Annual Summary Report for 2007 Groundwater Monitored Natural Attenuation Program

Bush Industries, Inc.
312 Fair Oak Street
Little Valley, New York

Prepared for:

Bush Industries, Inc.
One Mason Drive
Jamestown, New York 14702

Prepared by:

Geomatrix Consultants, Inc.
90B John Muir Drive, Suite 104
Amherst, New York 14228
(716) 565-0624

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Bush Industries, Inc.
312 Fair Oak Street
Little Valley, New York

1.0 INTRODUCTION

1.1 BACKGROUND AND SITE DESCRIPTION

Geomatrix Consultants, Inc. (Geomatrix) has been retained by Bush Industries, Inc. (Bush Industries) to conduct the 2007 Monitored Natural Attenuation (MNA) Program for groundwater at the Bush Industries property in Little Valley, New York. The work was conducted pursuant to and in accordance with the Amended and Supplemental Order (File No.: 96-07 R9-4314-96-06) agreed to between Bush Industries and the New York State Department of Environmental Conservation (NYSDEC).

The Bush Industries Little Valley property is located within the Little Valley Superfund Site (LVSS). The LVSS is currently being addressed by the United States Environmental Protection Agency (USEPA). The Record of Decision (ROD) for the LVSS specifies MNA as the remedy for TCE contaminated groundwater measured throughout the LVSS.

The Bush Industries property is located at 312 Fair Oak Street in the Village of Little Valley, Cattaraugus County, New York. A topographic map of the Site and surrounding area prepared from a 7.5 minute series U.S. Geological Survey map is presented in Figure 1. The Site is situated on a 9.4 acre lot, and contains three contiguous buildings (see Figure 2). The USEPA MNA remedy includes groundwater sampling on properties located throughout the LVSS including the Bush Industries property. Bush Industries has agreed to conduct the MNA sampling on its own property in accordance with the Amended and Supplemental Order.

1.2 PREVIOUS SITE INVESTIGATIONS

Bush Industries has conducted an extensive investigation of groundwater conditions at its Site in concert with NYSDEC. Results are documented in the report entitled Groundwater Evaluation Report, prepared by Conestoga-Rovers & Associates (CRA) and

dated February 21, 2000. The findings presented in the Groundwater Evaluation Report are summarized as follows:

1. The highest concentrations of TCE and its degradation products remain in the interior of the Site. There is a residual low level presence of TCE and its degradation products in the interior of the Site with concentrations in groundwater dropping precipitously along the downgradient flow path.

2. Concentrations of TCE at the downgradient perimeter of the Site are approximately equal to or below the New York State Groundwater criterion.

3. This distribution trend (rapidly declining concentrations with distance from the interior of the Site) indicates that natural attenuation processes occur limiting constituent migration and the Site does not pose a significant threat to downgradient groundwater quality.

The Groundwater Evaluation Report was approved by NYSDEC in March 2000. In May 2000, Bush Industries submitted the Remediation Report prepared by Geomatrix. The Remediation Report recommended implementation of an annual MNA sampling program at the Site. That Remediation Report was approved by NYSDEC in July 2007, along with EPA's concurrence.

1.3 MNA PROGRAM OBJECTIVES

The objectives of the natural attenuation monitoring are to:

1. Perform annual monitored natural attenuation (MNA) sampling events

2. Evaluate historic and new analytical data to monitor natural attenuation at the Site

2.0 WORK PERFORMED

2.1 BUSH INDUSTRIES MNA SCOPE OF WORK

The MNA monitoring work to be performed at the Bush Industries Site is specified in the following documents:

Final Remedial Action Work Plan for the Little Valley Superfund Site
Contract Number:68-W-98-214
Prepared by Tetra Tech EC, Inc.
Dated October 2006

Quality Assurance Project Plan Addendum for the Little Valley Superfund Site
Contract Number:68-W-98-214
Prepared by Tetra Tech EC, Inc.
Dated September 2006

Work Plan for Natural Attenuation Monitoring, Bush Industries, Inc.
Prepared for Bush Industries, Inc.
Prepared by Geomatrix Consultants
Dated July 2007

The latter document prepared by Geomatrix governs the specific sampling program for the Bush Industries property and is referred to herein as the Work Plan. In order to facilitate direct comparison of the Bush Industries analytical results with results from other wells within the LVSS sampled by USEPA, the sampling methods, analytical methods and QA/QC protocols specified by USEPA for the LVSS remediation are utilized for the Bush Industries MNA monitoring and are incorporated into the Work Plan.

In accordance with the Work Plan, the MNA Program for groundwater at the Bush Industries property includes the following:

1. Annual groundwater sampling events for the following wells on Bush Industries property: MW-D1, MW-D2, MW-2, MW-3, MW-5 and MW-6. Monitoring well locations are shown of Figure 2.

2. Sampling of wells using low flow methodology in accordance with the Work Plan

3. Analyses of samples for the following MNA analyses: Volatile Organic Chemicals (VOCs), alkalinity, sulfate, sulfide, nitrate, chloride, total organic carbon, ferrous iron, ethane, ethene and methane. The analytical program and methodology is summarized in Table 1.

4. Data validation.

5. Data evaluation and reporting.

These tasks are described in detail in the Work Plan.

2.2 BUSH INDUSTRIES 2007 MNA GROUNDWATER SAMPLING EVENT

Geomatrix personnel conducted the annual MNA sampling event for the Bush Industries property on September 25, 2007. Water level measurement, equipment decontamination, and low flow purge methods were in accordance with the work plan. Purge records are included in Table 2. Purge water and decontamination water was containerized for proper disposal by Bush Industries.

Deviations from the Work Plan during the 2007 sampling event are listed below:

- Monitoring well MW-D1 was dry, therefore no sample was obtained.

Groundwater samples were analyzed in accordance with Table 1 by Test America. With the concurrence of NYSDEC (by e-mail from Linda Ross, NYSDEC, dated September 20, 2007), the low concentration VOC analyses were performed by the Test America Burlington, Vermont laboratory which is ELAP Certified for Method SOM01.1. All other analyses were performed by the Test America Buffalo Laboratory.

The data validation and usability are discussed in Section 3.1. Results are presented in Section 3.2.

3.0 SAMPLING EVENT RESULTS

3.1 DATA VALIDATION AND USABILITY

The analytical results and data packages reported by the laboratory were validated by Data Validation Services of North Creek, New York. Data validation was performed in accordance with the Work Plan based on an evaluation of method specific QC information (holding times, calibration records, laboratory and field blanks, duplicate precision, and surrogate and matrix spike recoveries), the most current version of the USEPA Region 2 Data Validation SOPs (www.epa.gov/region02/desa/hsw/sops.htm), the most current version of the EPA National Functional Guidelines (www.epa.gov/superfund/programs/clp/guidance.htm) and the best professional judgment of the validator.

The Data Validation Report is included in its entirety in Appendix A. All results were deemed usable with the following exceptions:

- Analytical results for 1,4-dioxane for all samples were deemed unusable due to low system response

3.2 GROUNDWATER RESULTS

3.2.1 Hydraulic Head Measurements

Groundwater hydraulic head measurements obtained September 25, 2007 are presented in Table 3. Figure 3 presents a potentiometric surface map prepared from these measurements. Groundwater flow is indicated to be toward the northeast and is consistent with prior measurement events.

3.2.2 Analytical Results

The validated analytical results are summarized in Table 4. Table 5 presents comparison criteria for detected constituents in groundwater used by USEPA for the LVSS. TCE and/or its reductive dechlorination products (e.g., 1,1-dichloroethene, cis-1,2-dichloroethene, vinyl chloride) were detected above the comparison criteria in 4 of the 5 wells sampled. No VOCs were detected in well MW-5.

The highest TCE concentration was measured in the sample from well MW-D2 (reported concentration of 110 J (estimated) ug/L). Well MW-D2 is located in the southeastern portion of the property. The highest concentration of reductive chlorination products was

reported for well MW-6 (cis-1,2-dichloroethene at 120 ug/L). Well MW-6 is located south of well MW-D2.

At the downgradient property boundary (MW-3), TCE was detected at 7.9 ug/L (slightly above the comparison criteria) and cis-1,2-dichloroethene was detected at 0.86 ug/L. No other VOCs were detected in well MW-3.

MNA parameter results are discussed in the following section.

4.0 CONTAMINANT TRENDS AND PROGRESS OF MNA

4.1 CONTAMINANT TRENDS

Table 6 presents historical sampling results for the six wells on the Bush Industries MNA sampling program. Figures 4 though 9 present time versus concentration plots depicting the historical trend of TCE and daughter products in the Bush Industries MNA monitoring wells. As shown on these figures, all 2007 sampling event results are within the range of historical values except for the cis-1,2-dichloroethene measured in well MW-6. The measured concentration in MW-6 suggests significant reductive dechlorination is occurring in its vicinity. Additional annual sampling data will be necessary to assess the long term trends in this and other Bush Industries MNA monitoring wells.

4.2 REDUCTIVE DECHLORINATION

The data obtained during the September 2007 Bush Industries groundwater sampling event were reviewed to assess the potential for degradation of VOCs at the Site via reductive dechlorination. EPA's Technical Protocol (EPA, 1998) was used as a basis for much of the following assessment.

Oxygen

Anaerobic bacteria generally cannot function at dissolved oxygen (DO) concentrations above 0.5 mg/L, and reductive dechlorination will not occur. As indicated in Table 2, Stable DO measurements at the Site ranged from 0.19 mg/L to 9.03 mg/L. The DO measurement at well MW-6 of 0.189 mg/L is conducive to anaerobic biodegradation. A stable DO measurement could not be obtained at MW-D2 due to insufficient water column. However, the relatively low DO measurement (1.33 mg/L) suggests anaerobic degradation may be occurring in the area.

Nitrate

After dissolved oxygen has been depleted, nitrate may be used as an electron acceptor for the biodegradation of organic compounds via denitrification. Areas of depressed nitrate concentrations within a groundwater plume may indicate biodegradation via nitrate reduction, while the presence of nitrate in groundwater can indicate a fairly aerobic environment. Nitrate concentrations in the contaminant plume should be less than 1 mg/L for reductive dechlorination to occur. Nitrate concentrations ranged from not detected (conducive) to 1.5 mg/L (not conducive).

Ferrous Iron

After nitrate, iron (III) may be used as an electron acceptor during anaerobic biodegradation, reducing the analyte to iron (II). Ferrous iron [iron (II)] concentrations were present in two monitoring wells: MW-3 at 0.18 mg/L and MW-D2 at 0.23 mg/L

Sulfate/Sulfide

After dissolved oxygen and nitrate depletion, sulfate may be used as an electron acceptor for anaerobic biodegradation (EPA, 1998). This "sulfate reduction" process produces sulfide, and concentrations of sulfide greater than 1 mg/L indicate a possible reductive pathway. Sulfate concentrations ranged up to 23.8 mg/L. Sulfide was not detected in any well.

Methane/Ethane/Ethene

EPA, 1998 states that methanogenesis (the reduction of carbon dioxide to methane) generally occurs after oxygen, nitrate, and sulfate have been depleted. Therefore, the presence of methane in groundwater is indicative of strongly reducing conditions. Three locations, MW-2, MW-5 and MW-6 contained relatively low concentrations of methane in the 2007 event (0.26 mg/L, 0.0061 mg/L and 0.098 mg/L, respectively).

Alkalinity

Zones of microbial activity are typically identified by an increase in alkalinity, resulting from increased concentrations of carbon dioxide produced by the metabolism of microorganisms. According to EPA, 1998, a two-fold increase in alkalinity values over background numbers suggests biodegradation may be occurring. The minimum value for alkalinity (65 mg/L) was present in the sample from well MW-5, which is considered upgradient of the TCE presence at the Bush Industries property. Well MW-5, therefore, was used as "background" for comparison. Samples from the following wells had concentrations more than twice the value in MW-5: MW-2 and MW-3.

Oxidation-Reduction Potential

The oxidation-reduction potential of groundwater is a relative measure of electron activity, and can influence rates of biodegradation. At less than 50 millivolts (mV), the reductive pathway is possible, and becomes more likely below -100 mV (EPA, 1998). Negative redox potentials were measured at well MW-2 (-2 mV).

pH and Temperature

Metabolic activity of bacteria is affected by the pH and temperature of the groundwater. The optimal values for these parameters for reductive biodegradation is a pH between 6 and 8 and a temperature greater than 20°C. All of the wells in the Bush Industries property had pHs in this optimum range. Stable values of water temperature during the 2007 sampling event were between 13.9°C and 14.6°C.

Chloride

Chloride is released as a breakdown product during the biodegradation of chlorinated compounds. Chloride ions do not typically enter into oxidation-reduction reactions, form no important solute complexes, do not form salts of low solubility, are not significantly adsorbed on mineral surfaces, and play few vital biochemical roles (EPA, 1998). As a result, significant increases in chloride concentrations relative to background (i.e., two times) may indicate the biodegradation of chlorinated compounds. Road salting also serves as a common, localized source of chloride to aquifer systems. Well MW-5, which as indicated above is considered upgradient of the TCE presence at the Bush Industries property, was used as "background" for comparison of the chloride values. MW-5 had a chloride concentration of 38.4 mg/L. The furthest downgradient well on the property (MW-3) had a chloride concentration of 64.4 mg/L. All other wells sampled had chloride concentrations below 40 mg/L.

Total Organic Carbon

The presence of natural or anthropogenic organic carbon can facilitate dechlorination, by acting as a carbon and energy source for aerobic microorganisms (which during aerobic respiration decrease dissolved oxygen levels, creating a reducing environment and increasing the potential for anaerobic bacteria to function). A TOC concentration of 20 mg/L is most favorable to dechlorination. All TOC concentrations were below 2 mg/L.

Daughter Products

Transformation of TCE via reduction dechlorination produces daughter products such as 1,1-dichloroethene, 1,2-dichloroethene (cis- and/or trans-), and vinyl chloride. As described in Section 3.2, these daughter products were detected, indicating that dechlorination is occurring.

4.3 PROGRESS OF MNA AT THE BUSH INDUSTRIES PROPERTY

The results of the 2007 MNA sampling event for the Bush Industries property indicate that the natural attenuation process is occurring. The presence of daughter products, methane and low concentrations of DO in groundwater samples reflect the reductive dechlorination which is occurring in groundwater at the property. The 2007 results do not exhibit any conclusive trends regarding plume expansion or contraction as concentrations are generally within the historical ranges in each well. As such, the results do not indicate any additional receptors are impacted. The increase in cis-1,2-dichloroethene at MW-6 likely reflects increased natural attenuation activity and is not indicative of a new release at the property. No spikes in concentration were measured in 2007.

The next annual report is due 90 days from completion of the 2008 yearly groundwater sampling, per the Work Plan.

TABLES

TABLE 1

SAMPLE COLLECTION AND ANALYSIS PROTOCOLS
BUSH INDUSTRIES SITE

Sample Type	*Matrix*	*Sampling Device*	*No. of Samples* [1][2]	*Parameter*	*Sample Container* [3][4]	*Sample Preservation*	*Analytical Method* [5]	*PQL*	*Holding Time* [6]
Groundwater	Water	Positive Displacement Submersible Pump	6	pH; temperature; specific conductivity DO; ORP; turbidity [Field Screening]	NA	NA	Direct Field Measurement Following SOP	NA	Analyze Immediately
			6	Low Concentration TCL Volatile Organic Compounds [CLP Lab]	(4) 40 mL VOA vials w/Teflon lined septum	1:1 HCl to pH<2; Cool to 4°C	SOM01.1	Compound specific (0.5 - 20 µg/L)	10 days
			6	Total Organic Carbon [DESA Lab]	(1) L amber glass	H_2SO_4 to pH<2; Cool to 4°C	SW-846 Method 9060	1 mg/L	28 days*
			6	Alkalinity [DESA Lab]	(1) 1 L polyethelyene	Cool to 4°C	MCAWW Method 310.1	1 mg/L	14 days*
			6	Sulfate [DESA Lab]	(1) 1 L polyethelyene	Cool to 4°C	EPA 300.1	1 mg/L	28 days*
			6	Sulfide [DESA Lab]	(1) 1 L polyethelyene	NaOH to pH >12; 4 drops of zinc acetate per liter; Cool to 4°C	MCAWW Method 376.1	1 mg/L	7 days*
			6	Nitrate [DESA Lab]	(1) 1 L polyethelyene	Cool to 4°C	EPA 300.1	0.05 mg/L	48 hours*
			6	Chloride [DESA Lab]	(1) 1 L polyethelyene	Cool to 4°C	EPA 300.1	1 mg/L	28 days*
			6	Ferrous Iron [Sub Lab]	(1) 100 mL amber glass	2mL HCl; Cool to 4°C	Std. Methods Method 3500Fe-D	10 µg/L	24 hours*
			6	Ethane [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*
			6	Ethene [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*
			6	Methane [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*

TABLE 1

SAMPLE COLLECTION AND ANALYSIS PROTOCOLS
BUSH INDUSTRIES SITE

Sample Type	*Matrix*	*Sampling Device*	*No. of Samples* [1][2]	*Parameter*	*Sample Container* [3][4]	*Sample Preservation*	*Analytical Method* [5]	*PQL*	*Holding Time* [6]
Field Blank	Water	Collected Rinsate Passed Over/Through Sampling Equipment	1	Low Concentration TCL Volatile Organic Compounds [CLP Lab]	(4) 40-mL VOA vials w/Teflon lined septum	1:1 HCl to pH<2; Cool to 4°C	SOM01.1	Compound specific (0.5 - 20 µg/L)	10 days
Trip Blank	Water	Direct Fill of Sample Bottles	1	Low Concentration TCL Volatile Organic Compounds [CLP Lab]	(4) 40-mL VOA vials w/Teflon lined septum	1:1 HCl to pH<2; Cool to 4°C	SOM01.1	Compound specific (0.5 - 20 µg/L)	10 days
			6	Ethane [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*
			6	Ethene [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*
			6	Methane [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*

NOTES:
1. The number in parentheses in the "No. of Samples" column denotes the number of duplicate samples.
2. The number of field, trip and DI water blanks is estimated based on the approximate number of days in the field for each type of sampling during the MNA Program events.
3. The number in parentheses in the "Sample Container" column denotes the number of containers needed. Additional volume must be sent for laboratory QA/QC sample analyses.
4. All bottles will comply with OSWER Directive 9240.0-05A: "Specifications and Guidance for Obtaining Contaminant-Free Sample Containers", EPA 540/R-93/051, December 1992.
5. Method References:
   SOM01.1 = USEPA Contract Laboratory Program Statement of Work for Multi-Media, Multi-Concentration Organics (May 2005 or latest revision).
   MCAWW = Methods for Chemical Analysis of Water and Wastes, March 1983.
   Std. Methods = Standard Methods for the Examination of Water and Wastewater, 20th Edition (January 2000).
   SW-846 = Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (November 1986, revised through November 2000 via Updates I through IVB).
   EPA300.1 = Determination of Inorganic Anions in Drinking Water by Ion Chromatography, Revision I (27 April 1999).
   EPA/600/R-98128 = Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater (September 1998).
6. All holding times listed are from Verified Time of Sample Receipt (VTSR) unless noted otherwise (* denotes from time of sample collection).
7. Acronyms/Abbreviations used:
   CLP = Contract Laboratory Program
   DESA = Division of Environmental Science and Assessment
   DO = Dissolved Oxygen
   ORP = Oxidation-Reduction Potential
   PQL = Practical Quantitation Limit
   Sub Lab = Non-RAS Subcontract Laboratory
   TCL = Target Compound List
   VOA = Voalitle Organic Analysis

TABLE 2
MONITORING WELL PURGE SUMMARY
Bush Industries
Little Valley, New York

Time	Cumulative Volume (L)	Temperature (degrees C)	pH	Specific Conductance (us/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)
MW-2						
13:30	initial	15.60	7.17	0.485	8.06	-7.8
13:35	1.0	14.90	7.09	0.485	9.00	-3.6
13:40	2.0	14.42	7.08	0.486	9.18	-4.3
13:45	3.0	13.95	7.04	0.485	9.03	-2.0
MW-3						
9:45	2.0 (1)	12.64	6.21	0.414	8.74	223
MW-5						
11:00	initial	15.40	6.66	0.269	9.80	181.0
11:03	1.2	14.58	6.40	0.264	8.80	176.0
11:09	2.3	14.03	6.28	0.274	6.05	170.0
11:12	3.4	13.90	6.27	0.263	6.30	168.0
MW-6						
11:57	initial	16.70	6.30	0.275	1.80	104.6
11:59	1.2	15.00	6.14	0.271	0.93	100.4
12:03	2.4	14.74	6.05	0.279	0.44	90.6
12:08	3.6	14.60	6.01	0.284	0.23	78.7
12:12	4.8	14.61	6.01	0.285	0.19	67.3
MW-D1						
--	DRY	--	--	--	--	--
MW-D2						
14:40	2.0 (1)	12.08	7.07	0.407	1.33	13.5

Notes:
(1) Insufficient water to continue purging. Sample collected following sufficient recovery.

TABLE 3
GROUNDWATER ELEVATION SUMMARY
Bush Industries
Little Valley, New York

Well ID	Measuring Point Elevation (fasl)	DTW (ft.) 9/25/07	Groundwater Elevation (fasl)
MW-2	1590.18	42.14	1548.04
MW-3	1591.37	57.98	1533.39
MW-5	1590.44	6.85	1583.59
MW-6	1584.99	3.74	1581.25
MW-D1	1590.31	DRY	<1538.69
MW-D2	1584.17	42.05	1542.12

Notes:
DTW- depth to water
fasl- feet above sea level

TABLE 4
VALIDATED GROUNDWATER ANALYTICAL SUMMARY
Bush Industries
Little Valley, New York

Sample ID:	*LVRA03-MNAGW-MW2*	*LVRA03-MNAGW-MW3*	*LVRA03-MNAGW-MW5*	*LVRA03-MNAGW-MW6*	*LVRA03-MNAGW-MWD2*	*LVRA03- MNAGW-DUP1 (1)*
Date Sampled:	*09/25/07*	*09/25/07*	*09/25/07*	*09/25/07*	*09/25/07*	*09/25/07*
Volatile Organic Compounds (ug/L)						
1,1,1-Trichloroethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,1,2,2-Tetrachloroethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,1,2-Trichloroethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,1,3-Trichloro-1,2,2,-trifluoroethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,1-Dichloroethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,1-Dichloroethene	0.73J	0.50U	0.50U	0.66J	0.44J	0.47J
1,2,3-Trichlorobenzene	0.50UJ	0.50UJ	0.50UJ	0.50UJ	0.50UJ	0.50UJ
1,2,4-Trichlorobenzene	0.50UJ	0.50UJ	0.50UJ	0.50UJ	0.50UJ	0.50UJ
1,2-Dibromo-3-Chloropropane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,2-Dibromomethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,2-Dichlorobenzene	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,2-Dichloroethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,2-Dichloropropane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,3-Dichlorobenzene	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,4-Dichlorobenzene	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
1,4-Dioxane	R	R	R	R	R	R
2-Butanone	5.0U	5.0U	5.0U	5.0U	5.0U	5.0U
2-Hexanone	5.0U	5.0U	5.0U	5.0U	5.0U	5.0U
4-Methyl-2-pentanone	5.0U	5.0U	5.0U	5.0U	5.0U	5.0U
Acetone	5.0U	5.0U	5.0U	5.0U	5.0U	5.0U
Benzene	0.29J	0.50U	0.50U	0.50U	0.50U	0.50U
Bromochloromethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Bromodichlormethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Bromoform	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Bromomethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Carbon Disulfide	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Carbon Tetrachloride	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Chlorobenzene	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Chloroethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Chloroform	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Chloromethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
cis-1,2-Dichloroethene	54	0.86	0.50U	120	33	33
cis-1,3-Dichlroropropene	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Cyclohexane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Dibromochloromethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Dichlorodifluoromethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Ethylbenzene	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Isopropylbenzene	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
m,p-Xylene	0.50UJ	0.50UJ	0.50UJ	0.50UJ	0.50UJ	0.50UJ
Methyl Acetate	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Methylcyclohexane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Methylene Chloride	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Methyl-tert-butyl ether	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
o-Xylene	0.50UJ	0.50UJ	0.50UJ	0.50UJ	0.50UJ	0.50UJ
Styrene	0.50UJ	0.50UJ	0.50UJ	0.50UJ	0.50UJ	0.50UJ
Tetrachloroethene	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Toluene	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
trans-1,2,-Dichloroethene	0.47J	0.50U	0.50U	0.31J	0.31J	0.23J
trans-1,3-Dichloropropene	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Trichloroethene	69J	7.9J	0.50U	1.6J	110J	110J
Trichlorofluoromethane	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
Vinyl Chloride	4.2J	0.50U	0.50U	9.5J	0.50U	0.50U
Monitored Natural Attenuation Parameters (mg/L)						
Chloride	28.4	64.4	38.4	32.9	37.8	38.6
Ethane	0.0075U	0.0015U	0.0015U	0.030U	0.0015U	0.0015U
Ethene	0.0075U	0.0015U	0.0015U	0.030U	0.0015U	0.0015U
Ferrous Iron	0.1 U	0.18	0.10 U	0.10 U	0.23	0.10 U
Methane	0.026	0.001U	0.0061	0.098	0.001U	0.001U
Nitrate	0.05 U	1.5	0.05 U	0.05 U	0.23	0.22
Sulfate	20.5	23.8	7.4	19.4	19.8	19.1
Sulfide	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Alkalinity	176	155	65.0	75.0	116	116
Total Organic Carbon	1.6	1.4	1.3	1.7	1.8	1.0 U

Notes:

U = Compound not detected above specified laboratory detection limit

J= Laboratory estimated concentration

(1) Duplicate sample collected at LVRA03-MNAGW-MWD2 location

TABLE 5
Comparison Criteria for Detected Constituents in Groundwater

BASIS FOR CRITERIA	HUMAN HEALTH	STATE
	EPA Maximum Contaminant Level	NYSDEC Water Quality Values [Class GA]
Volatile Organics (ug/L)		
1,1,2-Trichloroethane	200	5
1,1-Dichloroethene	7	5
1,2,3-Trichlorobenzene	NC	5
1,2,4-Trichlorobenzene	70	5
1,2-Dichlorobenzene	600	3
1,2-Dichloroethane	5	0.6
1,2-Dichloroethene (total)	70 *	5
cis-1,2-Dichloroethene	70	5
trans-1,2-Dichloroethene	100	5
1,2-Dichloropropane	5	1
1,3-Dichlorobenzene	NC	3
1,4-Dichlorobenzene	75	3
2-Hexanone	NC	50
Acetone	NC	50
Benzene	5	1
Carbon disulfide	NC	60
Chlorobenzene	100	5
Chloroethane	NC	5
Cyclohexane	NC	NC
Ethylbenzene	700	5
Methyl chloride (Chloromethane)	NC	5
Methyl ethyl ketone (2-Butanone)	NC	50
Methyl isobutyl ketone (4-Methyl-2-pentanone)	NC	NC
Methylcyclohexane	NC	NC
Styrene	100	5
Tetrachloroethene	5	5
Toluene	1000	5
Trichloroethene	5	5
m/p-Xylene	10000 **	5
Xylenes (total)	10000	5

TABLE 6
Historical Summary of Detected Groundwater Constituents in MNA Wells from Bush Industries Property

	BIAMW-2									BIAMW-3				
	05/05/1999	05/05/1999 Duplicate	12/14/1999	12/14/1999 Duplicate	01/10/2001	12/11/2003	10/31/2006	10/31/2006 Duplicate	09/25/2007	05/05/1999	01/09/2001	12/10/2003	10/30/2006	09/25/2007
Volatile Organics (ug/L)														
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	1 J	--	0.7 J	0.7 J	--	0.63	0.8	0.89	0.73	--	--	--	--	--
1,4-Dichlorobenzene	NA	NA	NA	NA	--	--	0.16 J	0.12 J	--	NA	--	--	--	--
Benzene	0.7 J	--	0.4 J	0.4 J	--	0.32 J	--	--	0.29 J	--	--	--	0.12 J	--
Chloroethane	0.8 J	--	--	--	--	--	0.19 J	0.23 J	--	--	--	--	0.091 J	--
1,2-Dichloroethene	54	51	40	42	NA	NA	NA	NA	NA	2 J	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	44	40 D	45 D	46 D	54 D	NA	3	2.2	0.36 J	0.86
trans-1,2-Dichloroethene	NA	NA	NA	NA	--	0.28 J	0.51	0.49 J	0.47 J	NA	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	0.25 J	--	--	--	--	--	--	--
Isopropylbenzene	NA	NA	NA	NA	NA	--	0.14 J	--	--	NA	NA	--	--	--
Trichloroethene	230	190	84	87	110	36 D	58 D	58 D	69 J	5 J	8	6.3	2.2	7.9 J
Vinyl Chloride	4 J	2 J	1 J	1 J	NA	4.8	4	4.8	4.2	--	--	--	--	--
m/p-Xylene	NA	NA	NA	NA	NA	NA	0.1 J	--	--	NA	NA	NA	--	--
MNA/Water Quality Parameters (mg/L)														
Alkalinity	NA	NA	NA	NA	NA	180	190	180	176	NA	NA	160	260	155
Chloride	NA	NA	NA	NA	NA	19	26	26	28.4	NA	NA	44	78	64.4
Ferrous Iron	NA	NA	NA	NA	NA	--	0.17	0.14	--	NA	NA	--	--	0.18
Methane	NA	NA	NA	NA	NA	0.54 JD	0.046 J	0.11 J	0.026	NA	NA	0.07 J N	--	--
Nitrate	NA	NA	NA	NA	NA	--	--	--	--	NA	NA	1.2	1.9	1.5
Sulfate	NA	NA	NA	NA	NA	16	17	17	20.5	NA	NA	12	27	23.8
Sulfide	NA	NA	NA	NA	NA	NA	0.02	0.018	--	NA	NA	NA	0.018	--
TOC	NA	NA	NA	NA	NA	2.6	--	--	1.6	NA	NA	--	26	1.4

Notes:

-- Not detected
J Estimated concentration.
D Value derived from dilution analysis.
N Evidence exists for constituent presence.
NA Not analyzed.

Above human health-based values.
Above state values.
Above both of the above values.

TABLE 6
Historical Summary of Detected Groundwater Constituents in MNA Wells from Bush Industries Property

	BIAMW-5					BIAMW-6				BIAMW-D1				
	05/05/1999	12/13/1999	01/04/2001	10/30/2006	09/25/2007	12/13/1999	01/10/2001	10/30/2006	09/25/2007	05/05/1999	12/13/1999	01/10/2001	12/10/2003	10/31/2006
Volatile Organics (ug/L)														
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	0.66	--	--	--	--	--
1,4-Dichlorobenzene	NA	NA	--	--	--	NA	--	--	--	NA	NA	--	--	--
Benzene	--	--	--	0.23 J	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	0.13 J	--	--	--	0.11 J	--	--	--	--	--	--
1,2-Dichloroethene	--	--	NA	NA	NA	30	NA	NA	NA	6 J	4 J	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	--	--	--	NA	44	35 D	120	NA	NA	8	4.8	0.42 J
trans-1,2-Dichloroethene			--	--	--	NA	--	0.48 J	0.31 J	NA	NA	--	--	0.55
Ethylbenzene	--	--	--	0.13 J	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	NA	NA	NA	--	--	NA	NA	--	--	NA	NA	NA	--	--
Trichloroethene	--	--	--	--	--	17	37	19	1.6 J	11	9 J	18	12	1.8
Vinyl Chloride	--	--	--	--	--	4 J	--	--	9.5 J	--	--	--	--	0.16 J
m/p-Xylene	NA	NA	NA	--	--	NA	NA	--	--	NA	NA	NA	NA	--
MNA/Water Quality Parameters (mg/L)														
Alkalinity	NA	NA	NA	70	65	NA	NA	88	75	NA	NA	NA	190	200
Chloride	NA	NA	NA	11	38.4	NA	NA	13	32.9	NA	NA	NA	42	55
Ferrous Iron	NA	NA	NA	0.18	--	NA	NA	--	--	NA	NA	NA	--	--
Methane	NA	NA	NA	--	0.0061	NA	NA	0.082 J	0.098	NA	NA	NA	0.06 J N	--
Nitrate	NA	NA	NA	0.73	--	NA	NA	--	--	NA	NA	NA	1.4	2.7
Sulfate	NA	NA	NA	6.7	7.4	NA	NA	11	19.4	NA	NA	NA	13	11
Sulfide	NA	NA	NA	--	--	NA	NA	--	--	NA	NA	NA	NA	--
TOC	NA	NA	NA	--	1.3	NA	NA	--	1.7	NA	NA	NA	--	--

Notes:

-- Not detected
J Estimated concentration.
D Value derived from dilution analysis.
N Evidence exists for constituent presence.
NA Not analyzed.

Above human health-based values.
Above state values.
Above both of the above values.

TABLE 6
Historical Summary of Detected Groundwater Constituents in MNA Wells from Bush Industries Property

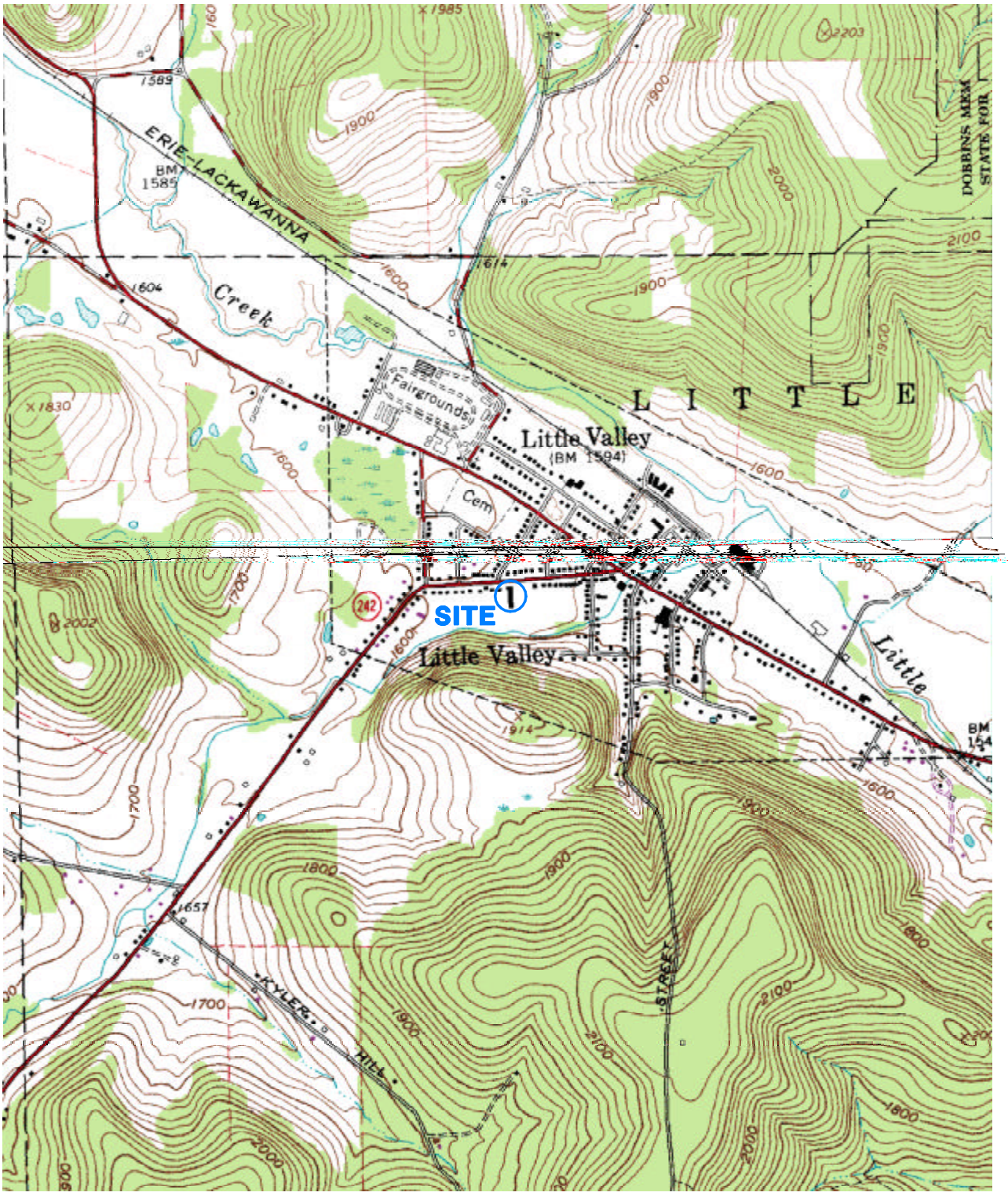
	BIAMW-D2							
	05/05/1999	12/14/1999	01/10/2001	01/10/2001 Duplicate	12/11/2003	10/30/2006	09/25/2007	09/25/2007 Duplicate
Volatile Organics (ug/L)								
1,1,2-Trichloroethane	--	--	--	--	--	0.084 J	--	--
1,1-Dichloroethene	1 J	0.4 J	--	--	0.81	0.54	0.44 J	0.47 J
1,4-Dichlorobenzene	NA	NA	--	--	--	--	--	--
Benzene	2 J	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	0.11 J	--	--
1,2-Dichloroethene	58	16	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	36	29	18 D	26 D	33	33
trans-1,2-Dichloroethene	NA	NA	--	--	--	0.71	0.31 J	0.23 J
Ethylbenzene	--	--	--	--	--	--	--	--
Isopropylbenzene	NA	NA	NA	NA	--	--	--	--
Trichloroethene	160	58	140	110	78 D	93 D	110 J	110 J
Vinyl Chloride	--	--	--	--	--	--	--	--
m/p-Xylene	NA	NA	NA	NA	NA	--	--	--
MNA/Water Quality Parameters (mg/L)								
Alkalinity	NA	NA	NA	NA	130	140	116	116
Chloride	NA	NA	NA	NA	22	31	37.8	37.8
Ferrous Iron	NA	NA	NA	NA	--	--	0.23	--
Methane	NA	NA	NA	NA	0.07 JN	--	--	--
Nitrate	NA	NA	NA	NA	0.29	0.34	0.23	0.22
Sulfate	NA	NA	NA	NA	15	13	19.8	19.1
Sulfide	NA	NA	NA	NA	NA	0.027	--	--
TOC	NA	NA	NA	NA	2.4	--	1.8	--

Notes:

-- Not detected
J Estimated concentration.
D Value derived from dilution analysis.
N Evidence exists for constituent presence.
NA Not analyzed.

Above human health-based values.
Above state values.
Above both of the above values.

FIGURES



SOURCE:

USGS CATTARAUGUS AND LITTLE VALLEY, NEW YORK QUADRANGLES.

N

DATE: 05/09/2000
FILEPATH: C:\GEOMATRIX\6191
DRAFTED BY: JTM

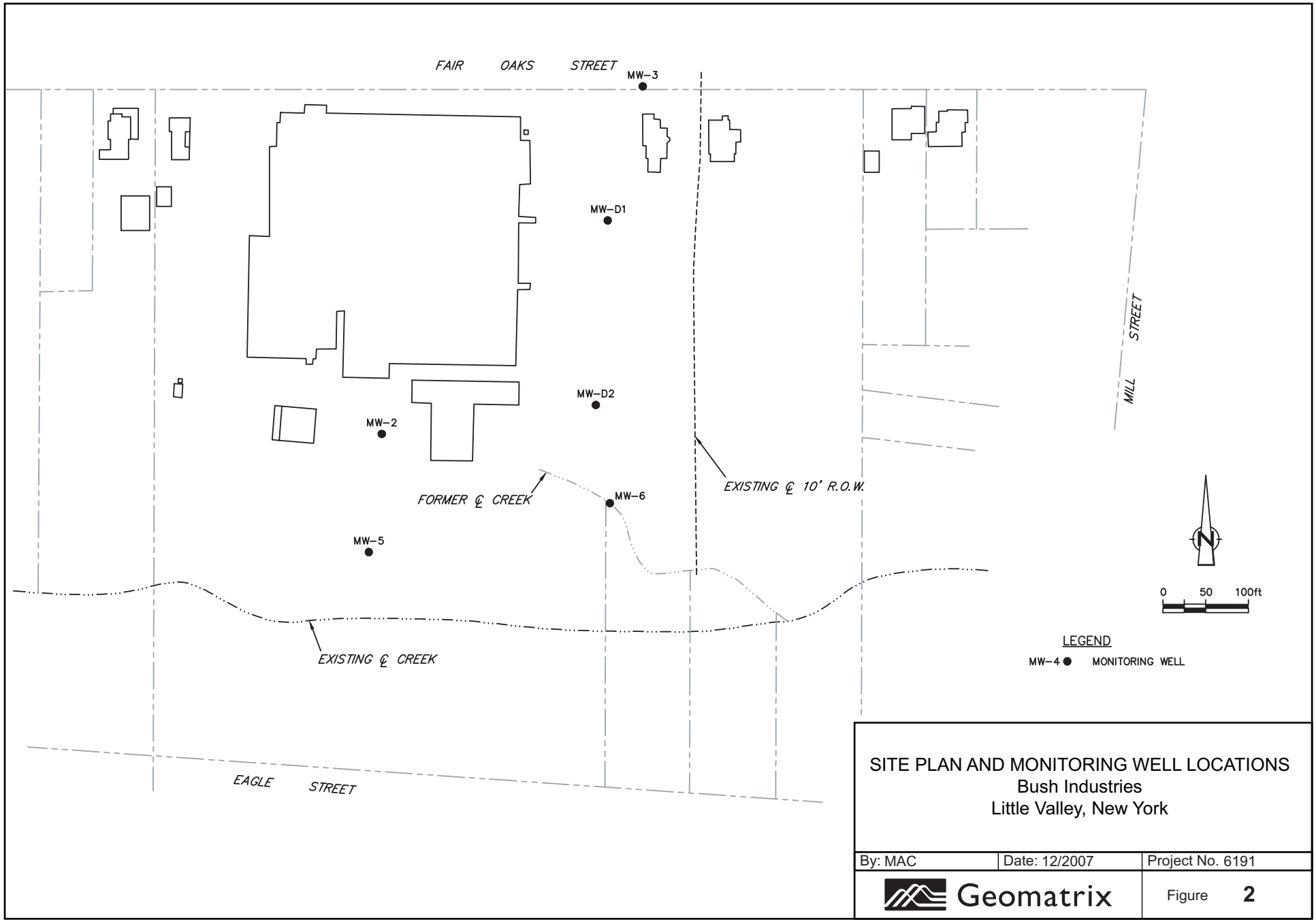
GEOMATRIX

SITE LOCATION
BUSH INDUSTRIES
LITTLE VALLEY, NEW YORK

Project No.
6191

Figure
1

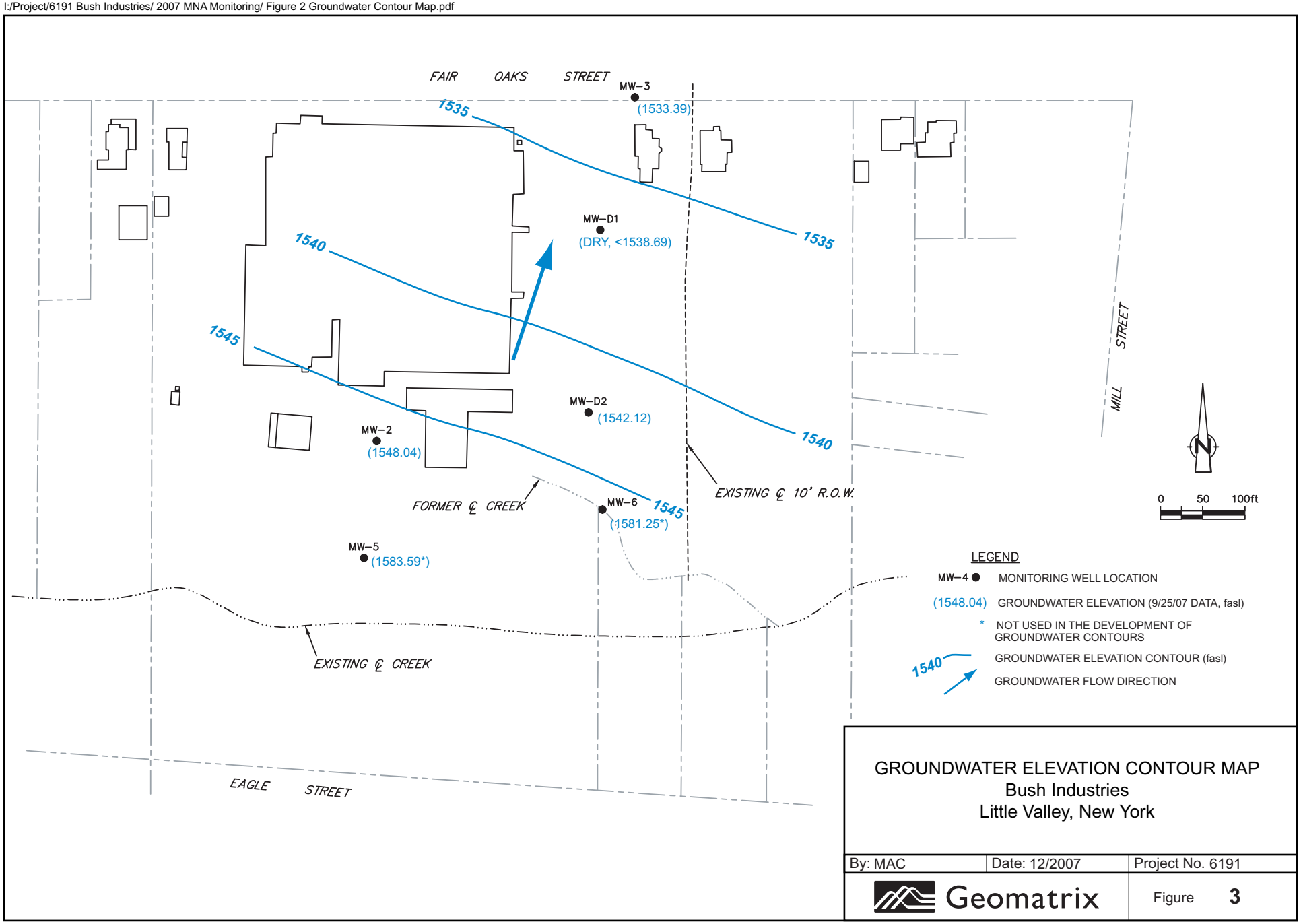
I:/Project/6191 Bush Industries/ 2007 MNA Monitoring/ Figure 1 Site Layout and MW Locations.pdf



SITE PLAN AND MONITORING WELL LOCATIONS
Bush Industries
Little Valley, New York

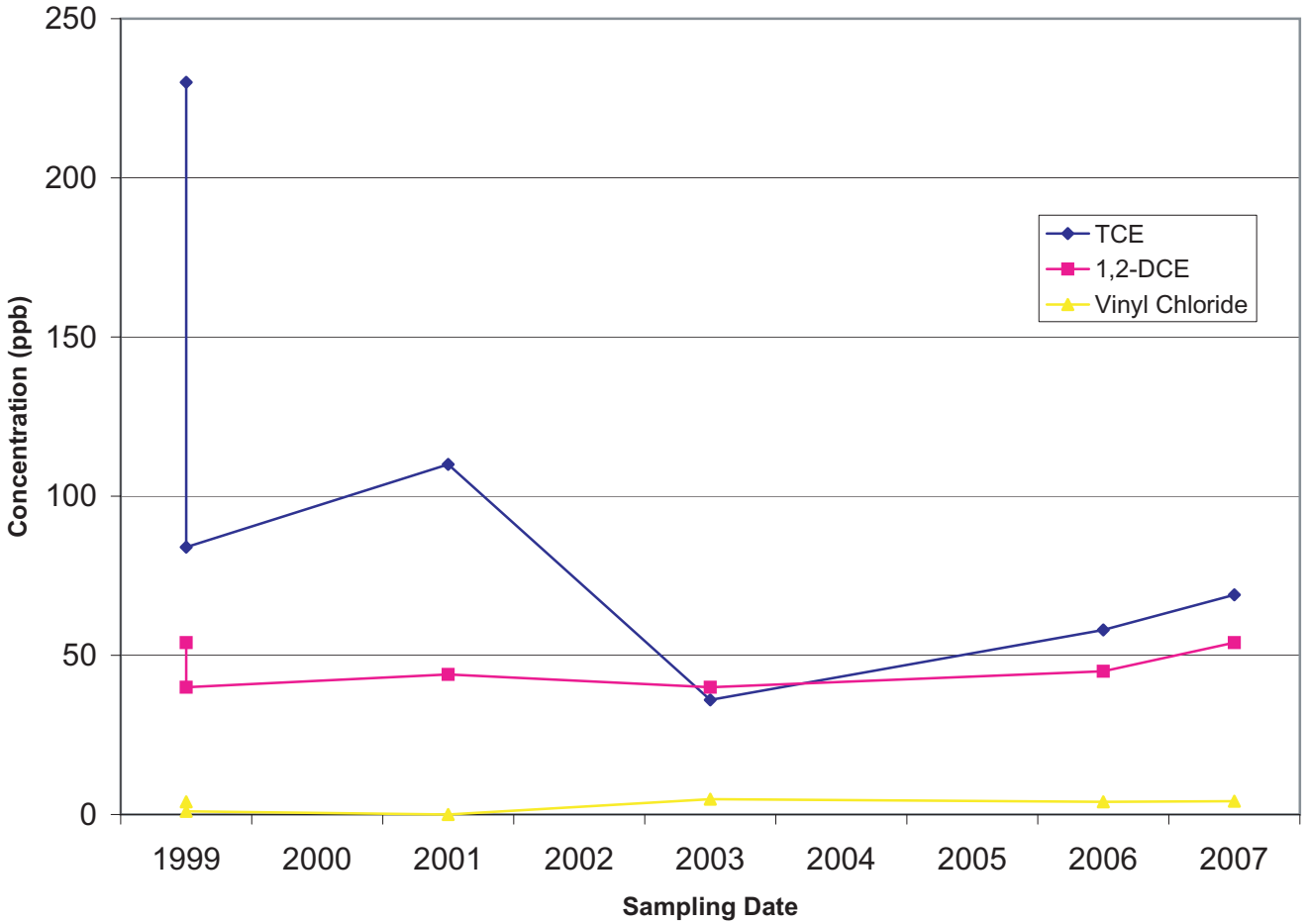
By: MAC	Date: 12/2007	Project No. 6191
Geomatrix		Figure 2

I:/Project/6191 Bush Industries/ 2007 MNA Monitoring/ Figure 2 Groundwater Contour Map.pdf



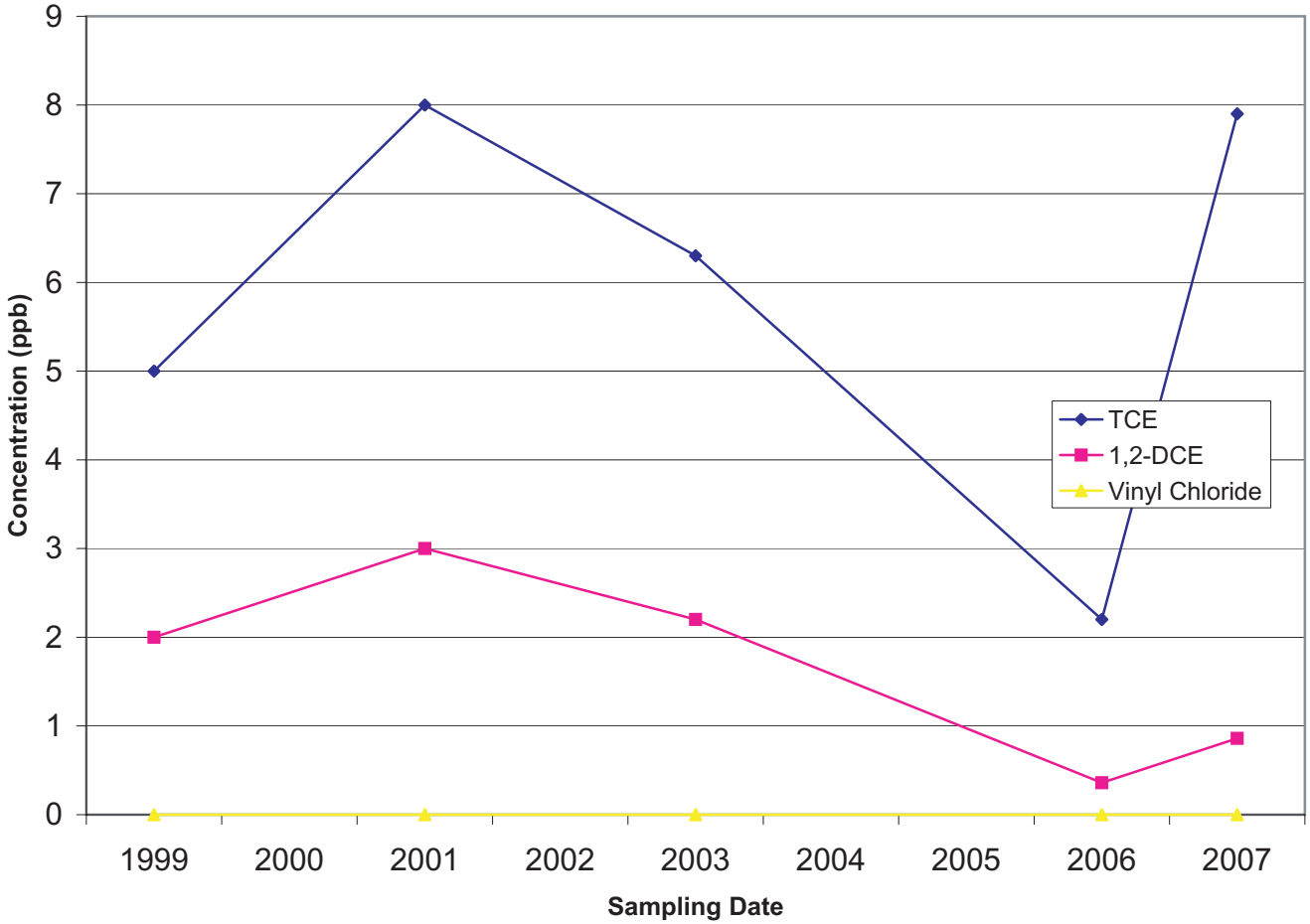
GROUNDWATER ELEVATION CONTOUR MAP
Bush Industries
Little Valley, New York

By: MAC	Date: 12/2007	Project No. 6191
Geomatrix		Figure 3



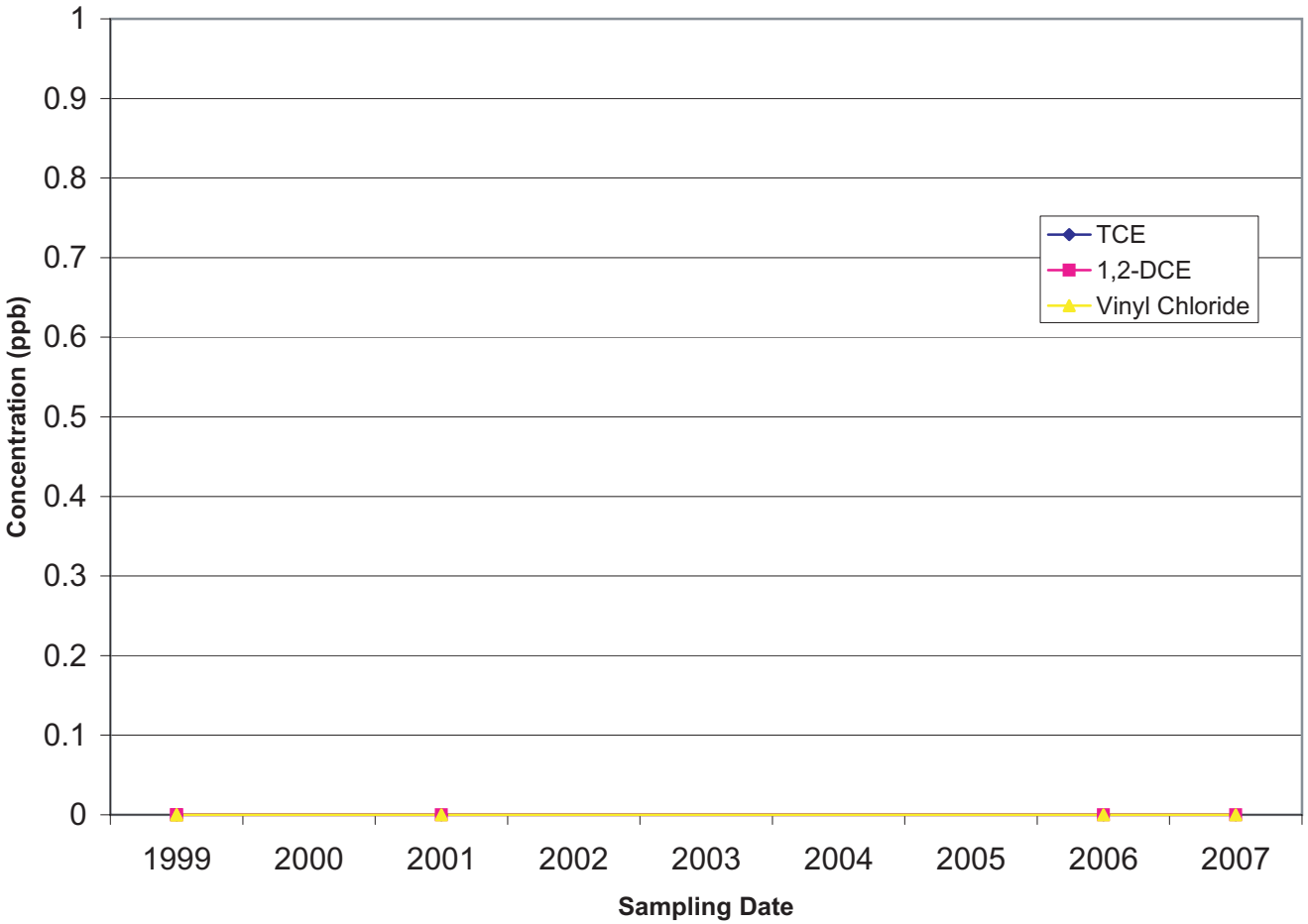
MW-2 VOC TIME-CONCENTRATION PLOT
Bush Industries
Little Valley, New York

By: MAC	Date: 12/2007	Project No. 6191
Geomatrix		Figure 4



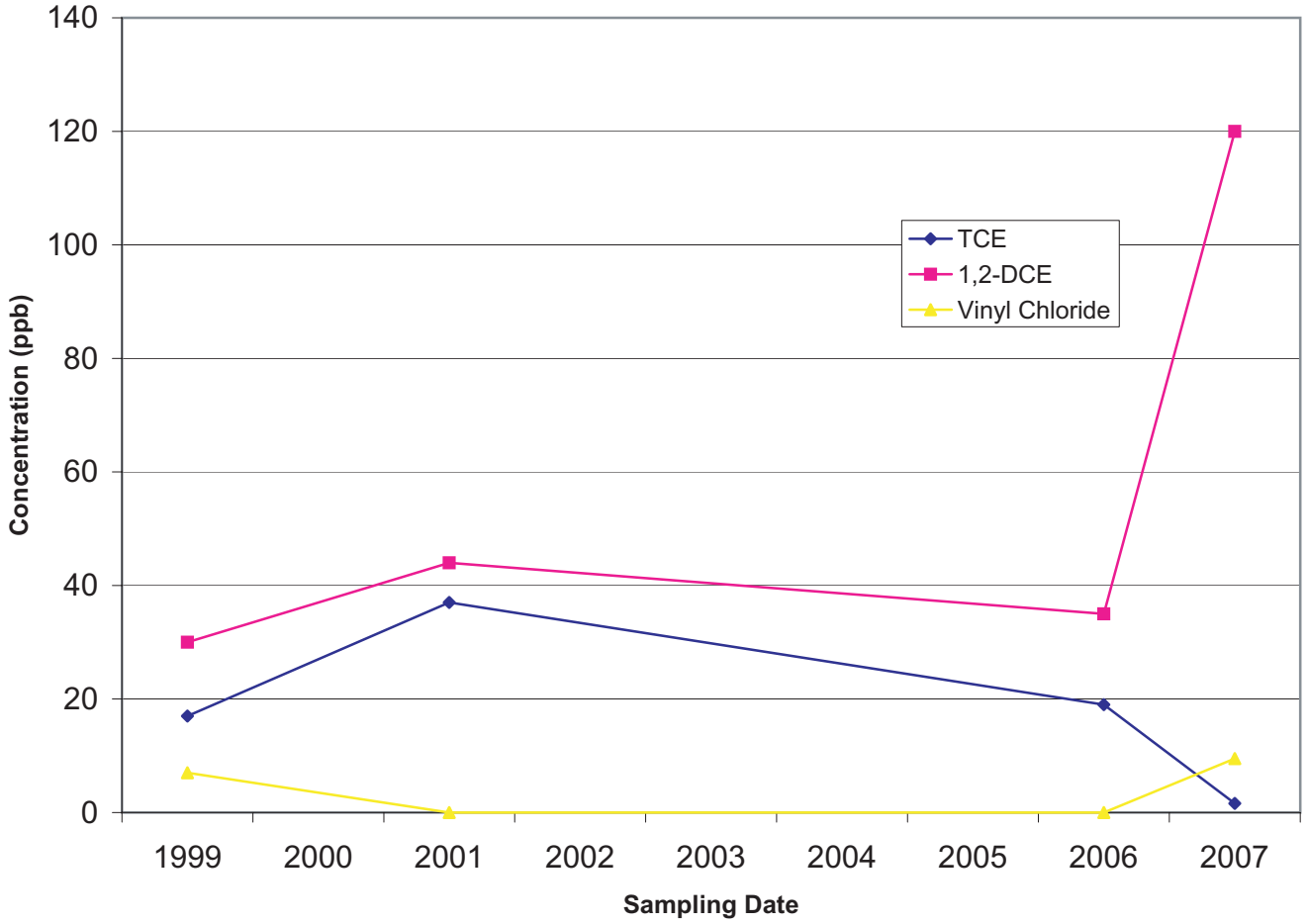
MW-3 VOC TIME-CONCENTRATION PLOT
Bush Industries
Little Valley, New York

By: MAC	Date: 12/2007	Project No. 6191
Geomatrix		Figure 5



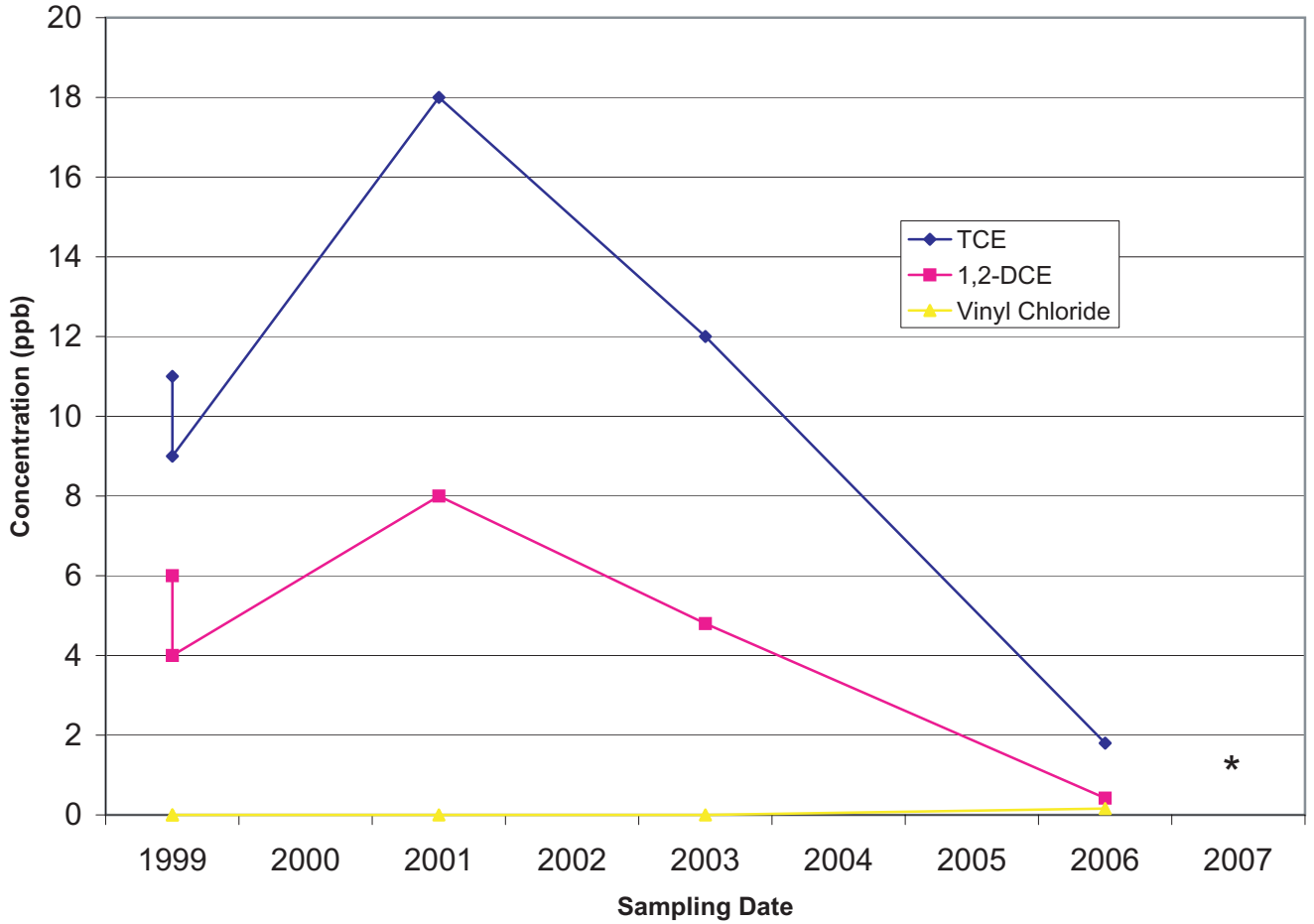
MW-5 VOC TIME-CONCENTRATION PLOT
Bush Industries
Little Valley, New York

By: MAC	Date: 12/2007	Project No. 6191
Geomatrix		Figure 6



MW-6 VOC TIME-CONCENTRATION PLOT
Bush Industries
Little Valley, New York

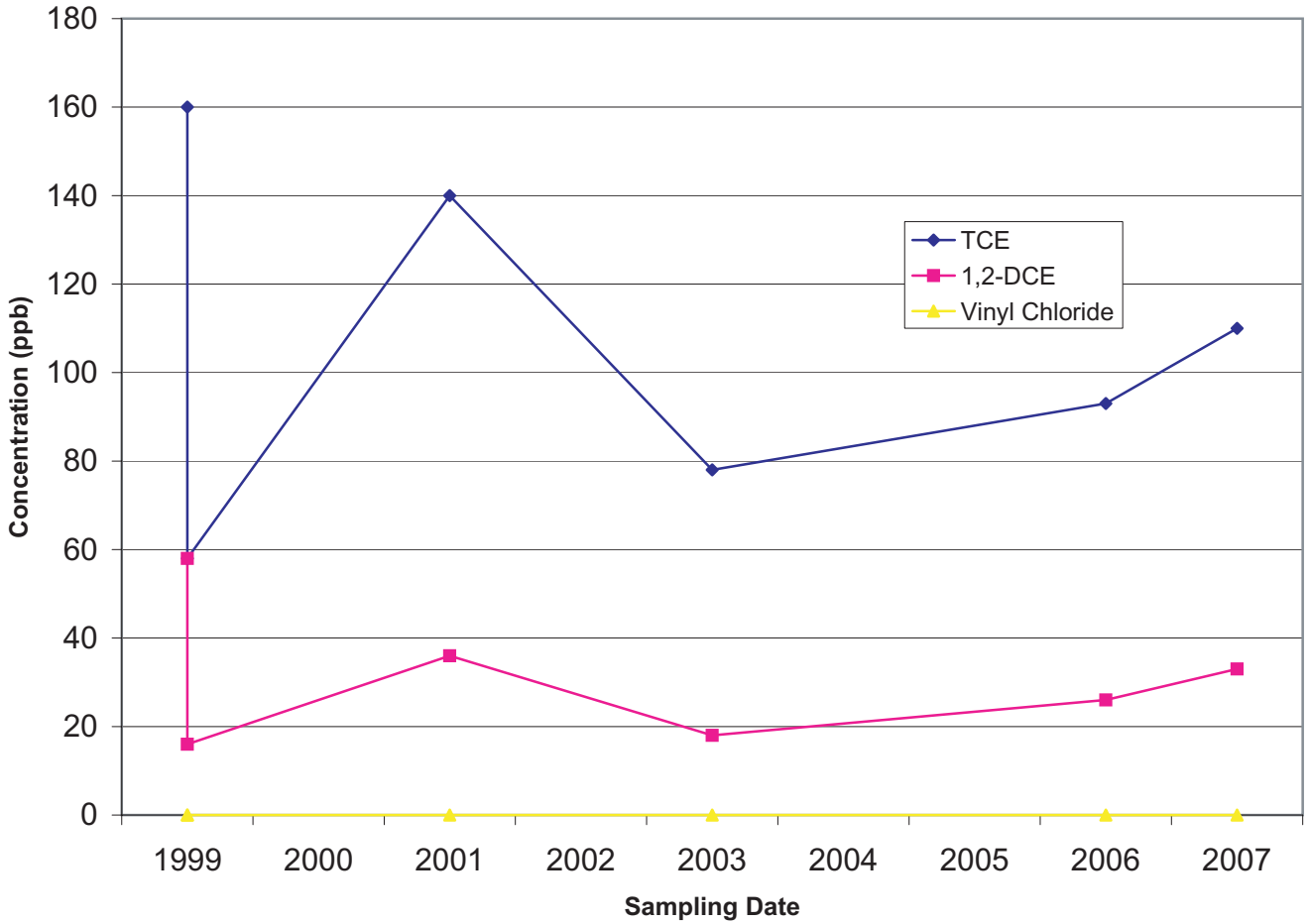
By: MAC	Date: 12/2007	Project No. 6191
Geomatrix		Figure 7



* MW-D1 was dry during the September 2007 Sampling Event. No Sample was collected

MW-D1 VOC TIME-CONCENTRATION PLOT
Bush Industries
Little Valley, New York

By: MAC	Date: 12/2007	Project No. 6191
Geomatrix		Figure 8



MW-D2 VOC TIME-CONCENTRATION PLOT
Bush Industries
Little Valley, New York

By: MAC	Date: 12/2007	Project No. 6191
Geomatrix	Figure 9	

APPENDIX A

Data Validation Report

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
Facsimile 518-251-4428

December 8, 2007

Michael Cummings
Geomatrix Consultants
90B John Muir Dr.
Suite 104
Amherst, NY 14228

RE: Validation of Bush Industries site analytical data packages
TestAmerica/STL-Buffalo SDG No. A07-0846

Dear Mr. Cummings:

Review has been completed for the data package generated by Test America Severn Trent Laboratories that pertains to samples collected 9/25/07 at the Bush Industries site. Five aqueous samples and a field duplicate were analyzed for volatiles by USEPA CLP Multi-Media, Multi-Concentration method SOM01.1 (subcontracted to Mitkem Corporation), dissolved gases (methane, ethane, and ethane) by RSK-175, chloride, nitrate, sulfate, sulfide, alkalinity, and ferrous ion. Trip, rinse, and holding blanks were also processed.

Data validation was performed with guidance from the USEPA Region II validation SOP HW-33-VOA, USEPA National Functional Guidelines for Organic Data Review, and the specific requirements of the analytical methodologies. The data packages were reviewed for the following items:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate Standard Recoveries
* Matrix Spike Evaluations
* Blank Contamination
* Laboratory Control Samples (LCSs)
* Calibration Standard Responses
* Internal Standard Responses
* Method Compliance
* Sample Results Verification

Those items showing deficiencies are discussed in the following sections of this report. All others were found to be acceptable as outlined in the above-mentioned validation procedures, and as applicable for the methodology. Unless noted specifically in the following text, reported results of sample analytes are substantiated by the raw data, and generated in compliance with project requirements.

In summary, samples were generally processed in compliance with stated protocols. Sample results are primarily usable as reported or usable with minor qualification as estimated in value. However, results for 1,4-dioxane are not usable due to poor system performance inherent in the analysis.

Copies of the sample identifications and laboratory case narratives are attached to this text, and should be reviewed in conjunction with this report. Also included are sample result forms with qualifiers applied in red ink.

Chain-of-Custody

The rinse and trip blanks were not entered on the external chain-of-custody. The laboratory was authorized to process those blanks. The custody for the inter-laboratory volatile analysis transfer was a copy of the original, and therefore showed requests for the other project analytes.

Field Duplicate Correlation

Blind field duplicate correlations of LVRA03-MNAGW-MWD2 were acceptable, with the exception of the variance for ferrous ion (undetected at 0.01 mg/L and detected at 0.23 mg/L). Results for that analyte in the parent sample and its duplicate are qualified as estimated in value.

VOA Analyses by SOM01.1

Holding times were met for the samples, which were preserved properly.

Results for analyte reported by the laboratory with the "E" qualifier are derived from the dilution analyses of the samples, thus reflecting responses within calibration range of the instrumentation.

LVRA03-MNAGW-MW5, LVRA03-MNAGW-MW6, and the trip blank show slightly elevated recoveries for surrogate d4-1,2-dichlorobenzene. There are no detections in those samples of target analytes associated with the outlying standard, and therefore no qualification is required. LVRA03-MNAGW-MW6 also shows a low recovery for surrogate d8-1,4-dioxane. Results for the lone associated target analyte, 1,4-dioxane, are not usable in the samples due to system response (discussed below).

Matrix spikes of LVRA03-MNAGW-MW2 show acceptable accuracy and precision, with the exception that trichloroethene recoveries cannot be evaluated due to high relative parent sample concentrations.

Internal standard responses are acceptable, and blanks show no contamination.

Per the validation protocol, results for 1,4-dioxane in the samples are not usable due to very low system response (RRFs<0.001). The responses are typical for this poor-performing compound.

The sample analytes that exhibit outlying initial calibration standard responses are noted below. In some instances the linearity values were elevated above 20%RSD, with elevated responses at lower concentrations. In these instances, qualification is made only for detected results. When lower concentrations show outlying linearity involving weaker responses at lower analyte concentrations, all sample results for those analytes are qualified.

- m,p-xylene, o-xylene, styrene, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene (21%RSD to 33%RSD) qualified as "UJ" in all samples
- trichloroethene (23%RSD) in LVRA03-MNAGW-MW3, LVRA03-MNAGW-MW6, LVRA03-MNAGW-MW2, LVRA03-MNAGW-MWD2, and LVRA03-MNAGW-DUP1
- vinyl chloride (27%RSD) in LVRA03-MNAGW-MW6 and LVRA03-MNAGW-MW2
- 1,1-dichlorethene (29%RSD) in LVRA03-MNAGW-MW6, LVRA03-MNAGW-MW2, and LVRA03-MNAGW-DUP1

Continuing calibration standard responses (with the exception of those for 1,4-dioxane) are within validation guidelines.

Dissolved Gases by RSK-175

Holding times were met. LCS recoveries are within required ranges, and calibration standards show acceptable responses. Blanks show no contamination.

Matrix spikes of LVRA03-MNAGW-MW2 show elevated recoveries for methane (211% and 204%). Results for that compound in the parent sample has been qualified as estimated in value.

Wet Chemistry Analyses--Choride, Sulfate, Nitrate, Sulfide, Alkalinity, TOC, and Ferrous Ion

Review was conducted for method compliance, holding times, transcription, calculations, standard and blank acceptability, accuracy and precision, etc., as applicable to each procedure. All were acceptable unless noted below.

LVRA03-MNAGW-MW3 was processed for ferrous ion just beyond the allowable holding time. That result has therefore been qualified as estimated, and may have a slight low bias.

The matrix spikes of LVRA03-MNAGW-MW2 show elevated recoveries for ferrous ion (117% and 130%). That sample shows no detection of the analyte, and therefore no qualification is indicated. Accuracy and precision for the other analytes was acceptable.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

VALIDATION QUALIFIER DEFINITIONS

DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the national qualifiers assigned to results in the data review process. If the Regions choose to use additional qualifiers, a complete explanation of those qualifiers should accompany the data review.

U - **The analyte was analyzed for, but was not detected above the reported sample quantitation limit.**

J - **The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.**

N - **The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."**

NJ - **The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.**

UJ - **The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.**

R - **The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.**

LABORATORY SAMPLE IDs AND CASE NARRATIVES

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: SEVERN TRENT LABORATORIES, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS						
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	TCLP HERB	WATER QUALITY
LVRA03-MNAGW-DUP1	A7A89406	OLMO4	-	OTHER	-	-	-	MCAWW
LVRA03-MNAGW-MW2	A7A89404	OLMO4	-	OTHER	-	-	-	MCAWW
LVRA03-MNAGW-MW3	A7A89401	OLMO4	-	OTHER	-	-	-	MCAWW
LVRA03-MNAGW-MW5	A7A89402	OLMO4	-	OTHER	-	-	-	MCAWW
LVRA03-MNAGW-MW6	A7A89403	OLMO4	-	OTHER	-	-	-	MCAWW
LVRA03-MNAGW-MWD2	A7A89405	OLMO4	-	OTHER	-	-	-	MCAWW

SAMPLE SUMMARY

SDG#: BUSH

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A7A84606	LVRA03-MNAGW-DUP1	WATER	09/25/2007		09/26/2007	17:45
A7A89406	LVRA03-MNAGW-DUP1	WATER	09/25/2007		09/25/2007	17:45
A7A91306	LVRA03-MNAGW-DUP1	WATER	09/25/2007		09/25/2007	17:45
A7A84604	LVRA03-MNAGW-MW2	WATER	09/25/2007	13:50	09/26/2007	17:45
A7A89404	LVRA03-MNAGW-MW2	WATER	09/25/2007	13:50	09/25/2007	17:45
A7A91304	LVRA03-MNAGW-MW2	WATER	09/25/2007	13:50	09/25/2007	17:45
A7A84604MS	LVRA03-MNAGW-MW2 MS	WATER	09/25/2007	13:50	09/26/2007	17:45
A7A89404MS	LVRA03-MNAGW-MW2 MS	WATER	09/25/2007	13:50	09/25/2007	17:45
A7A91304MS	LVRA03-MNAGW-MW2 MS	WATER	09/25/2007	13:50	09/25/2007	17:45
A7A84604SD	LVRA03-MNAGW-MW2 SD	WATER	09/25/2007	13:50	09/26/2007	17:45
A7A89404SD	LVRA03-MNAGW-MW2 SD	WATER	09/25/2007	13:50	09/25/2007	17:45
A7A91304SD	LVRA03-MNAGW-MW2 SD	WATER	09/25/2007	13:50	09/25/2007	17:45
A7A84601	LVRA03-MNAGW-MW3	WATER	09/25/2007	09:45	09/26/2007	17:45
A7A89401	LVRA03-MNAGW-MW3	WATER	09/25/2007	09:45	09/25/2007	17:45
A7A91301	LVRA03-MNAGW-MW3	WATER	09/25/2007	09:45	09/25/2007	17:45
A7A84602	LVRA03-MNAGW-MW5	WATER	09/25/2007	11:15	09/26/2007	17:45
A7A89402	LVRA03-MNAGW-MW5	WATER	09/25/2007	11:15	09/25/2007	17:45
A7A91302	LVRA03-MNAGW-MW5	WATER	09/25/2007	11:15	09/25/2007	17:45
A7A84603	LVRA03-MNAGW-MW6	WATER	09/25/2007	12:15	09/26/2007	17:45
A7A89403	LVRA03-MNAGW-MW6	WATER	09/25/2007	12:15	09/25/2007	17:45
A7A91303	LVRA03-MNAGW-MW6	WATER	09/25/2007	12:15	09/25/2007	17:45
A7A84605	LVRA03-MNAGW-MWD2	WATER	09/25/2007	14:45	09/26/2007	17:45
A7A89405	LVRA03-MNAGW-MWD2	WATER	09/25/2007	14:45	09/25/2007	17:45
A7A91305	LVRA03-MNAGW-MWD2	WATER	09/25/2007	14:45	09/25/2007	17:45

SDG NARRATIVE

Job#: A07-A846,A07-A894,A07-A913

Project#: NY3A9056.8
SDG#: BUSH
Site Name: Geomatrix Consultants, Inc.

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A07-A846
Sample Cooler(s) were received at the following temperature(s); 2 @ 2.9 °C
All samples were received in good condition.
A07-A894
Sample Cooler(s) were received at the following temperature(s); 2@2.8 °C
All samples were received in good condition.
A07-A913
Sample Cooler(s) were received at the following temperature(s); 2@2.8 °C
All samples were received in good condition.

GC/MS Volatile Data

SOMO 1.2 Volatiles were subcontracted to Mitkem Corp. The complete subcontract report is included in this report as Appendix A. Comments pertaining to SOMO 1.2 may be found within the comment summary of the subcontract report.

GC Volatile Data

For method RSK 175, the recoveries for sample LVRA03-MNAWG-MW2 Matrix Spike and the Matrix Spike duplicate are outside quality control limits for Methane, though the Matrix Spike Blank recoveries are compliant. No corrective action was necessary.

Wet Chemistry Data

Sample MW3 designated for analysis of Ferrous Iron was received with minimal time remaining prior to holding time expiration. Sample was analyzed as soon as possible, but unfortunately the holding time had exceeded for this parameter.

The recovery of sample MW2 MS Matrix Spike exhibited results above the quality control limits for Ferrous Iron. The recovery of sample MW2 MSD Matrix Spike Duplicate exhibited results above the quality control limits for Ferrous Iron. However, the LCS was acceptable.

Sample LVRA03-MNAGW-DUP1 was preserved at the bench for Total Organic Carbon.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this Sample Data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature."

Jason R. Kacalski
Project Manager

10/19/07
Date

SDG Narrative

Mitkem Corporation submits the enclosed data package in response to TestAmerica's project. Analyses were performed for eight aqueous samples that were received on September 27, 2007. The analyses were performed under TestAmerica's PO# 2212187. The inside of the sample-shipping cooler was measured at 4°C. Please note that a trip blank and two vials labeled LVRA03-MNAGW-RB were received but not listed in the Chain of Custody record. Per client's directive, analyses were also performed on these two samples.

The following samples are submitted in this data package:

Client ID	Lab ID	Analysis	VOA pH
LVRA03-MNAGW-MW3	F1377-01A	TV	<2
LVRA03-MNAGW-MW5	F1377-02A	TV	<2
LVRA03-MNAGW-MW6	F1377-03A	TV	<2
LVRA03-MNAGW-MW6DL	F1377-03ADL	TV	<2
LVRA03-MNAGW-MW2DL	F1377-04ADL	TV	<2
LVRA03-MNAGW-MW2MS	F1377-04AMS	TV	<2
LVRA03-MNAGW-MW2MSD	F1377-04AMSD	TV	<2
LVRA03-MNAGW-MWD2	F1377-05A	TV	<2
LVRA03-MNAGW-MWD2DL	F1377-05ADL	TV	<2
LVRA03-MNAGW-DUP1	F1377-06A	TV	<2
LVRA03-MNAGW-DUP1DL	F1377-06ADL	TV	<2
LVRA03-MNAGW-RB	F1377-07A	TV	<2
TRIP BLANK	F1377-08A	TV	<2

TV = Trace Volatiles

The analyses were performed using USEPA CLP Multi-Media, Multi-Concentration (SOM01.1) protocols. The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action.

IS = concentration of internal standard in ug/L
RRF = relative response factor

DMC recoveries were within the QC limits (no more than 3 DMC out per sample).

Matrix spikes: duplicate matrix spikes were performed on LVRA03-MNAGW-MW2. Spike recovery and replicate precision could not be properly evaluated for trichloroethene due to its high concentration in the native sample.

To ensure that all target analytes were determined within the instrument calibration range, the following samples were re-analyzed at dilution:

LVRA03-MNAGW-MW6 at 16x
LVRA03-MNAGW-MW2 at 10x
LVRA03-MNAGW-MWD2 at 16x
LVRA03-MNAGW-DUP1 at 16x

No manual integrations were performed.

No other unusual observation was made for the analysis.

All of the submittals to the region are originals other than logbook pages. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. Tunes, calibration verifications and initial calibrations that are shared among several cases are photocopies indicating the location of the originals.

I certify that this Sample Data Package is in compliance with the terms and condition of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Kin Chui for ARN

Agnes Ng
CLP Project Manager
10/16/07

QUALIFIED SAMPLE REPORT FORMS

Bush Industries

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-MW3

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1177.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.86	
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
123-91-1	1,4-Dioxane	~~20~~	U R

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-MW3

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1177.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	7.9	J
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U UJ
95-47-6	o-Xylene	0.50	U UJ
100-42-5	Styrene	0.50	U UJ
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U UJ
87-61-6	1,2,3-Trichlorobenzene	0.50	U UJ

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LVRA03-MNAGW-MW3

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1177.D

Level: (TRACE or LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A	0	J

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-MW5

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1178.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
123-91-1	1,4-Dioxane	~~20~~	~~U~~ Q

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-MW5

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1178.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U UJ
95-47-6	o-Xylene	0.50	U UJ
100-42-5	Styrene	0.50	U UJ
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U UJ
87-61-6	1,2,3-Trichlorobenzene	0.50	U UJ

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LVRA03-MNAGW-MW5

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1178.D

Level: (TRACE or LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A	0	J

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-MW6

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1179.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	9.5	J
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.66	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.31	J
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	120 ~~110~~	~~E~~
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
123-91-1	1,4-Dioxane	~~20~~	U R

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-MW6

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1179.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	1.6	J
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U UJ
95-47-6	o-Xylene	0.50	U UJ
100-42-5	Styrene	0.50	U UJ
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U UJ
87-61-6	1,2,3-Trichlorobenzene	0.50	U UJ

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LVRA03-MNAGW-MW6

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1179.D

Level: (TRACE or LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A	0	J

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-MW2

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-04A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1180.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	4.2	J
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.73	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.47	J
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	54 ~~58~~	~~E~~
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.29	J
107-06-2	1,2-Dichloroethane	0.50	U
123-91-1	1,4-Dioxane	~~20~~	U R

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-MW2

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-04A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1180.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	~~83~~ 69	~~E~~ J
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U UJ
95-47-6	o-Xylene	0.50	U UJ
100-42-5	Styrene	0.50	U UJ
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U UJ
87-61-6	1,2,3-Trichlorobenzene	0.50	U UJ

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LVRA03-MNAGW-MW2

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-04A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1180.D

Level: (TRACE or LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A	0	J

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-MWD 2

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-05A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1183.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.44	J J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.31	J
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	33 ~~26~~	E
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
123-91-1	1,4-Dioxane	~~20~~	U R

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-MWD 2

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-05A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1183.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	110	~~E~~ J
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U UJ
95-47-6	o-Xylene	0.50	U UJ
100-42-5	Styrene	0.50	U UJ
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U UJ
87-61-6	1,2,3-Trichlorobenzene	0.50	U UJ

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LVRA03-MNAGW-MWD 2

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-05A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1183.D

Level: (TRACE or LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A	0	J

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-DUP 1

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-06A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1184.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.47	J J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.23	J
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	33 ~~25~~	E
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
123-91-1	1,4-Dioxane	~~20~~	U R

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-DUP 1

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-06A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1184.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	110	E J
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U UJ
95-47-6	o-Xylene	0.50	U UJ
100-42-5	Styrene	0.50	U UJ
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U UJ
87-61-6	1,2,3-Trichlorobenzene	0.50	U UJ

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LVRA03-MNAGW-DUP 1

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-06A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1184.D

Level: (TRACE or LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A	0	J

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-RB

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-07A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1185.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
123-91-1	1,4-Dioxane	~~20~~	U R

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LVRA03-MNAGW-RB

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-07A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1185.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	0.50	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LVRA03-MNAGW-RB

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-07A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1185.D

Level: (TRACE or LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A	0	J

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-08A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1186.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.34	J
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
123-91-1	1,4-Dioxane	~~20~~	U R

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-08A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1186.D

Level: (TRACE/LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U UJ
95-47-6	o-Xylene	0.50	U UJ
100-42-5	Styrene	0.50	U UJ
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U UJ
87-61-6	1,2,3-Trichlorobenzene	0.50	U UJ

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: MF1393

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: F1393-08A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5I1186.D

Level: (TRACE or LOW/MED) TRACE Date Received: 09/27/2007

% Moisture: not dec. Date Analyzed: 10/05/2007

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A	0	J

[1] EPA-designated Registry Number.

GEOMATRIX CONSULTANTS, INC.
DISSOLVED GASES - ETHANE, ETHENE, AND METHANE
ANALYSIS DATA SHEET

Client No.: LVRA03-MNAGW-DUP1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix: (soil/water) WATER Lab Sample ID: A7A89406

Sample wt/vol: 1.00 (g/mL) ML Lab File ID: 15B38115.TX0

Level: (low/med) Low Date Samp/Recv: 09/25/2007 09/25/2007

% Moisture: not dec. _____ Date Analyzed: 10/01/2007

GC Column: Q-PLOT Dia: 0.32 (mm) Dilution Factor: 1.00

Soil Extract Volume: 1000 (uL) Soil Aliquot Volume: 1.00 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-84-0	Ethane	1.5	U
74-85-1	Ethene	1.5	U
74-82-8	Methane	1.0	U

GEOMATRIX CONSULTANTS, INC.
DISSOLVED GASES - ETHANE, ETHENE, AND METHANE
ANALYSIS DATA SHEET

Client No.

LVRA03-MNAGW-MW2

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix: (soil/water) WATER Lab Sample ID: A7A89404

Sample wt/vol: 1.00 (g/mL) ML Lab File ID: 15B38119.TX0

Level: (low/med) Low Date Samp/Recv: 09/25/2007 09/25/2007

% Moisture: not dec. _____ Date Analyzed: 10/01/2007

GC Column: Q-PLOT Dia: 0.32 (mm) Dilution Factor: 5.00

Soil Extract Volume: 1000 (uL) Soil Aliquot Volume: 1.00 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-84-0	Ethane	7.5	U
74-85-1	Ethene	7.5	U
74-82-8	Methane	26	J

GEOMATRIX CONSULTANTS, INC.
DISSOLVED GASES - ETHANE, ETHENE, AND METHANE
ANALYSIS DATA SHEET

Client No.: LVRA03-MNAGW-MW3

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix: (soil/water) WATER Lab Sample ID: A7A89401

Sample wt/vol: 1.00 (g/mL) ML Lab File ID: 15B38116.TX0

Level: (low/med) Low Date Samp/Recv: 09/25/2007 09/25/2007

% Moisture: not dec. _____ Date Analyzed: 10/01/2007

GC Column: Q-PLOT Dia: 0.32 (mm) Dilution Factor: 1.00

Soil Extract Volume: 1000 (uL) Soil Aliquot Volume: 1.00 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-84-0	Ethane	1.5	U
74-85-1	Ethene	1.5	U
74-82-8	Methane	1.0	U

GEOMATRIX CONSULTANTS, INC.
DISSOLVED GASES - ETHANE, ETHENE, AND METHANE
ANALYSIS DATA SHEET

Client No.

LVRA03-MNAGW-MW5

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix: (soil/water) WATER Lab Sample ID: A7A89402

Sample wt/vol: 1.00 (g/mL) ML Lab File ID: 15B38111.TX0

Level: (low/med) Low Date Samp/Recv: 09/25/2007 09/25/2007

% Moisture: not dec. _____ Date Analyzed: 10/01/2007

GC Column: Q-PLOT Dia: 0.32 (mm) Dilution Factor: 1.00

Soil Extract Volume: 1000 (uL) Soil Aliquot Volume: 1.00 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-84-0	Ethane	1.5	U
74-85-1	Ethene	1.5	U
74-82-8	Methane	6.1	

GEOMATRIX CONSULTANTS, INC.
DISSOLVED GASES - ETHANE, ETHENE, AND METHANE
ANALYSIS DATA SHEET

Client No.: LVRA03-MNAGW-MW6

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix: (soil/water) WATER Lab Sample ID: A7A89403

Sample wt/vol: 1.00 (g/mL) ML Lab File ID: 15B38117.TX0

Level: (low/med) Low Date Samp/Recv: 09/25/2007 09/25/2007

% Moisture: not dec. _____ Date Analyzed: 10/01/2007

GC Column: Q-PLOT Dia: 0.32 (mm) Dilution Factor: 20.00

Soil Extract Volume: 1000 (uL) Soil Aliquot Volume: 1.00 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-84-0	Ethane	30	U
74-85-1	Ethene	30	U
74-82-8	Methane	98	

GEOMATRIX CONSULTANTS, INC.
DISSOLVED GASES - ETHANE, ETHENE, AND METHANE
ANALYSIS DATA SHEET

Client No.: LVRA03-MNAGW-MWD2

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix: (soil/water) WATER Lab Sample ID: A7A89405

Sample wt/vol: 1.00 (g/mL) ML Lab File ID: 15B38114.TX0

Level: (low/med) Low Date Samp/Recv: 09/25/2007 09/25/2007

% Moisture: not dec. _____ Date Analyzed: 10/01/2007

GC Column: Q-PLOT Dia: 0.32 (mm) Dilution Factor: 1.00

Soil Extract Volume: 1000 (uL) Soil Aliquot Volume: 1.00 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-84-0	Ethane	1.5	U
74-85-1	Ethene	1.5	U
74-82-8	Methane	1.0	U

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-DUP1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A84606

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/26/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Ferrous Iron	MG/L	0.10	U	J		3500D	09/26/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-DUP1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A89406

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/25/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Chloride	MG/L	38.6				300.0	09/27/2007
Nitrate	MG/L-N	0.22				353.2	09/26/2007
Sulfate	MG/L	19.1				300.0	09/27/2007
Sulfide	MG/L	1.0	U			376.1	10/02/2007
Total Alkalinity	MG/L	116				310.1	10/05/2007
Total Organic Carbon	MG/L	1.0	U			9060	10/08/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-MW2

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A84604

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/26/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Ferrous Iron	MG/L	0.10	U			3500D	09/26/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-MW2

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A89404

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/25/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Chloride	MG/L	28.4				300.0	10/04/2007
Nitrate	MG/L-N	0.050	U			353.2	09/26/2007
Sulfate	MG/L	20.5				300.0	09/27/2007
Sulfide	MG/L	1.0	U			376.1	10/02/2007
Total Alkalinity	MG/L	176				310.1	10/05/2007
Total Organic Carbon	MG/L	1.6				9060	09/29/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-MW3

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A84601

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/26/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Ferrous Iron	MG/L	0.18		J		3500D	09/26/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-MW3

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A89401

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/25/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Chloride	MG/L	64.4				300.0	09/27/2007
Nitrate	MG/L-N	1.5				353.2	09/26/2007
Sulfate	MG/L	23.8				300.0	09/27/2007
Sulfide	MG/L	1.0	U			376.1	10/02/2007
Total Alkalinity	MG/L	155				310.1	10/03/2007
Total Organic Carbon	MG/L	1.4				9060	09/29/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-MW5

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A84602

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/26/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Ferrous Iron	MG/L	0.10	U			3500D	09/26/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-MW5

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A89402

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/25/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Chloride	MG/L	38.4				300.0	09/27/2007
Nitrate	MG/L-N	0.050	U			353.2	09/26/2007
Sulfate	MG/L	7.4				300.0	09/27/2007
Sulfide	MG/L	1.0	U			376.1	10/02/2007
Total Alkalinity	MG/L	65.0				310.1	10/03/2007
Total Organic Carbon	MG/L	1.3				9060	09/29/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-MW6

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A84603

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/26/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Ferrous Iron	MG/L	0.10	U			3500D	09/26/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-MW6

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A89403

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/25/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Chloride	MG/L	32.9				300.0	09/27/2007
Nitrate	MG/L-N	0.050	U			353.2	09/26/2007
Sulfate	MG/L	19.4				300.0	09/27/2007
Sulfide	MG/L	1.0	U			376.1	10/02/2007
Total Alkalinity	MG/L	75.0				310.1	10/03/2007
Total Organic Carbon	MG/L	1.7				9060	09/29/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-MWD2

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A84605

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/26/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Ferrous Iron	MG/L	0.23		J		3500D	09/26/2007

Comments:

Geomatrix Consultants, Inc.
Wet Chemistry Analysis

Client Sample No.: LVRA03-MNAGW-MWD2

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: BUSH

Matrix (soil/water): WATER Lab Sample ID: A7A89405

% Solids: 0.0 Date Samp/Recv: 09/25/2007 09/25/2007

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Chloride	MG/L	37.8				300.0	09/27/2007
Nitrate	MG/L-N	0.23				353.2	09/26/2007
Sulfate	MG/L	19.8				300.0	09/27/2007
Sulfide	MG/L	1.0	U			376.1	10/02/2007
Total Alkalinity	MG/L	116				310.1	10/03/2007
Total Organic Carbon	MG/L	1.8				9060	09/29/2007

Comments: