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INTERIM MEASURE WORK PLAN PHASE II GROUNDWATER SOURCE AREA REMEDIATION SOLID WASTE MANAGEMENT UNIT 39 (SWMU 39) ZONE A CNC CHARLESTON SC

7/22/2004

CH2M HILL

INTERIM MEASURE WORK PLAN

Phase II - Groundwater Source Area Remediation - SWMU 39, Zone A

Charleston Naval Complex
North Charleston, South Carolina

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SUBMITTED TO
U.S. Navy Southern Division
Naval Facilities Engineering Command

PREPARED BY
CH2M-Jones

July 2004

Contract N62467-99-C-0960

Art,
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Thanks!
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CH2MHILL

July 22, 2004

Mr. David Scaturo
South Carolina Department of Health and
Environmental Control
Bureau of Land and Waste Management
2600 Bull Street
Columbia, SC 29201

Re: Interim Measure Work Plan Phase II – Groundwater Source Area Remediation (Revision 0) -- SWMU 39, Zone A

Dear Mr. Scaturo:

Enclosed please find two copies of the Interim Measure Work Plan Phase II Groundwater Source Area Remediation (Revision 0) for SWMU 39 in Zone A of the Charleston Naval Complex (CNC). This report has been prepared pursuant to agreements by the CNC BRAC Cleanup Team for completing the RCRA Corrective Action process.

The principal author of this document is Casey Hudson. Please contact him at 407/423-0030, ext. 251, if you have any questions or comments.
Sincerely,

CH2M HILL

Dean Williamson

Dean Williamson, P.E.

cc: Dann Spariosu/USEPA, w/att
Rob Harrell/Navy, w/att
Gary Foster/CH2M HILL, w/att

INTERIM MEASURE WORK PLAN

Phase II - Groundwater Source Area Remediation - SWMU 39, Zone A

Charleston Naval Complex
North Charleston, South Carolina

SUBMITTED TO
U.S. Navy Southern Division
Naval Facilities Engineering Command

PREPARED BY
CH2M-Jones

July 2004

Revision 0
Contract N62467-99-C-0960
158814.ZA.EX.01

Certification Page for the Phase II – Source Area Interim Measure Work Plan (Revision 0) — SWMU 39, Zone A

I, Dean Williamson, certify that this report has been prepared under my direct supervision. The data and information are, to the best of my knowledge, accurate and correct, and the report has been prepared in accordance with current standards of practice for engineering.

South Carolina

P.E. No. 21428

Dean Williamson, P.E.

7/19/2004

Date

Contents

Section Page

Acronyms and Abbreviations v

1.0 Introduction 1-1

1.1 Purpose and Objectives of the Phase II Interim Measure Work Plan 1-1

1.2 Site Description 1-2

1.3 Report Organization 1-2

Figure 1-1 Location of SWMU 39 in Zone A, CNC 1-3

Figure 1-2 Aerial Photograph of SWMU 39, Zone A 1-4

2.0 Site Background and Previous Investigations 2-1

2.1 Site Geology and Hydrogeology 2-1

2.2 Source Area Delineation Investigation 2-2

2.2.1 Source Delineation Direct-Push Technology Sampling 2-2

Table 2-1 Summary of Detected VOCs in DPT Samples 2-4

Figure 2-1 Source Area DPT Borings 2-17

Figure 2-2 TCE, cis-1,2-DCE, and VC in D2 Interval Groundwater, TTA 1A 2-18

Figure 2-3 TCE, 1,2-DCE, and VC in D3 Interval Groundwater, TTA 1A 2-19

Figure 2-4 TCE, 1,2-DCE, and VC in D2 Interval Groundwater, TTA 1B 2-20

Figure 2-5 TCE, 1,2-DCE, and VC in D3 Interval Groundwater, TTA 1B 2-21

3.0 Interim Measure Work Plan 3-1

3.1 Selection of Source Control Corrective Measure Alternative 3-1

3.2 Technology Description 3-2

3.3 Target Treatment Area Delineation 3-3

3.4 Interim Measure Objectives and Goals 3-4

3.5 Pilot Study Approach 3-4

3.5.1 Injection and Monitoring Well Installation 3-5

3.5.2 Baseline Characterization Sampling and Analysis 3-5

3.5.3 Substrate Injection and Post Injection Monitoring 3-7

3.5.4 Post-Injection Monitoring 3-8

3.6 Permitting 3-9

3.6.1 SCDHEC Well Installation Request 3-9

3.6.2 SCDHEC Underground Injection Control Permit Application 3-9

Contents, Continued

Section **Page**

3.7 Health and Safety Monitoring 3-10
3.8 Investigation-derived Waste 3-10
Table 3-1 Baseline Characterization Sampling and Analysis 3-11
Table 3-2 Post-Injection Performance Monitoring 3-12
Figure 3-1 Enhanced In Situ Anaerobic Biodegradation 3-13
4.0 Project Schedule 4-1
5.0 References 5-1

Appendices

A Source Area Delineation DPT Groundwater Analytical Data
B MSDS for Potassium Lactate

Acronyms and Abbreviations

AOC	Area of concern
BRAC	Base Realignment and Closure
CA	Corrective Action
CMS	Corrective Measures Study
CNC	Charleston Naval Complex
COC	Chemical of concern
CSAP	Comprehensive Sampling and Analysis Plan
CVOC	Chlorinated volatile organic compound
DCE	Dichloroethene
DHE	*Dehalococcoides etheneogenes*
DNAPL	Dense non-aqueous phase liquid
DO	Dissolved oxygen
DPT	Direct-push technology
EnSafe	EnSafe Inc.
EPA	U.S. Environmental Protection Agency
ERD	Enhanced reductive dechlorination
EVS	Environmental Visualization System
ft bls	Feet below land surface
GW	Groundwater
HASP	Health and Safety Plan
HRC®	Hydrogen release compound
IDW	Investigation-derived waste
IM	Interim measure
IMWP	Interim Measure Work Plan
μg/L	Microgram per liter

Acronyms and Abbreviations, Continued

MSDS	Material Safety Data Sheet
NAVBASE	Naval Base
ORP	Oxygen-reduction potential
PCE	Tetrachloroethene
PCR	Polymerase Chain Reaction
PLFA	Phospholipid fatty acid
POL	Petroleum, oil, and lubricant
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SCDHEC	South Carolina Department of Health and Environmental Control
SWMU	Solid waste management unit
TCE	Trichloroethene
TOC	Total organic carbon
TTA	Target treatment area
UIC	Underground injection control
VFA	Volatile fatty acid
VOA	Volatile organic analysis
VOC	Volatile organic compound
ZVI	Zero-valent iron

1.0 Introduction

In 1993, Naval Base (NAVBASE) Charleston was added to the list of bases scheduled for closure as part of the Defense Base Realignment and Closure (BRAC) Act, which regulates closure and transition of property to the community. The Charleston Naval Complex (CNC) was formed as a result of the dis-establishment of the Charleston Naval Shipyard and NAVBASE on April 1, 1996.

CNC Corrective Action (CA) activities are being conducted under the Resource Conservation and Recovery Act (RCRA); the South Carolina Department of Health and Environmental Control (SCDHEC) is the lead agency for CA activities at the site. All RCRA CA activities are performed in accordance with the Final Permit (Permit No. SC0 170 022 560).

In April 2000, CH2M-Jones was awarded a contract to provide environmental investigation and remediation services at the CNC. This submittal presents a Phase II Interim Measure Work Plan (IMWP) for Solid Waste Management Unit (SWMU) 39 in Zone A at the CNC. Figure 1-1 presents the location of SWMU 39 within Zone A.

1.1 Purpose and Objectives of the Phase II Interim Measure Work Plan

This document presents a Phase II IMWP for the source area or areas exhibiting elevated concentrations of chlorinated volatile organic compounds (CVOCs). The Phase II IMWP has been prepared to document the basis for a source area IM implementation at SWMU 39 of the CNC. The goal of this IM is to reduce areas of elevated CVOC concentrations in the saturated zone in terms of both mass and volume. These groundwater source areas are contaminated primarily with trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE). The target treatment areas (TTAs) to be addressed in this IM were determined based on the results of the recently completed Phase I IM source delineation activities, which are also described in this document.

1.2 Site Description

SWMU 39 is the site of a former outdoor storage area for petroleum, oil, and lubricant (POL) drums along the north wall of Building 1604. Figure 1-2 is an aerial photograph of the

general layout of SWMU 39. Building 1604 is a large warehouse located near the northern boundary of the CNC. SWMU 39 is bounded to the north by the Hess Oil tank farm, to the west by a road and railroad along the base boundary, to the south by railroad lines and buildings associated with SWMU 42, and to the east by buildings associated with SWMU 38.

A marine equipment company currently leases Building 1604 and stores boats and other marine equipment outdoors, north of the building. The original area on the north side of the building where drums were reportedly stored is now covered with asphalt pavement.

Several CVOCs, such as TCE, 1,2-DCE, and vinyl chloride, have been identified as chemicals of concern (COCs) in groundwater in the shallow aquifer at SWMU 39. The source of VOCs in groundwater is believed to have resulted from minor spills of TCE that occurred at various times during many years of site operations at various locations in the vicinity of SWMU 39. No source of VOC contamination in soil has been identified.

1.3 Report Organization

This report consists of the following sections, including this introductory section:

1.0 Introduction—Presents the purpose and objectives of the Phase II IMWP.

2.0 Site Background and Source Area Delineation Investigation—Provides a summary of site geology and hydrogeology information and a brief summary of previous investigations, including the recent source area delineation direct-push technology (DPT) investigation.

3.0 Interim Measure Work Plan—Describes the rationale behind the TTA delineation, the selected treatment technology, and the technical approach for completing source area remediation at SWMU 39.

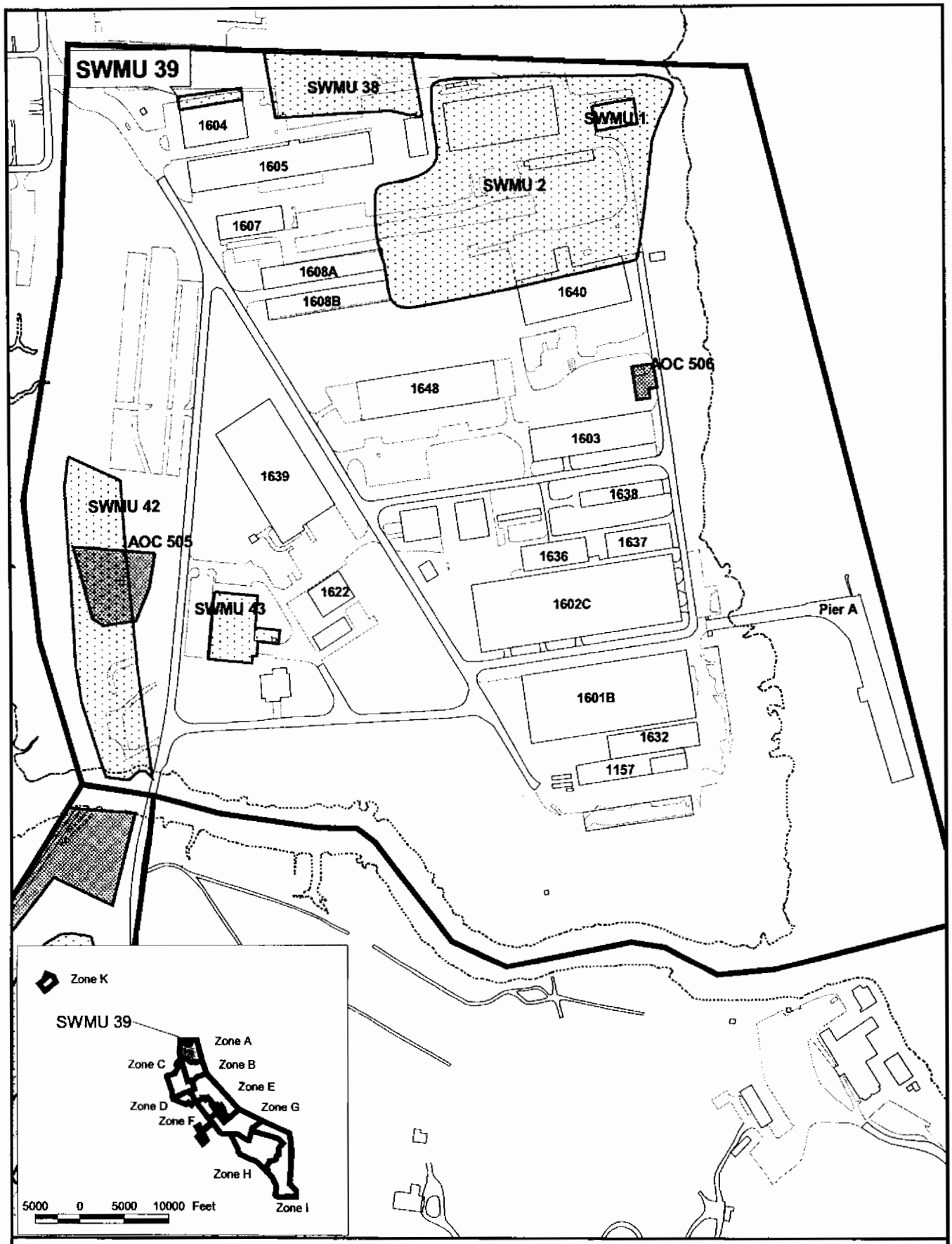
4.0 Project Schedule—Provides a brief outline of the major tasks that will be completed as part of the IM.

5.0 References—Lists the references used in this document.

Appendix A presents the source area delineation DPT groundwater analytical data.

Appendix B contains a material safety data sheet (MSDS) for potassium lactate, which will be used in the enhanced in situ biodegradation IM.

All tables and figures appear at the end of their respective sections.



Zone Boundary
AOC Boundary
SWMU Boundary
Buildings
Roads
Pavement
Shoreline

N

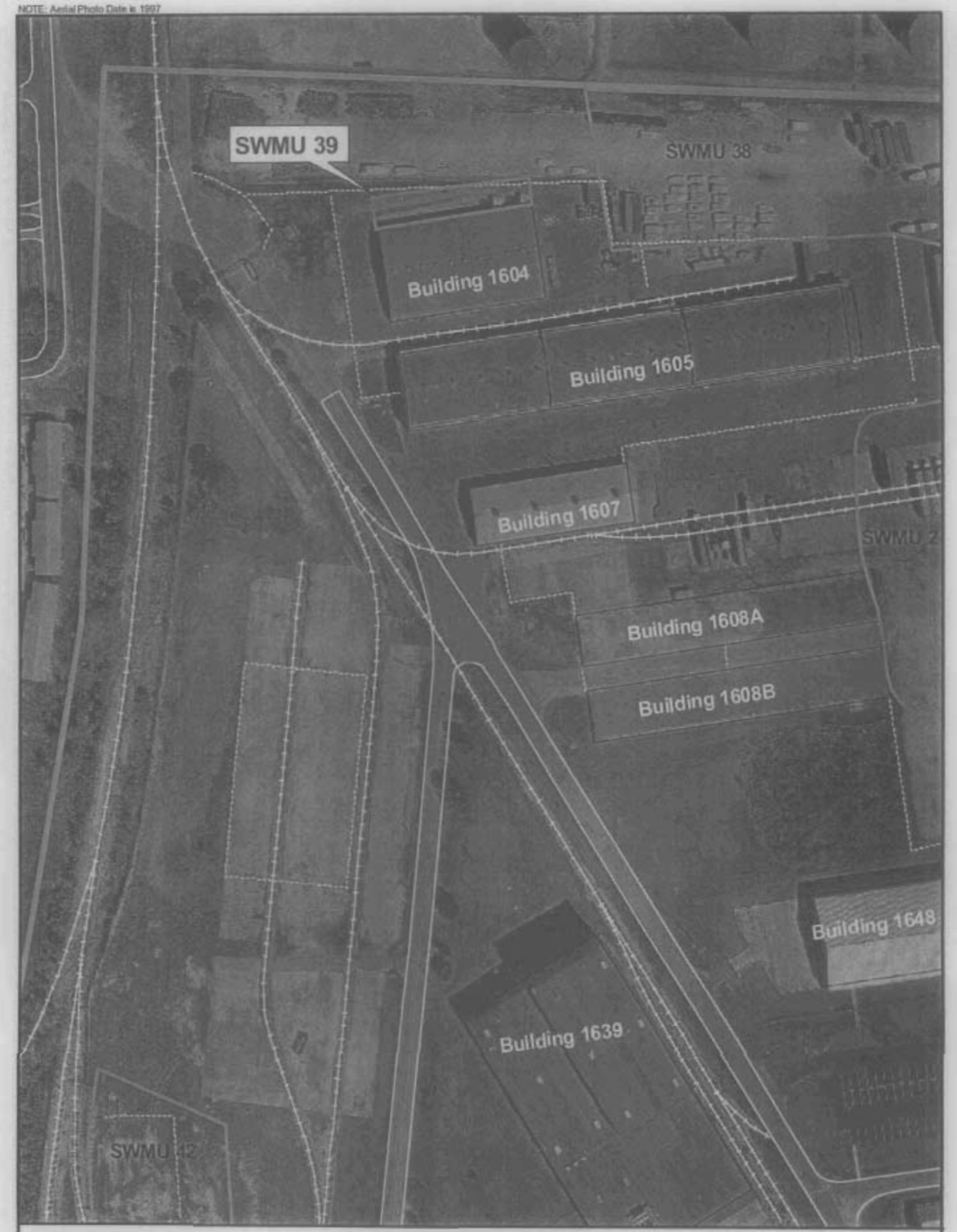
0 300 600 Feet

Figure 1-1
Location of SWMU 39 in Zone A
SWMU 39, Zone A
Charleston Naval Complex

CH2MHILL

File Path: C:\18gis\Projects\Zone_A\Swmu_39\Aprs\swmu_39.apr, Date: 13 May 2003 12:55, User: NMOUDRY, Figure 1-1 SWMU 39

NOTE: Aerial Photo Date is 1997



SWMU Boundary
Buildings
Zone Boundary
Fence
Railroads
Roads

N

0 100 200 Feet

Figure 1-2
Aerial Photo View of SWMU 39 Area
SWMU 39, Zone A
Charleston Naval Complex

CH2MHILL

File Path: C:\18gis\Projects\Zone_A\Swmu_39\Apns\swmu_39.apr, Date: 13 May 2003 12:56, User: NMOUDRY, Figure 1-2 Site Layout

Section 1.0

Section 2.0

2.0 Site Background and Previous Investigations

This section provides a brief description of site background and previous investigations. Additional details regarding the site background and previous investigations are provided in the *Zone A RFI Report, Revision 0* (EnSafe Inc. [EnSafe], 1998), the *Corrective Measures Study (CMS) Report for SWMU 39* (CH2M-Jones, 2002), and the Phase I IMWP for SWMU 39 (CH2M-Jones, 2003).

2.1 Site Geology and Hydrogeology

The site hydrogeology consists of a series of Quaternary interbedded sands and clays, varying in thickness from 21 to 56 feet in the SWMU 39 area. The sands and clays contain an unconfined (water table) aquifer system that overlies the Tertiary Ashley Formation. The Ashley Formation is comprised of silts and clays and acts as an aquiclude for the water table aquifer. Figures 1-4 and 1-5 in Section 1.0 of the SWMU 39 CMS Report (CH2M-Jones, 2002) depict the current interpretations of the Ashley Formation occurrence.

Monitoring wells were installed in shallow (10 to 15 feet below land surface [ft bls]), intermediate (15 to 30 ft bls), and deep (30 to 50 ft bls) sandy zones of groundwater flow in the water table aquifer. The three zones are vertically interconnected and converge into one hydrogeologic unit south of Building 1607. Typical groundwater elevation contours for the shallow, intermediate, and deep aquifer zones are presented in Figures 1-6 through 1-8 of the SWMU 39 CMS Report (CH2M-Jones, 2002), based upon measurements made in July 2001.

The Zone A shallow groundwater flow direction has been consistently determined to be in a generally south-southeast direction, with a separate flow component to the southwest, toward an offsite wetland area associated with Noisette Creek. There is minimal tidal influence on groundwater levels, and groundwater flow velocities averaging 14 feet per year have been calculated by EnSafe, based on aquifer test results.

A more complete summary of the site-specific geology, hydrogeology, and dissolved CVOC distribution in site groundwater is presented in Section 1.0 of the SWMU 39 CMS Report (CH2M-Jones, 2002).

2.2 Source Area Delineation Investigation

The nature and extent of groundwater contamination at SWMU 39 has been investigated extensively and is summarized in Section 1.2.4 of the SWMU 39 CMS Report (CH2M-Jones, 2002). Figures 1-9 through 1-24 of that document show the current interpretation of distribution of the various chemicals in each of the three aquifer zones.

Additional groundwater DPT sampling was performed in late 2003 in accordance with the Phase I IMWP for SWMU 39 (CH2M-Jones, 2003). This work was performed to more precisely delineate the elevated concentrations of VOCs detected in groundwater near Buildings 1608A and 1608B. VOCs exceeded 1,000 micrograms per liter (μg/L) in several DPT samples collected in this area during earlier investigations. The 2003 source delineation DPT sampling is summarized below. Copies of the analytical data sheets are provided in Appendix A.

2.2.1 Source Delineation Direct-Push Technology Sampling

The Phase I IMWP (CH2M-Jones, 2003) presented the technical approach and rationale for the additional groundwater DPT sampling. This objective was to delineate elevated VOC concentrations in groundwater, particularly those areas with total VOCs exceeding 1,000 μg/L near Buildings 1608A and 1608B in Zone A, for potential source area remediation. Figures 2-1 and 2-2 of the Phase I IMWP depicted the interpreted extent of the source area based on previous sampling data and Environmental Visualization System (EVS) three-dimensional visualization software. Figures 2-3 through 2-6 of the Phase I IMWP presented the available DPT data for the shallow, intermediate, and deep zones of the surficial aquifer system, along with the proposed additional DPT locations for source delineation.

A total of 18 additional DPT borings were installed as planned in October 2003, around source areas designated TTA 1A on the north side of Building 1608A and TTA 1B on the south side of Building 1608B. Boring locations are shown on Figure 2-1. Groundwater samples were collected from one 4-foot vertical interval within the intermediate zone (approximately 24 to 28 ft bls) and from three depth intervals within the deep zone of the surficial aquifer, approximately 36 to 38 ft bls, 40 to 42 ft bls, and 44 to 46 ft bls, designated as depths D1, D2, and D3, respectively.

The exception to this rationale was at boring A039GP115, where only the intermediate sample and first two deep zone samples were collected due to variation in geologic conditions (the Ashley Formation was encountered shallower than expected). Per the Phase

I IMWP, samples were not collected from the shallow zone of the surficial aquifer because previous sampling results in this area did not indicate excessive VOC contamination of the shallow zone.

Groundwater samples were withdrawn from the subsurface in Teflon tubing with a peristaltic pump, placed in appropriate containers, shipped to a fixed-base laboratory by courier, and analyzed for VOCs by U.S. Environmental Protection Agency (EPA) SW-846 Method 8260B. The intermediate zone sample from each boring was designated with an "I" in the sample I.D. The deep zone samples were designated with "D1," "D2," and "D3," respectively, by increasing depth. Detected chemicals are summarized in Table 2-1 and complete analytical results are presented in Appendix A.

The delineation sampling results indicate that TCE and cis-1,2-DCE were the most commonly detected chemicals, with highest concentrations occurring in the D2 and D3 depth intervals. Total VOC concentrations greater than 1,000 $\mu g/L$ were detected only in zones D2 and D3. VOC results for these two zones for TTAs 1A and 1B are shown in Figures 2-2 through 2-5.

In the intermediate zone, maximum concentrations of TCE (40.6 $\mu g/L$), cis-1,2-DCE (109 $\mu g/L$), and vinyl chloride (5.1 $\mu g/L$) were observed in sample 039GP117-I. Based on results for these intermediate zone samples and previous DPT results in this area, the intermediate aquifer zone in the vicinity of Buildings 1608A and 1608B does not appear to contain a significant continuing source of VOC groundwater contamination.

In deep zone D1, highest VOC concentrations occurred in boring A039GP117, with total VOC concentrations of approximately 750 $\mu g/L$.

In deep zone D2, total VOCs were detected at levels above 1,000 $\mu g/L$ in sample 039GP128D2 (1,604 $\mu g/L$) and in sample 039GP119D2 (1,174 $\mu g/L$). Both of these boring locations are on the south side of Building 1608B.

In the D3 zone, samples 039GP125D3 (1,319 $\mu g/L$), 039GP118 (1,248 $\mu g/L$), and 039GP119 (1,285 $\mu g/L$) exceeded 1,000 $\mu g/L$ total CVOC concentrations. Borings A039GP118 and A039GP119 are both located on the south side of Building 1608B near the D2 zone of elevated concentration greater than 1,000 $\mu g/L$. Sample boring A039GP125 is located on the north side of Building 1608A.

These results were used to develop the overall IMWP described in Section 3.0.

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP115	039GP115-I	1,2-Dichloroethene (total)	2.1	J
		Acetone	3.9	J
		cis-1,2-Dichloroethylene	2.1	J
		Trichloroethylene (TCE)	0.76	J
	039GP115D1	1,2-Dichloroethene (total)	62.8	=
		Acetone	4.2	J
		Benzene	0.46	J
		cis-1,2-Dichloroethylene	62.8	=
		Trichloroethylene (TCE)	47.3	=
		Vinyl chloride	1.6	J
	039GP115D2	1,2-Dichloroethene (total)	5.8	=
		Acetone	43.7	J
		Benzene	0.58	J
		cis-1,2-Dichloroethylene	5.8	=
		Methyl ethyl ketone (2-Butanone)	9.5	J
		Toluene	0.77	J
		Trichloroethylene (TCE)	1.7	J
A039GP116	039GP116-I	1,2-Dichloroethene (total)	24.3	=
		Acetone	4	J
		cis-1,2-Dichloroethylene	24.3	=
		Trichloroethylene (TCE)	7.6	=
		Vinyl chloride	0.96	J
	039GP116D1	1,1-Dichloroethane	1.1	J
		1,2-Dichloroethene (total)	67	=
		Acetone	3.9	J
		cis-1,2-Dichloroethylene	66.6	=
		trans-1,2-Dichloroethene	0.44	J
		Trichloroethylene (TCE)	18.1	=
		Vinyl chloride	3.8	J
	039GP116D2	1,1-Dichloroethane	1	J
		1,2-Dichloroethene (total)	68.5	=
		Acetone	3.5	J
		cis-1,2-Dichloroethylene	68.5	=
		Trichloroethylene (TCE)	17.3	=
		Vinyl chloride	3.2	J

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP116 (cont)	039GP116D3	1,1-Dichloroethane	3	J
		1,1-Dichloroethene	3.8	J
		1,2-Dichloroethene (total)	183	=
		Benzene	0.54	J
		cis-1,2-Dichloroethylene	183	=
		Tetrachloroethylene (PCE)	0.84	J
		trans-1,2-Dichloroethene	1.3	J
		Trichloroethylene (TCE)	56.1	=
		Vinyl chloride	10.5	=
A039GP117	039GP117-I	1,1-Dichloroethane	1.6	J
		1,2-Dichloroethene (total)	109	=
		Benzene	0.38	J
		cis-1,2-Dichloroethylene	109	=
		trans-1,2-Dichloroethene	0.7	J
		Trichloroethylene (TCE)	40.6	=
		Vinyl chloride	5.1	J
		1,2-Dichloroethene (total)	104	=
		cis-1,2-Dichloroethylene	104	=
	039GP117D1	1,1-Dichloroethane	7.5	=
		1,1-Dichloroethene	10	=
		1,2-Dichloroethene (total)	464	=
		Benzene	2.1	J
		cis-1,2-Dichloroethylene	464	=
		Tetrachloroethylene (PCE)	4.1	J
		Toluene	0.43	J
		trans-1,2-Dichloroethene	3	J
		Trichloroethylene (TCE)	241	=
		Vinyl chloride	22.2	=
	039GP117D2	1,1-Dichloroethane	8.9	=
		1,1-Dichloroethene	11.1	=
		1,2-Dichloroethene (total)	554	=
		Benzene	2.1	J
		cis-1,2-Dichloroethylene	554	=
		Tetrachloroethylene (PCE)	4.4	J
		Toluene	0.61	J
		trans-1,2-Dichloroethene	4.8	J
		Trichloroethylene (TCE)	245	=
		Vinyl chloride	32.2	=

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP117 (cont)	039GP117D3	1,1-Dichloroethane	8.3	=
		1,1-Dichloroethene	10.3	=
		1,2-Dichloroethene (total)	530	=
		Acetone	4	J
		Benzene	1.9	J
		cis-1,2-Dichloroethylene	530	=
		Tetrachloroethylene (PCE)	3.7	J
		Toluene	0.45	J
		trans-1,2-Dichloroethene	3.4	J
		Trichloroethylene (TCE)	218	=
		Vinyl chloride	29.5	=
A039GP118	039GP118-I	1,2-Dichloroethene (total)	36.6	=
		Acetone	2.9	J
		cis-1,2-Dichloroethylene	36.6	=
		Trichloroethylene (TCE)	10.8	=
		Vinyl chloride	1.2	J
	039GP118D1	1,1-Dichloroethane	4.9	J
		1,1-Dichloroethene	8.6	=
		1,2-Dichloroethene (total)	372	=
		Benzene	2.1	J
		cis-1,2-Dichloroethylene	372	=
		Tetrachloroethylene (PCE)	1.9	J
		trans-1,2-Dichloroethene	2.7	J
		Trichloroethylene (TCE)	333	=
		Vinyl chloride	14	=
	039GP118D2	1,1-Dichloroethane	8.6	=
		1,1-Dichloroethene	12.4	=
		1,2-Dichloroethene (total)	656	=
		Benzene	3.1	J
		cis-1,2-Dichloroethylene	656	=
		Tetrachloroethylene (PCE)	2.5	J
		trans-1,2-Dichloroethene	3.8	J
		Trichloroethylene (TCE)	458	=
		Vinyl chloride	27.1	=
	039GP118D3	1,1-Dichloroethane	10.4	=
		1,1-Dichloroethene	15.1	=
		1,2-Dichloroethene (total)	705	=
		Benzene	3.7	J
		cis-1,2-Dichloroethylene	705	=

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP118 (cont)	039GP118D3	Tetrachloroethylene (PCE)	3.6	J
		trans-1,2-Dichloroethene	4.8	J
		Trichloroethylene (TCE)	490	=
		Vinyl chloride	34.7	=
A039GP119	039GP119-I	1,1-Dichloroethene	0.44	J
		1,2-Dichloroethene (total)	21.7	J
		Acetone	4.1	J
		cis-1,2-Dichloroethylene	21.7	J
		Trichloroethylene (TCE)	7.2	J
	039GP119D1	1,1-Dichloroethene	2.4	J
		1,2-Dichloroethene (total)	64.9	=
		Acetone	4.7	J
		cis-1,2-Dichloroethylene	64.9	=
		Trichloroethylene (TCE)	137	=
		1,1-Dichloroethane	5.5	J
		1,1-Dichloroethene	10.8	J
		1,2-Dichloroethene (total)	452	=
		Benzene	3.3	J
		cis-1,2-Dichloroethylene	452	=
		Trichloroethylene (TCE)	700	=
		Vinyl chloride	6.2	J
	039GP119D3	1,1-Dichloroethane	5.7	J
		1,1-Dichloroethene	10.1	J
		1,2-Dichloroethene (total)	471	=
		Benzene	3.6	J
		cis-1,2-Dichloroethylene	467	=
		trans-1,2-Dichloroethene	3.8	J
		Trichloroethylene (TCE)	795	=
A039GP120	039GP120-I	1,1-Dichloroethene	0.79	J
		1,2-Dichloroethene (total)	38.8	=
		Acetone	2.6	J
		cis-1,2-Dichloroethylene	38.8	=
		Trichloroethylene (TCE)	24.6	=
		Vinyl chloride	0.7	J
	039GP120D1	1,1-Dichloroethene	0.8	J
		1,2-Dichloroethene (total)	35	=
		Acetone	2.8	J
		cis-1,2-Dichloroethylene	34.6	=

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP120 (cont)		trans-1,2-Dichloroethene	0.39	J
		Trichloroethylene (TCE)	39.9	=
	039GP120D2	1,1-Dichloroethane	1.6	J
		1,1-Dichloroethene	1.9	J
		1,2-Dichloroethene (total)	107	=
		Acetone	15.2	J
		Benzene	0.72	J
		cis-1,2-Dichloroethylene	106	J
		trans-1,2-Dichloroethene	0.44	J
		Trichloroethylene (TCE)	86	=
		Vinyl chloride	1.8	J
	039GP120D3	1,1-Dichloroethane	12.4	J
		1,1-Dichloroethene	16.6	J
		1,2-Dichloroethane	16.2	J
		1,2-Dichloroethene (total)	840	=
		Benzene	5	J
		cis-1,2-Dichloroethylene	835	=
		Tetrachloroethylene (PCE)	19	J
		trans-1,2-Dichloroethene	5.2	J
		Trichloroethylene (TCE)	748	=
		Vinyl chloride	23.9	J
A039GP121	039GP121-I	1,2-Dichloroethene (total)	0.4	J
		Acetone	2.8	J
		cis-1,2-Dichloroethylene	0.4	J
	039GP121D1	1,2-Dichloroethene (total)	4.1	J
		cis-1,2-Dichloroethylene	4.1	J
		Trichloroethylene (TCE)	1.5	J
	039GP121D2	1,1-Dichloroethane	6.4	J
		1,1-Dichloroethene	8.7	J
		1,2-Dichloroethene (total)	453	=
		Acetone	2.9	J
		Benzene	0.73	J
		cis-1,2-Dichloroethylene	448	=
		Tetrachloroethylene (PCE)	3.3	J
		trans-1,2-Dichloroethene	5.5	J
		Trichloroethylene (TCE)	81.3	J
		Vinyl chloride	21.8	J

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP121 (cont)	039GP121D3	1,1-Dichloroethane	8.7	J
		1,1-Dichloroethene	11.8	J
		1,2-Dichloroethene (total)	631	=
		Acetone	5	J
		Benzene	0.76	J
		cis-1,2-Dichloroethylene	624	=
		Tetrachloroethylene (PCE)	3.9	J
		trans-1,2-Dichloroethene	7.5	J
		Trichloroethylene (TCE)	148	=
		Vinyl chloride	29.6	J
A039GP122	039GP122D1	1,2-Dichloroethene (total)	2.2	J
		Acetone	2.8	J
		cis-1,2-Dichloroethylene	2.2	J
		Trichloroethylene (TCE)	0.57	J
	039GP122D2	1,1-Dichloroethane	1.9	J
		1,1-Dichloroethene	1.1	J
		1,2-Dichloroethene (total)	90.8	=
		cis-1,2-Dichloroethylene	89.7	=
		Tetrachloroethylene (PCE)	4.9	J
		trans-1,2-Dichloroethene	1.2	J
		Trichloroethylene (TCE)	15.2	=
		Vinyl chloride	5.6	J
	039GP122D3	1,1-Dichloroethane	1.8	J
		1,1-Dichloroethene	1.2	J
		1,2-Dichloroethene (total)	84.8	=
		cis-1,2-Dichloroethylene	83.6	=
		Tetrachloroethylene (PCE)	4.8	J
		trans-1,2-Dichloroethene	1.1	J
		Trichloroethylene (TCE)	15.3	=
		Vinyl chloride	5.6	J
A039GP123	039GP123-I	1,2-Dichloroethene (total)	0.31	J
		Acetone	2.4	J
		cis-1,2-Dichloroethylene	0.31	J
	039GP123-D1	1,2-Dichloroethene (total)	3.2	J
		Acetone	3	J
		cis-1,2-Dichloroethylene	3.2	J
		Trichloroethylene (TCE)	0.46	J

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP123 (cont)	039GP123D2	1,1-Dichloroethene	0.51	J
		1,2-Dichloroethene (total)	42.5	=
		cis-1,2-Dichloroethylene	42.1	=
		trans-1,2-Dichloroethene	0.38	J
		Trichloroethylene (TCE)	6.3	=
		Vinyl chloride	1.6	J
	039GP123D3	1,2-Dichloroethene (total)	41.9	J
		cis-1,2-Dichloroethylene	41.9	J
		Trichloroethylene (TCE)	6.5	J
		Vinyl chloride	1.6	J
A039GP124	039GP124-I	1,2-Dichloroethene (total)	0.61	J
		Acetone	2.4	J
		cis-1,2-Dichloroethylene	0.61	J
	039GP124D1	1,2-Dichloroethene (total)	11.5	=
		cis-1,2-Dichloroethylene	11.5	=
		Trichloroethylene (TCE)	4.5	J
	039GP124D2	1,1-Dichloroethane	9.4	J
		1,1-Dichloroethene	16	J
		1,2-Dichloroethene (total)	773	=
		Acetone	3.5	J
		Benzene	1.2	J
		cis-1,2-Dichloroethylene	767	=
		Tetrachloroethylene (PCE)	0.36	J
		trans-1,2-Dichloroethene	9.6	J
		Trichloroethylene (TCE)	248	=
		Vinyl chloride	36.1	J
	039GP124D3	1,1-Dichloroethane	7.6	J
		1,1-Dichloroethene	12.6	J
		1,2-Dichloroethene (total)	634	=
		Acetone	2.8	J
		Benzene	1.1	J
		cis-1,2-Dichloroethylene	627	=
		trans-1,2-Dichloroethene	7.4	J
		Trichloroethylene (TCE)	174	=
		Vinyl chloride	27.3	J

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP125	039GP125-I	1,2-Dichloroethene (total)	15.8	=
		cis-1,2-Dichloroethylene	15.8	=
		Trichloroethylene (TCE)	5.5	=
	039GP125D1	1,2-Dichloroethene (total)	12.1	=
		cis-1,2-Dichloroethylene	12.1	=
		Trichloroethylene (TCE)	3.2	J
	039GP125D2	1,1-Dichloroethane	5.3	J
		1,1-Dichloroethene	6.4	J
		1,2-Dichloroethene (total)	374	J
		Acetone	5.3	J
		Benzene	0.58	J
		cis-1,2-Dichloroethylene	371	J
		Tetrachloroethylene (PCE)	0.7	J
		trans-1,2-Dichloroethene	3.7	J
		Trichloroethylene (TCE)	69.2	J
		Vinyl chloride	14.9	J
	039GP125D3	1,1-Dichloroethane	12.6	J
		1,1-Dichloroethene	17.2	J
		1,2-Dichloroethene (total)	909	=
		Acetone	4	J
		Benzene	0.95	J
		cis-1,2-Dichloroethylene	901	=
		Tetrachloroethylene (PCE)	2.7	J
		trans-1,2-Dichloroethene	8.5	J
		Trichloroethylene (TCE)	331	=
		Vinyl chloride	38.1	J
A039GP126	039GP126-I	1,2-Dichloroethene (total)	10.3	=
		cis-1,2-Dichloroethylene	10.3	=
		Trichloroethylene (TCE)	1.2	J
	039GP126D1	1,1-Dichloroethane	0.66	J
		1,2-Dichloroethene (total)	17.3	=
		Acetone	3.8	J
		cis-1,2-Dichloroethylene	17.3	=
		Tetrachloroethylene (PCE)	0.55	J
		Trichloroethylene (TCE)	4.7	J

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP126 (cont)	039GP126D2	1,1-Dichloroethane	6	J
		1,1-Dichloroethene	7.5	J
		1,2-Dichloroethene (total)	446	=
		Acetone	2.6	J
		Benzene	0.64	J
		cis-1,2-Dichloroethylene	441	=
		Tetrachloroethylene (PCE)	27.9	J
		trans-1,2-Dichloroethene	6.5	J
		Trichloroethylene (TCE)	77.5	J
		Vinyl chloride	19.5	J
	039GP126D3	1,1-Dichloroethane	6.5	J
		1,1-Dichloroethene	7	J
		1,2-Dichloroethene (total)	340	=
		Acetone	5.6	J
		Benzene	0.77	J
		cis-1,2-Dichloroethylene	337	=
		Tetrachloroethylene (PCE)	22.3	J
		trans-1,2-Dichloroethene	3.8	J
		Trichloroethylene (TCE)	71	J
		Vinyl chloride	21	J
A039GP127	039GP127-I	1,1-Dichloroethene	2.3	J
		1,2-Dichloroethene (total)	53	=
		cis-1,2-Dichloroethylene	52.6	=
		trans-1,2-Dichloroethene	0.46	J
		Trichloroethylene (TCE)	35.9	=
		Vinyl chloride	2.8	J
	039GP127D1	1,1-Dichloroethene	0.94	J
		1,2-Dichloroethene (total)	19	=
		Acetone	4.8	J
		cis-1,2-Dichloroethylene	19	=
		Tetrachloroethylene (PCE)	1	J
		Trichloroethylene (TCE)	34.6	=
	039GP127D2	1,1-Dichloroethane	7.4	J
		1,1-Dichloroethene	9.3	J
		1,2-Dichloroethene (total)	454	=
		Acetone	3.5	J
		Benzene	2.3	J
		cis-1,2-Dichloroethylene	454	=
		Tetrachloroethylene (PCE)	15.7	J

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP127 (cont)	039GP127D2	trans-1,2-Dichloroethene	4.1	J
		Trichloroethylene (TCE)	208	=
		Vinyl chloride	29.1	J
	039GP127D3	1,1-Dichloroethane	7.6	=
		1,1-Dichloroethene	10	=
		1,2-Dichloroethene (total)	473	=
		Acetone	6.6	J
		Benzene	2.4	J
		cis-1,2-Dichloroethylene	473	=
		Tetrachloroethylene (PCE)	15	=
		trans-1,2-Dichloroethene	4	J
		Trichloroethylene (TCE)	215	=
		Vinyl chloride	28.5	=
A039GP128	039GP128-I	1,1-Dichloroethene	1	J
		1,2-Dichloroethene (total)	56.6	=
		Acetone	2.8	J
		cis-1,2-Dichloroethylene	55.1	=
		trans-1,2-Dichloroethene	1.5	J
		Trichloroethylene (TCE)	8.9	=
		Vinyl chloride	1.1	J
	039GP128D1	1,1-Dichloroethene	3.2	J
		1,2-Dichloroethene (total)	65.6	=
		Acetone	2.4	J
		Benzene	0.45	J
		cis-1,2-Dichloroethylene	65.2	=
		Tetrachloroethylene (PCE)	1.3	J
		trans-1,2-Dichloroethene	0.49	J
		Trichloroethylene (TCE)	203	=
		Vinyl chloride	0.96	J
	039GP128D2	1,1-Dichloroethane	12	J
		1,1-Dichloroethene	15.5	J
		1,2-Dichloroethene (total)	891	J
		Acetone	6	J
		Benzene	3	J
		cis-1,2-Dichloroethylene	887	J
		Tetrachloroethylene (PCE)	6.1	J
		trans-1,2-Dichloroethene	5.2	J
		Trichloroethylene (TCE)	655	J
		Vinyl chloride	19.2	J

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP128 (cont)	039GP128D3	1,1-Dichloroethane	8.3	J
		1,1-Dichloroethene	10.9	J
		1,2-Dichloroethene (total)	616	J
		Acetone	7.8	J
		Benzene	2	J
		cis-1,2-Dichloroethylene	616	J
		Tetrachloroethylene (PCE)	8.7	J
		trans-1,2-Dichloroethene	2.3	J
		Trichloroethylene (TCE)	388	J
		Vinyl chloride	15.8	J
A039GP129	039GP12928	1,1-Dichloroethane	1.1	J
		1,2-Dichloroethene (total)	37.5	=
		cis-1,2-Dichloroethylene	36.8	=
		trans-1,2-Dichloroethene	0.68	J
		Trichloroethylene (TCE)	10.7	=
	039GP12938	1,1-Dichloroethane	1.2	J
		1,2-Dichloroethene (total)	44.2	=
		cis-1,2-Dichloroethylene	43.8	=
		trans-1,2-Dichloroethene	0.41	J
		Trichloroethylene (TCE)	14.3	=
	039GP12942	1,1-Dichloroethane	4.5	J
		1,2-Dichloroethene (total)	332	=
		Benzene	0.74	J
		cis-1,2-Dichloroethylene	328	=
		trans-1,2-Dichloroethene	4.3	J
		Trichloroethylene (TCE)	44.1	=
		Vinyl chloride	24.4	=
	039GP12946	1,1-Dichloroethane	4.7	J
		1,2-Dichloroethene (total)	351	=
		Benzene	0.73	J
		cis-1,2-Dichloroethylene	346	=
		Tetrachloroethylene (PCE)	0.36	J
		trans-1,2-Dichloroethene	5.1	=
		Trichloroethylene (TCE)	49.1	=
		Vinyl chloride	23.2	=
A039GP130	039GP13038	1,1-Dichloroethane	1.1	J
		1,2-Dichloroethene (total)	57.5	=
		Benzene	0.37	J

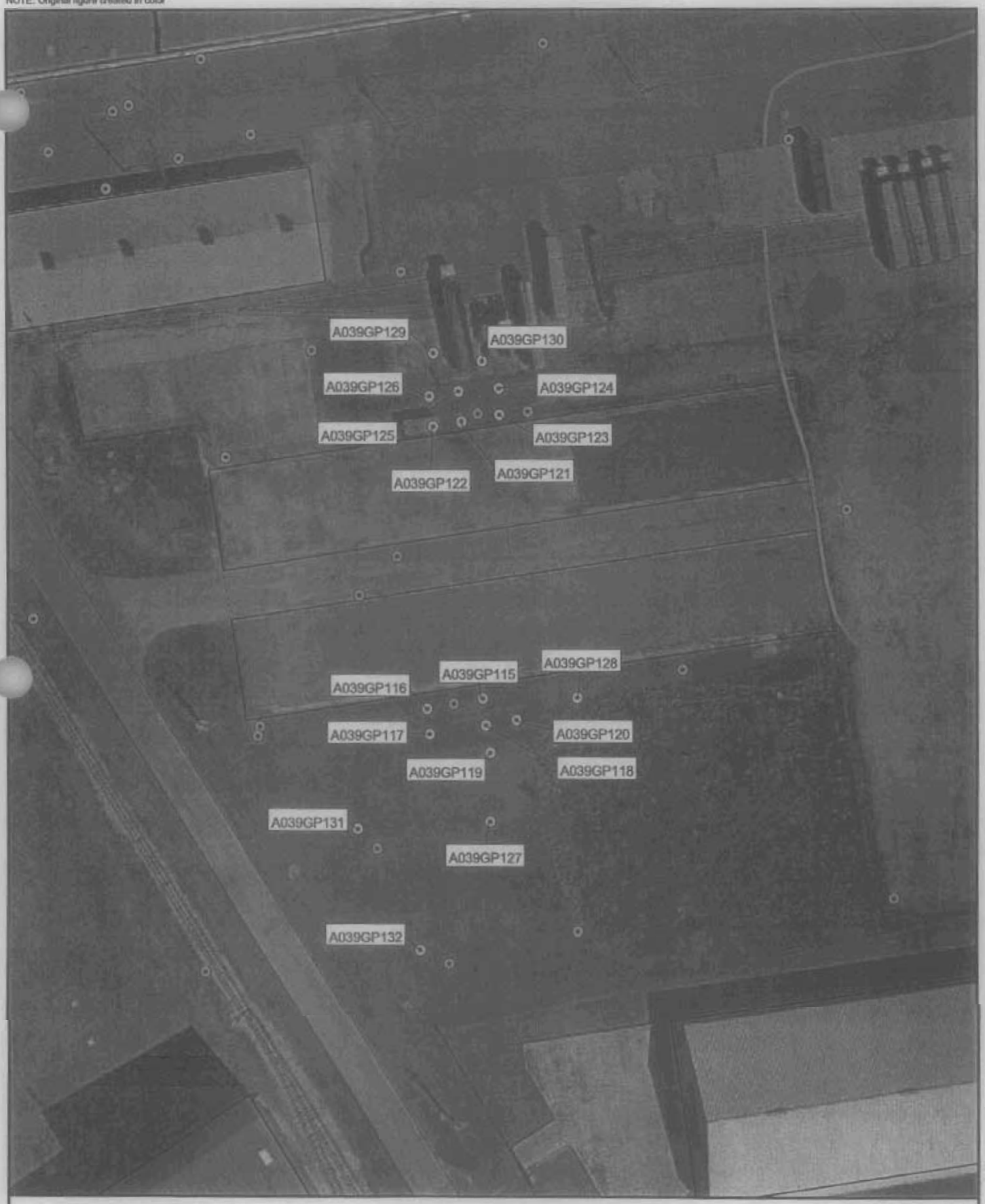
TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP130 (cont)	039GP13038	cis-1,2-Dichloroethylene	56.8	=
		trans-1,2-Dichloroethene	0.72	J
		Trichloroethylene (TCE)	28.1	=
	039GP13042	1,1-Dichloroethane	1.1	J
		1,2-Dichloroethene (total)	75.3	=
		cis-1,2-Dichloroethylene	74.8	=
		trans-1,2-Dichloroethene	0.56	J
		Trichloroethylene (TCE)	19.8	=
		Vinyl chloride	4.4	J
	039GP13046	1,1-Dichloroethane	1.5	J
		1,2-Dichloroethene (total)	96.5	=
		cis-1,2-Dichloroethylene	95.6	=
		Tetrachloroethylene (PCE)	0.48	J
		trans-1,2-Dichloroethene	0.92	J
		Trichloroethylene (TCE)	26.1	=
		Vinyl chloride	5.7	J
A039GP131	039GP13128	1,2-Dichloroethene (total)	4.1	J
		cis-1,2-Dichloroethylene	4.1	J
		Trichloroethylene (TCE)	2.6	J
	039GP13138	1,1-Dichloroethane	0.69	J
		1,2-Dichloroethene (total)	36	=
		cis-1,2-Dichloroethylene	36	=
		Trichloroethylene (TCE)	21.4	=
	039GP13142	1,2-Dichloroethene (total)	10.5	=
		cis-1,2-Dichloroethylene	10.5	=
		Trichloroethylene (TCE)	4.8	J
	039GP13146	1,2-Dichloroethene (total)	11.2	=
		cis-1,2-Dichloroethylene	11.2	=
		Trichloroethylene (TCE)	4.9	J
A039GP132	039GP13238	1,1-Dichloroethane	0.94	J
		1,2-Dichloroethene (total)	49.2	=
		cis-1,2-Dichloroethylene	48.8	=
		Tetrachloroethylene (PCE)	3.4	J
		trans-1,2-Dichloroethene	0.49	J
		Trichloroethylene (TCE)	7.6	=
		Vinyl chloride	4.4	J

TABLE 2-1
Summary of Detected VOCs in DPT Samples
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Station ID	Sample ID	Parameter	Concentration (µg/ L)	Qualifier
A039GP132 (cont)	039GP13242	1,1-Dichloroethane	4	J
		1,2-Dichloroethene (total)	231	=
		Benzene	0.57	J
		cis-1,2-Dichloroethylene	229	=
		Tetrachloroethylene (PCE)	7	=
		trans-1,2-Dichloroethene	2.2	J
		Trichloroethylene (TCE)	27.9	=
		Vinyl chloride	9.4	J
	039GP13246	1,1-Dichloroethane	5.1	=
		1,2-Dichloroethene (total)	274	=
		Benzene	0.76	J
		cis-1,2-Dichloroethylene	270	=
		Tetrachloroethylene (PCE)	20.3	=
		trans-1,2-Dichloroethene	3.6	J
		Trichloroethylene (TCE)	51.2	=
		Vinyl chloride	15.6	=

NOTE: Aerial Photo Date is 1997
NOTE: Original figure created in color



Groundwater Probe

N

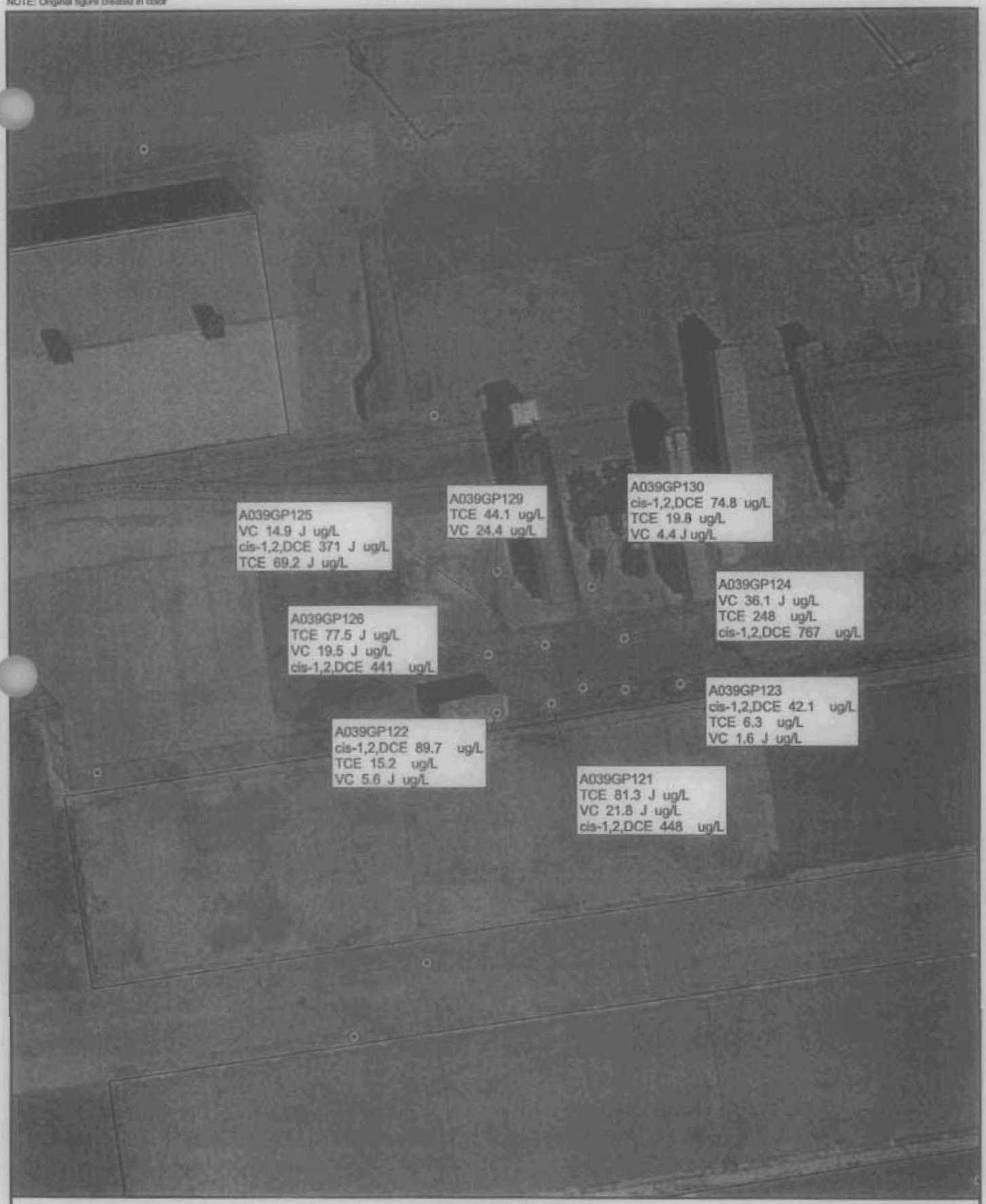
0 60 120 Feet

1 inch = 73.6076 feet

Figure 2-1
Source Area DPT Borings
SWMU 39, Zone A
Charleston Naval Complex

File Path: c:\18gis\cnc\cnc-egis.apr, Date: 16 Mar 2004 11:29, User: DWILLIAM, EGIS: Charleston Naval Complex - Figure 2-1 Source Area DPT Borings

NOTE: Aerial Photo Date is 1997
NOTE: Original figure created in color



⊙ Groundwater Probe

N

0 30 60 Feet

1 inch = 38.1357 feet

Figure 2-2
TCE, cis-1,2 DCE, and VC in D2 Interval Groundwater
TTA 1A, SWMU 39 Source Area Delineation
Charleston Naval Complex

NOTE: Aerial Photo Date is 1997
NOTE: Original figure created in color

⊙ Groundwater Probe

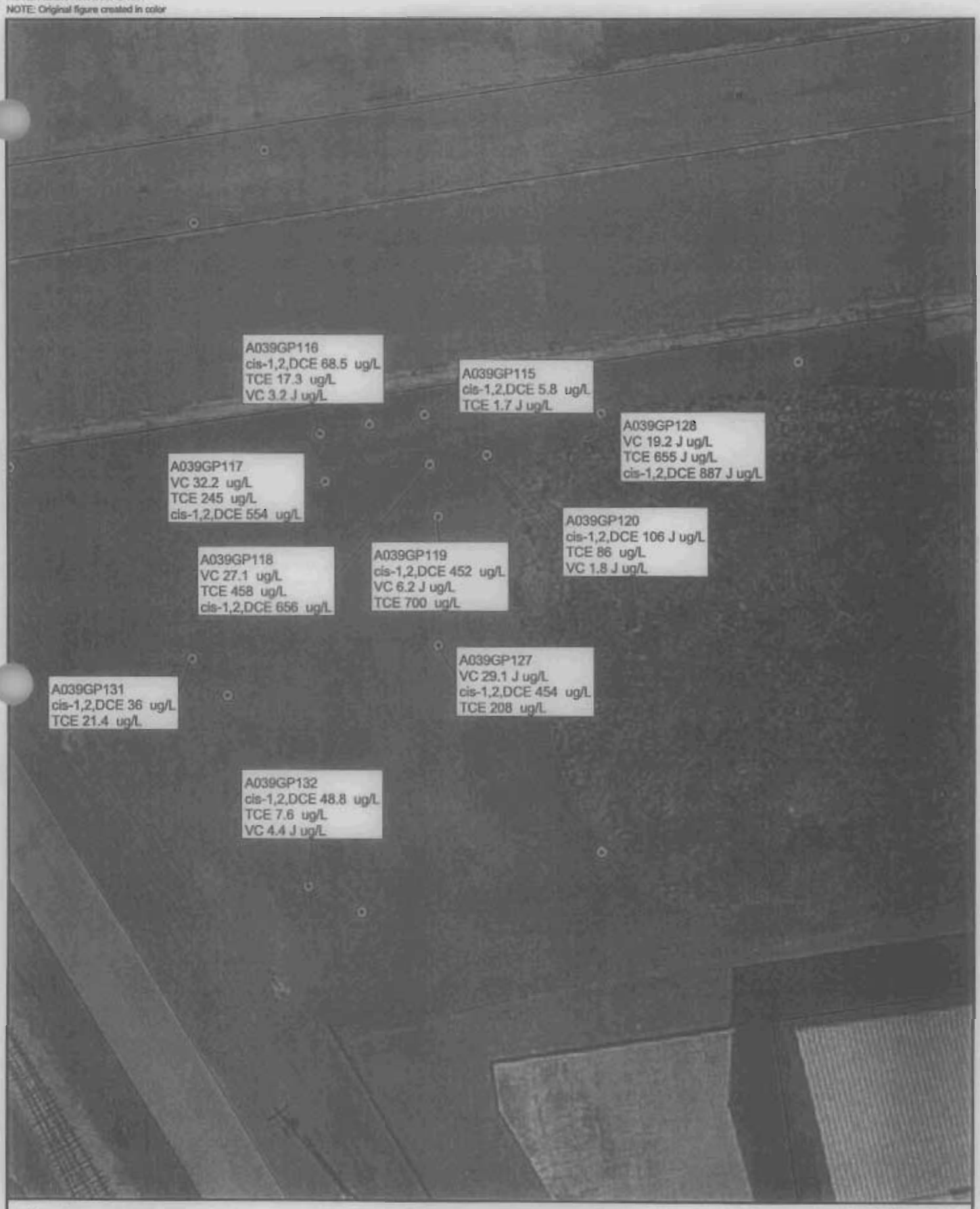
N

0 30 60 Feet

1 inch = 39.2778 feet

Figure 2-3
TCE, 1,2 DCE, and VC in D3 Interval Groundwater
TTA 1A, SWMU 39 Source Area Delineation
Charleston Naval Complex

NOTE: Aerial Photo Date is 1997
NOTE: Original figure created in color



Groundwater Probe

N

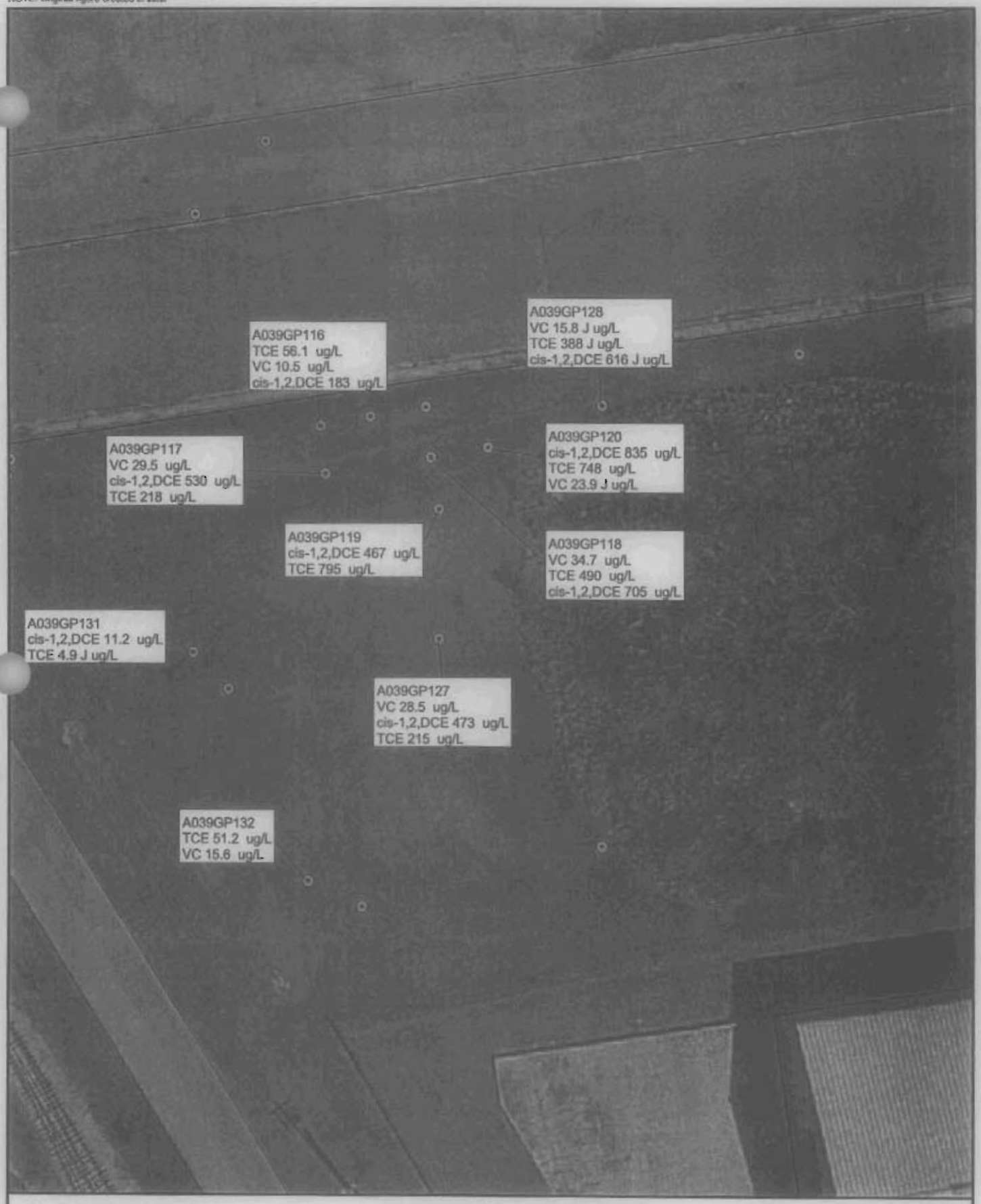
0 30 60 Feet

1 inch = 39.2778 feet

Figure 2-4
TCE, 1,2 DCE, and VC in D2 Interval Groundwater
TTA 1B, SWMU 39 Source Area Delineation
Charleston Naval Complex

File Path: c:\11fgis\cnc\cnc-egis.apr, Date: 16 Mar 2004 16:21, User: DWILLIAM, EGIS: Charleston Naval Complex - Figure 2-4 TCE, 1,2 DCE, and VC in D2 Interval Groundwater

NOTE: Aerial Photo Date is 1997
NOTE: Original figure created in color



Groundwater Probe

N

0 30 60 Feet

1 inch = 39.2778 feet

Figure 2-5
TCE, 1,2 DCE, and VC in D3 Interval Groundwater
TTA 1B SWMU 39 Source Area Delineation
Charleston Naval Complex

File Path: c:\18gis\cnc\cnc-egis.apr, Date: 16 Mar 2004 16:42, User: DWILLIAM, EGIS: Charleston Naval Complex - Figure 2-5 TCE, 1,2 DCE, and VC in D3

Section 3.0

3.0 Interim Measure Work Plan

To expedite implementation of this source area treatment, the BRAC Cleanup Team (BCT) has agreed to perform this source area activity as an IM. Prior to implementing the enhanced in situ anaerobic biodegradation source control alternative, the presence and size of the suspected source area required confirmation. The suspected source area was investigated further with DPT sampling of the intermediate and deep groundwater zones as described in Section 2.0 of this document. This section discusses the approach for implementing the IM in the surficial aquifer zones previously identified as having the greatest total VOC groundwater concentrations.

3.1 Selection of Source Control Corrective Measure Alternative

As documented in the *Corrective Measures Study Report SWMU 39, Zone A, Revision 0* (CH2M-Jones, 2002), in situ chemical reduction using zero-valent iron (ZVI) was selected from a variety of feasible alternatives as the source control corrective measure alternative. However, because of its propriety processes, implementation of the technology at SWMU 39, which has a relatively small source area footprint, made the alternative economically unfeasible.

As a result, CH2M-Jones evaluated other source control corrective measure alternatives that are considered viable options at SWMU 39. Based on the evaluation of available viable technologies and conditions at SWMU 39, the recommended corrective measure approach is to employ enhanced in situ anaerobic biodegradation using a soluble substrate as the source control alternative. Implementation of the enhanced in situ anaerobic biodegradation as the source control alternative will involve injection of a soluble electron donor material into two defined TTAs near existing Buildings 1608A and 1608B. This IMWP describes the general technical approach and procedures to be employed for achieving reductive dechlorination of CVOCs using enhanced in situ anaerobic biodegradation.

During the 2001 pilot study, HRC® was injected in three distinct locations at SWMU 39 with limited success and slow rate of dissolved-phase CVOC degradation. Based on the lessons learned from this study, a more soluble substrate will be injected to promote better distribution.

3.2 Technology Description

The main CVOC biodegradation mechanism in anaerobic-reducing environments is reductive dechlorination, which involves the sequential replacement of chlorine atoms on the alkene molecule by hydrogen atoms. The chlorinated ethenes serve as electron acceptors in these degradation reactions. Carbon compounds such as sugars, alcohols, and fatty acids serve as electron donors. This natural process is occurring to some extent at SWMU 39. This alternative would include more active measures in the source areas to accelerate the naturally occurring process. In anaerobic reductive dechlorination, a carbon atom in the chlorinated solvent accepts an electron from an electron donor (reduction), causing the release of a chlorine atom (dechlorination). The more chlorine atoms a compound has, the more oxidized its carbon is, and the more susceptible it is to reductive dechlorination. This results in sequential dechlorination of a contaminant. The general reductive dechlorination process results in the formation of breakdown products as detailed below:

PCE ⇒ TCE ⇒ DCE ⇒ vinyl chloride ⇒ ethene

The observation of both DCE and vinyl chloride in groundwater samples at the site (as described in Section 2.0 of this report) suggests that the reductive dechlorination process is already proceeding at the site and that the potential exists for further stimulating this process via the introduction of a biodegradable substrate.

The dechlorination process is effective for dissolved-phase CVOCs and has some success with dense non-aqueous phase liquid (DNAPL)-level concentrations of chlorinated solvents where *Dehalococcoides etheneogenes* (DHE) has been shown to be active at the DNAPL-water interface.

For anaerobic biodegradation to be successful, adequate quantities of electron donor, carbon, and nutrients must come in contact with the active microbial consortia and the target contaminants. The dehalogenation process involves the replacement of a halogen, such as chloride, with hydrogen. In natural anaerobic systems, hydrogen is the most common electron donor, released by the anaerobic fermentation of organic carbon. Anaerobic processes can be enhanced by the addition of hydrogen gas or chemicals that stimulate release of hydrogen gas to the target zone of treatment.

Selection of an appropriate substrate is an important element when designing an enhanced anaerobic dechlorination injection schedule and layout. Enhanced anaerobic biodegradation using the slow release product, HRC®, was considered in the CMS report (CH2M-Jones, 2002) as a plume control alternative at the property boundary and areas of downgradient

migration. The benefit of using HRC® is the elimination of multiple injection events because of its slow release of lactate acid upon hydration. Limitations of using HRC® include cost (as compared to soluble lactate products) and, based on CH2M-Jones's experience, a limited success outside the immediate area of injection in slow moving aquifers (e.g., velocities less than 15 feet per year [ft/yr]). While HRC® is a proven substrate for the removal of CVOCs in groundwater, experience from the 2001 pilot study at SWMU 39 suggests the potential exists for the material not to be effective at the site. As a result, a soluble lactate project is recommended as the injected electron donor material.

Soluble lactate products diluted with water can be injected through a series of closely spaced wells or through a probe with a perforated tip advanced using DPT. When diluted, this type of substrate is easily miscible with water, with little change in specific gravity.

At some sites, the activity of the naturally occurring microorganisms is significantly reduced or potentially inhibited because of site geochemical conditions. Bioaugmenation may also be applicable at SWMU 39 if incomplete dechlorination of TCE occurs, regardless of the electron donors that are used, because the appropriate bacteria are not present. Bioaugmentation involves the injection of a known microbia consortia of chlorinated solvent-degrading bacteria. At some sites, conversion of TCE to cis-1,2-DCE occurs, but further degradation does not occur, even after addition of electron donors and nutrients. Implementation of bioaugmentation with selected known chlorinated solvent-degrading consortia is known to be capable of complete dechlorination to ethene (Major et al., 2001). Complete dechlorination has occurred when bioaugmentation with microbial cultures known to be capable of complete dechlorination has been employed. Bioaugmentation is considered potentially applicable in these special cases and can be evaluated through laboratory microcosm study or pilot testing.

3.3 Target Treatment Area Delineation

The TTAs represent the interpreted lateral and vertical extent of elevated VOC concentrations that are targeted for treatment during the IM. Figure 3-1 shows the general locations of the TTAs at SWMU 39. TTA 1A is an approximate 20-by-40-foot area bounded by Geoprobe locations A039GP124 and A039GP125 north of Building 1608A. TTA 1B encompasses Geoprobe locations A039GP118, A039GP119, A039GP120, and A039GP128 and is approximately 20 feet by 100 feet, with an additional 20-by-40-foot area centered and extending downgradient of A039GP119. TTA 1B is located immediately south of Building 1608B. The targeted treatment depth in these TTAs is the deeper zone of the shallow aquifer

within approximately 8 to 12 feet of the top of the Ashley Formation. This zone extends from approximately 38 to 48 ft bls in TTA 1A and from approximately 34 to 48 ft bls in TTA 1B.

3.4 Interim Measure Objectives and Goals

The proposed approach to treating the source areas at SWMU 39, enhanced in situ anaerobic biodegradation using a soluble substrate, has been proven to be effective at a variety of sites across the U.S. and is currently being evaluated as a pilot study at Area of Concern (AOC) 607 at the CNC. Under the pilot study, potassium lactate is being injected into two existing monitoring wells at AOC 607 to assess further the degree to which the naturally present bacterial consortium in the aquifer can effectively anaerobically degrade PCE.

The aquifer at SWMU 39 is predominantly anaerobic, with dissolved oxygen (DO) concentrations less than 1 milligram per liter and oxygen-reduction potential (ORP) measurements less than 0 millivolts (mV). These conditions are considered favorable for anaerobic biodegradation via reductive dechlorination.

The enhanced anaerobic biodegradation injection system at SWMU 39 will be developed with an objective of achieving a treatment efficiency with individual VOC concentrations reduced eventually to no greater than 100 μg/L. The actual treatment effectiveness achieved may be somewhat above or below this target and will be determined through post-treatment monitoring.

3.5 Pilot Study Approach

As part of the project scope, several individual tasks will be performed to effectively meet the goals documented in this IMWP. The following list summarizes the sequence of field activities and related tasks.

1. Injection and monitoring well installation;
2. Baseline characterization (sampling and analysis) of microbiological and geochemical indicators and groundwater VOC concentrations;
3. Injection of soluble electron donor; and
4. Post-injection performance monitoring.

Each of these key activities is described below.

3.5.1 Injection and Monitoring Well Installation

Number and Location

Injection wells will be installed in areas of elevated TCE and cis-1,2-DCE concentration in TTAs 1A and 1B. Two injection wells spaced approximately 20 feet apart will be installed in TTA 1A. Similarly, five injection wells spaced approximately 20 feet apart will be installed in TTA 1B. The proposed injection well locations are depicted in Figure 3-1. In each TTA, the wells will be designed in a line perpendicular to groundwater flow. One additional injection well will be installed in TTA 1B near former Geoprobe A039GP119.

To evaluate electron donor distribution and performance, five additional monitoring wells (one in TTA 1A and four in TTA 1B) will be installed within the TTAs. Proposed monitoring wells, presented in Figure 3-1, will be positioned approximately 10 feet downgradient of the injection row layout. Location of injection wells must account for underground and overhead utilities and other site obstructions.

Method and Construction

Hollow-stem auger drilling techniques will be used to install the injection and monitoring wells through a minimum borehole diameter of 8 inches. Injection and monitoring wells will be screened from 38 to 48 ft bls in both TTAs.

Each injection and monitoring well will be installed with a 2-inch diameter, Schedule 40 PVC 0.02-inch slotted screen. The well casing and screen will be constructed using internal flush joined threaded joints. The filter pack material will be sand, with a grain-size distribution curve that meets the 4-20 gradation specification.

Each well will be completed with a flush mounted well vault and locking cover. The well installation will be performed in accordance with the South Carolina Well Standards and Regulations (R.61-71).

3.5.2 Baseline Characterization Sampling and Analysis

Although the site has been well characterized for the purposes of the RFI and this IM, additional specific sampling will enhance the understanding regarding the amenability of the site to the enhanced reductive dechlorination (ERD) process, nature of the native microbiological consortium at the site, and current VOC concentrations in the TTAs. The proposed sampling and analysis includes groundwater analysis for VOCs, plus several recently developed analyses to assess the general nature of the native site bacteria.

Some recent studies have indicated that the presence of a unique bacteria species (DHE) in the aquifer may indicate that the native bacterial consortium at a site may be able to completely dechlorinate PCE to ethene. DHE is unique in that it is an obligate dehalorespiring bacteria. It uses chlorinated ethene solvents exclusively as its terminal electron acceptors and is one of the few bacteria identified that can anaerobically dechlorinate DCE to vinyl chloride and then to ethene. Sampling and analysis of site groundwater and aquifer material to assess the presence of DHE will be conducted prior to implementation of the substrate injection. If naturally present in the aquifer, DHE bacteria may allow for the complete anaerobic dechlorination of PCE without requiring the addition of supplemental bacteria.

The presence of DHE bacteria can be detected using several DNA test methods developed in recent years, such as the Polymerase Chain Reaction (PCR), whereby traces of DNA, specific only to microbes of interest, are amplified from environmental samples such that they can be identified. This approach does not allow for specific quantification of the existing and present microbial population. However, a recently developed analytical method (Real Time PCR) allows for quantification of the number of microbes detected, as well as their identification. CH2M-Jones proposes to perform Real Time PCR tests on groundwater and soil samples as part of the baseline testing to assess the presence and number of DHE organisms at SWMU 39. Only a few laboratories conduct this analysis commercially. CH2M-Jones proposes to use Microbial Insights, Inc., in Knoxville, TN, for this analysis.

In addition to testing for DHE using Real Time PCR, CH2M-Jones proposes to conduct analysis of soil and groundwater samples for phospholipid fatty acid (PLFA) content. PLFAs are an important component in the metabolism of the cell. They degrade extremely quickly once a bacteria dies. Analysis for PLFAs provides a quantitative means to measure viable microbial biomass, overall bacterial community composition, and nutritional status. The PLFA analysis provides significant information regarding the overall composition of native bacterial consortium present in an aquifer. CH2M-Jones proposes to use Microbial Insights for PLFA analysis.

In addition to the Real Time PCR and PLFA analyses, groundwater samples will be collected from the proposed eight injection and six monitoring wells for VOCs, field parameters (DO, ORP, temperature, pH, conductance), sulfate/sulfide, dissolved iron and manganese, volatile fatty acids (VFAs), and alkalinity. Table 3-1 shows the proposed wells for sampling and parameters to be analyzed. Data from these analyses will provide a

baseline against which the effectiveness of the enhanced anaerobic biodegradation alternative can be compared.

3.5.3 Substrate Injection and Post Injection Monitoring

Implementation Approach

The overall approach to implementation of the enhanced anaerobic biodegradation alternative will involve injection of a fermentable substrate into the deep interval of the surficial aquifer using CH2M-Jones' newly constructed substrate injection trailer. The injection system mounted on a mobile trailer successfully injected substrate (potassium lactate) during a pilot study at AOC 607. Eight injection wells will be installed in the TTAs as part of this IM and will be used to deliver the substrate to the deep interval of the surficial aquifer. The response of the aquifer and groundwater quality will be measured downgradient of the injection to assess changes in overall biological activity and the degree of biodegradation of the VOCs.

Because native bacteria often require an acclimation period before they adjust to a change in conditions, it may take up to 6 months or possibly longer before the level of effectiveness of the substrate injection can be adequately assessed. During this period, groundwater monitoring will be performed to assess the response of the aquifer to the injection of substrate. It is expected that several injections of substrate will be required during this period to maintain or achieve the desired reducing conditions.

Substrate Selection

Because of its widespread success at many sites, lactate has been selected as the substrate to be used to stimulate the reductive dechlorination. Lactate is a naturally occurring organic compound often used in food as a preservative. There are no toxicity or health risks associated with lactate.

Injection of lactate into the aquifer stimulates the ERD process because as lactate ferments, it releases hydrogen gas, which is used as the electron donor by many bacteria, especially those involved in the anaerobic biodegradation of chlorinated solvents such as DHE. Typically lactate first degrades to pyruvate, releasing a molecule of hydrogen. Then pyruvate typically degrades to acetate, releasing another molecule of hydrogen. Thus, one molecule of lactate can provide two molecules of hydrogen, which then become available for dehalorespiring bacteria.

A solution of potassium lactate will be used for this pilot test. Potassium lactate was selected over sodium lactate due to the abundant silt and clay mineral content immediately above

the Ashley Formation, since injection of high sodium concentrations could cause swelling or other undesirable changes in the clay. Potassium lactate is typically available as a 60 percent solution, shipped in standard 55-gallon drums.

Injection Process

Prior to injection, the potassium lactate solution will be diluted with tap water to an approximately 5 to 10 percent lactate solution. Approximately 200 to 300 gallons of this lactate solution will be pumped into each injection well. A small, low pressure, double-diaphragm pump will be used to deliver the lactate solution to the injection well. Following the lactate injection, approximately 20 gallons of clean water will be injected to flush the wells and push the lactate solution out into the aquifer. The amount of lactate injected during subsequent injections may be modified based on observed field conditions.

Based on the observed downgradient effects of the injection, the volume of lactate injected during subsequent injections may be modified (increased upwards or downwards) to satisfy the biological demand observed in the aquifer.

3.5.4 Post-Injection Monitoring

Monitoring will be performed on a monthly basis during the first quarter starting after the initial injection event. During this monthly monitoring, field parameters (DO, ORP, temperature, pH, conductance) will be measured in the newly installed monitoring wells to assess the degree to which the aquifer quality is responding to the injection.

VFAs, total organic carbon (TOC), VOCs and additional parameters will be analyzed on a quarterly basis during ongoing lactate injection activities. Table 3-2 provides the post-injection monitoring schedule.

CVOCs, TOC, and VFAs are the key parameters that will be used to evaluate the effectiveness of the lactate injections. Dissolved gases will also be evaluated to assess dechlorination to ethene and ethane, the availability of hydrogen, and the presence of methane. The presence of methane demonstrates strong anaerobic conditions. The increase in biodegradation may stimulate bacteria growth, thereby increasing the dissolved iron, manganese, and sulfide in the groundwater. These parameters, along with DHE and PLFA, will be monitored during the period monitoring events, twice a year, starting 6 months after the initial injection.

Secondary performance monitoring events for parameters that can be measured with field instruments will be completed quarterly following monthly monitoring during the first

quarter after the initial injection. In addition to the VFA results, trends in decreasing TOC and increasing ORP levels will be used to schedule additional lactate injections. DO and ORP results will also be used to evaluate the degree of reducing conditions achieved in the aquifer.

Groundwater Monitoring Procedures

Groundwater monitoring will be completed using a low-flow groundwater sampling technique to collect accurate field parameters (particularly DO and ORP) and less disturbed groundwater samples for the evaluation of dissolved gases. The intake of the low-flow pump will be placed in the middle of the screened interval and purging will continue until the basic groundwater parameters stabilize (pH, temperature, and specific conductance) or until the well has been purged for 30 minutes.

The groundwater analysis will follow the procedures found in the approved Comprehensive Sampling and Analysis Plan (CSAP) portion of the RFI Work Plan (EnSafe, Inc./Allen & Hoshall, 1994). The CSAP outlines all monitoring procedures to be performed during the IM to characterize the environmental setting, source, and releases of hazardous constituents. In addition, the CSAP includes the Quality Assurance Plan (QAP) and Data Management Plan (DMP) to verify that all information and data are valid and properly documented. Unless otherwise noted, the sampling strategy and procedures will be performed in accordance with the EPA Environmental Services Division *Standard Operating Procedures and Quality Assurance Manual* (ESDSOPQAM) (1996).

3.6 Permitting

3.6.1 SCDHEC Well Installation Request

In accordance with R.61-79.265 Subpart F of the South Carolina Hazardous Waste Management Regulations and R.61-71 of the South Carolina Well Standards and Regulations, a request for the advancement of any additional monitoring wells or Geoprobe borings is required to be submitted to SCDHEC 2 weeks prior to the scheduled activity. The written request describes the purpose of the monitoring wells, injection wells and Geoprobe boring activities and consists of construction details, if required, as well as a map depicting the proposed locations.

3.6.2 SCDHEC Underground Injection Control Permit Application

An underground injection control (UIC) permit addendum to the original Zone A UIC permit (No. 538) will be prepared and submitted to SCDHEC for approval. The abbreviated

addendum will include a description of the enhanced in situ anaerobic biodegradation technology, injection method, and site figure depicting the injection and monitoring well locations. Fieldwork consisting of substrate injection will be initiated after the UIC permit application is approved by SCDHEC.

3.7 Health and Safety Monitoring

CH2M-Jones places significant emphasis on the health and safety of our personnel, our subcontractors, and the local community. Once all personnel have arrived on site as part of the mobilization phase of the IMWP, a project briefing and health and safety orientation meeting will be held. All work completed as part of this IMWP will be performed in accordance with the CH2M-Jones Site-Specific Health and Safety Plan (HASP) (CH2M-Jones, 2000).

All field personnel are responsible for following the health and safety practices identified in the CH2M-Jones HASP while performing the field activities in a safe and responsible manner.

A copy of the material safety data sheet (MSDS) for potassium lactate is included in Appendix B.

3.8 Investigation-derived Waste

Investigation-derived waste (IDW) that is generated during the IM will include purge water from the groundwater sampling activities, soil cuttings from injection and monitoring well installation, and personal protective equipment (PPE). IDW will be collected in labeled 55-gallon drums or portable tanks for proper handling. Contained IDW will remain on site temporarily until it is transported to the less-than-90-day storage facility located at Building 1824 at the CNC. Once the analytical results have been reviewed, the 55-gallon drums or portable tank containing the groundwater contents will be transported, as required, to a permitted and licensed facility for treatment or disposal.

TABLE 3-1
Baseline Characterization Sampling and Analysis
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Location	Media	Parameters
8 Injection Wells	GW	VOCs
5 Monitoring Wells	GW	VOCs, dissolved iron and manganese (field filtered), sulfate/sulfide, TOC, DHE (via Real Time PCR), PLFAs, alkalinity
4 Monitoring Wells (2 In Each TTA)	Soil (one sample collected from screened interval during well installation)	TOC, DHE (via Real Time PCR), PLFAs

TABLE 3-2
Post-Injection Performance Monitoring
Phase II Interim Measure Work Plan, SWMU 39, Zone A, Charleston Naval Complex

Parameter	Method	Sample Volume, Container, and Preservative
Monthly Parameters During the First Quarter Following Initial Injection		
DO, ORP, pH, temperature, and specific conductance	Field	Standard field instruments
Quarterly Parameters		
DO, ORP, pH, temperature, and specific conductance	Field	Standard field instruments
VOCs	SW846-8260B	3-40 ml volatile organic analysis (VOA) vial (Teflon lined cap), pH <2 HCl, cool to 4°C
Methane, ethane, and ethene (MEE)	SW8015M	2-40 ml VOA vial (Teflon lined cap), pH <2 HCl, cool to 4°C
Volatile fatty acids (VFA)	Lab method	2-40 ml VOA vial (Teflon lined cap), cool to 4°C
Total Organic Carbon (TOC)	SW9060	250mL HDPE, pH <2 H2SO4, cool to 4°C
Semiannual Parameters		
All Quarterly Parameters (see above)		
Sulfate	EPA 300.0	1L HDPE, cool to 4°C
Sulfide	EPA 376	1L HDPE, pH >9 NaOH, Zn Acetate, cool to 4°C
Dissolved iron (field filtered)	SW-846 6010B	250 or 500 mL in HDPE, preserved w/ HNO3 (pH < 2)
Dissolved manganese (field filtered)	SW-846 6010B	250 or 500 mL in HDPE, preserved w/ HNO3 (pH < 2)
Alkalinity	EPA 310.1	1L HDPE, cool to 4°C
DHE	Real-time PCR/Microbial Insights	1L poly (alcohol rinsed), cool to 4°C
PLFAs	Microbial Insights	2 1L poly (alcohol rinsed), cool to 4°C

NOTE: Original figure created in color

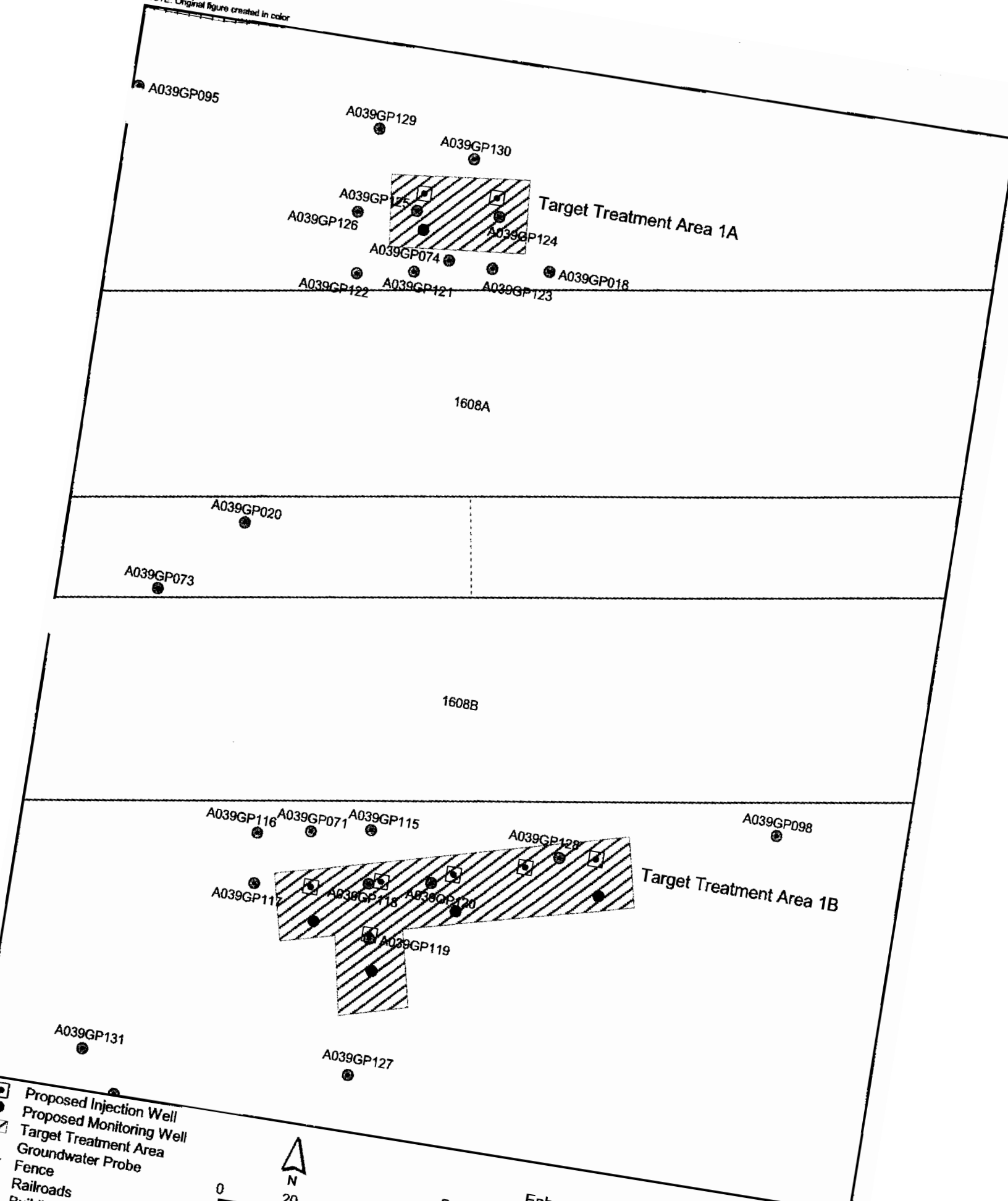


Figure 3-1
Enhanced In-situ Anaerobic Biodegradation
Substrate Injection and Performance Monitoring Layout
SWMU 39, Zone A
Charleston Naval Comple

:\18gis\Projects\Zone_A\swmu_39\aprs\swmu39_031704.apr, Date: 21 Jul 2004 9:24, User: ASPOSATO, Figure 3-1 Enhanced In-situ An

Section 4.0

4.0 Project Schedule

Implementing the enhanced in situ anaerobic biodegradation IM consists of several primary tasks. These tasks and their anticipated duration are provided below.

- Pre-construction Deliverables and Contracts – 1 to 2 Months
- Enhanced In Situ Anaerobic Biodegradation Field Activities – 6 Months Minimum
  - Injection and Monitoring Well Installation – 3 Weeks
  - Injection of Potassium Lactate Electron Donor – 1 Week
  - Subsequent injections and monitoring - Subsequent 5 months
- Phase II Interim Measure Completion Report – 2 Months after Completion of Field Activities

Pre-construction deliverables and contracts include SCDHEC approval of this Phase II IMWP; preparation and approval of the well request for both the proposed injection and monitoring wells; preparation, submittal, and subsequent approval of the UIC permit addendum; and subcontractor contract preparation.

Enhanced in situ anaerobic biodegradation field activities include identifying and marking underground utilities; injection and monitoring well installation; equipment decontamination; site restoration; and substrate injection.

The post-injection sampling and analysis, as documented in Section 3.0 of this document, includes performance monitoring of the six proposed monitoring wells for a at least 5 months following completion of the initial injection activities.

Section 5.0

5.0 References

CH2M-Jones. *Corrective Measures Study Report for SWMU 39, Zone A*. Revision 0. October 4, 2002.

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CH2M-Jones. Site-Specific Health and Safety Plan (HASP). 2000.

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Watts, R. J., Bottenberg, B. C., Hess, T. F., Jensen, M. D., and Teel, A. L. Role of reductants in the enhanced desorption and transformation of chloroaliphatic compounds by modified Fenton's reactions. *Environmental Science and Technology*, v. 33, pp. 3432-3437. 1999.

U.S. Environmental Protection Agency (EPA). *Standard Operating Procedures and Quality Assurance Manual* (ESDSOPQAM). EPA Region IV, Environmental Services Division. 1996.

Appendix A

	StationID	A039GP115		A039GP115		A039GP115	
	SampleID	039GP115-I		039GP115D1		039GP115D2	
	DateCollected	09/30/2003		09/30/2003		09/30/2003	
	DateExtracted	10/03/2003		10/03/2003		10/03/2003	
	DateAnalyzed	10/03/2003		10/03/2003		10/03/2003	
	SDGNumber	89179		89179		89179	
Parameter	Units						
Chloromethane	ug/L	10	UJ	10	UJ	10	UJ
Vinyl chloride	ug/L	10	U	1.6	J	10	U
Bromomethane	ug/L	10	U	10	U	10	U
Chloroethane	ug/L	10	U	10	U	10	U
1,1-Dichloroethene	ug/L	5	U	5	U	5	U
Acetone	ug/L	3.9	J	4.2	J	43.7	J
Carbon Disulfide	ug/L	5	U	5	U	5	U
Methylene Chloride	ug/L	5	U	5	U	5	U
trans-1,2-Dichloroethene	ug/L	5	U	5	U	5	U
1,1-Dichloroethane	ug/L	5	U	5	U	5	U
Vinyl acetate	ug/L	10	U	10	U	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	9.5	J
cis-1,2-Dichloroethylene	ug/L	2.1	J	62.8	=	5.8	=
1,2-Dichloroethene (total)	ug/L	2.1	J	62.8	=	5.8	=
Chloroform	ug/L	5	U	5	U	5	U
1,1,1-Trichloroethane	ug/L	5	U	5	U	5	U
Carbon Tetrachloride	ug/L	5	U	5	U	5	U
1,2-Dichloroethane	ug/L	5	U	5	U	5	U
Benzene	ug/L	5	U	0.46	J	0.58	J
Trichloroethylene (TCE)	ug/L	0.76	J	47.3	=	1.7	J
1,2-Dichloropropane	ug/L	5	U	5	U	5	U
Bromodichloromethane	ug/L	5	U	5	U	5	U
2-Chloroethyl vinyl ether	ug/L	10	R	10	UJ	10	UJ
cis-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	10	U
Toluene	ug/L	5	U	5	U	0.77	J
trans-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
1,1,2-Trichloroethane	ug/L	5	U	5	U	5	U
2-Hexanone	ug/L	10	U	10	U	10	U
Tetrachloroethylene (PCE)	ug/L	5	U	5	U	5	U

	StationID	A039GP116		A039GP116		A039GP116	
	SampleID	039GP116-I		039GP116D1		039GP116D2	
	DateCollected	09/30/2003		09/30/2003		09/30/2003	
	DateExtracted	10/03/2003		10/03/2003		10/03/2003	
	DateAnalyzed	10/03/2003		10/03/2003		10/03/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	10	UJ	10	UJ
Vinyl chloride	ug/L	0.96	J	3.8	J	3.2	J
Bromomethane	ug/L	10	U	10	U	10	U
Chloroethane	ug/L	10	U	10	U	10	U
1,1-Dichloroethene	ug/L	5	U	5	U	5	U
Acetone	ug/L	4	J	3.9	J	3.5	J
Carbon Disulfide	ug/L	5	U	5	U	5	U
Methylene Chloride	ug/L	5	U	5	U	5	U
trans-1,2-Dichloroethene	ug/L	5	U	0.44	J	5	U
1,1-Dichloroethane	ug/L	5	U	1.1	J	1	J
Vinyl acetate	ug/L	10	U	10	U	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	10	U
cis-1,2-Dichloroethylene	ug/L	24.3	=	66.6	=	68.5	=
1,2-Dichloroethene (total)	ug/L	24.3	=	67	=	68.5	=
Chloroform	ug/L	5	U	5	U	5	U
1,1,1-Trichloroethane	ug/L	5	U	5	U	5	U
Carbon Tetrachloride	ug/L	5	U	5	U	5	U
1,2-Dichloroethane	ug/L	5	U	5	U	5	U
Benzene	ug/L	5	U	5	U	5	U
Trichloroethylene (TCE)	ug/L	7.6	=	18.1	=	17.3	=
1,2-Dichloropropane	ug/L	5	U	5	U	5	U
Bromodichloromethane	ug/L	5	U	5	U	5	U
2-Chloroethyl vinyl ether	ug/L	10	UJ	10	UJ	10	UJ
cis-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	10	U
Toluene	ug/L	5	U	5	U	5	U
trans-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
1,1,2-Trichloroethane	ug/L	5	U	5	U	5	U
2-Hexanone	ug/L	10	U	10	U	10	U
Tetrachloroethylene (PCE)	ug/L	5	U	5	U	5	U

	StationID	A039GP116		A039GP116		A039GP117	
	SampleID	039GP116D3		039GP116D3DL		039GP117-I	
	DateCollected	09/30/2003		09/30/2003		10/01/2003	
	DateExtracted	10/03/2003		10/04/2003		10/03/2003	
	DateAnalyzed	10/03/2003		10/04/2003		10/03/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	50	R	10	UJ
Vinyl chloride	ug/L	10.5	=	10.8	R	5.1	J
Bromomethane	ug/L	10	U	50	R	10	U
Chloroethane	ug/L	10	U	50	R	10	U
1,1-Dichloroethene	ug/L	3.8	J	3.6	R	5	U
Acetone	ug/L	10	U	50	R	10	U
Carbon Disulfide	ug/L	5	U	25	R	5	U
Methylene Chloride	ug/L	5	U	25	R	5	U
trans-1,2-Dichloroethene	ug/L	1.3	J	25	R	0.7	J
1,1-Dichloroethane	ug/L	3	J	25	R	1.6	J
Vinyl acetate	ug/L	10	U	50	R	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	50	R	10	U
cis-1,2-Dichloroethylene	ug/L	193	R	183	=	110	R
1,2-Dichloroethene (total)	ug/L	195	R	183	=	111	R
Chloroform	ug/L	5	U	25	R	5	U
1,1,1-Trichloroethane	ug/L	5	U	25	R	5	U
Carbon Tetrachloride	ug/L	5	U	25	R	5	U
1,2-Dichloroethane	ug/L	5	U	25	R	5	U
Benzene	ug/L	0.54	J	25	R	0.38	J
Trichloroethylene (TCE)	ug/L	56.1	=	53.2	R	40.6	=
1,2-Dichloropropane	ug/L	5	U	25	R	5	U
Bromodichloromethane	ug/L	5	U	25	R	5	U
2-Chloroethyl vinyl ether	ug/L	10	UJ	50	R	10	UJ
cis-1,3-Dichloropropene	ug/L	5	U	25	R	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	50	R	10	U
Toluene	ug/L	5	U	25	R	5	U
trans-1,3-Dichloropropene	ug/L	5	U	25	R	5	U
1,1,2-Trichloroethane	ug/L	5	U	25	R	5	U
2-Hexanone	ug/L	10	U	50	R	10	U
Tetrachloroethylene (PCE)	ug/L	0.84	J	25	R	5	U

	StationID	A039GP117		A039GP117		A039GP117	
	SampleID	039GP117-IDL		039GP117D1		039GP117D1DL	
	DateCollected	10/01/2003		10/01/2003		10/01/2003	
	DateExtracted	10/04/2003		10/03/2003		10/04/2003	
	DateAnalyzed	10/04/2003		10/03/2003		10/04/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Chloromethane	ug/L	20	R	10	UJ	100	R
Vinyl chloride	ug/L	4.6	R	22.2	=	20.1	R
Bromomethane	ug/L	20	R	10	U	100	R
Chloroethane	ug/L	20	R	10	U	100	R
1,1-Dichloroethene	ug/L	2.5	R	10	=	8.5	R
Acetone	ug/L	20	R	10	U	100	R
Carbon Disulfide	ug/L	10	R	5	U	50	R
Methylene Chloride	ug/L	10	R	5	U	50	R
trans-1,2-Dichloroethene	ug/L	10	R	3	J	50	R
1,1-Dichloroethane	ug/L	10	R	7.5	=	50	R
Vinyl acetate	ug/L	20	R	10	U	100	R
Methyl ethyl ketone (2-Butanone)	ug/L	20	R	10	U	100	R
cis-1,2-Dichloroethylene	ug/L	109	=	536	R	464	=
1,2-Dichloroethene (total)	ug/L	109	=	539	R	464	=
Chloroform	ug/L	10	R	5	U	50	R
1,1,1-Trichloroethane	ug/L	10	R	5	U	50	R
Carbon Tetrachloride	ug/L	10	R	5	U	50	R
1,2-Dichloroethane	ug/L	10	R	5	U	50	R
Benzene	ug/L	10	R	2.1	J	50	R
Trichloroethylene (TCE)	ug/L	40.2	R	293	R	241	=
1,2-Dichloropropane	ug/L	10	R	5	U	50	R
Bromodichloromethane	ug/L	10	R	5	U	50	R
2-Chloroethyl vinyl ether	ug/L	20	R	10	UJ	100	R
cis-1,3-Dichloropropene	ug/L	10	R	5	U	50	R
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	20	R	10	U	100	R
Toluene	ug/L	10	R	0.43	J	50	R
trans-1,3-Dichloropropene	ug/L	10	R	5	U	50	R
1,1,2-Trichloroethane	ug/L	10	R	5	U	50	R
2-Hexanone	ug/L	20	R	10	U	100	R
Tetrachloroethylene (PCE)	ug/L	10	R	4.1	J	50	R

	StationID	A039GP117		A039GP117		A039GP117	
	SampleID	039GP117D2		039GP117D2DL		039GP117D3	
	DateCollected	10/01/2003		10/01/2003		10/01/2003	
	DateExtracted	10/03/2003		10/04/2003		10/03/2003	
	DateAnalyzed	10/03/2003		10/04/2003		10/03/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	100	R	10	UJ
Vinyl chloride	ug/L	32.2	=	30.8	R	29.5	=
Bromomethane	ug/L	10	U	100	R	10	U
Chloroethane	ug/L	10	U	100	R	10	U
1,1-Dichloroethene	ug/L	11.1	=	11.1	R	10.3	=
Acetone	ug/L	10	U	100	R	4	J
Carbon Disulfide	ug/L	5	U	50	R	5	U
Methylene Chloride	ug/L	5	U	50	R	5	U
trans-1,2-Dichloroethene	ug/L	4.8	J	50	R	3.4	J
1,1-Dichloroethane	ug/L	8.9	=	50	R	8.3	=
Vinyl acetate	ug/L	10	U	100	R	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	100	R	10	U
cis-1,2-Dichloroethylene	ug/L	643	R	554	=	601	R
1,2-Dichloroethene (total)	ug/L	648	R	554	=	604	R
Chloroform	ug/L	5	U	50	R	5	U
1,1,1-Trichloroethane	ug/L	5	U	50	R	5	U
Carbon Tetrachloride	ug/L	5	U	50	R	5	U
1,2-Dichloroethane	ug/L	5	U	50	R	5	U
Benzene	ug/L	2.1	J	50	R	1.9	J
Trichloroethylene (TCE)	ug/L	285	R	245	=	250	R
1,2-Dichloropropane	ug/L	5	U	50	R	5	U
Bromodichloromethane	ug/L	5	U	50	R	5	U
2-Chloroethyl vinyl ether	ug/L	10	UJ	100	R	10	UJ
cis-1,3-Dichloropropene	ug/L	5	U	50	R	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	100	R	10	U
Toluene	ug/L	0.61	J	50	R	0.45	J
trans-1,3-Dichloropropene	ug/L	5	U	50	R	5	U
1,1,2-Trichloroethane	ug/L	5	U	50	R	5	U
2-Hexanone	ug/L	10	U	100	R	10	U
Tetrachloroethylene (PCE)	ug/L	4.4	J	50	R	3.7	J

	StationID	A039GP117		A039GP117		A039GP118	
	SampleID	039GP117D3DL		039HP117-IDL		039GP118-I	
	DateCollected	10/01/2003		10/01/2003		10/01/2003	
	DateExtracted	10/04/2003		10/04/2003		10/04/2003	
	DateAnalyzed	10/04/2003		10/04/2003		10/04/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Chloromethane	ug/L	100	R	20	R	10	UJ
Vinyl chloride	ug/L	26.1	R	4.6	R	1.2	J
Bromomethane	ug/L	100	R	20	R	10	U
Chloroethane	ug/L	100	R	20	R	10	U
1,1-Dichloroethene	ug/L	10.4	R	2.4	R	5	U
Acetone	ug/L	100	R	20	R	2.9	J
Carbon Disulfide	ug/L	50	R	10	R	5	U
Methylene Chloride	ug/L	50	R	10	R	5	U
trans-1,2-Dichloroethene	ug/L	50	R	10	R	5	U
1,1-Dichloroethane	ug/L	50	R	10	R	5	U
Vinyl acetate	ug/L	100	R	20	R	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	100	R	20	R	10	U
cis-1,2-Dichloroethylene	ug/L	530	=	104	=	36.6	=
1,2-Dichloroethene (total)	ug/L	530	=	104	=	36.6	=
Chloroform	ug/L	50	R	10	R	5	U
1,1,1-Trichloroethane	ug/L	50	R	10	R	5	U
Carbon Tetrachloride	ug/L	50	R	10	R	5	U
1,2-Dichloroethane	ug/L	50	R	10	R	5	U
Benzene	ug/L	50	R	10	R	5	U
Trichloroethylene (TCE)	ug/L	218	=	37.6	R	10.8	=
1,2-Dichloropropane	ug/L	50	R	10	R	5	U
Bromodichloromethane	ug/L	50	R	10	R	5	U
2-Chloroethyl vinyl ether	ug/L	100	R	20	R	10	UJ
cis-1,3-Dichloropropene	ug/L	50	R	10	R	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	100	R	20	R	10	U
Toluene	ug/L	50	R	10	R	5	U
trans-1,3-Dichloropropene	ug/L	50	R	10	R	5	U
1,1,2-Trichloroethane	ug/L	50	R	10	R	5	U
2-Hexanone	ug/L	100	R	20	R	10	U
Tetrachloroethylene (PCE)	ug/L	50	R	10	R	5	U

	StationID	A039GP118		A039GP118		A039GP118	
	SampleID	039GP118D1		039GP118D1DL		039GP118D2	
	DateCollected	10/01/2003		10/01/2003		10/01/2003	
	DateExtracted	10/03/2003		10/04/2003		10/03/2003	
	DateAnalyzed	10/03/2003		10/04/2003		10/03/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	100	R	10	UJ
Vinyl chloride	ug/L	14	=	14.2	R	27.1	=
Bromomethane	ug/L	10	U	100	R	10	U
Chloroethane	ug/L	10	U	100	R	10	U
1,1-Dichloroethene	ug/L	8.6	=	8.3	R	12.4	=
Acetone	ug/L	10	U	100	R	10	U
Carbon Disulfide	ug/L	5	U	50	R	5	U
Methylene Chloride	ug/L	5	U	50	R	5	U
trans-1,2-Dichloroethene	ug/L	2.7	J	50	R	3.8	J
1,1-Dichloroethane	ug/L	4.9	J	50	R	8.6	=
Vinyl acetate	ug/L	10	U	100	R	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	100	R	10	U
cis-1,2-Dichloroethylene	ug/L	406	R	372	=	719	R
1,2-Dichloroethene (total)	ug/L	408	R	372	=	723	R
Chloroform	ug/L	5	U	50	R	5	U
1,1,1-Trichloroethane	ug/L	5	U	50	R	5	U
Carbon Tetrachloride	ug/L	5	U	50	R	5	U
1,2-Dichloroethane	ug/L	5	U	50	R	5	U
Benzene	ug/L	2.1	J	50	R	3.1	J
Trichloroethylene (TCE)	ug/L	416	R	333	=	514	R
1,2-Dichloropropane	ug/L	5	U	50	R	5	U
Bromodichloromethane	ug/L	5	U	50	R	5	U
2-Chloroethyl vinyl ether	ug/L	10	UJ	100	R	10	UJ
cis-1,3-Dichloropropene	ug/L	5	U	50	R	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	100	R	10	U
Toluene	ug/L	5	U	50	R	5	U
trans-1,3-Dichloropropene	ug/L	5	U	50	R	5	U
1,1,2-Trichloroethane	ug/L	5	U	50	R	5	U
2-Hexanone	ug/L	10	U	100	R	10	U
Tetrachloroethylene (PCE)	ug/L	1.9	J	50	R	2.5	J

	StationID	A039GP118		A039GP118		A039GP118	
	SampleID	039GP118D2DL		039GP118D3		039GP118D3DL	
	DateCollected	10/01/2003		10/01/2003		10/01/2003	
	DateExtracted	10/04/2003		10/03/2003		10/04/2003	
	DateAnalyzed	10/04/2003		10/03/2003		10/04/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Chloromethane	ug/L	200	R	10	UJ	200	R
Vinyl chloride	ug/L	27.8	R	34.7	=	29.9	R
Bromomethane	ug/L	200	R	10	U	200	R
Chloroethane	ug/L	200	R	10	U	200	R
1,1-Dichloroethene	ug/L	13.2	R	15.1	=	100	R
Acetone	ug/L	200	R	10	U	200	R
Carbon Disulfide	ug/L	100	R	5	U	100	R
Methylene Chloride	ug/L	100	R	5	U	100	R
trans-1,2-Dichloroethene	ug/L	100	R	4.8	J	100	R
1,1-Dichloroethane	ug/L	100	R	10.4	=	100	R
Vinyl acetate	ug/L	200	R	10	U	200	R
Methyl ethyl ketone (2-Butanone)	ug/L	200	R	10	U	200	R
cis-1,2-Dichloroethylene	ug/L	656	=	894	R	705	=
1,2-Dichloroethene (total)	ug/L	656	=	899	R	705	=
Chloroform	ug/L	100	R	5	U	100	R
1,1,1-Trichloroethane	ug/L	100	R	5	U	100	R
Carbon Tetrachloride	ug/L	100	R	5	U	100	R
1,2-Dichloroethane	ug/L	100	R	5	U	100	R
Benzene	ug/L	100	R	3.7	J	100	R
Trichloroethylene (TCE)	ug/L	458	=	628	R	490	=
1,2-Dichloropropane	ug/L	100	R	5	U	100	R
Bromodichloromethane	ug/L	100	R	5	U	100	R
2-Chloroethyl vinyl ether	ug/L	200	R	10	UJ	200	R
cis-1,3-Dichloropropene	ug/L	100	R	5	U	100	R
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	200	R	10	U	200	R
Toluene	ug/L	100	R	5	U	100	R
trans-1,3-Dichloropropene	ug/L	100	R	5	U	100	R
1,1,2-Trichloroethane	ug/L	100	R	5	U	100	R
2-Hexanone	ug/L	200	R	10	U	200	R
Tetrachloroethylene (PCE)	ug/L	100	R	3.6	J	100	R

	StationID	A039GP119		A039GP119		A039GP119	
	SampleID	039GP119-I		039GP119D1		039GP119D2	
	DateCollected	10/07/2003		10/07/2003		10/07/2003	
	DateExtracted	10/10/2003		10/10/2003		10/10/2003	
	DateAnalyzed	10/10/2003		10/10/2003		10/10/2003	
	SDGNumber	89573		89573		89573	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	20	U	50	U
Vinyl chloride	ug/L	10	UJ	20	U	6.2	J
Bromomethane	ug/L	10	UJ	20	UJ	50	UJ
Chloroethane	ug/L	10	UJ	20	U	50	U
1,1-Dichloroethene	ug/L	0.44	J	2.4	J	10.8	J
Acetone	ug/L	4.1	J	4.7	J	50	U
Carbon Disulfide	ug/L	5	UJ	10	U	25	U
Methylene Chloride	ug/L	5	UJ	10	U	25	U
trans-1,2-Dichloroethene	ug/L	5	UJ	10	U	25	U
1,1-Dichloroethane	ug/L	5	UJ	10	U	5.5	J
Vinyl acetate	ug/L	10	UJ	20	U	50	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	UJ	20	U	50	U
cis-1,2-Dichloroethylene	ug/L	21.7	J	64.9	=	452	=
1,2-Dichloroethene (total)	ug/L	21.7	J	64.9	=	452	=
Chloroform	ug/L	5	UJ	10	U	25	U
1,1,1-Trichloroethane	ug/L	5	UJ	10	U	25	U
Carbon Tetrachloride	ug/L	5	UJ	10	U	25	U
1,2-Dichloroethane	ug/L	5	UJ	10	U	25	U
Benzene	ug/L	5	UJ	10	U	3.3	J
Trichloroethylene (TCE)	ug/L	7.2	J	137	=	721	R
1,2-Dichloropropane	ug/L	5	UJ	10	U	25	U
Bromodichloromethane	ug/L	5	UJ	10	U	25	U
2-Chloroethyl vinyl ether	ug/L	10	UJ	20	U	50	U
cis-1,3-Dichloropropene	ug/L	5	UJ	10	U	25	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	UJ	20	U	50	U
Toluene	ug/L	5	UJ	10	U	25	U
trans-1,3-Dichloropropene	ug/L	5	UJ	10	U	25	U
1,1,2-Trichloroethane	ug/L	5	UJ	10	U	25	U
2-Hexanone	ug/L	10	UJ	20	U	50	U
Tetrachloroethylene (PCE)	ug/L	5	UJ	10	U	25	U

	StationID	A039GP119		A039GP119		A039GP120	
	SampleID	039GP119D2DL		039GP119D3		039GP120-I	
	DateCollected	10/07/2003		10/07/2003		10/07/2003	
	DateExtracted	10/09/2003		10/09/2003		10/10/2003	
	DateAnalyzed	10/09/2003		10/09/2003		10/10/2003	
	SDGNumber	89573		89573		89573	
Parameter	**Units**						
Chloromethane	ug/L	100	R	100	U	10	U
Vinyl chloride	ug/L	100	R	100	U	0.7	J
Bromomethane	ug/L	100	R	100	UJ	10	UJ
Chloroethane	ug/L	100	R	100	U	10	U
1,1-Dichloroethene	ug/L	8.4	R	10.1	J	0.79	J
Acetone	ug/L	100	R	100	U	2.6	J
Carbon Disulfide	ug/L	50	R	50	U	5	U
Methylene Chloride	ug/L	50	R	50	U	5	U
trans-1,2-Dichloroethene	ug/L	50	R	3.8	J	5	U
1,1-Dichloroethane	ug/L	4.5	R	5.7	J	5	U
Vinyl acetate	ug/L	100	R	100	U	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	100	R	100	U	10	U
cis-1,2-Dichloroethylene	ug/L	448	R	467	=	38.8	=
1,2-Dichloroethene (total)	ug/L	448	R	471	=	38.8	=
Chloroform	ug/L	50	R	50	U	5	U
1,1,1-Trichloroethane	ug/L	50	R	50	U	5	U
Carbon Tetrachloride	ug/L	50	R	50	U	5	U
1,2-Dichloroethane	ug/L	50	R	50	U	5	U
Benzene	ug/L	50	R	3.6	J	5	U
Trichloroethylene (TCE)	ug/L	700	=	795	=	24.6	=
1,2-Dichloropropane	ug/L	50	R	50	U	5	U
Bromodichloromethane	ug/L	50	R	50	U	5	U
2-Chloroethyl vinyl ether	ug/L	100	R	100	U	10	R
cis-1,3-Dichloropropene	ug/L	50	R	50	U	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	100	R	100	U	10	U
Toluene	ug/L	50	R	50	U	5	U
trans-1,3-Dichloropropene	ug/L	50	R	50	U	5	U
1,1,2-Trichloroethane	ug/L	50	R	50	U	5	U
2-Hexanone	ug/L	100	R	100	U	10	U
Tetrachloroethylene (PCE)	ug/L	50	R	50	U	5	U

	StationID	A039GP120		A039GP120		A039GP120	
	SampleID	039GP120D1		039GP120D2		039GP120D2DL	
	DateCollected	10/07/2003		10/07/2003		10/07/2003	
	DateExtracted	10/10/2003		10/10/2003		10/09/2003	
	DateAnalyzed	10/10/2003		10/10/2003		10/09/2003	
	SDGNumber	89573		89573		89573	
Parameter	**Units**						
Chloromethane	ug/L	10	U	10	U	100	R
Vinyl chloride	ug/L	10	U	1.8	J	100	R
Bromomethane	ug/L	10	UJ	10	UJ	100	R
Chloroethane	ug/L	10	U	10	U	100	R
1,1-Dichloroethene	ug/L	0.8	J	1.9	J	50	R
Acetone	ug/L	2.8	J	15.2	J	100	R
Carbon Disulfide	ug/L	5	U	5	U	50	R
Methylene Chloride	ug/L	5	UJ	5	UJ	50	R
trans-1,2-Dichloroethene	ug/L	0.39	J	0.44	J	50	R
1,1-Dichloroethane	ug/L	5	U	1.6	J	50	R
Vinyl acetate	ug/L	10	U	10	U	100	R
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	100	R
cis-1,2-Dichloroethylene	ug/L	34.6	=	106	J	47	R
1,2-Dichloroethene (total)	ug/L	35	=	107	=	47	R
Chloroform	ug/L	5	U	5	U	50	R
1,1,1-Trichloroethane	ug/L	5	U	5	U	50	R
Carbon Tetrachloride	ug/L	5	U	5	U	50	R
1,2-Dichloroethane	ug/L	5	U	5	U	50	R
Benzene	ug/L	5	U	0.72	J	50	R
Trichloroethylene (TCE)	ug/L	39.9	=	86	=	55.1	R
1,2-Dichloropropane	ug/L	5	U	5	U	50	R
Bromodichloromethane	ug/L	5	U	5	U	50	R
2-Chloroethyl vinyl ether	ug/L	10	U	10	U	100	R
cis-1,3-Dichloropropene	ug/L	5	U	5	U	50	R
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	100	R
Toluene	ug/L	5	U	5	U	50	R
trans-1,3-Dichloropropene	ug/L	5	U	5	U	50	R
1,1,2-Trichloroethane	ug/L	5	U	5	U	50	R
2-Hexanone	ug/L	10	U	10	U	100	R
Tetrachloroethylene (PCE)	ug/L	5	U	5	U	50	R

	StationID	A039GP120		A039GP121		A039GP121	
	SampleID	039GP120D3		039GP121-I		039GP121D1	
	DateCollected	10/08/2003		10/09/2003		10/09/2003	
	DateExtracted	10/10/2003		10/16/2003		10/16/2003	
	DateAnalyzed	10/10/2003		10/16/2003		10/16/2003	
	SDGNumber	89573		89993		89993	
Parameter	**Units**						
Chloromethane	ug/L	100	U	10	UJ	10	U
Vinyl chloride	ug/L	23.9	J	10	UJ	10	U
Bromomethane	ug/L	100	UJ	10	UJ	10	UJ
Chloroethane	ug/L	100	U	10	UJ	10	U
1,1-Dichloroethene	ug/L	16.6	J	5	UJ	5	U
Acetone	ug/L	100	U	2.8	J	10	U
Carbon Disulfide	ug/L	50	U	5	UJ	5	U
Methylene Chloride	ug/L	50	U	5	UJ	5	U
trans-1,2-Dichloroethene	ug/L	5.2	J	5	UJ	5	U
1,1-Dichloroethane	ug/L	12.4	J	5	UJ	5	U
Vinyl acetate	ug/L	100	U	10	UJ	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	100	U	10	UJ	10	U
cis-1,2-Dichloroethylene	ug/L	835	=	0.4	J	4.1	J
1,2-Dichloroethene (total)	ug/L	840	=	0.4	J	4.1	J
Chloroform	ug/L	50	U	5	UJ	5	U
1,1,1-Trichloroethane	ug/L	50	U	5	UJ	5	U
Carbon Tetrachloride	ug/L	50	U	5	UJ	5	U
1,2-Dichloroethane	ug/L	16.2	J	5	UJ	5	U
Benzene	ug/L	5	J	5	UJ	5	U
Trichloroethylene (TCE)	ug/L	748	=	5	UJ	1.5	J
1,2-Dichloropropane	ug/L	50	U	5	UJ	5	U
Bromodichloromethane	ug/L	50	U	5	UJ	5	U
2-Chloroethyl vinyl ether	ug/L	100	U	10	UJ	10	U
cis-1,3-Dichloropropene	ug/L	50	U	5	UJ	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	100	U	10	UJ	10	U
Toluene	ug/L	50	U	5	UJ	5	U
trans-1,3-Dichloropropene	ug/L	50	U	5	UJ	5	U
1,1,2-Trichloroethane	ug/L	50	U	5	UJ	5	U
2-Hexanone	ug/L	100	U	10	UJ	10	U
Tetrachloroethylene (PCE)	ug/L	19	J	5	UJ	5	U

	StationID	A039GP121		A039GP121		A039GP121	
	SampleID	039GP121D2		039GP121D2DL		039GP121D3	
	DateCollected	10/09/2003		10/09/2003		10/09/2003	
	DateExtracted	10/16/2003		10/17/2003		10/16/2003	
	DateAnalyzed	10/16/2003		10/17/2003		10/16/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	100	R	10	UJ
Vinyl chloride	ug/L	21.8	J	18.2	R	29.6	J
Bromomethane	ug/L	10	UJ	100	R	10	UJ
Chloroethane	ug/L	10	UJ	100	R	10	UJ
1,1-Dichloroethene	ug/L	8.7	J	7	R	11.8	J
Acetone	ug/L	2.9	J	100	R	5	J
Carbon Disulfide	ug/L	5	UJ	50	R	5	UJ
Methylene Chloride	ug/L	5	UJ	50	R	5	UJ
trans-1,2-Dichloroethene	ug/L	5.5	J	5.4	R	7.5	J
1,1-Dichloroethane	ug/L	6.4	J	50	R	8.7	J
Vinyl acetate	ug/L	10	UJ	100	R	10	UJ
Methyl ethyl ketone (2-Butanone)	ug/L	10	UJ	100	R	10	UJ
cis-1,2-Dichloroethylene	ug/L	463	R	448	=	571	R
1,2-Dichloroethene (total)	ug/L	468	R	453	=	578	R
Chloroform	ug/L	5	UJ	50	R	5	UJ
1,1,1-Trichloroethane	ug/L	5	UJ	50	R	5	UJ
Carbon Tetrachloride	ug/L	5	UJ	50	R	5	UJ
1,2-Dichloroethane	ug/L	5	UJ	50	R	5	UJ
Benzene	ug/L	0.73	J	50	R	0.76	J
Trichloroethylene (TCE)	ug/L	81.3	J	76.8	R	141	R
1,2-Dichloropropane	ug/L	5	UJ	50	R	5	UJ
Bromodichloromethane	ug/L	5	UJ	50	R	5	UJ
2-Chloroethyl vinyl ether	ug/L	10	UJ	100	R	10	UJ
cis-1,3-Dichloropropene	ug/L	5	UJ	50	R	5	UJ
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	UJ	100	R	10	UJ
Toluene	ug/L	5	UJ	50	R	5	UJ
trans-1,3-Dichloropropene	ug/L	5	UJ	50	R	5	UJ
1,1,2-Trichloroethane	ug/L	5	UJ	50	R	5	UJ
2-Hexanone	ug/L	10	UJ	100	R	10	UJ
Tetrachloroethylene (PCE)	ug/L	3.3	J	50	R	3.9	J

	StationID	A039GP121		A039GP122		A039GP122	
	SampleID	039GP121D3DL		039GP122-I		039GP122D1	
	DateCollected	10/09/2003		10/10/2003		10/10/2003	
	DateExtracted	10/17/2003		10/17/2003		10/16/2003	
	DateAnalyzed	10/17/2003		10/17/2003		10/16/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Chloromethane	ug/L	100	R	10	UJ	10	UJ
Vinyl chloride	ug/L	27.2	R	10	U	10	UJ
Bromomethane	ug/L	100	R	10	UJ	10	UJ
Chloroethane	ug/L	100	R	10	U	10	UJ
1,1-Dichloroethene	ug/L	11.1	R	5	U	5	UJ
Acetone	ug/L	100	R	10	U	2.8	J
Carbon Disulfide	ug/L	50	R	5	U	5	UJ
Methylene Chloride	ug/L	50	R	5	UJ	5	UJ
trans-1,2-Dichloroethene	ug/L	7	R	5	U	5	UJ
1,1-Dichloroethane	ug/L	7	R	5	U	5	UJ
Vinyl acetate	ug/L	100	R	10	UJ	10	UJ
Methyl ethyl ketone (2-Butanone)	ug/L	100	R	10	U	10	UJ
cis-1,2-Dichloroethylene	ug/L	624	=	5	U	2.2	J
1,2-Dichloroethene (total)	ug/L	631	=	5	U	2.2	J
Chloroform	ug/L	50	R	5	U	5	UJ
1,1,1-Trichloroethane	ug/L	50	R	5	U	5	UJ
Carbon Tetrachloride	ug/L	50	R	5	U	5	UJ
1,2-Dichloroethane	ug/L	50	R	5	U	5	UJ
Benzene	ug/L	50	R	5	U	5	UJ
Trichloroethylene (TCE)	ug/L	148	=	5	U	0.57	J
1,2-Dichloropropane	ug/L	50	R	5	U	5	UJ
Bromodichloromethane	ug/L	50	R	5	U	5	UJ
2-Chloroethyl vinyl ether	ug/L	100	R	10	U	10	UJ
cis-1,3-Dichloropropene	ug/L	50	R	5	U	5	UJ
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	100	R	10	U	10	UJ
Toluene	ug/L	50	R	5	U	5	UJ
trans-1,3-Dichloropropene	ug/L	50	R	5	U	5	UJ
1,1,2-Trichloroethane	ug/L	50	R	5	U	5	UJ
2-Hexanone	ug/L	100	R	10	U	10	UJ
Tetrachloroethylene (PCE)	ug/L	50	R	5	U	5	UJ

	StationID	A039GP122		A039GP122		A039GP123	
	SampleID	039GP122D2		039GP122D3		039GP123-D1	
	DateCollected	10/10/2003		10/14/2003		10/14/2003	
	DateExtracted	10/16/2003		10/16/2003		10/16/2003	
	DateAnalyzed	10/16/2003		10/16/2003		10/16/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Chloromethane	ug/L	10	U	10	U	10	UJ
Vinyl chloride	ug/L	5.6	J	5.6	J	10	UJ
Bromomethane	ug/L	10	UJ	10	UJ	10	UJ
Chloroethane	ug/L	10	U	10	U	10	UJ
1,1-Dichloroethene	ug/L	1.1	J	1.2	J	5	UJ
Acetone	ug/L	10	U	10	U	3	J
Carbon Disulfide	ug/L	5	U	5	U	5	UJ
Methylene Chloride	ug/L	5	U	5	U	5	UJ
trans-1,2-Dichloroethene	ug/L	1.2	J	1.1	J	5	UJ
1,1-Dichloroethane	ug/L	1.9	J	1.8	J	5	UJ
Vinyl acetate	ug/L	10	U	10	U	10	UJ
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	10	UJ
cis-1,2-Dichloroethylene	ug/L	89.7	=	83.6	=	3.2	J
1,2-Dichloroethene (total)	ug/L	90.8	=	84.8	=	3.2	J
Chloroform	ug/L	5	U	5	U	5	UJ
1,1,1-Trichloroethane	ug/L	5	U	5	U	5	UJ
Carbon Tetrachloride	ug/L	5	U	5	U	5	UJ
1,2-Dichloroethane	ug/L	5	U	5	U	5	UJ
Benzene	ug/L	5	U	5	U	5	UJ
Trichloroethylene (TCE)	ug/L	15.2	=	15.3	=	0.46	J
1,2-Dichloropropane	ug/L	5	U	5	U	5	UJ
Bromodichloromethane	ug/L	5	U	5	U	5	UJ
2-Chloroethyl vinyl ether	ug/L	10	U	10	U	10	UJ
cis-1,3-Dichloropropene	ug/L	5	U	5	U	5	UJ
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	10	UJ
Toluene	ug/L	5	U	5	U	5	UJ
trans-1,3-Dichloropropene	ug/L	5	U	5	U	5	UJ
1,1,2-Trichloroethane	ug/L	5	U	5	U	5	UJ
2-Hexanone	ug/L	10	U	10	U	10	UJ
Tetrachloroethylene (PCE)	ug/L	4.9	J	4.8	J	5	UJ

	StationID	A039GP123		A039GP123		A039GP123	
	SampleID	039GP123-I		039GP123D2		039GP123D3	
	DateCollected	10/14/2003		10/14/2003		10/14/2003	
	DateExtracted	10/16/2003		10/16/2003		10/16/2003	
	DateAnalyzed	10/16/2003		10/16/2003		10/16/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	10	U	10	UJ
Vinyl chloride	ug/L	10	UJ	1.6	J	1.6	J
Bromomethane	ug/L	10	UJ	10	UJ	10	UJ
Chloroethane	ug/L	10	UJ	10	U	10	UJ
1,1-Dichloroethene	ug/L	5	UJ	0.51	J	5	UJ
Acetone	ug/L	2.4	J	10	U	10	UJ
Carbon Disulfide	ug/L	5	UJ	5	U	5	UJ
Methylene Chloride	ug/L	5	UJ	5	U	5	UJ
trans-1,2-Dichloroethene	ug/L	5	UJ	0.38	J	5	UJ
1,1-Dichloroethane	ug/L	5	UJ	5	U	5	UJ
Vinyl acetate	ug/L	10	UJ	10	U	10	UJ
Methyl ethyl ketone (2-Butanone)	ug/L	10	UJ	10	U	10	UJ
cis-1,2-Dichloroethylene	ug/L	0.31	J	42.1	=	41.9	J
1,2-Dichloroethene (total)	ug/L	0.31	J	42.5	=	41.9	J
Chloroform	ug/L	5	UJ	5	U	5	UJ
1,1,1-Trichloroethane	ug/L	5	UJ	5	U	5	UJ
Carbon Tetrachloride	ug/L	5	UJ	5	U	5	UJ
1,2-Dichloroethane	ug/L	5	UJ	5	U	5	UJ
Benzene	ug/L	5	UJ	5	U	5	UJ
Trichloroethylene (TCE)	ug/L	5	UJ	6.3	=	6.5	J
1,2-Dichloropropane	ug/L	5	UJ	5	U	5	UJ
Bromodichloromethane	ug/L	5	UJ	5	U	5	UJ
2-Chloroethyl vinyl ether	ug/L	10	UJ	10	U	10	UJ
cis-1,3-Dichloropropene	ug/L	5	UJ	5	U	5	UJ
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	UJ	10	U	10	UJ
Toluene	ug/L	5	UJ	5	U	5	UJ
trans-1,3-Dichloropropene	ug/L	5	UJ	5	U	5	UJ
1,1,2-Trichloroethane	ug/L	5	UJ	5	U	5	UJ
2-Hexanone	ug/L	10	UJ	10	U	10	UJ
Tetrachloroethylene (PCE)	ug/L	5	UJ	5	U	5	UJ

	StationID	A039GP124		A039GP124		A039GP124	
	SampleID	039GP124-I		039GP124D1		039GP124D2	
	DateCollected	10/14/2003		10/14/2003		10/14/2003	
	DateExtracted	10/16/2003		10/16/2003		10/16/2003	
	DateAnalyzed	10/16/2003		10/16/2003		10/16/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	10	U	10	UJ
Vinyl chloride	ug/L	10	UJ	10	U	36.1	J
Bromomethane	ug/L	10	UJ	10	UJ	10	UJ
Chloroethane	ug/L	10	UJ	10	U	10	UJ
1,1-Dichloroethene	ug/L	5	UJ	5	U	16	J
Acetone	ug/L	2.4	J	10	U	3.5	J
Carbon Disulfide	ug/L	5	UJ	5	U	5	UJ
Methylene Chloride	ug/L	5	UJ	5	U	5	UJ
trans-1,2-Dichloroethene	ug/L	5	UJ	5	U	9.6	J
1,1-Dichloroethane	ug/L	5	UJ	5	U	9.4	J
Vinyl acetate	ug/L	10	UJ	10	UJ	10	UJ
Methyl ethyl ketone (2-Butanone)	ug/L	10	UJ	10	U	10	UJ
cis-1,2-Dichloroethylene	ug/L	0.61	J	11.5	=	729	R
1,2-Dichloroethene (total)	ug/L	0.61	J	11.5	=	738	R
Chloroform	ug/L	5	UJ	5	U	5	UJ
1,1,1-Trichloroethane	ug/L	5	UJ	5	U	5	UJ
Carbon Tetrachloride	ug/L	5	UJ	5	U	5	UJ
1,2-Dichloroethane	ug/L	5	UJ	5	U	5	UJ
Benzene	ug/L	5	UJ	5	U	1.2	J
Trichloroethylene (TCE)	ug/L	5	UJ	4.5	J	247	R
1,2-Dichloropropane	ug/L	5	UJ	5	U	5	UJ
Bromodichloromethane	ug/L	5	UJ	5	U	5	UJ
2-Chloroethyl vinyl ether	ug/L	10	UJ	10	R	10	UJ
cis-1,3-Dichloropropene	ug/L	5	UJ	5	U	5	UJ
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	UJ	10	U	10	UJ
Toluene	ug/L	5	UJ	5	U	5	UJ
trans-1,3-Dichloropropene	ug/L	5	UJ	5	U	5	UJ
1,1,2-Trichloroethane	ug/L	5	UJ	5	U	5	UJ
2-Hexanone	ug/L	10	UJ	10	U	10	UJ
Tetrachloroethylene (PCE)	ug/L	5	UJ	5	U	0.36	J

	StationID	A039GP124		A039GP124		A039GP124	
	SampleID	039GP124D2DL		039GP124D3		039GP124D3DL	
	DateCollected	10/14/2003		10/14/2003		10/14/2003	
	DateExtracted	10/17/2003		10/16/2003		10/17/2003	
	DateAnalyzed	10/17/2003		10/16/2003		10/17/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Chloromethane	ug/L	100	R	10	UJ	100	R
Vinyl chloride	ug/L	29.7	R	27.3	J	25.6	R
Bromomethane	ug/L	100	R	10	UJ	100	R
Chloroethane	ug/L	100	R	10	UJ	100	R
1,1-Dichloroethene	ug/L	14.4	R	12.6	J	10.7	R
Acetone	ug/L	100	R	2.8	J	100	R
Carbon Disulfide	ug/L	50	R	5	UJ	50	R
Methylene Chloride	ug/L	50	R	5	UJ	50	R
trans-1,2-Dichloroethene	ug/L	6.3	R	7.4	J	6.4	R
1,1-Dichloroethane	ug/L	9.5	R	7.6	J	7	R
Vinyl acetate	ug/L	100	R	10	UJ	100	R
Methyl ethyl ketone (2-Butanone)	ug/L	100	R	10	UJ	100	R
cis-1,2-Dichloroethylene	ug/L	767	=	589	R	627	=
1,2-Dichloroethene (total)	ug/L	773	=	596	R	634	=
Chloroform	ug/L	50	R	5	UJ	50	R
1,1,1-Trichloroethane	ug/L	50	R	5	UJ	50	R
Carbon Tetrachloride	ug/L	50	R	5	UJ	50	R
1,2-Dichloroethane	ug/L	50	R	5	UJ	50	R
Benzene	ug/L	50	R	1.1	J	50	R
Trichloroethylene (TCE)	ug/L	248	=	173	R	174	=
1,2-Dichloropropane	ug/L	50	R	5	UJ	50	R
Bromodichloromethane	ug/L	50	R	5	UJ	50	R
2-Chloroethyl vinyl ether	ug/L	100	R	10	UJ	100	R
cis-1,3-Dichloropropene	ug/L	50	R	5	UJ	50	R
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	100	R	10	UJ	100	R
Toluene	ug/L	50	R	5	UJ	50	R
trans-1,3-Dichloropropene	ug/L	50	R	5	UJ	50	R
1,1,2-Trichloroethane	ug/L	50	R	5	UJ	50	R
2-Hexanone	ug/L	100	R	10	UJ	100	R
Tetrachloroethylene (PCE)	ug/L	50	R	5	UJ	50	R

	StationID	A039GP125		A039GP125		A039GP125	
	SampleID	039GP125-I		039GP125D1		039GP125D2	
	DateCollected	10/15/2003		10/15/2003		10/15/2003	
	DateExtracted	10/21/2003		10/20/2003		10/20/2003	
	DateAnalyzed	10/21/2003		10/20/2003		10/20/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	10	UJ	10	UJ
Vinyl chloride	ug/L	10	U	10	U	14.9	J
Bromomethane	ug/L	10	U	10	UJ	10	UJ
Chloroethane	ug/L	10	U	10	U	10	UJ
1,1-Dichloroethene	ug/L	5	U	5	U	6.4	J
Acetone	ug/L	10	U	10	U	5.3	J
Carbon Disulfide	ug/L	5	U	5	U	5	UJ
Methylene Chloride	ug/L	5	U	5	UJ	5	UJ
trans-1,2-Dichloroethene	ug/L	5	U	5	U	3.7	J
1,1-Dichloroethane	ug/L	5	U	5	U	5.3	J
Vinyl acetate	ug/L	10	U	10	UJ	10	UJ
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	10	UJ
cis-1,2-Dichloroethylene	ug/L	15.8	=	12.1	=	393	R
1,2-Dichloroethene (total)	ug/L	15.8	=	12.1	=	397	R
Chloroform	ug/L	5	U	5	U	5	UJ
1,1,1-Trichloroethane	ug/L	5	U	5	U	5	UJ
Carbon Tetrachloride	ug/L	5	U	5	U	5	UJ
1,2-Dichloroethane	ug/L	5	U	5	U	5	UJ
Benzene	ug/L	5	U	5	U	0.58	J
Trichloroethylene (TCE)	ug/L	5.5	=	3.2	J	100	R
1,2-Dichloropropane	ug/L	5	U	5	U	5	UJ
Bromodichloromethane	ug/L	5	U	5	U	5	UJ
2-Chloroethyl vinyl ether	ug/L	10	R	10	U	10	UJ
cis-1,3-Dichloropropene	ug/L	5	U	5	U	5	UJ
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	10	UJ
Toluene	ug/L	5	U	5	U	5	UJ
trans-1,3-Dichloropropene	ug/L	5	U	5	U	5	UJ
1,1,2-Trichloroethane	ug/L	5	U	5	U	5	UJ
2-Hexanone	ug/L	10	U	10	U	10	UJ
Tetrachloroethylene (PCE)	ug/L	5	U	5	U	0.7	J

	StationID	A039GP125		A039GP125		A039GP125	
	SampleID	039GP125D2DL		039GP125D3		039GP125D3DL	
	DateCollected	10/15/2003		10/15/2003		10/15/2003	
	DateExtracted	10/21/2003		10/20/2003		10/21/2003	
	DateAnalyzed	10/21/2003		10/20/2003		10/21/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Chloromethane	ug/L	50	R	10	UJ	100	R
Vinyl chloride	ug/L	15.6	R	38.1	J	52	R
Bromomethane	ug/L	50	R	10	UJ	100	R
Chloroethane	ug/L	50	R	10	UJ	100	R
1,1-Dichloroethene	ug/L	4.4	R	17.2	J	14.4	R
Acetone	ug/L	50	R	4	J	100	R
Carbon Disulfide	ug/L	25	R	5	UJ	50	R
Methylene Chloride	ug/L	25	R	5	UJ	50	R
trans-1,2-Dichloroethene	ug/L	2.8	R	8.5	J	8	R
1,1-Dichloroethane	ug/L	25	R	12.6	J	12.3	R
Vinyl acetate	ug/L	50	R	10	UJ	100	R
Methyl ethyl ketone (2-Butanone)	ug/L	50	R	10	UJ	100	R
cis-1,2-Dichloroethylene	ug/L	371	J	759	R	901	=
1,2-Dichloroethene (total)	ug/L	374	J	768	R	909	=
Chloroform	ug/L	25	R	5	UJ	50	R
1,1,1-Trichloroethane	ug/L	25	R	5	UJ	50	R
Carbon Tetrachloride	ug/L	25	R	5	UJ	50	R
1,2-Dichloroethane	ug/L	25	R	5	UJ	50	R
Benzene	ug/L	25	R	0.95	J	50	R
Trichloroethylene (TCE)	ug/L	69.2	J	338	R	331	=
1,2-Dichloropropane	ug/L	25	R	5	UJ	50	R
Bromodichloromethane	ug/L	25	R	5	UJ	50	R
2-Chloroethyl vinyl ether	ug/L	50	R	10	UJ	100	R
cis-1,3-Dichloropropene	ug/L	25	R	5	UJ	50	R
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	50	R	10	UJ	100	R
Toluene	ug/L	25	R	5	UJ	50	R
trans-1,3-Dichloropropene	ug/L	25	R	5	UJ	50	R
1,1,2-Trichloroethane	ug/L	25	R	5	UJ	50	R
2-Hexanone	ug/L	50	R	10	UJ	100	R
Tetrachloroethylene (PCE)	ug/L	25	R	2.7	J	50	R

	StationID	A039GP126		A039GP126		A039GP126	
	SampleID	039GP126-I		039GP126D1		039GP126D2	
	DateCollected	10/15/2003		10/15/2003		10/15/2003	
	DateExtracted	10/21/2003		10/20/2003		10/20/2003	
	DateAnalyzed	10/21/2003		10/20/2003		10/20/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	10	UJ	10	UJ
Vinyl chloride	ug/L	10	U	10	U	19.5	J
Bromomethane	ug/L	10	U	10	UJ	10	UJ
Chloroethane	ug/L	10	U	10	U	10	UJ
1,1-Dichloroethene	ug/L	5	U	5	U	7.5	J
Acetone	ug/L	10	U	3.8	J	2.6	J
Carbon Disulfide	ug/L	5	U	5	U	5	UJ
Methylene Chloride	ug/L	5	U	5	UJ	5	UJ
trans-1,2-Dichloroethene	ug/L	5	U	5	U	6.5	J
1,1-Dichloroethane	ug/L	5	U	0.66	J	6	J
Vinyl acetate	ug/L	10	U	10	UJ	10	UJ
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	10	UJ
cis-1,2-Dichloroethylene	ug/L	10.3	=	17.3	=	440	R
1,2-Dichloroethene (total)	ug/L	10.3	=	17.3	=	446	R
Chloroform	ug/L	5	U	5	U	5	UJ
1,1,1-Trichloroethane	ug/L	5	U	5	U	5	UJ
Carbon Tetrachloride	ug/L	5	U	5	U	5	UJ
1,2-Dichloroethane	ug/L	5	U	5	U	5	UJ
Benzene	ug/L	5	U	5	U	0.64	J
Trichloroethylene (TCE)	ug/L	1.2	J	4.7	J	77.5	J
1,2-Dichloropropane	ug/L	5	U	5	U	5	UJ
Bromodichloromethane	ug/L	5	U	5	U	5	UJ
2-Chloroethyl vinyl ether	ug/L	10	UJ	10	U	10	UJ
cis-1,3-Dichloropropene	ug/L	5	U	5	U	5	UJ
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	10	UJ
Toluene	ug/L	5	U	5	U	5	UJ
trans-1,3-Dichloropropene	ug/L	5	U	5	U	5	UJ
1,1,2-Trichloroethane	ug/L	5	U	5	U	5	UJ
2-Hexanone	ug/L	10	U	10	U	10	UJ
Tetrachloroethylene (PCE)	ug/L	5	U	0.55	J	27.9	J

	StationID	A039GP126		A039GP126		A039GP126	
	SampleID	039GP126D2DL		039GP126D3		039GP126D3DL	
	DateCollected	10/15/2003		10/15/2003		10/15/2003	
	DateExtracted	10/21/2003		10/20/2003		10/21/2003	
	DateAnalyzed	10/21/2003		10/20/2003		10/21/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Chloromethane	ug/L	50	R	10	UJ	50	R
Vinyl chloride	ug/L	23.1	R	21	J	22.7	R
Bromomethane	ug/L	50	R	10	UJ	50	R
Chloroethane	ug/L	50	R	10	UJ	50	R
1,1-Dichloroethene	ug/L	6.3	R	7	J	4.4	R
Acetone	ug/L	50	R	5.6	J	50	R
Carbon Disulfide	ug/L	25	R	5	UJ	25	R
Methylene Chloride	ug/L	25	R	5	UJ	25	R
trans-1,2-Dichloroethene	ug/L	4.9	R	3.8	J	2.7	R
1,1-Dichloroethane	ug/L	5	R	6.5	J	4.8	R
Vinyl acetate	ug/L	50	R	10	UJ	50	R
Methyl ethyl ketone (2-Butanone)	ug/L	50	R	10	UJ	50	R
cis-1,2-Dichloroethylene	ug/L	441	=	387	R	337	=
1,2-Dichloroethene (total)	ug/L	446	=	391	R	340	=
Chloroform	ug/L	25	R	5	UJ	25	R
1,1,1-Trichloroethane	ug/L	25	R	5	UJ	25	R
Carbon Tetrachloride	ug/L	25	R	5	UJ	25	R
1,2-Dichloroethane	ug/L	25	R	5	UJ	25	R
Benzene	ug/L	25	R	0.77	J	25	R
Trichloroethylene (TCE)	ug/L	64.4	R	71	J	51	R
1,2-Dichloropropane	ug/L	25	R	5	UJ	25	R
Bromodichloromethane	ug/L	25	R	5	UJ	25	R
2-Chloroethyl vinyl ether	ug/L	50	R	10	UJ	50	R
cis-1,3-Dichloropropene	ug/L	25	R	5	UJ	25	R
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	50	R	10	UJ	50	R
Toluene	ug/L	25	R	5	UJ	25	R
trans-1,3-Dichloropropene	ug/L	25	R	5	UJ	25	R
1,1,2-Trichloroethane	ug/L	25	R	5	UJ	25	R
2-Hexanone	ug/L	50	R	10	UJ	50	R
Tetrachloroethylene (PCE)	ug/L	26.3	R	22.3	J	16.4	R

	StationID	A039GP127		A039GP127		A039GP127	
	SampleID	039GP127-I		039GP127D1		039GP127D2	
	DateCollected	10/15/2003		10/15/2003		10/16/2003	
	DateExtracted	10/21/2003		10/21/2003		10/21/2003	
	DateAnalyzed	10/21/2003		10/21/2003		10/21/2003	
	SDGNumber	100207		100207		100207	
Parameter	Units						
Chloromethane	ug/L	10	UJ	10	UJ	10	UJ
Vinyl chloride	ug/L	2.8	J	10	U	29.1	J
Bromomethane	ug/L	10	U	10	U	10	U
Chloroethane	ug/L	10	U	10	U	10	U
1,1-Dichloroethene	ug/L	2.3	J	0.94	J	9.3	J
Acetone	ug/L	10	U	4.8	J	3.5	J
Carbon Disulfide	ug/L	5	U	5	U	5	U
Methylene Chloride	ug/L	5	U	5	U	5	U
trans-1,2-Dichloroethene	ug/L	0.46	J	5	U	4.1	J
1,1-Dichloroethane	ug/L	5	U	5	U	7.4	J
Vinyl acetate	ug/L	10	U	10	U	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	10	U
cis-1,2-Dichloroethylene	ug/L	52.6	=	19	=	534	R
1,2-Dichloroethene (total)	ug/L	53	=	19	=	538	R
Chloroform	ug/L	5	U	5	U	5	U
1,1,1-Trichloroethane	ug/L	5	U	5	U	5	U
Carbon Tetrachloride	ug/L	5	U	5	U	5	U
1,2-Dichloroethane	ug/L	5	U	5	U	5	U
Benzene	ug/L	5	U	5	U	2.3	J
Trichloroethylene (TCE)	ug/L	35.9	=	34.6	=	240	R
1,2-Dichloropropane	ug/L	5	U	5	U	5	U
Bromodichloromethane	ug/L	5	U	5	U	5	U
2-Chloroethyl vinyl ether	ug/L	10	UJ	10	UJ	10	UJ
cis-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	10	U
Toluene	ug/L	5	U	5	U	5	U
trans-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
1,1,2-Trichloroethane	ug/L	5	U	5	U	5	U
2-Hexanone	ug/L	10	U	10	U	10	U
Tetrachloroethylene (PCE)	ug/L	5	U	1	J	15.7	J

	StationID	A039GP127		A039GP127		A039GP127	
	SampleID	039GP127D2DL		039GP127D3		039GP127D3DL	
	DateCollected	10/16/2003		10/16/2003		10/16/2003	
	DateExtracted	10/22/2003		10/21/2003		10/22/2003	
	DateAnalyzed	10/22/2003		10/21/2003		10/22/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Chloromethane	ug/L	100	R	10	UJ	100	R
Vinyl chloride	ug/L	29.3	R	28.5	=	28.4	R
Bromomethane	ug/L	100	R	10	U	100	R
Chloroethane	ug/L	100	R	10	U	100	R
1,1-Dichloroethene	ug/L	8.3	R	10	=	9	R
Acetone	ug/L	24.3	R	6.6	J	100	R
Carbon Disulfide	ug/L	50	R	5	U	50	R
Methylene Chloride	ug/L	50	R	5	U	50	R
trans-1,2-Dichloroethene	ug/L	50	R	4	J	50	R
1,1-Dichloroethane	ug/L	50	R	7.6	=	50	R
Vinyl acetate	ug/L	100	R	10	U	100	R
Methyl ethyl ketone (2-Butanone)	ug/L	100	R	10	U	100	R
cis-1,2-Dichloroethylene	ug/L	454	=	564	R	473	=
1,2-Dichloroethene (total)	ug/L	454	=	568	R	473	=
Chloroform	ug/L	50	R	5	U	50	R
1,1,1-Trichloroethane	ug/L	50	R	5	U	50	R
Carbon Tetrachloride	ug/L	50	R	5	U	50	R
1,2-Dichloroethane	ug/L	50	R	5	U	50	R
Benzene	ug/L	50	R	2.4	J	50	R
Trichloroethylene (TCE)	ug/L	208	=	254	R	215	=
1,2-Dichloropropane	ug/L	50	R	5	U	50	R
Bromodichloromethane	ug/L	50	R	5	U	50	R
2-Chloroethyl vinyl ether	ug/L	100	R	10	UJ	100	R
cis-1,3-Dichloropropene	ug/L	50	R	5	U	50	R
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	100	R	10	U	100	R
Toluene	ug/L	50	R	5	U	50	R
trans-1,3-Dichloropropene	ug/L	50	R	5	U	50	R
1,1,2-Trichloroethane	ug/L	50	R	5	U	50	R
2-Hexanone	ug/L	100	R	10	U	100	R
Tetrachloroethylene (PCE)	ug/L	15.5	R	15	=	12.8	R

	StationID	A039GP128		A039GP128		A039GP128	
	SampleID	039GP128-I		039GP128D1		039GP128D1DL	
	DateCollected	10/16/2003		10/16/2003		10/16/2003	
	DateExtracted	10/22/2003		10/21/2003		10/22/2003	
	DateAnalyzed	10/22/2003		10/21/2003		10/22/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	10	U	50	R
Vinyl chloride	ug/L	1.1	J	0.96	J	50	R
Bromomethane	ug/L	10	U	10	U	50	R
Chloroethane	ug/L	10	U	10	U	50	R
1,1-Dichloroethene	ug/L	1	J	3.2	J	2.9	R
Acetone	ug/L	2.8	J	2.4	J	50	R
Carbon Disulfide	ug/L	5	U	5	U	25	R
Methylene Chloride	ug/L	5	U	5	U	25	R
trans-1,2-Dichloroethene	ug/L	1.5	J	0.49	J	25	R
1,1-Dichloroethane	ug/L	5	U	5	U	25	R
Vinyl acetate	ug/L	10	U	10	U	50	R
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	50	R
cis-1,2-Dichloroethylene	ug/L	55.1	=	65.2	=	60	R
1,2-Dichloroethene (total)	ug/L	56.6	=	65.6	=	60	R
Chloroform	ug/L	5	U	5	U	25	R
1,1,1-Trichloroethane	ug/L	5	U	5	U	25	R
Carbon Tetrachloride	ug/L	5	U	5	U	25	R
1,2-Dichloroethane	ug/L	5	U	5	U	25	R
Benzene	ug/L	5	U	0.45	J	25	R
Trichloroethylene (TCE)	ug/L	8.9	=	223	R	203	=
1,2-Dichloropropane	ug/L	5	U	5	U	25	R
Bromodichloromethane	ug/L	5	U	5	U	25	R
2-Chloroethyl vinyl ether	ug/L	10	UJ	10	U	50	R
cis-1,3-Dichloropropene	ug/L	5	U	5	U	25	R
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	50	R
Toluene	ug/L	5	U	5	U	25	R
trans-1,3-Dichloropropene	ug/L	5	U	5	U	25	R
1,1,2-Trichloroethane	ug/L	5	U	5	U	25	R
2-Hexanone	ug/L	10	U	10	U	50	R
Tetrachloroethylene (PCE)	ug/L	5	U	1.3	J	25	R

	StationID	A039GP128		A039GP128		A039GP128	
	SampleID	039GP128D2		039GP128D2DL		039GP128D3	
	DateCollected	10/16/2003		10/16/2003		10/16/2003	
	DateExtracted	10/20/2003		10/21/2003		10/20/2003	
	DateAnalyzed	10/20/2003		10/21/2003		10/20/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Chloromethane	ug/L	10	UJ	100	R	10	UJ
Vinyl chloride	ug/L	19.2	J	25.4	R	15.8	J
Bromomethane	ug/L	10	UJ	100	R	10	UJ
Chloroethane	ug/L	10	UJ	100	R	10	UJ
1,1-Dichloroethene	ug/L	15.5	J	12.6	R	10.9	J
Acetone	ug/L	6	J	100	R	7.8	J
Carbon Disulfide	ug/L	5	UJ	50	R	5	UJ
Methylene Chloride	ug/L	5	UJ	50	R	5	UJ
trans-1,2-Dichloroethene	ug/L	5.2	J	3.9	R	2.3	J
1,1-Dichloroethane	ug/L	12	J	10.5	R	8.3	J
Vinyl acetate	ug/L	10	UJ	100	R	10	UJ
Methyl ethyl ketone (2-Butanone)	ug/L	10	UJ	100	R	10	UJ
cis-1,2-Dichloroethylene	ug/L	784	R	887	J	547	R
1,2-Dichloroethene (total)	ug/L	789	R	891	J	549	R
Chloroform	ug/L	5	UJ	50	R	5	UJ
1,1,1-Trichloroethane	ug/L	5	UJ	50	R	5	UJ
Carbon Tetrachloride	ug/L	5	UJ	50	R	5	UJ
1,2-Dichloroethane	ug/L	5	UJ	50	R	5	UJ
Benzene	ug/L	3	J	50	R	2	J
Trichloroethylene (TCE)	ug/L	658	R	655	J	397	R
1,2-Dichloropropane	ug/L	5	UJ	50	R	5	UJ
Bromodichloromethane	ug/L	5	UJ	50	R	5	UJ
2-Chloroethyl vinyl ether	ug/L	10	UJ	100	R	10	UJ
cis-1,3-Dichloropropene	ug/L	5	UJ	50	R	5	UJ
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	UJ	100	R	10	UJ
Toluene	ug/L	5	UJ	50	R	5	UJ
trans-1,3-Dichloropropene	ug/L	5	UJ	50	R	5	UJ
1,1,2-Trichloroethane	ug/L	5	UJ	50	R	5	UJ
2-Hexanone	ug/L	10	UJ	100	R	10	UJ
Tetrachloroethylene (PCE)	ug/L	6.1	J	3.8	R	8.7	J

	StationID	A039GP128		A039GP129		A039GP129	
	SampleID	039GP128D3DL		039GP12928		039GP12938	
	DateCollected	10/16/2003		11/04/2003		11/04/2003	
	DateExtracted	10/21/2003		11/17/2003		11/18/2003	
	DateAnalyzed	10/21/2003		11/17/2003		11/18/2003	
	SDGNumber	100207		101335		101335	
Parameter	**Units**						
Chloromethane	ug/L	100	R	10	U	10	U
Vinyl chloride	ug/L	20.7	R	10	U	10	U
Bromomethane	ug/L	100	R	10	U	10	U
Chloroethane	ug/L	100	R	10	U	10	U
1,1-Dichloroethene	ug/L	9.3	R	5	U	5	U
Acetone	ug/L	100	R	10	U	10	U
Carbon Disulfide	ug/L	50	R	5	U	5	U
Methylene Chloride	ug/L	50	R	5	UJ	5	U
trans-1,2-Dichloroethene	ug/L	50	R	0.68	J	0.41	J
1,1-Dichloroethane	ug/L	50	R	1.1	J	1.2	J
Vinyl acetate	ug/L	100	R	10	U	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	100	R	10	U	10	U
cis-1,2-Dichloroethylene	ug/L	616	J	36.8	=	43.8	=
1,2-Dichloroethene (total)	ug/L	616	J	37.5	=	44.2	=
Chloroform	ug/L	50	R	5	U	5	U
1,1,1-Trichloroethane	ug/L	50	R	5	U	5	U
Carbon Tetrachloride	ug/L	50	R	5	U	5	U
1,2-Dichloroethane	ug/L	50	R	5	U	5	U
Benzene	ug/L	50	R	5	U	5	U
Trichloroethylene (TCE)	ug/L	388	J	10.7	=	14.3	=
1,2-Dichloropropane	ug/L	50	R	5	U	5	U
Bromodichloromethane	ug/L	50	R	5	U	5	U
2-Chloroethyl vinyl ether	ug/L	100	R	10	U	10	UJ
cis-1,3-Dichloropropene	ug/L	50	R	5	U	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	100	R	10	U	10	U
Toluene	ug/L	50	R	5	U	5	U
trans-1,3-Dichloropropene	ug/L	50	R	5	U	5	U
1,1,2-Trichloroethane	ug/L	50	R	5	U	5	U
2-Hexanone	ug/L	100	R	10	U	10	U
Tetrachloroethylene (PCE)	ug/L	7.3	R	5	U	5	U

	StationID	A039GP129		A039GP129		A039GP129	
	SampleID	039GP12942		039GP12942DL		039GP12946	
	DateCollected	11/04/2003		11/04/2003		11/04/2003	
	DateExtracted	11/18/2003		11/18/2003		11/17/2003	
	DateAnalyzed	11/18/2003		11/18/2003		11/17/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Chloromethane	ug/L	10	U	50	R	10	U
Vinyl chloride	ug/L	24.4	=	20.4	R	23.2	=
Bromomethane	ug/L	10	U	50	R	10	U
Chloroethane	ug/L	10	U	50	R	10	U
1,1-Dichloroethene	ug/L	5.8	U	4.8	R	6.1	U
Acetone	ug/L	10	U	50	R	10	U
Carbon Disulfide	ug/L	5	U	25	R	5	U
Methylene Chloride	ug/L	5	U	25	R	5	UJ
trans-1,2-Dichloroethene	ug/L	4.3	J	3.6	R	5.1	=
1,1-Dichloroethane	ug/L	4.5	J	4	R	4.7	J
Vinyl acetate	ug/L	10	U	50	R	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	50	R	10	U
cis-1,2-Dichloroethylene	ug/L	367	R	328	=	386	R
1,2-Dichloroethene (total)	ug/L	371	R	332	=	391	R
Chloroform	ug/L	5	U	25	R	5	U
1,1,1-Trichloroethane	ug/L	5	U	25	R	5	U
Carbon Tetrachloride	ug/L	5	U	25	R	5	U
1,2-Dichloroethane	ug/L	5	U	25	R	5	U
Benzene	ug/L	0.74	J	25	R	0.73	J
Trichloroethylene (TCE)	ug/L	44.1	=	39.7	R	49.1	=
1,2-Dichloropropane	ug/L	5	U	25	R	5	U
Bromodichloromethane	ug/L	5	U	25	R	5	U
2-Chloroethyl vinyl ether	ug/L	10	UJ	50	R	10	U
cis-1,3-Dichloropropene	ug/L	5	U	25	R	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	50	R	10	U
Toluene	ug/L	5	U	25	R	5	U
trans-1,3-Dichloropropene	ug/L	5	U	25	R	5	U
1,1,2-Trichloroethane	ug/L	5	U	25	R	5	U
2-Hexanone	ug/L	10	U	50	R	10	U
Tetrachloroethylene (PCE)	ug/L	5	U	25	R	0.36	J

	StationID	A039GP129		A039GP130		A039GP130	
	SampleID	039GP12946DL		039GP13028		039GP13038	
	DateCollected	11/04/2003		11/04/2003		11/04/2003	
	DateExtracted	11/18/2003		11/18/2003		11/17/2003	
	DateAnalyzed	11/18/2003		11/18/2003		11/17/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Chloromethane	ug/L	50	R	10	U	10	U
Vinyl chloride	ug/L	23.4	R	10	U	10	U
Bromomethane	ug/L	50	R	10	U	10	U
Chloroethane	ug/L	50	R	10	U	10	U
1,1-Dichloroethene	ug/L	4.1	R	5	U	5	U
Acetone	ug/L	50	R	10	U	10	U
Carbon Disulfide	ug/L	25	R	5	U	5	U
Methylene Chloride	ug/L	25	R	5	U	5	UJ
trans-1,2-Dichloroethene	ug/L	4.7	R	5	U	0.72	J
1,1-Dichloroethane	ug/L	3.7	R	5	U	1.1	J
Vinyl acetate	ug/L	50	R	10	U	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	50	R	10	U	10	U
cis-1,2-Dichloroethylene	ug/L	346	=	5	U	56.8	=
1,2-Dichloroethene (total)	ug/L	351	=	5	U	57.5	=
Chloroform	ug/L	25	R	5	U	5	U
1,1,1-Trichloroethane	ug/L	25	R	5	U	5	U
Carbon Tetrachloride	ug/L	25	R	5	U	5	U
1,2-Dichloroethane	ug/L	25	R	5	U	5	U
Benzene	ug/L	25	R	5	U	0.37	J
Trichloroethylene (TCE)	ug/L	44.5	R	5	U	28.1	=
1,2-Dichloropropane	ug/L	25	R	5	U	5	U
Bromodichloromethane	ug/L	25	R	5	U	5	U
2-Chloroethyl vinyl ether	ug/L	50	R	10	UJ	10	U
cis-1,3-Dichloropropene	ug/L	25	R	5	U	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	50	R	10	U	10	U
Toluene	ug/L	25	R	5	U	5	U
trans-1,3-Dichloropropene	ug/L	25	R	5	U	5	U
1,1,2-Trichloroethane	ug/L	25	R	5	U	5	U
2-Hexanone	ug/L	50	R	10	U	10	U
Tetrachloroethylene (PCE)	ug/L	25	R	5	U	5	U

	StationID	A039GP130		A039GP130		A039GP131	
	SampleID	039GP13042		039GP13046		039GP13128	
	DateCollected	11/04/2003		11/04/2003		11/04/2003	
	DateExtracted	11/17/2003		11/17/2003		11/17/2003	
	DateAnalyzed	11/17/2003		11/17/2003		11/17/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Chloromethane	ug/L	10	U	10	U	10	U
Vinyl chloride	ug/L	4.4	J	5.7	J	10	U
Bromomethane	ug/L	10	U	10	U	10	U
Chloroethane	ug/L	10	U	10	U	10	U
1,1-Dichloroethene	ug/L	5	U	5	U	5	U
Acetone	ug/L	10	U	10	U	10	U
Carbon Disulfide	ug/L	5	U	5	U	5	U
Methylene Chloride	ug/L	5	UJ	5	UJ	5	UJ
trans-1,2-Dichloroethene	ug/L	0.56	J	0.92	J	5	U
1,1-Dichloroethane	ug/L	1.1	J	1.5	J	5	U
Vinyl acetate	ug/L	10	U	10	U	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	10	U
cis-1,2-Dichloroethylene	ug/L	74.8	=	95.6	=	4.1	J
1,2-Dichloroethene (total)	ug/L	75.3	=	96.5	=	4.1	J
Chloroform	ug/L	5	U	5	U	5	U
1,1,1-Trichloroethane	ug/L	5	U	5	U	5	U
Carbon Tetrachloride	ug/L	5	U	5	U	5	U
1,2-Dichloroethane	ug/L	5	U	5	U	5	U
Benzene	ug/L	5	U	5	U	5	U
Trichloroethylene (TCE)	ug/L	19.8	=	26.1	=	2.6	J
1,2-Dichloropropane	ug/L	5	U	5	U	5	U
Bromodichloromethane	ug/L	5	U	5	U	5	U
2-Chloroethyl vinyl ether	ug/L	10	U	10	U	10	U
cis-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	10	U
Toluene	ug/L	5	U	5	U	5	U
trans-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
1,1,2-Trichloroethane	ug/L	5	U	5	U	5	U
2-Hexanone	ug/L	10	U	10	U	10	U
Tetrachloroethylene (PCE)	ug/L	5	U	0.48	J	5	U

	StationID	A039GP131		A039GP131		A039GP131	
	SampleID	039GP13138		039GP13142		039GP13146	
	DateCollected	11/04/2003		11/04/2003		11/04/2003	
	DateExtracted	11/17/2003		11/17/2003		11/17/2003	
	DateAnalyzed	11/17/2003		11/17/2003		11/17/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Chloromethane	ug/L	10	U	10	U	10	U
Vinyl chloride	ug/L	10	U	10	U	10	U
Bromomethane	ug/L	10	U	10	U	10	U
Chloroethane	ug/L	10	U	10	U	10	U
1,1-Dichloroethene	ug/L	5	U	5	U	5	U
Acetone	ug/L	10	U	10	U	10	U
Carbon Disulfide	ug/L	5	U	5	U	5	U
Methylene Chloride	ug/L	5	UJ	5	UJ	5	UJ
trans-1,2-Dichloroethene	ug/L	5	U	5	U	5	U
1,1-Dichloroethane	ug/L	0.69	J	5	U	5	U
Vinyl acetate	ug/L	10	U	10	U	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	10	U
cis-1,2-Dichloroethylene	ug/L	36	=	10.5	=	11.2	=
1,2-Dichloroethene (total)	ug/L	36	=	10.5	=	11.2	=
Chloroform	ug/L	5	U	5	U	5	U
1,1,1-Trichloroethane	ug/L	5	U	5	U	5	U
Carbon Tetrachloride	ug/L	5	U	5	U	5	U
1,2-Dichloroethane	ug/L	5	U	5	U	5	U
Benzene	ug/L	5	U	5	U	5	U
Trichloroethylene (TCE)	ug/L	21.4	=	4.8	J	4.9	J
1,2-Dichloropropane	ug/L	5	U	5	U	5	U
Bromodichloromethane	ug/L	5	U	5	U	5	U
2-Chloroethyl vinyl ether	ug/L	10	U	10	U	10	U
cis-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	10	U
Toluene	ug/L	5	U	5	U	5	U
trans-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
1,1,2-Trichloroethane	ug/L	5	U	5	U	5	U
2-Hexanone	ug/L	10	U	10	U	10	U
Tetrachloroethylene (PCE)	ug/L	5	U	5	U	5	U

	StationID	A039GP132		A039GP132		A039GP132	
	SampleID	039GP13228		039GP13238		039GP13242	
	DateCollected	11/05/2003		11/05/2003		11/05/2003	
	DateExtracted	11/17/2003		11/17/2003		11/17/2003	
	DateAnalyzed	11/17/2003		11/17/2003		11/17/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Chloromethane	ug/L	10	U	10	U	10	U
Vinyl chloride	ug/L	10	U	4.4	J	9.4	J
Bromomethane	ug/L	10	U	10	U	10	U
Chloroethane	ug/L	10	U	10	U	10	U
1,1-Dichloroethene	ug/L	5	U	5	U	5	U
Acetone	ug/L	15	U	10	U	10	U
Carbon Disulfide	ug/L	5	U	5	U	5	U
Methylene Chloride	ug/L	5	UJ	5	UJ	5	UJ
trans-1,2-Dichloroethene	ug/L	5	U	0.49	J	2.2	J
1,1-Dichloroethane	ug/L	5	U	0.94	J	4	J
Vinyl acetate	ug/L	10	U	10	U	10	U
Methyl ethyl ketone (2-Butanone)	ug/L	10	U	10	U	10	U
cis-1,2-Dichloroethylene	ug/L	5	U	48.8	=	239	R
1,2-Dichloroethene (total)	ug/L	5	U	49.2	=	241	R
Chloroform	ug/L	5	U	5	U	5	U
1,1,1-Trichloroethane	ug/L	5	U	5	U	5	U
Carbon Tetrachloride	ug/L	5	U	5	U	5	U
1,2-Dichloroethane	ug/L	5	U	5	U	5	U
Benzene	ug/L	5	U	5	U	0.57	J
Trichloroethylene (TCE)	ug/L	5	U	7.6	=	27.9	=
1,2-Dichloropropane	ug/L	5	U	5	U	5	U
Bromodichloromethane	ug/L	5	U	5	U	5	U
2-Chloroethyl vinyl ether	ug/L	10	U	10	U	10	U
cis-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	10	U	10	U	10	U
Toluene	ug/L	5	U	5	U	5	U
trans-1,3-Dichloropropene	ug/L	5	U	5	U	5	U
1,1,2-Trichloroethane	ug/L	5	U	5	U	5	U
2-Hexanone	ug/L	10	U	10	U	10	U
Tetrachloroethylene (PCE)	ug/L	5	U	3.4	J	7	=

	StationID	A039GP132		A039GP132		A039GP132	
	SampleID	039GP13242DL		039GP13246		039GP13246DL	
	DateCollected	11/05/2003		11/05/2003		11/05/2003	
	DateExtracted	11/18/2003		11/17/2003		11/18/2003	
	DateAnalyzed	11/18/2003		11/17/2003		11/18/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Chloromethane	ug/L	50	R	10	U	50	R
Vinyl chloride	ug/L	9.9	R	15.6	=	16	R
Bromomethane	ug/L	50	R	10	U	50	R
Chloroethane	ug/L	50	R	10	U	50	R
1,1-Dichloroethene	ug/L	25	R	5	U	2.4	R
Acetone	ug/L	50	R	10	U	50	R
Carbon Disulfide	ug/L	25	R	5	U	25	R
Methylene Chloride	ug/L	25	R	5	UJ	25	R
trans-1,2-Dichloroethene	ug/L	2.3	R	3.6	J	3.5	R
1,1-Dichloroethane	ug/L	4.1	R	5.1	=	4.4	R
Vinyl acetate	ug/L	50	R	10	U	50	R
Methyl ethyl ketone (2-Butanone)	ug/L	50	R	10	U	50	R
cis-1,2-Dichloroethylene	ug/L	229	=	301	R	270	=
1,2-Dichloroethene (total)	ug/L	231	=	305	R	274	=
Chloroform	ug/L	25	R	5	U	25	R
1,1,1-Trichloroethane	ug/L	25	R	5	U	25	R
Carbon Tetrachloride	ug/L	25	R	5	U	25	R
1,2-Dichloroethane	ug/L	25	R	5	U	25	R
Benzene	ug/L	25	R	0.76	J	25	R
Trichloroethylene (TCE)	ug/L	27.4	R	51.2	=	50.2	R
1,2-Dichloropropane	ug/L	25	R	5	U	25	R
Bromodichloromethane	ug/L	25	R	5	U	25	R
2-Chloroethyl vinyl ether	ug/L	50	R	10	R	50	R
cis-1,3-Dichloropropene	ug/L	25	R	5	U	25	R
Methyl isobutyl ketone (4-Methyl-2-pentanone)	ug/L	50	R	10	U	50	R
Toluene	ug/L	25	R	5	U	25	R
trans-1,3-Dichloropropene	ug/L	25	R	5	U	25	R
1,1,2-Trichloroethane	ug/L	25	R	5	U	25	R
2-Hexanone	ug/L	50	R	10	U	50	R
Tetrachloroethylene (PCE)	ug/L	7.2	R	20.3	=	20.8	R

	StationID	A039GP115		A039GP115		A039GP115	
	SampleID	039GP115-I		039GP115D1		039GP115D2	
	DateCollected	09/30/2003		09/30/2003		09/30/2003	
	DateExtracted	10/03/2003		10/03/2003		10/03/2003	
	DateAnalyzed	10/03/2003		10/03/2003		10/03/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	5	U
Chlorobenzene	ug/L	5	U	5	U	5	U
Ethylbenzene	ug/L	5	U	5	U	5	U
m+p Xylene	ug/L	5	U	5	U	5	U
o-Xylene	ug/L	5	U	5	U	5	U
Xylenes, Total	ug/L	5	U	5	U	5	U
Styrene	ug/L	5	U	5	U	5	U
Bromoform	ug/L	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	5	U
1,3-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,4-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	5	U
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	5	U

	StationID	A039GP116		A039GP116		A039GP116	
	SampleID	039GP116-I		039GP116D1		039GP116D2	
	DateCollected	09/30/2003		09/30/2003		09/30/2003	
	DateExtracted	10/03/2003		10/03/2003		10/03/2003	
	DateAnalyzed	10/03/2003		10/03/2003		10/03/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	5	U
Chlorobenzene	ug/L	5	U	5	U	5	U
Ethylbenzene	ug/L	5	U	5	U	5	U
m+p Xylene	ug/L	5	U	5	U	5	U
o-Xylene	ug/L	5	U	5	U	5	U
Xylenes, Total	ug/L	5	U	5	U	5	U
Styrene	ug/L	5	U	5	U	5	U
Bromoform	ug/L	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	5	U
1,3-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,4-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	5	U
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	5	U

	StationID	A039GP116		A039GP116		A039GP117	
	SampleID	039GP116D3		039GP116D3DL		039GP117-I	
	DateCollected	09/30/2003		09/30/2003		10/01/2003	
	DateExtracted	10/03/2003		10/04/2003		10/03/2003	
	DateAnalyzed	10/03/2003		10/04/2003		10/03/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	25	R	5	U
Chlorobenzene	ug/L	5	U	25	R	5	U
Ethylbenzene	ug/L	5	U	25	R	5	U
m+p Xylene	ug/L	5	U	25	R	5	U
o-Xylene	ug/L	5	U	25	R	5	U
Xylenes, Total	ug/L	5	U	25	R	5	U
Styrene	ug/L	5	U	25	R	5	U
Bromoform	ug/L	5	U	25	R	5	U
1,1,2,2-Tetrachloroethane	ug/L	5	U	25	R	5	U
1,3-Dichlorobenzene	ug/L	5	U	25	R	5	U
1,4-Dichlorobenzene	ug/L	5	U	25	R	5	U
1,2-Dichlorobenzene	ug/L	5	U	25	R	5	U
1,2,4-Trichlorobenzene	ug/L	5	U	25	R	5	U
1,2,3-Trichlorobenzene	ug/L	5	U	25	R	5	U

	StationID	A039GP117		A039GP117		A039GP117	
	SampleID	039GP117-IDL		039GP117D1		039GP117D1DL	
	DateCollected	10/01/2003		10/01/2003		10/01/2003	
	DateExtracted	10/04/2003		10/03/2003		10/04/2003	
	DateAnalyzed	10/04/2003		10/03/2003		10/04/2003	
	SDGNumber	89179		89179		89179	
Parameter	Units						
Dibromochloromethane	ug/L	10	R	5	U	50	R
Chlorobenzene	ug/L	10	R	5	U	50	R
Ethylbenzene	ug/L	10	R	5	U	50	R
m+p Xylene	ug/L	10	R	5	U	50	R
o-Xylene	ug/L	10	R	5	U	50	R
Xylenes, Total	ug/L	10	R	5	U	50	R
Styrene	ug/L	10	R	5	U	50	R
Bromoform	ug/L	10	R	5	U	50	R
1,1,2,2-Tetrachloroethane	ug/L	10	R	5	U	50	R
1,3-Dichlorobenzene	ug/L	10	R	5	U	50	R
1,4-Dichlorobenzene	ug/L	10	R	5	U	50	R
1,2-Dichlorobenzene	ug/L	10	R	5	U	50	R
1,2,4-Trichlorobenzene	ug/L	10	R	5	U	50	R
1,2,3-Trichlorobenzene	ug/L	10	R	5	U	50	R

	StationID	A039GP117		A039GP117		A039GP117	
	SampleID	039GP117D2		039GP117D2DL		039GP117D3	
	DateCollected	10/01/2003		10/01/2003		10/01/2003	
	DateExtracted	10/03/2003		10/04/2003		10/03/2003	
	DateAnalyzed	10/03/2003		10/04/2003		10/03/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	50	R	5	U
Chlorobenzene	ug/L	5	U	50	R	5	U
Ethylbenzene	ug/L	5	U	50	R	5	U
m+p Xylene	ug/L	5	U	50	R	5	U
o-Xylene	ug/L	5	U	50	R	5	U
Xylenes, Total	ug/L	5	U	50	R	5	U
Styrene	ug/L	5	U	50	R	5	U
Bromoform	ug/L	5	U	50	R	5	U
1,1,2,2-Tetrachloroethane	ug/L	5	U	50	R	5	U
1,3-Dichlorobenzene	ug/L	5	U	50	R	5	U
1,4-Dichlorobenzene	ug/L	5	U	50	R	5	U
1,2-Dichlorobenzene	ug/L	5	U	50	R	5	U
1,2,4-Trichlorobenzene	ug/L	5	U	50	R	5	U
1,2,3-Trichlorobenzene	ug/L	5	U	50	R	5	U

	StationID	A039GP117		A039GP117		A039GP118	
	SampleID	039GP117D3DL		039HP117-IDL		039GP118-I	
	DateCollected	10/01/2003		10/01/2003		10/01/2003	
	DateExtracted	10/04/2003		10/04/2003		10/04/2003	
	DateAnalyzed	10/04/2003		10/04/2003		10/04/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Dibromochloromethane	ug/L	50	R	10	R	5	U
Chlorobenzene	ug/L	50	R	10	R	5	U
Ethylbenzene	ug/L	50	R	10	R	5	U
m+p Xylene	ug/L	50	R	10	R	5	U
o-Xylene	ug/L	50	R	10	R	5	U
Xylenes, Total	ug/L	50	R	10	R	5	U
Styrene	ug/L	50	R	10	R	5	U
Bromoform	ug/L	50	R	10	R	5	U
1,1,2,2-Tetrachloroethane	ug/L	50	R	10	R	5	U
1,3-Dichlorobenzene	ug/L	50	R	10	R	5	U
1,4-Dichlorobenzene	ug/L	50	R	10	R	5	U
1,2-Dichlorobenzene	ug/L	50	R	10	R	5	U
1,2,4-Trichlorobenzene	ug/L	50	R	10	R	5	U
1,2,3-Trichlorobenzene	ug/L	50	R	10	R	5	U

	StationID	A039GP118		A039GP118		A039GP118	
	SampleID	039GP118D1		039GP118D1DL		039GP118D2	
	DateCollected	10/01/2003		10/01/2003		10/01/2003	
	DateExtracted	10/03/2003		10/04/2003		10/03/2003	
	DateAnalyzed	10/03/2003		10/04/2003		10/03/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	50	R	5	U
Chlorobenzene	ug/L	5	U	50	R	5	U
Ethylbenzene	ug/L	5	U	50	R	5	U
m+p Xylene	ug/L	5	U	50	R	5	U
o-Xylene	ug/L	5	U	50	R	5	U
Xylenes, Total	ug/L	5	U	50	R	5	U
Styrene	ug/L	5	U	50	R	5	U
Bromoform	ug/L	5	U	50	R	5	U
1,1,2,2-Tetrachloroethane	ug/L	5	U	50	R	5	U
1,3-Dichlorobenzene	ug/L	5	U	50	R	5	U
1,4-Dichlorobenzene	ug/L	5	U	50	R	5	U
1,2-Dichlorobenzene	ug/L	5	U	50	R	5	U
1,2,4-Trichlorobenzene	ug/L	5	U	50	R	5	U
1,2,3-Trichlorobenzene	ug/L	5	U	50	R	5	U

	StationID	A039GP118		A039GP118		A039GP118	
	SampleID	039GP118D2DL		039GP118D3		039GP118D3DL	
	DateCollected	10/01/2003		10/01/2003		10/01/2003	
	DateExtracted	10/04/2003		10/03/2003		10/04/2003	
	DateAnalyzed	10/04/2003		10/03/2003		10/04/2003	
	SDGNumber	89179		89179		89179	
Parameter	**Units**						
Dibromochloromethane	ug/L	100	R	5	U	100	R
Chlorobenzene	ug/L	100	R	5	U	100	R
Ethylbenzene	ug/L	100	R	5	U	100	R
m+p Xylene	ug/L	100	R	5	U	100	R
o-Xylene	ug/L	100	R	5	U	100	R
Xylenes, Total	ug/L	100	R	5	U	100	R
Styrene	ug/L	100	R	5	U	100	R
Bromoform	ug/L	100	R	5	U	100	R
1,1,2,2-Tetrachloroethane	ug/L	100	R	5	U	100	R
1,3-Dichlorobenzene	ug/L	100	R	5	U	100	R
1,4-Dichlorobenzene	ug/L	100	R	5	U	100	R
1,2-Dichlorobenzene	ug/L	100	R	5	U	100	R
1,2,4-Trichlorobenzene	ug/L	100	R	5	U	100	R
1,2,3-Trichlorobenzene	ug/L	100	R	5	U	100	R

	StationID	A039GP119		A039GP119		A039GP119	
	SampleID	039GP119-I		039GP119D1		039GP119D2	
	DateCollected	10/07/2003		10/07/2003		10/07/2003	
	DateExtracted	10/10/2003		10/10/2003		10/10/2003	
	DateAnalyzed	10/10/2003		10/10/2003		10/10/2003	
	SDGNumber	89573		89573		89573	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	UJ	10	U	25	U
Chlorobenzene	ug/L	5	UJ	10	U	25	U
Ethylbenzene	ug/L	5	UJ	10	U	25	U
m+p Xylene	ug/L	5	UJ	10	U	25	U
o-Xylene	ug/L	5	UJ	10	U	25	U
Xylenes, Total	ug/L	5	UJ	10	U	25	U
Styrene	ug/L	5	UJ	10	U	25	U
Bromoform	ug/L	5	UJ	10	U	25	U
1,1,2,2-Tetrachloroethane	ug/L	5	UJ	10	U	25	U
1,3-Dichlorobenzene	ug/L	5	UJ	10	U	25	U
1,4-Dichlorobenzene	ug/L	5	UJ	10	U	25	U
1,2-Dichlorobenzene	ug/L	5	UJ	10	U	25	U
1,2,4-Trichlorobenzene	ug/L	5	UJ	10	U	25	U
1,2,3-Trichlorobenzene	ug/L	5	UJ	10	U	25	U

	StationID	A039GP119		A039GP119		A039GP120	
	SampleID	039GP119D2DL		039GP119D3		039GP120-I	
	DateCollected	10/07/2003		10/07/2003		10/07/2003	
	DateExtracted	10/09/2003		10/09/2003		10/10/2003	
	DateAnalyzed	10/09/2003		10/09/2003		10/10/2003	
	SDGNumber	89573		89573		89573	
Parameter	**Units**						
Dibromochloromethane	ug/L	50	R	50	U	5	U
Chlorobenzene	ug/L	50	R	50	U	5	U
Ethylbenzene	ug/L	50	R	50	U	5	U
m+p Xylene	ug/L	50	R	50	U	5	U
o-Xylene	ug/L	50	R	50	U	5	U
Xylenes, Total	ug/L	50	R	50	U	5	U
Styrene	ug/L	50	R	50	U	5	U
Bromoform	ug/L	50	R	50	U	5	U
1,1,2,2-Tetrachloroethane	ug/L	50	R	50	U	5	U
1,3-Dichlorobenzene	ug/L	50	R	50	U	5	U
1,4-Dichlorobenzene	ug/L	50	R	50	U	5	U
1,2-Dichlorobenzene	ug/L	50	R	50	U	5	U
1,2,4-Trichlorobenzene	ug/L	50	R	50	U	5	U
1,2,3-Trichlorobenzene	ug/L	50	R	50	U	5	U

	StationID	A039GP120		A039GP120		A039GP120	
	SampleID	039GP120D1		039GP120D2		039GP120D2DL	
	DateCollected	10/07/2003		10/07/2003		10/07/2003	
	DateExtracted	10/10/2003		10/10/2003		10/09/2003	
	DateAnalyzed	10/10/2003		10/10/2003		10/09/2003	
	SDGNumber	89573		89573		89573	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	50	R
Chlorobenzene	ug/L	5	U	5	U	50	R
Ethylbenzene	ug/L	5	U	5	U	50	R
m+p Xylene	ug/L	5	U	5	U	50	R
o-Xylene	ug/L	5	U	5	U	50	R
Xylenes, Total	ug/L	5	U	5	U	50	R
Styrene	ug/L	5	U	5	U	50	R
Bromoform	ug/L	5	U	5	U	50	R
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	50	R
1,3-Dichlorobenzene	ug/L	5	U	5	U	50	R
1,4-Dichlorobenzene	ug/L	5	U	5	U	50	R
1,2-Dichlorobenzene	ug/L	5	U	5	U	50	R
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	50	R
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	50	R

	StationID	A039GP120		A039GP121		A039GP121	
	SampleID	039GP120D3		039GP121-I		039GP121D1	
	DateCollected	10/08/2003		10/09/2003		10/09/2003	
	DateExtracted	10/10/2003		10/16/2003		10/16/2003	
	DateAnalyzed	10/10/2003		10/16/2003		10/16/2003	
	SDGNumber	89573		89993		89993	
Parameter	**Units**						
Dibromochloromethane	ug/L	50	U	5	UJ	5	U
Chlorobenzene	ug/L	50	U	5	UJ	5	U
Ethylbenzene	ug/L	50	U	5	UJ	5	U
m+p Xylene	ug/L	50	U	5	UJ	5	U
o-Xylene	ug/L	50	U	5	UJ	5	U
Xylenes, Total	ug/L	50	U	5	UJ	5	U
Styrene	ug/L	50	U	5	UJ	5	U
Bromoform	ug/L	50	U	5	UJ	5	U
1,1,2,2-Tetrachloroethane	ug/L	50	U	5	UJ	5	U
1,3-Dichlorobenzene	ug/L	50	U	5	UJ	5	U
1,4-Dichlorobenzene	ug/L	50	U	5	UJ	5	U
1,2-Dichlorobenzene	ug/L	50	U	5	UJ	5	U
1,2,4-Trichlorobenzene	ug/L	50	U	5	UJ	5	U
1,2,3-Trichlorobenzene	ug/L	50	U	5	UJ	5	U

	StationID	A039GP121		A039GP121		A039GP121	
	SampleID	039GP121D2		039GP121D2DL		039GP121D3	
	DateCollected	10/09/2003		10/09/2003		10/09/2003	
	DateExtracted	10/16/2003		10/17/2003		10/16/2003	
	DateAnalyzed	10/16/2003		10/17/2003		10/16/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	UJ	50	R	5	UJ
Chlorobenzene	ug/L	5	UJ	50	R	5	UJ
Ethylbenzene	ug/L	5	UJ	50	R	5	UJ
m+p Xylene	ug/L	5	UJ	50	R	5	UJ
o-Xylene	ug/L	5	UJ	50	R	5	UJ
Xylenes, Total	ug/L	5	UJ	50	R	5	UJ
Styrene	ug/L	5	UJ	50	R	5	UJ
Bromoform	ug/L	5	UJ	50	R	5	UJ
1,1,2,2-Tetrachloroethane	ug/L	5	UJ	50	R	5	UJ
1,3-Dichlorobenzene	ug/L	5	UJ	50	R	5	UJ
1,4-Dichlorobenzene	ug/L	5	UJ	50	R	5	UJ
1,2-Dichlorobenzene	ug/L	5	UJ	50	R	5	UJ
1,2,4-Trichlorobenzene	ug/L	5	UJ	50	R	5	UJ
1,2,3-Trichlorobenzene	ug/L	5	UJ	50	R	5	UJ

	StationID	A039GP121		A039GP122		A039GP122	
	SampleID	039GP121D3DL		039GP122-I		039GP122D1	
	DateCollected	10/09/2003		10/10/2003		10/10/2003	
	DateExtracted	10/17/2003		10/17/2003		10/16/2003	
	DateAnalyzed	10/17/2003		10/17/2003		10/16/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Dibromochloromethane	ug/L	50	R	5	U	5	UJ
Chlorobenzene	ug/L	50	R	5	U	5	UJ
Ethylbenzene	ug/L	50	R	5	U	5	UJ
m+p Xylene	ug/L	50	R	5	U	5	UJ
o-Xylene	ug/L	50	R	5	U	5	UJ
Xylenes, Total	ug/L	50	R	5	U	5	UJ
Styrene	ug/L	50	R	5	U	5	UJ
Bromoform	ug/L	50	R	5	U	5	UJ
1,1,2,2-Tetrachloroethane	ug/L	50	R	5	U	5	UJ
1,3-Dichlorobenzene	ug/L	50	R	5	U	5	UJ
1,4-Dichlorobenzene	ug/L	50	R	5	U	5	UJ
1,2-Dichlorobenzene	ug/L	50	R	5	U	5	UJ
1,2,4-Trichlorobenzene	ug/L	50	R	5	U	5	UJ
1,2,3-Trichlorobenzene	ug/L	50	R	5	U	5	UJ

	StationID	A039GP122		A039GP122		A039GP123	
	SampleID	039GP122D2		039GP122D3		039GP123-D1	
	DateCollected	10/10/2003		10/14/2003		10/14/2003	
	DateExtracted	10/16/2003		10/16/2003		10/16/2003	
	DateAnalyzed	10/16/2003		10/16/2003		10/16/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	5	UJ
Chlorobenzene	ug/L	5	U	5	U	5	UJ
Ethylbenzene	ug/L	5	U	5	U	5	UJ
m+p Xylene	ug/L	5	U	5	U	5	UJ
o-Xylene	ug/L	5	U	5	U	5	UJ
Xylenes, Total	ug/L	5	U	5	U	5	UJ
Styrene	ug/L	5	U	5	U	5	UJ
Bromoform	ug/L	5	U	5	U	5	UJ
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	5	UJ
1,3-Dichlorobenzene	ug/L	5	U	5	U	5	UJ
1,4-Dichlorobenzene	ug/L	5	U	5	U	5	UJ
1,2-Dichlorobenzene	ug/L	5	U	5	U	5	UJ
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	5	UJ
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	5	UJ

	StationID	A039GP123		A039GP123		A039GP123	
	SampleID	039GP123-I		039GP123D2		039GP123D3	
	DateCollected	10/14/2003		10/14/2003		10/14/2003	
	DateExtracted	10/16/2003		10/16/2003		10/16/2003	
	DateAnalyzed	10/16/2003		10/16/2003		10/16/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	UJ	5	U	5	UJ
Chlorobenzene	ug/L	5	UJ	5	U	5	UJ
Ethylbenzene	ug/L	5	UJ	5	U	5	UJ
m+p Xylene	ug/L	5	UJ	5	U	5	UJ
o-Xylene	ug/L	5	UJ	5	U	5	UJ
Xylenes, Total	ug/L	5	UJ	5	U	5	UJ
Styrene	ug/L	5	UJ	5	U	5	UJ
Bromoform	ug/L	5	UJ	5	U	5	UJ
1,1,2,2-Tetrachloroethane	ug/L	5	UJ	5	U	5	UJ
1,3-Dichlorobenzene	ug/L	5	UJ	5	U	5	UJ
1,4-Dichlorobenzene	ug/L	5	UJ	5	U	5	UJ
1,2-Dichlorobenzene	ug/L	5	UJ	5	U	5	UJ
1,2,4-Trichlorobenzene	ug/L	5	UJ	5	U	5	UJ
1,2,3-Trichlorobenzene	ug/L	5	UJ	5	U	5	UJ

	StationID	A039GP124		A039GP124		A039GP124	
	SampleID	039GP124-I		039GP124D1		039GP124D2	
	DateCollected	10/14/2003		10/14/2003		10/14/2003	
	DateExtracted	10/16/2003		10/16/2003		10/16/2003	
	DateAnalyzed	10/16/2003		10/16/2003		10/16/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	UJ	5	U	5	UJ
Chlorobenzene	ug/L	5	UJ	5	U	5	UJ
Ethylbenzene	ug/L	5	UJ	5	U	5	UJ
m+p Xylene	ug/L	5	UJ	5	U	5	UJ
o-Xylene	ug/L	5	UJ	5	U	5	UJ
Xylenes, Total	ug/L	5	UJ	5	U	5	UJ
Styrene	ug/L	5	UJ	5	U	5	UJ
Bromoform	ug/L	5	UJ	5	U	5	UJ
1,1,2,2-Tetrachloroethane	ug/L	5	UJ	5	U	5	UJ
1,3-Dichlorobenzene	ug/L	5	UJ	5	U	5	UJ
1,4-Dichlorobenzene	ug/L	5	UJ	5	U	5	UJ
1,2-Dichlorobenzene	ug/L	5	UJ	5	U	5	UJ
1,2,4-Trichlorobenzene	ug/L	5	UJ	5	U	5	UJ
1,2,3-Trichlorobenzene	ug/L	5	UJ	5	U	5	UJ

	StationID	A039GP124		A039GP124		A039GP124	
	SampleID	039GP124D2DL		039GP124D3		039GP124D3DL	
	DateCollected	10/14/2003		10/14/2003		10/14/2003	
	DateExtracted	10/17/2003		10/16/2003		10/17/2003	
	DateAnalyzed	10/17/2003		10/16/2003		10/17/2003	
	SDGNumber	89993		89993		89993	
Parameter	**Units**						
Dibromochloromethane	ug/L	50	R	5	UJ	50	R
Chlorobenzene	ug/L	50	R	5	UJ	50	R
Ethylbenzene	ug/L	50	R	5	UJ	50	R
m+p Xylene	ug/L	50	R	5	UJ	50	R
o-Xylene	ug/L	50	R	5	UJ	50	R
Xylenes, Total	ug/L	50	R	5	UJ	50	R
Styrene	ug/L	50	R	5	UJ	50	R
Bromoform	ug/L	50	R	5	UJ	50	R
1,1,2,2-Tetrachloroethane	ug/L	50	R	5	UJ	50	R
1,3-Dichlorobenzene	ug/L	50	R	5	UJ	50	R
1,4-Dichlorobenzene	ug/L	50	R	5	UJ	50	R
1,2-Dichlorobenzene	ug/L	50	R	5	UJ	50	R
1,2,4-Trichlorobenzene	ug/L	50	R	5	UJ	50	R
1,2,3-Trichlorobenzene	ug/L	50	R	5	UJ	50	R

	StationID	A039GP125		A039GP125		A039GP125	
	SampleID	039GP125-I		039GP125D1		039GP125D2	
	DateCollected	10/15/2003		10/15/2003		10/15/2003	
	DateExtracted	10/21/2003		10/20/2003		10/20/2003	
	DateAnalyzed	10/21/2003		10/20/2003		10/20/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	5	UJ
Chlorobenzene	ug/L	5	U	5	U	5	UJ
Ethylbenzene	ug/L	5	U	5	U	5	UJ
m+p Xylene	ug/L	5	U	5	U	5	UJ
o-Xylene	ug/L	5	U	5	U	5	UJ
Xylenes, Total	ug/L	5	U	5	U	5	UJ
Styrene	ug/L	5	U	5	U	5	UJ
Bromoform	ug/L	5	U	5	U	5	UJ
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	5	UJ
1,3-Dichlorobenzene	ug/L	5	U	5	U	5	UJ
1,4-Dichlorobenzene	ug/L	5	U	5	U	5	UJ
1,2-Dichlorobenzene	ug/L	5	U	5	U	5	UJ
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	5	UJ
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	5	UJ

	StationID	A039GP125		A039GP125		A039GP125	
	SampleID	039GP125D2DL		039GP125D3		039GP125D3DL	
	DateCollected	10/15/2003		10/15/2003		10/15/2003	
	DateExtracted	10/21/2003		10/20/2003		10/21/2003	
	DateAnalyzed	10/21/2003		10/20/2003		10/21/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Dibromochloromethane	ug/L	25	R	5	UJ	50	R
Chlorobenzene	ug/L	25	R	5	UJ	50	R
Ethylbenzene	ug/L	25	R	5	UJ	50	R
m+p Xylene	ug/L	25	R	5	UJ	50	R
o-Xylene	ug/L	25	R	5	UJ	50	R
Xylenes, Total	ug/L	25	R	5	UJ	50	R
Styrene	ug/L	25	R	5	UJ	50	R
Bromoform	ug/L	25	R	5	UJ	50	R
1,1,2,2-Tetrachloroethane	ug/L	25	R	5	UJ	50	R
1,3-Dichlorobenzene	ug/L	25	R	5	UJ	50	R
1,4-Dichlorobenzene	ug/L	25	R	5	UJ	50	R
1,2-Dichlorobenzene	ug/L	25	R	5	UJ	50	R
1,2,4-Trichlorobenzene	ug/L	25	R	5	UJ	50	R
1,2,3-Trichlorobenzene	ug/L	25	R	5	UJ	50	R

	StationID	A039GP126		A039GP126		A039GP126	
	SampleID	039GP126-I		039GP126D1		039GP126D2	
	DateCollected	10/15/2003		10/15/2003		10/15/2003	
	DateExtracted	10/21/2003		10/20/2003		10/20/2003	
	DateAnalyzed	10/21/2003		10/20/2003		10/20/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	5	UJ
Chlorobenzene	ug/L	5	U	5	U	5	UJ
Ethylbenzene	ug/L	5	U	5	U	5	UJ
m+p Xylene	ug/L	5	U	5	U	5	UJ
o-Xylene	ug/L	5	U	5	U	5	UJ
Xylenes, Total	ug/L	5	U	5	U	5	UJ
Styrene	ug/L	5	U	5	U	5	UJ
Bromoform	ug/L	5	U	5	U	5	UJ
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	5	UJ
1,3-Dichlorobenzene	ug/L	5	U	5	U	5	UJ
1,4-Dichlorobenzene	ug/L	5	U	5	U	5	UJ
1,2-Dichlorobenzene	ug/L	5	U	5	U	5	UJ
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	5	UJ
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	5	UJ

	StationID	A039GP126		A039GP126		A039GP126	
	SampleID	039GP126D2DL		039GP126D3		039GP126D3DL	
	DateCollected	10/15/2003		10/15/2003		10/15/2003	
	DateExtracted	10/21/2003		10/20/2003		10/21/2003	
	DateAnalyzed	10/21/2003		10/20/2003		10/21/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Dibromochloromethane	ug/L	25	R	5	UJ	25	R
Chlorobenzene	ug/L	25	R	5	UJ	25	R
Ethylbenzene	ug/L	25	R	5	UJ	25	R
m+p Xylene	ug/L	25	R	5	UJ	25	R
o-Xylene	ug/L	25	R	5	UJ	25	R
Xylenes, Total	ug/L	25	R	5	UJ	25	R
Styrene	ug/L	25	R	5	UJ	25	R
Bromoform	ug/L	25	R	5	UJ	25	R
1,1,2,2-Tetrachloroethane	ug/L	25	R	5	UJ	25	R
1,3-Dichlorobenzene	ug/L	25	R	5	UJ	25	R
1,4-Dichlorobenzene	ug/L	25	R	5	UJ	25	R
1,2-Dichlorobenzene	ug/L	25	R	5	UJ	25	R
1,2,4-Trichlorobenzene	ug/L	25	R	5	UJ	25	R
1,2,3-Trichlorobenzene	ug/L	25	R	5	UJ	25	R

	StationID	A039GP127		A039GP127		A039GP127	
	SampleID	039GP127-I		039GP127D1		039GP127D2	
	DateCollected	10/15/2003		10/15/2003		10/16/2003	
	DateExtracted	10/21/2003		10/21/2003		10/21/2003	
	DateAnalyzed	10/21/2003		10/21/2003		10/21/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	5	U
Chlorobenzene	ug/L	5	U	5	U	5	U
Ethylbenzene	ug/L	5	U	5	U	5	U
m+p Xylene	ug/L	5	U	5	U	5	U
o-Xylene	ug/L	5	U	5	U	5	U
Xylenes, Total	ug/L	5	U	5	U	5	U
Styrene	ug/L	5	U	5	U	5	U
Bromoform	ug/L	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	5	U
1,3-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,4-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	5	U
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	5	U

	StationID	A039GP127		A039GP127		A039GP127	
	SampleID	039GP127D2DL		039GP127D3		039GP127D3DL	
	DateCollected	10/16/2003		10/16/2003		10/16/2003	
	DateExtracted	10/22/2003		10/21/2003		10/22/2003	
	DateAnalyzed	10/22/2003		10/21/2003		10/22/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Dibromochloromethane	ug/L	50	R	5	U	50	R
Chlorobenzene	ug/L	50	R	5	U	50	R
Ethylbenzene	ug/L	50	R	5	U	50	R
m+p Xylene	ug/L	50	R	5	U	50	R
o-Xylene	ug/L	50	R	5	U	50	R
Xylenes, Total	ug/L	50	R	5	U	50	R
Styrene	ug/L	50	R	5	U	50	R
Bromoform	ug/L	50	R	5	U	50	R
1,1,2,2-Tetrachloroethane	ug/L	50	R	5	U	50	R
1,3-Dichlorobenzene	ug/L	50	R	5	U	50	R
1,4-Dichlorobenzene	ug/L	50	R	5	U	50	R
1,2-Dichlorobenzene	ug/L	50	R	5	U	50	R
1,2,4-Trichlorobenzene	ug/L	50	R	5	U	50	R
1,2,3-Trichlorobenzene	ug/L	50	R	5	U	50	R

	StationID	A039GP128		A039GP128		A039GP128	
	SampleID	039GP128-I		039GP128D1		039GP128D1DL	
	DateCollected	10/16/2003		10/16/2003		10/16/2003	
	DateExtracted	10/22/2003		10/21/2003		10/22/2003	
	DateAnalyzed	10/22/2003		10/21/2003		10/22/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	25	R
Chlorobenzene	ug/L	5	U	5	U	25	R
Ethylbenzene	ug/L	5	U	5	U	25	R
m+p Xylene	ug/L	5	U	5	U	25	R
o-Xylene	ug/L	5	U	5	U	25	R
Xylenes, Total	ug/L	5	U	5	U	25	R
Styrene	ug/L	5	U	5	U	25	R
Bromoform	ug/L	5	U	5	U	25	R
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	25	R
1,3-Dichlorobenzene	ug/L	5	U	5	U	25	R
1,4-Dichlorobenzene	ug/L	5	U	5	U	25	R
1,2-Dichlorobenzene	ug/L	5	U	5	U	25	R
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	25	R
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	25	R

	StationID	A039GP128		A039GP128		A039GP128	
	SampleID	039GP128D2		039GP128D2DL		039GP128D3	
	DateCollected	10/16/2003		10/16/2003		10/16/2003	
	DateExtracted	10/20/2003		10/21/2003		10/20/2003	
	DateAnalyzed	10/20/2003		10/21/2003		10/20/2003	
	SDGNumber	100207		100207		100207	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	UJ	50	R	5	UJ
Chlorobenzene	ug/L	5	UJ	50	R	5	UJ
Ethylbenzene	ug/L	5	UJ	50	R	5	UJ
m+p Xylene	ug/L	5	UJ	50	R	5	UJ
o-Xylene	ug/L	5	UJ	50	R	5	UJ
Xylenes, Total	ug/L	5	UJ	50	R	5	UJ
Styrene	ug/L	5	UJ	50	R	5	UJ
Bromoform	ug/L	5	UJ	50	R	5	UJ
1,1,2,2-Tetrachloroethane	ug/L	5	UJ	50	R	5	UJ
1,3-Dichlorobenzene	ug/L	5	UJ	50	R	5	UJ
1,4-Dichlorobenzene	ug/L	5	UJ	50	R	5	UJ
1,2-Dichlorobenzene	ug/L	5	UJ	50	R	5	UJ
1,2,4-Trichlorobenzene	ug/L	5	UJ	50	R	5	UJ
1,2,3-Trichlorobenzene	ug/L	5	UJ	50	R	5	UJ

	StationID	A039GP128		A039GP129		A039GP129	
	SampleID	039GP128D3DL		039GP12928		039GP12938	
	DateCollected	10/16/2003		11/04/2003		11/04/2003	
	DateExtracted	10/21/2003		11/17/2003		11/18/2003	
	DateAnalyzed	10/21/2003		11/17/2003		11/18/2003	
	SDGNumber	100207		101335		101335	
Parameter	**Units**						
Dibromochloromethane	ug/L	50	R	5	U	5	U
Chlorobenzene	ug/L	50	R	5	U	5	U
Ethylbenzene	ug/L	50	R	5	U	5	U
m+p Xylene	ug/L	50	R	5	U	5	U
o-Xylene	ug/L	50	R	5	U	5	U
Xylenes, Total	ug/L	50	R	5	U	5	U
Styrene	ug/L	50	R	5	U	5	U
Bromoform	ug/L	50	R	5	U	5	U
1,1,2,2-Tetrachloroethane	ug/L	50	R	5	U	5	U
1,3-Dichlorobenzene	ug/L	50	R	5	U	5	U
1,4-Dichlorobenzene	ug/L	50	R	5	U	5	U
1,2-Dichlorobenzene	ug/L	50	R	5	U	5	U
1,2,4-Trichlorobenzene	ug/L	50	R	5	U	5	U
1,2,3-Trichlorobenzene	ug/L	50	R	5	U	5	U

	StationID	A039GP129		A039GP129		A039GP129	
	SampleID	039GP12942		039GP12942DL		039GP12946	
	DateCollected	11/04/2003		11/04/2003		11/04/2003	
	DateExtracted	11/18/2003		11/18/2003		11/17/2003	
	DateAnalyzed	11/18/2003		11/18/2003		11/17/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	25	R	5	U
Chlorobenzene	ug/L	5	U	25	R	5	U
Ethylbenzene	ug/L	5	U	25	R	5	U
m+p Xylene	ug/L	5	U	25	R	5	U
o-Xylene	ug/L	5	U	25	R	5	U
Xylenes, Total	ug/L	5	U	25	R	5	U
Styrene	ug/L	5	U	25	R	5	U
Bromoform	ug/L	5	U	25	R	5	U
1,1,2,2-Tetrachloroethane	ug/L	5	U	25	R	5	U
1,3-Dichlorobenzene	ug/L	5	U	25	R	5	U
1,4-Dichlorobenzene	ug/L	5	U	25	R	5	U
1,2-Dichlorobenzene	ug/L	5	U	25	R	5	U
1,2,4-Trichlorobenzene	ug/L	5	U	25	R	5	U
1,2,3-Trichlorobenzene	ug/L	5	U	25	R	5	U

	StationID	A039GP129		A039GP130		A039GP130	
	SampleID	039GP12946DL		039GP13028		039GP13038	
	DateCollected	11/04/2003		11/04/2003		11/04/2003	
	DateExtracted	11/18/2003		11/18/2003		11/17/2003	
	DateAnalyzed	11/18/2003		11/18/2003		11/17/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Dibromochloromethane	ug/L	25	R	5	U	5	U
Chlorobenzene	ug/L	25	R	5	U	5	U
Ethylbenzene	ug/L	25	R	5	U	5	U
m+p Xylene	ug/L	25	R	5	U	5	U
o-Xylene	ug/L	25	R	5	U	5	U
Xylenes, Total	ug/L	25	R	5	U	5	U
Styrene	ug/L	25	R	5	U	5	U
Bromoform	ug/L	25	R	5	U	5	U
1,1,2,2-Tetrachloroethane	ug/L	25	R	5	U	5	U
1,3-Dichlorobenzene	ug/L	25	R	5	U	5	U
1,4-Dichlorobenzene	ug/L	25	R	5	U	5	U
1,2-Dichlorobenzene	ug/L	25	R	5	U	5	U
1,2,4-Trichlorobenzene	ug/L	25	R	5	U	5	U
1,2,3-Trichlorobenzene	ug/L	25	R	5	U	5	U

	StationID	A039GP130		A039GP130		A039GP131	
	SampleID	039GP13042		039GP13046		039GP13128	
	DateCollected	11/04/2003		11/04/2003		11/04/2003	
	DateExtracted	11/17/2003		11/17/2003		11/17/2003	
	DateAnalyzed	11/17/2003		11/17/2003		11/17/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	5	U
Chlorobenzene	ug/L	5	U	5	U	5	U
Ethylbenzene	ug/L	5	U	5	U	5	U
m+p Xylene	ug/L	5	U	5	U	5	U
o-Xylene	ug/L	5	U	5	U	5	U
Xylenes, Total	ug/L	5	U	5	U	5	U
Styrene	ug/L	5	U	5	U	5	U
Bromoform	ug/L	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	5	U
1,3-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,4-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	5	U
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	5	U

	StationID	A039GP131		A039GP131		A039GP131	
	SampleID	039GP13138		039GP13142		039GP13146	
	DateCollected	11/04/2003		11/04/2003		11/04/2003	
	DateExtracted	11/17/2003		11/17/2003		11/17/2003	
	DateAnalyzed	11/17/2003		11/17/2003		11/17/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	5	U
Chlorobenzene	ug/L	5	U	5	U	5	U
Ethylbenzene	ug/L	5	U	5	U	5	U
m+p Xylene	ug/L	5	U	5	U	5	U
o-Xylene	ug/L	5	U	5	U	5	U
Xylenes, Total	ug/L	5	U	5	U	5	U
Styrene	ug/L	5	U	5	U	5	U
Bromoform	ug/L	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	5	U
1,3-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,4-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	5	U
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	5	U

	StationID	A039GP132		A039GP132		A039GP132	
	SampleID	039GP13228		039GP13238		039GP13242	
	DateCollected	11/05/2003		11/05/2003		11/05/2003	
	DateExtracted	11/17/2003		11/17/2003		11/17/2003	
	DateAnalyzed	11/17/2003		11/17/2003		11/17/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Dibromochloromethane	ug/L	5	U	5	U	5	U
Chlorobenzene	ug/L	5	U	5	U	5	U
Ethylbenzene	ug/L	5	U	5	U	5	U
m+p Xylene	ug/L	5	U	5	U	5	U
o-Xylene	ug/L	5	U	5	U	5	U
Xylenes, Total	ug/L	5	U	5	U	5	U
Styrene	ug/L	5	U	5	U	5	U
Bromoform	ug/L	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	ug/L	5	U	5	U	5	U
1,3-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,4-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2-Dichlorobenzene	ug/L	5	U	5	U	5	U
1,2,4-Trichlorobenzene	ug/L	5	U	5	U	5	U
1,2,3-Trichlorobenzene	ug/L	5	U	5	U	5	U

	StationID	A039GP132		A039GP132		A039GP132	
	SampleID	039GP13242DL		039GP13246		039GP13246DL	
	DateCollected	11/05/2003		11/05/2003		11/05/2003	
	DateExtracted	11/18/2003		11/17/2003		11/18/2003	
	DateAnalyzed	11/18/2003		11/17/2003		11/18/2003	
	SDGNumber	101335		101335		101335	
Parameter	**Units**						
Dibromochloromethane	ug/L	25	R	5	U	25	R
Chlorobenzene	ug/L	25	R	5	U	25	R
Ethylbenzene	ug/L	25	R	5	U	25	R
m+p Xylene	ug/L	25	R	5	U	25	R
o-Xylene	ug/L	25	R	5	U	25	R
Xylenes, Total	ug/L	25	R	5	U	25	R
Styrene	ug/L	25	R	5	U	25	R
Bromoform	ug/L	25	R	5	U	25	R
1,1,2,2-Tetrachloroethane	ug/L	25	R	5	U	25	R
1,3-Dichlorobenzene	ug/L	25	R	5	U	25	R
1,4-Dichlorobenzene	ug/L	25	R	5	U	25	R
1,2-Dichlorobenzene	ug/L	25	R	5	U	25	R
1,2,4-Trichlorobenzene	ug/L	25	R	5	U	25	R
1,2,3-Trichlorobenzene	ug/L	25	R	5	U	25	R

Appendix B

114 North Ward Street
New Brunswick, New Jersey
732.296.6620

ARS Technologies Inc.

Materials Safety Data Sheet

Section 1 - Identity:

H-200

Section 2 - Hazardous Ingredients:

MATERIAL (CAS REGISTRY NO.)	IRON (7439-89-6)
PERCENTAGE	97.0 +
OSHA PEL (TWA)	5 mg/m^3 as nuisance particulates

Section 3 - Physical/Chemical Data

Melting Point: 2798°F (1536°C)
Density: 7.8 g/cm^3
Appearance: Light to dark gray color. Fine powder. No odor.

Section 4 - Fire/Explosion Hazard Data:

Iron is not considered flammable under most conditions. Avoid airborne dispersion of any finely divided powder in an enclosed area to reduce potential for dust ignition.

Extinguish media: Dry chemical, sand, graphite to smother fire. Use water only in mist/fog application to avoid spreading powder/acclimated dust in surrounding areas.

Section 5-Reactivity Data:

Stability: Normally stable.
Conditions to avoid: Generation of airborne dust
Incompatibility (Materials to avoid): Pure oxygen or other strong oxidizers
Hazardous decomposition products: None
Hazardous polymerization: Will not occur

Section 6 - Health Hazard Data:

This material is not considered to be carcinogenic by IARC, NTP, or OSHA

Inhalation:	Prolonged overexposure to iron dusts may cause a chronic health condition of siderosis which is a benign pneumoconiosis with few or no symptoms.
Skin:	Exposure may cause mild irritation. Wash with soap and water. Seek medical attention if irritation persists.
Eyes:	Flush thoroughly with water for at least 15 minutes to avoid abrasive damage to outer surfaces of eye. Seek medical attention if irritation persists.
Ingestion:	Unlikely. Low oral toxicity. No acute or chronic health effects known.

Section 7 – Precautions for Safe Handling and use:

Keep in closed containers. Do not store near strong oxidizers. Use good housekeeping practices to prevent accumulation of dust. In the event of a spill, recommend use of a vacuum with a HEPA filter; use dust suppressant when sweeping. Avoid creation of any dust during cleanup. Reuse all spilled material whenever possible. Prevent spills from entering storm sewers or drains and contact with soil. Dispose of waste material at an appropriate waste disposal facility in accordance with current federal, state and local laws and regulations.

Section 8 – Control Measures:

Respiratory Protection:	Use adequate ventilation to maintain airborne particulate levels below the recommended exposure limits. Use NIOSH-approved respirators in accordance with 29 CFR 1910.134 where levels exceed exposure limits.
Skin Protection:	Use of a barrier cream and/or gloves by employees with skin sensitivity to this material is recommended.
Eye Protection:	Wear safety glasses or goggles when handling this material to prevent eye contact. Do not wear contact lenses in any environment where dust or fumes are present. Readily available eye baths are recommended in areas where operations may produce dusts.

Section 9 – Regulatory Information

This product contains no chemicals reportable under the SARA 313 toxic release program.

Section 10 – Additional Information

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for his or her particular purpose(s).