-MW224	1,2-Dichloroethene (total)	EPA 8260B	1.1	ug/L		BN-EP-28-MWXD1	1.2	ug/L		8.7
BN-EP-28-SW13	Acetone	EPA 8260B	14	ug/L		BN-EP-28-SW-XD1	14	ug/L		0
BN-EP-28-SEEP11	1,1,1-Trichloroethane	EPA 8260B	9.6	ug/L		BN-EP-28-SEEPXD1	9.4	ug/L		2.1
	1,2-Dichloroethene (total)		8.2				8			2.5
	Acetone		2.9		J		1.6		J	57.8
	Tetrachloroethene		4.7				4.6			2.2
	Trichloroethene		8.6				8.6			0
BN-EP-28-SED11	Aluminum Total	EPA 6010B	6000	mg/Kg		BN-EP-28-SED-XD1	6400	mg/Kg		6.5
	Arsenic Total		3.9				2.6			40
	Barium Total		52				36			36.4
	Calcium Total		1000				1400			33.3
	Chromium Total		13				9.4			32.1
	Cobalt Total		8.9		J		7.8		UJ	NC
	Copper Total		1.7				1.9			11.1
	Iron Total		22000				21000			4.7
	Lead Total Solid		40				28			35.3
	Magnesium Total		2100				1600			27
	Manganese Total		720				460			44.1
	Nickel Total		10				7.3			31.2
	Potassium Total		770				550			33.3
	Sodium Total		150		UJ		340		J	NC
	Vanadium Total		22				15			37.8
	Zinc Total		58				38			41.7

The field duplicate sets associated with MW224, SW-13, SEEP11, and SED11 were considered to be in agreement. Field precision was acceptable.

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qualifier	FD RPD (%)
BN-EP-28-MW332M	1,1,1-Trichloroethane	EPA 8260B	0.8	ug/L	J	BN-EP-28-MWXD4	1	ug/L	UJ	NC
	1,1,2,2-Tetrachloroethane		1		R		1.1	ug/L		NC
	1,2-Dichloroethene (total)		1		UJ		1.4	ug/L	J	NC
	Acetone		25				20	ug/L		22
	Bromoform		1		UJ		0.67	ug/L	J	NC
BN-EP-28-MW311D	1,1,1-Trichloroethane	EPA 8260B	5.6	ug/L		BN-EP-28-MWXD2	5.1	ug/L		9.3
	1,1-Dichloroethane		1.2		J		2.5	ug/L	J	70
	1,1-Dichloroethene		2.2		J		7.7	ug/L	J	111
	1,2-Dichloroethane		1		UJ		2.5	ug/L	J	NC
	1,2-Dichloroethene (total)		1.5				1.7	ug/L		12
	Acetone		5		UJ		21	ug/L	J	NC
	Tetrachloroethene		15		J		11	ug/L	J	31
	Trichloroethene		4.2		J		12	ug/L	J	96
BN-EP-28-COMB EFFLUENT	1,4 Dioxane	EPA 8260B	8.1	ug/L		BN-EP-28-EFFLUENT-XD1	8.9	ug/L		9.4

The field duplicate sets associated with MW332M, MW311D, and Comb Effluent are considered to be in agreement. Field precision was acceptable.

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qualifier	FD RPD (%)
BN-EP-28-P106	1,1,1-Trichloroethane	EPA 8260B	420	ug/L		BN-EP-28-MWXD6	380	ug/L		10
	1,1,2-Trichloroethane		0.52				0.57	ug/L		9.2
	1,1-Dichloroethane		33				32	ug/L		3.1
	1,1-Dichloroethene		58				56	ug/L		3.5
	1,2-Dichloroethene (total)		12				12	ug/L		0
	Tetrachloroethene		4.3				4.2	ug/L		2.4
	Trichloroethene		210				190	ug/L		10
BN-EP-28MW331	Iron Total, ppb	EPA 6010B	200	ug/L		BN-EP-28-MNAXD1	200	ug/L		0
	Manganese Total, ppb	EPA 6010B	44	ug/L			45	ug/L		2.2
	Sulfate	EPA 300	8.8	mg/L			9	mg/L		2.2
	Alkalinity	EPA 310.1	47	mg/L			46	mg/L		2.2
	Nitrate/Nitrite Total	EPA 353.2	0.71	mg/l			0.74	mg/L		4.1
	Chloride	EPA 9056	63	mg/L			62	mg/L		1.6
BN-EP-28-MW337	Iron Total, ppb	EPA 6010B	1200	ug/L		BN-EP-28-MNAXD2	1600	ug/L		28.6
	Manganese Total, ppb	EPA 6010B	730	ug/L			930	ug/L		24.1
	Sulfate	EPA 300	4	mg/L			3.8	mg/L		5.1
	Alkalinity	EPA 310.1	48	mg/L			47	mg/L		2.1
	Total Organic Carbon	EPA 415.1	1	mg/L	UJ		1	mg/L	J	NC
	Chloride	EPA 9056	12	mg/L			12	mg/L		0

The field duplicate sets associated with P-106, MW331, and MW337 are considered to be in agreement. Field precision was acceptable.

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qualifier	FD RPD (%)
BN-EP-26-MW339	Methylene Chloride	EPA 8260B	2.4	ug/L		BN-EP-26-MWXD5	2.3	ug/L		4.3

The field duplicate set associated with MW339 was considered to be in agreement. Field precision was acceptable.

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qualifier	FD RPD (%)
BN-1&3-28-MW203	Hexachlorobutadiene	SW8260	2.4	UG/L		BN-1&3-28-MWXD1	1.7	UG/L		34.1
	Calcium Total	SW6010	18	MG/L			17	MG/L		5.7
	Lead Total		0.015	MG/L	J			MG/L	UJ	NC
	Manganese Total		0.015	MG/L			0.017	MG/L		12.5
	Sodium Total		5.2	MG/L			5.1	MG/L		1.9
	Zinc Total		0.02	MG/L	J			MG/L	UJ	NC

The field duplicate set associated with MW203 was considered to be in agreement. Field precision was acceptable.

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qualifier	FD RPD (%)
BN-1&3-26-SEEP9	Aluminum Total	EPA 6010B	3.6	mg/L		BN-1&3-28-SEEPXD1	5.6	mg/L		43.5
	Arsenic Total		0.13	mg/L			0.17	mg/L		26.7
	Calcium Total		52	mg/L	J		50	mg/L	UJ	NC
	Iron Total		140	mg/L			180	mg/L		25
	Lead Total		0.014	mg/L			0.017	mg/L		19.4
	Magnesium Total		5.2	mg/L			5.6	mg/L		7.4
	Manganese Total		1.7	mg/L			1.9	mg/L		11.1
	Potassium Total		7.7	mg/L			8.1	mg/L		5.1
	Sodium Total		18	mg/L			18	mg/L		0
	Zinc Total		0.02	mg/L	UJ		0.05	mg/L	BJ	NC
	Mercury by Cold Vapor GW	EPA 7470A	0.0002	mg/L	J		0.0003	mg/L	J	40
	1,1-Dichloroethane	EPA 8260B	0.65	ug/L			0.59	ug/L		9.7
	Acetone		4.2	ug/L	J		2.6	ug/L	J	47.1
	Chloroethane		2.6	ug/L			2.6	ug/L		0
	Methylene Chloride		0.67	ug/L			0.53	ug/L		23.3
BN-1&3-26-LT9	Aluminum Total	EPA 6010B	10000	mg/Kg		BN-1&3-28-LTXD1	12000	mg/Kg		18.2
	Arsenic Total		1.3				0.84	mg/Kg		43
	Barium Total		22				26	mg/Kg		16.7
	Calcium Total		1200				1100	mg/Kg		8.7
	Chromium Total		10				12	mg/Kg		18.2
	Cobalt Total		12				7.8	mg/Kg		42.4
	Copper Total		9.3				9.5	mg/Kg		2.1
	Iron Total		12000				13000	mg/Kg		8
	Lead Total Solid		6.6				7.7	mg/Kg		15.4
	Magnesium Total		2200				2200	mg/Kg		0
	Manganese Total		120				120	mg/Kg		0
	Nickel Total		13				13	mg/Kg		0
	Potassium Total		760				960	mg/Kg		23.3
	Vanadium Total		18				13	mg/Kg		32.3
	Zinc Total		23				22	mg/Kg		4.4
	Mercury Total	EPA 7471A	0.062	mg/Kg			0.042	mg/Kg		38.5
	Acetone	EPA 8260B	98	ug/Kg			83	ug/Kg		16.6
	Carbon Disulfide	EPA 8260B	10	ug/Kg			8.2	ug/Kg		19.8

BN-1&3-28-SW4	Aluminum Total	EPA 6010B	0.2	mg/L	UJ	BN-1&3-28-SW-XD1	0.32	mg/L	J	NC
	Calcium Total		11				11	mg/L		0
	Iron Total		0.74		J		1.1	mg/L	J	39.1
	Manganese Total		0.16				0.17	mg/L		6.1
	Zinc Total		0.03				0.04	mg/L		28.6
	Selenium Furnace GW	EPA 7740	0.005	mg/L	J		0.005	mg/L	UJ	NC
	Methylene Chloride	EPA 8260B	0.56	ug/L	J		1	ug/L	J	56.4
BN-1&3-26-MW1302S	Aluminum Total	EPA 6010B	0.58	mg/L	J	BN-1&3-28-MWXD2	0.79	mg/L	J	30.7
	Calcium Total		92				93	mg/L		1.1
	Chromium Total		0.01		J		0.02	mg/L	J	66.7
	Iron Total		1.1		J		1.5	mg/L	J	30.8
	Lead Total		0.003				0.004	mg/L		28.6
	Magnesium Total		5.4				5.5	mg/L		1.8
	Manganese Total		0.43				0.41	mg/L		4.8
	Nickel Total		0.04		UJ		0.02	mg/L	J	NC
	Zinc Total		0.04		J		0.06	mg/L	UJ	NC
	1,1,2,2-Tetrachloroethane	EPA 8260B	0.67	ug/L	J		1.5	ug/L	J	76.5
	1,1-Dichloroethane		1.6				1.7	ug/L		6.1
	Acetone		5		UJ		3.2	ug/L	J	NC
	Chloroethane		73				69	ug/L		5.6
	Methylene Chloride		0.67		J		1.2	ug/L	J	56.7
	Trichloroethene		0.51				0.51	ug/L		0

The field duplicate sets associated with SEEP9, LT9, SW04, and MW1302S were considered to be in agreement. Field precision was acceptable.

D.3.2 FIELD ACCURACY EVALUATION

D.3.2.1 Rinsate Blanks

No rinsate blanks were collected in associated with the samples in Sites 1 & 3 and the Eastern Plumes. The water samples were collected with dedicated pumps; therefore, rinsate blanks are not required.

D.3.2.2 Trip Blanks

Volatiles-8260B

Eight trip blanks were associated with the volatile-8260B analyses.

Trip blank BN-EP-28-QT3 had one detect for methylene chloride. No qualifications were required because methylene chloride was not detected in the associated samples.

Trip blank BN-EP-28-TripBlank had one detect for methylene chloride. Sample BN-EP-28-MW308 had methylene chloride qualified (U). No other qualifications were required.

Trip blank BN-EP-28-QT1 had one detect for methylene chloride. Samples BN-EP-28-MW319D and BN-EP-28-MW333M had detects for methylene were qualified (U). No other qualifications were required.

Trip blank BN-EP-28-QT2 had one detect for methylene chloride. Samples BN-EP-28-MW337-RE, BN-EP-28-MW331M, and MW331M-RE had detects for methylene chloride qualified (U). No other qualifications were required.

Trip blank BN-1&3-28-MWQT2 had nondetects for all target compounds. No qualifications were required.

Trip blank BN-1&3-28-MWQT1 had detects for methylene chloride and 1,1,2,2-tetrachloroethane. No qualifications were required because the two outlier compounds were previously qualified.

Trip blank BN-EP-28-QT4 had one detect for methylene chloride. No qualifications were required because the outlier compound was not detected in the associated samples.

Trip blank BN-EP-28-TRIPBLANK1 had one detect for methylene chloride. Samples BN-EP-26-MW339 (AI03372 & AI03373), MW339Dup, BN-EP-28-MW338B, and MW338B-M had methylene chloride qualified (U). No other qualifications were required.

<u>1,4-Dioxane 8260B SIM</u>
Three trip blanks were associated with the 1,4-dioxane 8260B SIM analyses. No trip blank was shipped with the samples in SDG BNASEP04246. All three trip blanks had nondetects for the 1,4-dioxane; therefore, no qualifications were required.

<u>Region 1 Methane/MNA/ VSK-175</u>
Four trip blanks were analyzed for Methane/MNA/VSK-175. Trip blank BN-EP-28-TRIP BLANK 1, BN-EP-28-QT1, BN-EP-28-QT2, and BN-EP-28-QT3 all had non-detects. No qualifications were required.

D.3.2.3 Field Blank / Source Water Blank

The only field quality control sample collected in this sampling event was BN-EP-28-MWQS1, which was identified as a source water blank. The following analyses had nondetects for the target compound in the source water blank: Volatiles-8260B; 1,4-dioxane 8260B-SIM; Methane, Ethane, Ethene; TOC; Alkalinity; Chloride; Nitrate/Nitrite; Nitrite; Sulfate; and MNA Metals (total iron. manganese, and arsenic). The source water blank had nondetects for all compounds; however, the compound 1,1,2,2-tetrachloroethane, from the Volatiles-8260B analysis, was rejected (R) due to an outlier calibration value and was not usable in regards to overall data quality.

D.3.3 Field Accuracy Assessment

Field accuracy is determined by evaluating rinsate blank and trip blank results for cross-contamination during sampling and shipment. Trip blank contamination of methylene chloride was identified in 10 site samples and 1 reanalysis.

No rinsate blanks were collected in this sampling event; however, a field blank/source water was collected. The associated source water blank was acceptable, with the exception of 1,1,2,2-tetrachloroethane (see section D.3.2.3 for reasoning). Field accuracy was acceptable for all compounds except for 1,1,2,2-tetrachloroethane.

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	VOC-8260B	UJ/J	U	**R/UJ/J**	√	UJ/J	UJ	UJ	97%*	100%
	VSK-175 (Methane, ethene, & ethane)	UJ/J	√	√	√	N/A	√	√	100%	100%
	1,4 Dioxane	√	B	√	J	√	√	√	100%	100%
	TAL-Metals	√	B	UJ/J	UJ/J	N/A	UJ/J	J	100%	100%
	MNA - Metals	√	√	J	√	√	√	J	100%	100%
	MNA Water Quality Parameters	√	√	√	√	N/A	√	√	100%	100%
	Pesticides-8081A	√	√	√	√	√	√	√	100%	100%
Sediment	VOC-8260B	UJ/J	√	/UJ/J	√	UJ/J	UJ	UJ	100%	100%
	TAL-Metals	√	U	UJ/J	UJ/J	N/A	UJ/J	J	100%	100%
	Pesticides 8081A	√	√	√	√	√	√	√	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.
- * = 35 of the 36 Volatile-8260B compounds are accepted in 17 aqueous samples. 1,1,2,2-Tetrachloroethane rejected due to SPCC outlier.

Field samples collected and analyzed as part of Sites 1&3 Monitoring Event 28 and the Eastern Plume Monitoring Event were validated and found to meet the data quality objectives established in the LTMP (EA 2000a) QAPP for data usability, as qualified during data validation, with the exception of 1,1,2,2- tetrachloroethane in 17 aqueous samples, which was rejected (R) in the 17 samples. The SPCC relative response factor must meet method acceptance criteria before samples are analyzed. The laboratory did not evaluate the SPCC values prior to sample analysis. The SPCC relative response factor (i.e. slope of the calibration curve, which is proportional to analytical response to a known SPCC) for 1,1,2,2-tetrachloroethane was less than the method criteria,

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, analytical completeness for these field samples is 100 percent.

The 17 aqueous VOC samples with non-detects for 1,1,2,2-tetrachloroethane had unusable results, because of SPCC failures. The VOC analytical completeness is 97 percent (35 of the 36 volatile compounds in 17 samples were usable, the remaining volatile analyses had 100% usability), which is greater than the QAPP completeness criteria of 95 percent.

D.6 METHOD DETECTION LIMITS

The following table provides the MDLs for aqueous and sediment samples. The MDL 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.

Analytical Method	Matrix	Analyte	MDL	Units
SW8466010B	Aqueous	Aluminum	0.0196	mg/L
SW8466010B	Aqueous	Arsenic	0.0007158	mg/L
SW8466010B	Aqueous	Barium	0.0015	mg/L
SW8466010B	Aqueous	Beryllium	0.0015	mg/L
SW8466010B	Aqueous	Cadmium	0.0015	mg/L
SW8466010B	Aqueous	Calcium	0.153	mg/L
SW8466010B	Aqueous	Chromium	0.0012	mg/L
SW8466010B	Aqueous	Cobalt	0.0036	mg/L
SW8466010B	Aqueous	Copper	0.0015	mg/L
SW8466010B	Aqueous	Iron	0.0157	mg/L
SW8466010B	Aqueous	Lead	0.0005564	mg/L

Analytical Method	Matrix	Analyte	MDL	Units
SW8466010B	Aqueous	Magnesium	0.0902	mg/L
SW8466010B	Aqueous	Manganese	0.0103	mg/L
SW8466010B	Aqueous	Nickel	0.0015	mg/L
SW8466010B	Aqueous	Potassium	0.0584	mg/L
SW8466010B	Aqueous	Silver	0.0012	mg/L
SW8466010B	Aqueous	Sodium	0.2769	mg/L
SW8466010B	Aqueous	Vanadium	0.0034	mg/L
SW8466010B	Aqueous	Zinc	0.0081	mg/L
SW8466010B	Dry	Aluminum	0.0196	mg/kg
SW8466010B	Dry	Antimony	0.0018	mg/kg
SW8466010B	Dry	Arsenic	0.0007158	mg/kg
SW8466010B	Dry	Barium	0.0015	mg/kg
SW8466010B	Dry	Beryllium	0.0015	mg/kg
SW8466010B	Dry	Cadmium	0.0015	mg/kg
SW8466010B	Dry	Calcium	0.153	mg/kg
SW8466010B	Dry	Chromium	0.0012	mg/kg
SW8466010B	Dry	Cobalt	0.0036	mg/kg
SW8466010B	Dry	Copper	0.0015	mg/kg
SW8466010B	Dry	Iron	0.0157	mg/kg
SW8466010B	Dry	Lead	0.0012	mg/kg
SW8466010B	Dry	Magnesium	0.0902	mg/kg
SW8466010B	Dry	Manganese	0.0103	mg/kg
SW8466010B	Dry	Nickel	0.0015	mg/kg
SW8466010B	Dry	Potassium	0.0584	mg/kg
SW8466010B	Dry	Selenium	0.26	mg/kg
SW8466010B	Dry	Silver	0.0012	mg/kg
SW8466010B	Dry	Sodium	0.2769	mg/kg
SW8466010B	Dry	Thallium	0.01	mg/kg
SW8466010B	Dry	Vanadium	0.0034	mg/kg
SW8466010B	Dry	Zinc	0.0081	mg/kg
EPA 7041	Liquid	Antimony, Furnace-GW	0.0009305	mg/L
EPA 7470A	Liquid	Mercury by Cold Vapor GW	0.037	mg/L
EPA 7471A	Solid	Mercury Total	0.000103	mg/kg
EPA 7740	Liquid	Selenium Furnace GW	0.0013299	mg/L
EPA 7841	Liquid	Thallium, Furnace, Groundwater	0.0004041	mg/L
SW8468081	Aqueous	4,4'-DDD	0.0059	ug/L
SW8468081	Aqueous	4,4'-DDE	0.0156	ug/L
SW8468081	Aqueous	4,4'-DDT	0.0156	ug/L
SW8468081	Aqueous	Aldrin	0.0053	ug/L
SW8468081	Aqueous	alpha-BHC	0.0142	ug/L

Analytical Method	Matrix	Analyte	MDL	Units
SW8468081	Aqueous	Alpha-chlordane	0.0166	ug/L
SW8468081	Aqueous	beta-BHC	0.0078	ug/L
SW8468081	Aqueous	Chlordane	0.21	ug/L
SW8468081	Aqueous	Delta-BHC	0.0121	ug/L
SW8468081	Aqueous	Dieldrin	0.0149	ug/L
SW8468081	Aqueous	Endosulfan-I	0.0088	ug/L
SW8468081	Aqueous	Endosulfan-II	0.0111	ug/L
SW8468081	Aqueous	Endosulfan sulfate	0.0116	ug/L
SW8468081	Aqueous	Endrin	0.0062	ug/L
SW8468081	Aqueous	Endrin aldehyde	0.0075	ug/L
SW8468081	Aqueous	Endrin ketone	0.0068	ug/L
SW8468081	Aqueous	gamma-BHC (Lindane)	0.0073	ug/L
SW8468081	Aqueous	Heptachlor	0.0089	ug/L
SW8468081	Aqueous	Heptachlor epoxide	0.0083	ug/L
SW8468081	Aqueous	Methoxychlor	0.0079	ug/L
SW8468081	Aqueous	Toxaphene	0.678	ug/L
SW8468081	Dry	4,4'-DDD	0.0059	ug/kg
SW8468081	Dry	4,4'-DDE	0.0156	ug/kg
SW8468081	Dry	4,4'-DDT	0.0156	ug/kg
SW8468081	Dry	Aldrin	0.0053	ug/kg
SW8468081	Dry	alpha-BHC	0.0142	ug/kg
SW8468081	Dry	beta-BHC	0.0078	ug/kg
SW8468081	Dry	Chlordane	0.21	ug/kg
SW8468081	Dry	Delta-BHC	0.0121	ug/kg
SW8468081	Dry	Dieldrin	0.0149	ug/kg
SW8468081	Dry	Endosulfan-I	0.0088	ug/kg
SW8468081	Dry	Endosulfan-II	0.0111	ug/kg
SW8468081	Dry	Endosulfan sulfate	0.0116	ug/kg
SW8468081	Dry	Endrin	0.0062	ug/kg
SW8468081	Dry	Endrin aldehyde	0.0075	ug/kg
SW8468081	Dry	Endrin ketone	0.0068	ug/kg
SW8468081	Dry	gamma-BHC (Lindane)	0.0073	ug/kg
SW8468081	Dry	Heptachlor	0.0089	ug/kg
SW8468081	Dry	Heptachlor epoxide	0.0083	ug/kg
SW8468081	Dry	Methoxychlor	0.0079	ug/kg
SW8468081	Dry	Toxaphene	0.678	ug/kg
SW8468260B	Aqueous	1,1,1-Trichloroethane	0.29	mg/L
SW8468260B	Aqueous	1,1,2,2-Tetrachloroethane	0.39	mg/L
SW8468260B	Aqueous	1,1,2-Trichloroethane	0.2	mg/L
SW8468260B	Aqueous	1,1-Dichloroethane	0.28	mg/L

Analytical Method	Matrix	Analyte	MDL	Units
SW8468260B	Aqueous	1,1-Dichloroethene	0.32	mg/L
SW8468260B	Aqueous	1,2-Dichlorobenzene	0.46	mg/L
SW8468260B	Aqueous	1,2-Dichloroethane	0.29	mg/L
SW8468260B	Aqueous	1,2-Dichloroethene (total)	0.26	mg/L
SW8468260B	Aqueous	1,2-Dichloropropane	0.1	mg/L
SW8468260B	Aqueous	1,3-Dichlorobenzene	0.42	mg/L
SW8468260B	Aqueous	1,4-Dichlorobenzene	2.42	mg/L
SW8468260B	Aqueous	2-Butanone (MEK)	0.14	mg/L
SW8468260B	Aqueous	2-Hexanone	1.33	mg/L
SW8468260B	Aqueous	4-Methyl-2-pentanone (MIBK)	4.14	mg/L
SW8468260B	Aqueous	Acetone	0.26	mg/L
SW8468260B	Aqueous	Benzene	0.26	mg/L
SW8468260B	Aqueous	Bromodichloromethane	0.22	mg/L
SW8468260B	Aqueous	Bromoform	0.37	mg/L
SW8468260B	Aqueous	Bromomethane	0.52	mg/L
SW8468260B	Aqueous	Carbon disulfide	0.27	mg/L
SW8468260B	Aqueous	Carbon tetrachloride	0.27	mg/L
SW8468260B	Aqueous	Chlorobenzene	0.18	mg/L
SW8468260B	Aqueous	Chloroethane	1.52	mg/L
SW8468260B	Aqueous	Chloroform	0.42	mg/L
SW8468260B	Aqueous	Chloromethane	0.38	mg/L
SW8468260B	Aqueous	cis-1,3-Dichloropropene	0.13	mg/L
SW8468260B	Aqueous	Dibromochloromethane	0.32	mg/L
SW8468260B	Aqueous	Ethylbenzene	0.15	mg/L
SW8468260B	Aqueous	Methylene chloride	1.05	mg/L
SW8468260B	Aqueous	Styrene	0.15	mg/L
SW8468260B	Aqueous	Tetrachloroethene	0.55	mg/L
SW8468260B	Aqueous	Toluene	0.15	mg/L
SW8468260B	Aqueous	trans-1,3-Dichloropropene	0.64	mg/L
SW8468260B	Aqueous	Trichloroethene	0.28	mg/L
SW8468260B	Aqueous	Vinyl chloride	0.43	mg/L
SW8468260B	Aqueous	Xylene (total)	0.52	mg/L
SW8468260B	Dry	1,1,1-Trichloroethane	0.29	ug/kg
SW8468260B	Dry	1,1,2,2-Tetrachloroethane	0.39	ug/kg
SW8468260B	Dry	1,1,2-Trichloroethane	0.2	ug/kg
SW8468260B	Dry	1,1-Dichloroethane	0.28	ug/kg
SW8468260B	Dry	1,1-Dichloroethene	0.32	ug/kg
SW8468260B	Dry	1,2-Dichlorobenzene	0.46	ug/kg
SW8468260B	Dry	1,2-Dichloroethane	0.29	ug/kg
SW8468260B	Dry	1,2-Dichloroethene (total)	0.26	ug/kg

Analytical Method	Matrix	Analyte	MDL	Units
SW8468260B	Dry	1,2-Dichloropropane	0.1	ug/kg
SW8468260B	Dry	1,3-Dichlorobenzene	0.42	ug/kg
SW8468260B	Dry	1,4-Dichlorobenzene	2.42	ug/kg
SW8468260B	Dry	2-Butanone (MEK)	0.14	ug/kg
SW8468260B	Dry	2-Hexanone	1.33	ug/kg
SW8468260B	Dry	4-Methyl-2-pentanone (MIBK)	4.14	ug/kg
SW8468260B	Dry	Acetone	0.26	ug/kg
SW8468260B	Dry	Benzene	0.26	ug/kg
SW8468260B	Dry	Bromodichloromethane	0.22	ug/kg
SW8468260B	Dry	Bromoform	0.37	ug/kg
SW8468260B	Dry	Bromomethane	0.52	ug/kg
SW8468260B	Dry	Carbon disulfide	0.27	ug/kg
SW8468260B	Dry	Carbon tetrachloride	0.27	ug/kg
SW8468260B	Dry	Chlorobenzene	0.18	ug/kg
SW8468260B	Dry	Chloroethane	1.52	ug/kg
SW8468260B	Dry	Chloroform	0.42	ug/kg
SW8468260B	Dry	Chloromethane	0.38	ug/kg
SW8468260B	Dry	cis-1,3-Dichloropropene	0.13	ug/kg
SW8468260B	Dry	Dibromochloromethane	0.32	ug/kg
SW8468260B	Dry	Ethylbenzene	0.15	ug/kg
SW8468260B	Dry	Methylene chloride	1.05	ug/kg
SW8468260B	Dry	Styrene	0.15	ug/kg
SW8468260B	Dry	Tetrachloroethene	0.55	ug/kg
SW8468260B	Dry	Toluene	0.15	ug/kg
SW8468260B	Dry	trans-1,3-Dichloropropene	0.64	ug/kg
SW8468260B	Dry	Trichloroethene	0.28	ug/kg
SW8468260B	Dry	Vinyl chloride	0.43	ug/kg
SW8468260B	Dry	Xylene (total)	0.52	ug/kg

APPENDIX E

Field Monitoring and Sampling Forms

Field Monitoring and Sampling Forms

EASTERN PLUME MONITORING WELL GAUGING SUMMARY FOR APRIL 2006

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	7.67	16.88
MW-106	51.26	37.27	16.15	35.11
MW-206B	42.77	27.17	14.15	28.62
MW-207B	22.9	9.21	4.87	18.03
MW-209	54.84	32.38	18.61	36.23
MW-222	57.43	45.34	20.25	37.18
MW-223	53.71	42.61	18.02	35.69
MW-224	57.63	46.01	19.40	38.23
MW-225B	46.25	42	14.32	31.93
MW-229B	30.08	33.14	14.85	15.23
MW-231B	46.31	37.99	22.2	24.11
MW-307	62.7	22.21	14.69	48.01
MW-318	24.28	25.14	5.43	18.85
MW-323 (F.M.)	55.9	39	12.46	43.44
MW-1104	60.09	27.55	7.68	52.41
Deep Monitoring Wells				
MW-105A	24.19	47.75	artesian	#VALUE!
MW-205	45.99	79	20.86	25.13
MW-206A	43.02	74.36	14.29	28.73
MW-207A	Destroyed and replaced with MW-207AR			
MW-207AR	23.42	(a)	artesian	23.42
MW-208	49.4	102.8	14.05	35.35
MW-225A	45.95	76.03	13.18	32.77
MW-229A	33.83	64.97	10.44	23.39
MW-230A	36.32	81.49	12.3	24.02
MW-230B			16.72	NA
MW-231A	45.41	61.19	18.42	26.99
MW-303	44.28	72.75	10.47	33.81
MW-305	43.09	53.51	12.11	30.98
MW-306	52.12	56.98	12.27	39.85
MW-310	53.39	73.25	23.07	30.32
MW-311	21.48	56.25	7.97	13.51
MW-312	35.97	71.15	10.38	25.59
MW-313	21.39	37.47	7.19	14.2
MW-315A			Artesian	NA
MW-319	40.16	72.6	6.68	33.48
MW-330	35.71	36.36	1.29	34.42
MW-331	30.54	56.23	artesian	30.54
MW-333	27.25	42.85	8.62	18.63
MW-334	30.93	47.8	8.55	22.38
MW-335			16.73	NA

(a) MW-207AR has not been sounded for total depth.
NOTE: MSL = Mean sea level.

EASTERN PLUME (continued)
MONITORING WELL GAUGING SUMMARY FOR APRIL 2006

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			10.38	NA
MW-337			13.2	NA
MW-338A			Artesian	NA
MW-338B			Artesian	NA
MW-338C			1.87	NA
MW-339			0.81	NA
MW-NASB-212	41.64	64.29	7.2	34.44
Bedrock Monitoring Wells				
MW-308	37.7	73.25	1.59	36.11
MW-309A	22.84	72.71	Artesian	22.84
MW-309B	22.32	59.25	Artesian	22.32
MW-316A	53.71	103.1	20.39	33.32
MW-316B	54.4	57.85	9.81	44.59
MW-317A	71.35	120.79	13.22	58.13
MW-317B	70.1	96.95	11.97	58.13
MW-323	55.9	39	12.46	43.44
Shallow P-Series Piezometers				
P-103	60.35	28.75	18.59	41.76
P-111	31.48	9.98	4.50	26.98
P-121	50.78	17.35	15.38	35.4
P-132	42.95	32.46	17.9	25.05
Deep P-Series Piezometers				
PZ-1	47.88	58	23.27	24.61
PZ-2	39.66	55.5	16.68	22.98
PZ-6	33.14	55.6	12.75	20.39
PZ-11	53.66	41.1	21.62	32.04
P-105	42.08	70.35	5.28	36.8
P-106	38.83	72.4	5.53	33.3
P-123	ice damage to PVC riser, cannot gauge			
Extraction Wells				
EW-01	25.34	99.66	4.51	20.83
EW-02A	22.27	66	30.86	-8.59
EW-04	37.13	69.37	10.61	26.52
EW-05A	37.63	82	11.27	26.36

EASTERN PLUME (continued)
MONITORING WELL GAUGING SUMMARY FOR APRIL 2006

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	5.89	25.78
EP-02	29.74	99	4.21	25.53
EP-03	27.91	89.21	2.15	25.76
EP-04	32.59	91.11	1.12	31.47
EP-05	34.61	79.85	1.46	33.15
EP-06	40.14	83.51	7.4	32.74
EP-07	48.49	70.2	12.75	35.74
EP-08	47.31	80.38	11.37	35.94
EP-09	37.84	62.46	1.7	36.14
EP-10	37.78	57.73	1.94	35.84
EP-11	41.59	65.03	4.2	37.39
EP-12	49.38	69.61	11.48	37.9
EP-13	38.96	70.93	0.76	38.2
EP-14	43.46	80.05	5.42	38.04
EP-15	45.37	82.68	7.53	37.84
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		Missing	#VALUE!
GP-2A	23.92		1.69	25.61
GP-3B	31.15		0.34	31.15
GP-4A	17.68		1.40	19.08
GP-5B	12.09		3.88	15.97
GP-6A	7.46		1.78	9.24

Note: I assume GP-3B gauge point elevation is erroneous!

FIELD RECORD OF WELL GAUGING

Project Name:	NASB, ME LTM Sites 1 & 3	Weather:	sunny/ windy	Gauge Date:	4/18/2006
Project Number:	5700.007.0	Sounding Method:	Slope Indicator	Gauge Time:	0900-1200
ECC Personnel:	MAC/ PL				

Well Identification Number	Well Lock Status	Stick Up or F.M.	Well Physical Condition	VOC Concentrations Ambient Air (ppm)	VOC Concentrations Well Mouth (ppm)	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	11.58	ND	47.30	
MW-202A	Good	Stick Up	Good	ND	ND	52.4	2	Pump	21.11	ND	31.29	Yes
MW-203	Good	Stick Up	Good	ND	ND	52.75	2	Pump	30.42	ND	22.33	Yes
MW-204	Good	Stick Up	Good	ND	ND	50.5	2	Pump	29.00	ND	21.50	Yes
MW-210B	Good	Stick Up	Good	ND	ND	54.72	2	40.85	25.83	ND	28.89	
MW-211B	Good	Stick Up	Good	ND	ND	65.44	2	35.87	33.59	ND	31.85	
MW-215R	Good	Stick Up	Good	ND	ND	62.26	2	Pump	30.92	ND	31.34	Yes
MW-217B	Good	Stick Up	Good	ND	ND	61.25	2	PDB	28.94	ND	32.31	PDB
MW-234R	Good	Stick Up	Good	ND	ND	68.55	2	59.10	37.00	ND	31.55	
MW-240	Good	Stick Up	Good	ND	ND	52.21	2	Pump	29.55	ND	22.66	Yes
MW-2101	Good	Stick Up	Good	ND	ND	61.05	2	Pump	10.78	ND	50.27	Yes
MW-216A	Good	Stick Up	Good	ND	ND	71.17	2	47.75	39.00	ND	32.17	
MW-217A	Good	Stick Up	Loose	ND	ND	61.78	2	10.39	30.65	ND	31.13	Yes
MW-218	Good	Stick Up	Good	ND	ND	54.16	2	Pump	33.40	ND	17.54	Yes
MW-219	Good	Stick Up	Good	ND	ND	51.87	2	Pump	28.55	ND	23.32	Yes
MW-220	Good	Stick Up	Good	ND	ND	47.2	2	51.43	23.00	ND	24.20	
MW-232A	Good	Stick Up	Good	ND	ND	71.18	2	34.78	39.35	ND	31.83	
MW-233R	Good	Stick Up	Good	ND	ND	63.94	2	38.72	32.47	ND	31.47	
MW-210A	Good	Stick Up	Good	ND	ND	52.17	2	100+	15.74	ND	36.43	
MW-210R	Good	Stick Up	Good	ND	ND	55.9	2	100+	18.73	ND	37.17	
MW-211A	Sticky	Stick Up	Good	ND	ND	65.59	2	100+	22.35	ND	43.24	
EW-6	Good	Vault	Good	ND	ND	57.74	6	59.93	22.04	ND	35.70	
EW-7	Good	Vault	Good	ND	ND	51.13	6	48.90	22.51	ND	28.62	
EP-16	Good	Stick Up	Good	ND	ND	58.92	2	59.52	29.85	ND	29.07	
EP-17	Good	Stick Up	Good	ND	ND	69.73	2	42.70	37.73	ND	32.00	
EP-18	Good	Stick Up	Good	ND	ND	68.58	2	38.93	36.62	ND	31.96	
EP-19	Good	Stick Up	Good	ND	ND	68.22	2	46.59	36.51	ND	31.71	
EP-20	Good	Stick Up	Good	ND	ND	69.55	2	47.25	37.64	ND	31.91	

Comments: Total depth of wells not measured this round. Data presented is carried over from prior gauging round.

FIELD RECORD OF WELL GAUGING

Project Name:	NASB, ME LTM Sites 1 & 3	Weather:	sunny/ windy	Gauge Date:	4/18/2006
Project Number:	5700.007.0	Sounding Method:	Slope Indicator	Gauge Time:	0900-1200
ECC Personnel:	MAC/ PL				

Well Identification Number	Well Lock Status	Stick Up or F.M.	Well Physical Condition	VOC Concentrations Ambient Air (ppm)	VOC Concentrations Well Mouth (ppm)	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-1301 shallow	Good	Stick Up	Good	ND	ND		2	31.18	28.02	ND		No
MW-1301 deep	Good	Stick Up	Good	ND	ND		2	43.05	30.75	ND		No
MW-1303A shallov	Good	Stick Up	Good	ND	ND		2	39.96	31.23	ND		No
MW-1303A deep	Good	Stick Up	Good	ND	ND		2	59.30	27.69	ND		No
MW-1302 shallow	Good	Stick Up	Good	ND	ND		2	25.30	19.56	ND		No
MW-1302 deep	Good	Stick Up	Good	ND	ND		2	39.94	20.17	ND		No

Comments: Total depth of wells not measured this round. Data presented is carried over from prior gauging round.

Chain of Custody

Northeast Laboratory SERVICES
P.O. Box 788 • Waterville, ME 04903-0788
207-873-7711 / Fax: 207-873-7022
Shipping: 227 China Road
Winslow, Maine 04901

CHAIN OF CUSTODY RECORD

Company Name: ECC

Reporting Address: 33 Boston Post Rd West, Suite 340, Marlborough, MA, 01752

Client Contact: Jackson Kiker Phone 508-229-2270 Fax

Billing Name:

Billing Address:

PO #:
Quote #
Project Name: Eastern Plume, NASB Brunswick, Me

Lab Comments:

Sample Designation	Sample Date/Time	Preservation: 1 H_2SO_4, 2=HNO_3, 3=HCL, 4=NaOH, 5=Thio, 6=4°C, 7=None	Container Size, Type	QTY	Sample Type Code: G = Grab C = Composite	Matrix Code Choose One: GW = Ground Water WW = Waste Water DW = Drinking Water SW = Surface Water O = Oil WP = Wipe S = Soil F = Food Other (Please List)	Analyses Requested	Lab Sample ID
BN-EP-28-MW308	6/19/06 1330	3	40ml VOA	3	G	GW	VOC	A105955.1-3
Trip Blank	6/19/06	3	40ml VOA	3			VOC	A105956.1-2

Notes: Resample MW 308

Sampled By: Paul Lynch

Known hazards associated with samples:

Relinquished By	Date/Time	Received By	Date/Time	pH
[signature]	6/19/06 1600	J. Mitchell	6/19/06 4:15p.	
Relinquished By	Date/Time	Received By	Date/Time	Rush Yes 5 days 50% surcharge 2 days 100% surcharge
Relinquished By	Date/Time	Received By	Date/Time	Field Filtered Y / N

The recommended temperature of the internal container is 2-6°C. Do you authorize analysis if the temp is out of range?

Yes No

Chain of Custody must be filled out completely. This includes signature, sample description, analysis requested, date and time sampled.

If not completed, samples will be rejected.

If a sample is hazardous or radioactive, the sample will be returned to the client at the client's expense.

Northeast Laboratory SERVICES
P.O. Box 788 • Waterville, ME 04903-0788
207-873-7711 / Fax: 207-873-7022
Shipping: 227 China Road
Winslow, Maine 04901

CHAIN OF CUSTODY RECORD

Company Name: ECC

Reporting Address: 50 D'Angelo Drive Marlboro MA

Client Contact: Jackson Kiker | Phone | Fax

Billing Name:

Billing Address:

PO #:
Quote #
Project Name

Lab Comments:

Preservation: 1=H_2SO_4, 2=HNO_3, 3=HCL, 4=NaOH, 5=Thio, 6=4°C, 7=None
Matrix Code Choose One: GW = Ground Water, WW = Waste Water, DW = Drinking Water, SW = Surface Water O = Oil, WP = Wipe S = Soil F = Food, Other (Please List)
Sample Type Code: G = Grab, C = Composite

Sample Designation	Sample Date/Time	Preservation	Container Size, Type	QTY	Sample Type Code	Matrix Code	Analyses Requested	Lab Sample ID
BN-EP-28-MW338A-S	4/18/06 13:15	3	40ml	2		GW	TCL VOC	
BN-EP-28-MW338A	4/18/06 13:45	3	40ml	3		GW	TCL VOC	
BN-EP-28-MW338A	4/18/06 13:45	7	40ml	3		GW	1,4 Dioxane	
BN-EP-28-MW338A	4/18/06 13:45	3	40ml	2		GW	Methane, Ethane, Ethene	
BN-EP-28-MW338A	4/18/06 13:45	1	250 poly	1		GW	Nitrate & Nitrite	
BN-EP-28-MW338A	4/18/06 13:45	1	250 poly	1		GW	TOC	
BN-EP-28-MW338A	4/18/06 13:45	2	500 poly	1		GW	Tot FE, Mn, As	
BN-EP-28-MW339	4/18/06 14:46	1	40ml	3		GW	TCL VOC	
BN-EP-28-MW339	4/18/06 14:44	1	40ml	2		GW	Methane, Ethane	
BN-EP-28-MW339	4/18/06 13:00	1	40ml	2		GW	TCL VOC	

Notes:

Sampled By: Suzanne Whiteside

Known hazards associated with samples:

Relinquished By	Date/Time	Received By	Date/Time
Suzanne Whiteside	4-18-06 16:45	[signature]	4/18/06 16:45

pH

Rush Yes
5 days 50% surcharge
2 days 100% surcharge

Field Filtered Y / N

The recommended temperature of the internal container is 2-6°C. Do you authorize analysis if the temp is out of range?

Yes No

Chain of Custody must be filled out completely. This includes signature, sample description, analysis requested, date and time sampled.

If not completed, samples will be rejected.

Rev. 8/04 Form #NEL 100

If a sample is hazardous or radioactive, the sample will be returned to the client at the client's expense.
Standard turn-around-time is 10 business days - depending on season.

Northeast Laboratory SERVICES
P.O. Box 788 • Waterville, ME 04903-0788
207-873-7711 / Fax: 207-873-7022
Shipping: 227 China Road
Winslow, Maine 04901

CHAIN OF CUSTODY RECORD

Company Name: ECC

Reporting Address: 50 D'Angelo Dr Marlborough MA

Client Contact: Jackson Kiker — Phone — Fax

Billing Name:

Billing Address:

PO #:
Quote #
Project Name

Lab Comments:

Preservation: 1=H_2SO_4, 2=HNO_3, 3=HCL, 4=NaOH, 5=Thio, 6=4°C, 7=None

Matrix Code Choose One: GW = Ground Water, WW = Waste Water, DW = Drinking Water, SW = Surface Water, O = Oil, WP = Wipe, S = Soil, F = Food, Other (Please List)

Sample Type Code: G = Grab, C = Composite

Sample Designation	Sample Date/Time	Preservation	Container Size, Type	QTY	Sample Type Code	Matrix Code	Analyses Requested	Lab Sample ID
BN-EP-28-MW-XDS	4/18/06 –	1	40ml	2		GW	TCL VOC	
BN-EP-28 MW 338A	4/18/06 1345	7	500ml poly	1		GW	Alk, Cl, NO_2, SO_4	
BN-EP-28 MW 339	4/18/06 14:46	1	500 poly	1		GW	Nitrate & Nitrite	
BN-EP-28 MW 339	4/18/06 14:46	2	500 poly	1		GW	Tot Fe Mn As	
BN-EP-28 MW 339	4/18/06 14:46	7	500 poly	1		GW	Alk, Cl, NO_2, SO_4	
BN-EP-28 MW 339	4/18/06 14:46	1	250 amb	1		GW	TOC	
BN-EP-28 MW 338B	4/18/06 15:30	2	500 poly	1		GW	Tot Fe, Mn, As	
BN-EP-28 MW 338B	4/18/06 15:30	3	40 ml	3		GW	TCL VOC	
BN-EP-28 MW 338B	4/18/06 15:30	3	40 ml	2		GW	Methane, Ethane	
BN-EP-28 MW 338B	4/18/06 15:30	1	250 amb	1		GW	TOC	

Notes:

Sampled By: Suzanne Whitesides

Known hazards associated with samples:

Relinquished By	Date/Time	Received By	Date/Time
Suzanne Whitesides	4-18-06 16:45	[illegible]	4/18/06 16:45

pH

Rush Yes
5 days 50% surcharge — 2 days 100% surcharge

Field Filtered Y / N

The recommended temperature of the internal container is 2-6°C. Do you authorize analysis if the temp is out of range?

Yes No

Chain of Custody must be filled out completely. This includes signature, sample description, analysis requested, date and time sampled.

If not completed, samples will be rejected.

If a sample is hazardous or radioactive, the sample will be returned to the client at the client's expense.
Standard turn-around-time is 10 business days - depending on season.

Rev. 8/04 / Form #NEL 100

Northeast Laboratory SERVICES

P.O. Box 788 • Waterville, ME 04903-0788
207-873-7711 / Fax: 207-873-7022

Shipping: 227 China Road
Winslow, Maine 04901

CHAIN OF CUSTODY RECORD

Company Name: ECC

Reporting Address: Hartford, MA

Client Contact: Phone Fax

Billing Name: Dassault Falcon

Billing Address: Same

PO #:
Quote #
Project Name

Lab Comments:

Sample Designation	Sample Date/Time	Preservation: 1 H_2SO_4, 2=HNO_3, 3=HCL, 4=NaOH, 5=Thio, 6=4°C, 7=None	Container Size, Type	QTY	Sample Type Code: G = Grab C = Composite	Matrix Code Choose One: GW = Ground Water WW = Waste Water DW = Drinking Water SW = Surface Water O = Oil WP = Wipe S = Soil F = Food Other (Please List)	Analyses Requested	Lab Sample ID
BN-EP-22-MW31SA-D	5/4/06 1210	3	40mL	3	G	GW	VOC	
BN-EP-28-QTH	5/4/06 —	3	40mL	3	G	G	VOC	

Notes: Temp Blank

Sampled By: M. Cox

Known hazards associated with samples:

Relinquished By	Date/Time	Received By	Date/Time	pH	The recommended temperature of the internal container is 2-6°C. Do you authorize analysis if the temp is out of range?
[illegible]		[illegible]	[illegible]		
Relinquished By	Date/Time	Received By	Date/Time	Rush Yes 5 days 50% surcharge 2 days 100% surcharge	
Relinquished By	Date/Time	Received By	Date/Time	Field Filtered Y / N	Yes No

Chain of Custody must be filled out completely. This includes signature, sample description, analysis requested, date and time sampled.

If not completed, samples will be rejected.

If a sample is hazardous or radioactive, the sample will be returned to the client at the client's expense.
Standard turn-around-time is 10 business days - depending on season.

Rev. 3/04 Form #NEL 100

CHAIN OF CUSTODY

Job #:

Control #:

Client Information

ame Environmental Chemical Corporation

ddress 50 D'Angelo Drive

ity Marlborough, MA State 01752 Zip

end Report to: Jackson Kiker

hone #: 508-229-2270

Facility Information

Project Name: SITES 1&3

Location: NASB Brunswick, Maine

Project No.: 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	H2So4	None	TCL VOC	TAL METALS
N-1&3-28-MW1302D	4/25/06	1442		GW	4	X		X			X	X
N-1&3-28-MW1301S	4/25/06	1540		GW	4	X		X			X	X
N-1&3-28-MW1301D	4/25/06	1448		GW	4	X		X			X	X
N-1&3-28-MW1303AD	4/25/06	1545		GW	4	X		X			X	X
N-1&3-28-MW1303AS	4/25/06	1330		GW	4	X		X			X	X
N-1&3-28-MW202A	4/24/06	1304		GW	4	X		X			X	X
N-1&3-28-MW218	4/24/06	1151		GW	4	X		X			X	X
N-1&3-28-MW203 MS/MSD	4/24/06	1115		GW	~~4~~ 12 MS	X		X			X	X
N-1&3-28-MW218 MS ~~MS/MSD~~	4/24/06	1151		GW	4 12 MS	X		X			X	X
N-1&3-28-MWXD1	4/24/06	0000		GW	4	X		X			X	X
N-1&3-28-MW217B	4/24/06	1155		GW	1			X				X
N-1&3-28-MW217BD	4/24/06	1045		GW	2	X					X	
N-1&3-28-MWQT1	4/26/06	0800		W	2	X					X	

Turnaround Information

- ☐ 21 Day Standard — Approved By:
- ☐ 14 Day
- ☐ 7 Days *EMERGENCY*
- ☐ Other _____ (Days)

RUSH TAT is for FAX data

Data unless previously approved.

Data Deliverable Information

- ☐ NJ Reduced
- ☐ NJ Full
- ☐ FULL CLP
- ☐ Disk Deliverable
- ☐ Other (Specify) _____
- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ ASP Category B
- ☐ State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	4/26/06 1110	1 0426 1110	2		2
Relinquished by Sampler:	**Date Time:**	**Received By:**	**Seal #**	**Preserved where applica**	**On Ice:**
3		3		☐	☐

CHAIN OF CUSTODY

Job #:

Control #:

Client Information

me Environmental Chemical Corporation

dress 50 D'Angelo Drive

ty Marlborough, MA State 01752 Zip

nd Report to: Jackson Kiker

hone #: 508-229-2270

Facility Information

Project Name: Eastern Plume

Location: NASB Brunswick, Maine

Project No.: 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	H2So4	None	TCL VOC	1,4, DIOXANE	METHANE, ETHANE, ETHENE	TOTAL ORGANIC CARBON	ALK, CHL, NO2-NO3, SO4	TOTAL FE, MN, AS
N-EP-28-MW-QS1	4/24/06	1300		W	10	X		X	X	X	X	X	X	X	X	X

Turnaround Information

- ☐ 21 Day Standard — Approved By:
- ☐ 14 Day
- ☐ 7 Days *EMERGENCY*
- ☐ Other _____ (Days)

RUSH TAT is for FAX data

Data unless previously approved.

Data Deliverable Information

- ☐ NJ Reduced
- ☐ NJ Full
- ☐ FULL CLP
- ☐ Disk Deliverable
- ☐ Other (Specify) _____
- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ ASP Category B
- ☐ State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	4/24/06 1330	1	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Seal #	Preserved where applica	On Ice:
5		5		☐	☐

CHAIN OF CUSTODY

Job #:

Control #:

Client Information

ıme Environmental Chemical Corporation

ldress 50 D'Angelo Drive

ty Marlborough, MA State 01752 Zip

ınd Report to: Jackson Kiker

ıone #: 508-229-2270

Facility Information

Project Name: Eastern Plume

Location: NASB Brunswick, Maine

Project No.: 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	H2So4	None	TCL VOC	1,4, DIOXANE	METHANE, ETHANE, ETHENE	TOTAL ORGANIC CARBON	ALK, CHL, NO2-NO3, SO4	TOTAL FE, MN, AS
N-EP-28-MW231AD	4/21/06	1010		GW	2	X					X					
N-EP-28-MW230AD	4/21/06	0955		GW	2	X					X					
N-EP-28-MW205D	4/21/06	0945		GW	2	X					X					
N-EP-28-MW225AM	4/21/06	0925		GW	2	X					X					
N-EP-28-EW2A	4/21/06	1135		GW	3	X					X					
N-EP-28-MW224	4/21/06	1100		GW	6	X		X	X	X			X	X	X	X
N-EP-28-MW224M	4/21/06	0930		GW	2	X					X					
N-EP-28-MW224 MS/MSD	4/21/06	1100		GW	9	X					X					
N-EP-28-MWXD1	4/21/06	0000		GW	3	X					X					
N-EP-28-QT3	4/21/06	0800		W	4	X					X		X			

Turnaround Information

- ☐ 21 Day Standard — Approved By:
- ☐ 14 Day
- ☐ 7 Days *EMERGENCY*
- ☐ Other _____ (Days)

RUSH TAT is for FAX data Data unless previously approved.

Data Deliverable Information

- ☐ NJ Reduced
- ☐ NJ Full
- ☐ FULL CLP
- ☐ Disk Deliverable
- ☐ Other (Specify) _____
- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ ASP Category B
- ☐ State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	4/21/06 1400	1 [signature]	2		2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by Sampler: 5	Date Time:	Received By: 5	Seal #	Preserved where applica ☐	On Ice: ☐

CHAIN OF CUSTODY

Job #:

Control #:

Client Information

me Environmental Chemical Corporation

ldress 50 D'Angelo Drive

ty Marlborough, MA State 01752 Zip

nd Report to: Jackson Kiker

hone #: 508-229-2270

Facility Information

Project Name: Eastern Plume

Location: NASB Brunswick, Maine

Project No.: 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	H2So4	None	TCL VOC	GRAIN SIZE	TAL METALS, PESTICIDES	TOC
N-EP-28-SW10	4/21/06	1200		SW	3	X					X			
N-EP-28-SW11	4/21/06	1145		SW	3	X					X			
N-EP-28-SW13 MS/MSD	4/21/06	1215		SW	9	X					X			
N-EP-28-SW14	4/21/06	1205		SW	3	X					X			
N-EP-28-SW-XD1	4/21/06	1215		SW	3	X					X			
N-EP-28-SED11 *MS/MSD	4/21/06	1155		SED	5					X		X	*X	X
N-EP-28-SED-XD1	4/21/06	1155		SED	1					X			X	
N-EP-28-SEEP11 MS/MSD	4/21/06	1123		GW	9	X					X			
N-EP-28-SEEP-XD1	4/21/06	0000		GW	3	X					X			
N-EP-28-SW12	4/21/06	1315		SW	3	X					X			
N-EP-28-SEEP10	4/21/06	1214		GW	3	X					X			

Turnaround Information

- ☐ 21 Day Standard — Approved By:
- ☐ 14 Day
- ☐ 7 Days *EMERGENCY*
- ☐ Other _____ (Days)

RUSH TAT is for FAX data

Data unless previously approved.

Data Deliverable Information

- ☐ NJ Reduced
- ☐ NJ Full
- ☐ FULL CLP
- ☐ Disk Deliverable
- ☐ Other (Specify)
- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ ASP Category B
- ☐ State Forms

Comments / Remarks

* MS/MSD FOR METALS AND PESTICIDES ONLY

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date, Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	4/21/06 1400	1	2		2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by Sampler: 5	Date Time:	Received By: 5	Seal #	Preserved where applica ☐	On Ice: ☐

CHAIN OF CUSTODY

Job #:

Control #:

Client Information

me Environmental Chemical Corporation

dress 50 D'Angelo Drive

y Marlborough, MA State 01752 Zip

nd Report to: Jackson Kiker

hone #: 508-229-2270

Facility Information

Project Name: Eastern Plume

Location: NASB Brunswick, Maine

Project No.: 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	H2So4	None	TCL VOC	1,4, DIOXANE	METHANE, ETHANE, ETHENE	TOTAL ORGANIC CARBON	ALK, CHL, NO2-NO3, SO4	TOTAL FE, MN, AS
N-EP-28-MW229AM	4/20/06	0932		GW	2	X					X					
N-EP-28-MW336S	4/20/06	1035		GW	2	X					X					
N-EP-28-MW336	4/20/06	1140		GW	9	X		X	X	X	X		X	X	X	X
N-EP-28-MW335M	4/20/06	1213		GW	2	X					X					
N-EP-28-EW1	4/20/06	0905		GW	3	X					X					
N-EP-28-MW335	4/20/06	1345		GW	8	X		X	X	X	X		X	X	X	X
N-EP-28-MW334	4/20/06	1045		GW	6	X		X	X	X			X	X	X	X
N-EP-28-~~EW2A~~ FS EW-5A	4/20/06	1400		GW	3	X					X					
N-EP-28-P111	4/20/06	1105		GW	9	X		X	X	X	X		X	X	X	X
N-EP-28-MW308	4/20/06	1113		GW	3	X					X					
N-EP-28-MW308D	4/20/06	0957		GW	2	X					X					
N-EP-28-MW337M	4/20/06	1200		GW	2	X					X					
N-EP-28-P106	4/20/06	1339		GW	12	X		X	X	X	X	X	X	X	X	X

Turnaround Information

- ☐ 21 Day Standard — Approved By:
- ☐ 14 Day
- ☐ 7 Days *EMERGENCY*
- ☐ Other _____ (Days)

RUSH TAT is for FAX data Data unless previously approved.

Data Deliverable Information

- ☐ NJ Reduced
- ☐ NJ Full
- ☐ FULL CLP
- ☐ Disk Deliverable
- ☐ Other (Specify) _____
- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ ASP Category B
- ☐ State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	4/20/06 1545	1 [signature]	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Seal #	Preserved where applica ☐	On Ice: ☐
5		5			

CHAIN OF CUSTODY

Job #:

Control #:

Client Information

ıme Environmental Chemical Corporation

ldress 50 D'Angelo Drive

ty Marlborough, MA State 01752 Zip

ınd Report to: Jackson Kiker

ıone #: 508-229-2270

Facility Information

Project Name: Eastern Plume

Location: NASB Brunswick, Maine

Project No.: 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	H2So4	None	TCL VOC	1,4, DIOXANE	METHANE, ETHANE, ETHENE	TOTAL ORGANIC CARBON	ALK, CHL, NO2-NO3, SO4	TOTAL FE, MN, AS					
N-EP-28-MWXD6	4/20/06	0000		GW	3	X					X										
N-EP-28-MW337 MS/MSD	4/20/06	1345		GW	18	X		X	X	X			X	X	X	X					
N-EP-28-MW337	4/20/06	1345		GW	3	X					X										
N-EP-28-MNAXD2	4/20/06	0000		GW	6	X		X	X	X			X	X	X	X					
N-EP-28-MW331	4/20/06	1435		GW	9	X		X	X	X		X	X	X	X	X					
N-EP-28-MNAXD1	4/20/06	0000		GW	6	X		X	X	X			X	X	X	X					
N-EP-28-MW331M	4/20/06	1320		GW	2	X					X										
N-EP-27-QT2	4/20/06	0800		W	7	X				X	X	X	X								

Turnaround Information

- ☐ 21 Day Standard — Approved By:
- ☐ 14 Day
- ☐ 7 Days *EMERGENCY*
- ☐ Other _____ (Days)

RUSH TAT is for FAX data

Data unless previously approved.

Data Deliverable Information

- ☐ NJ Reduced
- ☐ NJ Full
- ☐ FULL CLP
- ☐ Disk Deliverable
- ☐ Other (Specify) _____
- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ ASP Category B
- ☐ State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	4/20/06 1545	1	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Seal #	Preserved where applica ☐	On Ice: ☐
5		5			

CHAIN OF CUSTODY

ACCUTEST®

495 Technology Center West
Building One, Marlbourough, MA 01752
508-481-6200 FAX: 508-481-7753

Accutest Job #:

Accutest Control #:

Client Information

ıme Environmental Chemical Corporation

ıdress 50 D'Angelo Drive

ty Marlborough, MA State 01752 Zip

nd Report to: Jackson Kiker

ıone #: 508-229-2270

Facility Information

Project Name SITES 1&3

Location NASB Brunswick, Maine

Project No. 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	NaSo4	None	TCL VOC	TAL METALS	PESTICIDES								
N-1&3-28-SEEP1	4/26/06	0950		GW	6	X		X			X	X	X								
N-1&3-28-SEEP3	4/26/06	1015		GW	6	X		X			X	X	X								
N-1&3-28-SEEP5	4/26/06	1040		GW	6	X		X			X	X	X								
N-1&3-28-LT1	4/27/06	1020		SED	4		X		X	X	X	X									
N-1&3-28-LT3	4/27/06	1035		SED	4		X		X	X	X	X									
N-1&3-28-LT4	4/27/06	1045		SED	4		X		X	X	X	X									
N-1&3-28-LT5	4/27/06	1050		SED	4		X		X	X	X	X									
N-1&3-28-SW8	4/27/06	1230		SW	4	X		X			X	X									
N-1&3-28-SW09	4/27/06	1215		SW	4	X		X			X	X									
N-1&3-28-LT9 ms/msd	4/27/06	1100		SED	12		X		X	X	X	X									
N-1&3-28-LT-XD1	4/27/06	0000		SED	4		X		X	X	X	X									
N-1&3-28-SEEP9 ms/msd	4/26/06	1120		GW	18		X		X	X	X	X									
N-1&3-28-SEEP-XD1	4/26/06	0000		GW	6		X		X	X	X	X									

Turnaround Information

- ☐ 21 Day Standard — Approved By:
- ☐ 14 Day
- ☐ 7 Days *EMERGENCY*
- ☐ Other _____ (Days)

RUSH TAT is for FAX data
Data unless previously approved.

Data Deliverable Information

- ☐ NJ Reduced
- ☐ NJ Full
- ☐ FULL CLP
- ☐ Disk Deliverable
- ☐ Other (Specify) _____
- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ ASP Category B
- ☐ State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	4/27/06 1530	1	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Seal #	Preserved where applica	On Ice:
5		5		☐	☐

CHAIN OF CUSTODY

ACCUTEST®

495 Technology Center West
Building One, Marlbourough, MA 01752
508-481-6200 FAX: 508-481-7753

Accutest Job #:

Accutest Control #:

Client Information

ıme Environmental Chemical Corporation

ıdress 50 D'Angelo Drive

ıy Marlborough, MA State 01752 Zip

nd Report to: Jackson Kiker

ıone #: 508-229-2270

Facility Information

Project Name SITES 1&3

Location NASB Brunswick, Maine

Project No. 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	NaSo4	None	TCL VOC	TAL METALS	PESTICIDES
N-1&3-28-SW7	4/27/06	1200		SW	4	X		X			X	X	
N-1&3-28-MWQT2	4/26/06	1200		SED	3						X		
N-1&3-28-SEEP4	4/26/06	1030		GW	6	X		X			X	X	X
N-1&3-28-SW4 ms/msd	4/27/06	1130		SW	12	X		X			X	X	
N-1&3-28-SW-XD1	4/27/06	0000		SW	4	X		X			X	X	

Turnaround Information

- ☐ 21 Day Standard — Approved By:
- ☐ 14 Day
- ☐ 7 Days *EMERGENCY*
- ☐ Other _____ (Days)

RUSH TAT is for FAX data
Data unless previously approved.

Data Deliverable Information

- ☐ NJ Reduced
- ☐ NJ Full
- ☐ FULL CLP
- ☐ Disk Deliverable
- ☐ Other (Specify) _____
- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ ASP Category B
- ☐ State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	4/27/06 1530	1	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Seal #	Preserved where applicat	On Ice:
5		5		☐	☐

CHAIN OF CUSTODY

Job #:

Control #:

Client Information

me Environmental Chemical Corporation

dress 50 D'Angelo Drive

y Marlborough, MA State 01752 Zip

nd Report to: Jackson Kiker

ione #: 508-229-2270

Facility Information

Project Name: SITES 1&3

Location: NASB Brunswick, Maine

Project No.: 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	H2So4	None	TCL VOC	TAL METALS
N-1&3-28-MW1302S	4/27/06	1134		GW	4	X		X			X	X
N-1&3-28-MWXD2	4/27/06	0000		GW	4	X		X			X	X
N-1&3-28-MWQT2	4/26/06	1200		W	3	X					X	
N-1&3-28-MWQS1	4/27/06	1300		W	4	X		X			X	X

Turnaround Information

- ☐ 21 Day Standard — Approved By:
- ☐ 14 Day
- ☐ 7 Days *EMERGENCY*
- ☐ Other _____ (Days)

RUSH TAT is for FAX data
Data unless previously approved.

Data Deliverable Information

- ☐ NJ Reduced
- ☐ NJ Full
- ☐ FULL CLP
- ☐ Disk Deliverable
- ☐ Other (Specify) _____
- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ ASP Category B
- ☐ State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	4/27/06 1530	1	2		2
Relinquished by Sampler:	**Date Time:**	**Received By:**	**Seal #**	**Preserved where applica**	**On Ice:**
3		3		☐	☐

BNASEP 04206 - 61206

CHAIN OF CUSTODY

Job #:

Control #:

Client Information

ame Environmental Chemical Corporation

ldress 50 D'Angelo Drive

ty Marlborough, MA State 01752 Zip

nd Report to: Jackson Kiker

hone #: 508-229-2270

Facility Information

Project Name: Eastern Plume

Location: NASB Brunswick, Maine

Project No.: 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	H2So4	None	TCL VOC	1,4, DIOXANE	METHANE, ETHANE, ETHENE	TOTAL ORGANIC CARBON	ALK, CHL, NO2-NO3, SO4	TOTAL FE, MN, AS
N-EP-28-MW303D	4/18/06	1200		GW	2	X					X					
N-EP-28-MW306D	4/18/06	1346		GW	2	X					X					
N-EP-28-MW338CM	4/18/06	1230		GW	2	X					X					
N-EP-28-MW338C	4/19/06	1105		GW	9	X		X	X	X	X		X	X	X	X
N-EP-28-MW315A	4/18/06	1216		GW	6	X		X	X	X			X	X	X	X
N-EP-28-MW313	4/19/06	1532		GW	6	X		X	X	X			X	X	X	X
N-EP-28-MWXD3	4/19/06	0000		GW	3					X		X				
N-EP-28-MW313D	4/19/06	1310		GW	2	X					X					
N-EP-28-MW313 MS/MSD	4/19/06	1532		GW	3					X		X				
N-EP-28-MW333	4/19/06	1515		GW	9	X		X	X	X		X	X	X	X	X
N-EP-28-MW333M	4/19/06	1257		GW	2	X					X					
N-EP-28-QT1	4/19/06	0800		W	4	X				X	X		X			

Turnaround Information

- [ ] 21 Day Standard — Approved By:
- [ ] 14 Day
- [ ] 7 Days *EMERGENCY*
- [ ] Other _____ (Days)

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Data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [ ] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify) _____
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] ASP Category B
- [ ] State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	4/19/06 1630	1	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Seal #	Preserved where applica	On Ice:
5		5		☐	☐

CHAIN OF CUSTODY

BNASEP 04206 -61206

Job #:

Control #:

Client Information

ıme Environmental Chemical Corporation

ldress 50 D'Angelo Drive

ty Marlborough, MA State 01752 Zip

ınd Report to: Jackson Kiker

ıone #: 508-229-2270

Facility Information

Project Name: Eastern Plume

Location: NASB Brunswick, Maine

Project No.: 5700.007

FAX #:

Analytical Information

Field ID / Point of Collection		Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation: voc hcl	NaOH	HNO3	H2So4	None	TCL VOC	1,4, DIOXANE	METHANE, ETHANE, ETHENE	TOTAL ORGANIC CARBON	ALK, CHL, NO2-NO3, SO4	TOTAL FE, MN, AS
N-EP-28-MW332M	MS/MSD	4/19/06	1100		GW	6	X					X					
N-EP-28-MWXD4		4/19/06	0000		GW	2	X					X					
N-EP-28-MW311M	MS/MSD	4/19/06	1028		GW	6	X					X					
N-EP-28-MWXD2		4/19/06	0000		GW	2	X					X					
N-EP-28-MW311D		4/19/06	1028		GW	2	X					X					
N-EP-28-MW309BD		4/19/06	1228		GW	2	X					X					
N-EP-28-MW207ARD		4/19/06	1135		GW	2	X					X					
N-EP-28-MW207ARM		4/19/06	1135		GW	2	X					X					
N-EP-28-MW319D		4/19/06	1007		GW	2	X					X					
N-EP-28-RAW INFLUENT		4/18/06	0958		GW	3	X					X					
I-EP-28-COMB EFFLUENT	ms/msd	4/18/06	0906		GW	18	X				X	X	X				
I-EP-28-EFFLUENT-XD1		4/18/06	0000		GW	6	X					X	X				
N-EP-28-MW212S		4/18/06	1234		GW	2	X					X					

Turnaround Information

- ☐ 21 Day Standard — Approved By:
- ☐ 14 Day
- ☐ 7 Days *EMERGENCY*
- ☐ Other _____ (Days)

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Data unless previously approved.

Data Deliverable Information

- ☐ NJ Reduced
- ☐ NJ Full
- ☐ FULL CLP
- ☐ Disk Deliverable
- ☐ Other (Specify)
- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ ASP Category B
- ☐ State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date/Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	4/19/06 1630	1	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Seal #	Preserved where applica	On Ice:
5		5		☐	☐

Northeast Laboratory SERVICES
P.O. Box 788 • Waterville, ME 04903-0788
207-873-7711 / Fax: 207-873-7022
Shipping: 227 China Road
Winslow, Maine 04901

CHAIN OF CUSTODY RECORD

Company Name: ECC

Reporting Address: 50 D'Angelo Dr. Marlborough MA

Client Contact: Jackson Kiker Phone Fax

Billing Name:

Billing Address:

PO #:
Quote #
Project Name

Lab Comments:

Sample Designation	Sample Date/Time	Preservation: 1 H_2SO_4, 2=HNO_3, 3=HCL, 4=NaOH, 5=Thio, 6=4°C, 7=None	Container Size, Type	QTY	Sample Type Code: G = Grab C = Composite	Matrix Code Choose One: GW = Ground Water WW = Waste Water DW = Drinking Water SW = Surface Water O = Oil WP = Wipe S = Soil F = Food Other (Please List)	Analyses Requested	Lab Sample ID
BN.EP.28.MW 338 B	4/12/06 15:30	1	500 poly	1		GW	Nitrate & Nitrite	
BN.EP.28.MW338B-M	4/12/06 12:20	3	40 ml	2		GW	TCL VOC	
BN.EP.28 Trip Blank-1	4/12/06 0800	3	40 ml	5		GW	TCL VOC, Methane Ethane	
BN.EP.28 Trip Blank-1	4/12/06 0800	6	40 ml	2		GW	1,4 Dioxane	

Notes:

Sampled By: Suzanne Whitesides

Known hazards associated with samples:

Relinquished By	Date/Time	Received By	Date/Time
Suzanne Whitesides	4-18-06 16:45	[illegible]	4/18/06 1645
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

pH

Rush Yes
5 days 50% surcharge
2 days 100% surcharge

Field Filtered Y / N

The recommended temperature of the internal container is 2-6°C. Do you authorize analysis if the temp is out of range?

Yes No

Chain of Custody must be filled out completely. This includes signature, sample description, analysis requested, date and time sampled.

If not completed, samples will be rejected.

Rev. 8/04 Form #NEL 100

If a sample is hazardous or radioactive, the sample will be returned to the client at the client's expense.
Standard turn-around-time is 10 business days - depending on season.

Sites 1 and 3

Sampling Forms

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: Sites 1+3
Project Number: 5700.007
Sample Location ID: Seep 1
Date / Time: 4/26/06
ECC Personnel: DC/MAL

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (x) Seep

Water Depth: 2"	Dissolved Oxygen (mg/L): 0.81
Velocity of Water: —	ORP (mV) -336
Temperature (C): 6.27	Specific Conductance (uS/cm^c): 579
pH (units): 6.56	Turbidity (NTU) 160

Sample Observations:
( ) Odor
(x) Color Orange / rusty
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (x) Organic ( ) Gravel (x) Clay (x) Silt ( ) Sand ( ) Other

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
(x) Color Black
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-1+3-28-Seep1	Seep 1	4/26/06 0950	x		HCL	3
"			x	1 L. Amber	—	2
"			x	500 ML poly	HNO_3	1
BN-1+3-28-LT1	Seep 1	4/27/06 1020		x	MEOH	1
					Na bisulfate	2

Notes / Comments:
Samples gathered from PZ WQ data from puddled seep water

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: Sites 1+3
Project Number: 5700.007
Sample Location ID: BN-1 Seep 3
Date / Time: 4/26/06
ECC Personnel: DC/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (✓) Seep

Water Depth: —	Dissolved Oxygen (mg/L): 5.77
Velocity of Water: —	ORP (mV) -257
Temperature (C): 6.21	Specific Conductance (uS/cm^c): 316
pH (units): 6.32	Turbidity (NTU) 650

Sample Observations:
( ) Odor
( ) Color
(✓) Other very turbid

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: (✓) Organic ( ) Gravel ( ) Clay (✓) Silt (✓) Sand ( ) Other _____

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
(✓) Color Black
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-1+3-28-Seep3	Seep 3	4/26/06 1015	x		HCL	3
			x		HNO3	1
			x		—	2 L
BN-1+3-28-LT3	Seep 3	4/27/06 1035		x	MeOH	1
				x	NaBisulfate	2

Notes / Comments:
PZ ran dry - samples are a composite of pumped from PZ and dipped directly from leachate

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: H3
Project Number: 5700.007
Sample Location ID: Seep5
Date / Time: 4/26/06
ECC Personnel: DC/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (X) Seep

Water Depth: 1"	Dissolved Oxygen (mg/L): 0.68
Velocity of Water: 0'	ORP (mV) -329
Temperature (C): 9.05	Specific Conductance (uS/cm^c): 488
pH (units): 6.19	Turbidity (NTU) 180

Sample Observations:
( ) Odor
(X) Color Seep water bright orange (rusty)
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay (X) Silt (X) Sand ( ) Other _____

Type of Samp. Collected: ( ) Discrete ( ) Composite

Sample Observations:
( ) Odor
(X) Color Mostly black
( ) Other

SAMPLES COLLECTED

Sample Identification 28	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-143-Seep5	Seep5	4/26/06 1040	x		HCL	3
			x		—	2
			x		HNO_3	1
BN-143-28-LT5	Seep5	4/27/06 1050		x	MeOH	1
				x	Na Bisulfate	2
				x	—	1

Notes / Comments:
WQ from seep water Sample pumped from PZ

Stream of orange, rusty looking water seeping here, heading south past Seep 9 before emptying into Merrebrook.

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: 1+3
Project Number: 5700.007
Sample Location ID: Seep 9 LT9
Date / Time: 4/26/06 11:00
ECC Personnel: David C.

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (X) Seep

Water Depth: 3"	Dissolved Oxygen (mg/L): 0.43
Velocity of Water: 0	ORP (mV) -352
Temperature (C): 9.90	Specific Conductance (uS/cm^c): 253
pH (units): 6.21	Turbidity (NTU) 150

Sample Observations:
( ) Odor NO
( ) Color orange
( ) 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 Reddish tint
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers	
BN-183-28-SEEP9	Seep 9	4/26/06 11:20	X		HCl, HNO3, None	6	VOC, metals, Pest.
BN-183-28-SEEP9-MS	Seep 9	4/26/06 11:20	X		HCl, HNO3, None	6	
BN-183-28-SEEP9-MSD	Seep 9	4/26/06 11:20	X		HCl, HNO3, None	6	
BN-183-28-SEEP-XD1	Seep 9	4/26/06 00:00	X		HCl, HNO3, None	6	

Notes / Comments:

BN-1+3-28-LT9	Seep9	4/27/06 1100	X		MeOH	3	MS/MSD
↓			X		NaBisulfate	6	
			X		—	3	
BN-1+3-28-LT-XD1	Seep9	4/27/06 —	X		MeOH	1	
↓	↓		X		NaBisulfate	2	
			X		—	1	

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: 143
Project Number: 5700.007
Sample Location ID: SW-8
Date / Time: 4/27/06
ECC Personnel: DC/MAL

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (x) Stream ( ) River ( ) Seep

Water Depth: 12"	Dissolved Oxygen (mg/L): 11.33
Velocity of Water: 1 fps	ORP (mV) -224
Temperature (C): 11.20	Specific Conductance (uS/cm^c): 184
pH (units): 7.09	Turbidity (NTU) 3.0

Sample Observations:
( ) Odor
( ) Color
(x) Other Clear

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-143-28-SW8	SW8	4/27/06 1230	x		HCL	3
			x		HNO3	1

Notes / Comments:

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: 1+3
Project Number: 5700.007
Sample Location ID: SW-9
Date / Time: 4/27/06
ECC Personnel: DC/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (X) Stream ( ) River ( ) Seep

Water Depth:	6"	Dissolved Oxygen (mg/L):	11.26
Velocity of Water:	1.5 fps	ORP (mV)	-227
Temperature (C):	11.57	Specific Conductance (uS/cm^c):	189
pH (units):	7.16	Turbidity (NTU)	2.7

Sample Observations:
( ) Odor
( ) Color
( ) Other Clear as gin

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+3-28-SW9	SW-9	4/27/06 1215	X		HCL	3
			X		HNO3	1

Notes / Comments:

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: S 1+3
Project Number: 5700.007
Sample Location ID: SW-4
Date / Time: 4/27/06
ECC Personnel: DC/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (X) Stream ( ) River ( ) Seep

Water Depth: 18"	Dissolved Oxygen (mg/L): 11.06
Velocity of Water: 1 fps	ORP (mV) -81
Temperature (C): 9.62	Specific Conductance (uS/cm^c): 192
pH (units): 7.56	Turbidity (NTU) 2.1

Sample Observations:
( ) Odor
( ) Color
(X) Other Very clear

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+3-28-SW4	SW-4	4/27/06 1130	X		HCL	9
			X		HNO_3	3
BN-1+3-28-SWXD1	SW-4	4/27/06 —	X		HCL	3
					HNO_3	1

MS/M

Notes / Comments:

Page 1 of 1

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: 143
Project Number: 5700.007
Sample Location ID: Seep4
Date / Time: 4/26/06
ECC Personnel: DC/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (X) Seep

Water Depth: 0	Dissolved Oxygen (mg/L): 8.70
Velocity of Water: 0	ORP (mV) -231
Temperature (C): 7.43	Specific Conductance (uS/cm^c): 359
pH (units): 6.28	Turbidity (NTU) 350

Sample Observations:
( ) Odor
( ) Color
( ) Other

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel (X) Clay (X) Silt (X) Sand ( ) Other _____

Type of Samp. Collected: (X) Discrete ( ) Composite

Sample Observations:
( ) Odor
(X) Color Black
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BW-143-28-Seep4	Seep4	4/26/06 1034	x		HCL	3
			x		—	2
			x		HNO_3	1
BW-143-28-LT4	Seep4	4/27/06 1045		x	MeOH	1
				x	Na Bisulfate	2

Notes / Comments:
Sample + WQ from pumped water out of PZ
Seep dry

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: 143
Project Number: 5700.007
Sample Location ID: SW-7
Date / Time: 4/27/06
ECC Personnel: DC/MAC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (x) Stream ( ) River ( ) Seep

Water Depth: 18"	Dissolved Oxygen (mg/L): 11.24
Velocity of Water: 1 fps	ORP (mV) -242
Temperature (C): 10.52	Specific Conductance (uS/cm^c): 194
pH (units): 7.32	Turbidity (NTU) 2.4

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-143-28-SW7	SW7	4/27/06 1200	X		HCL	3
			X		HNO3	1

Notes / Comments:

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Site 1+3 **Date:** 4/27/06

Location: NASB, Brunswick, ME **Sampler:** FS

Well ID: MW-1302 shallow **PID Reading:** 0

Start Time: 1040 **End Time:**

Well Construction: 2" PVC 3' Riser

Depth to water: 19.73

Well Depth: 25.35

Water Column: 5.62

Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	600	01F0657AC
YSI	650	02H1015AB
Lamotte	Turbidimeter	5449
Grundfos	Controller	229184

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
1045	1.75	350	19.74	10.73	5.74	337	6.46	130	8	Clear
1050	1.5	300	19.75	10.87	5.71	354	6.55	139	7	Clear
1055	1.0	200	19.75	11.95	5.70	351	6.50	142	6	Clear
1105	2.0	200	19.75	13.95	5.75	335	6.02	154	10	Clear
1115	2.0	200	19.75	14.74	5.81	322	5.41	146	8	Clear
1120	1.0	200	19.76	15.40	5.81	316	5.33	145	6	Clear
1125	1.0	200	19.76	15.38	5.78	326	4.58	148	6	Clear
1128	0.6	200	19.76	16.90	5.80	332	4.83	152	4	Clear
1131	0.6	200	19.76	16.92	5.80	335	4.82	153	4	Clear
1134	0.6	200	19.76	16.96	5.81	337	4.83	154	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
1134	BN-1+3-28-MW13025	40ml vial	3	HCL	VOC
1134	" "	500ml poly	1	HNO_3	Metals
0000	BN-1+3-28-MWXD2	Same	As	Above	
0000	" "				

Comments

Signature

4/27/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Sites 1+3
Location: NASB, Brunswick, ME
Well ID: MW-1302-Deep

Date: 4/25/06
Sampler: MKC
PID Reading:

Start Time: **End Time:**
Well Construction: 20.21'
Depth to water: 2" PVC
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	0160418AF
YSI	600XL	0LA0138AD
Lamotte	2020	5873-1905

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
1240		200	20.32	10.95	7.51	643	7.28	-64	240	
1250		150	20.30	12.30	6.99	667	4.54	-102	230	
1300		150	20.30	15.09	6.47	691	3.34	-107	290	
1312		150	20.30	15.43	6.38	714	2.40	-110	280	
1325		150	20.30	15.40	6.34	706	2.22	-112	240	
1350		150	20.30	17.52	6.33	720	1.86	-110	170	
1415		150	20.30	18.48	6.26	737	1.27	-123	100	
1435		150	20.30	18.44	6.23	746	1.10	-127	55	
1440		150	20.30	18.49	6.23	741	1.11	-126	50	
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
1442	BN-1+3-28-MW1302D	40ML	3	HCL	VOC
		500ML	1	HNO_3	TAL Metals

Comments

Signature

4/25/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Sites 1 & 3
Date: 4.25.06
Location: NASB, Brunswick, ME
Sampler: Suzanne W
Well ID: MW 1301 S
PID Reading: 0.0

Start Time: 15:00 **End Time:** 15:40
Well Construction: 2" PVC
Depth to water: 28.08
Well Depth: 31.36
Water Column: 3.28
Total Volume Removed (L) 4

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H015 AB
YSI	600 XL	01F0657 AC
LaMotte turbidimeter		3176-1702
Grundfos rediflo		07016

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
15:03	.3	100	28.45	12.01	5.87	1050	6.93	137.6	45	hazy
15:13	1	100	28.50	13.42	6.21	1068	6.72	114.2	24	clear
15:23	1	100	28.50	14.70	6.25	1069	4.32	81.4	21	clear
15:33	1	100	28.50	14.66	6.26	1070	4.30	74.2	21	clear
15:36	.3	100	28.50	14.70	6.27	1073	4.29	72.4	21	clear
15:39	.3	100	28.50	14.69	6.26	1076	4.28	70.3	21	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
15:40	BN-EP28M301S	40 ml vial	3	HCL	VOC
15:40	BN-EP-28-1301S	500 ml poly	1	HNO3	Metals

Comments
water column not sufficient enough for this pump

Suzanne Whitehouse
Signature

4.25.06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Sites 1 & 3
Location: NASB, Brunswick, ME
Well ID: MW 1301 D

Date: 4-25-06
Sampler: Suzanne W
PID Reading: 0.0

Start Time: 12:45 **End Time:** 14:48
Well Construction: 2" PVC
Depth to water: 30.81
Well Depth: 43.70
Water Column: 12.89
Total Volume Removed (L) 16.3

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H015AB
YSI	600 XL	01F0657AC
LaMotte turbidimeter		3176-1702
Grundfos rediflo		07016

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
12:47		150		12.49	7.78	1487	10.17	182.9	950	cloudy
12:57	1.5	150	31.96	12.70	6.35	1641	10.15	-16.8	>1000	cloudy
13:07	2.5	250	32.81	12.88	6.39	1580	9.03	70.9	>1000	cloudy
13:17	1.5	150	32.55	13.66	6.24	1739	6.01	111.2	>1000	cloudy
13:37	3	150	32.55	14.62	6.69	1297	5.39	117.9	>1000	cloudy
13:57	3	150	32.25	14.25	6.36	1434	4.93	137.9	360	cloudy
14:07	1.5	150	32.25	14.19	6.34	1469	4.94	132.0	650	cloudy
14:27	3	150	32.25	14.17	6.34	1459	4.96	133.9	550	cloudy
14:37	1.5	150	32.25	14.16	6.34	1460	4.95	134.0	500	cloudy
14:47	1.5	150	32.25	14.17	6.34	1459	4.94	134.7	500	cloudy
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
14:48	BN-1&3-MW1301D	40 ml	3	HCL	VOC
14:48	BN-1&3-MW1301D	500 ml poly	1	HNO3	Metals

Comments
took sample after 2 hours

Suzanne Whitesicle
Signature

4-25-06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Sites 1+3
Location: NASB, Brunswick, ME
Well ID: MW-1303AD

Date: 4/25/06
Sampler: David C.
PID Reading: 0.0 ppm

Start Time: 1341 **End Time:** 1545
Well Construction: 2" Grundfos
Depth to water: 27.68'
Well Depth: 59.40'
Water Column: 31.72'
Total Volume Removed (L) 44.0

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	00L1207 AA
YSI	600XL	00G1301 AB
Lamotte	Turbidimeter	5329-3704
Redi-Flo	Controller	07028

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
1345	2.0	500	28.06	11.83	6.43	305	4.15	-16	>1000	Grey
1355	3.5	350	28.07	13.49	6.87	302	0.41	-124	>1000	Grey
1405	3.5	350	28.11	13.39	6.66	515	0.34	-103	950	Grey
1425	7.0	350	28.13	13.29	6.64	583	0.30	-95	120	cloudy
1445	7.0	350	28.14	13.24	6.65	582	0.29	-87	65	cloudy
1505	7.0	350	28.15	13.06	6.66	572	0.27	-92	29	clear
1515	~~3.0~~ 3.5	350	28.15	13.05	6.66	568	0.26	-87	18	clear
1525	3.5	350	28.15	13.04	6.66	575	0.26	-88	14	clear
1535	3.5	350	28.15	13.15	6.66	573	0.26	-89	11	clear
1540	1.75	350	28.15	13.17	6.66	573	0.26	-87	10	clear
1545	1.75	350	28.15	13.22	6.66	574	0.26	-85	9	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
1545	BN-183-2Y-MW1303AD	40ml vial	3	HCl	VOC
1545	BN-183-2Y-MW1303AD	500ml Poly	1	HNO3	metals

Comments

Signature

4/25/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Sites 1+3
Location: NASB, Brunswick, ME
Well ID: MW-1303AS

Date: 4/25/06
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 12:37 **End Time:** 1330
Well Construction: 2" Grundfos
Depth to water: 31.27'
Well Depth: 40.08'
Water Column: 8.81'
Total Volume Removed (L) 15.2

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	00L1207 AA
YSI	600XL	00G1301 AB
Lamotte	Turbidimeter	5329-3704
Redi-Flo	Controller	07028

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
1240	1.2	400	31.32	12.07	7.26	328	4.10	186	210	tan
1250	4.0	400	31.31	13.81	5.61	345	1.96	187	100	cloudy
1300	2.5	250	31.31	14.66	5.58	361	1.78	140	20	clear
1310	2.5	250	31.31	15.00	5.57	361	1.75	126	7	clear
1320	2.5	250	31.31	15.14	5.57	362	1.70	122	7	clear
1325	1.25	250	31.31	15.13	5.57	364	1.66	119	6	clear
1330	1.25	250	31.31	15.05	5.57	363	1.64	119	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
1330	BN-183-28-MW1303AS	40 ml vial	3	HCl	VOC
1330	BN-183-28-MW1303AS	500ml Poly	1	HNO_3	metals

Comments

Signature

4/25/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Sites 1 & 3 **Date:** 4-24-06

Location: NASB, Brunswick, ME **Sampler:** Suzanne

Well ID: 202A **PID Reading:** 0.0

Start Time: 11:56 **End Time:** 13:04

Well Construction: 2" PVC

Depth to water: 21.32

Well Depth: 23.30 top of pump

Water Column: 2.00

Total Volume Removed (L) 8.25

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1015AB
YSI	600 XL	01F0637AC
LaMotte turbidimeter		

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
11:58	.6	125	21.93	8.57	6.00	363	8.23	237.7	70	cloudy
12:08	1.25	125	22.14	10.98	6.10	430	6.03	215.1	40	cloudy
12:18	1.25	125	22.01	11.52	6.13	463	4.67	172.5	32	clear
12:28	1.25	125	22.02	11.38	6.14	464	4.55	167.8	28	clear
12:38	1.25	125	22.03	11.83	6.16	431	4.56	176.3	22	clear
12:48	1.25	125	22.03	11.89	6.16	418	4.94	184.9	19	clear
12:53	.6	125	22.04	11.92	6.17	410	4.60	158.1	6	clear
12:58	.6	125	22.03	11.99	6.16	406	4.02	152.3	6	clear
13:03	.6	125	22.04	12.02	6.17	401	3.79	148.3	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
13:04	BN.1&3.28.MW202A	40 ml vial	3	HCL	TCL VOC
13:04	BN.1&3.28.MW202A	500 ml vial	1	HNO3	TAL Metals

Comments

Suzanne Whitesido
Signature

4-24-06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Sites 1 & 3 **Date:** 4-24-06

Location: NASB, Brunswick, ME **Sampler:** Suzanne

Well ID: MW 218 **PID Reading:** 0.0

Start Time: 10:45 **End Time:** 11:51

Well Construction: 2" PVC

Depth to water: 33.51

Well Depth: 46.51

Water Column: 13.00

Total Volume Removed (L) 9.7

Field Testing Equipment

Make	Model	Serial #
YSI	6570 MDS	02H1015AB
YSI	600 XL	01F0657AC
LaMotte	turbidimeter	
Grundfos		

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
10:50	.7	150	34.02	9.66	6.69	808	4.86	-9.2	80	cloudy
11:00	1.5	150	34.93	9.36	6.98	751	4.34	-41.6	22	clear
11:10	1.5	150	35.02	9.83	7.13	749	4.82	-50.0	16	clear
11:20	1.5	150	35.13	9.78	7.16	743	4.84	-61.1	11	clear
11:30	1.5	150	35.14	9.83	7.19	745	4.56	-77.4	10	clear
11:40	1.5	150	35.15	10.02	7.19	744	4.47	-82.5	10	clear
11:45	.7	150	35.15	10.12	7.20	741	4.45	-83.7	10	clear
11:50	.7	150	35.16	10.14	7.20	742	4.46	-84.0	10	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
11:51	BN-1&3-28.MW218	40 ml vial	3	HCL	TCL VOC
11:51	BN-1&3-28.MW218	500 ml poly	1	HNO_3	TAL Metals

Comments

Suzanne Whitesides 4-24-06

Signature **Date**

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Sites 1+3
Location: NASB, Brunswick, ME
Well ID: MW-203

Date: 4/24/06
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 10:33 **End Time:** 11:15
Well Construction: 2" Grundfos
Depth to water: 30.44'
Well Depth: 34.80'
Water Column: 4.36'
Total Volume Removed (L) ~~8.96~~ DSC 11.76

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	00L1207 AA
YSI	600XL	00G1301 AB
Lamotte	Turbidimeter	3176-1702
Redi-Flo	Controller	07016

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
10:35	0.56	280	30.49	9.21	5.97	174	7.53	253	14	clear
10:45	2.8	280	30.50	10.13	5.63	193	6.93	251	4	clear
10:55	2.8	280	30.50	12.92	5.65	180	6.91	221	1	clear
11:05	2.8	280	30.50	13.39	5.64	181	6.91	216	1	clear
11:10	1.4	280	30.50	13.51	5.64	182	6.87	215	1	clear
11:15	1.4	280	3.50	13.62	5.64	182	6.85	216	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
11:15	BN-1&3-28-MW203	40ml vial	3	HCl	VOC
11:15	BN-1&3-28-MW203	500ml Poly	1	HNO_3	metals
11:15	BN-1&3-28-MW203-MS	40ml vial	3	HCl	VOC
11:15	BN-1&3-28-MW203-MS	500ml Poly	1	HNO_3	metals
11:15	BN-1&3-28-MW203-MSD	40ml vial	3	HCl	VOC
11:15	BN-1&3-28-MW203-MSD	500ml poly	1	HNO_3	metals
00:00	BN-1&3-28-MW-XD1	40ml vial	3	HCl	VOC
00:00	BN-1&3-28-MW-XD1	500ml Poly	1	HNO_3	metals

Comments

Signature

4/24/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Sites 1+3
Location: NASB, Brunswick, ME
Well ID: MW-217B

Date: 4/24/06
Sampler: MAC
PID Reading: —

Start Time: _____ **End Time:** _____
Well Construction: 2" PVC
Depth to water: 29.14
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01G0418AF
YSI	600XL	
Lamotte	2020	

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
1100		75	29.14	7.70	6.29	568	4.30	-322	320	Rusty
1105		100	29.35	7.55	6.26	568	3.70	-332	280	
1120				7.39	6.26	589	2.40	-356	140	
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
1155	BN-S1+3-MW 217B	500ml	1	HNO_3	TAL Metals

Comments Using peristaltic and small diameter tubing left in well from last event

Mark A. Co
Signature

4/24/06
Date

1120 - Out of water. Shut off pump to allow recharge + sampled.

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Sites 1+3.
Location: NASB, Brunswick, ME
Well ID: MW-217B

Date: 4/24/06
Sampler: MVC
PID Reading:

Well Construction: 2" PVC
Depth to water: 28.90
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	0160418 AF
YSI	600XLM	

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
1050	9.35	6.27	573	0.80	-85
1052	9.33	6.27	573	0.75	-85

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1045	BN-1+3-28-MW217B-D	40ML	2	HCL	VOC

Comments

Mark O. Co
Signature

4/24/06
Date

Calibration Forms

INSTRUMENT CALIBRATION LOG

Project/Site Name Sites 1+3 **Calibrated By** David C.

Instrument/Serial Number	Pre-cal 1.0 (NTU)	Pre-cal 10 (NTU)	Post-cal 0 (NTU)	Post-cal 10 (NTU)	Date
Lamotte Turbidimeter 4967-1604	1.0	10	0.9	10	4/27/06
Lamotte Turbidimeter 2568-1701	1.0	10	1.0	10	4/27/06
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					

INSTRUMENT CALIBRATION LOG

Project/Site Name Sites 1+3 **Date** 4/27/06 **Weather** 50°, clear sky

Calibrated By David C. **Instrument** YSI 650 MDS, YSI 600XL **Serial Number** 01G0418 AF, 01A0138 AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1.413	1.419	19.99	
pH (7)	7.00	7.02	20.57	
pH (4)	4.01	3.99	20.50	
pH (10)	9.99	9.97	20.53	
ORP	240	237.9	20.47	
Dissolved Oxygen	100.7%	99.9%	21.07	
Barometric Pressure	765.3			

INSTRUMENT CALIBRATION LOG

Project/Site Name Sites H3 **Date** 4/27/06 **Weather** 50°, clear sky

Calibrated By David C. **Instrument** YSI 650 MDS, YSI 600XL **Serial Number** 02H1015 AB, 01F0657 AC

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1.413	1.409	20.30	
pH (7)	7.00	7.03	20.42	
pH (4)	4.00	4.01	20.30	
pH (10)	10.00	9.98	20.32	
ORP	240	238.2	20.32	
Dissolved Oxygen	99.3%	100.1%	21.25	
Barometric Pressure	754.7			

INSTRUMENT CALIBRATION LOG

Project/Site Name Sites 1+3 **Date** 4/26/06 **Weather** 50's Clear sky

Calibrated By David C. **Instrument** YSI 650MDS / YSI 600XL **Serial Number** 01G0418AF / 01A0138AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1.413	1.417	21.49	
pH (7)	7.00	7.01	21.27	
pH (4)	4.00	3.95	21.26	
pH (10)	9.98	9.94	21.33	
ORP	240	243.6	21.39	
Dissolved Oxygen	101.4%	99.5%	18.85	
Barometric Pressure	770.5			

INSTRUMENT CALIBRATION LOG

Project/Site Name Sites 1+3 **Date** 4/26/06 **Weather** 50°, Clear Sky

Calibrated By David C. **Instrument** YSI 650MDS, YSI 600XL **Serial Number** 00L1207AA, 00G1301AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1.413	1.402	21.26	
pH (7)	7.00	7.03	21.01	
pH (4)	4.00	3.99	20.97	
pH (10)	10.00	9.97	21.08	
ORP	240	238.5	21.12	
Dissolved Oxygen	99.7%	100.4%	19.15	
Barometric Pressure	757.6			

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB **Calibrated By** Suzanne

Instrument/Serial Number	Pre-cal 0 (NTU)	Pre-cal 10 (NTU)	Post-cal 0 (NTU)	Post-cal 10 (NTU)	Date
Lamotte Turbidimeter 3176-1702	1	10	0.9	10	4-21-06
Lamotte Turbidimeter 5329-3704	1	10	1.0	9.9	4-21-06
Lamotte Turbidimeter 2568-1701	1	10	1.1	9.8	4-21-06
Lamotte Turbidimeter 3176-1702	1.0	10	1.2	10	4/24/06
Lamotte Turbidimeter 5329-3704	1.0	10	0.9	10	4/24/06
Lamotte Turbidimeter 4967-1604	1.0	10	1.1	11	4/24/06
Lamotte Turbidimeter 3176-1702	1.0	10	1.0	10	4/25/06
Lamotte Turbidimeter 5329-3704	1.0	10	0.9	11	4/25/06
Lamotte Turbidimeter 4967-1604	1.0	10	NOT used		4/25/06
Lamotte Turbidimeter 5873-1905	1.0	10	1.0	10	4/25/06
Lamotte Turbidimeter 5329-3704	1.0	10	0.9	10	4/26/06
Lamotte Turbidimeter 5873-1905	1.0	10	1.1	10	4/26/06

INSTRUMENT CALIBRATION LOG

Project/Site Name Sites 1+3 **Date** 4/25/06 **Weather** 40°, overcast

Calibrated By David C. **Instrument** YSI 650 MDS, YSI 600XL **Serial Number** 01G0418 AF, 01A0138 AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1.413	1.440	20.08	
pH (7)	7.00	7.03	20.24	
pH (4)	4.00	3.91	20.12	
pH (10)	10.00	9.91	20.53	
ORP	240.0	238.4	20.29	
Dissolved Oxygen	100.0%	101.9%	18.03	
Barometric Pressure	768.1			

INSTRUMENT CALIBRATION LOG

Project/Site Name Sites 1 & 3 **Date** 4-25-06 **Weather** 40°, overcast

Calibrated By Suzanne **Instrument** YSI sonde **Serial Number** 00L1207AA 0061301AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1413	1413	1.462	19.65	
pH (7)	7.00	6.94	19.90	
pH (4)	4.00	3.99	19.94	
pH (10)	9.99	9.98	20.15	
ORP 240.	240	238.4	20.21	
Dissolved Oxygen	99.9%	101.0%	19.02	
Barometric Pressure	759.1			

INSTRUMENT CALIBRATION LOG

Project/Site Name Site 1 & 3 **Date** 4.25.06 **Weather** 40°, overcast

Calibrated By Suzanne **Instrument** YSI Sonde **Serial Number** 02H1015 AR 01F0657 AC

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1.413	1.413	1.433	20.04	
pH (7)	7.00	7.03	19.59	
pH (4)	4.00	4.01	20.36	
pH (10)	9.99	9.98	20.48	
ORP 240.	240.0	239.2	20.21	
Dissolved Oxygen	100%	98.5%	20.36	
Barometric Pressure	756.4			

INSTRUMENT CALIBRATION LOG

Project/Site Name Sites 1&3 **Date** 4-24-06 **Weather** rain 40

Calibrated By Suzanne **Instrument** YSI sonde **Serial Number** 02H1015 AB 01F0657 AC

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1.413	1412	1.320	20.32	
pH (7)	7.00	7.10	20.30	
pH (4)	4.00	4.00	20.15	
pH (10)	9.99	9.97	20.31	
ORP 240	240.	236.0	20.25	
Dissolved Oxygen	100%	101.1%	18.15	
Barometric Pressure	760.2			

INSTRUMENT CALIBRATION LOG

Project/Site Name Sites 1 & 3 **Date** 4-24-06 **Weather** 40°, Rain

Calibrated By David C. **Instrument** YSI Sonde **Serial Number** 00L1207 AA 00G1301 AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1.413	1.427	19.90	
pH (7)	7.00	7.05	19.80	
pH (4)	4.00	3.99	19.83	
pH (10)	9.99	9.95	19.93	
ORP	240	238.3	19.88	
Dissolved Oxygen	99.7%	98.9%	19.22	
Barometric Pressure	758.1			

INSTRUMENT CALIBRATION LOG

Project/Site Name Sites 1 & 3 **Date** 4-24-06 **Weather** 40°, Rain

Calibrated By David C. **Instrument** YSI Sonde **Serial Number** 01G0418 AF 01A0138 AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1.413	1.414	20.16	
pH (7)	7.00	7.03	19.99	
pH (4)	4.00	4.08	20.12	
pH (10)	9.98	10.03	20.23	
ORP	240	238.4	20.19	
Dissolved Oxygen	101.5%	100.1%	19.66	
Barometric Pressure	771.0			

INSTRUMENT CALIBRATION LOG

Project/Site Name Eastern Plume **Date** 4-21-06 **Weather** 50°, clear sky

Calibrated By Suzanne **Instrument** Sonde YSI 650 **Serial Number** 01F0651AC 02H1015AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1413	1.413	1.410	20.55	
pH (7)	7.00	7.05	20.60	
pH (4)	4.00	4.03	20.45	
pH (10)	10.00	9.99	20.50	
ORP 240	240.0	239.7	20.68	
Dissolved Oxygen	100.0%	100%	20.19	
Barometric Pressure	758.7			

INSTRUMENT CALIBRATION LOG

Project/Site Name Eastern Plume **Date** 4-21-06 **Weather** 50s, clear sky

Calibrated By Suzanne **Instrument** YSI Sonde **Serial Number** 01G0418AF 01A0138AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1413	1413	1.402	20.48	
pH (7)	7.00	7.01	20.51	
pH (4)	4.00	4.03	20.56	
pH (10)	10.00	9.98	20.70	
ORP 240.	240.1	237.9	20.76	
Dissolved Oxygen	100.0%	101.9%	19.52	
Barometric Pressure	770.1			

INSTRUMENT CALIBRATION LOG

Project/Site Name Eastern Plume **Date** 4-20-06 **Weather** Sunny 60'

Calibrated By Suzanne **Instrument** YSI Sonde **Serial Number** 01G0418AF 01A0138AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1.413	1.413	1403	20.13	
pH (7)	6.99	6.98	19.83	
pH (4)	4.00	4.05	19.85	
pH (10)	10.00	10.01	19.88	
ORP 240	240.	248.1	19.85	
Dissolved Oxygen	100.7%	100.4%	19.32	
Barometric Pressure	767.7			

INSTRUMENT CALIBRATION LOG

Project/Site Name Eastern Plume, ME. **Calibrated By** David C.

Instrument/Serial Number	Morning Calibration Check	Mid-day Calibration Check	Afternoon Calibration Check	Date
DR/890 Colorimeter 01700	1/10	1/10	1/10	4/18/06
DR/890 Colorimeter 05650	1/10	1/10	1/10	4/18/06
DR/890 Colorimeter 01700	1/10	1/10	1/10	4/19/06
DR/890 Colorimeter 05650	1/10	1/10	1/10	4/19/06
DR/890 Colorimeter 01700	1/10	1/10	1/10	4/20/06
DR/890 Colorimeter 05650	1/10	1/10	1/10	4/20/06
DR/890 Colorimeter 01700	1/10	1/10	1/10	4/21/06
DR/890 Colorimeter				
DR/890 Colorimeter				
DR/890 Colorimeter				
DR/890 Colorimeter				
DR/890 Colorimeter				

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB **Calibrated By** Suzanne

Instrument/Serial Number	Pre-cal 1 ~~0~~ (NTU)	Pre-cal 10 (NTU)	Post-cal 1 0 (NTU)	Post-cal 10 (NTU)	Date
Lamotte Turbidimeter 5329-3704	1	10	1	10	4-18-06
Lamotte Turbidimeter 4967-1604	1	10	1.02	9.98	4-18-06
Lamotte Turbidimeter 3176-1702	1	10	1	9.94	4-18-06
Lamotte Turbidimeter 5873-1905	1	10	1.00	10.01	4-18-06
Lamotte Turbidimeter 2568-1701	1	10	1.04	10.04	4-18-06
Lamotte Turbidimeter 3176-1702	1	10	1.01	10	4-19-06
Lamotte Turbidimeter 2568-1701	1	10	1	10	4-19-06
Lamotte Turbidimeter 3176-1702	1	10.19	1	10.08	4-20-06
Lamotte Turbidimeter 5329-3704	0.99	9.79	0.97	10.10	4-20-06
Lamotte Turbidimeter 2568-1701	1.2	10	1	~~10~~	4-20-06
Lamotte Turbidimeter 4967-1604	1	10	1	10	4-20-06
Lamotte Turbidimeter 5873-1905	1	9.69	0.98	10	4-20-06

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB **Date** 4-19-06 **Weather** Overcast 60's

Calibrated By Suzanne **Instrument** YSI Sonde **Serial Number** 00L1207AA 00G1301

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1.413	1.413	1.414	19.06	
pH (7)	7.00	6.96	19.57	
pH (4)	4.00	4.00	19.57	
pH (10)	10.00	9.89	19.62	
ORP 240.	240.0	237.5	19.58	
Dissolved Oxygen	99.	98.1		
Barometric Pressure	753.9			

INSTRUMENT CALIBRATION LOG

Project/Site Name Eastern Plume **Date** 4-20-06 **Weather** Sunny 60

Calibrated By Suzanne **Instrument** YSI Sonde **Serial Number** 01F0657AC 02H1015AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1413	1.413	1.436	19.85	
pH (7)	7.00	7.04	19.46	
pH (4)	4.00	4.03	19.80	
pH (10)	10.00	9.99	19.92	
ORP	240	235.2	19.90	
Dissolved Oxygen	99.5%	101.0%	18.65	
Barometric Pressure	756.5			

INSTRUMENT CALIBRATION LOG

Project/Site Name Eastern Plume **Date** 4-20-06 **Weather** _____

Calibrated By Suzanne **Instrument** YSI Sonde **Serial Number** 01A1431 AA 04J16000 AF

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1.413	1.413	1445	19.15	
pH (7)	7.00	7.09	19.44	
pH (4)	4.00	3.98	19.44	
pH (10)	9.98	9.85	19.47	
ORP 240.	240.1	237.0	19.42	
Dissolved Oxygen	98.7%	101.7%	18.13	
Barometric Pressure	750.2			

INSTRUMENT CALIBRATION LOG

Project/Site Name Eastern Plume **Date** 4-19-06 **Weather** Overcast 60's

Calibrated By Suzanne **Instrument** YSI sonde **Serial Number** 01F0657AC 02H1015AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1.413	1.413	1.450	19.95	
pH (7)	7.00	7.02	20.08	
pH (4)	4.00	4.03	19.97	
pH (10)	10.00	10.01	20.10	
ORP 240.	240.0	237.5	19.79	
Dissolved Oxygen	99.7%	101.6%	17.97	
Barometric Pressure	755.2			

INSTRUMENT CALIBRATION LOG

Project/Site Name Eastern Plume **Date** 4-19-06 **Weather** overcast 60°

Calibrated By Suzanne **Instrument** YSI Sonde **Serial Number** 0160418AF 01A0138AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1.413	1.412	20.15	
pH (7)	7.00	6.98	20.19	
pH (4)	4.00	4.07	20.18	
pH (10)	10.00	9.93	20.17	
ORP 240	240.0	238.1	20.02	
Dissolved Oxygen	100.8%	100.3%	19.81	
Barometric Pressure	766.2			

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB Eastern Plume **Date** 4-18-06 **Weather** part sun 50's

Calibrated By Suzanne **Instrument** YSI Sonde **Serial Number** 01F0657AC 02H1015AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1.413	1.413	1.436	20.04	
pH (7)	7.00	6.99	20.00	
pH (4)	4.00	4.02	20.08	
pH (10)	9.99	9.98	19.87	
ORP 240.	240.0	237.9	19.11	
Dissolved Oxygen	99.4%	103.5%	20.62	
Barometric Pressure	755.5			

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB **Date** 4-18-06 **Weather** overcast 60's

Calibrated By Suzanne **Instrument** YSI sonde **Serial Number** 01A1431AA 04J16000AF

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1.413	1.411	1.465	20.30	
pH (7)	7.00	7.09	20.27	
pH (4)	4.00	3.97	20.47	
pH (10)	9.99	9.77	20.35	
ORP 240.	240.1	245.4	20.09	
Dissolved Oxygen	99.3%	95.6%	19.70	
Barometric Pressure	754.9			

Not used today

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB Eastern Plume **Date** 4-18-06 **Weather** partly sunny 50°

Calibrated By Suzanne **Instrument** YSI Sonde **Serial Number** 01G0418AF 01A0138AB

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1.413	1.413	1.496	20.26	
pH (7)	7.00	7.01	20.07	
pH (4)	4.00	4.06	20.10	
pH (10)	10.00	10.06	20.02	
ORP 240.	240.	238.2	19.18	
Dissolved Oxygen	100.9%	100.8%	18.19	
Barometric Pressure	766.7			

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB EP **Date** 4-18-06 **Weather** windy partly sunny 50

Calibrated By Suzanne **Instrument** YSI Sonde **Serial Number** 00L1207 AA 00G1301

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity 1.413	1.411	1.371	19.52	
pH (7)	7.00	7.09	19.73	
pH (4)	4.00	4.06	19.78	
pH (10)	9.99	9.99	19.58	
ORP 240.	239.9	238.3	18.73	
Dissolved Oxygen	98.2	99.	18.41	
Barometric Pressure	753.8			

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB- E. Plume **Calibrated By** Paul Lynch

Instrument/Serial Number	Pre-cal <0.1U)	Pre-cal 20 (NTU)	Post-cal <0.1NTU)	Post-cal 20 (NYU)	Date
HACH 2100P / 0204005827	0.2	21.1	0.1	20.2	6/19/06
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					

INSTRUMENT CALIBRATION LOG

Project/Site Name NASB Eastern Plume **Date** 6/19/06 **Weather** 80° humid

Calibrated By Paul Lynch **Instrument** YSI 650 MDS / YSI 600 XL-B-M **Serial Number** 02K0598 AB / 02A0874 AC

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity	1.347 ms/cm²	1.413 ms/cm²	23.7	
pH (7)	6.89	7.01	23.6	
pH (4)	3.92	4.02	23.7	
pH (10)	9.76	10.01	23.6	
ORP	275	240.1	23.6	
Dissolved Oxygen	110%	100%	23.5	
Barometric Pressure	757	757	23.7	

Daily Tailgate
Safety Forms

ENVIRONMENTAL CHEMICAL CORPORATION
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: Fred Santos Date: 4/18/06

Project Site: Easton Plum - NASB Task: Low Flow

Personal protective Equipment:

Level D

Chemical Hazards & Control measures:

HNO3 + HCL in jars

Physical Hazards & Control Measures:

- Carrying generators. Lift w/legs and use a 2nd (Buddy) person to assist with lifting/carrying equipment if needed.
- Ticks are out in Maine → Protect yourself

Emergency Procedures:

911 / Buddy System

Hospital/Clinic: Mid-Coast Hospital
Address: 123 Medical Drive
Phone: 207-729-0181

Attendees

Name printed	Signature
Fred Santos	
Dave Comeau	
Sue Whiteside	
Mark Carver	
Paul Lynch	

ENVIRONMENTAL CHEMICAL CORPORATION
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: Fred Santos Date: 4/21/06

Project Site: Eastern Plume Task: Low Flow

Personal protective Equipment:

Level D

Chemical Hazards & Control measures:

Same sample Jars

Physical Hazards & Control Measures:

Ticks - ticks. They are out !! Spray yourself. Tuck in your shirt, pants.

Emergency Procedures:

911 / Buddy System

Hospital/Clinic: Mid-Coast Hospital
Address: 123 Medical Drive
Phone: 207-729-0181

Attendees

Name printed	Signature
Fred Santos	
Dave Comeau	
Sue Whiteside	Susanne Whiteside
Mark Carver	
Paul Lynch	

ENVIRONMENTAL CHEMICAL CORPORATION
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: Sue Whiteside Date: 4-20-06

Project Site: Eastern Plume Task: Low Flow Sampling

Personal protective Equipment:

Level D
steel toe boots
safety glasses

Chemical Hazards & Control measures:

H_2SO_4 HNO_3 HCL wear gloves

Physical Hazards & Control Measures:

Uneven ground watch footing
carrying heavy objects - use proper lifting
TICKS - use
Branches in woods - watch for dead tree branches

Emergency Procedures:

911 Buddy System

Hospital/Clinic:	Mid-Coast Hospital
Address:	123 Medical Drive
Phone:	207-729-0181

Attendees

Name printed	Signature
Fred Santos	
Dave Comeau	
Sue Whiteside	Susanne Whiteside
Mark Carver	
Paul Lynch	

ENVIRONMENTAL CHEMICAL CORPORATION
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: Fred Santos Date: 4/24/06

Project Site: Sites 1+3 Task: Low Flow

Personal protective Equipment:

Level D

Chemical Hazards & Control measures:

Same Sample Jars

- ECC is reviewing and passing out the MMR H&S SOP on Deer Tick/Lyme Disease.

Physical Hazards & Control Measures:

- Due to ECC employees in the field last week finding several ticks on their person.... ECC purchased 40% Deet Spray, Breathable poly suits and Duct tape. Items are being distributed today.
- Please use them as deemed necessary.

Emergency Procedures:

911 / Nextel

Hospital/Clinic:	Mid-Coast Hospital
Address:	123 Medical Drive
Phone:	207-729-0181

Attendees

Name printed	Signature
Fred Santos	
Dave Comeau	
Sue Whiteside	Suzanne Whiteside
Mark Carver	

ENVIRONMENTAL CHEMICAL CORPORATION
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: David Comeau Date: 4/27/06

Project Site: Sites 1+3 Task: Low-Flow, Sediment

Personal protective Equipment:

Level D

Chemical Hazards & Control measures:

Preservatives in Sample jars

Tick Spray

Physical Hazards & Control Measures:

- Don't over do it climbing uneven terrain while collecting Sediment samples. Ask for help or take breaks or 2 Trips.
- Frequent Tick checks. use spray, Tyvek available

Emergency Procedures:

911 / nextel / Buddy system

Hospital/Clinic:	Mid-Coast Hospital
Address:	123 Medical Drive
Phone:	207-729-0181

Attendees

Name printed	Signature
Fred Santos	[signature]
Dave Comeau	[signature]
Sue Whiteside	[signature]
Mark Carver	[signature]

ENVIRONMENTAL CHEMICAL CORPORATION
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: David Comeau Date: 4/26/06

Project Site: Sites 1+3 Task: Low-Flow Sampling
Seep SW Sampling

Personal protective Equipment:

Level D

Chemical Hazards & Control measures:

Preservatives in sample Jars.

Tick spray.

Physical Hazards & Control Measures:

rubber boots, waders in Leachate, seep area.

take breaks if you feel fatigued carrying equipment through woods.

Tick checks regularly.

Emergency Procedures:

911/Buddy system/nextel

Hospital/Clinic:	Mid-Coast Hospital
Address:	123 Medical Drive
Phone:	207-729-0181

Attendees

Name printed	Signature
Fred Santos	
Dave Comeau	
Sue Whiteside	
Mark Carver	

ENVIRONMENTAL CHEMICAL CORPORATION
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: David Comeau Date: 4/25/06

Project Site: Sites 1+3 Task: Low-Flow Sampling

Personal protective Equipment:

Level D

Chemical Hazards & Control measures:

HNO_3 + HCl in sample containers → wear nitrile gloves.

Tick spray → Don't spray indoors or near your face.

Physical Hazards & Control Measures:

Safety glasses in field at all times → Alot of Low branches.

Heavy lifting (Generator, Full cooler) → lift with legs, Ask for Help.

Emergency Procedures:

911/Nextel/Buddy System

Hospital/Clinic:	Mid-Coast Hospital
Address:	123 Medical Drive
Phone:	207-729-0181

Attendees

Name printed	Signature
Fred Santos	[signature]
Dave Comeau	[signature]
Sue Whiteside	Suzanne Whiteside
Mark Carver	Mark A Co[illegible]

ENVIRONMENTAL CHEMICAL CORPORATION
DAILY TAILGATE SAFETY MEETING

Meeting conducted by: Suzanne Whiteside Date: 4/19/06

Project Site: Eastern Plume NASB Task: Low Flow Sampling

Personal protective Equipment:

Level D

Chemical Hazards & Control measures:

preservatives in jars - use gloves

Physical Hazards & Control Measures:

walking on uneven ground - carrying heavy stuff - watch footing - lift with care
Ticks - use protection - be aware of chemicals in

Emergency Procedures:

911 Buddy System

Hospital/Clinic:	Mid-Coast Hospital
Address:	123 Medical Drive
Phone:	207-729-0181

Attendees

Name printed	Signature
Fred Santos	[signature]
Dave Comeau	
Sue Whiteside	Suzanne Whiteside
Mark Carver	[signature]
Paul Lynch	[signature]

Eastern Plume

Sampling Forms

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-315A

Date: 5/4/06
Sampler: MAC
PID Reading: —

Well Construction: 2" PVC
Depth to water: 0.62
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	610-D	185898 R
YSI	600XL	97D0447AA

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
1225	8.31	6.45	170	22.69	-545
1230	8.30	6.36	169	16.97	-547
1240	8.27	6.27	167	10.70	-550
1245	8.26	6.25	167	10.45	-552

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1210	BN-EP-28-MW315A-D	40ML	3	HCL	VOC

Comments

PDB sampled 2+ weeks after MNA low flow sample.

DO probe very slow

Mark A. Co
Signature

5/4/06
Date

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: E. Plume
Project Number: 5700.007
Sample Location ID: BN-EP-28-SW 14
Date / Time: 4/21/06
ECC Personnel: MAC /PL

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (X) Stream ( ) River ( ) Seep

Water Depth: 24"	Dissolved Oxygen (mg/L): 10.9
Velocity of Water: .5' / sec	ORP (mV) 68
Temperature (C): 13.4	Specific Conductance (uS/cm^c): 145
pH (units): 7.31	Turbidity (NTU) 4

Sample Observations:
( ) Odor No
( ) Color No
( ) Other No

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-28-SW-14	SW-14	4/21/06	X		HCl	3

Notes / Comments:

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: SW-11 / Sed-11
Date / Time: 4/21/06 1145
ECC Personnel: MAC / PL

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (X) Stream ( ) River ( ) Seep

Water Depth: 12"	Dissolved Oxygen (mg/L): 11.3
Velocity of Water: 12" / sec	ORP (mV) -26
Temperature (C): 11.2	Specific Conductance (uS/cm°): 181
pH (units): 7.25	Turbidity (NTU) 3.0

Sample Observations:
( ) Odor NO
( ) Color NO
( ) Other NO

SEDIMENT / LEACHATE SEEP SEDIMENT INFORMATION

Sed. Type: ( ) Organic ( ) Gravel ( ) Clay (X) Silt (X) Sand ( ) Other _____

Type of Samp. Collected: (X) Discrete ( ) Composite

Sample Observations:
( ) Odor NO
( ) Color Brown / Black
( ) Other NO

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-EP-28-SW11	SW-11	4/21/06 1145	X		HCl	3
BN-EP-28-Sed 11	Sed-11	4/21/06 1155		X	4°C	6

Notes / Comments:
MS-MSD-Dupe on Sed 11

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: 4/21/06 1315
ECC Personnel: MAC / PC

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (X) Stream ( ) River ( ) Seep

Water Depth: 6"	Dissolved Oxygen (mg/L): 5.6
Velocity of Water: 12"/sec	ORP (mV) 117
Temperature (C): 13.1	Specific Conductance (uS/cm^c): 150
pH (units): 7.42	Turbidity (NTU) 3

Sample Observations:
( ) Odor NO
( ) Color NO
( ) Other NO

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-28-SW12	SW-12	4/21/06 1315	X		HCl	3

Notes / Comments:

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: E. Plume
Project Number: 5700.007
Sample Location ID: BN-EP-28-SW13
Date / Time: 4/21/06 1215
ECC Personnel:

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (X) Stream ( ) River ( ) Seep

Water Depth: 6"	Dissolved **Oxygen (mg/L):** 10.8
Velocity of Water: 18" / sec	ORP (mV) 85
Temperature (C): 13.5	Specific **Conductance (uS/cm^c):** 131
pH (units): 7.39	Turbidity (NTU) 3

Sample Observations:
( ) Odor no
( ) Color no
( ) Other no

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-28-SW13	~~4/21/06~~ A SW-13	4/21/06	X		HCl	~~12~~ 9
BN-EP-28-XD1	~~4/21/06~~ A SW-13	4/21/06	X		HCl	3

Notes / Comments:

MS-MSD also Collected

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: EW-2A

Date: 4/21/06
Sampler: RL / MAC
PID Reading:

Start Time: 1130 **End Time:** 1140
Well Construction: NA
Depth to water: ~~NA~~ 31.37
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	0241015 AB
YSI	600 XL-BO	1F0657 AC
HaMott	2020	2568-1701

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
1135			31.37	8.60	7.24	260	4.6	-23	9.4	
1140				8.61	7.24	261	4.7	-24	9.4	
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
1135	BN-EP-28-EW2A	40ml VOA	3	HCl	VOC

Comments

Signature

4/21/06
Date

34.98
3.61
31.37

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-229A

Date: 4/20/06
Sampler: MAC
PID Reading:

Well Construction: 2" PVC
Depth to water: 10.52
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	00L1207 AA
YSI	600XL	00G1130) AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
0935	6.43	7.95	142	9.81	79
0938	6.36	7.80	144	9.72	93
0940	6.30	7.65	146	9.72	102
0942	6.29	7.57	148	9.67	109

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
0932	BN-EP-28-MW229A-M	40 ML	2	HCL	VOC

Comments

Signature

4/20/06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E.P

Location: NASB, Brunswick, ME

Well ID: MW-336

Well Construction: 2" PVC

Depth to water: 10.47'

Well Depth:

Water Column:

Date: 4/20/06

Sampler: MAC/JD

PID Reading: –

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	~~650~~ 0041207AA
YSI	600XLM	00611301AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
1039	7.22	7.28	62	9.52	128
1044	7.23	6.92	68	9.52	144
1048	6.86	6.66	68	9.81	152.7
1051	6.67	6.54	62	10.02	157.1

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1035	BN-EP-28-MW336-S	40ML VOA	2	HCl	VOC

Comments

Signature

4/20/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Date: 4-20-06
Location: NASB, Brunswick, ME
Sampler: MAC/JD
Well ID: MW-33~~8~~6 MAC
PID Reading: N/A

Start Time: _____ **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	650MDS	00L1207AA
YSI	600XLM	00G11301AB
Lamotte	2020	4967-1604

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
1102		150	10.84	7.56	6.51	67	10.08	152	60	~
1113		150	10.73	7.19	6.24	64	9.62	166	18	
1125		150	10.48	7.29	6.07	43	9.51	176	12	
1130		150	10.49	7.32	6.03	42	9.52	178	6	
1133		150	10.50	7.35	6.02	44	9.58	178	5	
1136		150	10.51	7.42	6.10	44	~~9.56~~ 9.56	179	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
1140	BN-EP-28-MW336	40 mL VOA	2	HCL	METHANE, ETHANE, ETHANE
		250 mL AMBER	1	H_2SO_4	TOC
		40 mL VOA	3	HCL	TCL VOC
		500 mL POLY	1	NONE	ALK, CHLORIDE, NITRITE, SULFATE
		500 mL POLY	1	H_2SO_4	NITRATE/NITRITE
		500 mL POLY	1	HNO_3	TOTAL FE, MN, AS

Comments

Mark A. Co
Signature

4/20/06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-335

Date: 4/20/06
Sampler: JD/MAC
PID Reading: –

Well Construction: 2" PVC
Depth to water: 16.80'
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	00L1207AA
YSI	600XL	0061301AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
1215	7.59	6.91	229	0.19	-100
1218	7.59	6.99	347	0.17	-107
1220	7.59	7.03	348	0.16	-112

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1213	BN-EP-28-MW335-M	40ML	2	HCL	VOC

Comments

Mark A. Cr
Signature

4/20/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: EW-1

Date: 4/20/06
Sampler: MAC/JD
PID Reading:

Start Time: **End Time:**
Well Construction: 6" SS
Depth to water: 5.62
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	00L207AA
YSI	600XLM	00611301AB
Lamotte	2020	4967-1604

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
0906	—		5.62	10.03	7.36	233	4.30	-6	4	
0909				10.12	7.34	233	4.10	-10		
0916				10.25	7.30	232	4.11	-16		
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
0905	BN-EP-28-15(W01)	40ML VOA	3	HCL	VOC

Comments

Mark A. Co
Signature

4/20/06
Date

9.78
- 3.96
5.62

Fe++ = 0.22 mg/L

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-335

Date: 4/20/06
Sampler: MAC
PID Reading: –

Start Time: _____ **End Time:** _____
Well Construction: _____
Depth to water: 16.80
Well Depth: _____
Water Column: _____
Total Volume Removed (L) _____

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	
YSI	600XL	

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
1235		180	16.80	11.40	7.19	221	5.30	50	10	
1240		180	16.86	10.29	7.01	231	2.46	-43	20	
1247		180	16.86	9.64	6.88	295	1.01	-65	51	
1257		180	16.87	9.16	6.92	309	.76	-65	45	
1305		180	16.87	9.16	6.94	318	.64	-63	25	
1313		180	16.86	9.06	6.93	318	.56	-61	17	
1323		180	16.86	9.09	6.94	317	.60	-61	11	
1332		180	16.86	9.14	6.93	315	.45	-61	9.7	
1336		180	16.85	9.15	6.93	315	.43	-60	9.26	
1340		180	16.86	9.07	6.92	317	.41	-59	6.78	
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
1345	BN-EP-28-MW335	40 mL VOA	3	HCL	TCL VOA
		500 mL poly	1	NONE	ALK, CHLORIDE, NITRATE, SULFATE
		40 mL VOA	2	HCL	METHANE, ETHANE, ETHENE
		250 mL AMBER	1	H_2SO_4	TOC
		500 mL POLY	1	H_2SO_4	NITRATE - NITRITE

Comments

Mark A. C[illegible]
Signature

4/20/06
Date

DR890 Fe++: 0.45 mg/L

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project:

Location: NASB, Brunswick, ME

Well ID: MW-334

Date: 4/20/06

Sampler: [illegible]

PID Reading:

Start Time: 0921 **End Time:** 1110

Well Construction: 2"

Depth to water: 8.63

Well Depth:

Water Column:

Total Volume Removed (L) 7 L

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1015AB
YSI	600 XL-BO	01F0657AC
LaMotte	2020	5873-1905
Hach	DR890	05650

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
0935	—	.100	9.06	9.52	6.89	155	3.9	302	50	
0945	1		9.09	9.36	7.73	149	1.6	-15	68	
1005	3		9.09	9.32	7.94	150	1.7	-68	21	
1015	4		9.09	9.28	7.97	149	1.7	-79	14	
1025	5		9.09	9.43	7.92	150	1.6	-74	10	
1035	6		9.09	9.54	7.97	150	1.6	-71	9.7	
1040			9.09	9.58	7.97	150	1.6	-69	9.1	
1045	7		9.09	9.62	7.96	150	1.5	-64	8.6	
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
10.45	BN-ER-28-MW334	40 ml VOA	2	HCl	Methane, Ethane, Ethene
		500 ml / P	1 ~~HNO_3~~ R	HNO_3	Metals
		500 ml / P	1	H_2SO_4	NO_2 & NO_3
		500 ml / P	1	4°C	Alk, Cl, NO_2, SO_4
		250 ml / Glass	1	H_2SO_4	TOC

Comments

Ferrous Fe = 0.01 mg/L

[signature]
Signature

4/20/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: P-111

Date: 4/20/06
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 10:13 **End Time:** 11:05
Well Construction: 3/4" Peristaltic
Depth to water: 4.69'
Well Depth: 9.85'
Water Column: 5.16'
Total Volume Removed (L) 7.88

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01G0418AF
YSI	600XL	01A0138AB
Lamotte	Turbidimeter	3176-1702
Geopump	Peristaltic	07033

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	0.38	190	—	7.77	8.12	125	6.73	115	722	Grey
10:25	1.5	150	—	6.92	6.94	107	4.54	-42	199	Grey
10:35	1.5	150	—	6.66	6.97	106	3.17	-238	39	cloudy
10:45	1.5	150	—	6.33	6.95	104	2.49	-256	14	clear
10:55	1.5	150	—	6.29	6.94	103	1.94	-267	8	clear
11:00	0.75	150	—	6.40	6.93	102	1.82	-271	7	clear
11:05	0.75	150	—	6.34	6.94	102	1.78	-276	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
11:05	BN-EP-28-P111	40ml vial	3	HCl	VOC
11:05	BN-EP-28-P111	500ml Poly	1	HNO3	Total Fe, Mn, As
11:05	BN-EP-28-P111	500ml Poly	1	None	Alk, Chl, Nitrite, Sulfate
11:05	BN-EP-28-P111	500ml Poly	1	H2SO4	Nitrate, Nitrite
11:05	BN-EP-28-P111	40ml vial	2	HCl	Methane, Ethane, Ethene
11:05	BN-EP-28-P111	250ml Amber	1	H2SO4	TOC

Comments 3/4" PVC too small to insert water level meter.

Ferrous Iron with DR890 = 0.58 mg/L

Signature

4/20/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 308

Date: 4-20-06
Sampler: Suzanne
PID Reading: 0.0

Start Time: 10:27 **End Time:** 11:13
Well Construction: 2" PVC
Depth to water: 1.61
Well Depth: 73.11
Water Column: 71.50
Total Volume Removed (L) 9

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01A1431 AA
YSI	600 XL	04J16000 AF
Lamotte turbidimeter		
Grundfos Rediflow		

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
10:32	1	200	2.04	9.43	7.72	796	2.03	-12.1	12	clear
10:42	2	200	2.04	9.48	8.05	819	1.79	-73.6	7	clear
10:52	2	200	2.04	9.72	8.78	740	1.02	-96.0	2	clear
11:02	2	200	2.04	9.82	8.79	739	1.11	-97.1	2	clear
11:07	1	200	2.04	9.83	8.79	740	1.12	-97.2	2	clear
11:12	1	200	2.04	9.81	8.79	743	1.10	-98.0	2	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
11:13	BN-EP-28-MW308	40 ml	3	HCL	VOC

Comments

Suzanne Whiteside
Signature

4-20-06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 308

Date: 4·20·06
Sampler: Suzanne
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 1.61
Well Depth: 73.11
Water Column: 71.50

Field Testing Equipment

Make	Model	Serial #
YSI 650	01A1431.	AA
YSI	600 XL	04J1600 AF

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
10:05	8.59	8.64	664	0.35	-118.7

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
0957	BN·EP·28 MW308·D	40 ml	2	HCL	VOC

Comments

Suzanne Whitesides
Signature

4·20·06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project:

Location: NASB, Brunswick, ME

Well ID: MW- 337

Date: 4/20/06

Sampler: P Cyr M

PID Reading:

Well Construction: 2"

Depth to water: 13.30

Well Depth:

Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1015 AB
YSI	600 XL BO	01F0657 AC

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
1200	8.72	7.43	135	0.4	-100
1203	8.76	7.47	135	0.1	-116
1206	8.78	7.44	135	0.1	-117

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:00	BW-EP-28-MW 337M	40ml VOA	2	HCl	VOC

Comments

Signature

4/20/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: ~~AAW~~ P-106

Date: 4-20-06
Sampler: Suzanne W.
PID Reading: 0.0

Start Time: 12:43 **End Time:** 13:39
Well Construction: 1" PVC
Depth to water: 4.95
Well Depth: 72.12
Water Column: 67.17
Total Volume Removed (L) 8.25

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01A1431AA
YSI	600 XL	04J16000AF
LaMotte turbidimeter		
Geopump 2		5029

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
12:48	.7	150	—	10.80	7.82	104	8.96	14.4	12	clear
12:58	1.5	150	—	10.32	7.53	103	8.95	21.8	7	clear
13:08	1.5	150	—	10.18	7.55	103	8.80	35.0	5	clear
13:18	1.5	150	—	10.40	7.36	103	8.72	37.1	2	clear
13:28	1.5	150	—	10.72	7.24	103	8.69	38.8	1	clear
13:33	.7	150	—	10.61	7.22	103	8.68	39.5	1	clear
13:38	.7	150	—	10.68	7.22	103	8.69	39.4	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
13:39	BNEP-28-P106	40 ml vial	3	HCL	TCL VOC
"	"	500 ml poly	1	HNO3	Tot Fe, Mn, As
"	"	500 ml poly	1	None	Alk, Cl, No Si
"	"	40 ml vial	2	HCL	Meth, Eth
"	"	40 ml vial	3	HCL	1,4 Dioxane
0900	BNEP-28-MW-XD6	40 ml vial	3	HCL	TCL VOC
13:39	BNEP-28-P106	500 ml poly	1	H2SO4	Nitrate & Nitrite
"	BNEP-28-P106	250 ml amber	1	H2SO4	TOC

Comments colorimeter 0.06

Suzanne Whiteside
Signature

4-20-06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: _____

Location: NASB, Brunswick, ME

Well ID: MW 337

Date: 4/20/06

Sampler: P Lynch

PID Reading: _____

Start Time: 1215 **End Time:** _____

Well Construction: 2"

Depth to water: 13.30

Well Depth: _____

Water Column: _____

Total Volume Removed (L) _____

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1015 4B
YSI	600 XL BO	01F0657 AC
Lamotte	2020	5873 1905
Hach	DR 890	05650

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
1225	–	100	13.36	10.97	7.52	131	6.2	-42	8.4	
1235	1		13.38	11.08	7.33	131	1.7	-87	58	
1245	2		13.38	11.17	7.22	131	0.9	-92	49	
1305	4		13.38	11.19	7.25	131	0.8	-103	27	
1315	5		13.39	11.56	7.25	131	0.8	-105	15	
1325	6		13.39	11.56	7.24	131	0.7	-107	10.5	
1335	7		13.39	11.56	7.23	131	0.7	-106	9.5	
1340			13.39	11.57	7.24	131	0.7	-108	9.4	
1345	8		13.39	11.55	7.23	131	0.6	-104	9.0	
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
1345	BN-EP-28-MW337	40ml/VOA	3	HCl	Methane, Ethane, Ethene
	BN-EP-28 MW337	500ml/P	1	HNO_3	Metals
	BN-EP-28 MW337	500ml/P	1	H_2SO_4	NO_2 & NO_3
	BN-EP-28 MW337	500ml/P	1	4°C	Alk, Cl, NO_2, SO_4
	BN-EP-28 MW337	250 ML/Amber	1	H_2SO_4	TOC
	BN-EP-28 MW337	40ml VOA	3	HCl	VOC

Comments

BN-EP-28 MW 337 MS

BN-EP-28 MW 337 MSD – Same Bottles as above except NO VOC

BN-EP-28 MNA XD2

~~BN-EP-28 MNA XD2 – only 2 VOAs.~~ PL

Signature

4/20/06

Date

* Ferrous Fe = 0.97 mg/L

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Date: 4/20/06
Location: NASB, Brunswick, ME
Sampler: David C.
Well ID: MW-331
PID Reading: 0.0ppm

Start Time: 1343 **End Time:** 1435
Well Construction: 2" Peristaltic
Depth to water: 0.0'
Well Depth: 54.55'
Water Column: 54.55'
Total Volume Removed (L) 11.1

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01G0418 AF
YSI	600XL	01A0138 AB
Lamotte	Turbidimeter	3176-1702
Geopump	peristaltic	07033

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
1345	0.6	300	0.0	10.16	7.21	432	9.58	-114	14	clear
1355	2.1	210	0.0	9.02	6.76	329	2.21	-125	5	clear
1405	2.1	210	0.0	8.82	6.60	306	1.89	-136	2	clear
1415	2.1	210	0.0	8.83	6.56	297	1.83	-283	1	clear
1425	2.1	210	0.0	8.84	6.53	292	1.73	-286	1	clear
1430	1.05	210	0.0	8.77	6.54	290	1.73	-283	1	clear
1435	1.05	210	0.0	8.83	6.53	291	1.73	-280	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
1435	BN-EP-28-MW331	40ml vial	3	NONE	1,4 Dioxane
1435	BN-EP-28-MW331	40ml vial	2	HCl	Methane, Ethane, Ethene
1435	BN-EP-28-MW331	500ml Poly	1	HNO_3	Total Fe, Mn, As
1435	BN-EP-28-MW331	500ml Poly	1	NONE	Alk., Chl., Nitrite, Sulfate
1435	BN-EP-28-MW331	500ml Poly	1	H_2SO_4	Nitrate, Nitrite
1435	BN-EP-28-MW331	250ml Amber	1	H_2SO_4	TOC

00:00 BN-EP-28-MNAXD1 Field Duplicate - MNA Parameters, same as above, but no 1,4 Dioxane.

Comments

Artesian well Ferrous Iron with DR890 = 0.18mg/L

Signature

4/20/06
Date

Environmental Chemical Corporation
Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-331

Date: 4/20/06
Sampler: David C.
PID Reading: 0.0ppm

Well Construction: 2" PVC
Depth to water: 0.0'
Well Depth: 54.55'
Water Column: 54.55'

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01G0418 AF
YSI	600XL	01A0138 AB
Solinst	water meter	14913

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
1330	—	—	—	—	—
	refer	to Low-Flow	sheet		

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1320	BN-EP-28-MW331-M	40ml vial	2	HCl	VOC

Comments

Artesian well

unable to obtain YSI Parameters due to PVC Riser is bubbled inward. (Freezing of water between riser and casing probably caused this.) YSI Sonde will not fit in riser.

Signature

4/20/06
Date

Environmental Chemical Corporation
Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: EW05A

Date: 4-20-06
Sampler: Suzanne
PID Reading: 0.0

Well Construction:
Depth to water:
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01A1431AA
YSI	600 XL	04J16000AF

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
14:16	9.81	7.28	110	7.75	26.5

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
14:00	BN-EP-28-EW05A	40 ml	3	HCL	TCL VOC

Comments
turbidity 6.3

Suzanne Whiteside
Signature

4-20-06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: BN-EP-28
Location: NASB, Brunswick, ME
Well ID: MW-308

Date: 6/19/06
Sampler: [illegible]
PID Reading:

Start Time: 1245 **End Time:**
Well Construction: 2" PVC
Depth to water: 1.00
Well Depth: 73.4
Water Column: 72.4
Total Volume Removed (L) 5 L

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	02K0598AB
YSI	600XL-B-M	02A6874AC
HACH	2100P	02040002582 7

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
1305	—	200	1.00	11.0	7.89	773	0.4	-29	4.0	
1310	1.0		1.09	10.7	7.66	712	0.5	-110	1.0	
1315	2.0		1.09	10.7	7.74	699	0.6	-132	1.0	
1320	3.0		1.09	10.8	7.71	704	0.5	-135	1.1	
1325	4.0			10.6	7.73	710	0.5	-137	1.3	
1330	5.0			10.7	7.72	700	0.6	-136	1.4	
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
1330	BN-EP-28-MW308	40ml Vial	3	HCl	VOC

Comments
Well in good condition
Locked & secure

[illegible]
Signature

6/19/06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-338A

Date: 4/18/06
Sampler: MC/PL
PID Reading: –

Well Construction: 2"
Depth to water: Artesian
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	0160418 AF
YSI	600-XL-50	014 0138 AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
12:17	8.31	8.42	1050	2.6	-257
12:20	8.31	8.42	1039	2.7	-260
12:23	8.31	8.42	1034	2.7	-265

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1215	BN-EP-28-MW338A-5		2	HCL	VOC

Comments

Signature

4/18/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-338 A

Date: 4/18/06
Sampler: PL
PID Reading:

Start Time: 1250 **End Time:** 1405
Well Construction: 2"
Depth to water: Artesian
Well Depth:
Water Column:
Total Volume Removed (L) 6

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01~~8~~0418 AF
YSI	600-XL-BO	01A0138 AB
LaMotte	2020	02040

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
1255	0	100	Artesian	9.02	8.00	692	7.1	-230	19	
1305	1	↑	"	8.70	8.37	613	4.6	-245	50	
1315	2			8.67	8.44	970	3.9	-256	40	
1335	4			8.70	8.51	907	4.3	-268	10	
~~1338~~ 1340	5			8.68	8.52	896	4.4	-268	8	
1345	6		↓	8.70	8.51	900	4.4	-270	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
1345	BN-EP-28MW 338 A	40ml VOA	5	HCl	VOC, Methane, Ethane, Ethene
~~1350~~	BN-EP-28-MW 338 A	500ml Poly	1	HNO_3	Metals
~~1348~~	BN-EP-28-MW 338 A	40ml VOA	3	4°C	1,4 Dioxane
~~1355~~	BN-EP-28-MW 338 A	500ml Poly	1	4°C	Alk, Cl, NO_2, SO_4
~~1400~~	BN-EP-28-MW 338 A	250 500ml Amber	1	H_2SO_4	TOC
~~1405~~	BN-EP-28-MW 338 A	500 ml Poly	1	H_2SO_4	NO_2, NO_3

Comments Fe++ = 0.01

Signature

4/18/06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-338B

Date: 4/18/06
Sampler: MC / PL
PID Reading:

Well Construction: 2"
Depth to water: Artesian.
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01G0418 AF
YSI	600-XL-BU	01A0138 AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
12:26	8.24	8.49	108	0.3	-286
12:29	8.25	8.40	108	0.3	-290
12:32	8.25	8.30	108	0.2	-295

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1220	BN-EP-28-MW338B-M	40 ml VOA	2	HCl	VOC

Comments

Signature

4/18/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 338 B

Date: 4/18/06
Sampler: P Lynch
PID Reading:

Start Time: 1425 **End Time:**
Well Construction: 2"
Depth to water: Artesian
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01G048 AF
YSI	600XL-BO	01A0138 AB
LaMotte	2020	02040

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
1430	0	.100	Artesian	9.70	8.40	109	0.9	-260	45	
1440	1	↓		10.10	8.24	107	0.4	-286	32	
1450	2	↓		10.24	8.21	108	0.4	-290	25	
1500	3			9.93	8.18	105	0.4	-291	16	
1510	4			9.74	8.16	104	0.4	-292	14	
1520	5			9.66	8.13	104	0.4	-294	9.7	
1525	5.5			9.53	8.14	104	0.4	-294	9.4	
1530	6			9.50	8.13	106	0.4	-295	9.0	
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
1530	BN-EP-28-MW338B	40 ml VOA	3	HCl	VOC
	BN-EP-28-MW338B	40 ml VOA	2	HCl	Meth, Ethane, Ethene
	BN-EP-28-MW338B	500 ml Poly	1	HNO_3	Metals
	BN-EP-28-MW338B	500 ml Poly	1	H_2SO_4	NO_2, NO_3
	BN-EP-28-MW338B	500 ml Poly	1	4°C	Alk, Cl, NO_2, SO_4
	BN-EP-28-MW338B	250 ml Amber	1	H_2SO_4	TOC

Comments Fe^{++} = 0.08 mg/l

Signature

4/18/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-338C

Date: 4/19/06
Sampler: P Lynch
PID Reading: 0.0

Start Time: 10:00 **End Time:** 11:25
Well Construction: 2"
Depth to water: 1.92
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01608418 AF
YSI	600 XL-BO	01A0138 AB
LaMotte	2020	3176-1707
Hach	DR/890	5650

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	0	.100	1.95	10.13	8.48	75	7.81	45	6.2	
10:25	1	↓	1.98	8.51	7.87	55	7.4	8.1	33	
10:35	2	↓	1.98	8.80	7.72	55	7.2	-161	25	
10:45	3	↓	1.98	8.98	7.70	55	6.8	-198	12	
10:55	4		1.98	9.05	7.72	55	6.7	-197	8.8	
11:00			1.98	9.07	7.73	55	6.6	-196	8.2	
11:05	5		1.98	9.08	7.72	55	6.6	-198	7.9	

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
11:05	BN-EP-28-MW 338 C	40 ml VOA	3	HCl	VOC
		40 ml VOA	2	HCl	Methane, Ethane, Ethene
		500 ml/P	1	HNO_3	Metals
		500 ml/P	1	H_2SO_4	NO_2, NO_3
		500 ml/P	1	4°C	Cl, NO_3, SO_4, Alk
		250 ml Amber	1	H_2SO_4	TOC

Comments

Ferrous Fe = 0.03 mg/L

Signature

4/19/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E Plume
Location: NASB, Brunswick, ME
Well ID: MW-315A

Date: 4/19/06
Sampler: MAC
PID Reading:

Start Time: **End Time:**
Well Construction: 2" PVC
Depth to water: Artesian
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	02H1015 AB
YSI	600 XL-B-M	065864
Lamotte	2020	26856

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
1015		150	0.82	8.23	7.91	176	3.71	106	7	
1030		150	1.23	8.44	7.88	135	1.70	-107	20	
1045		150	1.74	8.43	7.97	133	1.03	-110	65	
1105		150	2.93	8.43	7.95	121	1.13	-111	80	
1125		150	2.93	8.55	7.97	118	0.74	-107	39	
1135		150	2.93	8.50	7.99	115	0.66	-106	30	
1155		150	2.90	8.54	8.01	116	0.69	-115	19	
1015		150	2.97	8.45	8.00	113	0.63	-129	15	
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 MAC	# of Bottles MAC	Preservative MAC	Analyses MAC
1216	BN-EP-28-MW315A	~~40ML~~	~~3~~	~~HCL~~	~~VOC~~
		500ML Poly	1	HNO_3	Fe, Mn, As
		500ML Poly	1	—	Alk, Cl, Nitrite, Sulfate
		500ML Poly	1	H_2SO_4	Nitrate, Nitrite
		40ML VOA	2	HCL	Methane, Ethane, Ethene
		250ML Amber	1	H_2SO_4	TOC

Comments
No PDB in well - finished Low flow + placed PDB for later sampling!
1100 Dumped flow cell

Mark A Ca
Signature

4/19/06
Date

DR890 - Fe++ = 0.03 mg/L

Page____ of____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: Eastern Plume
Project Number: 5700.007
Sample Location ID: SEEP 11
Date / Time: 4-21-06 11:23
ECC Personnel: Suzanne

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (X) Seep

Water Depth: 0-2"	Dissolved Oxygen (mg/L): 7.86
Velocity of Water: 1" - 6 sec	ORP (mV) 174.8
Temperature (C): 8.59	Specific Conductance (uS/cm^c): 162
pH (units): 8.79	Turbidity (NTU) 20.5

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
( ) Color
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BN-EP-28 SEEP11	SEEP 11	4/21/06 11:23	X		HCL	3
" MS/MSD	"	" " "	"		"	6
BN-EP-28 SEEP-XD1	"	" 0:00	X		"	3

Notes / Comments:

Page ____ of ____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: Eastern Plume
Project Number: 5700.007
Sample Location ID: SW/~~SEEP-10~~
Date / Time: 4/21/06 12:00
ECC Personnel: Suzanne

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. (X) Stream ( ) River ( ) Seep

Water Depth: 0 – 3+'	Dissolved Oxygen (mg/L): 10.69
Velocity of Water: 1' 3 sec	ORP (mV) 86.6
Temperature (C): 11.33	Specific Conductance (uS/cm^c): 197
pH (units): 7.70	Turbidity (NTU) 3.56

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
BNEP.28.SW10	SW10	4/21/06 12:00	X		HCL	~~2~~ 3

Notes / Comments:

Page____ of ____

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Project Name: NASB, ME LTM
Site: Eastern Plume
Project Number: 5700.007
Sample Location ID: SEEP 10
Date / Time: 4-21-06 12:14
ECC Personnel: Suzanne

SURFACE WATER / LEACHATE SEEP INFORMATION

Type of S.W. ( ) Stream ( ) River (X) Seep

Water Depth: 3"	Dissolved Oxygen (mg/L): 3.89
Velocity of Water: - still - not measurable	ORP (mV) 143.9
Temperature (C): 10.72	Specific Conductance (uS/cm°): 59
pH (units): 7.20	Turbidity (NTU) 14.4

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
( ) Color
( ) Other

SAMPLES COLLECTED

Sample Identification	Sample Location	Date / Time	Matrix Aqueous	Matrix Solid	Preservative	Number of Containers
BNEP.28.SEEP10	Seep 10	4/21/06 12:14	X		HCL	3

Notes / Comments:

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-231A

Date: 4/21/06
Sampler: M MAC
PID Reading:

Well Construction: 2" PVC
Depth to water: 18.54'
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1015 AB
YSI	600 XL BO	01F0617 AC

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
1010	7.44	7.42	55	10.1	-34
1013	7.44	7.39	56	10.0	-29

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1010	BN-EP-28-MW231A-D	40ML	2	HCL	VOC

Comments

Signature

4/21/06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-230A

Date: 4/21/06
Sampler: MAL
PID Reading: —

Well Construction: 2" PVC
Depth to water: 12.44'
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	0241015 AB
YSI	600 XL BO	01F0617 AC

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
0955	8.08	7.53	119	0.6	-117
0958	8.08	7.53	120	0.3	-120

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
0955	BN-EP-28-MW230A-D	40ML	2	HCL	VOC

Comments

Signature

4/21/06
Date

Environmental Chemical Corporation
Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-225A

Date: 4/21/06
Sampler: MAC/PL
PID Reading: —

Well Construction: 2" PVC
Depth to water: 13.36
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	02H1015 AB
YSI	600XL	01F0617 AC

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
0925	7.76	6.97	162	1.1	302
0928	7.77	6.92	162	1.2	306

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
0925	BN-EP-28-MW225A-M	40 ml VOA	2	HCl	VOC

Comments

Signature

4/21/06
Date

Environmental Chemical Corporation
Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-224

Date: 4/21/06
Sampler: David C.
PID Reading: 0.0ppm

Well Construction: 2" PVC
Depth to water: 19.57'
Well Depth: 46.99'
Water Column: 27.42'

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01G0418 AF
YSI	600XL	01A0138 AB
Solinst	water meter	14913

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
9:40	8.47	8.27	49	13.52	-25

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
9:30	BN-EP-28-MW224-M	40ml vial	2	HCl	VOC

Comments

Signature

4/21/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-224

Date: 4/21/06
Sampler: David C.
PID Reading: 0.0ppm

Start Time: 10:07 **End Time:** 11:00
Well Construction: 2" Grundfos
Depth to water: 19.57'
Well Depth: 46.99'
Water Column: 27.42'
Total Volume Removed (L) 14.26

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01G0418 AF
YSI	600XL	01A0138 AB
Lamotte	Turbidimeter	5329-3704
Redi-Flo	Controller	07016

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	1.26	420	19.59	8.22	7.75	59	12.53	-245	7	clear
10:20	2.6	260	19.58	10.22	6.37	63	12.20	-186	9	clear
10:30	2.6	260	19.58	10.07	5.92	82	11.21	-183	8	clear
10:40	2.6	260	19.58	11.18	5.70	87	10.22	-185	8	clear
10:50	2.6	260	19.58	11.60	5.64	98	9.75	-186	7	clear
10:55	1.3	260	19.58	11.42	5.63	99	9.69	-184	7	clear
11:00	1.3	260	19.58	11.11	5.60	99	9.63	-181	6	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
11:00	BN-EP-28-MW224	40ml vial	3	HCl	VOC
11:00	BN-EP-28-MW224	500ml Poly	1	HNO3	Total Fe, Mn, As
11:00	BN-EP-28-MW224	500ml Poly	1	NONE	Alk, Chl, Nitrite, Sulfate
11:00	BN-EP-28-MW224	500ml Poly	1	H2SO4	Nitrate, Nitrite
11:00	BN-EP-28-MW224	40ml vial	2	HCl	Methane, Ethane, Ethene
11:00	BN-EP-28-MW224	250ml Amber	1	H2SO4	TOC
00:00	BN-EP-28-MW-XD1	40ml vial	3	HCl	VOC

Comments

11:00	BN-EP-28-MW224-MS	40ml vial	3	HCl	VOC
11:00	BN-EP-28-MW224-MSD	40ml vial	3	HCl	VOC

☆ Ferrous Iron with DR890 = 0.03mg/L

Signature

4/21/06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-205

Date: 4/21/06
Sampler: AL / MAC
PID Reading:

Well Construction: 2"
Depth to water: 20.96
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1015 AB
YSI	600XL-BO	01F0617 AC

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
0945	8.32	7.33	180	2.7	-49
0948	8.32	7.34	179	2.7	-49

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
0945	BW-EP-28-MW205-D	40 ml VOA	2	HCl	VOC

Comments

Signature

4/21/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E. Plume
Date: 4/18/06
Location: NASB, Brunswick, ME
Sampler: MAC
Well ID: MW-339
PID Reading: —

Start Time: _____ **End Time:** _____
Well Construction: 2" PVC
Depth to water: 0.85
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	02H0015AB
YSI	600XL-B-M	065864
Lamotte	2020	5329-3704

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
1330	—	150	0.94	9.27	7.87	95	3.14	-14	3	
1335		150	0.94	9.06	7.91	107	1.63	-86	43	
1340		150	0.93	9.22	7.92	116	0.94	-123	47	
1350		150	0.93	9.07	7.92	114	0.80	-131	33	
1405		150	0.94	8.80	7.96	109	0.57	-136	25	
1420		150	0.94	8.82	8.00	103	0.51	-143	14	
1435		150	0.94	8.93	8.03	100	0.40	-143	10	
1440		150	0.94	9.01	8.04	102	0.39	-143	9	
1445		150	0.94	9.05	8.03	99	0.38	-140	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
1446	BN-EP-28-MW339	40ml	3	HCL	VOC
		500ML Poly	1	HNO_3	Fe, Mn, As
		500ML Poly	1	—	Alk, Chl, Nitrite, Sulfate
		500ML Poly	1	H_2SO_4	Nitrate, Nitrite
		40ML	2	HCL	Methane, Ethane, Ethene
		250ML Amber	1	H_2SO_4	TOC

Comments Fe ++ - 0.03 mg/L

Mark A. Co
Signature

4/18/06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-339

Date: 4/18/06
Sampler: MAC
PID Reading:

Well Construction: 2" PVC
Depth to water: 0.85'
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02H1015 AB
YSI	600XL-B-M	065864

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
1306	8.20	7.87	137	0.27	-161
1309	8.19	7.87	136	0.25	-166
1312	8.18	7.87	136	0.22	-169

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1300	BN-EP-28-MW339-D	40ml	2	HCL	VOC
—	BN-EP-28-MW-XDS				

Comments Collected field dup

Mark A. Co
Signature

4/18/06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-313

Date: 4/19/06
Sampler: MAC
PID Reading: –

Well Construction: 2" PVC
Depth to water: 6.97'.
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	02H1015AB
YSI	600XL	01F0657AC

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
1312	7.84	8.46	463	0.26	-205
1315	7.86	8.47	~~430~~ 454 MAC	0.30	-213
1318	7.84	8.47	453	0.32	-216

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1310	BN-EP-28-MW313-D	40ML	2	HCL	VOC

Comments

Mark A. C
Signature

4/19/06
Date

Environmental Chemical Corporation
Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-333

Date: 4/19/06
Sampler: [illegible]
PID Reading: 0.0

Well Construction: 2"
Depth to water: 8.35
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	0160418 AE
YSI	600 XL -BO	01A0138 AB
~~La Motte~~	~~2020~~	
~~Hach~~	~~DR 890~~	

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
1257	7.79	8.13	399	5.2	-256
1300	7.80	8.13	400	5.2	-254
1303	7.80	8.14	399	5.7	-258

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1257	BW-EP-28-MW333-M	40ml VOA	2	HCl	VOC

Comments

[illegible]
Signature

4/19/06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: E. Plume
Date: 4/19/06
Location: NASB, Brunswick, ME
Sampler: MAC
Well ID: MW-313
PID Reading: 0.0

Start Time: _____ **End Time:** _____
Well Construction: 2" PVC
Depth to water: 6.97
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	02H1015AD
YSI	600XL	01F0657AC
Lamotte	2020	26856

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
1330		150	8.27	7.98	7.91	157	7.67	17.2	40	
1345		150	8.49	9.42	7.96	266	1.28	-147	750	
1400		150	8.51	9.69	7.94	242	1.09	-137	270	
1415		150	8.53	9.75	7.87	224	1.29	-129	100	
1430		150	8.50	9.81	7.84	209	1.42	-118	60	
1445		150	8.51	9.96	7.79	203	1.29	-125	36	
1500		150	8.51	10.05	7.76	200	1.29	-124	29	
1515		150	8.51	10.12	7.78	200	1.19	-128	24	
1530		150	8.51	10.13	7.78	200	1.14	-130	22	
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
1532	BN-EP-28-MW313	40 ML VOA	9	—	1,4-Dioxane (MS/MSD)
		500ML Poly	1	HNO_3	Fe, MN, As
		500ML Poly	1	—	Alk, Cl_2, NO_2, SO_4
		500ML Poly	1	H_2SO_4	NO_3, NO_2
		40 ML VOA	2	HCL	CH_4, Ethane, Ethene
	BN-EP-28-MW XD3	40ML VOA	3	HCL	1,4 Dioxane

Comments

Mark C. Co
Signature

4/19/06
Date

DR-890 - Fe++ = 0.33

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW-333

Date: 4/19/06
Sampler: [illegible]
PID Reading: 0.0

Start Time: 1310 **End Time:**
Well Construction: 2"
Depth to water: 8.35
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01G 0418 AF
YSI	600 XL-BO	01A 0138 AB
La Motte	2020	3176 1702
Hach	DR 890	5650

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
1315	0	100	8.35	10.73	6.42	213	7.7	-80	7.5	
1325	1		8.84	8.14	7.55	216	3.5	-204	38	
1335	2		~~8.63~~ 9.30	8.63	7.76	220	2.9	-230	47	
1355	4		9.30	9.21	7.80	223	3.1	-235	33	
1415	6		9.30	9.37	7.78	212	3.0	-234	23	
1435	8		9.30	9.41	7.75	200	2.9	-238	20	
1455	10		9.30	9.63	7.74	191	2.0	-238	20	
1505	11		9.30	9.70	7.73	190	2.0	-237	19	
1515	12		9.30	9.74	7.75	192	1.9	-239	17	
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
1515	BW-EP-28-MW333	40 ml VOA	2	HCl	Methane, Ethane, Ethene
		40 ml VOA	3	4°C	1,4 Dioxane
		500 ml/P	1	HNO_3	Metals
		500 ml/P	1	H_2SO_4	NO_2, NO_3
		500 ml/P	1	4°C	Alk, Cl^-, NO_2, SO_4
		250 ml/G	1	H_2SO_4	TOC

Comments

Ferrous Fe = 0.44 mg/L

Signature

4/19/06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 319

Date: 4-19-06
Sampler: Suzanne W.
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 6.72
Well Depth: 72.04
Water Column: 65.32

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01A1431 AA
YSI	600 XL	0416000 AF

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
10:15	8.26	6.96	348	1.07	144.2

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
10:07	BN-EP-28 MW319-D	40 ml	2	HCL	VOC

Comments

Suzanne Whiteside
Signature

4-19-06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 207 AR

Date: 4-19-06
Sampler: Suzanne
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 0 Artesian
Well Depth: 74.68
Water Column: 74.68

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01A1431AA
YSI	600 XL	0416000AF

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)	
11:45	8.25	7.72	248	0.48	-178.8	D
11:49	8.26	7.84	203	0.27	-185.5	M

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
11:35	BN EP 28 MW 207 AR D		2	HCL	VOC
11:35	BN EP 28 MW 207 AR M		2	HCL	VOC

Comments

Suzanne Whiteside
Signature

4-19-06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 311

Date: 4.19.06
Sampler: Suzanne W.
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 8.09
Well Depth: 54.90
Water Column: 46.81

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01A1431 AA
YSI	600 XL	0416000 AF

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)	
10:49	8.18	6.89	300	0.62	-38	Deep
10:52	8.07	6.90	252	2.01	-7.0	Mid

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
10:28	BNEP.28.MW311M	40 ml	2	HCL	VOC
10:28	BNEP.28.MW311 MS/MSD				
10:00	BNEP.28.MW.XD2		Same as above		
10:28	BNEP.28.MW311D	40ml	2	HCL	VOC

Comments

MS/MSD & duplicate were collected from the mid depth

Suzanne Whiteside
Signature

4.19.06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 332

Date: 4.19.06
Sampler: Suzanne W.
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 9.27
Well Depth: 21.02
Water Column: 11.75

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01A1431 AA
YSI	600 XL	0416000 AF

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
11:14	5.22	6.83	46	9.04	109.6

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
11:00	BN.EP.28.MW332M	40 ml	2	HCL	VOC
0:00	BNEP 28 MW XD4	"	"	"	"
11:00	MS/MSD BN-EP-28-MW332M	"	"	"	"

Comments

Suzanne Whitesides
Signature

4-19-06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 309 B

Date: 4-19-06
Sampler: Suzanne W
PID Reading: 0.0

Well Construction: 2"
Depth to water: 0.00 Artesian
Well Depth: 59.54
Water Column: 59.54

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01A1431AA
YSI	600 XL	0416 000AF

Time	Temp (celsius)	pH (STD)	SPC uS/cm^{c}	DO (mg/L)	ORP (mV)
12:40	8.50	8.20	244	0.47	-213.0

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:28	BN.E.P.28.MW.309B.D	40 ml	2	HCL	VOC

Comments

Suzanne Whiteside
Signature

4-19-06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: Comb Effluent

Date: 4-18-06
Sampler: Suzanne W.
PID Reading: 0.0

Start Time: _____ **End Time:** _____
Well Construction: _____
Depth to water: _____
Well Depth: _____
Water Column: _____
Total Volume Removed (L) _____

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01A1431AA
YSI	600 XLM	04J16900AF
LaMotte	turbidimeter	5873-1905

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
09:10	—	—	—	10.25	8.01	0.199	6.19	90.5	0.00	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
09:06	BN.EP.28.COMB EFFLUENT		3 - 40 ml	HCL	VOC
09:06	BN.EP.28.COMB EFFLUENT		3 - 40 ml	NONE	1,4 DIOXANE
09:06	BNEP.28.COMB EFFLUENT MS/MSD			same as above	
00:00	BNEP.28.EFFLUENT.XD1				

Comments

Suzanne Whitesell
Signature

4-18-06
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: RAW INFLUENT

Date: 4-18-06
Sampler: Suzanne W.
PID Reading: 0.0

Start Time: **End Time:**
Well Construction:
Depth to water:
Well Depth:
Water Column:
Total Volume Removed (L)

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	01L1207AA
YSI	600 XL	00G1301AB
Lamotte	turbidimeter	5873-1905

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
10:05	—	—	—	9.56	7.06	0.210	3.60	145.3	0.95	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
09:58	BN.EP.28.RAW INFLUENT		3-40ml	HCL	VOC

Comments

Suzanne Whitesicle
Signature

4-18-06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: E. Plume
Location: NASB, Brunswick, ME
Well ID: MW-338C

Date: 4/18/06
Sampler: PL/MC
PID Reading:

Well Construction: 2"
Depth to water: 1.90
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	0160418 AF
YSI	600-XL-BO	01A0138 AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
1239	8.25	8.08	69	5.7	-212
1242	8.25	8.05	68	5.8	-210
1245	8.25	8.06	68	5.7	-208

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
1230	BN-EP-28-MW338C-M		2	HCL	VOC

Comments

Signature

4/18/06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 306

Date: 4-18-06
Sampler: Suzanne W.
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 12.33
Well Depth: 56.70
Water Column: 48.37

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	00L1207AA
YSI	600 XL	0061301AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm^{c}	DO (mg/L)	ORP (mV)
14:05	7.29	7.39	0.066	6.92	210.1

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
13:46	BN-EP-28-MW306D	40ml	2	HCL	VOC

Comments

Suzanne Whiteside
Signature

4-18-06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: MW 303

Date: 4-18-06
Sampler: Suzanne W.
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 10.49
Well Depth: 71.65
Water Column: 61.16

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	00L1207 AA
YSI	600 XL	00G1301 AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm[c]	DO (mg/L)	ORP (mV)
12:25	7.22	7.44	0.231	0.96	-120.9

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:00	BN·EP·28·MW303·D	40 ml	2	HCL	VOC

Comments

Suzanne Whiteside
Signature

4-18-06
Date

Environmental Chemical Corporation

Aqueous Diffusion Sampling Log

Project: Eastern Plume
Location: NASB, Brunswick, ME
Well ID: 212

Date: 4-18-06
Sampler: Suzanne W.
PID Reading: 0.0

Well Construction: 2" PVC
Depth to water: 7.21
Well Depth: 67.08
Water Column: 59.87

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	00L1207 AA
YSI	600 XL	00G1301 AB

Time	Temp (celsius)	pH (STD)	SPC uS/cm^c	DO (mg/L)	ORP (mV)
12:52	7.76	7.21	0.342	0.96	-43.2

Sample Collection

Time	Sample ID	Container	# of Bottles	Preservative	Analyses
12:34	BN-EP-28-MW212-S	40 ml	2	HCL	VOC

Comments

Suzanne Whiteside
Signature

4-18-06
Date

APPENDIX F

Engineering Inspection Report

ENGINEERING INSPECTION REPORT
SITES 1 AND 3

Inspector: **Darren Gainer, Maine PG #371**

Weather: **Sunny, 80 degrees**

Date: **19 June 2006**

1. ***Inspection of ground surface for exposure of geotextile cover (cap erosion):***

   The existing vegetation is well-established grasses and there were no indications of erosion which would result in exposure of the geotextile cover.

2. ***Inspection of ground surface for differential settlement resulting in soil cracking or ponded water:***

   No depressions, ponded water or soil cracking was noted during the inspection. The landfill cap is sloped and all drainage structures are intact and appear to be functioning as designed. Culverts and catch basins are functioning as designed with no evidence of ponded water despite unusually wet weather and high rainfall accumulations. (See photo below)

3. ***Identification of stressed vegetation:***

There were no indications of stressed vegetation on or around the landfill cap. Vegetation, consisting mostly of long grasses and wild flowers, was thick and appeared healthy during the inspection. NASB Environmental has been informed that mowing is advisable at this time.

4. ***Identification of seeps, rooted vegetation (trees), and/or animal burrows:***

Small shrubs or stalky weeds were noted in mounding adjacent to landfill gas vent concrete encasements and on the surface of concrete encasements. There were no deeply rooted shrubs or trees on the slope of the landfill. There were no seeps observed. The number of small animal burrows (rodent holes) in the soil in and around monitoring well casings is increasing on the landfill cap. There were no obvious indications of large animal burrows on the cap. Because monitoring wells are encased in concrete above the ground surface the shrubs and burrows do not present an imminent risk to cap maintenance.

5. ***Identification of deteriorating equipment (i.e., gas probes, monitoring wells, piezometers, fencing, or drainage structures):*** On 27 April 2006 Gas Vent GV-14 was found by the sampling team to have been knocked over and broken off its' stack, presumably by after hours vehicular traffic. NASB Environmental and NASB Weapons Department were notified of the damage at that time. In order to minimize potential health and safety risks, ECC promptly opted to repair the damaged gas vent.

All other gas vent structures and gas probes are intact and appear to be functioning properly.

Drainage culverts were clear of debris and there were no disruptions of the stone revetment.(see photo below)

6. Inspection of parking lots, access roads, and pavement structures.

The access road is in satisfactory condition. Deep tire tracks in the soft soil created by a drill rig when placing nested monitoring wells MW-1301 have been filled and the native grasses have grown back completely. (see picture below)

There are no other pavement structures or parking lot on the landfill cap.

7. ***Inspection of south slope along Mere brook for the presence of erosion or sloughing.***

   The slope along Mere Brook is in good shape. There were no indications of sloughing or erosion. Vegetation was thick and well established.

Summary: Overall landfill cap and appurtances are in good conditions. No corrective actions are recommended at this time.

Signature _____ Date 5/20/05

Site 1 & 3 Landfill Photos

Small animal burrow next to concrete gas vent.

Small animal burrow on the slope of the landfill.

Evidence of rutting on the top of the landfill cap due to improper vehicle operation.

Evidence of rutting on the top of the landfill cap due to improper vehicle operation.

Filter fabric exposure, by design not due to erosion.

Filter fabric exposure, by design not due to erosion.

APPENDIX G

Analytical Report Form I Data Tables

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITE EASTERN PLUME
APRIL 2006 SAMPLING ROUND 28 (SDG BNASEP0421A)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE EASTERN PLUME MONITORING EVENT 28

DATE: 3/30/2007

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 Lab
SDG #:_NASBEP0421A
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Site Eastern Plume

# of SAMPLES/MATRIX: VOC Aq (18 samples, 1 TB, 3FD), MNA (1 sample), Pesticide (1 sed and 1 sed FD), TAL Metals (1 sed and 1 sed FD)
VALIDATION CONTRACTOR:__ECC/ASW
VALIDATOR'S NAME: Sherri Pullar
DV Completion Date:_16 August, 2006
Date Sampled__21 April 2006.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	MNA Ground Water Quality	Methane, Ethene, Ethane (Lab; ATL)	Pesticides	TAL Metals	MNA Metals
1	Preservation and HT	M	O	O	O	O	O
2	Instrument Performance Check	M	-	-	O	O	O
3	Initial Calibration:	Z	O	O	O	O	O
4	Continuing Calibration:	M	O	O	O	O	O
5	Blanks:	O	O	O	O	O	O
6	Surrogate Compounds:	M	-	-	O	-	-
7	Internal Standards	O	-	-	O	-	-
8	Matrix Spike/Matrix Spike Duplicate:	M	O	O	O	M	O
9	Sensitivity Check:	O	O	M	O	O	O
10	PE Samples- Accuracy Check	M	O	O	O	M	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:	-	-	-	-	-	-
15	Data Completeness	O	O	M	O	O	O
16	Overall Evaluation of Data:	M	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): VOC; ICAL; SPCC <MPC for 1,1,2,2 TCA; these VOCs are qualified as rejected.

AREAS OF CONCERN: (M items):

Pesticides: Results for hexachlorobenzene qualified UJ in samples 598 and 599 due to %D>MPC.

TAL Metals: Results for Fe & Zn in samples 598 and 599 were qualified as J due to LCS %R>UCL. Results for K, V, and Na, were qualified as J for detects and UJ for non-detects in sample 598 and 599 due to MS %R<LCL. Co and Na qualified J for detects and UJ for non-detects in samples 598 and 599 due to field duplicate RPD >MPC limit.

MNA Water Quality: None.

VOC: Results for samples 605, 606, 607, 608, 610, 611, 612, and 613 and the re-analyses of 605, 606, 607, 608, 610, 611, 612, and 613 were qualified with J for detections and UJ for non-detects due to holding time > MPC limit. The following detects are qualified J; acetone in samples 593RE, 595, 595RE, 596, 597, 604RE and acetone and 1,1-dichloroethanein sample 604 due to surrogate recoveries outside MPC limits. All sample results were qualified J for detects and UJ for non-detects in samples 593, 596RE, 597RE, 600, 600RE, 601, 601RE, 602, 602RE, 603, 603RE due to surrogate recoveries outside MPC limits. Acetone is qualified J in samples595 & 597 due to field duplicate RPD >MPC limit. Chloromethane qualified UJ in samples 593RE, 594RE, 595RE, 604, and 604RE and vinyl chloride qualified UJ in samples 604, 595RE, 594RE, and 604RE due to LCS %R>UCL. Acetone qualified J in samples detects qualified J in samples 294, 295, 298, 299, 300, 302, 305, 306, 307, 308, 309, 310, 311, 312, 313, 315, 317, 318, 319, 320, 322, 324, 304, and 320 and 1,2 DCA qualified J in samples 298, 299, 300, 307, 308, 309, 310, 316, 317, 318, & 320 due to MS/MSD %R outside MPC limits. All VOC detects are qualified J and all non-detects are qualified UJ due to ICAL/CCV SPCCs for 1,1,2,2-TCA outside MPC limits. Surrogate 1,2-DCA-d4 qualified J in all samples due to %D>MPC.

MNA Metals; Fe result qualified J in sample 609 due to LCS/LCSD RPD>MPC limit.

Methane, ethene, & ethane (MNA VOC); MNA VOC MS/MSD: samples collected but not analyzed; matrix bias undetermined. VOC MNA MS/MSD RPD: MS/MSD not analyzed; laboratory accuracy by this QC check was not determined. Sensitivity: MRL is equal to or less than MNA scoring criteria; however, sensitivity does not meet MNA Technical letter requirements.

COMMENTS: VOC analysis SPCC failure (1,1,2,2 TCA) indicates potential low bias in data. The methane, ethene, and ethane data is validated and reported herein per the SDG provided by the laboratory

NAS BRUNSWICK- EASTERN PLUME – APRIL 2006
DATA SUMMARY TABLE – AQUEOUS SDG BNASEP0421A

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	J	0.37	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Bromoform	0.57	ug/L	J	0.37	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	3	ug/L	J	0.27	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-SW10	AI03593	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-SW11	AI03594	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Acetone	14	ug/L	J	0.59	5
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-SW13	AI03595	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Acetone	11	ug/L	J	0.59	5
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-SW14	AI03596	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Acetone	14	ug/L	J	0.59	5
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-SW-XD1	AI03597	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	10	Aluminum Total	6000	mg/Kg		0.0543	2
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Antimony Total Solid	7.5	mg/Kg	U		5
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Arsenic Total	3.9	mg/Kg		0.0065	1
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Barium Total	52	mg/Kg		0.0022	1
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Beryllium Total	0.75	mg/Kg	U	0.0017	0.5
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Cadmium Total	1.5	mg/Kg	U	0.0015	1
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Calcium Total	1000	mg/Kg		0.366	100
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Chromium Total	13	mg/Kg		0.0035	1
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Cobalt Total	8.9	mg/Kg	J	0.0083	5
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	2	Copper Total	1.7	mg/Kg		0.0036	1
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	10	Iron Total	22000	mg/Kg	J	0.0136	1
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Lead Total Solid	40	mg/Kg		0.0049	1
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Magnesium Total	2100	mg/Kg		0.1868	100
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Manganese Total	720	mg/Kg		0.0017	1
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Nickel Total	10	mg/Kg		0.003	1
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Potassium Total	770	mg/Kg	J	0.0968	100
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Selenium Total	7.5	mg/Kg	U	0.0112	5
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Silver Total	0.75	mg/Kg	U	0.004	0.5
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Sodium Total	150	mg/Kg	UJ	0.4804	100
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Thallium Total	7.5	mg/Kg	U	0.0059	5
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Vanadium Total	22	mg/Kg	J	0.0093	5
BN-EP-28-SED11	AI03598	EPA 6010B	4/21/2006	1	Zinc Total	58	mg/Kg	J	0.018	1
BN-EP-28-SED11	AI03598	EPA 7471A	4/21/2006	1	Mercury Total	0.071	mg/Kg	U	0.0001	0.02
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	4,4-DDD	140	ug/Kg	U	0.0689	20
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	4,4-DDE	27	ug/Kg	U	0.1384	4

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	4,4-DDT	140	ug/Kg	U	0.1136	20
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Aldrin	14	ug/Kg	U	0.1487	2
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Alpha-BHC	14	ug/Kg	U	0.0804	2
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	1	alpha-Chlordane	14	ug/Kg	U		
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Beta-BHC	14	ug/Kg	U	0.1184	2
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Chlordane	140	ug/Kg	U	0.0095	20
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Delta-BHC	14	ug/Kg	U	0.0923	2
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Dieldrin	27	ug/Kg	U	0.0853	4
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Endosulfan I	14	ug/Kg	U	0.0743	2
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Endosulfan II	27	ug/Kg	U	0.1547	4
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Endosulfan Sulfate	270	ug/Kg	U	0.0691	40
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Endrin	27	ug/Kg	U	0.1192	4
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Endrin Aldehyde	140	ug/Kg	U	0.1166	20
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Endrin Ketone	140	ug/Kg	U	0.0589	20
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Gamma-BHC (Lindane)	14	ug/Kg	U	0.121	2
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	1	gamma-Chlordane	14	ug/Kg	U		
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Heptachlor	14	ug/Kg	U	0.1412	2
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Heptachlor Epoxide	14	ug/Kg	U	0.0835	2
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	1	Hexachlorobenzene	14	ug/Kg	UJ		
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Methoxychlor	140	ug/Kg	U	0.1287	20
BN-EP-28-SED11	AI03598	EPA 8081	4/21/2006	7	Toxaphene	140	ug/Kg	U	1.512	20
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	10	Aluminum Total	6400	mg/Kg		0.0543	2
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Antimony Total Solid	7.8	mg/Kg	U		5
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Arsenic Total	2.6	mg/Kg		0.0065	1
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Barium Total	36	mg/Kg		0.0022	1
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Beryllium Total	0.78	mg/Kg	U	0.0017	0.5
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Cadmium Total	1.6	mg/Kg	U	0.0015	1
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Calcium Total	1400	mg/Kg		0.366	100
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Chromium Total	9.4	mg/Kg		0.0035	1
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Cobalt Total	7.8	mg/Kg	UJ	0.0083	5
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Copper Total	1.9	mg/Kg		0.0036	1
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	10	Iron Total	21000	mg/Kg	J	0.0136	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Lead Total Solid	28	mg/Kg		0.0049	1
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Magnesium Total	1600	mg/Kg		0.1868	100
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Manganese Total	460	mg/Kg		0.0017	1
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Nickel Total	7.3	mg/Kg		0.003	1
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Potassium Total	550	mg/Kg	J	0.0968	100
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Selenium Total	7.8	mg/Kg	U	0.0112	5
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Silver Total	0.78	mg/Kg	U	0.004	0.5
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Sodium Total	340	mg/Kg	J	0.4804	100
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Thallium Total	7.8	mg/Kg	U	0.0059	5
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Vanadium Total	15	mg/Kg	J	0.0093	5
BN-EP-28-SED-XD1	AI03599	EPA 6010B	4/21/2006	1	Zinc Total	38	mg/Kg	J	0.018	1
BN-EP-28-SED-XD1	AI03599	EPA 7471A	4/21/2006	1	Mercury Total	0.072	mg/Kg	U	0.0001	0.02
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	4,4-DDD	140	ug/Kg	U	0.0689	20
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	4,4-DDE	28	ug/Kg	U	0.1384	4
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	4,4-DDT	140	ug/Kg	U	0.1136	20
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Aldrin	14	ug/Kg	U	0.1487	2
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Alpha-BHC	14	ug/Kg	U	0.0804	2
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	1	alpha-Chlordane	14	ug/Kg	U		
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Beta-BHC	14	ug/Kg	U	0.1184	2
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Chlordane	140	ug/Kg	U	0.0095	20
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Delta-BHC	14	ug/Kg	U	0.0923	2
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Dieldrin	28	ug/Kg	U	0.0853	4
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Endosulfan I	14	ug/Kg	U	0.0743	2
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Endosulfan II	28	ug/Kg	U	0.1547	4
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Endosulfan Sulfate	280	ug/Kg	U	0.0691	40
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Endrin	28	ug/Kg	U	0.1192	4
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Endrin Aldehyde	140	ug/Kg	U	0.1166	20
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Endrin Ketone	140	ug/Kg	U	0.0589	20
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Gamma-BHC (Lindane)	14	ug/Kg	U	0.121	2
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	1	gamma-Chlordane	14	ug/Kg	U		
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Heptachlor	14	ug/Kg	U	0.1412	2
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Heptachlor Epoxide	14	ug/Kg	U	0.0835	2
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	1	Hexachlorobenzene	14	ug/Kg	UJ		

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Methoxychlor	140	ug/Kg	U	0.1287	20
BN-EP-28-SED-XD1	AI03599	EPA 8081	4/21/2006	7	Toxaphene	140	ug/Kg	U	1.512	20
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	9.6	ug/L	J	0.34	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	8.2	ug/L	J	0.26	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	2-Hexanone	1	ug/L	UJ	0.53	5
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	1	ug/L	UJ	0.48	5
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Acetone	2.9	ug/L	J	0.59	5
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Tetrachloroethene	4.7	ug/L	J	0.36	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Trichloroethene	8.6	ug/L	J	0.31	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-SEEP11	AI03600	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	9.4	ug/L	J	0.34	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	8	ug/L	J	0.26	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Acetone	1.6	ug/L	J	0.59	5
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Tetrachloroethene	4.6	ug/L	J	0.36	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Trichloroethene	8.6	ug/L	J	0.31	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-SEEP-XD1	AI03601	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Acetone	2.2	ug/L	J	0.59	5
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-SW12	AI03602	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Styrene	10	ug/L	UJ	0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-SEEP10	AI03603	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	0.8	ug/L	J	0.45	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	10	ug/L	UJ	0.45	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	2.8	ug/L	J	0.26	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Acetone	35	ug/L	J	0.59	5
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW231AD	AI03604	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1.6	ug/L	J	0.45	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	0.78	ug/L	J	0.45	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Acetone	43	ug/L	J	0.59	5
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	3.3	ug/L	J	0.27	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Trichloroethene	5.2	ug/L	J	0.31	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW230AD	AI03605	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	8.7	ug/L	J	0.34	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	0.92	ug/L	J	0.45	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	2	ug/L	J	0.45	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	7.7	ug/L	J	0.26	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Acetone	57	ug/L	J	0.59	5
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	10	ug/L	UJ	0.39	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Trichloroethene	10	ug/L	J	0.31	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW205D	AI03606	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1.1	ug/L	J	0.34	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	7	ug/L	J	0.26	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Acetone	47	ug/L	J	0.59	5
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Tetrachloroethene	1.8	ug/L	J	0.36	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Trichloroethene	4	ug/L	J	0.31	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW225AM	AI03607	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	50	ug/L	J	0.34	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	16	ug/L	J	0.45	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	24	ug/L	J	0.45	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	18	ug/L	J	0.26	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Tetrachloroethene	5	ug/L	J	0.36	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Trichloroethene	28	ug/L	J	0.31	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-EW2A	AI03608	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW224	AI03609	EPA 300	4/21/2006	1	Sulfate	9.4	mg/L		0.31	1
BN-EP-28-MW224	AI03609	EPA 310.1	4/21/2006	1	Alkalinity	8.5	mg/L		0.00035	5
BN-EP-28-MW224	AI03609	EPA 353.2	4/21/2006	1	Nitrate/Nitrite Total	1.2	mg/l			0.1
BN-EP-28-MW224	AI03609	EPA 415.1	4/21/2006	1	Total Organic Carbon	1	mg/L		0.343	1
BN-EP-28-MW224	AI03609	EPA 6010B	4/21/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28-MW224	AI03609	EPA 6010B	4/21/2006	1	Iron Total, ppb	390	ug/L	J		25
BN-EP-28-MW224	AI03609	EPA 6010B	4/21/2006	1	Manganese Total, ppb	44	ug/L			2
BN-EP-28-MW224	AI03609	EPA 9056	4/21/2006	1	Chloride	23	mg/L		0.00021	1
BN-EP-28-MW224	AI03609	EPA 9056	4/21/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW224	AI03609	VSK-175	4/21/2006	2	Ethane	10	ug/L	U		5
BN-EP-28-MW224	AI03609	VSK-175	4/21/2006	2	Ethene	10	ug/L	U		5
BN-EP-28-MW224	AI03609	VSK-175	4/21/2006	2	Methane	10	ug/L	U		5
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Acetone	55	ug/L	J	0.59	5
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW224M	AI03610	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1.1	ug/L	J	0.26	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW224	AI03611	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1.2	ug/L	J	0.26	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MWXD1	AI03612	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Methylene Chloride	6.6	ug/L	J	0.51	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-QT3	AI03613	EPA 8260B	4/21/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-QT3	AI03613	VSK-175	4/21/2006	2	Ethane	10	ug/L	U		5
BN-EP-28-QT3	AI03613	VSK-175	4/21/2006	2	Ethene	10	ug/L	U		5
BN-EP-28-QT3	AI03613	VSK-175	4/21/2006	2	Methane	10	ug/L	U		5

FIELD DUPLICATE WORKSHEET

SDG: BNASEP0421A

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qaulifier	FD RPD (%)
BN-EP-28-MW224	1,2-Dichloroethene (total)	EPA 8260B	1.1	ug/L		BN-EP-28-MWXD1	1.2	ug/L		8.7
BN-EP-28-SW13	Acetone	EPA 8260B	14	ug/L		BN-EP-28-SW-XD1	14	ug/L		0
BN-EP-28-SEEP11	1,1,1-Trichloroethane	EPA 8260B	9.6	ug/L		BN-EP-28-SEEP-XD1	9.4	ug/L		2.1
BN-EP-28-SEEP11	1,2-Dichloroethene (total)	EPA 8260B	8.2	ug/L		BN-EP-28-SEEP-XD1	8	ug/L		2.5
BN-EP-28-SEEP11	Acetone	EPA 8260B	2.9	ug/L	J	BN-EP-28-SEEP-XD1	1.6	ug/L	J	57.8
BN-EP-28-SEEP11	Tetrachloroethene	EPA 8260B	4.7	ug/L		BN-EP-28-SEEP-XD1	4.6	ug/L		2.2
BN-EP-28-SEEP11	Trichloroethene	EPA 8260B	8.6	ug/L		BN-EP-28-SEEP-XD1	8.6	ug/L		0
BN-EP-28-SED11	Aluminum Total	EPA 6010B	6000	mg/Kg		BN-EP-28-SED-XD1	6400	mg/Kg		6.5
BN-EP-28-SED11	Arsenic Total	EPA 6010B	3.9	mg/Kg		BN-EP-28-SED-XD1	2.6	mg/Kg		40
BN-EP-28-SED11	Barium Total	EPA 6010B	52	mg/Kg		BN-EP-28-SED-XD1	36	mg/Kg		36.4
BN-EP-28-SED11	Calcium Total	EPA 6010B	1000	mg/Kg		BN-EP-28-SED-XD1	1400	mg/Kg		33.3
BN-EP-28-SED11	Chromium Total	EPA 6010B	13	mg/Kg		BN-EP-28-SED-XD1	9.4	mg/Kg		32.1
BN-EP-28-SED11	Cobalt Total	EPA 6010B	8.9	mg/Kg	J	BN-EP-28-SED-XD1	7.8	mg/Kg	UJ	NC
BN-EP-28-SED11	Copper Total	EPA 6010B	1.7	mg/Kg		BN-EP-28-SED-XD1	1.9	mg/Kg		11.1
BN-EP-28-SED11	Iron Total	EPA 6010B	22000	mg/Kg		BN-EP-28-SED-XD1	21000	mg/Kg		4.7
BN-EP-28-SED11	Lead Total Solid	EPA 6010B	40	mg/Kg		BN-EP-28-SED-XD1	28	mg/Kg		35.3
BN-EP-28-SED11	Magnesium Total	EPA 6010B	2100	mg/Kg		BN-EP-28-SED-XD1	1600	mg/Kg		27
BN-EP-28-SED11	Manganese Total	EPA 6010B	720	mg/Kg		BN-EP-28-SED-XD1	460	mg/Kg		44.1
BN-EP-28-SED11	Nickel Total	EPA 6010B	10	mg/Kg		BN-EP-28-SED-XD1	7.3	mg/Kg		31.2
BN-EP-28-SED11	Potassium Total	EPA 6010B	770	mg/Kg		BN-EP-28-SED-XD1	550	mg/Kg		33.3
BN-EP-28-SED11	Sodium Total	EPA 6010B	150	mg/Kg	UJ	BN-EP-28-SED-XD1	340	mg/Kg	J	NC
BN-EP-28-SED11	Vanadium Total	EPA 6010B	22	mg/Kg		BN-EP-28-SED-XD1	15	mg/Kg		37.8
BN-EP-28-SED11	Zinc Total	EPA 6010B	58	mg/Kg		BN-EP-28-SED-XD1	38	mg/Kg		41.7

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	**Sediment**	**-**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04216A**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-SED11	AI03598
BN-EP-28-SED-XD1	AI03599 field duplicate to AI03598

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 and ≤ 50 soil (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 598 599 FD Pair 598/599; Na not detected in the field sample, but had a low-level detect in the FD. Co not detected in the FD, but had a low-level detect in the field sample.	X	Co and Na qualified J for detects and UJ for non-detects in samples 598 and 599.	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	%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 and >IDL. No samples qualified.	X	-	

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 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	All LCS %R's were within MPC, except for Fe and Zn LCS %R>UCL for soil Results for Fe & Zn in samples 598 and 599 were qualified as J. Laboratory precision is acceptable.	X	Results for Fe & Zn in samples 598 and 599 were qualified as J.	
LCS/LCSD RPD	1) RPD<20%	All 6010B/Hg/Sb/ LCS/LCSD RPDs are within MPC with the exception of Fe.	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	Field samples AI03598 used for MS. K , Na,V, & Zn MS %R<LCL but the matrix spike was not greater than 4X the field sample level. Zn was qualified J due to LCS %R>MPC limits. Al, Fe, & Mn MS%R<LCL but the native sample levels were >4X the MS, no qualified samples. Lead is noted as having MS %R out however it is in the 75-125% range, no samples qualified. No MS was analyzed for aqueous sample.	X	Results for K, V, and Na, were qualified as J for detects and UJ for non-detects in sample 598 and 599.	
MS/MSD RPD	MS/MSD RPD<20%	All 6010B, Se, Sb, Tl, Hg MS/MSD RPDs within limits. Laboratory precision is acceptable.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Field sample: AI03598 used for lab replicate. All RPDs within limits. Laboratory precision is acceptable.	X	-	
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.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
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.	Field sample AI03599 for SD. %D's within MPC limits.	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%;	6010B/Hg/Sb/ Se/Tl CCV %R's within MPC limits. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
	R – reject data (R)				
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachment A-1)	AI03598 used for PDS. All %R within limits, except the following which had %R<LCL for K , Na, & Zn. For all of these elements the PDS spike was not greater than 4X the native element level. Samples were already qualified due to MS/MSD %R<MPC limits. No apparent matrix bias. No samples qualified. Al, Fe, & Mn PDS%R<LCL but the native sample levels were >4X the PDS, no qualified samples. No apparent matrix bias. No samples qualified.	X	-	
*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; metals except for Se, Sb, Tl, and Hg. The LCS %R;s are within limits, except for Fe and Zn. The Matrix spikes were within limits in the MS/MSD, except for K , Na,V, & Zn (<LCL). Laboratory accuracy is acceptable for all metals. The LCS/LCSD RPDs were within limits for all 6010 elements. Laboratory precision is acceptable as determined by the laboratory duplicate.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
		Hg. Se, Tl, and Sb analytical precision and accuracy within MPC limits. Lab preparation blank; non-detected for all analytes. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Field Sample Field Duplicate 598 599 FD Pair 598/599; Na not detected in the field sample, but had a low-level detect in the FD. Co not detected in the FD, but had a low-level detect in the field sample.			

*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) **VOCs 5030B/5035/8260B**
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	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous and solid**	**HCl, MeOH, $NaHSO_4$**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP0421A**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-SW10	AI03593
BN-EP-28-SW11	AI03594
BN-EP-28-SW13	AI03595
BN-EP-28-SW14	AI03596
BN-EP-28-SWXD1	AI03597 (field duplicate for AI03595)
BN-SP-28-SEEP-11	AI03600
BN-EP-28-SEEP-XD1	AI03601 (field duplicate for AI03600)
BN-EP-28-SW12	AI03602
BN-EP-28-SEEP10	AI03603
BN-EP-28-MW231AD	AI03604
BN-EP-28-MW230AD	AI03605
BN-EP-28-MW205D	AI03606
BN-EP-28-MW225AM	AI03607
BN-EP-28-EW2A	AI03608
BN-EP-28-MW224M	AI03610
BN-EP-28-MW224	AI03611
BN-EP-28-MWXD1	AI03612 (field duplicate for AI03611)
BN-EP-28-QT3	AI03613

Note: Samples are described below in the data worksheets by reference to the last 3 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 preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (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) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	The following samples were analyzed outside holding time by 1 to 2 days: 605, 606, 607, 608, 610, 611, 612, 613 and the reanalysis of 605, 606, 607, 608, 610, 611, 612, and 613. Detections qualified J and non-detects qualified UJ for the above samples.	X	Results for samples 605, 606, 607, 608, 610, 611, 612, and 613 and the re-analyses of 605, 606, 607, 608, 610, 611, 612, and 613 were qualified with J for detections and UJ for non-detects.	Potential low bias due to holding time exceedances.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
% 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 – acetone, 2-butanone or Mecl. 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 *check 10% of raw chromatograms for false +/-, check for transcription errors	Method blanks by date: 5 May 06: acetone 3.68 and Mecl 0.61 5 May 06: 1,1,2-trichloroethane 1.11, dibromochloromethane 0.79, and bromoform 0.80. All of these compounds were either non-detect or >5X (10x) the blank concentration in all samples. No samples 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	Aqueous tripblank BN-EP-28-QT3 Non-detect for all LTMP TCL VOCs with the exception of MeCl. MeCl non-detect in all samples. No apparent cross contamination. 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	6) >Upper Cal Range J-detects - ensure instrument blank performed 7) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <MRL: were qualified J. No reported results greater than the upper quantitation limit.	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	Inv en-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 surrogated (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 QAPP MPC limits, but 1,2 Dichloroethane-D4 >UCL exceeded laboratory limits in all samples. Surrogate 4-Bromofluorobenzene exceeded LCL in samples 593, 596RE, 597RE, 600, 601, 602, 603, 601RE, 602RE, 603RE, 605, 607, 605RE, 606RE, 607RE, 608RE, 611, 611RE, 613RE. Surrogate Toluene-d8 exceeded LCL in samples 600RE, 603RE, 605, 605RE, 606RE, 607RE, 608RE, 610, 611,611RE, 612RE, 613, 613RE, and 610RE. Surrogate Dibromofluoromethane not analyzed. No sample qualifications. Note Results in samples 605, 606, 607, 608, 610, 611, 612, and 613 and the re-analysis of samples 605, 606, 607, 608, 610, 611, 612, and 613 were qualified as J/UJ due to the HT outside MPC. All samples have been re-analyzed with similar results. Use original analysis for decision making (re-analysis qualified "ZZZ")	X	The following detects are qualified J; acetone in samples 593RE, 595, 595RE, 596, 597, 604RE and acetone and 1,1-dichloroethanein sample 604. All sample results were qualified J for detects and UJ for non-detects in samples 593, 596RE, 597RE, 600, 600RE, 601, 601RE, 602, 602RE, 603, 603RE.	
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 recoveries were within MPC limits, except LCS %R's for: 5/2/06; LCS %R > UCL – chloroethane, acetone, trans-1,2-dichloroethene, 1,1-DCA, 2-butanone, cis-1,2-DCE, chloroform, 1,2-DCA, 1,1,2,2-TCA. 5/3/06; LCS %R<LCL –chloromethane, vinyl chloride. LCS %R >UCL –acetone, methylene chloride, 1,1-DCA, cis-1,2-DCE, chloroform, carbon tetrachloride, 1,2-DCA, and 1,1,2,2-TCA. 5/4/06 (8:44); LCS %R > UCL – chloroethane, acetone, methylene, chloride, 1,1-DCA, and 1,1,2,2-TCA. 5/4//06 (18:32); LCS %R<LCL – chloromethane, vinyl chloride, LCS %R >UCL –acetone, methylene chloride, 1,1-DCA, cis-1,2-DCE, chloroform, 1,2-DCA, and 1,1,2,2-TCA. 5/5/06 (9:14); LCS %R<LCL – chloromethane, vinyl chloride, LCS %R >UCL –acetone, methylene chloride, trans-1,2-DCE, 1,1-DCA, 2-butanone, cis-1,2-DCE, chloroform, 1,1,1-TCA, Carbon tetrachloride, 1,2-DCA, Benzene, and 1,1,2,2-TCA. 5/5/06 (16:37); LCS %R<LCL –	X	Chloromethane qualified UJ in samples 593RE, 594RE, 595RE, 604, and 604RE. Vinyl chloride qualified UJ in samples 604, 595RE, 594RE, and 604RE.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		chloromethane, vinyl chloride, LCS %R >UCL –acetone, methylene chloride, trans-1,2-DCE, 1,1-DCA, chloroform, 1,2-DCA, and 1,1,2,2-TCA.			
LCSD RPD	RPD ≤20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J- detects	LCS/LCSD RPD>20% for chloroethane on 5/2/06 chloromethane and methylene chloride on 5/5/06 (16:37). These compound were non-detect in all associated samples. No samples qualified. Laboratory precision is acceptable	X	-	
*MS/MSD/unspike sample RSD	1)For unspiked compounds if reported, Non- MS spike compounds <50% RSD calculated from MS/MSD/Unspiked Qualification: >50% RSD J-detects 2)*recalculate the RPD (within 10% of lab)	NA	-	-	
*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 8) *Matrix effects- MS/MSD, surrogated, PDS. 9) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 10) *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.	All detections are acceptable. No samples qualified.	X	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 11) PES > acceptance criteria – Detects in samples J, 12) PES<acceptance criteria – Detects J, NDs –R 13) VOA/SV-XI14 other criteria 14) *% of PES sample above and below	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)				
MS/MSD Recovery	1) Attachment A-2 of LTMP 2) 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) * Recalculate the %R (within 10% of lab)	Native sample was sample 595. All MS/MSD recoveries within MPC, except for acetone, 1,1-DCE, carbon disulfide, methylene chloride, trans-1,2-DCE, 1,1-DCA, 1,1,2,2-TCA which have MS/MSD %R's>UCL. Chloromethane, vinyl chloride, which have MS/MSD %R's<LCL Hexachlorobutadiene which had MS/MSD %R < 10%. Native sample was sample 600. All MS/MSD recoveries within MPC, except for acetone, methylene chloride, trans-1,2-DCE, 1,1-DCA, 1,2-DCA, 1,1,2,2-TCA which have MS/MSD %R's>UCL. Chloromethane, vinyl chloride, which have MS/MSD %R's<LCL	X	Acetone qualified J in samples detects qualified J in samples 294, 295, 298, 299, 300, 302, 305, 306, 307, 308, 309, 310, 311, 312, 313, 315, 317, 318, 319, 320, 322, 324, 304, and 320. 1,2 DCA qualified J in samples 298, 299, 300, 307, 308, 309, 310, 316, 317, 318, & 320.	-
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS sample UJ-non detects * recalculate RPD	Native sample was sample 595. All MS/MSD RPDs were within MPC, except for chloromethane, 1,1-DCE, carbon disulfide, and hexachlorobutadiene. Laboratory accuracy/precision are acceptable. No samples qualified. Native sample was sample 600. All MS/MSD RPDs were within MPC, except for chloromethane, chloroethane, acetone, methylene chloride, and trans-1,2-DCE. Laboratory accuracy/precision are acceptable. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
Field Dup RPD	1) RPD ≤ 30% aq. ≤ 50 soil for Results > PQL (FD pair only) J-detects (both > PQL) 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. *Recalculate the concentrations for one compound and the PQL	Field sample Field duplicate 611 612 595 597 600 601 The FD pair 611/612 had an RPD within limits for 1,1-Dichloroethene (total). The FD pair 595/597 had an RPD within limits for acetone. The acetone detections in FD pair 600/601 had FD RPD>30%. Overall precision is acceptable.	X	Acetone is qualified J in samples595 & 597.	
*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 *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 7) *check for IS transcription errors 8) FBZ = fluroobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	Internal standards and RT's within MPC limits.	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) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRL are less than LTMP QAPP MRLs. MRLs are less than MEG (except for vinyl chloride) and MCLs. Sensitivity is acceptable.	X	-	
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 within MPC limits.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCE, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs	Instrument; Saviour 1 May 2006 All RRF's within MPC limits for all VOC's of concern. All CCCs are in MPC. All SPCC are in MPC except for 1,1,2,2	X	1,1,2,2 TCA non-detects in ALL samples are qualified as R	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0.3, 1122TCA>0.3 (J –detects, R/UJ 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, CS, 1,/22/03 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)	TCA ICAL SPCC was evaluated before sample analysis but due to holding time considerations, all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system.		All VOC detects are qualified J and all non-detects are qualified UJ	
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; Saviour 1 May 2006 All %RSD < 30 with the exception of chloroethane, methylene chloride, & 1,1,2,2-tetrachloroethane. Laboratory narrative states all compounds with %RSD>MPC were fitted with linear or quadratic curves. These curves were provided by the laboratory for evaluation. 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	Same as CCV. Please see the CCV section below.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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; Saviour 2 May 2006: chloroethane, acetone, trans-1,2-DCE, 1,1-DCA, 2-Butanone, cis-1,2-DCE, chloroform, 1,1,1-TCA, carbon tetrachloride, 1,2-dichloroethane, benzene, 1,1,2,2-TCA, hexachlorobutadiene and surrogate 1,2-DCA-d4, have %D>MPC 3 May 06: vinyl chloride, chloroethane, trans-1,2-DCE, 1,1-DCA, cis-1,2-DCE, chloroform, 1,1,1-TCA, 1,2-dichloroethane, benzene, 4-methyl-2-pentanone, 2-hexanone, tetrachloroethene, bromoform, 1,1,2,2-TCA, hexachlorobutadiene and surrogate 1,2-DCA-d4 have %D>MPC 4 May 06: acetone, 1,1-DCA, 2-Butanone, cis-1,2-DCE, chloroform, 1,1,1-TCA, carbon tetrachloride, 1,2-dichloroethane, benzene, 2-hexanone, 1,1,2,2-TCA, hexachlorobutadiene and surrogate 1,2-DCA-d4, have %D>MPC 4 May 06: bromomethane, chloroethane, acetone, 2-Butanone, cis-1,2-DCE, chloroform, 1,1,1-TCA, trans-1,2-DCE, 1,1-DCA, 1,2-dichloroethane, benzene, 2-hexanone, tetrachloroethene, 1,1,2,2-TCA, hexachlorobutadiene, and surrogate 1,2-DCA-d4, have %D>MPC have %D>MPC 05 May 2006 chloroethane, acetone, MeCl, trans-1,2-DCE, 1,1-DCA, 2-Butanone, cis-1,2-DCE, chloroform, 1,1,1-TCA, carbon tetrachloride, 1,2-dichloroethane, benzene, 2-hexanone, tetrachloroethene, 1,1,2,2-TCA, hexachlorobutadiene and surrogate 1,2-DCA-d4, have %D>MPC 05 May 2006 chloroethane, acetone, 1,2-DCA, carbon disulfide, MeCl, trans-1,2-DCE, 1,1-DCA, cis-1,2-DCE, chloroform, 1,1,1-TCA, carbon tetrachloride, 1,2-dichloroethane, benzene, 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-TCA, hexachlorobutadiene, and surrogate 1,2-DCA-d4, have %D>MPC All SPCC are in MPC except for 1,1,2,2 TCA ICAL SPCC was evaluated before sample	X	Surrogate 1,2-DCA-d4 qualified J in all samples.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		analysis but due to holding time considerations, all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system. Note all samples were qualified due to SPCC > MPC limits for 1,1,2,2-TCA in ICAL. See above.			
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Results for samples 605, 606, 607, 608, 610, 611, 612, and 613 and the re-analyses of 605, 606, 607, 608, 610, 611, 612, and 613 were qualified with J for detections and UJ for non-detects due to HT>MPC limits. Laboratory precision and accuracy should be considered to have a strong potential for low bias. Accuracy is within limits, except for chloromethane and vinyl chloride which had high LCS %R and high CCV %D. The matrix spike for acetone and 1,2-DCA also >UCL. No apparent matrix bias. Surrogates were greater than the UCL for 1,2 DCA-D4 in nearly all samples. 4-Surrogates bromofluorobenzene and toluene-d8 also had recoveries <LCL in numerous samples. Use original analysis for decision making (re-analysis qualified "ZZZ") Laboratory precision is acceptable since LCS/LCSD RPDs and MS/MSD RPD were within limits. The reported MRL's and MDL's provide adequate sensitivity to support evaluation against MEG and MCL's for all compounds except vinyl chloride. Tune checks within MPC limits. ICALs: SPCC was out of limits for 1,1,2,2 TCA. This VOC was rejected. The	X	-	Potential low bias due to SPCC failure and holding time exceedances.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		samples were re-analyzed but not with a proper ICAL. All other samples were qualified J (detects) or UJ (non-detects), because of the SPCC failure. ICV: within limits. CCV: Surrogate 1,2-DCA-d4, had %D>MPC. Numerous other compounds were outside the limits but were already qualified due to SPCC failure. Method blank samples contained acetone, MeCl, 1,1,2-trichloroethane, dibromochloromethane, bromoform, however, no samples were qualified since all of these compounds were either non-detect or >5X (10x) the blank concentration in all samples. Sampling Error Evaluation: Tripblank was non-detect for all VOCs. No apparent field cross contamination. Field sample / Field duplicate 611 / 612 595 / 597 600 / 601 The FD pair 611/612 had an RPD within limits for 1,1-Dichloroethene (total). The FD pair 595/597 had an RPD within limits for acetone. The acetone detections in FD pair 600/601 had FD RPD>30%. Overall precision is acceptable.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Lab Correspondence: None.

ECC Region I Data Review Worksheet (rv 3) **5030/ (Region I Methane SOP aka VSK-175)**
Project: NAS Brunswick ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance and VSK-175 SOP (EPA 2001)**

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**Temp (^oC): <6 ^oC** **1-cooler to ATL 2.6 ^oC**	**Air Toxic Laboratory, Folsom, CA**	**ATL SDG: 0604471 subcontracted to ATL NEL SDG BNASEP0421A**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
AI03609 (BN-EP-28-MW224)	0604471-01A
AI03613 (BN-EP-28-QT3)	0604471-01A

Note: Samples are described below in the data worksheets by reference to the last three digits/letters of the Lab Sample Number.
Note: The ATL SDGs do not correspond to the NEL SDGs. Samples IDs in parenthesis correspond to the NEL SDG.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° 3) Unpreserved if analyzed for CO_2 4) No headspace	Cooler temperatures < 6 ^oC. Sample temperature preservation adequate. Samples were acid preserved. Sample custody transferred from Field Team Leader to lab sample courier. NEL Laboratory subcontracted samples to ATL. Samples were shipped without custody seals. ATL (receiving lab) did not indicate any signs of tampering on the sample check in list. NEL lab typed, but did not sign to relinquish sample 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	Not applicable	-	-	
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 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) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Tripblank QT3 non-detect for MNA VOCs. No evidence of field/sample shipment cross-contamination.	-	-	
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) <MRL but >MDL – J –detects (estimated) listed on data summary sheet.	All samples were non-detect for all MNA VOCs. No samples qualified.	X	-	
LCS/ Lab Fortified Blank Recovery	1) 80-120% 2) Optional if an MS and MSD analyzed. 3) Should be analyzed if insufficient volume for an MS. 4) 10% and <LCL% J detects, UJ –Nods 5) >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 %R's are within MPC limits. No samples qualified.	X		
Laboratory RPD	1) RPD<20%	Field sample: 10A Lab duplicate; all MNA VOCs were non-detect. Laboratory precision is acceptable. Lab duplicate analyzed, because MS/MSD RPD not determined.	X	-	
MS/MSD Recovery	1) 80-120% 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 6) * Recalucate the %R (within 10% of lab)	MS/MSD samples collected by field teams per the MNA plan frequency and provided to the contract laboratory NEL. NEL subcontracted the analysis to ATL, but NEL did not indicate on the chain of custody that MS/MSD analysis are required. No MS/MSD samples analyzed. Matrix bias, if any, is unknown.	-	-	
MS/MSD RPD	RPD ≤25% (aq) (when MS >QL) J –detects in MS field sample UJ-non detects * recalculate RPD	MS/MSD samples collected by field teams per the MNA plan frequency and provided to the contract laboratory NEL. NEL subcontracted the analysis to ATL, but NEL did not indicate on the chain of custody that MS/MSD analysis are required. MS/MSD RPD not analyzed. Laboratory accuracy not determined by this QC	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		analysis.			
Field Dup RPD	1) RPD ≤ 30% aq. soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) Note Method requires FD1 and FD2. For this project FD1 or FD2 will be a field sample. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 7) *Recalculate the concentrations for one compound and the PQL	No field duplicate included in this SDG. Overall precision could not be determined for ethane and ethene and for methane.	X	_	
*MDL Study	1) methane <0.05 mg/L 2) Ethane < 0.005 mg/L 3) Ethane <0.005 mg/L 4) *In accordance with 40CFR – seven replicates %RSD < 20% 5) * 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. 1) %R <10 ND- (R) , J- detects 2) 10%> but <LCL% , judgement 3) %R>UCL% J-detects 8) QC, IS, RRT meet criteria, 9) %RSD < 20% 10) MDL< MQL (3x less ideal) 11) Lab fortitied blank (see VOA/SV Part II –section X). 12) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 13) <u>Dilution factors for samples – impacts to sensitivity</u>	The VSK-175 MRL is 10.00 ug/L, which has been meet by this analytical method. No project action limits are specified for these parameters. However, 1 ug/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 Project sensitivity does not meet the MNA technical letter criteria. The MRL is equal to or greater than the Weidemeier scoring criteria, as follows:. Methane: 500 ppb Ethane: 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 GC/FID method 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 efficiencies which is acknowledged in the method. 5) RF for ethane and ethane within 25% 6) RF for methane within 25% of 1/2 of the ethane/ethane average RF.	Instrument: GC7 Date: 13 October 2005 %RSD<15% (COD not determined) S/N ratio for low level standard is >5 for all analytes.	X	-	
2nd Source ICV	The ICV is optional per the method %D<25% Qualification: J detects, R or UJ NDs	%R used to determine ICV acceptability.	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 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.	Associated CCV's %D<20% for all VOCs. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)				
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. The LCS is in control. Sample matrix bias not determined, as a MS/MSD was not analyzed. Laboratory precision is acceptable, as shown by the laboratory replicate analysis for ethane, ethene, and methane. ICAL; within MPC, S/N acceptable ICV: within MPC limits CCV: within MPC limits. Sample results are usable as qualified, but the matrix bias has not determined. Analytical sensitivity is acceptable for evaluation of MNA gasses using the Weidemeier scoring criteria. The MNA VOCs have an MDL>the MNA technical letter requirement of Quantitation at 1.0 ppb. Sampling Error Evaluation: Tripblank QT3 non-detect for MNA VOCs so there is no apparent field/sample shipment cross-contamination. No field duplicate included in this SDG. Overall precision could not be determined for ethane and ethene and for methane.	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) **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**	**-**	**1 batch – all temps < 6°C**	**Northeast Laboratory, ME**	**BNASEP04 216A**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-SED11	AI03598
BN-EP-28-SED-XD1	AI03599 (field duplicate for AI03598)

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 °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) 7 days to extract (14 days for solids) and 40 days to analysis J –detects, UJ or R – nondetects (function of time)	Dates collected: April 21, 2006. Date extracted: May 4, 2006. Date analyzed: May 13, 2006. 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	Not applicable	-	-	
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)	Method blank was non-detect for pesticides. 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 – 598 All MS/MSD recoveries within MPC limits. No sample qualifications.	X	-	-
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 – 598 All MS/MSD RPD's within MPC limits. No sample qualifications.	X	-	
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 – Samples 598-599. 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 breakdown within MPC limits for all applicable samples. DDT breakdown within MPC limits for all 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: May 12, 2006. RSD<20% or 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	Instrument: 5890S. Same as ICV.	X	-	
CCV	1) QAPP: 15% of initial calib. Curve (85%-115%) . J qualify data. 2) Qualification-J detects, R or UJ NDs	Instrument: 5890S. May 13, 2006; .All %D's were within MPC limits in both columns with the exception of hexachlorobenzene (22.4%) on column DE-35MS. May 14, 2006; All %D's were within MPC limits in both columns with the exception of hexachlorobenzene (11.0%) on column DE-35MS.	X	Results for hexachlorobenzene qualified UJ in samples 598 and 599.	
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	No compounds detected. 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 and ICV are within MPC limits for all samples. CCV- %D for hexachloroebenzene was >MPC limits on column DE-35MS. No method blank detections. 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):

Lab Correspondence: None.

ECC Region I Data Review Worksheet (rv 1)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/ NO_2, NO_2, SO4, 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)**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04216A**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW224	AI03609

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 (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (J detects, R/UJ-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 and/or method requirements. No samples qualified.	X	-	
Holding Time	1) alk -14 days, 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	Not collected/analyzed with this SDG.	-	-	
% 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 reported data is 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	Sulfate,TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; Associated method blank non-detect for MNA parameters. Alkalinity method blanks had detects, but all sample detects are greater than 5X the blank level. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 1)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/ NO_2, NO_2, SO4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	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	Sulfate, Alkalinity, TOC, , TOC, Cl, Nitrite Associated LCS %R's within MPC. No samples qualified.	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	Used LCS/LCSD in place of MS.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite. Laboratory replicate RPDs are within MPC. Lab precision is acceptable.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Acceptable sensitivity 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.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; calibration acceptable. Calibrations were within linearity requirements. No samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	2) Within laboratory MPC.	TOC: periodic method blanks non-detect or results were >5X the blank concentration, no samples qualified.	X	-	
2nd Source ICV	3) Within laboratory MPC.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; second source LCS within limits. Applicable ICV's for all methods were within limits. No samples qualified.	X	-	
CCV	4) Within laboratory MPC.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, Cl, Nitrite. Applicable CCV's for all methods were within 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: Laboratory accuracy is acceptable. Accuracy is shown by the LCS being within limits, for all compounds except for Nitrate, which exceeded the UCL.. Laboratory precision is acceptable for all elements reported. No apparent matrix bias. For all parameters, where applicable to the method: ICAL: in limits.	X	-	.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
		ICV: in limits CCV: in limits Sampling Error Evaluation: FD not collected/analyzed with this SDG. Sampling error not evaluated.			

*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

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**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04216A**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW224	AI03609
BN-EP-26-MW315A	AH03297
BN-EP-26-MW231B	AH03301
BN-EP-26-MW338A	AH03303
BN-EP-26-MW338B	AH03307
BN-EP-26-MW338C	AH03311
BN-EP-26-MW339	AH03316
BN-EP-26-MW318	AH03321
BN-EP-26-MW231A	AH03323

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	Not collected/analyzed with this SDG.	-		
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	Not applicable	-	-	
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	1) Once per sample batch 2) Results > QL; sample results <5X ; sample result U (nd)	Preparation blank was non-detect for all MNA metals (As, Fe, Mn). No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
preparation blank)	3) Sample results >5X blank level; no action				
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 for aqueous samples.	X	-	
LCS/LCSD RPD	1) RPD<20%	All LCS/LCSD RPDs are within MPC limits with the exception of Fe. Laboratory precision is acceptable	X	Fe result qualified J in sample 609.	
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 samples AI03598 used for MS. MS/MSD %R's within limits for all MNA metals (Fe, As, Mn). Fe MS%R<LCL but the native sample levels were >4X the MS, no qualified samples. No apparent matrix bias.	X	-.	
MS/MSD RPD	MS/MSD RPD<20%	Field samples AI03598 used for MS. MS/MSD RPDs<20% for As, Fe, and Mn RPD within MPC. Laboratory precision is acceptable.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Field sample: AI03598 used for lab replicate. All RPDs within limits. 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 = 2 for all samples. nor Project action limits for 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. Sensitivinty 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	ICP-AES used to analyze the samples. 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	No ICB detections – no samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
	5) ABS >RL then J qualify data				
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 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.	Field sample AI03599 for SD. %D's within MPC limits.	-	-	
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 for 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%	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)	CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachement A-1)	PDS was analyzed for sample AH03311. The PDS recoveries were within limits for all elements, except for Fe with a 30% recovery. The Fe PDS were not greater than 4X the Fe level in the field sample. No apparent matrix bias.	X	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
	4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R				
*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. The Fe LCS %R were within limits. The Matrix spike were within limits in the MS/MSD%R. The PDS %R's are within MPC. No apparent matrix bias. Laboratory precision is acceptable as determined by the laboratory duplicate and LCS/LCSD RPD & the MS/MSD RPD except for Fe. LCS/LCSD RPD > MPC limits. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Not evaluated.	X	-	.

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITE EASTERN PLUME
APRIL 2006 SAMPLING ROUND 28 (SDG BNASEP041906A)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE EASTERN PLUME MONITORING EVENT 28

DATE: 3/30/2007

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 Lab
SDG #:_NASBEP04246
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Site Eastern Plume

# of SAMPLES/MATRIX: VOC 17, and 3 FD; 1,4-Dioxane 5, MNA 5, 1 TB
VALIDATION CONTRACTOR:__ECC/ASW
VALIDATOR'S NAME: Sherri Pullar
DV Completion Date:_29 August, 2006
Date Sampled__18-19 April 2006.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	MNA Ground Water Quality	Methane, Ethene, Ethane (Lab; ATL)	1,4-Dioxane	MNA Metals
1	Preservation and HT	O	O	M	O	O
2	Instrument Performance Check	M	-	-	O	O
3	Initial Calibration:	Z	O	O	O	O
4	Continuing Calibration:	M	O	O	O	O
5	Blanks:	O	O	O	O	O
6	Surrogate Compounds:	M	-	-	O	-
7	Internal Standards	M	-	-	O	-
8	Matrix Spike/Matrix Spike Duplicate:	M	O	O	M	O
9	Sensitivity Check:	O	O	M	O	O
10	PE Samples- Accuracy Check	M	O	O	M	O
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	M	O	O
16	Overall Evaluation of Data:	M	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): VOC; ICAL; SPCC <MPC for 1,1,2,2 TCA; these VOCs are qualified rejected for non-detects and estimated for detects.

AREAS OF CONCERN: (M items):

MNA Water Quality: None.

VOC: Potential low bias due to SPCC failure. MeCl results were qualified U in samples 452 and 466 due to trip blank contamination. J for all samples with estimated results <MRL but >MDL. Methylene chloride qualified UJ in samples 452RE Results for 1,2-dichloroethene (total), bromoform, and 1,1,1-trichloroethane in samples 444/445; and 1,1-dichloroethane, 1,1-dichloroethene, tetrachloroethene, trichloroethene, 1,2-dichoroethene (total) and 1,2-dichloroethane in samples 448/447 were qualified J for detects and UJ for non-detects due to field duplicate RPD outside MPC limits. All results were qualified J for detects and UJ for non-detects in sample 464 due to IS area count outside MPC limits for chlorobenzene-d5. All VOC non-detects are qualified UJ and detects are qualified J due to ICAL/CCV SPCCs for 1,1,2,2-TCA outside MPC limits. Surrogate 1,2-DCA-d4 qualified J in all samples due to %D>MPC. Surrogate 1,2-DCA-d4 qualified J for detects and UJ for non-detects in samples 444, 460, 464, 466, 448RE, 449RE, 450RE, 452RE, 454, 455, 456, 457, 458, 459, 454RE, 455RE, 456RE, 457RE, 458RE, 459RE, & 467; and surrogates Toluene-d8 and 4-bromofluorobenzene qualified J in samples 444, 460, 464, 466, & 467 due to CCV %D>MPC limits.

MNA Metals; None.

Methane, ethene, & ethane (MNA VOC); Sensitivity: MRL is equal to or less than MNA scoring criteria; however, sensitivity does not meet MNA Technical letter requirements. All sample results qualified estimated (J/UJ) due to cooler temperature exceeding 6 ^{o}C.

1,4-Dioxane; Result for 1,4-dioxane was qualified J in sample 454 due to MS/MSD RPD >MPC limits. 1,4-dioxane qualified J in sample 462 due to CCV Area% >MPC limits.

COMMENTS: VOC analysis SPCC failure (1,1,2,2 TCA) indicates potential low bias in data. The methane, ethene, and ethane data is validated and reported herein per the SDG provided by the laboratory

NAS BRUNSWICK- EASTERN PLUME – APRIL 2006
DATA SUMMARY TABLE – AQUEOUS SDG BNASEP04206

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	0.8	ug/L	J	0.34	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	5	1,1,2-Trichloroethane	5	ug/L	UJ	0.39	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	5	1,1-Dichloroethane	5	ug/L	UJ	0.45	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	2-Butanone	1	ug/L	UJ	0.79	5
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	1	ug/L	UJ	0.48	5
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Acetone	25	ug/L	J	0.59	5
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	5	Chloroethane	5	ug/L	UJ	0.39	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW332M	AI03444	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1.1	ug/L	J	0.37	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	5	1,1,2-Trichloroethane	5	ug/L	UJ	0.39	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	5	1,1-Dichloroethane	5	ug/L	UJ	0.45	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1.4	ug/L	J	0.26	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	2-Butanone	1	ug/L	UJ	0.79	5
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	1	ug/L	UJ	0.48	5
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Acetone	20	ug/L	J	0.59	5
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Bromoform	0.67	ug/L	J	0.37	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	5	Chloroethane	5	ug/L	UJ	0.39	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MWXD4	AI03445	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	4.3	ug/L	J	0.34	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	5	1,1,2-Trichloroethane	5	ug/L	UJ	0.39	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	5	1,1-Dichloroethane	2.9	ug/L	J	0.45	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	9.4	ug/L	J	0.45	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	2.9	ug/L	J	0.28	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1.9	ug/L	J	0.26	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	2-Butanone	1	ug/L	UJ	0.79	5
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	1	ug/L	UJ	0.48	5
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Acetone	20	ug/L	J	0.59	5
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	5	Chloroethane	5	ug/L	UJ	0.39	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Tetrachloroethene	8.8	ug/L	J	0.36	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Trichloroethene	15	ug/L	J	0.31	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW311M	AI03446	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	5.1	ug/L	J	0.34	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	5	1,1,2-Trichloroethane	5	ug/L	UJ	0.39	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	5	1,1-Dichloroethane	2.5	ug/L	J	0.45	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	7.7	ug/L	J	0.45	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	2.5	ug/L	J	0.28	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1.7	ug/L	J	0.26	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	2-Butanone	1	ug/L	UJ	0.79	5
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	1	ug/L	UJ	0.48	5
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Acetone	21	ug/L	J	0.59	5
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	5	Chloroethane	5	ug/L	UJ	0.39	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Tetrachloroethene	11	ug/L	J	0.36	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Trichloroethene	12	ug/L	J	0.31	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MWXD2	AI03447	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	5.6	ug/L	J	0.34	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	1,1-Dichloroethane	1.2	ug/L	J	0.45	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	2.2	ug/L	J	0.45	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1.5	ug/L	J	0.26	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Tetrachloroethene	15	ug/L	J	0.36	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Trichloroethene	4.2	ug/L	J	0.31	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW311D	AI03448	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Acetone	17	ug/L	J	0.59	5
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW309BD	AI03449	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	2.4	ug/L	J	0.26	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Acetone	19	ug/L	J	0.59	5
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Trichloroethene	0.91	ug/L	J	0.31	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW207ARD	AI03450	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1.9	ug/L	J	0.26	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Acetone	20	ug/L	J	0.59	5
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Trichloroethene	0.53	ug/L	J	0.31	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW207ARM	AI03451	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	2.6	ug/L	J	0.26	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Acetone	21	ug/L	J	0.59	5
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Tetrachloroethene	29	ug/L	J	0.36	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Trichloroethene	6.4	ug/L	J	0.31	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW319D	AI03452	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	46	ug/L	J	0.34	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	8.7	ug/L	UJ	0.45	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	9.3	ug/L	J	0.45	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	11	ug/L	J	0.26	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Chloroform	0.59	ug/L	J	0.36	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Tetrachloroethene	4.3	ug/L	J	0.36	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Trichloroethene	31	ug/L	J	0.31	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-RAW INFLUENT	AI03453	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	1,4 Dioxane	8.1	ug/L	J	0.49	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-COMB EFFLUENT	AI03454	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	1,4 Dioxane	8.9	ug/L		0.49	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-EFFLUENT-XD1	AI03455	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	2.1	ug/L	J	0.26	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Acetone	11	ug/L	J	0.59	5
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Trichloroethene	7.6	ug/L	J	0.31	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW212S	AI03456	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Acetone	10	ug/L	J	0.59	5
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW303D	AI03457	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Acetone	64	ug/L	J	0.59	5
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Chloroform	1.1	ug/L	J	0.36	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW306D	AI03458	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Acetone	17	ug/L	J	0.59	5
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW338CM	AI03459	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW338C	AI03460	EPA 300	4/19/2006	1	Sulfate	3.4	mg/L		0.31	1
BN-EP-28-MW338C	AI03460	EPA 310.1	4/19/2006	1	Alkalinity	18	mg/L		0.00035	5
BN-EP-28-MW338C	AI03460	EPA 353.2	4/19/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MW338C	AI03460	EPA 415.1	4/19/2006	1	Total Organic Carbon	1	mg/L	U	0.343	1
BN-EP-28-MW338C	AI03460	EPA 6010B	4/19/2006	1	Arsenic Total,ppb	6	ug/L			2.3
BN-EP-28-MW338C	AI03460	EPA 6010B	4/19/2006	1	Iron Total, ppb	380	ug/L			25
BN-EP-28-MW338C	AI03460	EPA 6010B	4/19/2006	1	Manganese Total, ppb	9.1	ug/L			2
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW338C	AI03460	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW338C	AI03460	EPA 9056	4/19/2006	1	Chloride	4.5	mg/L		0.00021	1
BN-EP-28-MW338C	AI03460	EPA 9056	4/19/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW338C	AI03460	VSK-175	4/19/2006	2	Ethane	0.01	ug/L	UJ		5
BN-EP-28-MW338C	AI03460	VSK-175	4/19/2006	2	Ethene	0.01	ug/L	UJ		5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW338C	AI03460	VSK-175	4/19/2006	2	Methane	0.01	ug/L	UJ		5
BN-EP-28-MW315A	AI03461	EPA 300	4/18/2006	1	Sulfate	2.5	mg/L		0.31	1
BN-EP-28-MW315A	AI03461	EPA 310.1	4/18/2006	1	Alkalinity	40	mg/L		0.00035	5
BN-EP-28-MW315A	AI03461	EPA 353.2	4/18/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MW315A	AI03461	EPA 415.1	4/18/2006	1	Total Organic Carbon	1	mg/L	U	0.343	1
BN-EP-28-MW315A	AI03461	EPA 6010B	4/18/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28-MW315A	AI03461	EPA 6010B	4/18/2006	1	Iron Total, ppb	1500	ug/L			25
BN-EP-28-MW315A	AI03461	EPA 6010B	4/18/2006	1	Manganese Total, ppb	370	ug/L			2
BN-EP-28-MW315A	AI03461	EPA 9056	4/18/2006	1	Chloride	12	mg/L		0.00021	1
BN-EP-28-MW315A	AI03461	EPA 9056	4/18/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW315A	AI03461	VSK-175	4/18/2006	2	Ethane	10	ug/L	UJ		5
BN-EP-28-MW315A	AI03461	VSK-175	4/18/2006	2	Ethene	10	ug/L	UJ		5
BN-EP-28-MW315A	AI03461	VSK-175	4/18/2006	2	Methane	10	ug/L	J		5
BN-EP-28-MW313	AI03462	EPA 300	4/19/2006	1	Sulfate	4.5	mg/L		0.31	1
BN-EP-28-MW313	AI03462	EPA 310.1	4/19/2006	1	Alkalinity	68	mg/L		0.00035	5
BN-EP-28-MW313	AI03462	EPA 353.2	4/19/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MW313	AI03462	EPA 415.1	4/19/2006	1	Total Organic Carbon	1.2	mg/L		0.343	1
BN-EP-28-MW313	AI03462	EPA 6010B	4/19/2006	1	Arsenic Total,ppb	9.4	ug/L			2.3
BN-EP-28-MW313	AI03462	EPA 6010B	4/19/2006	1	Iron Total, ppb	2700	ug/L			25
BN-EP-28-MW313	AI03462	EPA 6010B	4/19/2006	1	Manganese Total, ppb	140	ug/L			2
BN-EP-28-MW313	AI03462	EPA 8260B	4/19/2006	4	1,4 Dioxane	120	ug/L	J	0.49	1
BN-EP-28-MW313	AI03462	EPA 9056	4/19/2006	1	Chloride	21	mg/L		0.00021	1
BN-EP-28-MW313	AI03462	EPA 9056	4/19/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW313	AI03462	VSK-175	4/19/2006	2	Ethane	10	ug/L	UJ		5
BN-EP-28-MW313	AI03462	VSK-175	4/19/2006	2	Ethene	10	ug/L	UJ		5
BN-EP-28-MW313	AI03462	VSK-175	4/19/2006	2	Methane	42	ug/L	J		5
BN-EP-28-MWXD3	AI03463	EPA 8260B	4/19/2006	1	1,4 Dioxane	78	ug/L		0.49	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	1.7	ug/L	J	0.34	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	1,1-Dichloroethane	8.5	ug/L	J	0.45	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	13	ug/L	J	0.45	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Acetone	23	ug/L	J	0.59	5
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Trichloroethene	1.1	ug/L	J	0.31	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW313D	AI03464	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW333	AI03465	EPA 300	4/19/2006	1	Sulfate	3.7	mg/L		0.31	1
BN-EP-28-MW333	AI03465	EPA 310.1	4/19/2006	1	Alkalinity	66	mg/L		0.00035	5
BN-EP-28-MW333	AI03465	EPA 353.2	4/19/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MW333	AI03465	EPA 415.1	4/19/2006	1	Total Organic Carbon	1.4	mg/L		0.343	1
BN-EP-28-MW333	AI03465	EPA 6010B	4/19/2006	1	Arsenic Total,ppb	7.9	ug/L			2.3

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW333	AI03465	EPA 6010B	4/19/2006	1	Iron Total, ppb	1800	ug/L			25
BN-EP-28-MW333	AI03465	EPA 6010B	4/19/2006	1	Manganese Total, ppb	200	ug/L			2
BN-EP-28-MW333	AI03465	EPA 8260B	4/19/2006	1	1,4 Dioxane	54	ug/L		0.49	1
BN-EP-28-MW333	AI03465	EPA 9056	4/19/2006	1	Chloride	22	mg/L		0.00021	1
BN-EP-28-MW333	AI03465	EPA 9056	4/19/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW333	AI03465	VSK-175	4/19/2006	2	Ethane	10	ug/L	UJ		5
BN-EP-28-MW333	AI03465	VSK-175	4/19/2006	2	Ethene	10	ug/L	UJ		5
BN-EP-28-MW333	AI03465	VSK-175	4/19/2006	2	Methane	10	ug/L	UJ		5
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	1,1-Dichloroethane	9.1	ug/L	J	0.45	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	12	ug/L	J	0.45	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1.6	ug/L	J	0.26	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Acetone	37	ug/L	J	0.59	5
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Methylene Chloride	0.62	ug/L	U	0.51	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Trichloroethene	1.1	ug/L	J	0.31	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW333M	AI03466	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	1,4 Dioxane	1	ug/L	UJ	0.49	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Methylene Chloride	2.3	ug/L	J	0.51	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-QT1	AI03467	EPA 8260B	4/19/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-QT1	AI03467	VSK-175	4/19/2006	2	Ethane	10	ug/L	UJ		5
BN-EP-28-QT1	AI03467	VSK-175	4/19/2006	2	Ethene	10	ug/L	UJ		5
BN-EP-28-QT1	AI03467	VSK-175	4/19/2006	2	Methane	10	ug/L	UJ		5
BN-EP-28-MW338B	AI03468	EPA 300	4/18/2006	1	Sulfate	5.6	mg/L		0.31	1
BN-EP-28-MW338B	AI03468	EPA 310.1	4/18/2006	1	Alkalinity	35	mg/L		0.00035	5
BN-EP-28-MW338B	AI03468	EPA 9056	4/18/2006	1	Chloride	8.8	mg/L		0.00021	1
BN-EP-28-MW338B	AI03468	EPA 9056	4/18/2006	1	Nitrite-N	0.2	mg/L	U		0.2

FIELD DUPLICATE WORKSHEET

SDG: BNASEP0406

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qaulifier	FD RPD (%)
BN-EP-28-MW332M	1,1,1-Trichloroethane	EPA 8260B	0.8	ug/L	J	BN-EP-28-MWXD4	1	ug/L	UJ	NC
BN-EP-28-MW332M	1,1,2,2-Tetrachloroethane	EPA 8260B	1	ug/L	R	BN-EP-28-MWXD4	1.1	ug/L		NC
BN-EP-28-MW332M	1,2-Dichloroethene (total)	EPA 8260B	1	ug/L	UJ	BN-EP-28-MWXD4	1.4	ug/L	J	NC
BN-EP-28-MW332M	Acetone	EPA 8260B	25	ug/L		BN-EP-28-MWXD4	20	ug/L		22
BN-EP-28-MW332M	Bromoform	EPA 8260B	1	ug/L	UJ	BN-EP-28-MWXD4	0.67	ug/L	J	NC
BN-EP-28-MW311D	1,1,1-Trichloroethane	EPA 8260B	5.6	ug/L		BN-EP-28-MWXD2	5.1	ug/L		9.3
BN-EP-28-MW311D	1,1-Dichloroethane	EPA 8260B	1.2	ug/L	J	BN-EP-28-MWXD2	2.5	ug/L	J	70
BN-EP-28-MW311D	1,1-Dichloroethene	EPA 8260B	2.2	ug/L	J	BN-EP-28-MWXD2	7.7	ug/L	J	111
BN-EP-28-MW311D	1,2-Dichloroethane	EPA 8260B	1	ug/L	UJ	BN-EP-28-MWXD2	2.5	ug/L	J	NC
BN-EP-28-MW311D	1,2-Dichloroethene (total)	EPA 8260B	1.5	ug/L		BN-EP-28-MWXD2	1.7	ug/L		12
BN-EP-28-MW311D	Acetone	EPA 8260B	5	ug/L	UJ	BN-EP-28-MWXD2	21	ug/L	J	NC
BN-EP-28-MW311D	Tetrachloroethene	EPA 8260B	15	ug/L	J	BN-EP-28-MWXD2	11	ug/L	J	31
BN-EP-28-MW311D	Trichloroethene	EPA 8260B	4.2	ug/L	J	BN-EP-28-MWXD2	12	ug/L	J	96
BN-EP-28-COMB EFFLUENT	1,4 Dioxane	EPA 8260B	8.1	ug/L		BN-EP-28-EFFLUENT-XD1	8.9	ug/L		9.4

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**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04206**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW338C	AI03460
BN-EP-28-MW315A	AI03461
BN-EP-28-MW313	AI03462
BN-EP-28-MW333	AI03465

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	Not collected/analyzed with this SDG.	-		
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	Not applicable	-	-	
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 for all MNA metals (As, Fe, Mn). 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 for aqueous samples.	X	-	
LCS/LCSD RPD	1) RPD<20%	All LCS/LCSD RPDs are within MPC. 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	Field sample 62 used for MS/MSD. Fe MS%R was outside MPC limits but the native sample levels were >4X the MS, no qualified samples.	X	-.	
MS/MSD RPD	MS/MSD RPD<20%	MS/MSD RPDs within limits. Laboratory precision is acceptable.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Labortatory duplicate within MPC limits. No samples qualified.	-	-	
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 MNA technical letter requirements except for Mn (MRL = 2). The Mn IDL is less than the MNA technical letter MRL. Sensitivinty 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	ICP-AES used to analyze the samples. 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 detections – 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 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.	No serial dilution analyzed. 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 for 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%	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)	CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachement A-1)	Sample 62 used for PDS. All %R within limits. No samples qualified.	X	-	
*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	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
	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				
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. The LCS %R were within limits. No apparent matrix bias. Laboratory precision is acceptable as determined by the laboratory duplicate and LCS/LCSD RPD. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Not evaluated.	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) **VOCs 5030B/5035/8260B**
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	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04206**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW332M	AI03444
BN-EP-28-MWXD4	AI03445 (field duplicate for AI03444)
BN-EP-28-MW331M	AI03446
BN-EP-28-XD2	AI03447 (field duplicate for AI03448)
BN-EP-28-MW311D	AI03448
BN-EP-28-MW309BD	AI03449
BN-EP-28-MW207ARD	AI03450
BN-EP-28-MW207ARM	AI03451
BN-EP-28-MW319D	AI03452
BN-EP-28-RAW-INFLUENT	AI03453
BN-EP-28-COMB EFFLUENT	AI03454
BN-EP-28-EFFLUENT-XD1	AI03455 (field duplicate for AI03454)
BN-EP-28-MW212S	AI03456
BN-EP-28-MW303D	AI03457
BN-EP-28-MW306D	AI03458
BN-EP-28-MW338CM	AI03459
BN-EP-28-MW338C	AI03460
BN-EP-28-MW313D	AI03464
BN-EP-28-MW333M	AI03466
BN-EP-28-QT1	AI03467

Note: Samples are described below in the data worksheets by reference to the last 3 digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (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) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	Analyzed within holding time.	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	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants – acetone, 2-butanone or Mecl. 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 *check 10% of raw chromatograms for false +/-, check for transcription errors	Method blanks by date: 01 May 06: 1,1,2-trichloroethane – 0.64 ug/L, dibromochloromethane – 0.65 ug/L, bromoform – 0.58 ug/L,, and 1,1,2,2-TCA – 0.77 ug/L. All of these compounds were non-detect in all samples. No samples 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	Aqueous tripblank BN-EP-28-QT1 Non-detect for all LTMP TCL VOCs with the exception of MeCl. No apparent cross contamination.	X	MeCl results were qualified U in samples 452 and 466.	
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	6) >Upper Cal Range J-detects - ensure instrument blank performed 7) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <MRL: were qualified J.	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 surrogated (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods,	All surrogate recoveries were within QAPP MPC limits, except 1,2 Dichloroethane-D4 and 4-bromofluorobenzene in samples 448 where %R>LCL; 4-bromofluorobenzene %R>LCL in samples 449, 450, 452, 454, 456, 457, 454RE, 455RE, 456RE, 458RE, 459RE and blanks VBLKK01A and VBLKJ0502, and 1,2 Dichloroethane-D4 %R>UCL in samples 448RE, 449RE, 450RE, 452RE, 454, 455, 456, 457, 458,	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	%R >10% but <70% J-detects, UJ NDs	459, 454RE, 455RE, 456RE, 457RE, 458RE, 459RE, 446MS, 446MSD, 454MS, 454MSD, Blank: VBLKJ0502,and LCS/LCSDs: LCSJ0502, LCSDJ0502, LCSJ01A, and LCDSJ01A. All samples have been re-analyzed with similar results. Use original analysis for decision making (re-analysis qualified "ZZZ"). Results for samples 448, 449, 450, 452, 454, 455, 456, 457, 458, and 459.would have been qualified estimated (J/UJ) but were already qualified estimated due to SPCC >MPC limits.			

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
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 recoveries were within MPC limits, except LCS %R's for: 4/28/06 (16:43); LCS %R>UCL – acetone. Acetone results in samples 445, 446, & 447 would have been qualified estimated however, results were already qualified estimated due to SPCC >MPC limits. 4/29/06 (9:19); LCS %R<LCL - chloroform. Chloroform results in samples 448, 449, 450, 451, 452, 453 would have been qualified estimated (J/UJ) however, results were already qualified estimated due to SPCC >MPC limits. 4/30/06 (17:25); LCS %R>UCL – chloroethane, acetone, chloroform, carbon tetrachloride, tetrachloroethene. Acetone results in samples 444, 464, & 466 would have been qualified estimated (J) however, results were already qualified estimated due to SPCC >MPC limits. Chloroethane, chloroform, carbon tetrachloride, tetrachloroethene were non-detect in the associated samples, no samples qualified. 5/1/06 (22:36); LCS %R>UCL –acetone, methylene chloride, 1,1-dichloroethane, chloroform, carbon tetrachloride, and 1,1,2,2-tetrachloroethane. Acetone results in samples 448RE, 449RE, 450RE, 452RE, 456, 457, 458, & 459; 1,1-dichloroethane in sample 448RE; and chloroform in sample 458 would have been qualified estimated (J) however, results were already qualified estimated due to SPCC >MPC limits. 5/2/06 (9:22); LCS %R>UCL – acetone, methylene chloride, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,2,2-tetrachloroethane. Acetone results in samples 456RE, 457RE, 458RE, & 459RE would have been qualified estimated (J) however, results were already qualified estimated due to SPCC >MPC limits. Methylene chloride, 1,1-dichloroethane, 1,2-dichloroethane, & 1,1,2,2-tetrachloroethane were non-detect in the associated samples, no samples qualified.	X	Methylene chloride qualified UJ in samples 452RE.	
LCSD RPD	RPD ≤20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J- detects	4/28/06 (16:43); LCS/LCSD RPD>20% for acetone. 4/29/06 (9:19); LCS/LCSD RPD>20% for acetone, cis-1,2-dichloroethene, chloroform, and 2-hexanone. 4/30/06 (17:25); LCS/LCSD RPD>20% for acetone, methylene chloride/ 5/1/06 (22:36);LCS/LCSD RPD>20% for acetone, and methylene chloride. Compounds listed above were qualified estimated due to SPCC >MPC limits.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en- tory	QUAL	BIAS
		Laboratory precision is acceptable			
*MS/MSD/unspike sample RSD	1)For unspiked compounds if reported, Non- MS spike compounds <50% RSD calculated from MS/MSD/Unspiked Qualification: >50% RSD J-detects 2)*recalculate the RPD (within 10% of lab)	NA	-	-	
*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 8) *Matrix effects- MS/MSD, surrogated, PDS. 9) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 10) *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.	All detections are acceptable. No samples qualified.	X	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 11) PES > acceptance criteria – Detects in samples J, 12) PES<acceptance criteria – Detects J, NDs –R 13) VOA/SV-XI14 other criteria 14) *% of PES sample above and below criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
MS/MSD Recovery	1) Attachment A-2 of LTMP 2) 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) * Recalculate the %R (within 10% of lab)	Native samples were samples 444, 446, and 454. All MS/MSD recoveries within MPC, except for acetone (MS < MPC and MSD > MPC), vinyl chloride, chloroethane, 1,1-dichloroethene, carbon disulfide, 1,1-dichloroethane, chloroform, 1,1,1-trichloroethane, carbon tetrachloride, benzene, trichloroethene, 1,2-dichloropropane, bromodichloromethane, cis-1,3-dichloropropene, toluene, trans-1,3-dichloropropene, 1,1,2-trichloroethane, dibromochloromethane, chlorobenzene, ethylbenzene, m,p-xylene, o-xylene, styrene, bromoform, and hexachlorobutadiene had %R's>MPC and 1,1,2,2-tetrachloroethane, bromomethane, 2-butanone, tetrachloroethene, and 2-hexanone had %R's <MPC for sample 444. Results in sample 444 were qualified as estimated due to SPCC >MPC limits (1,1,2,2-TCA qualified as rejected due to SPCC >MPC limits). All MS/MSD recoveries within MPC, except for chloroethane, acetone, 1,1-dichloroethene, carbon disulfide, methylene chloride, trans-1,2-dichloroethene, 1,1-dichloroethane, cis-1,2-dichloroethene, chloroform, 1,1,1-trichloroethane, carbon tetrachloride, 1,2-dichloroethane, benzene, 1,1,2,2-tetrachloroethanehad %R's>MPC and hexachlorobutadiene had %R's <10% in sample 446. Results in sample 446 were qualified as estimated due to SPCC >MPC limits (1,1,2,2-TCA qualified as rejected due to SPCC >MPC limits). All MS/MSD recoveries within MPC, except for chloroethane, acetone, 1,1-dichloroethene, carbon disulfide, methylene chloride, trans-1,2-dichloroethene, 1,1-dichloroethane, cis-1,2-dichloroethene, chloroform, 1,1,1-trichloroethane, carbon tetrachloride, 1,2-dichloroethane, benzene, and 1,1,2,2-tetrachloroethane had %R's>MPC and vinyl chloride and bromomethane had %R's <MPC for sample 454. Results in sample 454 were qualified as estimated due to SPCC >MPC limits (1,1,2,2-TCA qualified as rejected due to SPCC >MPC limits).	X	-	-
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS sample UJ-non detects * recalculate RPD	Native sample was sample 444. All MS/MSD RPDs were outside MPC, except for m,p-xylene. Native sample was sample 446. All MS/MSD RPDs were inside MPC, except for chloroethane, acetone, 1,1-	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		dichloroethene, carbon disulfide trichloroethene, and hexachlorobutadiene. Native sample was sample 454. All MS/MSD RPDs were inside MPC, except for chloromethane. Compounds listed above were qualified estimated due to SPCC >MPC limits.			
Field Dup RPD	1) RPD ≤ 30% aq. ≤ 50 soil for Results > PQL (FD pair only) J-detects (both > PQL) 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. *Recalculate the concentrations for one compound and the PQL	Field sample / Field duplicate 444 / 445 448 / 447 454 / 455 The FD pair 444/445; 1,2-dichloroethene (total) and bromoform were detected in the field duplicates but were non-detect in native sample and 1,1,1-trichloroethane was non-detect in field duplicate but was detected in the native sample. Also, 1,1,2,2-tetrachloroethane was detected in the field duplicate but was non-detect in native sample. Tetrachloroethane was qualified R in sample 444 due to SPCC >MPC, therefore, no comparison was calculated. The FD pair 448/447 had RPDs outside MPC limits for 1,1-dichloroethane, 1,1-dichloroethene, tetrachloroethene, and trichloroethene. Also, 1,2-dichoroethene (total) and 1,2-dichloroethane were detected in the field duplicates but were non-detect in native samples. The FD pair 600/601 had FD RPD within MPC limits. Overall precision is acceptable.	X	Results for 1,2-dichloroethene (total), bromoform, and 1,1,1-trichloroethane in samples 444/445; and 1,1-dichloroethane, 1,1-dichloroethene, tetrachloroethene, trichloroethene, 1,2-dichoroethene (total) and 1,2-dichloroethane in samples 448/447 were qualified J for detects and UJ for non-detects.	
*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 *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 7) *check for IS transcription errors 8) FBZ = fluroobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	Internal standards and RT's within MPC limits with the exception of chlorobenzene-d5 (area count >UCL) for sample 464. Laboratory did not re-analyzed sample due to laboratory error. All results were qualified J for detects and UJ for non-detects.	X	All results were qualified J for detects and UJ for non-detects in sample 464.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
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) <u>Dilution factors for samples – impacts to sensitivity</u>	5X Dilution was required for 1,1,2-trichloroethane, 1,1-dichloroethane, and chloroethane in samples 444, 445, 446, and 447. MRL are less than LTMP QAPP MRLs. MRLs are less than MEG (except for vinyl chloride) and MCLs. Sensitivity is acceptable.	X	-	
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 within MPC limits.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCE, 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/UJ 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) <u>RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, CS, 1,/22/03 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)./</u>* 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; Saviour 28 April 2006 All RRF's within MPC limits for all VOC's of concern. All CCCs are in MPC. All SPCC are in MPC except for 1,1,2,2 TCA Instrument; Saviour 01 May 2006 All RRF's within MPC limits for all VOC's of concern. All CCCs are in MPC. All SPCC are in MPC except for 1,1,2,2 TCA ICAL SPCC was evaluated before sample analysis but due to holding time considerations, all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system.	X	1,1,2,2 TCA non-detects in ALL samples are qualified as R (except sample 445; 1,1,2,2-TCA qualified J). All VOC non-detects are qualified UJ and detects qualified J in all samples.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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; Saviour 28 April 2006 All %RSD < 30 with the exception of chloroethane, acetone, & hexachlorobutadiene. Laboratory narrative states all compounds with %RSD>MPC were fitted with linear or quadratic curves. These curves were provided by the laboratory for evaluation. No samples qualified. 1 May 2006 All %RSD < 30 with the exception of chloroethane, methylene chloride, & 1,1,2,2-TCA. Laboratory narrative states all compounds with %RSD>MPC were fitted with linear or quadratic curves. These curves were provided by the laboratory for evaluation. 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	Same as CCV. Please see the CCV section below.	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; Saviour 28 April 2006 acetone, cis-1,2-DCE, tetrachloroethene, 1,1,2,2-TCA, have %D>MPC or CCRF <MPC. 29 April 2006 Chloroethane, acetone, cis-1,2-dichloroethene, 1,1,2,2-TCA, have %D>MPC or CCRF <MPC. 30 April 2006 Chloromethane, acetone, 2-butanone, cis-1,2-dichloroethene, 1,2-dichloroethane-d4, toluene-d8, 2-hexanone, 1,1,2,2-TCA, & 4-bromofluorobenzene have %D>MPC or CCRF <MPC. 1 May 2006 Vinyl chloride, chloroethane, acetone, 1,1-dichloroethane, cis-1,2-dichloroethene, 1,2-dichloroethane-d4, benzene, 2-hexanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, and hexachlorobutadiene have %D>MPC or CCRF <MPC. 2 May 2006 vinyl chloride, acetone, 1,1-dichloroethane,	X	Surrogate 1,2-DCA-d4 qualified J for detects and UJ for non-detects in samples 444, 460, 464, 466, 448RE, 449RE, 450RE, 452RE, 454, 455, 456, 457, 458, 459, 454RE, 455RE, 456RE, 457RE, 458RE, 459RE, & 467. Surrogates Toluene-d8 and 4-bromofluorobenzene qualified J in samples 444, 460, 464, 466, & 467.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		2-butanone, cis-1,2-dichloroethene, chloroform, 1,2-dichloroethane-d4, 1,1,1-trichloroethane, carbon tetrachloride, 1,2-dichloroethane, benzene, 2-hexanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, & hexachlorobutadiene have %D>MPC or CCRF <MPC. All SPCC are in MPC except for 1,1,2,2 TCA ICAL SPCC was evaluated before sample analysis but due to holding time considerations, all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system. Note all samples were qualified due to SPCC > MPC limits for 1,1,2,2-TCA in ICAL. See above.			
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 precision and accuracy should be considered to have a strong potential for low bias. Accuracy is within limits, except for chloroethane, methylene chloride, 1,1-dichloroethane, acetone, chloroform, carbon tetrachloride, tetrachloroethene 1,2-dichloroethane, and 1,1,2,2-tetrachloroethane which had LCS %R's outside MPC limits and high CCV %D. All MS/MSD recoveries within MPC, except for acetone , vinyl chloride, chloroethane, 1,1-dichloroethene, carbon disulfide, 1,1-dichloroethane, chloroform, 1,1,1-trichloroethane, carbon tetrachloride, benzene, trichloroethene, 1,2-dichloropropane, bromodichloromethane, cis-1,3-dichloropropene, toluene, trans-1,3-dichloropropene, 1,1,2-trichloroethane, dibromochloromethane, chlorobenzene, ethylbenzene, m,p-xylene, o-xylene, styrene, bromoform, and hexachlorobutadiene had %R's>MPC and 1,1,2,2-tetrachloroethane, bromomethane, 2-butanone, tetrachloroethene, and 2-hexanone, and hexachlorobutadiene had %R's <MPC. Surrogates were outside MPC limits for 1,2 Dichloroethane-D4 and 4-bromofluorobenzene in many samples. Use original analysis for decision making (re-analysis qualified "ZZZ") J for all samples with estimated results <MRL but >MDL.	X	-	Potential low bias due to SPCC failure.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		The reported MRL's and MDL's provide adequate sensitivity to support evaluation against MEG and MCL's for all compounds except vinyl chloride. Tune checks within MPC limits. ICALs: SPCC was out of limits for 1,1,2,2 TCA. This VOC was rejected if non-detect and J if detected. The sample was re-analyzed but not with a proper ICAL. All other samples were qualified J (detects) or UJ (non-detects), because of the SPCC failure. ICV: within limits. CCV: Surrogates 1,2-DCA-d4, toluene-d8 and 4-bromofluorobenz had %D>MPC and numerous other compounds were outside the limits but were already qualified due to SPCC failure. Internal standards and RT's within MPC limits with the exception of chlorobenzene-d5 (area count >UCL) for sample 464. Method blank samples contained 1,1,2-trichloroethane, dibromochloromethane, bromoform, and 1,1,2,2-TCA however, no samples were qualified since all of these compounds were non-detect in all samples. Sampling Error Evaluation: Tripblank was non-detect for all VOCs with the exception of MeCl. No apparent field cross contamination. <u>Field sample</u> <u>Field duplicate</u> 444 445 448 447 454 455 The FD pair 444/445; 1,2-dichloroethene (total) and bromoform were detected in the field duplicates but were non-detect in native sample and 1,1,1-trichloroethane was non-detect in field duplicate but was detected in the native sample. Also, 1,1,2,2-tetrachloroethane was detected in the field duplicate but was non-detect in native sample. Tetrachloroethane was qualified R in sample 444 due to SPCC >MPC, therefore, no comparison was calculated. The FD pair 448/447 had RPDs outside MPC limits for 1,1-dichloroethane, 1,1-			

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		dichloroethene, tetrachloroethene, and trichloroethene. Also, 1,2-dichoroethene (total) and 1,2-dichloroethane were detected in the field duplicates but were non-detect in native samples. The FD pair 600/601 had FD RPD within MPC limits. Overall precision is acceptable.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Lab Correspondence: None.

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030/5035/8260BSIM 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**	**HCl**	**Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04206**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-COMB EFFLUENT	AI03454
BN-EP-28-EFFLUENT-XD1	AI03455 (field duplicate for AI03454)
BN-EP-28-MW313	AI03462
BN-EP-28-MWXD3	AI03463 (field duplicate for AI03462)
BN-EP-28-MW333	AI03465
BN-EP-28-QT1	AI03467

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° 3) Unpreserved 4) No headspace	Cooler temperatures < 6 ^oC. Sample preservation indicated on the COC as HCl. Surrogate recoveries were adequate and LCS/LCSD recoveries were adequate, so no impact from improper 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	Not applicable	-	-	
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 –Nods, %R >10% but <70% J-detects, UJ NDs	All reported surrogate recoveries for field samples within MPC limits. No samples qualified.	X	-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants – acetone, 2-butanone or Mecl. 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	Associated method blanks were non-detect for 1,4 Dioxane.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	same vessel 5) *verify IS, RRT, and surrogate %R 6) *check 10% of raw chromatograms for false +/-, check for transcription errors				
Trip Blank	1) < 5x 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	Aqueous tripblank BN-EP-28-QT3 Non-detect for 1,4-dioxane.	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 sample detects were greater than the MRL.	X	-	
LCS Recovery	1) 1,4 Dioxane 60-140% 2) 10% and <LCL% J detects, UJ –Nods 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 LCS %R's are within MPC limits. No samples qualified.	X	-	
LCS/LCSC RPD	RPD ≤20% (aq) (when MS >QL) Not a method specified QC check.	LCS/LCSD RPD <20%. Laboratory accuracy is acceptable	x	-	
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)	Native sample was sample 454. All MS/MSD recoveries within MPC. No sample qualifications. Native sample was sample 462. MS/MSD %R's were not calculated since the MS < 4X native levels. No sample qualifications.	-	-	
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS field sample UJ-non detects * recalculate RPD	Native sample was sample 454. MS/MSD outside for 1,4-dioxane. Result for 1,4-dioxane was qualified J in sample 454.	-	Result for 1,4-dioxane was qualified J in sample 454.	
Field Dup RPD	1) RPD ≤ 30% aq. soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) Note: FD RPD not specified in QAPP.	Field sample Field duplicate 462 463 454 455	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	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 PQ	The FD pair 462/463 RPD's within limits. The FD pair 454/455 had an RPD within limits. Overall precision is acceptable.			
*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 7) *check for IS transcription errors 8) FBZ = fluroobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	All IS %R's are within MPC limits for all field samples. No field samples qualified.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 1) %R <10 ND- (R) , J- detects 2) 10%> but <LCL% , judgement 3) %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. The site action limit is not in the QAPP, but is ca. 35 ppb. The project 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.	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	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				
*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	X	-	
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. 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 fall under the *RRF exclusions of Section (IV-8) Tier II guidance.* 4) %RSD<30% Qualification for compounds with : %RSD>30%	Instrument Saviour 30 April 2006 Applies to samples 454, 455, 462, & 465 %RSD>30% calibration. Instrument Saviour 02 May 2006 Applies to samples 467 & 462 %RSD>30% calibration Laboratory narrative states linear curves were use; linear regression curves presented. Linearity confirmed by ICV.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
2nd Source ICV	QC check nor criteria not specified in QAPP nor analytical SOP. %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	CCV after ICAL used for ICV %Drift <25%. Linearity of calibration confirmed. 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)	CCV %D>30%; within MPC limits. CCV Area% outside MPC limits for 1,4-dioxane and surrogate 1,4-dioxane-d8.	X	1,4-dioxane qualified J in sample 462.	
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 is accuracy acceptable, as the laboratory LCS/LCSD, MS/MSD, and surrogates are within limits. No matrix bias. MS/MSD RPD was outside MPC limits for 1,4-dioxane in sample 454. Method blanks were non-detect for 1,4 Dioxane. Aqueous tripblank QT3 was non-detect for 1,4-dioxane. Tune check passed. ICAL; within MPC (linear calibration per laboratory notes). ICV: within MPC for %drift CCV: samples analyzed within 12-hours of ICal. Post CCV had acceptable %Drift for 1,4 dioxane. CCV Area% outside MPC limits for 1,4-dioxane and surrogate 1,4-dioxane-d8. Sampling Error Evaluation Field sample Field duplicate 462 463 454 455 The FD pair 462/463 RPD's within limits.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
		The FD pair 454/455 had an RPD within limits. Overall precision is acceptable.			

* 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) **5030/ (Region I Methane SOP aka VSK-175)**
Project: NAS Brunswick ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance and VSK-175 SOP (EPA 2001)**

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**Temp (^oC): >6 ^oC** **1-cooler to ATL 11 ^oC**	**Air Toxic Laboratory, Folsom, CA**	**ATL SDG: 0604423 subcontracted to ATL NEL SDG BNASEP04206**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
AI03460 (BN-EP-28-MW338C)	0604423-01A
AI03461 (BN-EP-28-MW315A)	0604423-02A
AI03462 (BN-EP-28-MW313)	0604423-03A
AI03465 (BN-EP-28-MW333)	0604423-04A
AI03467 (BN-EP-28-QT1)	0604423-05A

Note: Samples are described below in the data worksheets by reference to the last three digits/letters of the Lab Sample Number.
Note: The ATL SDGs do not correspond to the NEL SDGs. Samples IDs in parenthesis correspond to the NEL SDG.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inventory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° 3) Unpreserved if analyzed for CO_2 4) No headspace	Cooler temperatures > 6 ^oC, sample results are considered estimated due to the high cooler temperature. Sample custody transferred from Field Team Leader to lab sample courier. NEL Laboratory subcontracted samples to ATL. Samples were shipped with custody seals. ATL (receiving lab) did not indicate any signs of tampering on the sample check in list. No samples qualified.	X	All sample results were qualified J/UJ.	
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	Not applicable	-	-	
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 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) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Tripblank QT1 non-detect for MNA VOCs. No evidence of field/sample shipment cross-contamination.	-	-	
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) <MRL but >MDL – J –detects (estimated) listed on data summary sheet.	All samples were non-detect for all MNA VOCs with the exception of methane in samples 02 (61) and 03 (62). No samples qualified.	X	-	
LCS/ Lab Fortified Blank Recovery	1) 80-120% 2) Optional if an MS and MSD analyzed. 3) Should be analyzed if insufficient volume for an MS. 4) 10% and <LCL% J detects, UJ –Nods 5) >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 %R's are within MPC limits. No samples qualified.	X		
Laboratory RPD	1) RPD<20%	Laboratory duplicated sample 01A (60). Sample was non-detect for MNA VOCs, laboratory precision acceptable. No samples qualified.	X	-	
MS/MSD Recovery	1) 80-120% 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 6) * Recalucate the %R (within 10% of lab)	No MS/MSD samples analyzed. Matrix bias, if any, is unknown.	-	-	
MS/MSD RPD	RPD ≤25% (aq) (when MS >QL) J –detects in MS field sample UJ-non detects * recalculate RPD	MS/MSD RPD not analyzed. Laboratory accuracy not determined by this QC analysis.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Field Dup RPD	1) RPD ≤ 30% aq. soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) Note Method requires FD1 and FD2. For this project FD1 or FD2 will be a field sample. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 7) *Recalculate the concentrations for one compound and the PQL	No field duplicate included in this SDG. Overall precision could not be determined for ethane and ethene and for methane.	X	_	
*MDL Study	1) methane <0.05 mg/L 2) Ethane < 0.005 mg/L 3) Ethane <0.005 mg/L 4) *In accordance with 40CFR – seven replicates %RSD < 20% 5) * 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. 1) %R <10 ND- (R) , J- detects 2) 10%> but <LCL% , judgement 3) %R>UCL% J-detects 8) QC, IS, RRT meet criteria, 9) %RSD < 20% 10) MDL< MQL (3x less ideal) 11) Lab fortitied blank (see VOA/SV Part II –section X). 12) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 13) <u>Dilution factors for samples – impacts to sensitivity</u>	The VSK-175 MRL is 10.00 ug/L, which has been meet by this analytical method. No project action limits are specified for these parameters. However, 1 ug/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 Project sensitivity does not meet the MNA technical letter criteria. The MRL is equal to or greater than the Weidemeier scoring criteria, as follows:. Methane: 500 ppb Ethane: 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 GC/FID method 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 efficiencies which is acknowledged in the method. 5) RF for ethane and ethane within 25% 6) RF for methane within 25% of 1/2 of the ethane/ethane average RF.	Instrument: GC7 Date: 13 October 2005 %RSD<15% (COD not determined) S/N ratio for low level standard is >5 for all analytes.	X	-	
2nd Source ICV	The ICV is optional per the method %D<25% Qualification: J detects, R or UJ NDs	%R used to determine ICV acceptability.	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 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)	Associated CCV's %D<20% for all VOCs. No samples qualified.	X	-	

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. The LCS is in control. Sample matrix bias not determined, as a MS/MSD was not analyzed. Laboratory precision is acceptable, as shown by the laboratory replicate analysis for ethane, ethene, and methane. Temperature upon receipt of the samples was greater than 6 ^{o}C and therefore all sample results for MNA are considered estimated. ICAL; within MPC, S/N acceptable 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 gasses using the Weidemeier scoring criteria. The MNA VOCs have an MDL>the MNA technical letter requirement of Quantitation at 1.0 ppb. Sampling Error Evaluation: Tripblank QT1 non-detect for MNA VOCs so there is no apparent field/sample shipment cross-contamination. No field duplicate included in this SDG. Overall precision could not be determined for ethane and ethene and for methane.	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 1)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/ NO_2, NO_2, SO4, 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)**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04206**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW338C	AI03460
BN-EP-28-MW315A	AI03461
BN-EP-28-MW313	AI03462
BN-EP-28-MW333	AI03465
BN-EP-28-MW338B	AI03468

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 (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (J detects, R/UJ-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 and/or method requirements. No samples qualified.	X	-	
Holding Time	1) alk -14 days, 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	Not collected/analyzed with this SDG.	-	-	
% 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 reported data is 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	Sulfate,TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; Associated method blank non-detect for MNA parameters. Alkalinity method blanks had detects, but all sample detects are greater than 5X the blank level. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 1)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/ NO_2, NO_2, SO4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	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	Sulfate, Alkalinity, TOC, , TOC, Cl, Nitrite Associated LCS %R's within MPC. No samples qualified.	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	Used LCS/LCSD in place of MS.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite. Laboratory replicate RPDs are within MPC. Lab precision is acceptable.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Acceptable sensitivity 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.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; calibration acceptable. Calibrations were within linearity requirements. No samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	2) Within laboratory MPC.	TOC: periodic method blanks non-detect or results were >5X the blank concentration, no samples qualified.	X	-	
2nd Source ICV	3) Within laboratory MPC.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; second source LCS within limits. Applicable ICV's for all methods were within limits. No samples qualified.	X	-	
CCV	4) Within laboratory MPC.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, Cl, Nitrite. Applicable CCV's for all methods were within 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: Laboratory accuracy is acceptable. Accuracy is shown by the LCS being within limits, for all compounds except for Nitrate, which exceeded the UCL. Laboratory precision is acceptable for all elements reported. No apparent matrix bias. For all parameters, where applicable to the method: ICAL: in limits.	X	-	.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
		ICV: in limits CCV: in limits Sampling Error Evaluation: FD not collected/analyzed with this SDG. Sampling error not evaluated.			

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITE EASTERN PLUME
APRIL 2006 SAMPLING ROUND 28 (SDG BNASEP041906A)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE EASTERN PLUME MONITORING EVENT 28

DATE: 3/30/2007

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 Lab
SDG #:_NASBEP04206A
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Site Eastern Plume

# of SAMPLES/MATRIX: VOC 15 and 1 FD; 1,4-Dioxane 2, MNA 7 & 2 FD, 1 TB
VALIDATION CONTRACTOR:__ECC/ASW
VALIDATOR'S NAME: Sherri Pullar
DV Completion Date:_30 August, 2006
Date Sampled__20 April 2006.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	MNA Ground Water Quality	Methane, Ethene, Ethane (Lab; ATL)	1,4-Dioxane	MNA Metals
1	Preservation and HT	O	O	O	O	O
2	Instrument Performance Check	M	-	-	O	O
3	Initial Calibration:	Z	O	O	O	O
4	Continuing Calibration:	M	O	O	O	O
5	Blanks:	M	O	O	O	O
6	Surrogate Compounds:	M	-	-	O	-
7	Internal Standards	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	M	O
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	M	O	O
16	Overall Evaluation of Data:	M	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): VOC; ICAL; SPCC <MPC for 1,1,2,2 TCA; these VOCs are qualified rejected for non-detects and estimated for detects.

AREAS OF CONCERN: (M items):

MNA Water Quality: Total organic carbon was qualified J in sample 544 and qualified UJ in sample 543 due to field duplicate RPD>MPC limits.

VOC: Potential low bias due to SPCC failure. 1,1,2-trichloroethane results were qualified U in samples 530 and 542RE; bromoform was qualified U in sample 530 due to method blank contamination. MeCl results were qualified U in samples 543RE, 547, 547RE, and 466 due to trip blank contamination. J for all samples with estimated results <MRL but >MDL. All VOC non-detects are qualified UJ and detects are qualified J due to ICAL/CCV SPCCs for 1,1,2,2-TCA outside MPC limits. Surrogate 1,2-DCA-d4 qualified J for detects in samples 529, 530, 531, 532, 533, 534, 536, 534RE, 537, 541, 542, 543, 548, 540RE, 541DL, 542DL, 543RE, 547, 547RE, 548RE, & 547DL; and Surrogates Toluene-d8 & 4-bromofluorobenzene qualified J for detects in samples 529, 530, 531, 532, 533, 534, & 536. due to CCV %D outside MPC limits.

MNA Metals; Results for Fe and Mn were qualified J in all samples due to PDS %R >MPC limits.

Methane, ethene, & ethane (MNA VOC); Sensitivity: MRL is equal to or less than MNA scoring criteria; however, sensitivity does not meet MNA Technical letter requirements.

1,4-Dioxane; Result for 1,4-dioxane in sample 541 was qualified J due to Area% >MPC limits.

COMMENTS: VOC analysis SPCC failure (1,1,2,2 TCA) indicates potential low bias in data. The methane, ethene, and ethane data is validated and reported herein per the SDG provided by the laboratory

NAS BRUNSWICK- EASTERN PLUME – APRIL 2006
DATA SUMMARY TABLE – AQUEOUS SDG BNASEP04206A

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	13	ug/L	J	0.34	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	2.6	ug/L	J	0.45	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	3.2	ug/L	J	0.26	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Acetone	13	ug/L	J	0.59	5
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Tetrachloroethene	1.9	ug/L	J	0.36	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Trichloroethene	13	ug/L	J	0.31	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW229AM	AI03529	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW336S	AI03530	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW336	AI03531	EPA 300	4/20/2006	1	Sulfate	2.9	mg/L		0.31	1
BN-EP-28-MW336	AI03531	EPA 310.1	4/20/2006	1	Alkalinity	6.1	mg/L		0.00035	5
BN-EP-28-MW336	AI03531	EPA 353.2	4/20/2006	1	Nitrate/Nitrite Total	0.85	mg/l			0.1
BN-EP-28-MW336	AI03531	EPA 415.1	4/20/2006	1	Total Organic Carbon	1	mg/L	U	0.343	1
BN-EP-28-MW336	AI03531	EPA 6010B	4/20/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28-MW336	AI03531	EPA 6010B	4/20/2006	1	Iron Total, ppb	130	ug/L	J		25
BN-EP-28-MW336	AI03531	EPA 6010B	4/20/2006	1	Manganese Total, ppb	7.7	ug/L	J		2
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW336	AI03531	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW336	AI03531	EPA 9056	4/20/2006	1	Chloride	4.6	mg/L		0.00021	1
BN-EP-28-MW336	AI03531	EPA 9056	4/20/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW336	AI03531	VSK-175	4/20/2006	2	Ethane	10	ug/L	U		5
BN-EP-28-MW336	AI03531	VSK-175	4/20/2006	2	Ethene	10	ug/L	U		5
BN-EP-28-MW336	AI03531	VSK-175	4/20/2006	2	Methane	10	ug/L	U		5
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Acetone	10	ug/L	J	0.59	5
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW335M	AI03532	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	13	ug/L	J	0.34	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	2.6	ug/L	J	0.45	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	4.6	ug/L	J	0.45	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	22	ug/L	J	0.26	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Tetrachloroethene	6.4	ug/L	J	0.36	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Trichloroethene	38	ug/L	J	0.31	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-EW1	AI03533	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW335	AI03534	EPA 300	4/20/2006	1	Sulfate	3.2	mg/L		0.31	1
BN-EP-28-MW335	AI03534	EPA 310.1	4/20/2006	1	Alkalinity	78	mg/L		0.00035	5
BN-EP-28-MW335	AI03534	EPA 353.2	4/20/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MW335	AI03534	EPA 415.1	4/20/2006	1	Total Organic Carbon	1.2	mg/L		0.343	1
BN-EP-28-MW335	AI03534	EPA 6010B	4/20/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28-MW335	AI03534	EPA 6010B	4/20/2006	1	Iron Total, ppb	1100	ug/L	J		25
BN-EP-28-MW335	AI03534	EPA 6010B	4/20/2006	1	Manganese Total, ppb	250	ug/L	J		2
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	1.3	ug/L	J	0.26	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Trichloroethene	0.85	ug/L	J	0.31	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW335	AI03534	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW335	AI03534	EPA 9056	4/20/2006	1	Chloride	41	mg/L		0.00021	1
BN-EP-28-MW335	AI03534	EPA 9056	4/20/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW335	AI03534	VSK-175	4/20/2006	2	Ethane	10	ug/L	U		5
BN-EP-28-MW335	AI03534	VSK-175	4/20/2006	2	Ethene	10	ug/L	U		5
BN-EP-28-MW335	AI03534	VSK-175	4/20/2006	2	Methane	58	ug/L			5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW334	AI03535	EPA 300	4/20/2006	1	Sulfate	3.1	mg/L		0.31	1
BN-EP-28-MW334	AI03535	EPA 310.1	4/20/2006	1	Alkalinity	51	mg/L		0.00035	5
BN-EP-28-MW334	AI03535	EPA 353.2	4/20/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MW334	AI03535	EPA 415.1	4/20/2006	1	Total Organic Carbon	1	mg/L	U	0.343	1
BN-EP-28-MW334	AI03535	EPA 6010B	4/20/2006	1	Arsenic Total,ppb	6	ug/L			2.3
BN-EP-28-MW334	AI03535	EPA 6010B	4/20/2006	1	Iron Total, ppb	940	ug/L	J		25
BN-EP-28-MW334	AI03535	EPA 6010B	4/20/2006	1	Manganese Total, ppb	320	ug/L	J		2
BN-EP-28-MW334	AI03535	EPA 9056	4/20/2006	1	Chloride	19	mg/L		0.00021	1
BN-EP-28-MW334	AI03535	EPA 9056	4/20/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW334	AI03535	VSK-175	4/20/2006	2	Ethane	10	ug/L	U		5
BN-EP-28-MW334	AI03535	VSK-175	4/20/2006	2	Ethene	10	ug/L	U		5
BN-EP-28-MW334	AI03535	VSK-175	4/20/2006	2	Methane	10	ug/L	U		5
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	10	ug/L	J	0.34	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	10	ug/L	J	0.45	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	4.4	ug/L	J	0.45	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	4.3	ug/L	J	0.26	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Chloroform	2.8	ug/L	J	0.36	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Trichloroethene	14	ug/L	J	0.31	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-EW5	AI03536	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-P111	AI03537	EPA 300	4/20/2006	1	Sulfate	13	mg/L		0.31	1
BN-EP-28-P111	AI03537	EPA 310.1	4/20/2006	1	Alkalinity	33	mg/L		0.00035	5
BN-EP-28-P111	AI03537	EPA 353.2	4/20/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-P111	AI03537	EPA 415.1	4/20/2006	1	Total Organic Carbon	1.3	mg/L		0.343	1
BN-EP-28-P111	AI03537	EPA 6010B	4/20/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28-P111	AI03537	EPA 6010B	4/20/2006	1	Iron Total, ppb	740	ug/L	J		25
BN-EP-28-P111	AI03537	EPA 6010B	4/20/2006	1	Manganese Total, ppb	62	ug/L	J		2
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-P111	AI03537	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-P111	AI03537	EPA 9056	4/20/2006	1	Chloride	5.5	mg/L		0.00021	1
BN-EP-28-P111	AI03537	EPA 9056	4/20/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-P111	AI03537	VSK-175	4/20/2006	2	Ethane	10	ug/L	U		5
BN-EP-28-P111	AI03537	VSK-175	4/20/2006	2	Ethene	10	ug/L	U		5
BN-EP-28-P111	AI03537	VSK-175	4/20/2006	2	Methane	10	ug/L	U		5
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Acetone	14	ug/L	J	0.59	5
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Trichloroethene	1.5	ug/L	J	0.31	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW337M	AI03540	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-P106	AI03541	EPA 300	4/20/2006	1	Sulfate	4.4	mg/L		0.31	1
BN-EP-28-P106	AI03541	EPA 310.1	4/20/2006	1	Alkalinity	30	mg/L		0.00035	5
BN-EP-28-P106	AI03541	EPA 353.2	4/20/2006	1	Nitrate/Nitrite Total	0.4	mg/l			0.1
BN-EP-28-P106	AI03541	EPA 415.1	4/20/2006	1	Total Organic Carbon	1	mg/L	U	0.343	1
BN-EP-28-P106	AI03541	EPA 6010B	4/20/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28-P106	AI03541	EPA 6010B	4/20/2006	1	Iron Total, ppb	120	ug/L	J		25

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-P106	AI03541	EPA 6010B	4/20/2006	1	Manganese Total, ppb	2.1	ug/L	J		2
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	10	1,1,1-Trichloroethane	420	ug/L	J	0.34	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	0.52	ug/L	J	0.39	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	33	ug/L	J	0.45	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	58	ug/L	J	0.45	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	12	ug/L	J	0.26	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	1,4 Dioxane	31	ug/L	J	0.49	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Tetrachloroethene	4.3	ug/L	J	0.36	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	10	Trichloroethene	210	ug/L	J	0.31	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-P106	AI03541	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-P106	AI03541	EPA 9056	4/20/2006	1	Chloride	14	mg/L		0.00021	1
BN-EP-28-P106	AI03541	EPA 9056	4/20/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-P106	AI03541	VSK-175	4/20/2006	2	Ethane	10	ug/L	U		5
BN-EP-28-P106	AI03541	VSK-175	4/20/2006	2	Ethene	10	ug/L	U		5
BN-EP-28-P106	AI03541	VSK-175	4/20/2006	2	Methane	10	ug/L	U		5
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	10	1,1,1-Trichloroethane	380	ug/L	J	0.34	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	0.57	ug/L	J	0.39	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	32	ug/L	J	0.45	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	56	ug/L	J	0.45	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	12	ug/L	J	0.26	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Tetrachloroethene	4.2	ug/L	J	0.36	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	10	Trichloroethene	190	ug/L	J	0.31	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MWXD6	AI03542	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW337	AI03543	EPA 300	4/20/2006	1	Sulfate	4	mg/L		0.31	1
BN-EP-28-MW337	AI03543	EPA 310.1	4/20/2006	1	Alkalinity	48	mg/L		0.00035	5
BN-EP-28-MW337	AI03543	EPA 353.2	4/20/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MW337	AI03543	EPA 415.1	4/20/2006	1	Total Organic Carbon	1	mg/L	UJ	0.343	1
BN-EP-28-MW337	AI03543	EPA 6010B	4/20/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28-MW337	AI03543	EPA 6010B	4/20/2006	1	Iron Total, ppb	1200	ug/L	J		25
BN-EP-28-MW337	AI03543	EPA 6010B	4/20/2006	1	Manganese Total, ppb	730	ug/L	J		2
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Trichloroethene	1.5	ug/L	J	0.31	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW337	AI03543	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW337	AI03543	EPA 9056	4/20/2006	1	Chloride	12	mg/L		0.00021	1
BN-EP-28-MW337	AI03543	EPA 9056	4/20/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW337	AI03543	VSK-175	4/20/2006	2	Ethane	10	ug/L	U		5
BN-EP-28-MW337	AI03543	VSK-175	4/20/2006	2	Ethene	10	ug/L	U		5
BN-EP-28-MW337	AI03543	VSK-175	4/20/2006	2	Methane	10	ug/L	U		5
BN-EP-28-MNAXD2	AI03544	EPA 300	4/20/2006	1	Sulfate	3.8	mg/L		0.31	1
BN-EP-28-MNAXD2	AI03544	EPA 310.1	4/20/2006	1	Alkalinity	47	mg/L		0.00035	5
BN-EP-28-MNAXD2	AI03544	EPA 353.2	4/20/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MNAXD2	AI03544	EPA 415.1	4/20/2006	1	Total Organic Carbon	1	mg/L	J	0.343	1
BN-EP-28-MNAXD2	AI03544	EPA 6010B	4/20/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28-MNAXD2	AI03544	EPA 6010B	4/20/2006	1	Iron Total, ppb	1600	ug/L	J		25
BN-EP-28-MNAXD2	AI03544	EPA 6010B	4/20/2006	1	Manganese Total, ppb	930	ug/L	J		2
BN-EP-28-MNAXD2	AI03544	EPA 9056	4/20/2006	1	Chloride	12	mg/L		0.00021	1
BN-EP-28-MNAXD2	AI03544	EPA 9056	4/20/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MNAXD2	AI03544	VSK-175	4/20/2006	2	Ethane	10	ug/L	U		5
BN-EP-28-MNAXD2	AI03544	VSK-175	4/20/2006	2	Ethene	10	ug/L	U		5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MNAXD2	AI03544	VSK-175	4/20/2006	2	Methane	10	ug/L	U		5
BN-EP-28MW331	AI03545	EPA 300	4/20/2006	1	Sulfate	8.8	mg/L		0.31	1
BN-EP-28MW331	AI03545	EPA 310.1	4/20/2006	1	Alkalinity	47	mg/L		0.00035	5
BN-EP-28MW331	AI03545	EPA 353.2	4/20/2006	1	Nitrate/Nitrite Total	0.71	mg/l			0.1
BN-EP-28MW331	AI03545	EPA 415.1	4/20/2006	1	Total Organic Carbon	1	mg/L	U	0.343	1
BN-EP-28MW331	AI03545	EPA 6010B	4/20/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28MW331	AI03545	EPA 6010B	4/20/2006	1	Iron Total, ppb	200	ug/L	J		25
BN-EP-28MW331	AI03545	EPA 6010B	4/20/2006	1	Manganese Total, ppb	44	ug/L	J		2
BN-EP-28MW331	AI03545	EPA 8260B	4/20/2006	1	1,4 Dioxane	26	ug/L		0.49	1
BN-EP-28MW331	AI03545	EPA 9056	4/20/2006	1	Chloride	63	mg/L		0.00021	1
BN-EP-28MW331	AI03545	EPA 9056	4/20/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28MW331	AI03545	VSK-175	4/20/2006	2	Ethane	10	ug/L	U		5
BN-EP-28MW331	AI03545	VSK-175	4/20/2006	2	Ethene	10	ug/L	U		5
BN-EP-28MW331	AI03545	VSK-175	4/20/2006	2	Methane	10	ug/L	U		5
BN-EP-28-MNAXD1	AI03546	EPA 300	4/20/2006	1	Sulfate	9	mg/L		0.31	1
BN-EP-28-MNAXD1	AI03546	EPA 310.1	4/20/2006	1	Alkalinity	46	mg/L		0.00035	5
BN-EP-28-MNAXD1	AI03546	EPA 353.2	4/20/2006	1	Nitrate/Nitrite Total	0.74	mg/l			0.1
BN-EP-28-MNAXD1	AI03546	EPA 415.1	4/20/2006	1	Total Organic Carbon	1	mg/L	U	0.343	1
BN-EP-28-MNAXD1	AI03546	EPA 6010B	4/20/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28-MNAXD1	AI03546	EPA 6010B	4/20/2006	1	Iron Total, ppb	200	ug/L	J		25
BN-EP-28-MNAXD1	AI03546	EPA 6010B	4/20/2006	1	Manganese Total, ppb	45	ug/L	J		2
BN-EP-28-MNAXD1	AI03546	EPA 9056	4/20/2006	1	Chloride	62	mg/L		0.00021	1
BN-EP-28-MNAXD1	AI03546	EPA 9056	4/20/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MNAXD1	AI03546	VSK-175	4/20/2006	2	Ethane	10	ug/L	U		5
BN-EP-28-MNAXD1	AI03546	VSK-175	4/20/2006	2	Ethene	10	ug/L	U		5
BN-EP-28-MNAXD1	AI03546	VSK-175	4/20/2006	2	Methane	10	ug/L	U		5
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	50	1,1,1-Trichloroethane	140	ug/L	J	0.34	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	53	ug/L	J	0.45	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	27	ug/L	J	0.45	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	50	1,2-Dichloroethene (total)	230	ug/L	J	0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Acetone	36	ug/L	J	0.59	5
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Methylene Chloride	1.9	ug/L	UJ	0.51	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Tetrachloroethene	0.95	ug/L	J	0.36	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Trichloroethene	68	ug/L	J	0.31	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW331M	AI03547	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	1,4 Dioxane	1	ug/L	UJ	0.49	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Methylene Chloride	5.4	ug/L	J	0.51	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-27-QT2	AI03548	EPA 8260B	4/20/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-27-QT2	AI03548	VSK-175	4/20/2006	2	Ethane	10	ug/L	U		5
BN-EP-27-QT2	AI03548	VSK-175	4/20/2006	2	Ethene	10	ug/L	U		5
BN-EP-27-QT2	AI03548	VSK-175	4/20/2006	2	Methane	10	ug/L	U		5

FIELD DUPLICATE WORKSHEET

SDG: BNASEP0406A

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qaulifier	FD RPD (%)
BN-EP-28-P106	1,1,1-Trichloroethane	EPA 8260B	420	ug/L		BN-EP-28-MWXD6	380	ug/L		10
BN-EP-28-P106	1,1,2-Trichloroethane	EPA 8260B	0.52	ug/L		BN-EP-28-MWXD6	0.57	ug/L		9.2
BN-EP-28-P106	1,1-Dichloroethane	EPA 8260B	33	ug/L		BN-EP-28-MWXD6	32	ug/L		3.1
BN-EP-28-P106	1,1-Dichloroethene	EPA 8260B	58	ug/L		BN-EP-28-MWXD6	56	ug/L		3.5
BN-EP-28-P106	1,2-Dichloroethene (total)	EPA 8260B	12	ug/L		BN-EP-28-MWXD6	12	ug/L		0
BN-EP-28-P106	Tetrachloroethene	EPA 8260B	4.3	ug/L		BN-EP-28-MWXD6	4.2	ug/L		2.4
BN-EP-28-P106	Trichloroethene	EPA 8260B	210	ug/L		BN-EP-28-MWXD6	190	ug/L		10
BN-EP-28-MW337	Iron Total, ppb	EPA 6010B	1200	ug/L		BN-EP-28-MNAXD2	1600	ug/L		28.6
BN-EP-28-MW337	Manganese Total, ppb	EPA 6010B	730	ug/L		BN-EP-28-MNAXD2	930	ug/L		24.1
BN-EP-28MW331	Iron Total, ppb	EPA 6010B	200	ug/L		BN-EP-28-MNAXD1	200	ug/L		0
BN-EP-28MW331	Manganese Total, ppb	EPA 6010B	44	ug/L		BN-EP-28-MNAXD1	45	ug/L		2.2
BN-EP-28-MW337	Sulfate	EPA 300	4	mg/L		BN-EP-28-MNAXD2	3.8	mg/L		5.1
BN-EP-28-MW337	Alkalinity	EPA 310.1	48	mg/L		BN-EP-28-MNAXD2	47	mg/L		2.1
BN-EP-28-MW337	Total Organic Carbon	EPA 415.1	1	mg/L	UJ	BN-EP-28-MNAXD2	1	mg/L	J	NC
BN-EP-28-MW337	Chloride	EPA 9056	12	mg/L		BN-EP-28-MNAXD2	12	mg/L		0
BN-EP-28MW331	Sulfate	EPA 300	8.8	mg/L		BN-EP-28-MNAXD1	9	mg/L		2.2
BN-EP-28MW331	Alkalinity	EPA 310.1	47	mg/L		BN-EP-28-MNAXD1	46	mg/L		2.2
BN-EP-28MW331	Nitrate/Nitrite Total	EPA 353.2	0.71	mg/l		BN-EP-28-MNAXD1	0.74	mg/L		4.1
BN-EP-28MW331	Chloride	EPA 9056	63	mg/L		BN-EP-28-MNAXD1	62	mg/L		1.6

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**	**3 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04206A**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-336	AI03531
BN-EP-28-MW334	AI03535
BN-EP-28-P111	AI03537
BN-EP-28-P106	AI03541
BN-EP-28-MW337	AI03543
BN-EP-28-MNAXD2	AI03544 (field duplicate for AI03543)
BN-EP-28-MW331	AI03545
BN-EP-28-MNAXD1	AI03546 (field duplicate for AI03545)

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	Field sample / Field duplicate 543 / 544 545 / 546 The FD pair 543/544 had FD RPD within MPC limits. The FD pair 545/546 had FD RPD within MPC limits. Overall 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	Not applicable	-	-	

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
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 for all MNA metals (As, Fe, Mn). 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 for aqueous samples.	X	-	
LCS/LCSD RPD	1) RPD<20%	All LCS/LCSD RPDs are within MPC. 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	Field sample 543 used for MS/MSD. Fe & Mn MS %Rs were outside MPC limits but the native sample levels were >4X the MS, no qualified samples.	X	-.	
MS/MSD RPD	MS/MSD RPD<20%	MS/MSD RPDs within limits. Laboratory precision is acceptable.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Labortatory duplicate within MPC limits. No samples qualified.	-	-	
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 MNA technical letter requirements except for Mn (MRL = 2). The Mn IDL is less than the MNA technical letter MRL. Sensitivinty 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	-	

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 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 used to analyze the samples. 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 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 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.	No serial dilution analyzed. 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 for 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%	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)	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

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
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachement A-1)	Sample 543 used for PDS. Fe and Mn PDS %R outside MPC limits. Results for Fe and Mn were qualified J in all samples.	X	Results for Fe and Mn were qualified J in all samples.	
*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. The LCS %R were within limits. No apparent matrix bias. Laboratory precision is acceptable as determined by the laboratory duplicate and MS/MSD RPD. PDS %Rs were outside MPC limits for Fe & Mn. All samples were qualified J. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Field sample / Field duplicate 544 / 544 545 / 546 The FD pair 543/544 had FD RPD within MPC limits. The FD pair 545/546 had FD RPD within MPC limits. Overall 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) **VOCs 5030B/5035/8260B**
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	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**3 coolers – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04206A**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW229AM	AI03529
BN-EP-28-MW336S	AI03530
BN-EP-28-336	AI03531
BN-EP-28-MW335M	AI03532
BN-EP-28-EW1	AI03533
BN-EP-28-MW335	AI03534
BN-EP-28-EW5	AI03536
BN-EP-28-P111	AI03537
BN-EP-28-MW308	AI03538
BN-EP-28-MW308D	AI03539
BN-EP-28-MW337M	AI03540
BN-EP-28-P106	AI03541
BN-EP-28-MWXD6	AI03542 (field duplicate for AI03541)
BN-EP-28-MW337	AI03543
BN-EP-28-MW331M	AI03547
BN-EP-28-QT2	AI03548

Note: Samples are described below in the data worksheets by reference to the last 3 digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (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) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	Analyzed within holding time.	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	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants – acetone, 2-butanone or Mecl. 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 *check 10% of raw chromatograms for false +/-, check for transcription errors	Method blanks by date: 03 May 06: 1,1,2-trichloroethane – 0.71 ug/L & bromoform – 0.58 ug/L. 03 May 06: 1,1,2-trichloroethane – 0.71 ug/L 05 May 06: acetone – 3.68 ug/L & MeCl – 0.61 ug/L. Acetone and MeCL were non-detect in associated samples.	X	1,1,2-trichloroethane results were qualified U in samples 530 and 542RE. Result for bromoform was qualified U in sample 530.	
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	Aqueous tripblank BN-EP-28-QT2 Non-detect for all LTMP TCL VOCs with the exception of MeCl. No apparent cross contamination.	X	MeCl results were qualified U in samples 543RE, 547, 547RE, and 466.	
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	6) >Upper Cal Range J-detects - ensure instrument blank performed 7) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <MRL: were qualified J.	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	Inv en-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 surrogated (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 QAPP MPC limits, except 4-bromofluorobenzene %R<LCL in samples 530, 532, 533, 534, 536, 541, 542, 536RE, 537RE, 540, 541RE, 542RE, 540RE, 541DL, 542DL, 543RE, 547, 547RE, 548RE, and blanks VBLKJ502 and VBLKJ0503;, 1,2 Dichloroethane-D4 %R>UCL in samples 534RE, 537, 541, 542, 543, 530RE, 532RE, 533RE, 536RE, 537RE, 540, 541RE, 542RE, 548, 540RE 541DL, 542DL, 543RE, 547, 547RE, 548RE, & 547DL Blank: VBLKJ502, VBLKJ04, and VBLKJ505; LCS/LCSDs: LCSJ502, LCSDJ502,, LCSJO503, LCSDJ0503, LCSJ503, LCSDJ503,LCSJ04, LCSDJ04, LCSJ505 and LCSDJ505; and toluene-d8 %R<LCL in samples 541DL, 542DL, 543RE, 547, 547RE, & 548RE. All samples have been re-analyzed with similar results. Use original analysis for decision making (re-analysis qualified "ZZZ"). Results for samples 448, 449, 450, 452, 454, 455, 456, 457, 458, and 459.would have been qualified estimated (J/UJ) but were already qualified estimated due to SPCC >MPC limits.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
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 recoveries were within MPC limits, except LCS %R's for: 4/30/06 (17:25); LCS %R>UCL – chloroethane, acetone, chloroform, carbon tetrachloride, tetrachloroethene. Acetone results in samples 529, 530, 531, & 532 would have been qualified estimated (J) however, results were already qualified estimated due to SPCC >MPC limits. Chloroethane, chloroform, & carbon tetrachloride were non-detect in the associated samples, no samples qualified. 5/2/06 (20:48); LCS %R>UCL – chloroethane, acetone, 1,1-dichloroethane, 2-butanone, chloroform, 1,2-dichloroethane, & 1,1,2,2-tetrachloroethane. Chloroethane, acetone, 1,1-dichloroethane, 2-butanone, chloroform, 1,2-dichloroethane, 1,1,2,2-tetrachloroethane were non-detect in the associated samples, no samples qualified. 5/3/06 (8:30); LCS %R<LCL – chloromethane, vinyl chloride, & chloroethane. Chloromethane, vinyl chloride, & chloroethane results in samples 530RE, 532RE, 533RE, 536RE, 537RE, 540, 541RE, & 542RE would have been qualified estimated (UJ) however, results were already qualified estimated due to SPCC >MPC limits. LCS %R>UCL – acetone, 1,2-dichloroethane, & 1,1,2,2-tetrachloroethane. Acetone results in samples 530RE, 532RE, & 540 would have been qualified estimated (J) however, results were already qualified estimated due to SPCC >MPC limits. 1,2-Dichloroethane & 1,1,2,2-tetrachloroethane were non-detect in the associated samples, no samples qualified. 5/3/06 (17:40); LCS %R<LCL – chloromethane & vinyl chloride. Chloromethane & vinyl chloride results in sample 548 would have been qualified estimated (UJ) however, results were already qualified estimated due to SPCC >MPC limits. LCS %R>UCL –acetone, methylene chloride, 1,1-dichloroethane, chloroform, 1,2-dichloroethane, & 1,1,2,2-tetrachloroethane The result for methylene chloride in sample 548 would have been qualified estimated (UJ) however, the result was already qualified estimated due to SPCC >MPC	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		limits. Acetone, 1,1-dichloroethane, chloroform, 1,2-dichloroethane, & 1,1,2,2-tetrachloroethane were non-detect in the associated samples, no samples qualified. 5/4/06 (8:44); LCS %R > UCL – chloroethane, acetone, methylene, chloride, 1,1-DCA, and 1,1,2,2-TCA. 1,1-DCA results in samples 542DL, 547, & 547RE would have been qualified estimated (J) however, results were already qualified estimated due to SPCC >MPC limits. The result for methylene, chloride in samples 548RE would have been qualified estimated (J) however, the result was already qualified estimated due to SPCC >MPC limits. Acetone results in samples 540RE, 547, & 547RE would have been qualified estimated (J) however, results were already qualified estimated due to SPCC >MPC limits. Chloroethane and 1,1,2,2- tetrachloroethane were non-detect in the associated samples, no samples qualified. 5/5/06 (9:14); LCS %R<LCL – chloromethane & vinyl chloride. Chloromethane & vinyl chloride were non-detect in the associated samples, no samples qualified. LCS %R >UCL –acetone, methylene chloride, 1,1-DCA, 2-butanone, chloroform, 1,1,1-TCA, Carbon tetrachloride, 1,2-DCA, Benzene, and 1,1,2,2-TCA. 1,1-DCA & 1,1,1-TCA would have been qualified estimated (J) however, results were already qualified estimated due to SPCC >MPC limits. Acetone, methylene chloride, 2-butanone, chloroform, carbon tetrachloride, 1,2-DCA, benzene, and 1,1,2,2-TCA were non-detect in the associated samples, no samples qualified.			
LCSD RPD	RPD ≤20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J- detects	4/30/06 (17:25); LCS/LCSD RPD>20% for acetone & methylene chloride. 5/2/06 (20:48); LCS/LCSD RPD>20% for chloroethane. 5/3/06 (8:30); LCS/LCSD RPD>20% for chloroethane Compounds listed above were qualified estimated due to SPCC >MPC limits. Laboratory precision is acceptable	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
*MS/MSD/unspike sample RSD	1)For unspiked compounds if reported, Non- MS spike compounds <50% RSD calculated from MS/MSD/Unspiked Qualification: >50% RSD J-detects 2)*recalculate the RPD (within 10% of lab)	NA	-	-	
*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 8) *Matrix effects- MS/MSD, surrogated, PDS. 9) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 10) *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.	All detections are acceptable. No samples qualified.	X	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 11) PES > acceptance criteria – Detects in samples J, 12) PES<acceptance criteria – Detects J, NDs –R 13) VOA/SV-XI14 other criteria 14) *% of PES sample above and below criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 2) 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) * Recalculate the %R (within 10% of lab)	LCS/LCSD used in place of MS/MSD. See LCS for details.	X	-	-

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS sample UJ-non detects * recalculate RPD	LCS/LCSD used in place of MS/MSD. See LCS for details.	X	-	
Field Dup RPD	1) RPD ≤ 30% aq. ≤ 50 soil for Results > PQL (FD pair only) J-detects (both > PQL) 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. *Recalculate the concentrations for one compound and the PQL	Field sample Field duplicate 541 542 The FD pair 541/542 had FD RPD within MPC limits. Overall 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 *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 7) *check for IS transcription errors 8) FBZ = fluroobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	Internal standards and RT's within MPC limits.	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) <u>Dilution factors for samples – impacts to sensitivity</u>	10X, 10X, and 50X dilution were required for samples 541, 542, & 547 (respectively). MRL are less than LTMP QAPP MRLs. MRLs are less than MEG (except for vinyl chloride) and MCLs. Sensitivity is acceptable.	X	-	
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 within MPC limits.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCE, chloroform, 1,2dichloropropane,	Instrument; Saviour 01 May 2006 All RRF's within MPC limits for all VOC's	X	1,1,2,2 TCA non-detects in ALL samples are	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	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/UJ 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, CS, 1,/22/03 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)	of concern. All CCCs are in MPC. All SPCC are in MPC except for 1,1,2,2 TCA ICAL SPCC was evaluated before sample analysis but due to holding time considerations, all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system.		qualified as R. All VOC non-detects are qualified UJ and detects qualified J in all samples.	
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; Saviour 28 April 2006 All %RSD < 30 with the exception of chloroethane, acetone, & hexachlorobutadiene. Laboratory narrative states all compounds with %RSD>MPC were fitted with linear or quadratic curves. These curves were provided by the laboratory for evaluation. No samples qualified. 1 May 2006 All %RSD < 30 with the exception of chloroethane, methylene chloride, & 1,1,2,2-TCA. Laboratory narrative states all compounds with %RSD>MPC were fitted with linear or quadratic curves. These curves were provided by the laboratory for evaluation. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
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	Same as CCV. Please see the CCV section below.	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; Saviour 30 April 2006 Chloromethane, acetone, 2-butanone, cis-1,2-dichloroethene, 1,2-dichloroethane-d4, toluene-d8, 2-hexanone, 1,1,2,2-TCA, & 4-bromofluorobenzene have %D>MPC or CCRF <MPC. 2 May 2006 vinyl chloride, acetone, 1,1-dichloroethane, 2-butanone, chloroform, 1,2-dichloroethane-d4, 1,1,1-trichloroethane, carbon tetrachloride, 1,2-dichloroethane, benzene, 2-hexanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, & hexachlorobutadiene have %D>MPC or CCRF <MPC. 3 May 2006 Chloromethane, chloroethane, 1,1-dichloroethane, chloroform, 1,1,1-trichloroethane, carbon tetrachloride, benzene, 4-methyl-2-pentanone, 2-hexanone, tetrachloroethene, bromoform, 1,1,2,2-tetrachloroethane, & hexachlorobutadiene have %D>MPC or CCRF<MPC. 3 May 06 Vinyl chloride, chloroethane, trans-1,2-DCE, 1,1-DCA, chloroform, 1,1,1-TCA, 1,2-dichloroethane, benzene, 4-methyl-2-pentanone, 2-hexanone, tetrachloroethene, bromoform, 1,1,2,2-TCA, hexachlorobutadiene and surrogate 1,2-DCA-d4 have %D>MPC 4 May 06 acetone, 1,1-DCA, 2-Butanone, chloroform, 1,1,1-TCA, carbon tetrachloride, 1,2-dichloroethane, benzene, 2-hexanone, 1,1,2,2-TCA, hexachlorobutadiene and surrogate 1,2-DCA-d4, have %D>MPC 05 May 2006 chloroethane, acetone, MeCl, 1,1-DCA, 2-Butanone, cis-1,2-DCE, chloroform, 1,1,1-TCA, carbon tetrachloride, 1,2-dichloroethane, benzene, 2-hexanone, tetrachloroethene, 1,1,2,2-TCA,	X	Surrogate 1,2-DCA-d4 qualified J for detects in samples 529, 530, 531, 532, 533, 534, 536, 534RE, 537, 541, 542, 543, 548, 540RE, 541DL, 542DL, 543RE, 547, 547RE, 548RE, & 547DL. Surrogates Toluene-d8 & 4-bromofluorobenzene qualified J for detects in samples 529, 530, 531, 532, 533, 534, & 536.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		hexachlorobutadiene and surrogate 1,2-DCA-d4, have %D>MPC All SPCC are in MPC except for 1,1,2,2 TCA ICAL SPCC was evaluated before sample analysis but due to holding time considerations, all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system. Note all samples were qualified due to SPCC > MPC limits for 1,1,2,2-TCA in ICAL. See above.			
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 precision and accuracy should be considered to have a strong potential for low bias. Accuracy is within limits, except for chloroethane, methylene chloride, 1,1-dichloroethane, acetone, chloroform, carbon tetrachloride, tetrachloroethene, 1,2-dichloroethane, and 1,1,2,2-tetrachloroethane which had LCS %R's outside MPC limits and high CCV %D. Surrogates were outside MPC limits for 1,2 Dichloroethane-D4, toluene-d8 and 4-bromofluorobenzene in many samples. Use original analysis for decision making (re-analysis qualified "ZZZ") J for all samples with estimated results <MRL but >MDL. The reported MRL's and MDL's provide adequate sensitivity to support evaluation against MEG and MCL's for all compounds except vinyl chloride. Tune checks within MPC limits. ICALs: SPCC was out of limits for 1,1,2,2 TCA. This VOC was rejected if non-detect. The sample was re-analyzed but not with a proper ICAL. All other samples were qualified J (detects) or UJ (non-detects), because of the SPCC failure. ICV: within limits.	X	-	Potential low bias due to SPCC failure.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		CCV: Surrogates 1,2-DCA-d4, toluene-d8 and 4-bromofluorobenz had %D>MPC and numerous other compounds were outside the limits but were already qualified due to SPCC failure. Internal standards and RT's within MPC limits. Method blank samples contained 1,1,2-trichloroethane, bromoform, acetone, and MeCl. 1,1,2-trichloroethane results were qualified U in samples 530 and 542RE. Result for bromoform was qualified U in sample 530. Sampling Error Evaluation: Tripblank was non-detect for all VOCs with the exception of MeCl. No apparent field cross contamination. Field sample Field duplicate 541 542 The FD pair 541/542 had FD RPD within MPC limits. Overall precision is acceptable.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Lab Correspondence: None.

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030/5035/8260BSIM 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**	**HCl**	**Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04206A**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-P106	AI03541
BN-EP-28-MW331	AI03545
BN-EP-28-QT2	AI03548

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° 3) Unpreserved 4) No headspace	Cooler temperatures < 6 ^oC. Surrogate recoveries were adequate and LCS/LCSD recoveries were adequate, so no impact from improper 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	Not applicable	-	-	
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 –Nods, %R >10% but <70% J-detects, UJ NDs	All reported surrogate recoveries for field samples within MPC limits. No samples qualified.	X	-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants – acetone, 2-butanone or Mecl. 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 contained 1,4-dioxane at 0.90 ug/L. Sample results were greater than 5X the method blank contamination. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < 5x 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	Aqueous tripblank BN-EP-28-QT2 Non-detect for 1,4-dioxane.	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 sample detects were greater than the MRL.	X	-	
LCS Recovery	1) 1,4 Dioxane 60-140% 2) 10% and <LCL% J detects, UJ –Nods 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 LCS %R's are within MPC limits. No samples qualified.	X	-	
LCS/LCSC RPD	RPD ≤20% (aq) (when MS >QL) Not a method specified QC check.	LCS/LCSD RPD <20%. Laboratory accuracy is acceptable	x	-	
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)	Not analyzed with this SDG. Matrix bias unevaluated.	-	-	
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS field sample UJ-non detects * recalculate RPD	Not analyzed with this SDG. Laboratory precision by MS/MSD RPD unevaluated.	-	-	
Field Dup RPD	1) RPD ≤ 30% aq. soil for Results > PQL (FD pair only) J-detects (both > PQL) 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	Not collected /analyzed with this sample data group. Overall precision not evaluated.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 5) *Recalculate the concentrations for one compound and the PQ				
*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 7) *check for IS transcription errors 8) FBZ = fluroobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	All IS %R's are within MPC limits. No field samples qualified. All IS %Area are within MPC limits with the exception of 4-BFB for sample 541. Sample has been re-analyzed with similar results. Use diluted analysis for decision making (original analysis qualified "ZZZ").	X	Result for 1,4-dioxane in sample 541 was qualified J.	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 1) %R <10 ND- (R) , J- detects 2) 10%> but <LCL% , judgement 3) %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. The site action limit is not in the QAPP, but is ca. 35 ppb. The project 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.	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	X	-	
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. 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 fall under the *RRF exclusions of Section (IV-8) Tier II guidance.* 4) %RSD<30% Qualification for compounds with : %RSD>30%	Instrument Saviour 4 May 05 Applies to all samples %RSD>30% calibration. Instrument Saviour Laboratory narrative states linear curves were use; linear regression curves presented. Linearity confirmed by ICV.	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP nor analytical SOP. %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	CCV after ICAL used for ICV %Drift <25%. Linearity of calibration confirmed. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
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)	CCV %D>30%; within MPC limits. CCV Area% within MPC limits.	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: Laboratory is accuracy acceptable, as the laboratory LCS/LCSD, and surrogates are within limits. MS/MSD not analyzed; therefore, the matrix bias is unknown. Method blank contained 1,4-dioxane at a concentration of 0.90 ug/L, however sample concentrations were greater than 5X the concentration in the blank. No sample qualifications. Aqueous tripblank QT2 was non-detect for 1,4-dioxane. Tune check passed. IS %Area outside MPC limits for 4-BFB in sample 541. ICAL; within MPC (linear calibration per laboratory notes). ICV: within MPC for %drift CCV: samples analyzed within 12-hours of ICal. Post CCV had acceptable %Drift for 1,4 dioxane. CCV Area% inside MPC limits. Sampling Error Evaluation Not collected /analyzed with this sample data group. Overall precision not evaluated.	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) **5030/ (Region I Methane SOP aka VSK-175)**
Project: NAS Brunswick ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance and VSK-175 SOP (EPA 2001)**

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**Temp (^oC): >6 ^oC** **1-cooler to ATL 11 ^oC**	**Air Toxic Laboratory, Folsom, CA**	**ATL SDG: 0604469 subcontracted to ATL NEL SDG BNASEP04206A**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
AI03531 (BN-EP-28-336)	0604469-01A
AI03534 (BN-EP-28-MW335)	0604469-02A
AI03535 (BN-EP-28-MW334)	0604469-03A
AI03537 (BN-EP-28-P111)	0604469-04A
AI03541 (BN-EP-28-P106)	0604469-05A
AI03543 (BN-EP-28-MW337)	0604469-06A
AI03544 (BN-EP-28-MNAXD2)	0604469-07A (field duplicate for 0604469-06A)
AI03545 (BN-EP-28-MW331)	0604469-08A
AI03546 (BN-EP-28-MNAXD1)	0604469-09A (field duplicate for 0604469-08A)
AI03548 (BN-EP-28-QT2)	0604469-10A

Note: Samples are described below in the data worksheets by reference to the last three digits/letters of the Lab Sample Number.
Note: The ATL SDGs do not correspond to the NEL SDGs. Samples IDs in parenthesis correspond to the NEL SDG.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° 3) Unpreserved if analyzed for CO_2 4) No headspace	Cooler temperatures <6 ^oC. Sample custody transferred from Field Team Leader to lab sample courier. NEL Laboratory subcontracted samples to ATL. Samples were shipped with custody seals. ATL (receiving lab) did not indicate any signs of tampering on the sample check in list. 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	Not applicable	-	-	
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	Associated method blank was non-detect. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	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				
Trip Blank	1) < MRL 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	Tripblank QT2 non-detect for MNA VOCs. No evidence of field/sample shipment cross-contamination.	-	-	
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) <MRL but >MDL – J –detects (estimated) listed on data summary sheet.	All samples were non-detect for all MNA VOCs with the exception of methane in sample 02 (534). No samples qualified.	X	-	
LCS/ Lab Fortified Blank Recovery	1) 80-120% 2) Optional if an MS and MSD analyzed. 3) Should be analyzed if insufficient volume for an MS. 4) 10% and <LCL% J detects, UJ –Nods 5) >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 %R's are within MPC limits. No samples qualified.	X		
Laboratory RPD	1) RPD<20%	Laboratory duplicated sample 09A (546). Sample was non-detect for MNA VOCs, laboratory precision acceptable. No samples qualified.	X	-	
MS/MSD Recovery	1) 80-120% 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 6) * Recalucate the %R (within 10% of lab)	Field sample 543 used for MS/MSD. MS/MSD %R were within MCP limits.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD RPD	RPD ≤25% (aq) (when MS >QL) J –detects in MS field sample UJ-non detects * recalculate RPD	MS/MSD RPDs within limits. Laboratory precision is acceptable.	-	-	
Field Dup RPD	1) RPD ≤ 30% aq. soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) Note Method requires FD1 and FD2. For this project FD1 or FD2 will be a field sample. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 7) *Recalculate the concentrations for one compound and the PQL	Field sample Field duplicate 543 544 545 546 The FD pair 543/544 within MPC. The FD pair 545/546 within MPC. Overall precision is acceptable.	X	_	
*MDL Study	1) methane <0.05 mg/L 2) Ethane < 0.005 mg/L 3) Ethane <0.005 mg/L 4) *In accordance with 40CFR – seven replicates %RSD < 20% 5) * 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. 1) %R <10 ND- (R) , J- detects 2) 10%> but <LCL% , judgement 3) %R>UCL% J-detects 8) QC, IS, RRT meet criteria, 9) %RSD < 20% 10) MDL< MQL (3x less ideal) 11) Lab fortitied blank (see VOA/SV Part II –section X). 12) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 13) <u>Dilution factors for samples – impacts to sensitivity</u>	The VSK-175 MRL is 10.00 ug/L, which has been meet by this analytical method. No project action limits are specified for these parameters. However, 1 ug/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 Project sensitivity does not meet the MNA technical letter criteria. The MRL is equal to or greater than the Weidemeier scoring criteria, as follows:. Methane: 500 ppb Ethane: 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 GC/FID method 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 efficiencies which is acknowledged in the method. 5) RF for ethane and ethane within 25% 6) RF for methane within 25% of 1/2 of the ethane/ethane average RF.	%RSD<15% (COD not determined) S/N ratio for low level standard is >5 for all analytes.	X	-	
2nd Source ICV	The ICV is optional per the method %D<25% Qualification: J detects, R or UJ NDs	%R used to determine ICV acceptability.	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 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.	Associated CCV's %D<20% for all VOCs. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	10) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)				
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. The LCS & MS/MSD are in control. Laboratory precision is acceptable, as shown by the laboratory replicate analysis for ethane, ethene, and methane. ICAL; within MPC, S/N acceptable ICV: within MPC limits CCV: within MPC limits. Analytical sensitivity is acceptable for evaluation of MNA gasses using the Weidemeier scoring criteria. The MNA VOCs have an MDL>the MNA technical letter requirement of Quantitation at 1.0 ppb. Sampling Error Evaluation: Tripblank QT2 non-detect for MNA VOCs so there is no apparent field/sample shipment cross-contamination. Field sample / Field duplicate 544 / 544 545 / 546 The FD pair 543/544 within MPC. The FD pair 545/546 within MPC. 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 1)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/ NO_2, NO_2, SO4, 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)**	**3 coolers – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP041906A**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-336	AI03531
BN-EP-28-MW335	AI03534
BN-EP-28-MW334	AI03535
BN-EP-28-P111	AI03537
BN-EP-28-P106	AI03541
BN-EP-28-MW337	AI03543
BN-EP-28-MWAXD2	AI03544 (field duplicate for AI03543)
BN-EP-28-MW331	AI03545
BN-EP-28-MWAXD1	AI03546 (field duplicate for AI03545)

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 (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (J detects, R/UJ-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 and/or method requirements. No samples qualified.	X	-	
Holding Time	1) alk -14 days, 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 sample / Field duplicate 543 / 544 545 / 546 The FD pair 543/544; total organic carbon was detected in the FD but was non-detect in the native sample. The FD pair 545/546 had FD RPD within MPC limits. Overall precision is acceptable.	-	Total organic carbon was qualified J in sample 544 and qualified UJ in sample 543.	

ECC Region I Data Review Worksheet (rv 1)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/ NO_2, NO_2, SO4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
% 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 reported data is 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	Sulfate,TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; Associated method blank non-detect for MNA parameters. Alkalinity method blanks had detects, but all sample detects are greater than 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	Sulfate, Alkalinity, TOC, , TOC, Cl, Nitrite Associated LCS %R's within MPC. No samples qualified.	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 %R within MPC. Note Laboratory notes that chloride MS/MSD %R were out however laboratory limits were tighter than QAPP (%R fell within QAPP MPC limits), therefore, no sample qualifications.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite. Laboratory replicate RPDs are within MPC. Lab precision is acceptable.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Acceptable sensitivity 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.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; calibration acceptable. Calibrations were within linearity requirements. No samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	2) Within laboratory MPC.	TOC: periodic method blanks non-detect or results were >5X the blank concentration, no samples qualified.	X	-	
2nd Source ICV	3) Within laboratory MPC.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; second source LCS within limits. Applicable ICV's for all methods were within limits. No samples qualified.	X	-	
CCV	4) Within laboratory MPC.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, Cl, Nitrite. Applicable CCV's for all methods were within limits. No samples	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
		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. Accuracy is shown by the LCS being within limits. Laboratory precision is acceptable for all elements reported. No apparent matrix bias. For all parameters, where applicable to the method: ICAL: in limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Field sample / Field duplicate 544 / 544 545 / 546 The FD pair 543/544; total organic carbon was detected in the FD but was non-detect in the native sample. The FD pair 545/546 had FD RPD within MPC limits. Overall precision is acceptable.	X	-	.

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITE EASTERN PLUME
APRIL 2006 SAMPLING ROUND 28 (SDG BNASEP04246)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE EASTERN PLUME MONITORING EVENT 28

DATE: 3/30/2007

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 Lab
SDG #:_NASBEP04246
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Site Eastern Plume

# of SAMPLES/MATRIX: VOC 1QS, MNA (1 QS),
VALIDATION CONTRACTOR:__ECC/ASW
VALIDATOR'S NAME: Sherri Pullar
DV Completion Date:_16 August, 2006
Date Sampled__24 April 2006.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	MNA Ground Water Quality	Methane, Ethene, Ethane (Lab; ATL)	1,4-Dioxane	MNA Metals
1	Preservation and HT	O	O	O	O	O
2	Instrument Performance Check	M	-	-	O	O
3	Initial Calibration:	Z	O	O	O	O
4	Continuing Calibration:	M	O	O	M	O
5	Blanks:	O	O	O	M	O
6	Surrogate Compounds:	M	-	-	O	-
7	Internal Standards	O	-	-	O	-
8	Matrix Spike/Matrix Spike Duplicate:	M	O	O	O	O
9	Sensitivity Check:	O	O	M	O	O
10	PE Samples- Accuracy Check	M	O	O	O	O
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	M	O	O
16	Overall Evaluation of Data:	M	O	O	M	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): VOC; ICAL; SPCC <MPC for 1,1,2,2 TCA; these VOCs are qualified as rejected.

AREAS OF CONCERN: (M items):
MNA Water Quality: None.

VOC: Results for sample 659, and the re-analyses of 659 were qualified UJ for non-detects due to surrogate recoveries outside MPC limits. Chloromethane qualified UJ in samples 659 and 659RE and vinyl chloride qualified UJ in samples659 and 659RE due to LCS %R>UCL. All VOC non-detects are qualified UJ due to ICAL/CCV SPCCs for 1,1,2,2-TCA outside MPC limits. Surrogate 1,2-DCA-d4 qualified J in all samples due to %D>MPC.

MNA Metals; None.

Methane, ethene, & ethane (MNA VOC); Sensitivity: MRL is equal to or less than MNA scoring criteria; however, sensitivity does not meet MNA Technical letter requirements.

1,4-Dioxane; 1,4-dioxane qualified U in sample 659 due to method blank contamination. 1,4-dioxane qualified UJ in sample 659 due to CCV Area% >MPC limits.

COMMENTS: VOC analysis SPCC failure (1,1,2,2 TCA) indicates potential low bias in data. The methane, ethene, and ethane data is validated and reported herein per the SDG provided by the laboratory

NAS BRUNSWICK- EASTERN PLUME – APRIL 2006
DATA SUMMARY TABLE – AQUEOUS SDG BNASEP04246

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW-QS1	AI03659		4/24/2006	2	Ethane	10	UG/L	U		10
BN-EP-28-MW-QS1	AI03659		4/24/2006	2	Ethene	10	UG/L	U		10
BN-EP-28-MW-QS1	AI03659		4/24/2006	2	Methane	10	UG/L	U		10
BN-EP-28-MW-QS1	AI03659		4/24/2006	1	Sulfate	1	MG/L	U	0.31	1
BN-EP-28-MW-QS1	AI03659	E310.1	4/24/2006	1	Alkalinity	5	MG/L	U	0.00035	5
BN-EP-28-MW-QS1	AI03659	E353.2	4/24/2006	1	Nitrate/Nitrite Total	0.1	MG/L	U		0.1
BN-EP-28-MW-QS1	AI03659	E415.1	4/24/2006	1	Total Organic Carbon	1	MG/L	U	0.343	1
BN-EP-28-MW-QS1	AI03659	SW6010	4/24/2006	1	Arsenic Total,ppb	2.3	UG/L	U		2.3
BN-EP-28-MW-QS1	AI03659	SW6010	4/24/2006	1	Iron Total, ppb	25	UG/L	U		25
BN-EP-28-MW-QS1	AI03659	SW6010	4/24/2006	1	Manganese Total, ppb	2	UG/L	U		2
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	1,1,1-Trichloroethane	1	UG/L	UJ	0.34	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	1,1,2,2-Tetrachloroethane	1	UG/L	R	0.37	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	1,1,2-Trichloroethane	1	UG/L	UJ	0.39	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	1,1-Dichloroethane	1	UG/L	UJ	0.45	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	1,1-Dichloroethene	1	UG/L	UJ	0.45	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	1,2-Dichloroethane	1	UG/L	UJ	0.28	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	1,2-Dichloroethene (total)	1	UG/L	UJ	0.26	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	1,2-Dichloropropane	1	UG/L	UJ	0.3	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	1,4 Dioxane	1	UG/L	UJ	0.49	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	2-Butanone	5	UG/L	UJ	0.79	5
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	2-Hexanone	5	UG/L	UJ	0.53	5
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	4-Methyl-2-pentanone	5	UG/L	UJ	0.48	5
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Acetone	5	UG/L	UJ	0.59	5
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Benzene	1	UG/L	UJ	0.37	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Bromodichloromethane	1	UG/L	UJ	0.3	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Bromoform	1	UG/L	UJ	0.37	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Bromomethane	1	UG/L	UJ	0.38	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Carbon Disulfide	1	UG/L	UJ	0.33	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Carbon Tetrachloride	1	UG/L	UJ	0.39	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Chlorobenzene	1	UG/L	UJ	0.28	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Chloroethane	1	UG/L	UJ	0.39	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Chloroform	1	UG/L	UJ	0.36	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Chloromethane	1	UG/L	UJ	0.32	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	cis-1,3-Dichloropropene	1	UG/L	UJ	0.39	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Dibromochloromethane	1	UG/L	UJ	0.37	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Ethylbenzene	1	UG/L	UJ	0.29	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Hexachlorobutadiene	1	UG/L	UJ	0.27	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Methylene Chloride	1	UG/L	UJ	0.51	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Styrene	1	UG/L	UJ	0.26	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Tetrachloroethene	1	UG/L	UJ	0.36	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Toluene	1	UG/L	UJ	0.37	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	trans-1,3-Dichloropropene	1	UG/L	UJ	0.37	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Trichloroethene	1	UG/L	UJ	0.31	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Vinyl Chloride	1	UG/L	UJ	0.35	1
BN-EP-28-MW-QS1	AI03659	SW8260	4/24/2006	1	Xylenes (total)	1	UG/L	UJ	0.52	1
BN-EP-28-MW-QS1	AI03659	SW9056	4/24/2006	1	Chloride	1	MG/L	U	0.00021	1
BN-EP-28-MW-QS1	AI03659	SW9056	4/24/2006	1	Nitrite-N	0.2	MG/L	U		0.2

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**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04246**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW-QS1	AI03659

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	Not collected/analyzed with this SDG.	-		
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	Not applicable	-	-	
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 for all MNA metals (As, Fe, Mn). 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 for aqueous samples.	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. 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	No MS/MSD samples analyzed. Matrix bias, if any, is unknown.	X	-.	
MS/MSD RPD	MS/MSD RPD<20%	No MS/MSD samples analyzed. Matrix bias, if any, is unknown.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	No field duplicate included in this SDG. Overall precision could not be determined.	-	-	
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 MNA technical letter requirements except for Mn (MRL = 2.5). The Mn IDL is less than the MNA technical letter MRL. Sensitivinty 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	ICP-AES used to analyze the samples. 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 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 CCB detections – 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
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.	No serial dilution analyzed. 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 for 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%	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)	CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachement A-1)	No need for PDS because LCS/LCSD within limits.	X	-	
*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	-	-	

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
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. The LCS %R were within limits. No apparent matrix bias. Laboratory precision is acceptable as determined by the laboratory duplicate and LCS/LCSD RPD. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Not evaluated.	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) **VOCs 5030B/5035/8260B**
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	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04246**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW-QS1	AI03659

Note: Samples are described below in the data worksheets by reference to the last 3 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 preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (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) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	Analyzed within holding time.	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 – acetone, 2-butanone or Mecl. 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 *check 10% of raw chromatograms for false +/-, check for transcription errors	Method blanks by date: 5 May 06: 1,1,2-trichloroethane 1.11, dibromochloromethane 0.79, and bromoform 0.80. All of these compounds were non-detect in all samples. No samples 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	Aqueous tripblank BN-EP-28-QT3 from another SDG associated with sample in this SDG. Non-detect for all LTMP TCL VOCs with the exception of MeCl. MeCl non-detect in all samples. No apparent cross contamination. 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)	Only sample in this SDG is source water blank BN-EP-28-MW-QS1. Sample BN-EP-28-MW-QS1 was non-detect for TCL VOCs.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)				
Results > Cal Range or <Cal Range	6) >Upper Cal Range J-detects - ensure instrument blank performed 7) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <MRL: no reported results>MDL but <MRL; no samples qualified.	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 surrogated (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 QAPP MPC limits, but 1,2 Dichloroethane-D4 >UCL exceeded laboratory limits in all samples. Surrogate Toluene-d8 exceeded LCL in samples 659 and re-analysis of 659. All samples have been re-analyzed with similar results. Use original analysis for decision making (re-analysis qualified "ZZZ").	X	All sample results were qualified UJ for non-detects in samples 659 and 659RE.	
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 recoveries were within MPC limits, except LCS %R's for: 5/5/06 (9:14); LCS %R<LCL – chloromethane, vinyl chloride, LCS %R >UCL –acetone, methylene chloride, trans-1,2-DCE, 1,1-DCA, chloroform, 1,2-DCA, and 1,1,2,2-TCA.	X	Chloromethane qualified UJ in samples 659 and 659RE. Vinyl chloride qualified UJ in samples 659 and 659RE.	
LCSD RPD	RPD ≤20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J- detects	LCS/LCSD RPD>20% for chloromethane and methylene chloride. These compound were non-detect in all associated samples. No samples qualified. Laboratory precision is acceptable	X	-	
*MS/MSD/unspike sample RSD	1)For unspiked compounds if reported, Non- MS spike compounds <50% RSD calculated from MS/MSD/Unspiked Qualification: >50% RSD J-detects 2)*recalculate the RPD (within 10% of lab)	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en- 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 8) *Matrix effects- MS/MSD, surrogated, PDS. 9) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 10) *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.	All detections are acceptable. No samples qualified.	X	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 11) PES > acceptance criteria – Detects in samples J, 12) PES<acceptance criteria – Detects J, NDs –R 13) VOA/SV-XI14 other criteria 14) *% of PES sample above and below criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
MS/MSD Recovery	1) Attachment A-2 of LTMP 2) 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) * Recalculate the %R (within 10% of lab)	No MS/MSD samples analyzed. Matrix bias, if any, is unknown.	X	-	-
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS sample UJ-non detects * recalculate RPD	MS/MSD RPD not analyzed. Laboratory accuracy not determined by this QC analysis.	X	-	
Field Dup RPD	1) RPD ≤ 30% aq. ≤ 50 soil for Results > PQL (FD pair only) J-detects (both > PQL) 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. *Recalculate the concentrations for one compound and the PQL	No field duplicate included in this SDG. Overall precision could not be determined.	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 *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 7) *check for IS transcription errors 8) FBZ = fluroobenzene	Internal standards and RT's within MPC limits.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4				
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) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRL are less than LTMP QAPP MRLs. MRLs are less than MEG (except for vinyl chloride) and MCLs. Sensitivity is acceptable.	X	-	
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 within MPC limits.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCE, 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/UJ 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) <u>RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, CS, 1,/22/03 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)./</u>* 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; Saviour 1 May 2006 All RRF's within MPC limits for all VOC's of concern. All CCCs are in MPC. All SPCC are in MPC except for 1,1,2,2 TCA ICAL SPCC was evaluated before sample analysis but due to holding time considerations, all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system.	X	1,1,2,2 TCA non-detects in ALL samples are qualified as R All VOC non-detects are qualified UJ	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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; Saviour 1 May 2006 All %RSD < 30 with the exception of chloroethane, methylene chloride, & 1,1,2,2-tetrachloroethane. Laboratory narrative states all compounds with %RSD>MPC were fitted with linear or quadratic curves. These curves were provided by the laboratory for evaluation. 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	Same as CCV. Please see the CCV section below.	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; Saviour 05 May 2006 chloroethane, acetone, 1,2-DCA, carbon disulfide, MeCl, trans-1,2-DCE, 1,1-DCA, cis-1,2-DCE, chloroform, 1,1,1-TCA, carbon tetrachloride, 1,2-dichloroethane, benzene, 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-TCA, hexachlorobutadiene, and surrogate 1,2-DCA-d4, have %D>MPC All SPCC are in MPC except for 1,1,2,2 TCA ICAL SPCC was evaluated before sample analysis but due to holding time considerations, all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system. Note all samples were qualified due to SPCC > MPC limits for 1,1,2,2-TCA in ICAL. See above.	X	Surrogate 1,2-DCA-d4 qualified J in all samples.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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 precision and accuracy should be considered to have a strong potential for low bias. Accuracy is within limits, except for chloromethane and vinyl chloride which had high LCS %R and high CCV %D. No MS/MSD samples analyzed. Matrix bias, if any, is unknown. Surrogates were greater than the UCL for 1,2 DCA-D4 in all samples. Surrogate toluene-d8 also had recoveries <LCL in the reported sample. Use original analysis for decision making (re-analysis qualified "ZZZ") Laboratory precision is acceptable since LCS/LCSD RPDs were within limits. The reported MRL's and MDL's provide adequate sensitivity to support evaluation against MEG and MCL's for all compounds except vinyl chloride. Tune checks within MPC limits. ICALs: SPCC was out of limits for 1,1,2,2 TCA. This VOC was rejected. The sample was re-analyzed but not with a proper ICAL. All other samples were qualified J (detects) or UJ (non-detects), because of the SPCC failure. ICV: within limits. CCV: Surrogate 1,2-DCA-d4, had %D>MPC. Numerous other compounds were outside the limits but were already qualified due to SPCC failure. Method blank samples contained 1,1,2-trichloroethane, dibromochloromethane, bromoform, however, no samples were qualified since all of these compounds were non-detect in all samples. Sampling Error Evaluation: Tripblank was non-detect for all VOCs. No apparent field cross contamination. No field duplicate included in this SDG. Overall precision could not be determined.	X	-	Potential low bias due to SPCC failure.

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Lab Correspondence: None.

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030/5035/8260BSIM 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**	**HCl**	**Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04246**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW-QS1	AI03659

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° 3) Unpreserved 4) No headspace	Cooler temperatures < 6 ^oC. Sample preservation indicated on the COC as HCl. Surrogate recoveries were adequate and LCS/LCSD recoveries were adequate, so no impact from improper 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	Not applicable	-	-	
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 –Nods, %R >10% but <70% J-detects, UJ NDs	All reported surrogate recoveries for field samples within MPC limits. No samples qualified.	X	-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants – acetone, 2-butanone or Mecl. 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 has detects for 1,4 Dioxane. 4 May 06: 0.90 < 1.6	X	Qualify 1,4 dioxane detect in sample 659 as U.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < 5x 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 included in 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)	Only sample in this SDG is source water blank BN-EP-28-MW-QS1. Sample BN-EP-28-MW-QS1 was non-detect for 1,4-dioxane (due to method blank contamination).	-	-	
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 sample detects were greater than the MRL.	X	-	
LCS Recovery	1) 1,4 Dioxane 60-140% 2) 10% and <LCL% J detects, UJ –Nods 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 LCS %R's are within MPC limits. No samples qualified.	X	-	
LCS/LCSC RPD	RPD ≤20% (aq) (when MS >QL) Not a method specified QC check.	LCS/LCSD RPD <20%. Laboratory accuracy is acceptable	x	-	
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)	Not analyzed with this SDG. Matrix bias unevaluated.	-	-	
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS field sample UJ-non detects * recalculate RPD	Not analyzed with this SDG. Laboratory precision by MS/MSD RPD unevaluated.	-	-	
Field Dup RPD	1) RPD ≤ 30% aq. soil for Results > PQL (FD pair only) J-detects (both > PQL) 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	Not collected /analyzed with this sample data group. Overall precision not evaluated.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	5) Determine RPD for detects only. 5) *Recalculate the concentrations for one compound and the PQ				
*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 7) *check for IS transcription errors 8) FBZ = fluroobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	All IS %R's are within MPC limits for all field samples. No field samples qualified.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 1) %R <10 ND- (R) , J- detects 2) 10%> but <LCL% , judgement 3) %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. The site action limit is not in the QAPP, but is ca. 35 ppb. The project 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	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	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	X	-	
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. 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 fall under the *RRF exclusions of Section (IV-8) Tier II guidance.* 4) %RSD<30% Qualification for compounds with : %RSD>30%	Instrument Saviour 4 May 06 Applies to all samples %RSD>30% calibration. Laboratory narrative states linear curves were use; linear regression curves presented. Linearity confirmed by ICV.	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP nor analytical SOP. %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	CCV after ICAL used for ICV %Drift <25%, Linearity of calibration confirmed. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
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)	CCV %D>30%; within MPC limits. CCV Area% outside MPC limits for 1,4-dioxane and surrogate 1,4-dioxane-d8.	X	1,4-dioxane qualified UJ in sample 659.	
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 is accuracy acceptable, as the laboratory LCS/LCSD and surrogates are within limits. MS/MSD not analyzed; therefore, the matrix bias is unknown. source water blank BN-EP-28-MW-QS1 had a detect for 1,4 dioxane (1), which was qualified as U, because the associated method blank had a 0.90 ppb dioxane level. Tune check passed. ICAL; within MPC (linear calibration per laboratory notes). ICV: within MPC for %drift CCV: samples analyzed within 12-hours of ICal. Post CCV had acceptable %Drift for 1,4 dioxane. CCV Area% outside MPC limits for 1,4-dioxane and surrogate 1,4-dioxane-d8. Sampling Error Evaluation Not collected /analyzed with this sample data group. Overall precision not evaluated.	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) **5030/ (Region I Methane SOP aka VSK-175)**
Project: NAS Brunswick ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance and VSK-175 SOP (EPA 2001)**

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**Temp (^oC): <6 ^oC** **1-cooler to ATL 2.6 ^oC**	**Air Toxic Laboratory, Folsom, CA**	**ATL SDG: 0604471 subcontracted to ATL NEL SDG BNASEP04206**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
AI03659 (BN-EP-28-MW-QS1)	0604513-01A

Note: Samples are described below in the data worksheets by reference to the last three digits/letters of the Lab Sample Number.
Note: The ATL SDGs do not correspond to the NEL SDGs. Samples IDs in parenthesis correspond to the NEL SDG.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inventory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° 3) Unpreserved if analyzed for CO_2 4) No headspace	Cooler temperatures < 6 ^oC. Sample temperature preservation adequate. Samples were acid preserved. Sample custody transferred from Field Team Leader to lab sample courier. NEL Laboratory subcontracted samples to ATL. Samples were shipped without custody seals. ATL (receiving lab) did not indicate any signs of tampering on the sample check in list. NEL lab typed, but did not sign to relinquish sample 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	Not applicable	-	-	
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 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) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Tripblank QT3 (from another SDG) non-detect for MNA VOCs. No evidence of field/sample shipment cross-contamination.	-	-	
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) <MRL but >MDL – J –detects (estimated) listed on data summary sheet.	All samples were non-detect for all MNA VOCs. No samples qualified.	X	-	
LCS/ Lab Fortified Blank Recovery	1) 80-120% 2) Optional if an MS and MSD analyzed. 3) Should be analyzed if insufficient volume for an MS. 4) 10% and <LCL% J detects, UJ –Nods 5) >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 %R's are within MPC limits. No samples qualified.	X		
Laboratory RPD	1) RPD<20%	No Laboratory duplicate sample analyzed. Laboratory precision unknown.	X	-	
MS/MSD Recovery	1) 80-120% 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 6) * Recalucate the %R (within 10% of lab)	No MS/MSD samples analyzed. Matrix bias, if any, is unknown.	-	-	
MS/MSD RPD	RPD ≤25% (aq) (when MS >QL) J –detects in MS field sample UJ-non detects * recalculate RPD	MS/MSD RPD not analyzed. Laboratory accuracy not determined by this QC analysis.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Field Dup RPD	1) RPD ≤ 30% aq. soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) Note Method requires FD1 and FD2. For this project FD1 or FD2 will be a field sample. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 7) *Recalculate the concentrations for one compound and the PQL	No field duplicate included in this SDG. Overall precision could not be determined for ethane and ethene and for methane.	X	_	
*MDL Study	1) methane <0.05 mg/L 2) Ethane < 0.005 mg/L 3) Ethane <0.005 mg/L 4) *In accordance with 40CFR – seven replicates %RSD < 20% 5) * 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. 1) %R <10 ND- (R) , J- detects 2) 10%> but <LCL% , judgement 3) %R>UCL% J-detects 8) QC, IS, RRT meet criteria, 9) %RSD < 20% 10) MDL< MQL (3x less ideal) 11) Lab fortitied blank (see VOA/SV Part II –section X). 12) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 13) <u>Dilution factors for samples – impacts to sensitivity</u>	The VSK-175 MRL is 10.00 ug/L, which has been meet by this analytical method. No project action limits are specified for these parameters. However, 1 ug/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 Project sensitivity does not meet the MNA technical letter criteria. The MRL is equal to or greater than the Weidemeier scoring criteria, as follows:. Methane: 500 ppb Ethane: 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 GC/FID method 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 efficiencies which is acknowledged in the method. 5) RF for ethane and ethane within 25% 6) RF for methane within 25% of 1/2 of the ethane/ethane average RF.	Instrument: GC7 Date: 13 October 2005 %RSD<15% (COD not determined) S/N ratio for low level standard is >5 for all analytes.	X	-	
2nd Source ICV	The ICV is optional per the method %D<25% Qualification: J detects, R or UJ NDs	%R used to determine ICV acceptability.	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 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)	Associated CCV's %D<20% for all VOCs. No samples qualified.	X	-	

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. The LCS is in control. Sample matrix bias not determined, as a MS/MSD was not analyzed. Laboratory precision is acceptable, as shown by the laboratory replicate analysis for ethane, ethene, and methane. ICAL; within MPC, S/N acceptable ICV: within MPC limits CCV: within MPC limits. Sample results are usable as qualified, but the matrix bias has not determined. Analytical sensitivity is acceptable for evaluation of MNA gasses using the Weidemeier scoring criteria. The MNA VOCs have an MDL>the MNA technical letter requirement of Quantitation at 1.0 ppb. Sampling Error Evaluation: Tripblank QT3 non-detect for MNA VOCs so there is no apparent field/sample shipment cross-contamination. No field duplicate included in this SDG. Overall precision could not be determined for ethane and ethene and for methane.	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 1)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/ NO_2, NO_2, SO4, 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)**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP04206**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW-QS1	AI03659

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 (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (J detects, R/UJ-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 and/or method requirements. No samples qualified.	X	-	
Holding Time	1) alk -14 days, 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	Not collected/analyzed with this SDG.	-	-	
% 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 reported data is 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	Sulfate,TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; Associated method blank non-detect for MNA parameters. Alkalinity method blanks had detects, but all sample detects are greater than 5X the blank level. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 1)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/ NO_2, NO_2, SO4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	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	Sulfate, Alkalinity, TOC, , TOC, Cl, Nitrite Associated LCS %R's within MPC. No samples qualified.	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	Used LCS/LCSD in place of MS.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite. Laboratory replicate RPDs are within MPC. Lab precision is acceptable.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Acceptable sensitivity 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.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; calibration acceptable. Calibrations were within linearity requirements. No samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	2) Within laboratory MPC.	TOC: periodic method blanks non-detect or results were >5X the blank concentration, no samples qualified.	X	-	
2nd Source ICV	3) Within laboratory MPC.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; second source LCS within limits. Applicable ICV's for all methods were within limits. No samples qualified.	X	-	
CCV	4) Within laboratory MPC.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, Cl, Nitrite. Applicable CCV's for all methods were within 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: Laboratory accuracy is acceptable. Accuracy is shown by the LCS being within limits, for all compounds except for Nitrate, which exceeded the UCL.. Laboratory precision is acceptable for all elements reported. No apparent matrix bias. For all parameters, where applicable to the method: ICAL: in limits.	X	-	.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
		ICV: in limits CCV: in limits Sampling Error Evaluation: FD not collected/analyzed with this SDG. Sampling error not evaluated.			

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITE EASTERN PLUME
APRIL 2006 SAMPLING ROUND 28 (SDG BNASEP041906)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE EASTERN PLUME MONITORING EVENT 28

DATE: 3/30/2007

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 Lab
SDG #:_NASBEP041906
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Site Eastern Plume

# of SAMPLES/MATRIX: VOC 8, and 1 FD; 1,4-Dioxane 2, MNA 3 , 1 TB
VALIDATION CONTRACTOR:__ECC/ASW
VALIDATOR'S NAME: Sherri Pullar
DV Completion Date:_29 August, 2006
Date Sampled__18 April 2006.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	MNA Ground Water Quality	Methane, Ethene, Ethane (Lab; ATL)	1,4-Dioxane	MNA Metals
1	Preservation and HT	O	O	M	O	O
2	Instrument Performance Check	M	-	-	O	M
3	Initial Calibration:	Z	O	O	O	O
4	Continuing Calibration:	M	O	O	O	O
5	Blanks:	O	O	O	O	O
6	Surrogate Compounds:	M	-	-	O	-
7	Internal Standards	O	-	-	O	-
8	Matrix Spike/Matrix Spike Duplicate:	-	O	O	-	O
9	Sensitivity Check:	O	O	M	O	O
10	PE Samples- Accuracy Check	M	O	O	O	O
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	M	O	O
16	Overall Evaluation of Data:	M	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): VOC; ICAL; SPCC <MPC for 1,1,2,2 TCA; these VOCs are qualified rejected for non-detects and estimated for detects.

AREAS OF CONCERN: (M items):

MNA Water Quality: None.

VOC: Potential low bias due to SPCC failure. MeCl results were qualified U in samples 372, 373, 374, 375, 376, 376 RE, and 377 due to trip blank contamination. J for all samples with estimated results <MRL but >MDL. All VOC non-detects are qualified UJ and detects are qualified J due to ICAL/CCV SPCCs for 1,1,2,2-TCA outside MPC limits. Surrogate 1,2-DCA-d4 qualified J in sample 376RE due to %D>MPC.

MNA Metals; Iron results in samples 371 and 372 were qualified J due to LCS/LCSD %R>MPC limits.

Methane, ethene, & ethane (MNA VOC); Sensitivity: MRL is equal to or less than MNA scoring criteria; however, sensitivity does not meet MNA Technical letter requirements. All sample results qualified estimated (J/UJ) due to cooler temperature exceeding 6 ^{o}C and exceeding HT criteria by 3 days.

1,4-Dioxane; None.

COMMENTS: VOC analysis SPCC failure (1,1,2,2 TCA) indicates potential low bias in data. The methane, ethene, and ethane data is validated and reported herein per the SDG provided by the laboratory

NAS BRUNSWICK- EASTERN PLUME – APRIL 2006
DATA SUMMARY TABLE – AQUEOUS SDG BNASEP041906

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW338A-S	AI03370	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW338A	AI03371	EPA 300	4/18/2006	1	Sulfate	1	mg/L	U	0.31	1
BN-EP-28-MW338A	AI03371	EPA 310.1	4/18/2006	1	Alkalinity	280	mg/L		0.00035	5
BN-EP-28-MW338A	AI03371	EPA 353.2	4/18/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MW338A	AI03371	EPA 415.1	4/18/2006	1	Total Organic Carbon	2.7	mg/L		0.343	1
BN-EP-28-MW338A	AI03371	EPA 6010B	4/18/2006	1	Arsenic Total,ppb	46	ug/L			2.3
BN-EP-28-MW338A	AI03371	EPA 6010B	4/18/2006	1	Iron Total, ppb	340	ug/L	J		25
BN-EP-28-MW338A	AI03371	EPA 6010B	4/18/2006	1	Manganese Total, ppb	21	ug/L			2
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	0.6	ug/L	J	0.37	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Bromoform	0.69	ug/L	J	0.37	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	4.2	ug/L	J	0.27	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW338A	AI03371	EPA 8260B	4/18/2006	1	1,4 Dioxane	1	ug/L	U	0.49	1
BN-EP-28-MW338A	AI03371	EPA 9056	4/18/2006	2	Chloride	120	mg/L		0.00021	1
BN-EP-28-MW338A	AI03371	EPA 9056	4/18/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW338A	AI03371	VSK-175	4/18/2006	1000	Ethane	10	ug/ml	UJ		0.01
BN-EP-28-MW338A	AI03371	VSK-175	4/18/2006	1000	Ethene	10	ug/ml	UJ		0.01
BN-EP-28-MW338A	AI03371	VSK-175	4/18/2006	1000	Methane	240	ug/ml	J		0.01
BN-EP-28-MW339	AI03372	EPA 300	4/18/2006	1	Sulfate	3.5	mg/L		0.31	1
BN-EP-28-MW339	AI03372	EPA 310.1	4/18/2006	1	Alkalinity	34	mg/L		0.00035	5
BN-EP-28-MW339	AI03372	EPA 353.2	4/18/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MW339	AI03372	EPA 415.1	4/18/2006	1	Total Organic Carbon	1	mg/L	U	0.343	1
BN-EP-28-MW339	AI03372	EPA 6010B	4/18/2006	1	Arsenic Total,ppb	2.3	ug/L	U		2.3
BN-EP-28-MW339	AI03372	EPA 6010B	4/18/2006	1	Iron Total, ppb	540	ug/L	J		25
BN-EP-28-MW339	AI03372	EPA 6010B	4/18/2006	1	Manganese Total, ppb	270	ug/L			2
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Methylene Chloride	1.8	ug/L	UJ	0.51	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW339	AI03372	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW339	AI03372	EPA 9056	4/18/2006	1	Chloride	8.5	mg/L		0.00021	1
BN-EP-28-MW339	AI03372	EPA 9056	4/18/2006	1	Nitrite-N	0.2	mg/L	U		0.2
BN-EP-28-MW339	AI03372	VSK-175	4/18/2006	1000	Ethane	10	ug/ml	UJ		0.01
BN-EP-28-MW339	AI03372	VSK-175	4/18/2006	1000	Ethene	10	ug/ml	UJ		0.01
BN-EP-28-MW339	AI03372	VSK-175	4/18/2006	1000	Methane	10	ug/ml	UJ		0.01
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Methylene Chloride	2.4	ug/L	UJ	0.51	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW339	AI03373	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Methylene Chloride	2.3	ug/L	UJ	0.51	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW-XD5	AI03374	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW338B	AI03375	EPA 353.2	4/18/2006	1	Nitrate/Nitrite Total	0.1	mg/l	U		0.1
BN-EP-28-MW338B	AI03375	EPA 415.1	4/18/2006	1	Total Organic Carbon	1	mg/L	U	0.343	1
BN-EP-28-MW338B	AI03375	EPA 6010B	4/18/2006	1	Arsenic Total,ppb	3.2	ug/L			2.3
BN-EP-28-MW338B	AI03375	EPA 6010B	4/18/2006	1	Iron Total, ppb	880	ug/L			25
BN-EP-28-MW338B	AI03375	EPA 6010B	4/18/2006	1	Manganese Total, ppb	410	ug/L			2
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Methylene Chloride	0.98	ug/L	UJ	0.51	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW338B	AI03375	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW338B	AI03375	VSK-175	4/18/2006	1000	Ethane	10	ug/ml	UJ		0.01
BN-EP-28-MW338B	AI03375	VSK-175	4/18/2006	1000	Ethene	10	ug/ml	UJ		0.01
BN-EP-28-MW338B	AI03375	VSK-175	4/18/2006	1000	Methane	10	ug/ml	UJ		0.01
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Methylene Chloride	0.93	ug/L	UJ	0.51	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW338B-M	AI03376	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Methylene Chloride	3.4	ug/L	UJ	0.51	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-MW Trip Blank -1	AI03377	EPA 8260B	4/18/2006	1	1,4 Dioxane	1	ug/L	U	0.49	1
BN-EP-28-MW Trip Blank -1	AI03377	VSK-175	4/18/2006	1000	Ethane	10	ug/ml	UJ		0.01
BN-EP-28-MW Trip Blank -1	AI03377	VSK-175	4/18/2006	1000	Ethene	10	ug/ml	UJ		0.01
BN-EP-28-MW Trip Blank -1	AI03377	VSK-175	4/18/2006	1000	Methane	10	ug/ml	UJ		0.01

FIELD DUPLICATE WORKSHEET

SDG: BNASEP041906

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qaulifier	FD RPD (%)
BN-EP-28-MW339	Methylene Chloride	EPA 8260B	2.4	ug/L		BN-EP-28-MW-XD5	2.3	ug/L		4.3

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**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP041906**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW338A	AI03371
BN-EP-28-MW339	AI03372
BN-EP-28-MW338B	AI03375

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	Not collected/analyzed with this SDG.	-		
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs –R	Not applicable	-	-	
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 for all MNA metals (As & Mn) with the exception of Fe (29 ug/L). Sample results associated with this preparation blank were greater than 5X the blank concentration, therefore 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
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 with the exception of Fe (>MPC).	X	Iron results in samples 371 and 372 were qualified J.	
LCS/LCSD RPD	1) RPD<20%	All LCS/LCSD RPDs are within MPC. 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	Not analyzed with this SDG. Matrix bias unevaluated.	X	-.	
MS/MSD RPD	MS/MSD RPD<20%	Not analyzed with this SDG. Laboratory precision by MS/MSD RPD unevaluated.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Labortatory used LCS/LCSD for duplicate analysis and RPDs within MPC limits. No samples qualified.	-	-	
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 MNA technical letter requirements except for Mn (MRL = 2). The Mn IDL is less than the MNA technical letter MRL. Sensitivinty 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	ICP-AES used to analyze the samples. 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 detections – 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 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.	No serial dilution analyzed. 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 for 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%	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)	CCV %R's within MPC limits. No samples qualified.	X	-	
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachement A-1)	No PDS was analyzed.	X	-	
*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	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
	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				
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. The LCS %R were within limits with the exception of Fe (>MPC). Laboratory precision is acceptable as determined by the LCS/LCSD RPD. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Not evaluated.	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) **VOCs 5030B/5035/8260B**
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	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP041906**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW388A-S	AI03370
BN-EP-28-MW338A	AI03371
BN-EP-28-MW339	AI03372
BN-EP-28-MW339	AI03373
BN-EP-28-MWXD5	AI03374 (field duplicate for AI03373)
BN-EP-28-MW338B	AI03375
BN-EP-28-MW338B-M	AI03376
BN-EP-28-TRIP BLANK 1	AI03377

Note: Samples are described below in the data worksheets by reference to the last 3 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 preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (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) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	Analyzed within holding time.	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 – acetone, 2-butanone or Mecl. 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 *check 10% of raw chromatograms for false +/-, check for transcription errors	Method blanks were non-detect for VOCs.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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	Aqueous tripblank BN-EP-28-TRIP BLANK 1 Non-detect for all LTMP TCL VOCs with the exception of MeCl. No apparent cross contamination.	X	MeCl results were qualified U in samples 372, 373, 374, 375, 376, 376 RE, and 377.	
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	6) >Upper Cal Range J-detects - ensure instrument blank performed 7) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <MRL: were qualified J. No reported results greater than the upper quantitation limit.	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 surrogated (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 QAPP MPC limits, except 1,2 Dichloroethane-D4 in sample 376RE where %R>UCL and 4-bromofluorobenzene in samples 376 where %R<LCL The sample has been re-analyzed with similar results. Use original analysis for decision making (re-analysis qualified "ZZZ"). Results for sample 376 and 376RE would have been qualified estimated (J/UJ) but were already qualified estimated due to SPCC >MPC limits.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
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 recoveries were within MPC limits, except LCS %R's for: 4/28/06 (16:43); LCS %R>UCL – acetone. Acetone results in samples 370, 371, 372, 373, 374, 375, 376, & 377 would have been qualified estimated however, results were already qualified estimated due to SPCC >MPC limits. 5/1/06 (22:36); LCS %R>UCL –acetone, methylene chloride, 1,1-dichloroethane, chloroform, carbon tetrachloride, and 1,1,2,2-tetrachloroethane. Acetone and methylene chloride results in samples 376RE would have been qualified estimated (J) however, results were already qualified estimated due to SPCC >MPC limits.	X	-	
LCSD RPD	RPD ≤20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J- detects	4/28/06 (16:43); LCS/LCSD RPD>20% for acetone. 5/1/06 (22:36);LCS/LCSD RPD>20% for acetone, and methylene chloride. Compounds listed above were qualified estimated due to SPCC >MPC limits. Laboratory precision is acceptable.	X	-	
*MS/MSD/unspike sample RSD	1)For unspiked compounds if reported, Non- MS spike compounds <50% RSD calculated from MS/MSD/Unspiked Qualification: >50% RSD J-detects 2)*recalculate the RPD (within 10% of lab)	NA	-	-	
*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 8) *Matrix effects- MS/MSD, surrogated, PDS. 9) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 10) *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.	All detections are acceptable. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 11) PES > acceptance criteria – Detects in samples J, 12) PES<acceptance criteria – Detects J, NDs –R 13) VOA/SV-XI14 other criteria 14) *% of PES sample above and below criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 2) 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) * Recalculate the %R (within 10% of lab)	LCS/LCSD used in place of MS/MSD. See LCS for details.	X	-	-
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS sample UJ-non detects * recalculate RPD	LCS/LCSD used in place of MS/MSD. See LCS for details.	X	-	
Field Dup RPD	1) RPD ≤ 30% aq. ≤ 50 soil for Results > PQL (FD pair only) J-detects (both > PQL) 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. *Recalculate the concentrations for one compound and the PQL	Field sample Field duplicate 373 374 The FD pair 373/374; methylene chloride was the only VOC detected. RPDs were within MPC limits. No sample qualifications. Overall 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 *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 7) *check for IS transcription errors 8) FBZ = fluroobenzene 9) CBZ = chlorobenzene-d5	Internal standards and RT's within MPC limits. No sample qualifications.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	10) DCB = 1,4 dichlorobenzene-d4				
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) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRL are less than LTMP QAPP MRLs. MRLs are less than MEG (except for vinyl chloride) and MCLs. Sensitivity is acceptable.	X	-	
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 within MPC limits.	X	-	
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCE, 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/UJ 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)* *<u>RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, CS, 1,/22/03 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)./</u>* 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; Saviour 28 April 2006 All RRF's within MPC limits for all VOC's of concern. All CCCs are in MPC. All SPCC are in MPC except for 1,1,2,2 TCA Instrument; Saviour 01 May 2006 All RRF's within MPC limits for all VOC's of concern. All CCCs are in MPC. All SPCC are in MPC except for 1,1,2,2 TCA ICAL SPCC was evaluated before sample analysis but due to holding time considerations, all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system.	X	1,1,2,2 TCA non-detects in ALL samples are qualified as R (except sample 371; 1,1,2,2-TCA qualified J). All VOC non-detects are qualified UJ and detects qualified J in all samples.	
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 -	Instrument; Saviour 28 April 2006 All %RSD < 30 with the exception of chloroethane, acetone, & hexachlorobutadiene. Laboratory narrative	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	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)	states all compounds with %RSD>MPC were fitted with linear or quadratic curves. These curves were provided by the laboratory for evaluation. No samples qualified. 1 May 2006 All %RSD < 30 with the exception of chloroethane, methylene chloride, & 1,1,2,2-TCA. Laboratory narrative states all compounds with %RSD>MPC were fitted with linear or quadratic curves. These curves were provided by the laboratory for evaluation. No samples qualified.			
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	Same as CCV. Please see the CCV section below.	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; Saviour 28 April 2006 acetone, cis-1,2-DCE, tetrachloroethene, 1,1,2,2-TCA, have %D>MPC or CCRF <MPC. 2 May 2006 vinyl chloride, acetone, 1,1-dichloroethane, 2-butanone, cis-1,2-dichloroethene, chloroform, 1,2-dichloroethane-d4, 1,1,1-trichloroethane, carbon tetrachloride, 1,2-dichloroethane, benzene, 2-hexanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, & hexachlorobutadiene have %D>MPC or CCRF <MPC. All SPCC are in MPC except for 1,1,2,2 TCA ICAL SPCC was evaluated before sample analysis but due to holding time considerations, all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system. Note all samples were qualified due to SPCC > MPC limits for 1,1,2,2-TCA in ICAL. See above.	X	Surrogate 1,2-DCA-d4 qualified J for detects in sample 376RE.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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 precision and accuracy should be considered to have a strong potential for low bias. Accuracy is within limits, except for chloroethane, methylene chloride, 1,1-dichloroethane, acetone, chloroform, carbon tetrachloride, tetrachloroethene 1,2-dichloroethane, and 1,1,2,2-tetrachloroethane which had LCS %R's outside MPC limits and high CCV %D. No MS/MSD were analyzed, therefore bias could not be determined. Surrogates were outside MPC limits for 1,2 Dichloroethane-D4 and 4-bromofluorobenzene in samples 376/376RE. Use original analysis for decision making (re-analysis qualified "ZZZ") J for all samples with estimated results <MRL but >MDL. The reported MRL's and MDL's provide adequate sensitivity to support evaluation against MEG and MCL's for all compounds except vinyl chloride. Tune checks within MPC limits. ICALs: SPCC was out of limits for 1,1,2,2 TCA. This VOC was rejected if non-detect and J if detected. The sample was re-analyzed but not with a proper ICAL. All other samples were qualified J (detects) or UJ (non-detects), because of the SPCC failure. ICV: within limits. CCV: Surrogates 1,2-DCA-d4 had %D>MPC and numerous other compounds were outside the limits but were already qualified due to SPCC failure. Method blank samples were non-detect. Sampling Error Evaluation: Tripblank 1 was non-detect for all VOCs with the exception of MeCl. No apparent field cross contamination. Field sample Field duplicate 373 374 The FD pair 373/374; methylene chloride was the only VOC detected. RPDs were within MPC limits. No sample qualifications.	X	-	Potential low bias due to SPCC failure.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		Overall precision is acceptable.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Lab Correspondence: None.

ECC Region I Data Review Worksheet (rv 3)
Project: NAS Brunswick ECC Job No. 5700

5030/5035/8260BSIM 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**	**HCl**	**Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP041906**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW338A	AI03371
BN-EP-28-TRIP BLANK-1	AI03377

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° 3) Unpreserved 4) No headspace	Cooler temperatures < 6 ^oC. Sample preservation indicated on the COC as HCl. Surrogate recoveries were adequate and LCS/LCSD recoveries were adequate, so no impact from improper 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	Not applicable	-	-	
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 –Nods, %R >10% but <70% J-detects, UJ NDs	All reported surrogate recoveries for field samples within MPC limits. No samples qualified.	X	-	
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants – acetone, 2-butanone or Mecl. 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 blanks were non-detect for 1,4 Dioxane.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Trip Blank	1) < 5x 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	Aqueous tripblank BN-EP-28-TRIP BLANK-1 Non-detect for 1,4-dioxane.	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 samples were non-d detects.	X	-	
LCS Recovery	1) 1,4 Dioxane 60-140% 2) 10% and <LCL% J detects, UJ –Nods 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 LCS %R's are within MPC limits. No samples qualified.	X	-	
LCS/LCSC RPD	RPD ≤20% (aq) (when MS >QL) Not a method specified QC check.	LCS/LCSD RPD <20%. Laboratory accuracy is acceptable	x	-	
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)	Not analyzed with this SDG. Matrix bias unevaluated.	-	-	
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS field sample UJ-non detects * recalculate RPD	Not analyzed with this SDG. Laboratory precision by MS/MSD RPD unevaluated.	-	-	
Field Dup RPD	1) RPD ≤ 30% aq. soil for Results > PQL (FD pair only) J-detects (both > PQL) 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	Not collected /analyzed with this sample data group. Overall precision not evaluated.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 5) *Recalculate the concentrations for one compound and the PQ				
*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 7) *check for IS transcription errors 8) FBZ = fluroobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	All IS %R's are within MPC limits for all field samples. No field samples qualified.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 1) %R <10 ND- (R) , J- detects 2) 10%> but <LCL% , judgement 3) %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. The site action limit is not in the QAPP, but is ca. 35 ppb. The project 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.	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	X	-	
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. 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 fall under the *RRF exclusions of Section (IV-8) Tier II guidance.* 4) %RSD<30% Qualification for compounds with : %RSD>30%	Instrument Saviour 30 April 2006 Applies to all samples %RSD>30% calibration. Laboratory narrative states linear curves were use; linear regression curves presented. Linearity confirmed by ICV.	X	-	
2nd Source ICV	QC check nor criteria not specified in QAPP nor analytical SOP. %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	CCV after ICAL used for ICV %Drift <25%. Linearity of calibration confirmed. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
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)	CCV %D>30%; within MPC limits. CCV Area% inside MPC limits for 1,4-dioxane. 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	Analytical Error Evaluation: Laboratory is accuracy acceptable, as the laboratory LCS/LCSD and surrogates are within limits. MS/MSD not analyzed; therefore, the matrix bias is unknown. Method blanks were non-detect for 1,4 Dioxane. Aqueous tripblank-1 was non-detect for 1,4-dioxane. Tune check passed. ICAL; within MPC (linear calibration per laboratory notes). ICV: within MPC for %drift CCV: samples analyzed within 12-hours of ICal. Post CCV had acceptable %Drift for 1,4 dioxane. CCV Area% inside MPC limits for 1,4-dioxane. Sampling Error Evaluation Not collected /analyzed with this sample data group. Overall precision not evaluated.	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 1)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/ NO_2, NO_2, SO4, 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)**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP041906**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW338A	AI03371
BN-EP-28-MW339	AI03372
BN-EP-28-MW338B	AI03375

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 (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (J detects, R/UJ-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 and/or method requirements. No samples qualified.	X	-	
Holding Time	1) alk -14 days, 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	Not collected/analyzed with this SDG.	-	-	
% 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 reported data is 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	Sulfate,TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; Associated method blank non-detect for MNA parameters. Alkalinity method blanks had detects, but all sample detects are greater than 5X the blank level. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 1)
Project: NAS Brunswick ECC Job No. 5700

Alk, Cl, NO_3/ NO_2, NO_2, SO4, TOC
Review Criteria: Method SOPs and MPC & MNA Letter Report (12 Feb 04)

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	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	Sulfate, Alkalinity, TOC, , TOC, Cl, Nitrite Associated LCS %R's within MPC. No samples qualified.	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	Used LCS/LCSD in place of MS.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite. Laboratory replicate RPDs are within MPC. Lab precision is acceptable.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Acceptable sensitivity 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.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; calibration acceptable. Calibrations were within linearity requirements. No samples qualified.	X	-	
Continuing Calibration Blanks (CCB)	2) Within laboratory MPC.	TOC: periodic method blanks non-detect or results were >5X the blank concentration, no samples qualified.	X	-	
2nd Source ICV	3) Within laboratory MPC.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, TOC, Cl, Nitrite; second source LCS within limits. Applicable ICV's for all methods were within limits. No samples qualified.	X	-	
CCV	4) Within laboratory MPC.	Sulfate, Alkalinity, TOC, Nitrate/Nitrite, Cl, Nitrite. Applicable CCV's for all methods were within 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: Laboratory accuracy is acceptable. Accuracy is shown by the LCS being within limits, for all compounds except for Nitrate, which exceeded the UCL. Laboratory precision is acceptable for all elements reported. No apparent matrix bias. For all parameters, where applicable to the method: ICAL: in limits.	X	-	.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
		ICV: in limits CCV: in limits Sampling Error Evaluation: FD not collected/analyzed with this SDG. Sampling error not evaluated.			

*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) **5030/ (Region I Methane SOP aka VSK-175)**
Project: NAS Brunswick ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance and VSK-175 SOP (EPA 2001)**

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**Temp (^oC): >6 ^oC** **1-cooler to ATL 11 ^oC**	**Air Toxic Laboratory, Folsom, CA**	**ATL SDG: 0604391R1 subcontracted to ATL NEL SDG BNASEP041906**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
AI03371 (BN-EP-28-MW338A)	0604391-01A
AI03372 (BN-EP-28-MW339)	0604391-02A
AI03375 (BN-EP-28-MW338B)	0604391-03A
AI03377 (BN-EP-28-TRIP BLANK 1)	0604391-04A

Note: Samples are described below in the data worksheets by reference to the last three digits/letters of the Lab Sample Number.
Note: The ATL SDGs do not correspond to the NEL SDGs. Samples IDs in parenthesis correspond to the NEL SDG.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° 3) Unpreserved if analyzed for CO_2 4) No headspace	Cooler temperatures > 6 ^oC, sample results are considered estimated due to the high cooler temperature. Sample custody transferred from Field Team Leader to lab sample courier. NEL Laboratory subcontracted samples to ATL. Samples were shipped with custody seals. ATL (receiving lab) did not indicate any signs of tampering on the sample check in list. No samples qualified.	X	All sample results were qualified J/UJ.	
Holding Time	1) 14 Days to analysis, 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed 3 days outside holding time. Samples were already qualified estimated (J/UJ) due to high cooler temperature.	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	Not applicable	-	-	
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 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) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	Tripblank-1 non-detect for MNA VOCs. No evidence of field/sample shipment cross-contamination.	-	-	
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) <MRL but >MDL – J –detects (estimated) listed on data summary sheet.	All samples were non-detect for all MNA VOCs with the exception of methane in sample 01 (371). No samples qualified.	X	-	
LCS/ Lab Fortified Blank Recovery	1) 80-120% 2) Optional if an MS and MSD analyzed. 3) Should be analyzed if insufficient volume for an MS. 4) 10% and <LCL% J detects, UJ –Nods 5) >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 %R's are within MPC limits. No samples qualified.	X		
Laboratory RPD	1) RPD<20%	Laboratory duplicated sample 01A (371) and 02A (372). Sample 372 was non-detect for MNA VOCs and Sample 371 RPD within MPC limit, therefore, laboratory precision acceptable. No samples qualified.	X	-	
MS/MSD Recovery	1) 80-120% 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 6) * Recalucate the %R (within 10% of lab)	No MS/MSD samples analyzed. Matrix bias, if any, is unknown.	-	-	
MS/MSD RPD	RPD ≤25% (aq) (when MS >QL) J –detects in MS field sample UJ-non detects * recalculate RPD	MS/MSD RPD not analyzed. Laboratory accuracy not determined by this QC analysis.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Field Dup RPD	1) RPD ≤ 30% aq. soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) Note Method requires FD1 and FD2. For this project FD1 or FD2 will be a field sample. 3) If one >PQL, other ND, J-detections, UJ non-detect 4) Other conditions use judgement 5) Determine RPD for detects only. 7) *Recalculate the concentrations for one compound and the PQL	No field duplicate included in this SDG. Overall precision could not be determined for ethane and ethene and for methane.	X	_	
*MDL Study	1) methane <0.05 mg/L 2) Ethane < 0.005 mg/L 3) Ethane <0.005 mg/L 4) *In accordance with 40CFR – seven replicates %RSD < 20% 5) * 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. 1) %R <10 ND- (R) , J- detects 2) 10%> but <LCL% , judgement 3) %R>UCL% J-detects 8) QC, IS, RRT meet criteria, 9) %RSD < 20% 10) MDL< MQL (3x less ideal) 11) Lab fortitied blank (see VOA/SV Part II –section X). 12) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab) 13) <u>Dilution factors for samples – impacts to sensitivity</u>	The VSK-175 MRL is 10.00 ug/L, which has been meet by this analytical method. No project action limits are specified for these parameters. However, 1 ug/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 Project sensitivity does not meet the MNA technical letter criteria. The MRL is equal to or greater than the Weidemeier scoring criteria, as follows:. Methane: 500 ppb Ethane: 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 GC/FID method 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 efficiencies which is acknowledged in the method. 5) RF for ethane and ethane within 25% 6) RF for methane within 25% of 1/2 of the ethane/ethane average RF.	Instrument: GC7 %RSD<15% (COD not determined) S/N ratio for low level standard is >5 for all analytes.	X	-	
2nd Source ICV	The ICV is optional per the method %D<25% Qualification: J detects, R or UJ NDs	%R used to determine ICV acceptability.	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 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)	Associated CCV's %D<20% for all VOCs. No samples qualified.	X	-	

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. The LCS is in control. Sample matrix bias not determined, as a MS/MSD was not analyzed. Laboratory precision is acceptable, as shown by the laboratory LCS/LCSD replicate analysis for ethane, ethene, and methane. Temperature upon receipt of the samples was greater than 6 ^{o}C and therefore all sample results for MNA are considered estimated along with the samples being analyzed 3 days outside of holding criteria. ICAL; within MPC, S/N acceptable 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 gasses using the Weidemeier scoring criteria. The MNA VOCs have an MDL>the MNA technical letter requirement of Quantitation at 1.0 ppb. Sampling Error Evaluation: Tripblank-1 non-detect for MNA VOCs so there is no apparent field/sample shipment cross-contamination. No field duplicate included in this SDG. Overall precision could not be determined for ethane and ethene and for methane.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITE EASTERN PLUME
MAY 2006 SAMPLING ROUND 28 (SDG BNASEP050506)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE EASTERN PLUME MONITORING EVENT 28

DATE: 3/30/2007

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 Lab
SDG #:_BNASEP050506
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Site Eastern Plume

# of SAMPLES/MATRIX: 1 MW Diffuion sample, 1 TB
CONTRACTOR:__ASW/ECC
VALIDATOR'S NAME: Sherri Pullar
DV Completion Date:_25 July, 2006
Date Sampled__4 May 2006.

ANALYTICAL DATA QUALITY SUMMARY

		VOC
1	Preservation and HT	O
2	Instrument Performance Check	M
3	Initial Calibration:	Z
4	Continuing Calibration:	M
5	Blanks:	O
6	Surrogate Compounds:	M
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): 1,1,2,2 TCA non-detects in ALL samples are qualified as R

AREAS OF CONCERN: (M items):

VOC: Hexachlorobutadiene and acetone detects are qualified J in sample 301 due to high surrogate recoveries. Results for chloroethane were qualified UJ in samples 301 and 302 due to LCS %R < LCL. All VOC detects are qualified J and all non-detects are qualified UJ due to low SPCC RF for 1,1,2,2-TCA.

COMMENTS: None

NAS BRUNSWICK- EASTERN PLUME – MAY 2006
DATA SUMMARY TABLE – AQUEOUS SDG BNASEP050506

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW315A-D	AI04301	1,1,1-Trichloroethane	5/4/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-MW315A-D	AI04301	1,1,2,2-Tetrachloroethane	5/4/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-MW315A-D	AI04301	1,1,2-Trichloroethane	5/4/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW315A-D	AI04301	1,1-Dichloroethane	5/4/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-MW315A-D	AI04301	1,1-Dichloroethene	5/4/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-MW315A-D	AI04301	1,2-Dichloroethane	5/4/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-MW315A-D	AI04301	1,2-Dichloroethene (total)	5/4/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-MW315A-D	AI04301	1,2-Dichloropropane	5/4/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-MW315A-D	AI04301	2-Butanone	5/4/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-MW315A-D	AI04301	2-Hexanone	5/4/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-MW315A-D	AI04301	4-Methyl-2-pentanone	5/4/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-MW315A-D	AI04301	Acetone	5/4/2006	1	Acetone	33	ug/L	J	0.59	5
BN-EP-28-MW315A-D	AI04301	Benzene	5/4/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-MW315A-D	AI04301	Bromodichloromethane	5/4/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-MW315A-D	AI04301	Bromoform	5/4/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-MW315A-D	AI04301	Bromomethane	5/4/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-MW315A-D	AI04301	Carbon Disulfide	5/4/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-MW315A-D	AI04301	Carbon Tetrachloride	5/4/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-MW315A-D	AI04301	Chlorobenzene	5/4/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-MW315A-D	AI04301	Chloroethane	5/4/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-MW315A-D	AI04301	Chloroform	5/4/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-MW315A-D	AI04301	Chloromethane	5/4/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW315A-D	AI04301	cis-1,3-Dichloropropene	5/4/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-MW315A-D	AI04301	Dibromochloromethane	5/4/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-MW315A-D	AI04301	Ethylbenzene	5/4/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-MW315A-D	AI04301	Hexachlorobutadiene	5/4/2006	1	Hexachlorobutadiene	1.5	ug/L	J	0.27	1
BN-EP-28-MW315A-D	AI04301	Methylene Chloride	5/4/2006	1	Methylene Chloride	1	ug/L	UJ	0.51	1
BN-EP-28-MW315A-D	AI04301	Styrene	5/4/2006	1	Styrene	1	ug/L	UJ	0.26	1
BN-EP-28-MW315A-D	AI04301	Tetrachloroethene	5/4/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-MW315A-D	AI04301	Toluene	5/4/2006	1	Toluene	1	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW315A-D	AI04301	trans-1,3-Dichloropropene	5/4/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-MW315A-D	AI04301	Trichloroethene	5/4/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-MW315A-D	AI04301	Vinyl Chloride	5/4/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW315A-D	AI04301	Xylenes (total)	5/4/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1
BN-EP-28-QT4	AI04302	1,1,1-Trichloroethane	5/4/2006	1	1,1,1-Trichloroethane	1	ug/L	UJ	0.34	1
BN-EP-28-QT4	AI04302	1,1,2,2-Tetrachloroethane	5/4/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-EP-28-QT4	AI04302	1,1,2-Trichloroethane	5/4/2006	1	1,1,2-Trichloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-QT4	AI04302	1,1-Dichloroethane	5/4/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-EP-28-QT4	AI04302	1,1-Dichloroethene	5/4/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-EP-28-QT4	AI04302	1,2-Dichloroethane	5/4/2006	1	1,2-Dichloroethane	1	ug/L	UJ	0.28	1
BN-EP-28-QT4	AI04302	1,2-Dichloroethene (total)	5/4/2006	1	1,2-Dichloroethene (total)	1	ug/L	UJ	0.26	1
BN-EP-28-QT4	AI04302	1,2-Dichloropropane	5/4/2006	1	1,2-Dichloropropane	1	ug/L	UJ	0.3	1
BN-EP-28-QT4	AI04302	2-Butanone	5/4/2006	1	2-Butanone	5	ug/L	UJ	0.79	5
BN-EP-28-QT4	AI04302	2-Hexanone	5/4/2006	1	2-Hexanone	5	ug/L	UJ	0.53	5
BN-EP-28-QT4	AI04302	4-Methyl-2-pentanone	5/4/2006	1	4-Methyl-2-pentanone	5	ug/L	UJ	0.48	5
BN-EP-28-QT4	AI04302	Acetone	5/4/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-EP-28-QT4	AI04302	Benzene	5/4/2006	1	Benzene	1	ug/L	UJ	0.37	1
BN-EP-28-QT4	AI04302	Bromodichloromethane	5/4/2006	1	Bromodichloromethane	1	ug/L	UJ	0.3	1
BN-EP-28-QT4	AI04302	Bromoform	5/4/2006	1	Bromoform	1	ug/L	UJ	0.37	1
BN-EP-28-QT4	AI04302	Bromomethane	5/4/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-EP-28-QT4	AI04302	Carbon Disulfide	5/4/2006	1	Carbon Disulfide	1	ug/L	UJ	0.33	1
BN-EP-28-QT4	AI04302	Carbon Tetrachloride	5/4/2006	1	Carbon Tetrachloride	1	ug/L	UJ	0.39	1
BN-EP-28-QT4	AI04302	Chlorobenzene	5/4/2006	1	Chlorobenzene	1	ug/L	UJ	0.28	1
BN-EP-28-QT4	AI04302	Chloroethane	5/4/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-EP-28-QT4	AI04302	Chloroform	5/4/2006	1	Chloroform	1	ug/L	UJ	0.36	1
BN-EP-28-QT4	AI04302	Chloromethane	5/4/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-QT4	AI04302	cis-1,3-Dichloropropene	5/4/2006	1	cis-1,3-Dichloropropene	1	ug/L	UJ	0.39	1
BN-EP-28-QT4	AI04302	Dibromochloromethane	5/4/2006	1	Dibromochloromethane	1	ug/L	UJ	0.37	1
BN-EP-28-QT4	AI04302	Ethylbenzene	5/4/2006	1	Ethylbenzene	1	ug/L	UJ	0.29	1
BN-EP-28-QT4	AI04302	Hexachlorobutadiene	5/4/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-EP-28-QT4	AI04302	Methylene Chloride	5/4/2006	1	Methylene Chloride	3	ug/L	J	0.51	1
BN-EP-28-QT4	AI04302	Styrene	5/4/2006	1	Styrene	1	ug/L	UJ	0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-QT4	AI04302	Tetrachloroethene	5/4/2006	1	Tetrachloroethene	1	ug/L	UJ	0.36	1
BN-EP-28-QT4	AI04302	Toluene	5/4/2006	1	Toluene	1	ug/L	UJ	0.37	1
BN-EP-28-QT4	AI04302	trans-1,3-Dichloropropene	5/4/2006	1	trans-1,3-Dichloropropene	1	ug/L	UJ	0.37	1
BN-EP-28-QT4	AI04302	Trichloroethene	5/4/2006	1	Trichloroethene	1	ug/L	UJ	0.31	1
BN-EP-28-QT4	AI04302	Vinyl Chloride	5/4/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-QT4	AI04302	Xylenes (total)	5/4/2006	1	Xylenes (total)	1	ug/L	UJ	0.52	1

ECC Region I Data Review Worksheet (rv 3) **VOCs 5030B/5035/8260B**
Project: NAS Brunswick EP ECC Job No. 5700 **Review Criteria: EP QAPP & USEPA Region I Tier II Guidance**

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASEP050506**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW315A-D	AI04301
BN-EP-28-QT4	AI04302

Note: Samples are described below in the data worksheets by reference to the last 3 digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (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) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within 14 day 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 – acetone, 2-butanone or Mecl. 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 *check 10% of raw chromatograms for false +/-, check for transcription errors	Method blanks by date: 10 May 06: bromomethane 0.51 and 1,1,2,2-tetrachloroethane 0.60 All of these compounds were non-detect in all samples. No samples 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	Aqueous tripblank BN-EP-28-QT4 Non-detect for all LTMP TCL VOCs with the exception of MeCl. MeCl was not detected in the samples therefore, no apparent cross contamination. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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	6) >Upper Cal Range J-detects - ensure instrument blank performed 7) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <MRL: were qualified J. No reported results greater than the upper quantitation limit.	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 surrogated (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 QAPP MPC limits with the exception of 1,2 Dichloroethane-D4 >UCL in sample 301.	X	The following detects are qualified J; Hexachlorobutadiene and acetone in sample 301.	
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 recoveries were within MPC limits, except LCS %R's <LCL for chloroethane on 5/10/06. Results for chloroethane were qualified UJ in samples 301 and 302.	X	Results for chloroethane were qualified UJ in samples 301 and 302.	
LCSD RPD	RPD ≤20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J- detects	LCS/LCSD RPD within MPC limits. No samples qualified. Laboratory precision is acceptable.	X	-	
*MS/MSD/unspike sample RSD	1)For unspiked compounds if reported, Non- MS spike compounds <50% RSD calculated from MS/MSD/Unspiked Qualification: >50% RSD J-detects 2)*recalculate the RPD (within 10% of lab)	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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 8) *Matrix effects- MS/MSD, surrogated, PDS. 9) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 10) *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	X	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 11) PES > acceptance criteria – Detects in samples J, 12) PES<acceptance criteria – Detects J, NDs –R 13) VOA/SV-XI14 other criteria 14) *% of PES sample above and below criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 2) 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) * Recalculate the %R (within 10% of lab)	Laboratory used LCS/LCSD in place of MS/MSD. See LCS for qualifications.	X	-	-

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS sample UJ-non detects * recalculate RPD	Laboratory used LCS/LCSD in place of MS/MSD. See LCS for qualifications.	X	-	
Field Dup RPD	1) RPD ≤ 30% aq. ≤ 50 soil for Results > PQL (FD pair only) J-detects (both > PQL) 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. *Recalculate the concentrations for one compound and the PQL	No field duplicates included in 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 *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 7) *check for IS transcription errors 8) FBZ = fluroobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	Internal standards and RT's within MPC limits. No samples 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) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRL are less than LTMP QAPP MRLs. MRLs are less than MEG (except for vinyl chloride) and MCLs. Sensitivity is acceptable.	X	-	
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. 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 DCE, chloroform, 1,2dichloropropane,	Instrument; HP5970"J" 10 May 2006 All RRF's within MPC limits for all VOC's	X	1,1,2,2 TCA non-detects in ALL samples are	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	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/UJ 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, CS, 1,/22/03 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)	of concern. All CCCs are in MPC. All SPCC are in MPC except for 1,1,2,2 TCA. SPCC RF for 1,1,2,2 TCA<0.3. No corrective action on the part of the laboratory. ICAL SPCC was not evaluated before sample analysis and all samples were analyzed using the out of control ICAL. SPCC compounds are used to determine the instrumental stability, contaminated lines, and active sites in the system.		qualified as R All VOC detects are qualified J and all non-detects are qualified UJ	
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; HP5970"J" 10 May 2006 All %RSD < 30. Laboratory narrative states all compounds with %RSD>MPC were fitted with linear or quadratic curves. Linear and quadratic curves were provided. 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	Same as CCV. Please see the CCV section below.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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; HP5970"J" 10 May 2006: bromomethane, chloroethane, acetone, and 1,1-DCA have %D>MPC Results for bromomethane, chloroethane, acetone, and 1,1-DCA were qualified J/UJ due to high ICAL SPCC RF for 1,1,2,2 TCA<0.3.	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: Laboratory precision and accuracy should be considered to have a strong potential for low bias. Accuracy is within limits, except for chloroethane and bromomethane which had high LCS %R and high CCV %D. No apparent matrix bias. Surrogates were greater than the UCL for 1,2 DCA-D4 in sample 301. Laboratory precision is acceptable based on LCS/LCSD RPD. The reported MRL's and MDL's provide adequate sensitivity to support evaluation against MEG and MCL's for all compounds except vinyl chloride. Tune checks were within MPC limits. ICALs: SPCC was out of limits for 1,1,2,2 TCA. Results for 1,1,2,2-TCA were rejected. The samples were not re-analyzed with a proper ICAL. All other samples were qualified J (detects) or UJ (non-detects), because of the SPCC failures. ICV: within MPC. CCV: bromomethane, chloroethane, acetone, and 1,1-DCA, had %D>MPC.	X	-	Potential low bias due to SPCC failure

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		Method blank sample was non-detect except for bromomethane and 1,1,2,2-TCA. All of these compounds were non-detect in all samples. No samples qualified. Sampling Error Evaluation: Tripblank was non-detect for all VOCs. No apparent field cross contamination. No field blanks include in this SDG.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Lab Correspondence: None.

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITE EASTERN PLUME
MAY 2006 SAMPLING ROUND 28 (SDG BNAS061906EP)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITE EASTERN PLUME MONITORING EVENT 28

DATE: 3/30/2007

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 Lab
SDG #:_BNAS061906EP
EPA-NE DV TIER LEVEL:___II___
SITE NAME: NAS Brunswick – Site Eastern Plume

# of SAMPLES/MATRIX: 1 MW, 1 TB
CONTRACTOR:__ASW/ECC
VALIDATOR'S NAME: Sherri Pullar
DV Completion Date:_25 July, 2006
Date Sampled__19 June 2006.

ANALYTICAL DATA QUALITY SUMMARY

		VOC
1	Preservation and HT	O
2	Instrument Performance Check	O
3	Initial Calibration:	O
4	Continuing Calibration:	O
5	Blanks:	O
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: MeCl qualified U in sample 955 due to trip blank contamination. J for all samples with estimated results <MRL but >MDL. Results for chloromethane and vinyl chloride were qualified UJ in samples 955 and 956 due to LCS %R < LCL. Vinyl chloride qualified UJ in samples 955 and 956 due to CCV %D >MPC.

COMMENTS: Note about sample BN-EP-28-MW308 - This is a re-sample from the original sample date of 4/20/06. The laboratory did not analyze the sample received on 4/21/06.

NAS BRUNSWICK- EASTERN PLUME – JUNE 2006
DATA SUMMARY TABLE – AQUEOUS SDG BNAS061906EP

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	1,1,1-Trichloroethane	1.9	ug/L		0.34	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	U	0.37	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	1,1-Dichloroethane	15	ug/L		0.45	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	1,1-Dichloroethene	29	ug/L		0.45	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	1,2-Dichloroethene (total)	1.3	ug/L		0.26	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Acetone	5	ug/L	U	0.59	5
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Benzene	1	ug/L	U	0.37	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Bromomethane	1	ug/L	U	0.38	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Chloroethane	1	ug/L	U	0.39	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Methylene Chloride	1.1	ug/L	U	0.51	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Styrene	1	ug/L	U	0.26	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Tetrachloroethene	0.52	ug/L	J	0.36	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Toluene	1	ug/L	U	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Trichloroethene	49	ug/L		0.31	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-MW308	AI05955	EPA 8260B	6/19/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	U	0.37	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	1,1-Dichloroethane	1	ug/L	U	0.45	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	1,1-Dichloroethene	1	ug/L	U	0.45	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Acetone	5	ug/L	U	0.59	5
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Benzene	1	ug/L	U	0.37	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Bromomethane	1	ug/L	U	0.38	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Chloroethane	1	ug/L	U	0.39	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Chloromethane	1	ug/L	UJ	0.32	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Methylene Chloride	1.6	ug/L		0.51	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Styrene	1	ug/L	U	0.26	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Toluene	1	ug/L	U	0.37	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Vinyl Chloride	1	ug/L	UJ	0.35	1
BN-EP-28-Trip Blank	AI05956	EPA 8260B	6/19/2006	1	Xylenes (total)	1	ug/L	U	0.52	1

ECC Region I Data Review Worksheet (rv 3) **VOCs 5030B/5035/8260B**
Project: NAS Brunswick EP ECC Job No. 5700 **Review Criteria: EP QAPP & USEPA Region I Tier II Guidance**

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**1 cooler – Temp (^oC): <6 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNAS061906EP**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-EP-28-MW308	AI05955
BN-EP-28-Trip Blank	AI05956

Note: Samples are described below in the data worksheets by reference to the last 3 digits of the Lab Sample Number.

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (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. Note: BN-EP-28-MW308 - This is a re-sample from the original sample date of 4/20/06. The laboratory did not analyze the sample received on 4/21/06.	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 14 day 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 – acetone, 2-butanone or Mecl. 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 *check 10% of raw chromatograms for false +/-, check for transcription errors	Method blanks were non-detect. No samples 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	BN-EP-28-Trip blank Non-detect for all LTMP TCL VOCs with the exception of MeCl.	X	MeCl qualified U in sample 955.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	6) <RL report PQL as U				
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	6) >Upper Cal Range J-detects - ensure instrument blank performed 7) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <MRL: were qualified J. No reported results greater than the upper quantitation limit.	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 surrogated (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 QAPP MPC limits. No samples qualified.	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 recoveries were within MPC limits, except LCS %R's <LCL for chloromethane and vinyl chloride on 6/21/06. Results for chloroethane were qualified UJ in samples 301 and 302.	X	Results for chloromethane and vinyl chloride were qualified UJ in samples 955 and 956.	
LCSD RPD	RPD ≤20% (aq) not a QAPP required QC check. Evaluated using MS/MSD RPD criteria. J- detects	LCS/LCSD RPD within MPC limits. No samples qualified. Laboratory precision is acceptable.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
*MS/MSD/unspike sample RSD	1)For unspiked compounds if reported, Non- MS spike compounds <50% RSD calculated from MS/MSD/Unspiked Qualification: >50% RSD J-detects 2)*recalculate the RPD (within 10% of lab)	NA	-	-	
*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 8) *Matrix effects- MS/MSD, surrogated, PDS. 9) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 10) *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	X	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 11) PES > acceptance criteria – Detects in samples J, 12) PES<acceptance criteria – Detects J, NDs –R 13) VOA/SV-XI14 other criteria 14) *% of PES sample above and below criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 2) 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) * Recalculate the %R (within 10% of lab)	LCS/LCSD used in place of MS/MSD. See LCS for details.	X	-	-

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS sample UJ-non detects * recalculate RPD	LCS/LCSD used in place of MS/MSD. See LCS for details.	X	-	
Field Dup RPD	1) RPD ≤ 30% aq. ≤ 50 soil for Results > PQL (FD pair only) J-detects (both > PQL) 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. *Recalculate the concentrations for one compound and the PQL	No field duplicates included in 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 *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 7) *check for IS transcription errors 8) FBZ = fluroobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	Internal standards and RT's within MPC limits. No samples 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) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. MRL are less than LTMP QAPP MRLs. MRLs are less than MEG (except for vinyl chloride) and MCLs. Sensitivity is acceptable.	X	-	
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. 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 DCE, chloroform, 1,2dichloropropane,	Instrument; HP5970"J" 21 June 2006 All RRF's within MPC limits for all VOC's	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	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/UJ 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, CS, 1,/22/03 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)	of concern. All CCCs are in MPC. All SPCC are in MPC.			
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; HP5970"J" 10 May 2006 All %RSD < 30. Laboratory narrative states all compounds with %RSD>MPC were fitted with linear or quadratic curves. Linear and quadratic curves were provided. 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	Same as CCV. Please see the CCV section below.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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; HP5970"J" 21 June 2006: vinyl chloride %D>MPC	X	Vinyl chloride qualified UJ in samples 955 and 956.	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: Accuracy is within limits, except for chloromethane and vinyl chloride which had low LCS %R's. No apparent matrix bias. Surrogates were with MPC limits. Laboratory precision is acceptable. J for all samples with estimated results <MRL but >MDL. The reported MRL's and MDL's provide adequate sensitivity to support evaluation against MEG and MCL's for all compounds except vinyl chloride. All tunes passed. ICALs: SPCC within limits ICV: within limits. CCV: vinyl chloride had %D>MPC. Method blank sample was non-detect for all VOC's of concern. Sampling Error Evaluation: Tripblank was non-detect for all VOCs with the exception of MeCl. No apparent field cross contamination. No field duplicate included in this SDG.	X	-	-

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Lab Correspondence: None.

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES 1& 3
APRIL 2005 SAMPLING ROUND 28 (SDG BNASSITE1)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITES 1 & 3 MONITORING EVENT 28

DATE: 3/30/2007

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: 5 Seeps, 5 leachate sediment, 4 SW, 1 MW & 1 leachate sediment FD, 1 seep FD, 1 SW FD, 1 MW FD, 2 QT
VALIDATION CONTRACTOR:__ECC/ASW
VALIDATOR'S NAME: Sherri Pullar
DV Completion Date:_ August 7, 2006.
Date Sampled__26-27 April 2006.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	Pesticides	Metals
1	Preservation and HT	O	O	O
2	Instrument Performance Check	O	O	M
3	Initial Calibration:	M	O	O
4	Continuing Calibration:	M	O	O
5	Blanks:	O	O	O
6	Surrogate Compounds:	O	O	-
7	Internal Standards	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	M	O	M
9	Sensitivity Check:	O	O	O
10	PE Samples- Accuracy Check	M	O	M
11	Target Compound Identification:	O	O	O
12	Compound Quantitation and Reported QLs	O	O	O
13	Tentatively Identified Compounds:	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	O	-
15	Data Completeness	O	O	O
16	Overall Evaluation of Data:	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): Metals: Tl detects qualified R in samples 931, 920, 921, 922, 932, & 935 due to MS/MSD %R<LCL (0%).

AREAS OF CONCERN: (M items):

VOC: Results for MeCl in samples 931, 932, & 940 were qualified U. Results for 1,1,2,2-TCA in samples 921, 938, & 939 were qualified U due to method blank contamination. J for all samples with estimated results <MRL but >MDL. Acetone results greater than the upper quantitation limit which were not re-run at a dilution were qualified as J. Results for chloroethane and acetone were qualified as J in samples 931 and 932 due to high LCS recoveries and results for chloroethane were qualified J for detects and UJ for non-detects in samples 927, 928, 933, 934, 936, 937, 938, 939, and 941 due to low LCS recoveries. Chloroethane was qualified as UJ in native sample AI03929 due to MS/MSD

recoveries being outside MPC limits. Hexachlorobutadiene was qualified UJ in sample AI03931 due to high MS/MSD RPD's. Results for bromomethane and 1,1-dichloroethene were qualified UJ in samples 920, 921, 922, 931, 932, 935, & 940 and results for acetone were qualified J in samples 923, 924, 925, 926, 929, 930 and the re-analysis of samples 925, 926, & 930 due to high LCS/LCSD RPD's. ICAL; 1,1,2,2-tetrachloroethane results in samples 920, 922, 927, 928, 931, 932, 933, 935, 936, 937, 940, & 941 were qualified R and results in samples 921, 938, & 939 were qualified J due to average response factor below the MPC limit. CCV: Chloroethane results in all samples were qualified J for detects and UJ for non-detects. Bromomethane non-detect results were qualified UJ in samples 928, 933, 936, 937, 938, 941, 939.

Acetone non-detect results were qualified UJ in samples 928, 933, 936, 937, 938, 941. 1,1-Dichloroethane results were qualified J for detects and UJ for non-detects in samples 928, 933, 936, 937, 938, 941, 939. Acetone detects were qualified J in samples 923, 924, 929.due to CCV %D outside MPC limits.

Acetone was qualified J in samples 931 & 932; methlyene chloride was qualified J in samples 936, 937, 938, & 939; and acetone was qualified UJ in sample 938 and J in sample 939 due to field duplicate RPD>MPC.

Metals: Al & Fe LCS %R>UCL: Al detects qualified J in samples 921, 922, 931, 932, 935, 937, 938, & 939. Fe detects qualified J in samples 920, 921, 922, 927, 928, 931, 932, 933, 935, 936, 937, 938, & 939. Zn non-detects qualified UJ in samples 921, 927, 928, 932, 933, 936, 937, 938, 920, 922, 931, 935, 939, & 941 due to LCS/LCSD RPD> MPC limits. MS %R >UCL for Mg, Mn, and Na; Mg detects qualified J in samples 931, 920, 921, 922, & 932; Mn detects qualified J in samples 931, 920, 921, 922, 932, & 935; Na detects qualified J in samples 931, 922, & 932 and MS/MSD %R<LCL for Ag & Cu; Ag & Cu non-detects qualified UJ in samples 931, 920, 921, 922, 932, & 935 for seep samples. MS %R >UCL for Mn; Mn detects qualified J in samples 923, 924, 925, 926, 929, & 930 and MS/MSD %R<LCL for K, Mg, and Na; K, Mg, and Na results qualified J for detects and UJ for non-detects in samples 923, 924, 925, 926, 929, & 930 for leachate sediment samples. Ca results qualified J in sample 931 and UJ in sample 932; Hg detects qualified J in samples 931 & 932; Al results qualified J in sample 937 and UJ in sample 936; Se results qualified J in sample 936 and UJ in sample 937; Ni results qualified J in sample 939 and UJ in sample 938; and Cr detects qualified J in samples 938 & 939 due to field duplicate RPD>MPC. Zn qualified U in samples 921, 927, 928, 932, 933, 936, 937, 938 due to preparation blank contamination. Fe detects qualified J in samples 923, 924, 925, 926, 929, & 930 due to MS/MSD RPDs >MPC limits. Ba, Cr, & Ni results qualified J in samples 923, 924, 925, 926, 929, & 930; Al non-detect results qualified UJ in sample 920; and As results qualified J for detects and UJ for non-detects in samples 931, 920, 921, 922, 932, & 935 due to laboratory RPD>MPC limits. Mn & Na detects qualified J in samples 927, 928, 933, 936, & 937 due to PDS %R <LCL. Al bias high in samples 921, 922, 931, 932, 935, 937, 938, & 939. Fe bias high in samples 920, 921, 922, 927, 928, 931, 932, 933, 935, 936, 937, 938, & 939. Ag & Cu low bias in seep samples. Mg, Mn, Na, & Zn high bias in Seep samples. K, Na, & Mg low bias in leachate sediment samples. Mn bias high in leachate sediment samples. Low bias for Mn & Na in Surface water samples.

COMMENTS:

NAS BRUNSWICK- SITES 1 & 3 – JUNE-JULY 2006
DATA SUMMARY TABLE – AQUEOUS SDG BNASSITES1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Aluminum Total	0.2	mg/L	UJ	0.002	0.2
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Arsenic Total	0.01	mg/L	UJ	0.0018	0.01
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	10	Calcium Total	110	mg/L		0.123	5
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Copper Total	0.025	mg/L	UJ	0.0018	0.025
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Iron Total	3.6	mg/L	J	0.006	0.1
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Lead Total	0.003	mg/L	U	0.0017	0.003
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Magnesium Total	10	mg/L	J	0.5872	5
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Manganese Total	0.26	mg/L	J	0.0053	0.015
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Nickel Total	0.04	mg/L	U	0.003	0.04
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	10	Potassium Total	50	mg/L	U	0.3041	5
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Silver Total	0.01	mg/L	UJ	0.0126	0.01
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	10	Sodium Total	50	mg/L	U	0.401	5
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SEEP1	AI03920	EPA 6010B	4/26/2006	1	Zinc Total	0.02	mg/L	UJ	0.0034	0.02
BN-1&3-28-SEEP1	AI03920	EPA 7041	4/26/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-SEEP1	AI03920	EPA 7470A	4/26/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002
BN-1&3-28-SEEP1	AI03920	EPA 7740	4/26/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-SEEP1	AI03920	EPA 7841	4/26/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	R	0.0004041	0.002
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	4,4-DDD	0.1	ug/L	U	0.0059	0.1
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	4,4-DDE	0.1	ug/L	U	0.0156	0.1
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	4,4-DDT	0.1	ug/L	U	0.0156	0.1
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Aldrin	0.05	ug/L	U	0.0053	0.05
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Alpha-BHC	0.05	ug/L	U	0.0142	0.05
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	alpha-Chlordane	0.05	ug/L	U	0.0166	
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Beta-BHC	0.05	ug/L	U	0.0078	0.05

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Chlordane	0.5	ug/L	U	0.21	0.5
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Delta-BHC	0.05	ug/L	U	0.0121	0.05
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Dieldrin	0.1	ug/L	U	0.0149	0.1
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Endosulfan I	0.05	ug/L	U	0.0088	0.05
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Endosulfan II	0.1	ug/L	U	0.0111	0.1
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Endosulfan Sulfate	0.1	ug/L	U	0.0116	0.1
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Endrin	0.1	ug/L	U	0.0062	0.1
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Endrin Aldehyde	0.1	ug/L	U	0.0075	0.1
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Endrin Ketone	0.1	ug/L	U	0.0068	0.1
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Gamma-BHC (Lindane)	0.05	ug/L	U	0.0073	0.05
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	gamma-Chlordane	0.05	ug/L	U	0.0074	
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Heptachlor	0.05	ug/L	U	0.0089	0.05
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Heptachlor Epoxide	0.05	ug/L	U	0.0083	0.05
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Hexachlorobenzene	0.05	ug/L	U		
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Methoxychlor	0.5	ug/L	U	0.0079	0.5
BN-1&3-28-SEEP1	AI03920	EPA 8081	4/26/2006	1	Toxaphene	1	ug/L	U	0.678	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	1,1-Dichloroethane	1	ug/L	U	0.45	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Acetone	5	ug/L	U	0.59	5
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Bromomethane	1	ug/L	UJ	0.38	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Methylene Chloride	1	ug/L	U	0.51	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Trichloroethene	0.56	ug/L	J	0.31	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SEEP1	AI03920	EPA 8260B	4/26/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	10	Aluminum Total	23	mg/L	J	0.002	0.2
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Arsenic Total	0.03	mg/L	J	0.0018	0.01
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Barium Total	0.27	mg/L		0.0068	0.2
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	10	Calcium Total	120	mg/L		0.123	5
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Chromium Total	0.13	mg/L		0.0043	0.01
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Copper Total	0.025	mg/L	UJ	0.0018	0.025
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Iron Total	320	mg/L	J	0.006	0.1
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Lead Total	0.051	mg/L		0.0017	0.003
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Magnesium Total	13	mg/L	J	0.5872	5
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	10	Manganese Total	13	mg/L	J	0.0053	0.015
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Nickel Total	0.12	mg/L		0.003	0.04
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	2	Potassium Total	11	mg/L		0.3041	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Silver Total	0.01	mg/L	UJ	0.0126	0.01
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	10	Sodium Total	50	mg/L	U	0.401	5
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SEEP3	AI03921	EPA 6010B	4/26/2006	1	Zinc Total	0.02	mg/L	UJ	0.0034	0.02
BN-1&3-28-SEEP3	AI03921	EPA 7041	4/26/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-SEEP3	AI03921	EPA 7470A	4/26/2006	1	Mercury by Cold Vapor GW	0.002	mg/L		0.0000002	0.0002
BN-1&3-28-SEEP3	AI03921	EPA 7740	4/26/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-SEEP3	AI03921	EPA 7841	4/26/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	R	0.0004041	0.002
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	4,4-DDD	0.1	ug/L	U	0.0059	0.1
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	4,4-DDE	0.1	ug/L	U	0.0156	0.1
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	4,4-DDT	0.1	ug/L	U	0.0156	0.1
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Aldrin	0.05	ug/L	U	0.0053	0.05
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Alpha-BHC	0.05	ug/L	U	0.0142	0.05
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	alpha-Chlordane	0.05	ug/L	U	0.0166	
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Beta-BHC	0.05	ug/L	U	0.0078	0.05
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Chlordane	0.5	ug/L	U	0.21	0.5
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Delta-BHC	0.05	ug/L	U	0.0121	0.05
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Dieldrin	0.1	ug/L	U	0.0149	0.1
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Endosulfan I	0.05	ug/L	U	0.0088	0.05
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Endosulfan II	0.1	ug/L	U	0.0111	0.1
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Endosulfan Sulfate	0.1	ug/L	U	0.0116	0.1
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Endrin	0.1	ug/L	U	0.0062	0.1
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Endrin Aldehyde	0.1	ug/L	U	0.0075	0.1
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Endrin Ketone	0.1	ug/L	U	0.0068	0.1
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Gamma-BHC (Lindane)	0.36	ug/L		0.0073	0.05
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	gamma-Chlordane	0.05	ug/L	U	0.0074	
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Heptachlor	0.05	ug/L	U	0.0089	0.05
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Heptachlor Epoxide	0.05	ug/L	U	0.0083	0.05
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Hexachlorobenzene	0.05	ug/L	U		
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Methoxychlor	0.5	ug/L	U	0.0079	0.5
BN-1&3-28-SEEP3	AI03921	EPA 8081	4/26/2006	1	Toxaphene	1	ug/L	U	0.678	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	1,1,1-Trichloroethane	0.76	ug/L	J	0.34	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	1,1,2,2-Tetrachloroethane	0.71	ug/L	UJ	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	1,1-Dichloroethane	0.61	ug/L	J	0.45	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Acetone	5	ug/L	U	0.59	5
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Carbon Disulfide	1.6	ug/L		0.33	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Methylene Chloride	1	ug/L	U	0.51	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Trichloroethene	0.52	ug/L	J	0.31	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SEEP3	AI03921	EPA 8260B	4/26/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Aluminum Total	0.22	mg/L	J	0.002	0.2

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Arsenic Total	0.14	mg/L	J	0.0018	0.01
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	10	Calcium Total	50	mg/L	U	0.123	5
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Copper Total	0.025	mg/L	UJ	0.0018	0.025
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Iron Total	110	mg/L	J	0.006	0.1
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Lead Total	0.003	mg/L	U	0.0017	0.003
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Magnesium Total	12	mg/L	J	0.5872	5
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	10	Manganese Total	6.7	mg/L	J	0.0053	0.015
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Nickel Total	0.04	mg/L	U	0.003	0.04
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Potassium Total	6.8	mg/L		0.3041	5
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Silver Total	0.01	mg/L	UJ	0.0126	0.01
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Sodium Total	17	mg/L	J	0.401	5
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SEEP5	AI03922	EPA 6010B	4/26/2006	1	Zinc Total	0.02	mg/L	UJ	0.0034	0.02
BN-1&3-28-SEEP5	AI03922	EPA 7041	4/26/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-SEEP5	AI03922	EPA 7470A	4/26/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002
BN-1&3-28-SEEP5	AI03922	EPA 7740	4/26/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-SEEP5	AI03922	EPA 7841	4/26/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	R	0.0004041	0.002
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	4,4-DDD	0.1	ug/L	U	0.0059	0.1
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	4,4-DDE	0.1	ug/L	U	0.0156	0.1
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	4,4-DDT	0.1	ug/L	U	0.0156	0.1
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Aldrin	0.05	ug/L	U	0.0053	0.05
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Alpha-BHC	0.05	ug/L	U	0.0142	0.05
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	alpha-Chlordane	0.05	ug/L	U	0.0166	
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Beta-BHC	0.05	ug/L	U	0.0078	0.05
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Chlordane	0.5	ug/L	U	0.21	0.5
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Delta-BHC	0.05	ug/L	U	0.0121	0.05
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Dieldrin	0.1	ug/L	U	0.0149	0.1
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Endosulfan I	0.05	ug/L	U	0.0088	0.05

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Endosulfan II	0.1	ug/L	U	0.0111	0.1
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Endosulfan Sulfate	0.1	ug/L	U	0.0116	0.1
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Endrin	0.1	ug/L	U	0.0062	0.1
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Endrin Aldehyde	0.1	ug/L	U	0.0075	0.1
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Endrin Ketone	0.1	ug/L	U	0.0068	0.1
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Gamma-BHC (Lindane)	0.05	ug/L	U	0.0073	0.05
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	gamma-Chlordane	0.05	ug/L	U	0.0074	
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Heptachlor	0.05	ug/L	U	0.0089	0.05
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Heptachlor Epoxide	0.05	ug/L	U	0.0083	0.05
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Hexachlorobenzene	0.05	ug/L	U		
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Methoxychlor	0.5	ug/L	U	0.0079	0.5
BN-1&3-28-SEEP5	AI03922	EPA 8081	4/26/2006	1	Toxaphene	1	ug/L	U	0.678	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	1,1-Dichloroethane	1	ug/L	U	0.45	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Acetone	5	ug/L	U	0.59	5
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Chloroform	1	ug/L	U	0.36	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Methylene Chloride	1	ug/L	U	0.51	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SEEP5	AI03922	EPA 8260B	4/26/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	10	Aluminum Total	3100	mg/Kg		0.0543	2
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Antimony Total Solid	4.7	mg/Kg	U		5
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Arsenic Total	0.94	mg/Kg	U	0.0065	1
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Barium Total	7.3	mg/Kg	J	0.0022	1
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Beryllium Total	0.47	mg/Kg	U	0.0017	0.5
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Cadmium Total	0.94	mg/Kg	U	0.0015	1
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Calcium Total	890	mg/Kg		0.366	100
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Chromium Total	4.1	mg/Kg	J	0.0035	1
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Cobalt Total	4.7	mg/Kg	U	0.0083	5
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Copper Total	4.2	mg/Kg		0.0036	1
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	10	Iron Total	9100	mg/Kg	J	0.0136	1
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Lead Total Solid	4.5	mg/Kg		0.0049	1
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Magnesium Total	820	mg/Kg	J	0.1868	100
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Manganese Total	200	mg/Kg	J	0.0017	1
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Nickel Total	4.5	mg/Kg	J	0.003	1
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Potassium Total	320	mg/Kg	J	0.0968	100
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Selenium Total	4.7	mg/Kg	U	0.0112	5
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Silver Total	0.47	mg/Kg	U	0.004	0.5
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Sodium Total	94	mg/Kg	UJ	0.4804	100

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Thallium Total	4.7	mg/Kg	U	0.0059	5
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Vanadium Total	4.7	mg/Kg	U	0.0093	5
BN-1&3-28-LT1	AI03923	EPA 6010B	4/27/2006	1	Zinc Total	9.9	mg/Kg	B	0.018	1
BN-1&3-28-LT1	AI03923	EPA 7471A	4/27/2006	1	Mercury Total	0.18	mg/Kg		0.0001	0.02
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,1,1-Trichloroethane	7	ug/Kg	U	0.93	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,1,2,2-Tetrachloroethane	7.5	ug/Kg		0.33	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,1,2-Trichloroethane	7	ug/Kg	U	0.49	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,1-Dichloroethane	7	ug/Kg	U	0.5	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,1-Dichloroethene	7	ug/Kg	U	4.08	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,2-Dichlorobenzene	7	ug/Kg	U	0.31	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,2-Dichloroethane	7	ug/Kg	U	1.01	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,2-Dichloroethene (total)	7	ug/Kg	U	0.82	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,2-Dichloropropane	7	ug/Kg	U	1.09	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,3-Dichlorobenzene	7	ug/Kg	U	0.41	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	1,4-Dichlorobenzene	7	ug/Kg	U	0.42	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	2-Butanone	14	ug/Kg	U	2.18	10
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	2-Hexanone	14	ug/Kg	U	0.72	10
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	4-Methyl-2-pentanone	14	ug/Kg	U	0.48	10
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Acetone	110	ug/Kg	J	4.43	10
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Benzene	7	ug/Kg	U	1.13	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Bromodichloromethane	7	ug/Kg	U	0.29	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Bromoform	7	ug/Kg	U	0.33	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Bromomethane	7	ug/Kg	U	0.85	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Carbon Disulfide	7	ug/Kg	U	3.37	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Carbon Tetrachloride	7	ug/Kg	U	0.39	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Chlorobenzene	7	ug/Kg	U	0.29	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Chloroethane	7	ug/Kg	UJ	1.01	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Chloroform	7	ug/Kg	U	0.34	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Chloromethane	7	ug/Kg	U	1.04	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	cis-1,3-Dichloropropene	7	ug/Kg	U	0.33	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Dibromochloromethane	7	ug/Kg	U	1.23	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Ethylbenzene	7	ug/Kg	U	0.28	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Methylene Chloride	7	ug/Kg	U	0	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Styrene	7	ug/Kg	U	0.29	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Tetrachloroethene	7	ug/Kg	U	1.43	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Toluene	7	ug/Kg	U	1.13	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	trans-1,3-Dichloropropene	7	ug/Kg	U	0.3	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Trichloroethene	7	ug/Kg	U	0.29	5
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Vinyl Chloride	14	ug/Kg	U	0.93	10
BN-1&3-28-LT1	AI03923	EPA 8260B	4/27/2006	1	Xylenes (total)	7	ug/Kg	U	1.04	5
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Aluminum Total	16000	mg/Kg		0.0543	2
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Antimony Total Solid	3.2	mg/Kg	U		5
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Arsenic Total	7.7	mg/Kg		0.0065	1
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Barium Total	43	mg/Kg	J	0.0022	1
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Beryllium Total	1.3	mg/Kg		0.0017	0.5
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Cadmium Total	0.64	mg/Kg	U	0.0015	1
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Calcium Total	6200	mg/Kg		0.366	100
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Chromium Total	26	mg/Kg	J	0.0035	1
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Cobalt Total	4.3	mg/Kg		0.0083	5
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Copper Total	4.7	mg/Kg		0.0036	1
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Iron Total	19000	mg/Kg	J	0.0136	1
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Lead Total Solid	7.3	mg/Kg		0.0049	1
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Magnesium Total	260	mg/Kg	J	0.1868	100
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	10	Manganese Total	2600	mg/Kg	J	0.0017	1
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Nickel Total	7.3	mg/Kg	J	0.003	1
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Potassium Total	64	mg/Kg	UJ	0.0968	100
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Selenium Total	3.2	mg/Kg	U	0.0112	5
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Silver Total	0.32	mg/Kg	U	0.004	0.5
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Sodium Total	74	mg/Kg	J	0.4804	100
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Thallium Total	3.2	mg/Kg	U	0.0059	5
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Vanadium Total	3.2	mg/Kg	U	0.0093	5
BN-1&3-28-LT3	AI03924	EPA 6010B	4/27/2006	1	Zinc Total	4.5	mg/Kg	B	0.018	1
BN-1&3-28-LT3	AI03924	EPA 7471A	4/27/2006	1	Mercury Total	0.36	mg/Kg		0.0001	0.02
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,1,1-Trichloroethane	36	ug/Kg	U	0.93	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,1,2,2-Tetrachloroethane	28	ug/Kg	J	0.33	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,1,2-Trichloroethane	36	ug/Kg	U	0.49	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,1-Dichloroethane	36	ug/Kg	U	0.5	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,1-Dichloroethene	36	ug/Kg	U	4.08	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,2-Dichlorobenzene	36	ug/Kg	U	0.31	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,2-Dichloroethane	36	ug/Kg	U	1.01	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,2-Dichloroethene (total)	36	ug/Kg	U	0.82	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,2-Dichloropropane	36	ug/Kg	U	1.09	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,3-Dichlorobenzene	36	ug/Kg	U	0.41	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	1,4-Dichlorobenzene	36	ug/Kg	U	0.42	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	2-Butanone	110	ug/Kg		2.18	10
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	2-Hexanone	71	ug/Kg	U	0.72	10
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	4-Methyl-2-pentanone	71	ug/Kg	U	0.48	10
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Acetone	850	ug/Kg	J	4.43	10
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Benzene	36	ug/Kg	U	1.13	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Bromodichloromethane	36	ug/Kg	U	0.29	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Bromoform	36	ug/Kg	U	0.33	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Bromomethane	36	ug/Kg	U	0.85	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Carbon Disulfide	32	ug/Kg	J	3.37	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Carbon Tetrachloride	36	ug/Kg	U	0.39	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Chlorobenzene	19	ug/Kg	J	0.29	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Chloroethane	36	ug/Kg	UJ	1.01	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Chloroform	36	ug/Kg	U	0.34	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Chloromethane	36	ug/Kg	U	1.04	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	cis-1,3-Dichloropropene	36	ug/Kg	U	0.33	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Dibromochloromethane	36	ug/Kg	U	1.23	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Ethylbenzene	36	ug/Kg	U	0.28	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Methylene Chloride	21	ug/Kg	J	0	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Styrene	36	ug/Kg	U	0.29	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Tetrachloroethene	36	ug/Kg	U	1.43	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Toluene	36	ug/Kg	U	1.13	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	trans-1,3-Dichloropropene	36	ug/Kg	U	0.3	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Trichloroethene	29	ug/Kg	J	0.29	5
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Vinyl Chloride	71	ug/Kg	U	0.93	10

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT3	AI03924	EPA 8260B	4/27/2006	7	Xylenes (total)	36	ug/Kg	U	1.04	5
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	10	Aluminum Total	2100	mg/Kg		0.0543	2
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Antimony Total Solid	3.8	mg/Kg	U		5
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Arsenic Total	1.4	mg/Kg		0.0065	1
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Barium Total	9.7	mg/Kg	J	0.0022	1
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Beryllium Total	0.38	mg/Kg	U	0.0017	0.5
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Cadmium Total	0.76	mg/Kg	U	0.0015	1
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Calcium Total	2000	mg/Kg		0.366	100
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Chromium Total	2.3	mg/Kg	J	0.0035	1
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Cobalt Total	5.1	mg/Kg		0.0083	5
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Copper Total	3.2	mg/Kg		0.0036	1
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	10	Iron Total	3400	mg/Kg	J	0.0136	1
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Lead Total Solid	8.1	mg/Kg		0.0049	1
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Magnesium Total	290	mg/Kg	J	0.1868	100
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Manganese Total	21	mg/Kg	J	0.0017	1
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Nickel Total	12	mg/Kg	J	0.003	1
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Potassium Total	120	mg/Kg	J	0.0968	100
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Selenium Total	3.8	mg/Kg	U	0.0112	5
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Silver Total	0.38	mg/Kg	U	0.004	0.5
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Sodium Total	76	mg/Kg	UJ	0.4804	100
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Thallium Total	3.8	mg/Kg	U	0.0059	5
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Vanadium Total	3.8	mg/Kg	U	0.0093	5
BN-1&3-28-LT4	AI03925	EPA 6010B	4/27/2006	1	Zinc Total	5.4	mg/Kg	B	0.018	1
BN-1&3-28-LT4	AI03925	EPA 7471A	4/27/2006	1	Mercury Total	0.075	mg/Kg		0.0001	0.02
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,1,1-Trichloroethane	8	ug/Kg	U	0.93	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,1,1-Trichloroethane	7.5	ug/Kg	U	0.93	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,1,2,2-Tetrachloroethane	8	ug/Kg	U	0.33	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,1,2,2-Tetrachloroethane	7.5	ug/Kg	U	0.33	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,1,2-Trichloroethane	8	ug/Kg	U	0.49	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,1,2-Trichloroethane	7.5	ug/Kg	U	0.49	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,1-Dichloroethane	7.5	ug/Kg	U	0.5	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,1-Dichloroethane	8	ug/Kg	U	0.5	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,1-Dichloroethene	7.5	ug/Kg	U	4.08	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,1-Dichloroethene	8	ug/Kg	U	4.08	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,2-Dichlorobenzene	7.5	ug/Kg	U	0.31	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,2-Dichlorobenzene	8	ug/Kg	U	0.31	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,2-Dichloroethane	7.5	ug/Kg	U	1.01	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,2-Dichloroethane	8	ug/Kg	U	1.01	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,2-Dichloroethene (total)	8	ug/Kg	U	0.82	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,2-Dichloroethene (total)	7.5	ug/Kg	U	0.82	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,2-Dichloropropane	8	ug/Kg	U	1.09	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,2-Dichloropropane	7.5	ug/Kg	U	1.09	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,3-Dichlorobenzene	8	ug/Kg	U	0.41	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,3-Dichlorobenzene	7.5	ug/Kg	U	0.41	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,4-Dichlorobenzene	7.5	ug/Kg	U	0.42	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	1,4-Dichlorobenzene	8	ug/Kg	U	0.42	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	2-Butanone	52	ug/Kg		2.18	10
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	2-Butanone	16	ug/Kg	U	2.18	10
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	2-Hexanone	15	ug/Kg	U	0.72	10
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	2-Hexanone	16	ug/Kg	U	0.72	10
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	4-Methyl-2-pentanone	15	ug/Kg	U	0.48	10
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	4-Methyl-2-pentanone	16	ug/Kg	U	0.48	10
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Acetone	68	ug/Kg	J	4.43	10
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Acetone	330	ug/Kg	J	4.43	10
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Benzene	7.5	ug/Kg	U	1.13	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Benzene	8	ug/Kg	U	1.13	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Bromodichloromethane	7.5	ug/Kg	U	0.29	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Bromodichloromethane	8	ug/Kg	U	0.29	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Bromoform	7.5	ug/Kg	U	0.33	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Bromoform	8	ug/Kg	U	0.33	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Bromomethane	8	ug/Kg	U	0.85	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Bromomethane	7.5	ug/Kg	U	0.85	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Carbon Disulfide	7.5	ug/Kg	U	3.37	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Carbon Disulfide	8	ug/Kg	U	3.37	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Carbon Tetrachloride	8	ug/Kg	U	0.39	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Carbon Tetrachloride	7.5	ug/Kg	U	0.39	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Chlorobenzene	8	ug/Kg	U	0.29	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Chlorobenzene	7.5	ug/Kg	U	0.29	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Chloroethane	8	ug/Kg	UJ	1.01	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Chloroethane	7.5	ug/Kg	UJ	1.01	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Chloroform	8	ug/Kg	U	0.34	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Chloroform	7.5	ug/Kg	U	0.34	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Chloromethane	7.5	ug/Kg	U	1.04	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Chloromethane	8	ug/Kg	U	1.04	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	cis-1,3-Dichloropropene	7.5	ug/Kg	U	0.33	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	cis-1,3-Dichloropropene	8	ug/Kg	U	0.33	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Dibromochloromethane	8	ug/Kg	U	1.23	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Dibromochloromethane	7.5	ug/Kg	U	1.23	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Ethylbenzene	7.5	ug/Kg	U	0.28	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Ethylbenzene	8	ug/Kg	U	0.28	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Methylene Chloride	28	ug/Kg		0	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Methylene Chloride	8	ug/Kg	U	0	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Styrene	7.5	ug/Kg	U	0.29	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Styrene	8	ug/Kg	U	0.29	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Tetrachloroethene	7.5	ug/Kg	U	1.43	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Tetrachloroethene	8	ug/Kg	U	1.43	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Toluene	7.6	ug/Kg	J	1.13	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Toluene	13	ug/Kg		1.13	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	trans-1,3-Dichloropropene	8	ug/Kg	U	0.3	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	trans-1,3-Dichloropropene	7.5	ug/Kg	U	0.3	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Trichloroethene	8	ug/Kg	U	0.29	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Trichloroethene	7.5	ug/Kg	U	0.29	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Vinyl Chloride	16	ug/Kg	U	0.93	10
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Vinyl Chloride	15	ug/Kg	U	0.93	10
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Xylenes (total)	46	ug/Kg		1.04	5
BN-1&3-28-LT4	AI03925	EPA 8260B	4/27/2006	2	Xylenes (total)	8	ug/Kg	U	1.04	5
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	10	Aluminum Total	4500	mg/Kg		0.0543	2
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Antimony Total Solid	3.6	mg/Kg	U		5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Arsenic Total	18	mg/Kg		0.0065	1
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Barium Total	8.8	mg/Kg	J	0.0022	1
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Beryllium Total	0.36	mg/Kg	U	0.0017	0.5
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Cadmium Total	0.71	mg/Kg	U	0.0015	1
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Calcium Total	1200	mg/Kg		0.366	100
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Chromium Total	12	mg/Kg	J	0.0035	1
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Cobalt Total	13	mg/Kg		0.0083	5
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Copper Total	4	mg/Kg		0.0036	1
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	10	Iron Total	6300	mg/Kg	J	0.0136	1
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Lead Total Solid	4.7	mg/Kg		0.0049	1
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Magnesium Total	800	mg/Kg	J	0.1868	100
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Manganese Total	180	mg/Kg	J	0.0017	1
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Nickel Total	3.9	mg/Kg	J	0.003	1
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Potassium Total	300	mg/Kg	J	0.0968	100
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Selenium Total	3.6	mg/Kg	U	0.0112	5
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Silver Total	0.36	mg/Kg	U	0.004	0.5
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Sodium Total	71	mg/Kg	UJ	0.4804	100
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Thallium Total	3.6	mg/Kg	U	0.0059	5
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	1	Vanadium Total	3.6	mg/Kg	U	0.0093	5
BN-1&3-28-LT5	AI03926	EPA 6010B	4/27/2006	11	Zinc Total	9	mg/Kg	B	0.018	1
BN-1&3-28-LT5	AI03926	EPA 7471A	4/27/2006	1	Mercury Total	0.018	mg/Kg	U	0.0001	0.02
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,1,1-Trichloroethane	7.5	ug/Kg	J	0.93	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,1,1-Trichloroethane	70	ug/Kg		0.93	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,1,2,2-Tetrachloroethane	9	ug/Kg	U	0.33	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,1,2,2-Tetrachloroethane	9	ug/Kg	U	0.33	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,1,2-Trichloroethane	9	ug/Kg	U	0.49	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,1,2-Trichloroethane	9	ug/Kg	U	0.49	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,1-Dichloroethane	73	ug/Kg		0.5	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,1-Dichloroethane	9	ug/Kg	U	0.5	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,1-Dichloroethene	9	ug/Kg	U	4.08	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,1-Dichloroethene	9	ug/Kg	U	4.08	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,2-Dichlorobenzene	9	ug/Kg	U	0.31	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,2-Dichlorobenzene	9	ug/Kg	U	0.31	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,2-Dichloroethane	9	ug/Kg	U	1.01	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,2-Dichloroethane	9	ug/Kg	U	1.01	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,2-Dichloroethene (total)	9	ug/Kg	U	0.82	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,2-Dichloroethene (total)	56	ug/Kg		0.82	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,2-Dichloropropane	9	ug/Kg	U	1.09	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,2-Dichloropropane	9	ug/Kg	U	1.09	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,3-Dichlorobenzene	9	ug/Kg	U	0.41	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,3-Dichlorobenzene	9	ug/Kg	U	0.41	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,4-Dichlorobenzene	9	ug/Kg	U	0.42	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	1,4-Dichlorobenzene	9	ug/Kg	U	0.42	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	2-Butanone	9.3	ug/Kg	J	2.18	10
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	2-Butanone	260	ug/Kg	J	2.18	10
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	2-Hexanone	18	ug/Kg	U	0.72	10
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	2-Hexanone	18	ug/Kg	U	0.72	10
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	4-Methyl-2-pentanone	18	ug/Kg	U	0.48	10
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	4-Methyl-2-pentanone	18	ug/Kg	U	0.48	10
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Acetone	670	ug/Kg	J	4.43	10
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Acetone	86	ug/Kg	J	4.43	10
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Benzene	9	ug/Kg	U	1.13	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Benzene	9	ug/Kg	U	1.13	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Bromodichloromethane	9	ug/Kg	U	0.29	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Bromodichloromethane	9	ug/Kg	U	0.29	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Bromoform	9	ug/Kg	U	0.33	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Bromoform	9	ug/Kg	U	0.33	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Bromomethane	9	ug/Kg	U	0.85	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Bromomethane	9	ug/Kg	U	0.85	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Carbon Disulfide	190	ug/Kg	J	3.37	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Carbon Disulfide	12	ug/Kg		3.37	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Carbon Tetrachloride	9	ug/Kg	U	0.39	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Carbon Tetrachloride	9	ug/Kg	U	0.39	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Chlorobenzene	110	ug/Kg		0.29	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Chlorobenzene	9	ug/Kg	U	0.29	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Chloroethane	9	ug/Kg	UJ	1.01	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Chloroethane	9	ug/Kg	UJ	1.01	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Chloroform	9	ug/Kg	U	0.34	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Chloroform	9	ug/Kg	U	0.34	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Chloromethane	9	ug/Kg	U	1.04	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Chloromethane	9	ug/Kg	U	1.04	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	cis-1,3-Dichloropropene	9	ug/Kg	U	0.33	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	cis-1,3-Dichloropropene	9	ug/Kg	U	0.33	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Dibromochloromethane	9	ug/Kg	U	1.23	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Dibromochloromethane	9	ug/Kg	U	1.23	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Ethylbenzene	120	ug/Kg		0.28	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Ethylbenzene	9	ug/Kg	U	0.28	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Methylene Chloride	9	ug/Kg	U	0	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Methylene Chloride	84	ug/Kg		0	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Styrene	9	ug/Kg	U	0.29	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Styrene	9	ug/Kg	U	0.29	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Tetrachloroethene	9	ug/Kg	U	1.43	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Tetrachloroethene	9	ug/Kg	U	1.43	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Toluene	140	ug/Kg	E	1.13	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Toluene	14	ug/Kg		1.13	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	trans-1,3-Dichloropropene	9	ug/Kg	U	0.3	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	trans-1,3-Dichloropropene	9	ug/Kg	U	0.3	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Trichloroethene	83	ug/Kg		0.29	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Trichloroethene	4.5	ug/Kg	J	0.29	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Vinyl Chloride	18	ug/Kg	U	0.93	10
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Vinyl Chloride	18	ug/Kg	U	0.93	10
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Xylenes (total)	20	ug/Kg		1.04	5
BN-1&3-28-LT5	AI03926	EPA 8260B	4/27/2006	2	Xylenes (total)	360	ug/Kg	E	1.04	5
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Aluminum Total	0.2	mg/L	U	0.002	0.2
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Arsenic Total	0.01	mg/L	U	0.0018	0.01
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Calcium Total	12	mg/L		0.123	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Copper Total	0.025	mg/L	U	0.0018	0.025
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Iron Total	1	mg/L	J	0.006	0.1
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Lead Total	0.003	mg/L	U	0.0017	0.003
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Magnesium Total	5	mg/L	U	0.5872	5
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Manganese Total	0.18	mg/L	J	0.0053	0.015
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Nickel Total	0.04	mg/L	U	0.003	0.04
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Potassium Total	5	mg/L	U	0.3041	5
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Silver Total	0.01	mg/L	U	0.0126	0.01
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	10	Sodium Total	50	mg/L	J	0.401	5
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SW8	AI03927	EPA 6010B	4/27/2006	1	Zinc Total	0.03	mg/L	UJ	0.0034	0.02
BN-1&3-28-SW8	AI03927	EPA 7041	4/27/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-SW8	AI03927	EPA 7470A	4/27/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002
BN-1&3-28-SW8	AI03927	EPA 7740	4/27/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-SW8	AI03927	EPA 7841	4/27/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	U	0.0004041	0.002
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	1,1-Dichloroethane	1	ug/L	U	0.45	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	1,1-Dichloroethene	1	ug/L	U	0.45	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Acetone	2.9	ug/L	J	0.59	5
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Bromomethane	1	ug/L	U	0.38	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Methylene Chloride	1	ug/L	U	0.51	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SW8	AI03927	EPA 8260B	4/27/2006	1	Xylenes (total)	0.67	ug/L	J	0.52	1
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Aluminum Total	0.2	mg/L	U	0.002	0.2
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Arsenic Total	0.01	mg/L	U	0.0018	0.01
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Calcium Total	12	mg/L		0.123	5
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Copper Total	0.025	mg/L	U	0.0018	0.025
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Iron Total	0.89	mg/L	J	0.006	0.1
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Lead Total	0.003	mg/L	U	0.0017	0.003
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Magnesium Total	5	mg/L	U	0.5872	5
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Manganese Total	0.19	mg/L	J	0.0053	0.015
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Nickel Total	0.04	mg/L	U	0.003	0.04
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Potassium Total	5	mg/L	U	0.3041	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Silver Total	0.01	mg/L	U	0.0126	0.01
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	10	Sodium Total	50	mg/L	UJ	0.401	5
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SW09	AI03928	EPA 6010B	4/27/2006	1	Zinc Total	0.03	mg/L	UJ	0.0034	0.02
BN-1&3-28-SW09	AI03928	EPA 7041	4/27/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-SW09	AI03928	EPA 7470A	4/27/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002
BN-1&3-28-SW09	AI03928	EPA 7740	4/27/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-SW09	AI03928	EPA 7841	4/27/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	U	0.0004041	0.002
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	1,1-Dichloroethene	1	ug/L	U	0.45	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Ethylbenzene	1	ug/L	U	0.29	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Methylene Chloride	0.79	ug/L	J	0.51	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SW09	AI03928	EPA 8260B	4/27/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	10	Aluminum Total	10000	mg/Kg		0.0543	2
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Antimony Total Solid	3.6	mg/Kg	U		5
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Arsenic Total	1.3	mg/Kg		0.0065	1
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Barium Total	22	mg/Kg	J	0.0022	1
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Beryllium Total	0.36	mg/Kg	U	0.0017	0.5
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Cadmium Total	0.71	mg/Kg	U	0.0015	1
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Calcium Total	1200	mg/Kg		0.366	100
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Chromium Total	10	mg/Kg	J	0.0035	1
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Cobalt Total	12	mg/Kg		0.0083	5
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Copper Total	9.3	mg/Kg		0.0036	1
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	10	Iron Total	12000	mg/Kg	J	0.0136	1
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Lead Total Solid	6.6	mg/Kg		0.0049	1
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Magnesium Total	2200	mg/Kg	J	0.1868	100
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Manganese Total	120	mg/Kg	J	0.0017	1
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Nickel Total	13	mg/Kg	J	0.003	1
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Potassium Total	760	mg/Kg	J	0.0968	100
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Selenium Total	3.6	mg/Kg	U	0.0112	5
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Silver Total	0.36	mg/Kg	U	0.004	0.5
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Sodium Total	71	mg/Kg	UJ	0.4804	100
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Thallium Total	3.6	mg/Kg	U	0.0059	5
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Vanadium Total	18	mg/Kg		0.0093	5
BN-1&3-28-LT9	AI03929	EPA 6010B	4/27/2006	1	Zinc Total	23	mg/Kg	B	0.018	1
BN-1&3-28-LT9	AI03929	EPA 7471A	4/27/2006	1	Mercury Total	0.062	mg/Kg		0.0001	0.02
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,1,1-Trichloroethane	9	ug/Kg	U	0.93	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,1,2,2-Tetrachloroethane	9	ug/Kg	U	0.33	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,1,2-Trichloroethane	9	ug/Kg	U	0.49	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,1-Dichloroethane	9	ug/Kg	U	0.5	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,1-Dichloroethene	9	ug/Kg	U	4.08	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,2-Dichlorobenzene	9	ug/Kg	U	0.31	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,2-Dichloroethane	9	ug/Kg	U	1.01	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,2-Dichloroethene (total)	9	ug/Kg	U	0.82	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,2-Dichloropropane	9	ug/Kg	U	1.09	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,3-Dichlorobenzene	9	ug/Kg	U	0.41	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	1,4-Dichlorobenzene	9	ug/Kg	U	0.42	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	2-Butanone	18	ug/Kg	U	2.18	10
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	2-Hexanone	18	ug/Kg	U	0.72	10
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	4-Methyl-2-pentanone	18	ug/Kg	U	0.48	10
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Acetone	98	ug/Kg	J	4.43	10
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Benzene	9	ug/Kg	U	1.13	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Bromodichloromethane	9	ug/Kg	U	0.29	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Bromoform	9	ug/Kg	U	0.33	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Bromomethane	9	ug/Kg	U	0.85	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Carbon Disulfide	10	ug/Kg		3.37	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Carbon Tetrachloride	9	ug/Kg	U	0.39	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Chlorobenzene	9	ug/Kg	U	0.29	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Chloroethane	9	ug/Kg	UJ	1.01	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Chloroform	9	ug/Kg	U	0.34	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Chloromethane	9	ug/Kg	U	1.04	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	cis-1,3-Dichloropropene	9	ug/Kg	U	0.33	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Dibromochloromethane	9	ug/Kg	U	1.23	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Ethylbenzene	9	ug/Kg	U	0.28	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Methylene Chloride	9	ug/Kg	U	0	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Styrene	9	ug/Kg	U	0.29	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Tetrachloroethene	9	ug/Kg	U	1.43	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Toluene	9	ug/Kg	U	1.13	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	trans-1,3-Dichloropropene	9	ug/Kg	U	0.3	5
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Trichloroethene	9	ug/Kg	U	0.29	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Vinyl Chloride	18	ug/Kg	U	0.93	10
BN-1&3-28-LT9	AI03929	EPA 8260B	4/27/2006	2	Xylenes (total)	9	ug/Kg	U	1.04	5
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	10	Aluminum Total	12000	mg/Kg		0.0543	2
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Antimony Total Solid	3.9	mg/Kg	U		5
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Arsenic Total	0.84	mg/Kg		0.0065	1
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Barium Total	26	mg/Kg	J	0.0022	1
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Beryllium Total	0.39	mg/Kg	U	0.0017	0.5
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Cadmium Total	0.79	mg/Kg	U	0.0015	1
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Calcium Total	1100	mg/Kg		0.366	100
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Chromium Total	12	mg/Kg	J	0.0035	1
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Cobalt Total	7.8	mg/Kg		0.0083	5
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Copper Total	9.5	mg/Kg		0.0036	1
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	10	Iron Total	13000	mg/Kg	J	0.0136	1
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Lead Total Solid	7.7	mg/Kg		0.0049	1
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Magnesium Total	2200	mg/Kg	J	0.1868	100
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Manganese Total	120	mg/Kg	J	0.0017	1
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Nickel Total	13	mg/Kg	J	0.003	1
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Potassium Total	960	mg/Kg	J	0.0968	100
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Selenium Total	3.9	mg/Kg	U	0.0112	5
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Silver Total	0.39	mg/Kg	U	0.004	0.5
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Sodium Total	79	mg/Kg	UJ	0.4804	100
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Thallium Total	3.9	mg/Kg	U	0.0059	5
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Vanadium Total	13	mg/Kg		0.0093	5
BN-1&3-28-LT-XD1	AI03930	EPA 6010B	4/27/2006	1	Zinc Total	22	mg/Kg	B	0.018	1
BN-1&3-28-LT-XD1	AI03930	EPA 7471A	4/27/2006	1	Mercury Total	0.042	mg/Kg		0.0001	0.02
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,1,1-Trichloroethane	8	ug/Kg	U	0.93	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,1,1-Trichloroethane	8	ug/Kg	U	0.93	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,1,2,2-Tetrachloroethane	8	ug/Kg	U	0.33	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,1,2,2-Tetrachloroethane	8	ug/Kg	U	0.33	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,1,2-Trichloroethane	8	ug/Kg	U	0.49	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,1,2-Trichloroethane	8	ug/Kg	U	0.49	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,1-Dichloroethane	8	ug/Kg	U	0.5	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,1-Dichloroethane	8	ug/Kg	U	0.5	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,1-Dichloroethene	8	ug/Kg	U	4.08	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,1-Dichloroethene	8	ug/Kg	U	4.08	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,2-Dichlorobenzene	8	ug/Kg	U	0.31	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,2-Dichlorobenzene	8	ug/Kg	U	0.31	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,2-Dichloroethane	8	ug/Kg	U	1.01	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,2-Dichloroethane	8	ug/Kg	U	1.01	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,2-Dichloroethene (total)	8	ug/Kg	U	0.82	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,2-Dichloroethene (total)	8	ug/Kg	U	0.82	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,2-Dichloropropane	8	ug/Kg	U	1.09	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,2-Dichloropropane	8	ug/Kg	U	1.09	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,3-Dichlorobenzene	8	ug/Kg	U	0.41	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,3-Dichlorobenzene	8	ug/Kg	U	0.41	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,4-Dichlorobenzene	8	ug/Kg	U	0.42	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	1,4-Dichlorobenzene	8	ug/Kg	U	0.42	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	2-Butanone	16	ug/Kg	U	2.18	10
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	2-Butanone	9.2	ug/Kg	J	2.18	10
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	2-Hexanone	16	ug/Kg	U	0.72	10
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	2-Hexanone	16	ug/Kg	U	0.72	10
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	4-Methyl-2-pentanone	16	ug/Kg	U	0.48	10
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	4-Methyl-2-pentanone	16	ug/Kg	U	0.48	10
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Acetone	100	ug/Kg	J	4.43	10
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Acetone	83	ug/Kg	J	4.43	10
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Benzene	8	ug/Kg	U	1.13	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Benzene	8	ug/Kg	U	1.13	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Bromodichloromethane	8	ug/Kg	U	0.29	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Bromodichloromethane	8	ug/Kg	U	0.29	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Bromoform	8	ug/Kg	U	0.33	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Bromoform	8	ug/Kg	U	0.33	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Bromomethane	8	ug/Kg	U	0.85	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Bromomethane	8	ug/Kg	U	0.85	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Carbon Disulfide	8.2	ug/Kg		3.37	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Carbon Disulfide	5.9	ug/Kg	J	3.37	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Carbon Tetrachloride	8	ug/Kg	U	0.39	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Carbon Tetrachloride	8	ug/Kg	U	0.39	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Chlorobenzene	8	ug/Kg	U	0.29	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Chlorobenzene	8	ug/Kg	U	0.29	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Chloroethane	8	ug/Kg	UJ	1.01	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Chloroethane	8	ug/Kg	UJ	1.01	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Chloroform	8	ug/Kg	U	0.34	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Chloroform	8	ug/Kg	U	0.34	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Chloromethane	8	ug/Kg	U	1.04	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Chloromethane	8	ug/Kg	U	1.04	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	cis-1,3-Dichloropropene	8	ug/Kg	U	0.33	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	cis-1,3-Dichloropropene	8	ug/Kg	U	0.33	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Dibromochloromethane	8	ug/Kg	U	1.23	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Dibromochloromethane	8	ug/Kg	U	1.23	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Ethylbenzene	8	ug/Kg	U	0.28	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Ethylbenzene	8	ug/Kg	U	0.28	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Methylene Chloride	8	ug/Kg	U	0	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Methylene Chloride	8	ug/Kg	U	0	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Styrene	8	ug/Kg	U	0.29	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Styrene	8	ug/Kg	U	0.29	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Tetrachloroethene	8	ug/Kg	U	1.43	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Tetrachloroethene	8	ug/Kg	U	1.43	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Toluene	8	ug/Kg	U	1.13	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Toluene	8	ug/Kg	U	1.13	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	trans-1,3-Dichloropropene	8	ug/Kg	U	0.3	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	trans-1,3-Dichloropropene	8	ug/Kg	U	0.3	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Trichloroethene	8	ug/Kg	U	0.29	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Trichloroethene	8	ug/Kg	U	0.29	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Vinyl Chloride	16	ug/Kg	U	0.93	10
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Vinyl Chloride	16	ug/Kg	U	0.93	10
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Xylenes (total)	8	ug/Kg	U	1.04	5
BN-1&3-28-LT-XD1	AI03930	EPA 8260B	4/27/2006	2	Xylenes (total)	8	ug/Kg	U	1.04	5
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Aluminum Total	3.6	mg/L	J	0.002	0.2
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Arsenic Total	0.13	mg/L	J	0.0018	0.01

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	10	Calcium Total	52	mg/L	J	0.123	5
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Copper Total	0.025	mg/L	UJ	0.0018	0.025
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Iron Total	140	mg/L	J	0.006	0.1
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Lead Total	0.014	mg/L		0.0017	0.003
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Magnesium Total	5.2	mg/L	J	0.5872	5
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Manganese Total	1.7	mg/L	J	0.0053	0.015
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Nickel Total	0.04	mg/L	U	0.003	0.04
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Potassium Total	7.7	mg/L		0.3041	5
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Silver Total	0.01	mg/L	UJ	0.0126	0.01
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Sodium Total	18	mg/L	J	0.401	5
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SEEP9	AI03931	EPA 6010B	4/26/2006	1	Zinc Total	0.02	mg/L	UJ	0.0034	0.02
BN-1&3-28-SEEP9	AI03931	EPA 7041	4/26/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-SEEP9	AI03931	EPA 7470A	4/26/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	J	0.0000002	0.0002
BN-1&3-28-SEEP9	AI03931	EPA 7740	4/26/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-SEEP9	AI03931	EPA 7841	4/26/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	R	0.0004041	0.002
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	1,1-Dichloroethane	0.65	ug/L	J	0.45	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Acetone	4.2	ug/L	J	0.59	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Chloroethane	2.6	ug/L	J	0.39	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Hexachlorobutadiene	1	ug/L	UJ	0.27	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Methylene Chloride	0.67	ug/L	U	0.51	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SEEP9	AI03931	EPA 8260B	4/26/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	10	Aluminum Total	5.6	mg/L	J	0.002	0.2
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Arsenic Total	0.17	mg/L	J	0.0018	0.01
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	10	Calcium Total	50	mg/L	UJ	0.123	5
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Copper Total	0.025	mg/L	UJ	0.0018	0.025
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Iron Total	180	mg/L	J	0.006	0.1
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Lead Total	0.017	mg/L		0.0017	0.003

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Magnesium Total	5.6	mg/L	J	0.5872	5
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Manganese Total	1.9	mg/L	J	0.0053	0.015
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Nickel Total	0.04	mg/L	U	0.003	0.04
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Potassium Total	8.1	mg/L		0.3041	5
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Silver Total	0.01	mg/L	UJ	0.0126	0.01
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Sodium Total	18	mg/L	J	0.401	5
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SEEP-XD1	AI03932	EPA 6010B	4/26/2006	1	Zinc Total	0.05	mg/L	UJ	0.0034	0.02
BN-1&3-28-SEEP-XD1	AI03932	EPA 7041	4/26/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-SEEP-XD1	AI03932	EPA 7470A	4/26/2006	1	Mercury by Cold Vapor GW	0.0003	mg/L	J	0.0000002	0.0002
BN-1&3-28-SEEP-XD1	AI03932	EPA 7740	4/26/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-SEEP-XD1	AI03932	EPA 7841	4/26/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	R	0.0004041	0.002
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	1,1-Dichloroethane	0.59	ug/L	J	0.45	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Acetone	2.6	ug/L	J	0.59	5
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Chloroethane	2.6	ug/L	J	0.39	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Chloroform	1	ug/L	U	0.36	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Methylene Chloride	0.53	ug/L	U	0.51	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SEEP-XD1	AI03932	EPA 8260B	4/26/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Aluminum Total	0.2	mg/L	U	0.002	0.2
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Arsenic Total	0.01	mg/L	U	0.0018	0.01
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Calcium Total	12	mg/L		0.123	5
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Copper Total	0.025	mg/L	U	0.0018	0.025
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Iron Total	0.92	mg/L	J	0.006	0.1
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Lead Total	0.003	mg/L	U	0.0017	0.003
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Magnesium Total	5	mg/L	U	0.5872	5
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Manganese Total	0.19	mg/L	J	0.0053	0.015
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Nickel Total	0.04	mg/L	U	0.003	0.04
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Potassium Total	5	mg/L	U	0.3041	5
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Silver Total	0.01	mg/L	U	0.0126	0.01
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	10	Sodium Total	50	mg/L	UJ	0.401	5
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SW7	AI03933	EPA 6010B	4/27/2006	1	Zinc Total	0.02	mg/L	UJ	0.0034	0.02
BN-1&3-28-SW7	AI03933	EPA 7041	4/27/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SW7	AI03933	EPA 7470A	4/27/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002
BN-1&3-28-SW7	AI03933	EPA 7740	4/27/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-SW7	AI03933	EPA 7841	4/27/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	U	0.0004041	0.002
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	1,1-Dichloroethene	1	ug/L	U	0.45	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Methylene Chloride	0.83	ug/L	J	0.51	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Toluene	1	ug/L	U	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SW7	AI03933	EPA 8260B	4/27/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,1,1-Trichloroethane	5	ug/Kg	U	0.93	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,1,2,2-Tetrachloroethane	5	ug/Kg	U	0.33	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,1,2-Trichloroethane	5	ug/Kg	U	0.49	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,1-Dichloroethane	5	ug/Kg	U	0.5	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,1-Dichloroethene	5	ug/Kg	U	4.08	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,2-Dichlorobenzene	5	ug/Kg	U	0.31	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,2-Dichloroethane	5	ug/Kg	U	1.01	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,2-Dichloroethene (total)	5	ug/Kg	U	0.82	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,2-Dichloropropane	5	ug/Kg	U	1.09	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,3-Dichlorobenzene	5	ug/Kg	U	0.41	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	1,4-Dichlorobenzene	5	ug/Kg	U	0.42	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	2-Butanone	10	ug/Kg	U	2.18	10
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	2-Hexanone	10	ug/Kg	U	0.72	10
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	4-Methyl-2-pentanone	10	ug/Kg	U	0.48	10
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Acetone	10	ug/Kg	U	4.43	10
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Benzene	5	ug/Kg	U	1.13	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Bromodichloromethane	5	ug/Kg	U	0.29	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Bromoform	5	ug/Kg	U	0.33	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Bromomethane	5	ug/Kg	U	0.85	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Carbon Disulfide	5	ug/Kg	U	3.37	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Carbon Tetrachloride	5	ug/Kg	U	0.39	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Chlorobenzene	5	ug/Kg	U	0.29	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Chloroethane	5	ug/Kg	UJ	1.01	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Chloroform	5	ug/Kg	U	0.34	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Chloromethane	5	ug/Kg	U	1.04	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	cis-1,3-Dichloropropene	5	ug/Kg	U	0.33	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Dibromochloromethane	5	ug/Kg	U	1.23	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Ethylbenzene	5	ug/Kg	U	0.28	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Methylene Chloride	5	ug/Kg	U	0	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Styrene	5	ug/Kg	U	0.29	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Tetrachloroethene	5	ug/Kg	U	1.43	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Toluene	5	ug/Kg	U	1.13	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	trans-1,3-Dichloropropene	5	ug/Kg	U	0.3	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Trichloroethene	5	ug/Kg	U	0.29	5
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Vinyl Chloride	10	ug/Kg	U	0.93	10
BN-1&3-28-MWQT2	AI03934	EPA 8260B	4/26/2006	1	Xylenes (total)	5	ug/Kg	U	1.04	5
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Aluminum Total	0.7	mg/L	J	0.002	0.2
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Arsenic Total	0.01	mg/L	UJ	0.0018	0.01
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	10	Calcium Total	53	mg/L		0.123	5
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Copper Total	0.025	mg/L	UJ	0.0018	0.025
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	10	Iron Total	13	mg/L	J	0.006	0.1
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Lead Total	0.03	mg/L	U	0.0017	0.003
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Magnesium Total	5	mg/L	U	0.5872	5
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Manganese Total	0.02	mg/L	J	0.0053	0.015
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Nickel Total	0.056	mg/L		0.003	0.04
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	10	Potassium Total	50	mg/L	U	0.3041	5
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Silver Total	0.01	mg/L	UJ	0.0126	0.01
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Sodium Total	5	mg/L	U	0.401	5
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SEEP4	AI03935	EPA 6010B	4/26/2006	1	Zinc Total	0.02	mg/L	UJ	0.0034	0.02
BN-1&3-28-SEEP4	AI03935	EPA 7041	4/26/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-SEEP4	AI03935	EPA 7470A	4/26/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002
BN-1&3-28-SEEP4	AI03935	EPA 7740	4/26/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-SEEP4	AI03935	EPA 7841	4/26/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	R	0.0004041	0.002
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	4,4-DDD	0.1	ug/L	U	0.0059	0.1
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	4,4-DDE	0.1	ug/L	U	0.0156	0.1
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	4,4-DDT	0.1	ug/L	U	0.0156	0.1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Aldrin	0.05	ug/L	U	0.0053	0.05
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Alpha-BHC	0.05	ug/L	U	0.0142	0.05
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	alpha-Chlordane	0.05	ug/L	U	0.0166	
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Beta-BHC	0.05	ug/L	U	0.0078	0.05
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Chlordane	0.5	ug/L	U	0.21	0.5
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Delta-BHC	0.05	ug/L	U	0.0121	0.05
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Dieldrin	0.1	ug/L	U	0.0149	0.1
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Endosulfan I	0.05	ug/L	U	0.0088	0.05
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Endosulfan II	0.1	ug/L	U	0.0111	0.1
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Endosulfan Sulfate	0.1	ug/L	U	0.0116	0.1
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Endrin	0.1	ug/L	U	0.0062	0.1
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Endrin Aldehyde	0.1	ug/L	U	0.0075	0.1
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Endrin Ketone	0.1	ug/L	U	0.0068	0.1
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Gamma-BHC (Lindane)	0.05	ug/L	U	0.0073	0.05
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	gamma-Chlordane	0.05	ug/L	U	0.0074	
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Heptachlor	0.05	ug/L	U	0.0089	0.05
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Heptachlor Epoxide	0.05	ug/L	U	0.0083	0.05
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Hexachlorobenzene	0.05	ug/L	U		
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Methoxychlor	0.5	ug/L	U	0.0079	0.5
BN-1&3-28-SEEP4	AI03935	EPA 8081	4/26/2006	1	Toxaphene	1	ug/L	U	0.678	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	1,1-Dichloroethane	1	ug/L	U	0.45	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Acetone	5	ug/L	U	0.59	5
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Benzene	1	ug/L	U	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Methylene Chloride	1	ug/L	U	0.51	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SEEP4	AI03935	EPA 8260B	4/26/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Aluminum Total	0.2	mg/L	UJ	0.002	0.2
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Arsenic Total	0.01	mg/L	U	0.0018	0.01
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Calcium Total	11	mg/L		0.123	5
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Copper Total	0.025	mg/L	U	0.0018	0.025
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Iron Total	0.74	mg/L	J	0.006	0.1
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Lead Total	0.003	mg/L	U	0.0017	0.003
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Magnesium Total	5	mg/L	U	0.5872	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Manganese Total	0.16	mg/L	J	0.0053	0.015
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Nickel Total	0.04	mg/L	U	0.003	0.04
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Potassium Total	5	mg/L	U	0.3041	5
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Silver Total	0.01	mg/L	U	0.0126	0.01
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	10	Sodium Total	50	mg/L	UJ	0.401	5
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SW4	AI03936	EPA 6010B	4/27/2006	1	Zinc Total	0.03	mg/L	UJ	0.0034	0.02
BN-1&3-28-SW4	AI03936	EPA 7041	4/27/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-SW4	AI03936	EPA 7470A	4/27/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002
BN-1&3-28-SW4	AI03936	EPA 7740	4/27/2006	1	Selenium Furnace GW	0.005	mg/L	J	0.0013299	0.005
BN-1&3-28-SW4	AI03936	EPA 7841	4/27/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	U	0.0004041	0.002
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	1,1-Dichloroethene	1	ug/L	U	0.45	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Chloromethane	1	ug/L	U	0.32	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Methylene Chloride	0.56	ug/L	J	0.51	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SW4	AI03936	EPA 8260B	4/27/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Aluminum Total	0.32	mg/L	J	0.002	0.2
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Arsenic Total	0.01	mg/L	U	0.0018	0.01
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Calcium Total	11	mg/L		0.123	5
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Copper Total	0.025	mg/L	U	0.0018	0.025
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Iron Total	1.1	mg/L	J	0.006	0.1
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Lead Total	0.003	mg/L	U	0.0017	0.003
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Magnesium Total	5	mg/L	U	0.5872	5
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Manganese Total	0.17	mg/L	J	0.0053	0.015
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Nickel Total	0.04	mg/L	U	0.003	0.04
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Potassium Total	5	mg/L	U	0.3041	5
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Silver Total	0.01	mg/L	U	0.0126	0.01
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	10	Sodium Total	50	mg/L	UJ	0.401	5
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-SW-XD1	AI03937	EPA 6010B	4/27/2006	1	Zinc Total	0.04	mg/L	UJ	0.0034	0.02
BN-1&3-28-SW-XD1	AI03937	EPA 7041	4/27/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-SW-XD1	AI03937	EPA 7470A	4/27/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SW-XD1	AI03937	EPA 7740	4/27/2006	1	Selenium Furnace GW	0.005	mg/L	UJ	0.0013299	0.005
BN-1&3-28-SW-XD1	AI03937	EPA 7841	4/27/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	U	0.0004041	0.002
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	1,1-Dichloroethene	1	ug/L	U	0.45	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Methylene Chloride	1	ug/L	J	0.51	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-SW-XD1	AI03937	EPA 8260B	4/27/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Aluminum Total	0.58	mg/L	J	0.002	0.2
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Arsenic Total	0.01	mg/L	U	0.0018	0.01
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	10	Calcium Total	92	mg/L		0.123	5
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Chromium Total	0.01	mg/L	J	0.0043	0.01
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Copper Total	0.025	mg/L	U	0.0018	0.025
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Iron Total	1.1	mg/L	J	0.006	0.1
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Lead Total	0.003	mg/L		0.0017	0.003
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Magnesium Total	5.4	mg/L		0.5872	5
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Manganese Total	0.43	mg/L		0.0053	0.015
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Nickel Total	0.04	mg/L	UJ	0.003	0.04
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	10	Potassium Total	50	mg/L	U	0.3041	5
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Silver Total	0.01	mg/L	U	0.0126	0.01
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Sodium Total	5	mg/L	U	0.401	5
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-MW1302S	AI03938	EPA 6010B	4/27/2006	1	Zinc Total	0.04	mg/L	UJ	0.0034	0.02
BN-1&3-28-MW1302S	AI03938	EPA 7041	4/27/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-MW1302S	AI03938	EPA 7470A	4/27/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002
BN-1&3-28-MW1302S	AI03938	EPA 7740	4/27/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-MW1302S	AI03938	EPA 7841	4/27/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	U	0.0004041	0.002
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	1,1,2,2-Tetrachloroethane	0.67	ug/L	UJ	0.37	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	1,1-Dichloroethane	1.6	ug/L	J	0.45	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	1,1-Dichloroethene	1	ug/L	U	0.45	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Chloroethane	73	ug/L	J	0.39	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Methylene Chloride	0.67	ug/L	J	0.51	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Trichloroethene	0.51	ug/L	J	0.31	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-MW1302S	AI03938	EPA 8260B	4/27/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Aluminum Total	0.79	mg/L	J	0.002	0.2
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Arsenic Total	0.01	mg/L	U	0.0018	0.01
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	10	Calcium Total	93	mg/L		0.123	5

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Chromium Total	0.02	mg/L	J	0.0043	0.01
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Copper Total	0.025	mg/L	U	0.0018	0.025
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Iron Total	1.5	mg/L	J	0.006	0.1
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Lead Total	0.004	mg/L		0.0017	0.003
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Magnesium Total	5.5	mg/L		0.5872	5
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Manganese Total	0.41	mg/L		0.0053	0.015
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Nickel Total	0.02	mg/L	J	0.003	0.04
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	10	Potassium Total	50	mg/L	U	0.3041	5
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Silver Total	0.01	mg/L	U	0.0126	0.01
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Sodium Total	5	mg/L	U	0.401	5
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-MWXD2	AI03939	EPA 6010B	4/27/2006	1	Zinc Total	0.06	mg/L	UJ	0.0034	0.02
BN-1&3-28-MWXD2	AI03939	EPA 7041	4/27/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-MWXD2	AI03939	EPA 7470A	4/27/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002
BN-1&3-28-MWXD2	AI03939	EPA 7740	4/27/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-MWXD2	AI03939	EPA 7841	4/27/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	U	0.0004041	0.002
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	1,1,2,2-Tetrachloroethane	1.5	ug/L	UJ	0.37	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	1,1-Dichloroethane	1.7	ug/L	J	0.45	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	1,1-Dichloroethene	1	ug/L	U	0.45	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Acetone	3.2	ug/L	J	0.59	5
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Bromomethane	1	ug/L	UJ	0.38	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Chloroethane	69	ug/L	J	0.39	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Methylene Chloride	1.2	ug/L	J	0.51	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Trichloroethene	0.51	ug/L	J	0.31	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-MWXD2	AI03939	EPA 8260B	4/27/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	1,1-Dichloroethane	1	ug/L	U	0.45	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	1,1-Dichloroethene	1	ug/L	UJ	0.45	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Acetone	5	ug/L	U	0.59	5
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Bromoform	1	ug/L	U	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Hexachlorobutadiene	2.7	ug/L		0.27	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Methylene Chloride	2.3	ug/L	U	0.51	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-MWQT2	AI03940	EPA 8260B	4/26/2006	1	Xylenes (total)	1	ug/L	U	0.52	1
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Aluminum Total	0.2	mg/L	U	0.002	0.2
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Arsenic Total	0.01	mg/L	U	0.0018	0.01
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Barium Total	0.2	mg/L	U	0.0068	0.2
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Beryllium Total	0.005	mg/L	U	0.0012	0.005
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Cadmium Total	0.005	mg/L	U	0.0018	0.005
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Calcium Total	5	mg/L	U	0.123	5
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Chromium Total	0.01	mg/L	U	0.0043	0.01
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Cobalt Total	0.05	mg/L	U	0.0261	0.05
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Copper Total	0.025	mg/L	U	0.0018	0.025
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Iron Total	0.1	mg/L	U	0.006	0.1
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Lead Total	0.003	mg/L	U	0.0017	0.003
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Magnesium Total	5	mg/L	U	0.5872	5
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Manganese Total	0.015	mg/L	U	0.0053	0.015
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Nickel Total	0.04	mg/L	U	0.003	0.04

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Potassium Total	5	mg/L	U	0.3041	5
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Silver Total	0.01	mg/L	U	0.0126	0.01
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Sodium Total	5	mg/L	U	0.401	5
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Vanadium Total	0.05	mg/L	U	0.0293	0.05
BN-1&3-28-MWQS1	AI03941	EPA 6010B	4/27/2006	1	Zinc Total	0.02	mg/L	UJ	0.0034	0.02
BN-1&3-28-MWQS1	AI03941	EPA 7041	4/27/2006	1	Antimony, Furnace-GW	0.006	mg/L	U	0.0009305	0.006
BN-1&3-28-MWQS1	AI03941	EPA 7470A	4/27/2006	1	Mercury by Cold Vapor GW	0.0002	mg/L	U	0.0000002	0.0002
BN-1&3-28-MWQS1	AI03941	EPA 7740	4/27/2006	1	Selenium Furnace GW	0.005	mg/L	U	0.0013299	0.005
BN-1&3-28-MWQS1	AI03941	EPA 7841	4/27/2006	1	Thallium, Furnace, Groundwater	0.002	mg/L	U	0.0004041	0.002
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	1,1,1-Trichloroethane	1	ug/L	U	0.34	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	1,1,2,2-Tetrachloroethane	1	ug/L	R	0.37	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	1,1,2-Trichloroethane	1	ug/L	U	0.39	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	1,1-Dichloroethane	1	ug/L	UJ	0.45	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	1,1-Dichloroethene	1	ug/L	U	0.45	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	1,2-Dichloroethane	1	ug/L	U	0.28	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	1,2-Dichloroethene (total)	1	ug/L	U	0.26	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	1,2-Dichloropropane	1	ug/L	U	0.3	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	2-Butanone	5	ug/L	U	0.79	5
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	2-Hexanone	5	ug/L	U	0.53	5
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	4-Methyl-2-pentanone	5	ug/L	U	0.48	5
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Acetone	5	ug/L	UJ	0.59	5
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Benzene	1	ug/L	U	0.37	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Bromodichloromethane	1	ug/L	U	0.3	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Bromoform	1	ug/L	U	0.37	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Bromomethane	1	ug/L	UJ	0.38	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Carbon Disulfide	1	ug/L	U	0.33	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Carbon Tetrachloride	1	ug/L	U	0.39	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Chlorobenzene	1	ug/L	U	0.28	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Chloroethane	1	ug/L	UJ	0.39	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Chloroform	1	ug/L	U	0.36	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Chloromethane	1	ug/L	U	0.32	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	cis-1,3-Dichloropropene	1	ug/L	U	0.39	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Dibromochloromethane	1	ug/L	U	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Ethylbenzene	1	ug/L	U	0.29	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Hexachlorobutadiene	1	ug/L	U	0.27	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Methylene Chloride	1.7	ug/L		0.51	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Styrene	1	ug/L	U	0.26	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Tetrachloroethene	1	ug/L	U	0.36	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Toluene	1	ug/L	U	0.37	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	trans-1,3-Dichloropropene	1	ug/L	U	0.37	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Trichloroethene	1	ug/L	U	0.31	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Vinyl Chloride	1	ug/L	U	0.35	1
BN-1&3-28-MWQS1	AI03941	EPA 8260B	4/27/2006	1	Xylenes (total)	1	ug/L	U	0.52	1

FIELD DUPLICATE WORKSHEET
SDG: BNASSITE1

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qaulifier	FD RPD (%)
BN-1&3-28-SEEP9	Aluminum Total	EPA 6010B	3.6	mg/L		BN-1&3-28-SEEP-XD1	5.6	mg/L		**43.5**
BN-1&3-28-SEEP9	Arsenic Total	EPA 6010B	0.13	mg/L		BN-1&3-28-SEEP-XD1	0.17	mg/L		26.7
BN-1&3-28-SEEP9	Calcium Total	EPA 6010B	52	mg/L	J	BN-1&3-28-SEEP-XD1	50	mg/L	UJ	NC
BN-1&3-28-SEEP9	Iron Total	EPA 6010B	140	mg/L		BN-1&3-28-SEEP-XD1	180	mg/L		25
BN-1&3-28-SEEP9	Lead Total	EPA 6010B	0.014	mg/L		BN-1&3-28-SEEP-XD1	0.017	mg/L		19.4
BN-1&3-28-SEEP9	Magnesium Total	EPA 6010B	5.2	mg/L		BN-1&3-28-SEEP-XD1	5.6	mg/L		7.4
BN-1&3-28-SEEP9	Manganese Total	EPA 6010B	1.7	mg/L		BN-1&3-28-SEEP-XD1	1.9	mg/L		11.1
BN-1&3-28-SEEP9	Potassium Total	EPA 6010B	7.7	mg/L		BN-1&3-28-SEEP-XD1	8.1	mg/L		5.1
BN-1&3-28-SEEP9	Sodium Total	EPA 6010B	18	mg/L		BN-1&3-28-SEEP-XD1	18	mg/L		0
BN-1&3-28-SEEP9	Zinc Total	EPA 6010B	0.02	mg/L	UJ	BN-1&3-28-SEEP-XD1	0.05	mg/L	BJ	NC
BN-1&3-28-SEEP9	Mercury by Cold Vapor GW	EPA 7470A	0.0002	mg/L	J	BN-1&3-28-SEEP-XD1	0.0003	mg/L	J	**40**
BN-1&3-28-SEEP9	1,1-Dichloroethane	EPA 8260B	0.65	ug/L		BN-1&3-28-SEEP-XD1	0.59	ug/L		9.7
BN-1&3-28-SEEP9	Acetone	EPA 8260B	4.2	ug/L	J	BN-1&3-28-SEEP-XD1	2.6	ug/L	J	**47.1**
BN-1&3-28-SEEP9	Chloroethane	EPA 8260B	2.6	ug/L		BN-1&3-28-SEEP-XD1	2.6	ug/L		0
BN-1&3-28-SEEP9	Methylene Chloride	EPA 8260B	0.67	ug/L		BN-1&3-28-SEEP-XD1	0.53	ug/L		23.3
BN-1&3-28-LT9	Aluminum Total	EPA 6010B	10000	mg/Kg		BN-1&3-28-LT-XD1	12000	mg/Kg		18.2
BN-1&3-28-LT9	Arsenic Total	EPA 6010B	1.3	mg/Kg		BN-1&3-28-LT-XD1	0.84	mg/Kg		43
BN-1&3-28-LT9	Barium Total	EPA 6010B	22	mg/Kg		BN-1&3-28-LT-XD1	26	mg/Kg		16.7
BN-1&3-28-LT9	Calcium Total	EPA 6010B	1200	mg/Kg		BN-1&3-28-LT-XD1	1100	mg/Kg		8.7
BN-1&3-28-LT9	Chromium Total	EPA 6010B	10	mg/Kg		BN-1&3-28-LT-XD1	12	mg/Kg		18.2
BN-1&3-28-LT9	Cobalt Total	EPA 6010B	12	mg/Kg		BN-1&3-28-LT-XD1	7.8	mg/Kg		42.4
BN-1&3-28-LT9	Copper Total	EPA 6010B	9.3	mg/Kg		BN-1&3-28-LT-XD1	9.5	mg/Kg		2.1
BN-1&3-28-LT9	Iron Total	EPA 6010B	12000	mg/Kg		BN-1&3-28-LT-XD1	13000	mg/Kg		8
BN-1&3-28-LT9	Lead Total Solid	EPA 6010B	6.6	mg/Kg		BN-1&3-28-LT-XD1	7.7	mg/Kg		15.4
BN-1&3-28-LT9	Magnesium Total	EPA 6010B	2200	mg/Kg		BN-1&3-28-LT-XD1	2200	mg/Kg		0
BN-1&3-28-LT9	Manganese Total	EPA 6010B	120	mg/Kg		BN-1&3-28-LT-XD1	120	mg/Kg		0

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qaulifier	FD RPD (%)
BN-1&3-28-LT9	Nickel Total	EPA 6010B	13	mg/Kg		BN-1&3-28-LT-XD1	13	mg/Kg		0
BN-1&3-28-LT9	Potassium Total	EPA 6010B	760	mg/Kg		BN-1&3-28-LT-XD1	960	mg/Kg		23.3
BN-1&3-28-LT9	Vanadium Total	EPA 6010B	18	mg/Kg		BN-1&3-28-LT-XD1	13	mg/Kg		32.3
BN-1&3-28-LT9	Zinc Total	EPA 6010B	23	mg/Kg		BN-1&3-28-LT-XD1	22	mg/Kg		4.4
BN-1&3-28-LT9	Mercury Total	EPA 7471A	0.062	mg/Kg		BN-1&3-28-LT-XD1	0.042	mg/Kg		38.5
BN-1&3-28-LT9	Acetone	EPA 8260B	98	ug/Kg		BN-1&3-28-LT-XD1	83	ug/Kg		16.6
BN-1&3-28-LT9	Carbon Disulfide	EPA 8260B	10	ug/Kg		BN-1&3-28-LT-XD1	8.2	ug/Kg		19.8
BN-1&3-28-SW4	Aluminum Total	EPA 6010B	0.2	mg/L	UJ	BN-1&3-28-SW-XD1	0.32	mg/L	J	NC
BN-1&3-28-SW4	Calcium Total	EPA 6010B	11	mg/L		BN-1&3-28-SW-XD1	11	mg/L		0
BN-1&3-28-SW4	Iron Total	EPA 6010B	0.74	mg/L	J	BN-1&3-28-SW-XD1	1.1	mg/L	J	**39.1**
BN-1&3-28-SW4	Manganese Total	EPA 6010B	0.16	mg/L		BN-1&3-28-SW-XD1	0.17	mg/L		6.1
BN-1&3-28-SW4	Zinc Total	EPA 6010B	0.03	mg/L		BN-1&3-28-SW-XD1	0.04	mg/L		28.6
BN-1&3-28-SW4	Selenium Furnace GW	EPA 7740	0.005	mg/L	J	BN-1&3-28-SW-XD1	0.005	mg/L	UJ	NC
BN-1&3-28-SW4	Methylene Chloride	EPA 8260B	0.56	ug/L	J	BN-1&3-28-SW-XD1	1	ug/L	J	**56.4**
BN-1&3-28-MW1302S	Aluminum Total	EPA 6010B	0.58	mg/L	J	BN-1&3-28-MWXD2	0.79	mg/L	J	**30.7**
BN-1&3-28-MW1302S	Calcium Total	EPA 6010B	92	mg/L		BN-1&3-28-MWXD2	93	mg/L		1.1
BN-1&3-28-MW1302S	Chromium Total	EPA 6010B	0.01	mg/L	J	BN-1&3-28-MWXD2	0.02	mg/L	J	**66.7**
BN-1&3-28-MW1302S	Iron Total	EPA 6010B	1.1	mg/L	J	BN-1&3-28-MWXD2	1.5	mg/L	J	**30.8**
BN-1&3-28-MW1302S	Lead Total	EPA 6010B	0.003	mg/L		BN-1&3-28-MWXD2	0.004	mg/L		28.6
BN-1&3-28-MW1302S	Magnesium Total	EPA 6010B	5.4	mg/L		BN-1&3-28-MWXD2	5.5	mg/L		1.8
BN-1&3-28-MW1302S	Manganese Total	EPA 6010B	0.43	mg/L		BN-1&3-28-MWXD2	0.41	mg/L		4.8
BN-1&3-28-MW1302S	Nickel Total	EPA 6010B	0.04	mg/L	UJ	BN-1&3-28-MWXD2	0.02	mg/L	J	NC
BN-1&3-28-MW1302S	Zinc Total	EPA 6010B	0.04	mg/L	J	BN-1&3-28-MWXD2	0.06	mg/L	UJ	NC
BN-1&3-28-MW1302S	1,1,2,2-Tetrachloroethane	EPA 8260B	0.67	ug/L	J	BN-1&3-28-MWXD2	1.5	ug/L	J	**76.5**
BN-1&3-28-MW1302S	1,1-Dichloroethane	EPA 8260B	1.6	ug/L		BN-1&3-28-MWXD2	1.7	ug/L		6.1
BN-1&3-28-MW1302S	Acetone	EPA 8260B	5	ug/L	UJ	BN-1&3-28-MWXD2	3.2	ug/L	J	NC
BN-1&3-28-MW1302S	Chloroethane	EPA 8260B	73	ug/L		BN-1&3-28-MWXD2	69	ug/L		5.6
BN-1&3-28-MW1302S	Methylene Chloride	EPA 8260B	0.67	ug/L	J	BN-1&3-28-MWXD2	1.2	ug/L	J	**56.7**
BN-1&3-28-MW1302S	Trichloroethene	EPA 8260B	0.51	ug/L		BN-1&3-28-MWXD2	0.51	ug/L		0

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): 4.7, 3.5, & 4.7 ^oC**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASSITES1**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-1&3-28-SEEP1	AI03920
BN-1&3-28-SEEP3	AI03921
BN-1&3-28-SEEP5	AI03922
BN-1&3-26-LT1	AI03923
BN-1&3-26-LT3	AI03924
BN-1&3-26-LT4	AI03925
BN-1&3-26-LT5	AI03926
BN-1&3-26-SW8	AI03927
BN-1&3-26-SW09	AI03928
BN-1&3-26-LT9	AI03929
BN-1&3-28-LT-XD1	AI03930 field duplicate to AI03929
BN-1&3-26-SEEP9	AI03931
BN-1&3-26-SEEP-XD1	AI03932 field duplicate to AI03931
BN-1&3-26-SW7	AI03933
BN-1&3-26-SEEP4	AI03935
BN-1&3-26-SW4	AI03936
BN-1&3-28-SW-XD1	AI03937 field duplicate to AI03936
BN-1&3-26-MW1302S	AI03938
BN-1&3-28-MWXD2	AI03939 field duplicate to AI03938
BN-1&3-28-MWQS1	AI03941

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	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
Field Dup RPD	1) RPD ≤ 30% water; ≤50% soil (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 931 / 932 929 / 930 936 / 937 938 / 939 FD Pair 931/932; Ca not detected in the FD, but had a low-level detect in the field sample, Zn not detected in the field sample but had a low-level detect in the FD, & Hg FD RPD>MPC. FD Pair 929/930; within MPC. FD Pair 936/937; Al not detected in the field sample but had a low-level detect in the FD, Se not detected in the FD, but has a low-level detect in the field sample, Fe FD RPD>MPC. FD Pair 938/939; Zn not detected in the FD, but had a low-level detect in the field sample, Ni not detected in the field sample but has a low-level detect in the FD, and Al, Cr, and Fe FD RPD>MPC.	X	Ca results qualified J in sample 931 and UJ in sample 932. Hg detects qualified J in samples 931 & 932. Al results qualified J in sample 937 and UJ in sample 936. Se results qualified J in sample 936 and UJ in sample 937. Ni results qualified J in sample 939 and UJ in sample 938. Cr detects qualified J in samples 938 & 939.	
% 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 blanks were non-detect for all metals, except for the following: 5/11/06 preparation blank. In this preparation blank the following were detected; Zn; 0.68 mg/kg < 10 mg/kg 5/16/06 preparation blank. In this preparation blank the following were detected; Zn; 0.04 mg/L<0.05 mg/L	X	Zn qualified U in samples 921, 927, 928, 932, 933, 936, 937, 938.	

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 the following notated by date: 5/16/06: Al, Cu, Fe, and Zn LCS %R>UCL Cu results were all non-detect; no samples qualified. Zn detects were qualified U due to method blank contamination in samples 921, 927, 928, 932, 933, 936, 937, & 938, therefore no samples qualified. All Se, Tl, Sb, Hg LCS %R's within limits. No samples qualified. Laboratory precision is acceptable.	X	Al detects qualified J in samples 921, 922, 931, 932, 935, 937, 938, & 939. Fe detects qualified J in samples 920, 921, 922, 927, 928, 931, 932, 933, 935, 936, 937, 938, & 939.	Al bias high in samples 921, 922, 931, 932, 935, 937, 938, & 939. Fe bias high in samples 920, 921, 922, 927, 928, 931, 932, 933, 935, 936, 937, 938, & 939.
LCS/LCSD RPD	1) RPD<20%	All 6010B/Hg/Sb/ LCS/LCSD RPDs are within MPC except for the following notated by date: 5/16/06: Zn >UCL	X	Zn non-detects qualified UJ in samples 921, 927, 928, 932, 933, 936, 937, 938, 920, 922, 931, 935, 939, & 941.	
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	Three MS/MSD analysis performed: Seep; Field sample: AI03931 used for MS. Tl MS/MSD %R<LCL (0% recoveries) but the matrix spike was not greater than 4X the field sample level. Results for Tl were qualified R. Sb & Se MS %R's within limits. Ag and Cu MS %R<LCL, Al, Mg, Mn, Na, and Zn MS %R>UCL. Al was previously qualified due to high LCS %R. Ca, Fe, and K, %R not calculated due to	X	Tl detects qualified R in samples 931, 920, 921, 922, 932, & 935. Ag & Cu non-detects qualified UJ in	Ag & Cu low bias in seep samples. Mg, Mn, Na,

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
		calibration exceedence and field sample results were greater than 4X the MS level. No samples qualified. Ba %R not calculated since MS/MSD were non-detect for Ba. Surface water: Field sample: AI03936 used for MS. Al, K, Na, and Mg MS/MSD %R>UCL. Al detects were previously qualified due to high LCS %R. Surface water results for Al, K, Na, and Mg were all non-detect; no samples qualified. Leachate sediment; Field sample: AI03929 used for MS/MSD. Al and Fe, %R not calculated due to calibration exceedence and field sample results were greater than 4X the MS level. No samples qualified. K, Mg, and Na MS %R<LCL and Mn MS %R>UCL. Hg MS %R's within limits.		samples 931, 920, 921, 922, 932, & 935. Mg detects qualified J in samples 931, 920, 921, 922, & 932. Mn detects qualified J in samples 931, 920, 921, 922, 932, & 935. Na detects qualified J in samples 931, 922, & 932. K, Mg, and Na results qualified J for detects and UJ for non-detects in samples 923, 924, 925, 926, 929, & 930. Mn detects qualified J in samples 923, 924, 925, 926, 929, & 930.	& Zn high bias in Seep samples. K, Na, & Mg low bias in leachate sediment samples. Mn bias high in leachate sediment samples.
MS/MSD RPD	MS/MSD RPD<20%	Three MS/MSD RPD analysis performed: Leachate sediment; Field sample: AI03929 used for MS/MSD RPD. MS/MSD RPD > MPC for Fe and Mn. Mn results were previously qualified due to MS %R>UCL. Seep; Field sample: AI03931 used for MS/MSD RPD. MS/MSD RPD > MPC for Cu. Cu seep results were previously qualified due to MS %R<LCL. Surface water: Field sample: AI03936 used for MS/MSD RPD. All RPDs within limits.	X	Fe detects qualified J in samples 923, 924, 925, 926, 929, & 930.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
		Laboratory precision is acceptable. Laboratory precision is acceptable.			
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Three lab replicate analysis performed: Leachate sediment; Field sample: AI03929 used for lab replicate. All RPDs within limits, except for Ba, Cr, K, and Ni. K leachate sediment results previously qualified due to MS %R< LCL. Leachate; Field sample: AI03931 used for lab replicate. All RPDs within limits, except for Al, As, and Zn. Surface water: Field sample: AI03936 used for lab replicate. All RPDs within limits. Laboratory precision is acceptable.	X	Ba, Cr, & Ni results qualified J in samples 923, 924, 925, 926, 929, & 930. Al non-detect results qualified UJ in sample 920. As results qualified J for detects and UJ for non-detects in samples 931, 920, 921, 922, 932, & 935.	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) check and recalculate %RSDs and %R for three compounds (with 10% of lab)	Select samples diluted to bring results in calibration range. For groundwater, Sb reporting limit 0.006 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For groundwater, As reporting limit 0.01 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For groundwater, Be reporting limit 0.005 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For groundwater, Cd reporting limit 0.005 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For groundwater, Pb reporting limit 0.003 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For groundwater, Ni reporting limit 0.04 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For groundwater,Se reporting limit 0.005 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For groundwater, Tl reporting limit 0.002 greater than QAPP PQL (based on	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
		Basewide QAPP values in Table 07-1-S1). For seep and surface water, Al reporting limit 0.2 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For seep and surface water, Sb reporting limit 0.006 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For seep and surface water, As reporting limit 0.01 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For seep and surface water, Cd reporting limit 0.005 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For seep and surface water, Cu reporting limit 0.025 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1). For seep and surface water, Ag reporting limit 0.01 greater than QAPP PQL (based on Basewide QAPP values in Table 07-1-S1).			
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.	MW matrix – SD not analyzed. Seep matrix – SD not analyzed. Surface water – SD not analyzed. Leachate sediment SD not analyzed.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
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	-	

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)	Three PDS analysis performed: Seep Matrix; Field sample: AI03931 used for PDS. All %R within limits for Tl, Se, and Sb. Ca, K, and Fe, %R not calculated due to calibration exceedence and field sample results were greater than 4X the PDS level. Ba and Cu %R not calculated due to both the MS/MSD were non-detect. No samples qualified. %R<LCL for Ag; Ag results previously qualified due to MS %R<LCL. Surface water matrix; Field sample: AI03936 used for PDS. All %R within limits, except the following which had %R> UCL K and Mg, and %R<LCL for Fe, Mn, & Na. All %R within limits for Tl, Se, and Sb. Leachate sediment; Field sample: AI03929 used for PDS. Al and Fe, %R not calculated due to calibration exceedence and field sample results were greater than 4X the PDS level. No samples qualified. %R<LCL for Mn. Mn results previously qualified due to MS %R>UCL.	X	Mn & Na detects qualified J in samples 927, 928, 933, 936, & 937.	Low bias for Mn & Na in Surface water samples.
*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. The LCS %R's are within limits, except for Al, Cu, Fe, and Zn and LCS/LCSD RPDs are within limits except for Zn. The Matrix spikes were within limits in the MS/MSD, except for Tl, Ag, & Cu (<LCL) and Al, Mg, Mn, Na,	X	-	Al bias high in samples 921, 922, 931, 932,

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
		and Zn (>UCL) for seep matrix. The Matrix spikes were within limits in the MS/MSD, except for Al, K, Na, and Mg (>UCL) for surface water matrix. . The Matrix spikes were within limits in the MS/MSD, except for K, Mg, and Na (<LCL) and Mn (>UCL) for leachate sediment matrix. Laboratory accuracy is acceptable for all metals, except for Ba, Cr, K, and Ni for the sediment matrix. The LCS/LCSD RPDs were within limits for all 6010 elements with the exception on Zn. PDS %R<LCL and MS %R<LCL for the following: Seep with a low bias for Ag; Surface water with %R> UCL K and Mg, and %R<LCL for Fe, Mn, & Na. Leachate sediements PDS %R<LCL and MS %R<LCL with a low bias for Mn. Lab preparation blank; Zn detected – samples 921, 927, 928, 932, 933, 936, 937, 938 qualified U. IPC; in limits. ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Field Sample / Field Duplicate 931 / 932 929 / 930 937 / 937 938 / 939 FD Pair 931/932; Ca not detected in the FD, but had a low-level detect in the field sample, Zn not detected in the field sample but had a low-level detect in the FD, & Hg FD RPD>MPC. FD Pair 929/930; within MPC. FD Pair 936/937; Al not detected in the field sample but had a low-level detect in the FD, Se not detected in the FD, but has a low-level detect in the field sample, Fe FD RPD>MPC.			935, 937, 938, & 939. Fe bias high in samples 920, 921, 922, 927, 928, 931, 932, 933, 935, 936, 937, 938, & 939. Ag & Cu low bias in seep samples. Mg, Mn, Na, & Zn high bias in Seep samples. K, Na, & Mg low bias in leachate sediment samples. Mn bias

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
		FD Pair 938/939; Zn not detected in the FD, but had a low-level detect in the field sample, Ni not detected in the field sample but has a low-level detect in the FD, and Al, Cr, and Fe FD RPD>MPC. . Overall precision is acceptable.			high in leachate sediment samples. Low bias for Mn & Na in Surface water samples.

*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) **VOCs 5030B/5035//8260B**
Project: NAS Brunswick Sites 1&3 ECC Job No. 5700 **Review Criteria: Sites 1, 3 & EP &**
USEPA Region I Tier II Guidance

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous/ Soil**	**HCl/methanol/sodium bisulfate**	**3 batches – Temp (^oC): All temps < 6 ^oC**	**NEL, ME.**	**Lab SDG #** **BNASSITES1**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-1&3-28-SEEP1	AI03920
BN-1&3-28-SEEP3	AI03921
BN-1&3-28-SEEP5	AI03922
BN-1&3-28-LT1	AI03923
BN-1&3-28-LT3	AI03924
BN-1&3-28-LT4	AI03925
BN-1&3-28-LT5	AI03926
BN-1&3-28-SW8	AI03927
BN-1&3-28-SW09	AI03928
BN-1&3-28-LT9	AI03929
BN-1&3-28-LT-XD1	AI03930 (field duplicate for AI03929)
BN-1&3-28-SEEP9	AI03931
BN-1&3-28-SEEP-XD1	AI03932 (field duplicate for AI03931)
BN-1&3-28-SW7	AI03933
BN-1&3-28-MWQT2	AI03934
BN-1&3-28-SEEP4	AI03935
BN-1&3-28-SW4	AI03936
BN-1&3-28-SW-XD1	AI03937 (field duplicate for AI03936)
BN-1&3-28-MW1302S	AI03938
BN-1&3-28-MWXD2	AI03939 (field duplicate for AI03938)
BN-1&3-28-MWQT2	AI03940
BN-1&3-28-MWQS1	AI03941

Note: Samples are described below in the data worksheets by reference to the last few 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 preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (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) 14 Days to analysis, if preserved 2) J –detects, UJ or R – non-detects (function of time) 3) *transcription errors	Dates collected: April 26 & 27, 2006. Analyzed before: May 11, 2006. 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	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants – acetone, 2-butanone or Mecl. 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 *check 10% of raw chromatograms for false +/-, check for transcription errors	3 batches of samples were analyzed – on May 9, 10, & 11, 2006. May 11 – all MB detections were non-detect in applicable samples. May 9th and 10th – MeCl and 1,1,2,2-TCA Results for MeCl in samples 931, 932, & 940 were qualified U. Results for 1,1,2,2-TCA in samples 921, 938, & 939 were qualified U.	X	Results for MeCl in samples 931, 932, & 940 were qualified U. Results for 1,1,2,2-TCA in samples 921, 938, & 939 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	Sample AI03934 was non-detect for all VOC's of concern. Sample AI03940 – contained hexachlorobutadiene (2.7 ug/L) – samples associated with the TB were non-detect for all VOC's of concern. No sample qualifications.	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 as all the equipment were dedicated.	-	-	
Results > Cal Range or <Cal Range	6) >Upper Cal Range J-detects - ensure instrument blank performed 7) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <PQL/RL were qualified J. Acetone results greater than the upper quantitation limit which were not re-run at a dilution were qualified as J.	X	J for all samples with estimated results <MRL but >MDL. Acetone results greater than the upper quantitation limit which were not re-run at a dilution were qualified as J.	
*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	Inv en-tory	QUAL	BIAS
Surrogates	1,2-Dichloroethane-d4 65-135% Dibromofluoromethane 75-129% Toluene-d8 82%-120% 4-BFB 69%-125% *check raw data for surrogated (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	Surrogate recovery within QAPP limits but slightly outside lab limits for 1,2-Dichloroethane-d4 in samples 921, 931, 932, 935, 940, 927, 928, 933, 937, 941, 924 as well as LCSDJ0509 and VBLKJ0509. No samples qualified. Laboratory stated in their narrative that the surrogate recoveries were within NEL statistical limits (70-152) so reanalysis did not occur.	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	High LCS recoveries for chloroethane, acetone on May 9; and for chloroethane on May 11. All applicable results were non-detects on May 11 – no sample qualifications. Low LCS recoveries for chloroethane on May 10.	X	Results for chloroethane and acetone were qualified as J in samples 931 and 932. Results for chloroethane were qualified J for detects and UJ for non-detects in samples 927, 928, 933, 934, 936, 937, 938, 939, and 941.	
*MS/MSD/unspike sample RSD	1)For unspiked compounds if reported, Non- MS spike compounds <50% RSD calculated from MS/MSD/Unspiked Qualification: >50% RSD J-detects 2)*recalculate the RPD (within 10% of lab)	NA	-	-	
*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 8) *Matrix effects- MS/MSD, surrogated, PDS. 9) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 10) *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	Inv en-tory	QUAL	BIAS
Field Dup RPD	1) RPD ≤ 30% aq. ≤ 50 soil for Results > PQL (FD pair only) J-detects (both > PQL) 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. *Recalculate the concentrations for one compound and the PQL	Field Sample / Field Duplicate 931 / 932 929 / 930 936 / 937 938 / 939 FD Pair 931/932; FD RPD's were outside MPC limits for acetone. FD Pair 929/930; within MPC. FD Pair 936/937; FD RPD's were outside MPC limits for methylene chloride. FD Pair 938/939; FD RPD's were outside MPC limits for 1,1,2,2-tetrachloroethane and methylene chloride. Also, acetone was detected in the field duplicated but was non-detect in native sample. All of the above results were qualified with J for detects and UJ for non-detects.	X	Acetone was qualified J in samples 931 & 932. Methlyene chloride was qualified J in samples 936, 937, 938, & 939. Acetone was qualified UJ in sample 938 and J in sample 939.	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 11) PES > acceptance criteria – Detects in samples J, 12) PES<acceptance criteria – Detects J, NDs –R 13) VOA/SV-XI14 other criteria 14) *% of PES sample above and below criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
MS/MSD Recovery	1) Attachment A-2 of LTMP 2) 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) * Recalculate the %R (within 10% of lab)	Native samples Leachate – sample AI03929 Leachate Seep – AI03931 Leachate – Low MS/MSD recoveries for chloroethane. Leachate Seep – High MS/MSD recoveries for chloroethane, carbon disulfide, and methylene chloride. Low MS recovery for hexachlorobutadiene. Chloroethane was previously qualified J due to LCS %R>MPC limits (see LCS). Carbon disulfide was non-detect in the native sample AI03931. Methylene chloride was qualified U due to method blank contamination.	X	Chloroethane was qualified as UJ in native sample AI03929.	-
MS/MSD RPD (LCS/LCSD RPD)	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS sample UJ-non detects * recalculate RPD	Native samples Leachate – sample AI03929 Leachate Seep – AI03931. Leachate – all MS/MSD RPD's < 20%. No samples qualified. Leachate Seep – MS/MSD RPD outside MPC limits for hexachlorobutadiene. LCS/LCSD RPD's outside MPC limits for bromomethane and 1,1-dichloroethene on May 9; and acetone on May 11.	X	Hexachlorobutadiene was qualified UJ in sample AI03931. Results for bromomethane and 1,1-dichloroethene were qualified UJ in samples 920, 921, 922, 931, 932, 935, & 940. Results for acetone were qualified J in samples 923, 924, 925, 926, 929, 930 and the re-analysis of samples 925, 926, & 930.	
*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	NA	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	8) *tgt and surrogate 80-120% R *VOA/SV-X11 (recalcuate %RSD and %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 7) *check for IS transcription errors 8) FBZ = fluorobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	Internal standard areas inside MPC limits. No samples 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) <u>Dilution factors for samples – impacts to sensitivity</u>	No dilutions required. Lab RL's met in all aqueous samples for all compounds. Elevated RL's for sediments due to high % moisture. No sample qualifications.	X	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtraction 3) *compare reported data to raw data	Tunes were within MPC limits. Detections verified from the tunes & GC. No sample qualifications.	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) <u>RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, CS, 1,/22/03 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)./</u>* 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	Instrument SAVIOR Date: May 6 & 7 Average response factor for the SPCC analyte 1,1,2,2-tetrachloroethane was below MPC limit.	X	1,1,2,2-tetrachloroethane results in samples 920, 922, 927, 928, 931, 932, 933, 935, 936, 937, 940, & 941 were qualified R and results in samples 921, 938, & 939 were qualified J.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
	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 SAVIOR Dates: May 6 & 7. May 9 – applicable to all samples – analytes with average response factors exceeding 15% (acetone and chloroethane - quadractic) were determined by linear or quadractic curves.	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	Same as CCV. Please see the CCV section below.	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 SAVIOR Dates: May 9,10, & 11. May 9 – applicable to samples 920, 921, 922, 931, 932, 935, 940, & 927 - %D outside MPC limits for chloroethane. May 10 – applicable to samples 928, 933, 936, 937, 938, 941, 939 - %D outside MPC limits for bromomethane, chloroethane, acetone, & 1,1-dichloroethane. May 11 – applicable to 923, 924, 929 - %D outside MPC limits for chloroethane, and acetone.	X	Chloroethane results in all samples were qualified J for detects and UJ for non-detects. Bromomethane non-detect results were qualified UJ in samples 928, 933, 936, 937, 938, 941, 939. Acetone non-detect results were qualified UJ in samples 928, 933, 936, 937, 938, 941. 1,1-Dichloroethane results were qualified J for detects and UJ for non-detects in samples 928, 933, 936, 937, 938, 941, 939. Acetone detects	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
				were qualified J in samples 923, 924, 929.	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory precision and accuracy acceptable. No apparent sample bias. Sample results are usable for making project decisions, as qualified. Results for MeCl in samples 931, 932, & 940 were qualified U. Results for 1,1,2,2-TCA in samples 921, 938, & 939 were qualified U due to method blank contamination. J for all samples with estimated results <MRL but >MDL. Acetone results greater than the upper quantitation limit which were not re-run at a dilution were qualified as J. Results for chloroethane and acetone were qualified as J in samples 931 and 932 due to high LCS recoveries and results for chloroethane were qualified J for detects and UJ for non-detects in samples 927, 928, 933, 934, 936, 937, 938, 939, and 941 due to low LCS recoveries. Chloroethane was qualified as UJ in native sample AI03929 due to MS/MSD recoveries being outside MPC limits. Hexachlorobutadiene was qualified UJ in sample AI03931 due to high MS/MSD RPD's. Results for bromomethane and 1,1-dichloroethene were qualified UJ in samples 920, 921, 922, 931, 932, 935, & 940 and results for acetone were qualified J in samples 923, 924, 925,	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		926, 929, 930 and the re-analysis of samples 925, 926, & 930 due to high LCS/LCSD RPD's. ICAL; 1,1,2,2-tetrachloroethane results in samples 920, 922, 927, 928, 931, 932, 933, 935, 936, 937, 940, & 941 were qualified R and results in samples 921, 938, & 939 were qualified J due to average response factor below the MPC limit. ICV: Same as CCV. CCV: Chloroethane results in all samples were qualified J for detects and UJ for non-detects. Bromomethane non-detect results were qualified UJ in samples 928, 933, 936, 937, 938, 941, 939. Acetone non-detect results were qualified UJ in samples 928, 933, 936, 937, 938, 941. 1,1-Dichloroethane results were qualified J for detects and UJ for non-detects in samples 928, 933, 936, 937, 938, 941, 939. Acetone detects were qualified J in samples 923, 924, 929.due to CCV %D outside MPC limits. Sampling error: Field Sample / Field Duplicate 931 / 932 929 / 930 937 / 937 938 / 939 FD Pair 931/932; FD RPD's were outside MPC limits for acetone. FD Pair 929/930; within MPC. FD Pair 936/937; FD RPD's were outside MPC limits for methylene chloride. FD Pair 938/939; FD RPD's were outside MPC limits for 1,1,2,2-tetrachloroethane and methylene chloride. Also, acetone was detected in the field duplicated but was non-detect in native sample. All of the above results were qualified with J for detects and UJ for non-detects.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Lab Correspondence: None.

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**	**-**	**1 batch – all temps < 6°C**	**Northeast Laboratory, ME**	**NEL #** **BNASSITE S1&3**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-1&3-28-SEEP1	AI03920
BN-1&3-28-SEEP3	AI03921
BN-1&3-28-SEEP5	AI03922
BN-1&3-26-SEEP4	AI03935

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 °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) 7 days to extract (14 days for solids) and 40 days to analysis J –detects, UJ or R – nondetects (function of time)	Dates collected: April 26, 2006. Date extracted: May 1, 2006. Date analyzed: May 13, 2006. 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	Not applicable	-	-	
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)	MB's were non-detect in both columns. 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%	No samples from this SDG were analyzed as MS/MSD.	X	-	-
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	No samples from this SDG were analyzed as MS/MSD.	X	-	
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	No field duplicate pairs analyzed.	X		

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**

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 breakdown within MPC limits for all applicable samples. DDT breakdown within MPC limits for all 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: May 2 (QC), 4, and 12, 2006. RSD<20% or 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	Instrument: 5890S. Same as ICV.	X	-	
CCV	1) QAPP: 15% of initial calib. Curve (85%-115%) . J qualify data. 2) Qualification-J detects, R or UJ NDs	Instrument: 5890S. Dates: May 13, 14, and 4, 2006. All %D's were within MPC limits in both columns.	X	-	
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	Gamma-BHC in sample AI03921 was the only detected result. %D between both columns < 25%. 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. Gamma-BHC (lindane) in AI03921 was the only detected result -%D between columns was < 25%. No method blank detection for the compound.	X	-	-

*(Tier III check items) Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

Lab Correspondence: None.

DATA VALIDATION MEMORANDUM
NAS BRUNSWICK SITES 1& 3
APRIL 2005 SAMPLING ROUND 28 (SDG BNASS1&3042)

TO: ENGINEERING FACILITY COMMAND NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NAS BRUNSWICK SITES 1 & 3 MONITORING EVENT 28

DATE: 3/30/2007

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: 10 MW & 1 MW FD,
VALIDATION CONTRACTOR:__ECC/ASW
VALIDATOR'S NAME: Sherri Pullar
DV Completion Date:_ July 24, 2006.
Date Sampled__24-26 April 2006.

ANALYTICAL DATA QUALITY SUMMARY

		VOC	Metals
1	Preservation and HT	O	O
2	Instrument Performance Check	M	O
3	Initial Calibration:	Z	O
4	Continuing Calibration:	M	O
5	Blanks:	M	O
6	Surrogate Compounds:	M	-
7	Internal Standards	O	-
8	Matrix Spike/Matrix Spike Duplicate:	O	M
9	Sensitivity Check:	O	O
10	PE Samples- Accuracy Check	M	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): Results for 1,1,2,2-TCA were qualified as R in all samples due to SPCC RF <0.3.

AREAS OF CONCERN: (M items):

VOC: MeCl results in samples 776, 777, 778, 779, 780, & 787 were qualified U due to method blank contamination. J for all samples with estimated results <MRL but >MDL. Result for acetone in sample 777 DL was qualified as J due to surrogate recoveries outside the MPC limits. Results for 1,1-dichloroethane in samples 776 and 778; for acetone in samples 776 and 778 were qualified J; and results for chloroethane in samples 776 and 777 were qualified estimated (J/UJ) due to LCS recoveries outside MPC limits. Results for hexachlorobutadiene were qualified J for detects s in samples AI03783 & AI03784 due to field duplicate RPD's outside MPC limits. Positive results were qualified as J for acetone in sample 786 and 777 DL; for 1,1-dichloroethane in sample 776 DL; and non-detect results were qualified as UJ for acetone in samples 781, 783, 784, and 776 DL; for 1,1-dichloroethane in samples 781, 783, 784, 786, 777, 779,780,782, 787,and 777 DL; for 2-hexanone in samples 776, 777, 778, 779, 780, 782, and 787; for tetrachloroethene in samples 776, 777, 778, 779, 780, 782, and 787 due to LCS RPD's outside MPC limits. Vinyl chloride results were qualified with J for detects and UJ for non-detects in all samples

due to %RSD >15%. Chloroethane, MeCl, 2-butanone, and 4-methyl-2-pentanone in AI03781, AI03783, AI03784 & AI03786; chloroethane, acetone, 2-hexanone, and hexachlorobutadiene in AI03787, AI03776, AI03777, AI03778, AI03779 & AI03780; chloroethane and acetone in AI03782; chloromethane in re-analyses of AI03776 & AI03777 qualified with J for detects and UJ for non-detects due to %D and/or area% and/or CCRF outside MPC limits.

Metals: Cu LCS %R>UCL: Cu detects qualified J in sample 778. MS %R >UCL for Ca and Zn; Results for Ca and Zn were qualified as J in sample 783. Pb and Zn qualified J in sample 783 and UJ in sample 784 due to field duplicate RPD>MPC.

COMMENTS:

NAS BRUNSWICK- SITES 1 & 3 – JUNE-JULY 2006
DATA SUMMARY TABLE – AQUEOUS SDG BNASS1&3042

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW1302D	AI03776	SW7740	4/25/2006	1	Selenium Furnace GW	0.005	MG/L	U	0.0013299	0.005
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Aluminum Total	1.6	MG/L		0.002	0.2
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Arsenic Total	0.01	MG/L	U	0.0018	0.01
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Barium Total	0.2	MG/L	U	0.0068	0.2
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Beryllium Total	0.005	MG/L	U	0.0012	0.005
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Cadmium Total	0.005	MG/L	U	0.0018	0.005
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	10	Calcium Total	71	MG/L		0.123	50
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Chromium Total	0.015	MG/L		0.0043	0.01
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Cobalt Total	0.05	MG/L	U	0.0261	0.05
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Copper Total	0.025	MG/L	U	0.0018	0.025
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Iron Total	3.2	MG/L		0.006	0.1
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Lead Total	0.003	MG/L	U	0.0017	0.003
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	10	Magnesium Total	50	MG/L	U	0.5872	50
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	10	Manganese Total	5	MG/L		0.0053	0.15
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Nickel Total	0.04	MG/L	U	0.003	0.04
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Potassium Total	7.8	MG/L		0.3041	5
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Silver Total	0.01	MG/L	U	0.0126	0.01
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	10	Sodium Total	50	MG/L	U	0.401	50
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Vanadium Total	0.05	MG/L	U	0.0293	0.05
BN-1&3-28-MW1302D	AI03776	SW6010	4/25/2006	1	Zinc Total	0.02	MG/L	U	0.0034	0.02
BN-1&3-28-MW1302D	AI03776	SW7041	4/25/2006	1	Antimony, Furnace-GW	0.006	MG/L	U	0.0009305	0.006
BN-1&3-28-MW1302D	AI03776	SW7470	4/25/2006	1	Mercury by Cold Vapor GW	0.0002	MG/L	U	0.0000002	0.0002
BN-1&3-28-MW1302D	AI03776	SW7841	4/25/2006	1	Thallium, Furnace, Groundwater	0.002	MG/L	U	0.0004041	0.002
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	1,1,1-Trichloroethane	14	UG/L		0.34	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	1,1,2,2-Tetrachloroethane		UG/L	R	0.37	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	1,1,2-Trichloroethane	1	UG/L	U	0.39	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	1,1-Dichloroethane	83	UG/L	J	0.45	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	1,1-Dichloroethene	1.8	UG/L		0.45	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	1,2-Dichloroethene (total)	1.1	UG/L		0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	2-Butanone	5	UG/L	U	0.79	5
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	2-Hexanone	5	UG/L	UJ	0.53	5
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	4-Methyl-2-pentanone	5	UG/L	U	0.48	5
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Acetone	5.5	UG/L	J	0.59	5
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Benzene	0.51	UG/L	J	0.37	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Bromoform	1	UG/L	U	0.37	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Bromomethane	1	UG/L	U	0.38	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Chlorobenzene	1.7	UG/L		0.28	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Chloroethane	150	UG/L	J	0.39	20
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Hexachlorobutadiene	1	UG/L	UJ	0.27	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Methylene Chloride	1.2	UG/L	U	0.51	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Tetrachloroethene	1	UG/L	UJ	0.36	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Trichloroethene	1	UG/L	U	0.31	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Vinyl Chloride	1.3	UG/L	J	0.35	1
BN-1&3-28-MW1302D	AI03776	SW8260	4/25/2006	1	Xylenes (total)	1	UG/L	U	0.52	1
BN-1&3-28-MW1301S	AI03777	SW7740	4/25/2006	1	Selenium Furnace GW	0.005	MG/L	U	0.0013299	0.005
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Aluminum Total	0.4	MG/L		0.002	0.2
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Arsenic Total	0.01	MG/L	U	0.0018	0.01
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Barium Total	0.2	MG/L	U	0.0068	0.2
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Beryllium Total	0.005	MG/L	U	0.0012	0.005

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Cadmium Total	0.005	MG/L	U	0.0018	0.005
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	10	Calcium Total	150	MG/L		0.123	50
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Chromium Total	0.01	MG/L	U	0.0043	0.01
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Cobalt Total	0.05	MG/L	U	0.0261	0.05
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Copper Total	0.025	MG/L	U	0.0018	0.025
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Iron Total	1.8	MG/L		0.006	0.1
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Lead Total	0.006	MG/L		0.0017	0.003
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	10	Magnesium Total	69	MG/L		0.5872	50
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	10	Manganese Total	3.9	MG/L		0.0053	0.15
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Nickel Total	0.09	MG/L		0.003	0.04
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Potassium Total	6.4	MG/L		0.3041	5
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Silver Total	0.010142	MG/L	U	0.0126	0.010142
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	10	Sodium Total	57	MG/L		0.401	50
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Vanadium Total	0.05	MG/L	U	0.0293	0.05
BN-1&3-28-MW1301S	AI03777	SW6010	4/25/2006	1	Zinc Total	0.02	MG/L	U	0.0034	0.02
BN-1&3-28-MW1301S	AI03777	SW7041	4/25/2006	1	Antimony, Furnace-GW	0.006	MG/L	U	0.0009305	0.006
BN-1&3-28-MW1301S	AI03777	SW7470	4/25/2006	1	Mercury by Cold Vapor GW	0.0002	MG/L	U	0.0000002	0.0002
BN-1&3-28-MW1301S	AI03777	SW7841	4/25/2006	1	Thallium, Furnace, Groundwater	0.002	MG/L	U	0.0004041	0.002
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	1,1,1-Trichloroethane	1	UG/L	U	0.34	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	1,1,2,2-Tetrachloroethane	1	UG/L	R	0.37	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	1,1,2-Trichloroethane	1	UG/L	U	0.39	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	1,1-Dichloroethane	1	UG/L	UJ	0.45	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	1,1-Dichloroethene	1	UG/L	U	0.45	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	1,2-Dichloroethene (total)	1.2	UG/L		0.26	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	2-Butanone	5	UG/L	U	0.79	5
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	2-Hexanone	5	UG/L	UJ	0.53	5
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	4-Methyl-2-pentanone	5	UG/L	U	0.48	5
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Acetone	100	UG/L	J	0.59	100
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Benzene	1	UG/L	U	0.37	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Bromoform	1	UG/L	U	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Bromomethane	1	UG/L	U	0.38	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Chlorobenzene	3.9	UG/L		0.28	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Chloroethane	0.74	UG/L	J	0.39	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Hexachlorobutadiene	1	UG/L	UJ	0.27	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Methylene Chloride	0.86	UG/L	U	0.51	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Tetrachloroethene	1	UG/L	UJ	0.36	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Trichloroethene	0.94	UG/L	J	0.31	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Vinyl Chloride	1	UG/L	UJ	0.35	1
BN-1&3-28-MW1301S	AI03777	SW8260	5/8/2006	1	Xylenes (total)	1	UG/L	U	0.52	1
BN-1&3-28-MW1301D	AI03778		4/25/2006	1	Selenium Furnace GW	0.005	MG/L	U	0.0013299	0.005
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	10	Aluminum Total	28	MG/L		0.002	2
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Arsenic Total	0.01	MG/L	U	0.0018	0.01
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Barium Total	0.2	MG/L	U	0.0068	0.2
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Beryllium Total	0.005	MG/L	U	0.0012	0.005
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Cadmium Total	0.005	MG/L	U	0.0018	0.005
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	10	Calcium Total	110	MG/L		0.123	50
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Chromium Total	0.031	MG/L		0.0043	0.01
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Cobalt Total	0.05	MG/L	U	0.0261	0.05
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Copper Total	0.029	MG/L	J	0.0018	0.025
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	10	Iron Total	26	MG/L		0.006	1
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Lead Total	0.006	MG/L		0.0017	0.003
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	10	Magnesium Total	63	MG/L		0.5872	50
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Manganese Total	0.36	MG/L		0.0053	0.015

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Nickel Total	0.04	MG/L	U	0.003	0.04
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Potassium Total	19	MG/L		0.3041	5
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Silver Total	0.01	MG/L	U	0.0126	0.01
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	10	Sodium Total	160	MG/L		0.401	50
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Vanadium Total	0.05	MG/L	U	0.0293	0.05
BN-1&3-28-MW1301D	AI03778	SW6010	4/25/2006	1	Zinc Total	0.05	MG/L	B	0.0034	0.02
BN-1&3-28-MW1301D	AI03778	SW7041	4/25/2006	1	Antimony, Furnace-GW	0.006	MG/L	U	0.0009305	0.006
BN-1&3-28-MW1301D	AI03778	SW7470	4/25/2006	1	Mercury by Cold Vapor GW	0.0002	MG/L	U	0.0000002	0.0002
BN-1&3-28-MW1301D	AI03778	SW7841	4/25/2006	1	Thallium, Furnace, Groundwater	0.002	MG/L	U	0.0004041	0.002
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	1,1,1-Trichloroethane	1	UG/L	U	0.34	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	1,1,2,2-Tetrachloroethane	1	UG/L	R	0.37	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	1,1,2-Trichloroethane	1	UG/L	U	0.39	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	1,1-Dichloroethane	1.4	UG/L	J	0.45	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	1,1-Dichloroethene	1	UG/L	U	0.45	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	1,2-Dichloroethene (total)	3	UG/L		0.26	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	2-Butanone	5	UG/L	U	0.79	5
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	2-Hexanone	5	UG/L	UJ	0.53	5
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	4-Methyl-2-pentanone	5	UG/L	U	0.48	5
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Acetone	5.5	UG/L	J	0.59	5
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Benzene	1	UG/L	U	0.37	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Bromoform	1	UG/L	U	0.37	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Bromomethane	1	UG/L	U	0.38	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Chlorobenzene	1	UG/L	U	0.28	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Chloroethane	2.8	UG/L		0.39	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Hexachlorobutadiene	17	UG/L	J	0.27	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Methylene Chloride	1.4	UG/L	U	0.51	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Tetrachloroethene	1	UG/L	UJ	0.36	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Trichloroethene	1.1	UG/L		0.31	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Vinyl Chloride	10	UG/L	J	0.35	1
BN-1&3-28-MW1301D	AI03778	SW8260	4/25/2006	1	Xylenes (total)	1	UG/L	U	0.52	1
BN-1&3-28-MW1303AD	AI03779		4/25/2006	1	Selenium Furnace GW	0.005	MG/L	U	0.0013299	0.005
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Aluminum Total	0.45	MG/L		0.002	0.2
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Arsenic Total	0.042	MG/L		0.0018	0.01
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Barium Total	0.2	MG/L	U	0.0068	0.2
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Beryllium Total	0.005	MG/L	U	0.0012	0.005
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Cadmium Total	0.005	MG/L	U	0.0018	0.005
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	10	Calcium Total	50	MG/L	U	0.123	50
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Chromium Total	0.01	MG/L	U	0.0043	0.01
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Cobalt Total	0.05	MG/L	U	0.0261	0.05
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Copper Total	0.025	MG/L	U	0.0018	0.025
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	10	Iron Total	11	MG/L		0.006	1
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Lead Total	0.003	MG/L	U	0.0017	0.003
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Magnesium Total	19	MG/L		0.5872	5
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Manganese Total	0.96	MG/L		0.0053	0.015
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Nickel Total	0.04	MG/L	U	0.003	0.04
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Potassium Total	5	MG/L	U	0.3041	5
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Silver Total	0.01	MG/L	U	0.0126	0.01
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	10	Sodium Total	50	MG/L	U	0.401	50
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Vanadium Total	0.05	MG/L	U	0.0293	0.05
BN-1&3-28-MW1303AD	AI03779	SW6010	4/25/2006	1	Zinc Total	0.02	MG/L	U	0.0034	0.02
BN-1&3-28-MW1303AD	AI03779	SW7041	4/25/2006	1	Antimony, Furnace-GW	0.006	MG/L	U	0.0009305	0.006
BN-1&3-28-MW1303AD	AI03779	SW7470	4/25/2006	1	Mercury by Cold Vapor GW	0.0002	MG/L	U	0.0000002	0.0002
BN-1&3-28-MW1303AD	AI03779	SW7841	4/25/2006	1	Thallium, Furnace, Groundwater	0.002	MG/L	U	0.0004041	0.002

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	1,1,1-Trichloroethane	1	UG/L	U	0.34	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	1,1,2,2-Tetrachloroethane	1	UG/L	R	0.37	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	1,1,2-Trichloroethane	1	UG/L	U	0.39	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	1,1-Dichloroethane	1	UG/L	UJ	0.45	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	1,1-Dichloroethene	1	UG/L	U	0.45	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	1,2-Dichloroethene (total)	1	UG/L	U	0.26	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	2-Butanone	5	UG/L	U	0.79	5
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	2-Hexanone	5	UG/L	UJ	0.53	5
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	4-Methyl-2-pentanone	5	UG/L	U	0.48	5
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Acetone	5	UG/L	UJ	0.59	5
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Benzene	1	UG/L	U	0.37	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Bromoform	1	UG/L	U	0.37	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Bromomethane	1	UG/L	U	0.38	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Chlorobenzene	1	UG/L	U	0.28	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Chloroethane	5.4	UG/L	J	0.39	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Hexachlorobutadiene	1.4	UG/L	J	0.27	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Methylene Chloride	1.2	UG/L	U	0.51	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Tetrachloroethene	1	UG/L	UJ	0.36	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Trichloroethene	1	UG/L	U	0.31	1
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Vinyl Chloride	1	UG/L	UJ	0.35	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW1303AD	AI03779	SW8260	4/25/2006	1	Xylenes (total)	1	UG/L	U	0.52	1
BN-1&3-28-MW1303AS	AI03780		4/25/2006	1	Selenium Furnace GW	0.005	MG/L	U	0.0013299	0.005
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Aluminum Total	0.22	MG/L		0.002	0.2
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Arsenic Total	0.01	MG/L	U	0.0018	0.01
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Barium Total	0.2	MG/L	U	0.0068	0.2
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Beryllium Total	0.005	MG/L	U	0.0012	0.005
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Cadmium Total	0.005	MG/L	U	0.0018	0.005
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	10	Calcium Total	50	MG/L	U	0.123	50
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Chromium Total	0.01	MG/L	U	0.0043	0.01
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Cobalt Total	0.05	MG/L	U	0.0261	0.05
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Copper Total	0.025	MG/L	U	0.0018	0.025
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Iron Total	1.2	MG/L		0.006	0.1
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Lead Total	0.004	MG/L		0.0017	0.003
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Magnesium Total	5.9	MG/L		0.5872	5
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	10	Manganese Total	3.6	MG/L		0.0053	0.15
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Nickel Total	0.04	MG/L	U	0.003	0.04
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Potassium Total	6.8	MG/L		0.3041	5
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Silver Total	0.01	MG/L	U	0.0126	0.01
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Sodium Total	14	MG/L		0.401	5
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Vanadium Total	0.05	MG/L	U	0.0293	0.05
BN-1&3-28-MW1303AS	AI03780	SW6010	4/25/2006	1	Zinc Total	0.02	MG/L	U	0.0034	0.02
BN-1&3-28-MW1303AS	AI03780	SW7041	4/25/2006	1	Antimony, Furnace-GW	0.006	MG/L	U	0.0009305	0.006
BN-1&3-28-MW1303AS	AI03780	SW7470	4/25/2006	1	Mercury by Cold Vapor GW	0.0002	MG/L	U	0.0000002	0.0002
BN-1&3-28-MW1303AS	AI03780	SW7841	4/25/2006	1	Thallium, Furnace, Groundwater	0.002	MG/L	U	0.0004041	0.002
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	1,1,1-Trichloroethane	1	UG/L	U	0.34	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	1,1,2,2-Tetrachloroethane		UG/L	R	0.37	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	1,1,2-Trichloroethane	1	UG/L	U	0.39	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	1,1-Dichloroethane	1	UG/L	UJ	0.45	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	1,1-Dichloroethene	1	UG/L	U	0.45	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	1,2-Dichloroethene (total)	1	UG/L	U	0.26	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	2-Butanone	5	UG/L	U	0.79	5
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	2-Hexanone	5	UG/L	UJ	0.53	5
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	4-Methyl-2-pentanone	5	UG/L	U	0.48	5
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Acetone	5	UG/L	UJ	0.59	5
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Benzene	1	UG/L	U	0.37	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Bromoform	1	UG/L	U	0.37	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Bromomethane	1	UG/L	U	0.38	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Chlorobenzene	1	UG/L	U	0.28	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Chloroethane	3	UG/L	J	0.39	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Hexachlorobutadiene	0.89	UG/L	J	0.27	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Methylene Chloride	0.86	UG/L	U	0.51	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Tetrachloroethene	1	UG/L	UJ	0.36	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Trichloroethene	1	UG/L	U	0.31	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Vinyl Chloride	1	UG/L	UJ	0.35	1
BN-1&3-28-MW1303AS	AI03780	SW8260	4/25/2006	1	Xylenes (total)	1	UG/L	U	0.52	1
BN-1&3-28-MW202A	AI03781		4/24/2006	1	Selenium Furnace GW	0.005	MG/L	U	0.0013299	0.005
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Aluminum Total	0.2	MG/L	U	0.002	0.2
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Arsenic Total	0.01	MG/L	U	0.0018	0.01
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Barium Total	0.2	MG/L	U	0.0068	0.2
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Beryllium Total	0.005	MG/L	U	0.0012	0.005
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Cadmium Total	0.005	MG/L	U	0.0018	0.005

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	10	Calcium Total	89	MG/L		0.123	50
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Chromium Total	0.01	MG/L	U	0.0043	0.01
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Cobalt Total	0.05	MG/L	U	0.0261	0.05
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Copper Total	0.025	MG/L	U	0.0018	0.025
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	10	Iron Total	6.2	MG/L		0.006	1
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Lead Total	0.003	MG/L	U	0.0017	0.003
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Magnesium Total	7.3	MG/L		0.5872	5
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Manganese Total	0.3	MG/L		0.0053	0.015
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Nickel Total	0.04	MG/L	U	0.003	0.04
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Potassium Total	15	MG/L		0.3041	5
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Silver Total	0.01	MG/L	U	0.0126	0.01
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Sodium Total	11	MG/L		0.401	5
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Vanadium Total	0.05	MG/L	U	0.0293	0.05
BN-1&3-28-MW202A	AI03781	SW6010	4/24/2006	1	Zinc Total	0.02	MG/L	U	0.0034	0.02
BN-1&3-28-MW202A	AI03781	SW7041	4/24/2006	1	Antimony, Furnace-GW	0.006	MG/L	U	0.0009305	0.006
BN-1&3-28-MW202A	AI03781	SW7470	4/24/2006	1	Mercury by Cold Vapor GW	0.0002	MG/L	U	0.0000002	0.0002
BN-1&3-28-MW202A	AI03781	SW7841	4/24/2006	1	Thallium, Furnace, Groundwater	0.002	MG/L	U	0.0004041	0.002
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	1,1,1-Trichloroethane	1.3	UG/L		0.34	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	1,1,2,2-Tetrachloroethane	1.6	UG/L	R	0.37	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	1,1,2-Trichloroethane	0.74	UG/L	J	0.39	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	1,1-Dichloroethane	1	UG/L	UJ	0.45	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	1,1-Dichloroethene	1	UG/L	U	0.45	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	1,2-Dichloroethene (total)	1	UG/L	U	0.26	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	2-Butanone	5	UG/L	UJ	0.79	5
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	2-Hexanone	5	UG/L	U	0.53	5
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	4-Methyl-2-pentanone	5	UG/L	UJ	0.48	5
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Acetone	5	UG/L	UJ	0.59	5
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Benzene	1	UG/L	U	0.37	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Bromoform	1	UG/L	U	0.37	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Bromomethane	1	UG/L	U	0.38	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Chlorobenzene	1	UG/L	U	0.28	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Chloroethane	1	UG/L	UJ	0.39	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Hexachlorobutadiene	2.2	UG/L		0.27	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Methylene Chloride	0.56	UG/L	J	0.51	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Tetrachloroethene	0.68	UG/L	J	0.36	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Trichloroethene	1	UG/L	U	0.31	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Vinyl Chloride	1	UG/L	UJ	0.35	1
BN-1&3-28-MW202A	AI03781	SW8260	4/24/2006	1	Xylenes (total)	1	UG/L	U	0.52	1
BN-1&3-28-MW218	AI03782		4/24/2006	1	Selenium Furnace GW	0.005	MG/L	U	0.0013299	0.005
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Aluminum Total	0.39	MG/L		0.002	0.2
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Arsenic Total	0.15	MG/L		0.0018	0.01
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Barium Total	0.2	MG/L	U	0.0068	0.2
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Beryllium Total	0.005	MG/L	U	0.0012	0.005
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Cadmium Total	0.005	MG/L	U	0.0018	0.005
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	10	Calcium Total	50	MG/L	U	0.123	50
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Chromium Total	0.01	MG/L	U	0.0043	0.01
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Cobalt Total	0.05	MG/L	U	0.0261	0.05
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Copper Total	0.025	MG/L	U	0.0018	0.025
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	10	Iron Total	5.1	MG/L		0.006	1
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Lead Total	0.003	MG/L	U	0.0017	0.003
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Magnesium Total	16	MG/L		0.5872	5
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Manganese Total	1.1	MG/L		0.0053	0.015
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Nickel Total	0.04	MG/L	U	0.003	0.04

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Potassium Total	8.5	MG/L		0.3041	5
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Silver Total	0.01	MG/L	U	0.0126	0.01
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	10	Sodium Total	150	MG/L		0.401	50
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Vanadium Total	0.05	MG/L	U	0.0293	0.05
BN-1&3-28-MW218	AI03782	SW6010	4/24/2006	1	Zinc Total	0.02	MG/L	B	0.0034	0.02
BN-1&3-28-MW218	AI03782	SW7041	4/24/2006	1	Antimony, Furnace-GW	0.006	MG/L	U	0.0009305	0.006
BN-1&3-28-MW218	AI03782	SW7470	4/24/2006	1	Mercury by Cold Vapor GW	0.0002	MG/L	U	0.0000002	0.0002
BN-1&3-28-MW218	AI03782	SW7841	4/24/2006	1	Thallium, Furnace, Groundwater	0.002	MG/L	U	0.0004041	0.002
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	1,1,1-Trichloroethane	1	UG/L	U	0.34	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	1,1,2,2-Tetrachloroethane		UG/L	R	0.37	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	1,1,2-Trichloroethane	1	UG/L	U	0.39	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	1,1-Dichloroethane	1	UG/L	UJ	0.45	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	1,1-Dichloroethene	1	UG/L	U	0.45	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	1,2-Dichloroethene (total)	1	UG/L	U	0.26	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	2-Butanone	5	UG/L	U	0.79	5
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	2-Hexanone	5	UG/L	UJ	0.53	5
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	4-Methyl-2-pentanone	5	UG/L	U	0.48	5
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Acetone	5	UG/L	UJ	0.59	5
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Benzene	1	UG/L	U	0.37	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Bromoform	1	UG/L	U	0.37	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Bromomethane	1	UG/L	U	0.38	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Chlorobenzene	1	UG/L	U	0.28	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Chloroethane	1	UG/L	UJ	0.39	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Hexachlorobutadiene	1	UG/L	U	0.27	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Methylene Chloride	1	UG/L	U	0.51	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Tetrachloroethene	1	UG/L	UJ	0.36	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Trichloroethene	0.71	UG/L	J	0.31	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Vinyl Chloride	1	UG/L	UJ	0.35	1
BN-1&3-28-MW218	AI03782	SW8260	4/24/2006	1	Xylenes (total)	1	UG/L	U	0.52	1
BN-1&3-28-MW203	AI03783		4/24/2006	1	Selenium Furnace GW	0.005	MG/L	U	0.0013299	0.005
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Aluminum Total	0.2	MG/L	U	0.002	0.2
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Arsenic Total	0.01	MG/L	U	0.0018	0.01
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Barium Total	0.2	MG/L	U	0.0068	0.2
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Beryllium Total	0.005	MG/L	U	0.0012	0.005
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Cadmium Total	0.005	MG/L	U	0.0018	0.005
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Calcium Total	18	MG/L	J	0.123	5
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Chromium Total	0.01	MG/L	U	0.0043	0.01
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Cobalt Total	0.05	MG/L	U	0.0261	0.05
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Copper Total	0.025	MG/L	U	0.0018	0.025
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Iron Total	0.1	MG/L	U	0.006	0.1
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Lead Total	0.015	MG/L	J	0.0017	0.003
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Magnesium Total	5	MG/L	U	0.5872	5
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Manganese Total	0.015	MG/L		0.0053	0.015
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Nickel Total	0.04	MG/L	U	0.003	0.04
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Potassium Total	5	MG/L	U	0.3041	5
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Silver Total	0.01	MG/L	U	0.0126	0.01
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Sodium Total	5.2	MG/L		0.401	5
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Vanadium Total	0.05	MG/L	U	0.0293	0.05
BN-1&3-28-MW203	AI03783	SW6010	4/24/2006	1	Zinc Total	0.02	MG/L	J	0.0034	0.02
BN-1&3-28-MW203	AI03783	SW7041	4/24/2006	1	Antimony, Furnace-GW	0.006	MG/L	U	0.0009305	0.006
BN-1&3-28-MW203	AI03783	SW7470	4/24/2006	1	Mercury by Cold Vapor GW	0.0002	MG/L	U	0.0000002	0.0002
BN-1&3-28-MW203	AI03783	SW7841	4/24/2006	1	Thallium, Furnace, Groundwater	0.002	MG/L	U	0.0004041	0.002

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	1,1,1-Trichloroethane	1	UG/L	U	0.34	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	1,1,2,2-Tetrachloroethane		UG/L	R	0.37	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	1,1,2-Trichloroethane	1	UG/L	U	0.39	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	1,1-Dichloroethane	1	UG/L	UJ	0.45	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	1,1-Dichloroethene	1	UG/L	U	0.45	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	1,2-Dichloroethene (total)	1	UG/L	U	0.26	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	2-Butanone	5	UG/L	UJ	0.79	5
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	2-Hexanone	5	UG/L	U	0.53	5
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	4-Methyl-2-pentanone	5	UG/L	UJ	0.48	5
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Acetone	5	UG/L	UJ	0.59	5
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Benzene	1	UG/L	U	0.37	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Bromoform	1	UG/L	U	0.37	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Bromomethane	1	UG/L	U	0.38	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Chlorobenzene	1	UG/L	U	0.28	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Chloroethane	1	UG/L	UJ	0.39	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Hexachlorobutadiene	2.4	UG/L	J	0.27	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Methylene Chloride	1	UG/L	UJ	0.51	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Tetrachloroethene	1	UG/L	U	0.36	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Trichloroethene	1	UG/L	U	0.31	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Vinyl Chloride	1	UG/L	UJ	0.35	1
BN-1&3-28-MW203	AI03783	SW8260	4/24/2006	1	Xylenes (total)	1	UG/L	U	0.52	1
BN-1&3-28-MWXD1	AI03784		4/24/2006	1	Selenium Furnace GW	0.005	MG/L	U	0.0013299	0.005
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Aluminum Total	0.2	MG/L	U	0.002	0.2
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Arsenic Total	0.01	MG/L	U	0.0018	0.01
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Barium Total	0.2	MG/L	U	0.0068	0.2
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Beryllium Total	0.005	MG/L	U	0.0012	0.005
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Cadmium Total	0.005	MG/L	U	0.0018	0.005
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Calcium Total	17	MG/L		0.123	5
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Chromium Total	0.01	MG/L	U	0.0043	0.01
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Cobalt Total	0.05	MG/L	U	0.0261	0.05
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Copper Total	0.025	MG/L	U	0.0018	0.025
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Iron Total	0.1	MG/L	U	0.006	0.1
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Lead Total	0.003	MG/L	UJ	0.0017	0.003
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Magnesium Total	5	MG/L	U	0.5872	5
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Manganese Total	0.017	MG/L		0.0053	0.015
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Nickel Total	0.04	MG/L	U	0.003	0.04
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Potassium Total	5	MG/L	U	0.3041	5
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Silver Total	0.01	MG/L	U	0.0126	0.01
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Sodium Total	5.1	MG/L		0.401	5
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Vanadium Total	0.05	MG/L	U	0.0293	0.05
BN-1&3-28-MWXD1	AI03784	SW6010	4/24/2006	1	Zinc Total	0.02	MG/L	UJ	0.0034	0.02
BN-1&3-28-MWXD1	AI03784	SW7041	4/24/2006	1	Antimony, Furnace-GW	0.006	MG/L	U	0.0009305	0.006
BN-1&3-28-MWXD1	AI03784	SW7470	4/24/2006	1	Mercury by Cold Vapor GW	0.0002	MG/L	U	0.0000002	0.0002
BN-1&3-28-MWXD1	AI03784	SW7841	4/24/2006	1	Thallium, Furnace, Groundwater	0.002	MG/L	U	0.0004041	0.002
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	1,1,1-Trichloroethane	1	UG/L	U	0.34	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	1,1,2,2-Tetrachloroethane		UG/L	R	0.37	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	1,1,2-Trichloroethane	1	UG/L	U	0.39	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	1,1-Dichloroethane	1	UG/L	UJ	0.45	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	1,1-Dichloroethene	1	UG/L	U	0.45	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	1,2-Dichloroethene (total)	1	UG/L	U	0.26	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	2-Butanone	5	UG/L	UJ	0.79	5
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	2-Hexanone	5	UG/L	U	0.53	5
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	4-Methyl-2-pentanone	5	UG/L	UJ	0.48	5
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Acetone	5	UG/L	UJ	0.59	5
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Benzene	1	UG/L	U	0.37	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Bromoform	1	UG/L	U	0.37	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Bromomethane	1	UG/L	U	0.38	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Chlorobenzene	1	UG/L	U	0.28	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Chloroethane	1	UG/L	UJ	0.39	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Hexachlorobutadiene	1.7	UG/L	J	0.27	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Methylene Chloride	1	UG/L	UJ	0.51	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Tetrachloroethene	1	UG/L	U	0.36	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Trichloroethene	1	UG/L	U	0.31	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Vinyl Chloride	1	UG/L	UJ	0.35	1
BN-1&3-28-MWXD1	AI03784	SW8260	4/24/2006	1	Xylenes (total)	1	UG/L	U	0.52	1
BN-1&3-28-MW217B	AI03785		4/24/2006	1	Selenium Furnace GW	0.005	MG/L	U	0.0013299	0.005
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Aluminum Total	0.24	MG/L		0.002	0.2
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Arsenic Total	0.01	MG/L	U	0.0018	0.01
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Barium Total	0.2	MG/L	U	0.0068	0.2
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Beryllium Total	0.005	MG/L	U	0.0012	0.005
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Cadmium Total	0.005	MG/L	U	0.0018	0.005

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	10	Calcium Total	67	MG/L		0.123	50
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Chromium Total	0.01	MG/L	U	0.0043	0.01
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Cobalt Total	0.05	MG/L	U	0.0261	0.05
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Copper Total	0.025	MG/L	U	0.0018	0.025
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	10	Iron Total	39	MG/L		0.006	1
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Lead Total	0.003	MG/L	U	0.0017	0.003
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Magnesium Total	16	MG/L		0.5872	5
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Manganese Total	1.1	MG/L		0.0053	0.015
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Nickel Total	0.04	MG/L	U	0.003	0.04
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Potassium Total	6.2	MG/L		0.3041	5
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Silver Total	0.01	MG/L	U	0.0126	0.01
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	10	Sodium Total	62	MG/L		0.401	50
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Vanadium Total	0.05	MG/L	U	0.0293	0.05
BN-1&3-28-MW217B	AI03785	SW6010	4/24/2006	1	Zinc Total	0.03	MG/L	B	0.0034	0.02
BN-1&3-28-MW217B	AI03785	SW7041	4/24/2006	1	Antimony, Furnace-GW	0.006	MG/L	U	0.0009305	0.006
BN-1&3-28-MW217B	AI03785	SW7470	4/24/2006	1	Mercury by Cold Vapor GW	0.0002	MG/L	U	0.0000002	0.0002
BN-1&3-28-MW217B	AI03785	SW7841	4/24/2006	1	Thallium, Furnace, Groundwater	0.002	MG/L	U	0.0004041	0.002
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	1,1,1-Trichloroethane	1	UG/L	U	0.34	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	1,1,2,2-Tetrachloroethane		UG/L	R	0.37	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	1,1,2-Trichloroethane	1	UG/L	U	0.39	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	1,1-Dichloroethane	1	UG/L	UJ	0.45	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	1,1-Dichloroethene	1	UG/L	U	0.45	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	1,2-Dichloroethene (total)	1	UG/L	U	0.26	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	2-Butanone	5	UG/L	UJ	0.79	5
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	2-Hexanone	5	UG/L	U	0.53	5
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	4-Methyl-2-pentanone	5	UG/L	UJ	0.48	5
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Acetone	19	UG/L	J	0.59	5
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Benzene	1	UG/L	U	0.37	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Bromoform	1	UG/L	U	0.37	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Bromomethane	1	UG/L	U	0.38	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Chlorobenzene	2.4	UG/L		0.28	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Chloroethane	1	UG/L	UJ	0.39	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Hexachlorobutadiene	1	UG/L	U	0.27	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Methylene Chloride	1	UG/L	UJ	0.51	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Tetrachloroethene	1	UG/L	U	0.36	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Trichloroethene	1	UG/L	U	0.31	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Vinyl Chloride	1	UG/L	J	0.35	1
BN-1&3-28-MW217BD	AI03786	SW8260	4/24/2006	1	Xylenes (total)	1	UG/L	U	0.52	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	1,1,1-Trichloroethane	1	UG/L	U	0.34	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	1,1,2,2-Tetrachloroethane	0.84	UG/L	R	0.37	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	1,1,2-Trichloroethane	1	UG/L	U	0.39	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	1,1-Dichloroethane	1	UG/L	UJ	0.45	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	1,1-Dichloroethene	1	UG/L	U	0.45	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	1,2-Dichloroethane	1	UG/L	U	0.28	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	1,2-Dichloroethene (total)	1	UG/L	U	0.26	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	1,2-Dichloropropane	1	UG/L	U	0.3	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	2-Butanone	5	UG/L	U	0.79	5
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	2-Hexanone	5	UG/L	UJ	0.53	5
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	4-Methyl-2-pentanone	5	UG/L	U	0.48	5
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Acetone	5	UG/L	UJ	0.59	5
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Benzene	1	UG/L	U	0.37	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Bromodichloromethane	1	UG/L	U	0.3	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Bromoform	1	UG/L	U	0.37	1

Sample Name	Lab Id	Analytical Method	Sample Date	Dilution Factor	Analyte	Result	Unit	Qualifier	MDL	QL
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Bromomethane	1	UG/L	U	0.38	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Carbon Disulfide	1	UG/L	U	0.33	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Carbon Tetrachloride	1	UG/L	U	0.39	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Chlorobenzene	1	UG/L	U	0.28	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Chloroethane	1	UG/L	UJ	0.39	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Chloroform	1	UG/L	U	0.36	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Chloromethane	1	UG/L	U	0.32	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	cis-1,3-Dichloropropene	1	UG/L	U	0.39	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Dibromochloromethane	1	UG/L	U	0.37	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Ethylbenzene	1	UG/L	U	0.29	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Hexachlorobutadiene	1	UG/L	UJ	0.27	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Methylene Chloride	2.3	UG/L	U	0.51	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Styrene	1	UG/L	U	0.26	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Tetrachloroethene	1	UG/L	UJ	0.36	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Toluene	1	UG/L	U	0.37	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	trans-1,3-Dichloropropene	1	UG/L	U	0.37	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Trichloroethene	1	UG/L	U	0.31	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Vinyl Chloride	1	UG/L	UJ	0.35	1
BN-1&3-28-MWQT1	AI03787	SW8260	4/26/2006	1	Xylenes (total)	1	UG/L	U	0.52	1

FIELD DUPLICATE WORKSHEET
SDG: BNASS1&3042

Field Sample Id	Analyte	Analytical Method	Result	Units	Qualifier	Field Duplicate Id	Result	Units	Qaulifier	FD RPD (%)
BN-1&3-28-MW203	Hexachlorobutadiene	SW8260	2.4	UG/L		BN-1&3-28-MWXD1	1.7	UG/L		34.1
BN-1&3-28-MW203	Calcium Total	SW6010	18	MG/L		BN-1&3-28-MWXD1	17	MG/L		5.7
BN-1&3-28-MW203	Lead Total	SW6010	0.015	MG/L	J	BN-1&3-28-MWXD1		MG/L	UJ	NC
BN-1&3-28-MW203	Manganese Total	SW6010	0.015	MG/L		BN-1&3-28-MWXD1	0.017	MG/L		12.5
BN-1&3-28-MW203	Sodium Total	SW6010	5.2	MG/L		BN-1&3-28-MWXD1	5.1	MG/L		1.9
BN-1&3-28-MW203	Zinc Total	SW6010	0.02	MG/L	J	BN-1&3-28-MWXD1		MG/L	UJ	NC

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**	**3 batches – Temp (^{o}C): All temps < 6 ^{o}C**	**Northeast Laboratory (NEL) Waterville, ME**	**NEL SDG: BNASS1&3A**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
BN-1&3-28-MW1302D	AI03776
BN-1&3-28-MW1301S	AI03777
BN-1&3-28-MW1301D	AI03778
BN-1&3-28-MW1303AD	AI03779
BN-1&3-28-MW1303AS	AI03780
BN-1&3-28-MW202	AI03781
BN-1&3-28-MW218	AI03782
BN-1&3-28-MW203	AI03783
BN-1&3-28-MWXD1	AI03784 field duplicate to AI03783
BN-1&3-28-MW217B	AI03785
BN-1&3-28-MW217BD	AI03786

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	Field Sample Field Duplicate 783 784 FD Pair 783/784; Pb and Zn not detected in the field sample, but had a low-level detect in the FD.	X	Pb and Zn qualified J in sample 783 and UJ in sample 784.	
% 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	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
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	All LCS %R's were within MPC, except for Cu LCS %R>UCL Associated samples non-detect with the exception of 778. Result for Cu in sample 778 was qualified as J. Laboratory precision is acceptable.	X	Cu detects qualified J in sample 778.	
LCS/LCSD RPD	1) RPD<20%	All 6010B/Hg/Sb/ LCS/LCSD RPDs are within MPC. 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	Field samples AI03783 used for MS. Ca and Zn MS %R>UCL but the matrix spike was not greater than 4X the field sample level.	X	Results for Ca and Zn were qualified as J in sample 783.	
MS/MSD RPD	MS/MSD RPD<20%	MS/MSD RPD > MPC for Zn . Zn result was qualified J due to MS/MSD recovery > MPC limits (see above). All Se. Sb, Tl, Hg MS/MSD RPDs within limits. Laboratory precision is acceptable.	X	-	
Laboratory Replicate RPD	RPD < 20% No QAPP criteria provided	Field sample: AI03783 used for lab replicate. All RPDs within limits. Laboratory precision is acceptable.	X	-	
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.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
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.	SD 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.	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%;	6010B/Hg/Sb/ Se/Tl CCV %R's within MPC limits. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
	R – reject data (R)				
Post Digestion Spike	1) Analyze if MS >MPC (QAPP) 2) 85- 115%R (QAPP Attachment A-1)	AI03783 used for PDS. All %R within limits, except the following which had %R> UCL, Fe and %R<LCL for Ca, Cd, Mn, Na, Pb, & Zn. For all of these elements the PDS spike was not greater than 4X the native element level. No apparent matrix bias. No samples qualified. No apparent matrix bias. No samples qualified.	X	-	
*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; aqueous metals except for Se, Sb, Tl, and Hg. The LCS %R;s are within limits, except for Cu. The Matrix spikes were within limits in the MS/MSD, except for Ca and Zn (>UCL). Laboratory accuracy is acceptable for all metals, except for Zn (potential high bias). The LCS/LCSD RPDs were within limits for all 6010 elements. Laboratory precision is acceptable as determined by the laboratory duplicate. Hg. Se, Tl, and Sb analytical precision and accuracy within MPC limits. Lab preparation blank; non-detected for all analytes.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative	Inven-tory	QUAL	BIAS
		ICAL: COD within limits. ICV: in limits CCV: in limits Sampling Error Evaluation: Field Sample Field Duplicate 783 784 FD Pair 783/784; Pb and Zn not detected in the field sample, but had a low-level detect in the FD. Pb and Zn qualified J in sample 783 and UJ in sample 784. Overall precision is acceptable.			

*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) **VOCs 5030B/5035//8260B**
Project: NAS Brunswick Sites 1&3 ECC Job No. 5700 **Review Criteria: Sites 1, 3 & EP**
& **USEPA Region I Tier II Guidance**

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**HCl**	**3 batches – Temp (^oC): All temps < 6 ^oC**	**NEL, ME.**	**Lab SDG # BNAS1&3042**

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
BN-1&3-28-MW1302D	AI03776
BN-1&3-28-MW1301S	AI03777
BN-1&3-28-MW1301D	AI03778
BN-1&3-28-MW1303AD	AI03779
BN-1&3-28-MW1303AS	AI03780
BN-1&3-28-MW202	AI03781
BN-1&3-28-MW218	AI03782
BN-1&3-28-MW203	AI03783
BN-1&3-28-MWXD1	AI03784
BN-1&3-28-MW217B	AI03785
BN-1&3-28-MW217BD	AI03786
BN-1&3-28-MWQT1	AI03787

Note: Samples are described below in the data worksheets by reference to the last few 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 preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (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. Minor matrix discrepancies between COC and samples but all samples were accounted for. No samples qualified.	X		
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R – non-detects (function of time) 3) *transcription errors	Dates collected: April 24, 25 & 26, 2006. Analyzed before: May 9, 2006. All samples analyzed within holding time.	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	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
Lab Blanks (method blanks)	1) < 5x (<10x common) contaminants for aq samples- 2) <10X common contaminants – acetone, 2-butanone or Mecl. 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 *check 10% of raw chromatograms for false +/-, check for transcription errors	4 batches of samples were analyzed – on May 7, 8, & 9. MeCl: 0.62 ug/L 1,1,2,2-Tetrachloroethane: 1.0 and 0.87 ug/L MeCl results in samples 776, 777, 778, 779, 780, & 787 were qualified U. Results for 1,1,2,2-tetrachloroethane were already qualified R due to low average response factor for SPCC.	X	MeCl results in samples 776, 777, 778, 779, 780, & 787 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	Sample AI03787 applicable to site 1 & 3 MW samples included in this SDG; it had Mecl and 1,1,2,2-tetrachloroethane as its only detections. MeCl was qualified U due to the applicable method blank and 1,1,2,2-TCA was qualified R due to low average response factor for SPCC. No sample qualified due to trip blank contamination.	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 as all the equipment were dedicated.	-	-	
Results > Cal Range or <Cal Range	6) >Upper Cal Range J-detects - ensure instrument blank performed 7) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Attached data summary table. Analytes with results >MDL but <PQL/RL were qualified J. No results greater than the upper quantitation limit.	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 65-135% Dibromofluoromethane 75-129% Toluene-d8 82%-120% 4-BFB 69%-125% *check raw data for surrogated (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –Nods, %R >10% but <70% J-detects, UJ NDs	Surrogate recovery within QAPP limits but outside lab limits for 1,2-Dichloroethane-d4 in laboratory blank VBLK0508A and diluted sample AI03777DL.	X	Result for acetone in sample 777 DL was qualified J.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
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	High LCS recoveries for chloroethane, 1,1-dichloroethane on May 7; for chloroethane, 1,1-dichloroethane on May 8; and for chloroethane, acetone, and 2-hexanone on May 8. Results for 1,1dichloroethane in samples 776 and 778; for acetone in samples 776 and 778 were qualified J. Low LCS recoveries for chloroethane on May 9. Results for chloroethane in samples 776 and 777 were qualified estimated (J/UJ).	X	Results for 1,1-dichloroethane in samples 776 and 778; for acetone in samples 776 and 778 were qualified J. Results for chloroethane in samples 776 and 777 were qualified estimated (J/UJ).	
*MS/MSD/unspike sample RSD	1)For unspiked compounds if reported, Non- MS spike compounds <50% RSD calculated from MS/MSD/Unspiked Qualification: >50% RSD J-detects 2)*recalculate the RPD (within 10% of lab)	NA	-	-	
*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 8) *Matrix effects- MS/MSD, surrogated, PDS. 9) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 10) *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	-	-	
Field Dup RPD	1) RPD ≤ 30% aq. ≤ 50 soil for Results > PQL (FD pair only) J-detects (both > PQL) 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. *Recalculate the concentrations for one compound and the PQL	Field duplicate pair – AI03783/AI03784 FD RPD's were outside MPC limits for hexachlorobutadiene The results for hexachlorobutadiene were qualified J for detects.	X	Results for hexachlorobutadiene were qualified J for detects in samples AI03783 & AI03784.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 11) PES > acceptance criteria – Detects in samples J, 12) PES<acceptance criteria – Detects J, NDs –R 13) VOA/SV-XI14 other criteria 14) *% of PES sample above and below criteria *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
MS/MSD Recovery	1) Attachment A-2 of LTMP 2) 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) * Recalculate the %R (within 10% of lab)	Native samples MW – sample AI03783 MW – High MS/MSD recoveries for chloroethane but all sample results were non-detects in the native sample.	X	-	-
MS/MSD RPD	RPD ≤20% (aq/S) (when MS >QL) J – detects in MS sample UJ-non detects * recalculate RPD	Native samples MW – sample AI03738 MW – all MS/MSD RPD's outside MPC limits for 1,1-dichloroethane. Non-detect result for 1,1-dichloroethane was previously qualified as UJ due to high LCS/LCSD RPD. LCS/LCSD RPD's > 20% - for acetone, 1,1-dichloroethane on May 7; For 1,1-dichloroethane on May 8; for acetone, 1,1-dichloroethane, 2-hexanone, and tetrachloroethene on May 8; and for chloroethane, acetone, and 1,1-dichloroethane on May 9.	X	Positive results were qualified as J for acetone in sample 786 and 777 DL; for 1,1-dichloroethane in sample 776 DL; and non-detect results were qualified as UJ for acetone in samples 781, 783, 784, and 776 DL; for 1,1-dichloroethane in samples 781, 783, 784, 786, 777, 779,780,782, 787,and 777 DL; for 2-hexanone in samples 776, 777, 778, 779, 780, 782, and 787; for tetrachloroethene in samples 776, 777, 778, 779, 780, 782, and 787.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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 *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 7) *check for IS transcription errors 8) FBZ = fluorobenzene 9) CBZ = chlorobenzene-d5 10) DCB = 1,4 dichlorobenzene-d4	Internal standard areas were inside MPC limits. No sampled 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) <u>Dilution factors for samples – impacts to sensitivity</u>	Results for chloroethane in sample 776 and acetone in sample 777 required 20X dilutions. Lab RL's met in all aqueous samples for all compounds. No sample qualifications.	X	-	
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.	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)* *<u>RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, CS, 1,/22/03 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)./</u>* 9) *verify that instrument parameters met method and that Ical and analysis used	Instrument HP5890A-5970 "J" Dates: May 7, 8, & May 9. SPCC RF for 1,1,2,2 TCA<0.3. Laboratory states in their narrative "The average response factor for the SPCC analyte 1,1,2,2-tetrachloroethane was 0.184, below the lower limit of 0.3. We attribute this to a leaky six port valve on the concentrator in addition to the moisture introduced to the system by the 25 ml purge volume. Due to holding time considerations, sample analyses proceeded under this initial calibration curve. All four continuing calibration analyses in this SDG had a response factor for the SPCC analyte 1,1,2,2-tetrachloroethane less than the allowed minimum of 0.3." Results for 1,1,2,2-tetrachloroethane were qualified as R in all samples.	X	Results for 1,1,2,2-TCA were qualified as R in all samples.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-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 HP5890A-5970 "J" Dates: May 7 %RSD<15% for all compounds except for vinyl chloride. Lab narrative states these are quadratic if linear %RSD <15%, but no documentation provided.	X	Vinyl chloride results were qualified with J for detects and UJ for non-detects in all samples.	
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	Same as CCV. Please see the CCV section below.	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 HP5890A-5970 "J" Dates: May 7, 8, & 9. May 7 – applicable to samples AI03781, AI03783, AI03784 & AI03786 - %D and/or area% and/or CCRF outside MPC limits for chloroethane, acetone, MeCl, 2-butanone, and 4-methyl-2-pentanone. May 8 – applicable to samples AI03787, AI03776, AI03777, AI03778, AI03779 & AI03780 - %D (area% &/or CCRF) outside MPC limits for chloroethane, acetone, 2-hexanone, and hexachlorobutadiene. May 8 – applicable to AI03782 - %D (area% &/or CCRF) outside MPC limits for chloroethane, acetone, 1,1-dichloroethane, and 2-hexanone. May 9 – applicable to AI03776DL & AI03777DL - %D (area% &/or CCRF) outside MPC limits for chloromethane, chloroethane, acetone, 2-hexanone, and 1,1,2,2-TCA.	X	Chloroethane, MeCl, 2-butanone, and 4-methyl-2-pentanone in AI03781, AI03783, AI03784 & AI03786; chloroethane, acetone, 2-hexanone, and hexachlorobutadiene in AI03787, AI03776, AI03777, AI03778, AI03779 & AI03780; chloroethane and acetone in AI03782; chloromethane	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
				in re-analyses of AI03776 & AI03777 qualified with J for detects and UJ for non-detects.	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory precision and accuracy acceptable. Sample results are usable for making project decisions, as qualified, with the exception of 1,1,2,2-TCA results. Results for 1,1,2,2-TCA were qualified as R in all samples. Samples were analyzed within holding times. MeCl results in samples 776, 777, 778, 779, 780, & 787 were qualified U due to blank contamination. Results for 1,1-dichloroethane in samples 776 and 778; for acetone in samples 776 and 778 were qualified J. Results for chloroethane in samples 776 and 777 were qualified estimated (J/UJ) due to LCS recoveries outside MPC limits. Result for acetone in the diluted sample 777 was qualified J due to high surrogate recoveries. Positive results were qualified J for acetone in sample 786 and 777 DL; for 1,1-dichloroethane in sample 776 DL; and non-detect results were qualified UJ for acetone in samples 781, 783, 784, and 776 DL; for 1,1-dichloroethane in samples 781, 783, 784, 786, 777, 779,780,782, 787,and 777 DL; for 2-hexanone in samples 776, 777, 778, 779, 780, 782, and 787; for tetrachloroethene in samples 776, 777, 778, 779, 780, 782, and 787 due to high LCS/LCSD RPD's. ICAL; Results for 1,1,2,2-TCA were qualified as R in all samples due to low RRF's. Due to high %RSD's, Vinyl chloride results were qualified with J for detects and UJ for non-detects in all samples. ICV: Same as CCV. CCV: Chloroethane, MeCl, 2-butanone, and 4-methyl-2-pentanone in AI03781, AI03783, AI03784 & AI03786; chloroethane, acetone, 2-hexanone, and hexachlorobutadiene in AI03787, AI03776, AI03777, AI03778, AI03779 & AI03780; chloroethane and acetone in AI03782; chloromethane in re-analyses of AI03776 & AI03777 qualified with J for detects and UJ	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inv en-tory	QUAL	BIAS
		for non-detects due to %D and/or area% and/or CCRF outside MPC limits. Sampling error: Field duplicate pair – AI03783/AI03784 FD RPD's were outside MPC limits for hexachlorobutadiene. The results for hexachlorobutadiene were qualified J for detects. All results > MDL but < MRL were qualified J.			

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Lab Correspondence: None.

APPENDIX H

1,4-Dioxane Results

Station Name	Samp.Date	Parameter	Value	Val.Code	Units
Eastern Plume Combined Effluent	10-Apr-04	1,4-Dioxane	10.5		ug/l
Eastern Plume Combined Effluent	10-Sep-04	1,4-Dioxane	10.5		ug/l
Eastern Plume Combined Effluent	16-Sep-05	1,4-Dioxane	11		ug/l
Eastern Plume Combined Effluent	16-Sep-05	1,4-Dioxane	12		ug/l
Eastern Plume Combined Effluent	18-Apr-06	1,4-Dioxane	8.9		ug/l
Eastern Plume Combined Effluent	18-Apr-06	1,4-Dioxane	8.1	J	ug/l
MW-313	10-Apr-04	1,4-Dioxane	84		ug/l
MW-313	10-Sep-04	1,4-Dioxane	93.8		ug/l
MW-313	05-Apr-05	1,4-Dioxane	180		ug/l
MW-313	05-Apr-05	1,4-Dioxane	160		ug/l
MW-313	15-Sep-05	1,4-Dioxane	99		ug/l
MW-313	15-Sep-05	1,4-Dioxane	94		ug/l
MW-313	19-Apr-06	1,4-Dioxane	78		ug/l
MW-313	19-Apr-06	1,4-Dioxane	120	J	ug/l
MW-331	10-Apr-04	1,4-Dioxane	7.2	U	ug/l
MW-331	10-Sep-04	1,4-Dioxane	23.8		ug/l
MW-331	10-Sep-04	1,4-Dioxane	87.6		ug/l
MW-331	05-Apr-05	1,4-Dioxane	28	J	ug/l
MW-331	05-Apr-05	1,4-Dioxane	50		ug/l
MW-331	16-Sep-05	1,4-Dioxane	22		ug/l
MW-331	20-Apr-06	1,4-Dioxane	26		ug/l
MW-333	10-Apr-04	1,4-Dioxane	47.6		ug/l
MW-333	10-Sep-04	1,4-Dioxane	49.9		ug/l
MW-333	05-Apr-05	1,4-Dioxane	55		ug/l
MW-333	15-Sep-05	1,4-Dioxane	60		ug/l
MW-333	19-Apr-06	1,4-Dioxane	54		ug/l
MW-338A	10-Apr-04	1,4-Dioxane	1.5	U	ug/l
MW-338A	10-Sep-04	1,4-Dioxane	1	U	ug/l
MW-338A	05-Apr-05	1,4-Dioxane	1	U	ug/l
MW-338A	13-Sep-05	1,4-Dioxane	1	U	ug/l
MW-338A	18-Apr-06	1,4-Dioxane	1	U	ug/l
P-106	10-Apr-04	1,4-Dioxane	42.7		ug/l
P-106	10-Sep-04	1,4-Dioxane	68.7		ug/l
P-106	05-Apr-05	1,4-Dioxane	35		ug/l
P-106	15-Sep-05	1,4-Dioxane	30	J	ug/l
P-106	20-Apr-06	1,4-Dioxane	31	J	ug/l