

Prepared for:

CEA, LLC
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**FOURTH SEMIANNUAL VRP PROGRESS REPORT
CAPITOL USA – DALTON FACILITY
Dalton, Georgia**

Prepared by:



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October, 2013

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A handwritten signature in blue ink that reads "Kirk Kessler".

Kirk Kessler, P.G.
Principal

A handwritten signature in blue ink that reads "Timmerly Bullman".

Timmerly Bullman, P.E.
Senior Environmental Engineer

October 2013

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CAPITOL USA – DALTON FACILITY
Dalton, Georgia**

TABLE OF CONTENTS

1	INTRODUCTION	2
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2	VRP PROJECT MANAGEMENT	3
	2.1 Professional Geologist Oversight.....	3
	2.2 Milestone Schedule	3
	2.3 Conceptual Site Model.....	3
3	SEMIANNUAL GROUNDWATER SAMPLING.....	4
	3.1 Actions Completed.....	4
	3.1.1 Overview	4
	3.1.2 Water Level Measurements	4
	3.1.3 Methods	4
	3.1.4 Results	5
	3.1.5 Groundwater Modeling.....	5
	3.2 Upcoming Actions.....	5
4	SOURCE REMEDIAL ACTION.....	6
	4.1 Previous Action.....	6
	4.1.1 Source Material – Remedial Extent Level	6
	4.1.2 Preliminary Source Remedial Action Plan.....	6
	4.2 Upcoming Action:.....	6
	4.2.1 Pilot Test	6
	4.2.2 Uniform Environmental Covenant	7
5	DELINEATION.....	8
	5.1 Introduction.....	8
	5.2 Vadose Zone Soil Delineation.....	8
	5.3 Groundwater Delineation	8
6	REFERENCES.....	10

LIST OF TABLES

Table 1	Depth to Groundwater Measurements (2011-2013)
Table 2	Analytical Results for Constituents Detected in Groundwater – August 2013 Sampling Event (mg/L)
Table 3	Comparison of Solid Aquifer Matrix Material to SSL _{mod}
Table 4	Vadose Zone Soil Delineation
Table 5	Groundwater Delineation

LIST OF FIGURES

Figure 1	Projected Milestone Schedule
Figure 2	Potentiometric Surface Map of Surficial Aquifer (August 2013)
Figure 3a	Groundwater PCE (August 2013)
Figure 3b	Groundwater TCE (August 2013)
Figure 3c	Groundwater DCE (August 2013)
Figure 3d	Groundwater Vinyl Chloride (August 2013)
Figure 4a	Groundwater 1,1,1-TCA (August 2013)
Figure 4b	Groundwater DCA (August 2013)
Figure 5	Chlorinated Ethene Modeling Results (August 2013)
Figure 6	Chlorinated Ethane Modeling Results (August 2013)
Figure 7	Solid Aquifer Matrix PCE Results Compared to Remedial Extent Level
Figure 8	Vadose Zone Soil Delineation
Figure 9	Groundwater Delineation

LIST OF APPENDICES

Appendix A	Professional Geologist Summary of Hours
Appendix B	Conceptual Site Model
Appendix C	Groundwater Laboratory Data Report and Well Forms
Appendix D	Injection Well Operating Permit Application

PROFESSIONAL GEOLOGIST CERTIFICATION

"I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

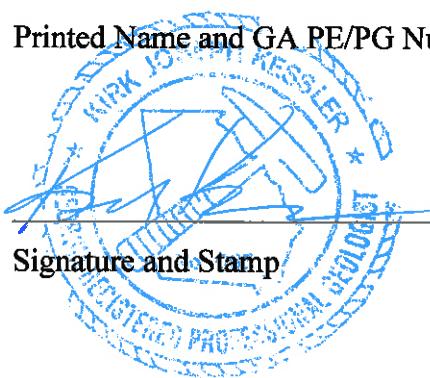
Kirk Kessler GA000685

Printed Name and GA PE/PG Number

10/1/13

Date

Signature and Stamp



1 INTRODUCTION

CEA, LLC (CEA) submitted a revised application for the Voluntary Remediation Program (VRP) (which the EPD refers to as the Voluntary Investigation and Remediation Plan, VIRP) for the Capitol USA – Dalton Facility in May 2011. In a letter dated October 3, 2011, the Georgia Environmental Protection Division (EPD) accepted CEA as a participant into the VRP. Pursuant to the conditions of the acceptance letter, semiannual progress reports have been submitted since April 2012.

The Capitol Site is located at 300 Cross Plains Boulevard, Dalton, Georgia (Site). The Site is located on a total parcel of approximately 15.31 acres. The facility is currently operated by QEP Co., Inc.

This Fourth Semiannual Progress Report (Progress Report) summarizes (by task) what actions have been taken since the Third Semiannual Progress Report was submitted (April 2013) and the upcoming activities.

2 VRP PROJECT MANAGEMENT

2.1 Professional Geologist Oversight

This Progress Report includes certification by the Professional Geologist (Kirk Kessler) specified in the VIRP. Appendix A contains a monthly summary of hours invoiced and description of services provided.

2.2 Milestone Schedule

A revised projected milestone schedule has been attached as Figure 1.

2.3 Conceptual Site Model

The Conceptual Site Model (CSM) has been updated with data collected from a recent groundwater sampling event (including two newly installed wells) and demonstration of groundwater delineation. The updated CSM is included as Appendix B.

3 SEMIANNUAL GROUNDWATER SAMPLING

3.1 Actions Completed

3.1.1 Overview

The VIRP specifies that semiannual groundwater sampling will be conducted for a period of at least two years. The groundwater monitoring program consists of:

- Annual monitoring
 - Of all wells for volatile organic compounds (VOCs)
 - Of specific wells (MW-3, MW-3D, MW-4, and MW-5) for monitored natural attenuation (MNA) parameters
- Semi-annual monitoring (in between “annual monitoring” events)
 - Of specific wells (MW-3, MW-3D, MW-4, MW-5, MW-15, and MW-16) for VOCs.

In August 2013, EPS conducted the fourth groundwater sampling event. This “semi-annual” event consisted of monitoring specific wells at the site (MW-3, MW-3D, MW-4, MW-5, MW-15 and MW-16) for VOCs.

3.1.2 Water Level Measurements

Prior to purging the wells, the depth to water was measured in each well. Groundwater elevations were calculated and are shown on Table 1. Figure 2 shows the groundwater elevations along with the general direction of groundwater flow, which is to the northeast. During this sampling event, the water table intersected the ground surface in one well (MW-5). This artesian condition is consistent with past measurements and occurs as a zone across the centerline of the plume. Although the groundwater table is at or above the ground surface, there is no observable pooling of groundwater at the surface. Table 1 displays the depth to groundwater measurements from 2011 through 2013. More information about the historic water levels at the site is included in the Conceptual Site Model (Appendix B).

3.1.3 Methods

The sampling methods used in this event were the same as in previous events. Specifically, well purging was accomplished by low-stress purging techniques using a peristaltic pump with Teflon tubing. After purging was complete (based on the stabilization of water quality parameters), samples of the groundwater were collected using the straw method. The sample containers were placed in a cooler, at 4° C, and maintained under Chain-of-Custody until delivery to Analytical Environmental Services, Inc. of Atlanta, Georgia (AES) for analysis.

3.1.4 Results

In August 2013, EPS collected samples from the six wells at the Site and AES analyzed the samples for VOCs using Method 8260B. Appendix C contains the August 2013 analytical testing results and Table 2 displays a summary of the results for the detected constituents. Values that exceed the Type 1 RRS delineation criteria are highlighted in yellow.

Figures 3a, 3b, 3c, and 3d show groundwater concentrations of the chlorinated ethenes (tetrachloroethene [PCE], trichloroethene [TCE], cis-1,2-dichloroethene [DCE], and vinyl chloride [VC], respectively) from this sampling event. Similarly, Figures 4a and 4b show groundwater concentrations of chlorinated ethanes¹ (1,1,1-Trichloroethane [1,1,1-TCA], 1,1-dichloroethane [DCA]). Similar to previous sampling events (see Appendix B for figures showing results from additional wells), groundwater exhibits the highest concentrations immediately north of the tanker truck spill area with decreasing concentrations in the direction of the groundwater flow (northeast). These figures show that the chlorinated solvent plume continues to be bounded within the property.

3.1.5 Groundwater Modeling

Groundwater computer models using BIOCHLOR were developed and presented in the VIRP. In an effort to conservatively model site conditions, the models were calibrated using the empirical data collected from 2004 through 2007, prior to the EHC® injections. Therefore, the models assume that there is no positive influence from the injections. The models predict estimated concentrations that are higher than seen in empirical data collected after the injections. Thus, the models conservatively estimate future concentrations.

The groundwater models were run for the year 2013 while plotting the results from the August 2013 sampling event. The results for the chlorinated ethene and chlorinated ethane models for 2013 are shown in Figure 5 and 6, respectively. The comparison of the analytical data to the modeling results in 2013 is similar to previous results. Thus, it does not appear necessary to alter the model at this point. Overall, the model continues to overestimate the concentrations of the constituents, providing a conservative assessment of future conditions. As documented in the VIRP, groundwater modeling shows that groundwater concentrations at the Point of Exposure well (MW-16) will not exceed the Type 1 RRSs in the future.

3.2 Upcoming Actions

CEA has completed the number of groundwater sampling events specified in the VIRP. However, CEA will conduct one additional groundwater sampling event of specific wells (MW-3, MW-3D, MW-4, MW-5, MW-7, MW-15, MW-16, and MW-1R) after completion of the source area remedial action.

¹ A figure is not shown for chloroethane as it was detected in only two wells.

4 SOURCE REMEDIAL ACTION

4.1 Previous Action

4.1.1 Source Material – Remedial Extent Level

In the Third Progress Report (EPS, 2013), CEA and EPS proposed using a Remedial Extent Level (REL) to target areas for remedial action. The proposed REL is a modified soil screening level (SSL_{mod}). The EPA's Soil Screening Level guidance equation (EPA, 1996) was used with source concentrations and soil parameters from the BIOCHLOR model. This is appropriate as the source concentrations used in the BIOCHLOR model are the highest concentrations observed historically at the site, yet the model shows that even at these concentrations the concentrations in the point-of-demonstration well will not exceed RRSSs. The resulting SSL_{mod} for PCE is 7.5 mg/kg, for TCE is 7 mg/kg, and for 1,1,1-TCA is 16 mg/kg. The EPD (in a meeting held in May 2013) said it would further review the proposed RELs. Table 3 shows a comparison of the RELs and Csat to the solid aquifer matrix material. Figure 7 shows the locations where the REL is exceeded for PCE (note exceedances of 1,1,1-TCA and TCE RELs are co-located with PCE REL exceedances).

4.1.2 Preliminary Source Remedial Action Plan

The Third Progress Report also contains a preliminary source remedial action plan that includes the use of in-situ chemical oxidation (ISCO) injection in the AST containment area and either ISCO or soil excavation in two areas outside of the AST containment area.

4.2 Upcoming Action:

4.2.1 Pilot Test

In order to determine whether ISCO will be effective at the Site, EPS will conduct a pilot scale ISCO injection test. Accordingly, EPS submitted an application for an Injection Well Operating Permit in August, 2013 (application form is included in Appendix D). Once the permit has been granted, EPS will conduct the pilot test, which will include the application of RegenOx through one well. RegenOx is a proprietary oxidant containing sodium percarbonate. The injection well will be co-located with previous sample point AST-9. If appropriate areas are accessible, EPS will collect samples from two side-gradient locations near the well after application of RegenOx to evaluate the effectiveness of the application of RegenOx in terms of mass reduction.

4.2.2 Uniform Environmental Covenant

CEA has provided a draft uniform environmental covenant (UEC) to the owner of the property (Barrett Properties) for review. CEA and Barrett Properties have been discussing the elements of the UEC and CEA will be submitting a draft UEC to the EPD for review shortly.

5 DELINEATION

5.1 Introduction

According to the EPD's VRP acceptance letter dated October 3, 2011, CEA is to demonstrate complete horizontal and vertical delineation in the April 3, 2014 Progress Report. As delineation has been finalized, this demonstration is being made in this report. The delineation criteria is the Type 1 Risk Reduction Standard (RRS) for the various constituents of concern. The final RRSs for soil and groundwater were presented in the First Semiannual Progress Report (EPS, 2012).

5.2 Vadose Zone Soil Delineation

As described in detail in the Conceptual Site Model (Appendix B), much of the Site has a high water table without vadose zone soils. The material under the high water table line is referred to as "solid aquifer matrix." Delineation of soil is limited to delineation within vadose zone soil. Delineation criteria are not applicable for solid aquifer matrix. However, because much of the area of interest on the Site does not have vadose zone soils, the solid aquifer matrix results are included to aid in demonstrating delineation for the vadose zone soils. Soil delineation has been demonstrated previously in the Conceptual Site Model (Appendix B), but is presented here for completeness.

Table 4 shows the analytical results (for constituents with Type 1 RRSs) for the vadose zone soil samples and the soil aquifer matrix samples that are the furthest laterally in each direction. This table shows all the results are below the delineation criteria, and the majority of the results are non-detect. Figure 8 shows the locations of these samples. This table and figure demonstrates both horizontal and vertical delineation of vadose zone soils at the Site.

5.3 Groundwater Delineation

Table 5 shows groundwater results collected during the last two years (since acceptance into the VRP program) compared to the delineation criteria. The well locations are shown on Figure 9. Table 5 and Figure 9 demonstrate horizontal delineation of groundwater in all directions, most importantly with MW-1R and MW-16 in the direction of groundwater flow.

Two monitoring well clusters are available to evaluate vertical delineation (MW-2/MW-2D and MW-3/MW-3D/MW-3B). A review of data from the MW-2 and MW-3 well clusters identified VOCs in both the shallow and deeper wells, with both the number of constituents and concentrations decreasing in the vertical dimension. Additionally, there is an upward vertical migration of groundwater. The tables below show the depth to groundwater measurements in each well cluster during the last three sampling events. Also shown on these tables are the range

of possible vertical gradients and the groundwater vertical flow direction as determined by the EPA's online vertical gradient calculator².

	MW-2	MW-2D		
TOC (ft)	675.33	674.79		
Well Depth (ft)	15	17.3		
Screen Interval (ft)	5-15	12.3-17.3		
Date	Depth to Water (ft)		Vertical Gradient	Flow Direction
8/23/2012	6.65	6.04	0.009 to 0.21	Up
2/4/2013	Artesian	Artesian	NA	Up
8/5/2013	3.28	2.57	0.022 – 0.5	Up

	MW-3	MW-3D	MW-3B		
TOC (ft)	673.83	673.87	674.32		
Well Depth (ft)	15	22.5	49		
Screen Interval (ft)	5-15	17.5-22.5	35-45		
Date	Depth to Water (ft)			Vertical Gradient MW-3/3B	Flow Direction MW-3/3B
8/23/2012	5.4	5.25	5.29	0.015-0.031	Up
2/4/2013	0.98	0.75	0.25	0.031-0.062	Up
8/5/2013	2.58	2.73	2.45	0.015-0.03	Up

TOC: Top of casing elevation (ft msl)

Based on the following conditions seen at this site, we believe that vertical delineation is adequately addressed and request EPD's concurrence:

- Upward vertical migration of groundwater
- Decreasing concentrations with depth
- Vertical condition does not affect model prediction of concentrations at the point-of-demonstration
- Source material is being addressed through additional remedial measures
- Based on the above information, there is no appreciable benefit that would be derived from installing any additional deeper wells

² <http://www.epa.gov/athens/learn2model/part-two/onsite/vgradient.html>

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EPS

TABLES

Capitol Adhesives
Table 1. Depth to Groundwater Measurements 2011-2013

		TOC Elevation (ft msl)	Ground Elevation (ft msl)	Depth to Water (ft btoc)	Potentiometric Elevation (ft msl)	Depth to GW from Ground Surface (ft)
MW-1R	8/23/2012	672.01	NM	3.78	668.23	
	2/4/2013			0.9	671.11	
	8/5/2013			2.32	669.69	
MW-2	4/22/2011	675.33	675.51	0	Artesian	0
	4/29/2011			0	Artesian	0
	5/6/2011			0	Artesian	0
	2/7/2012			0	Artesian	0
	8/23/2012			6.65	668.68	6.83
	2/4/2013			0	Artesian	0
	8/5/2013			3.28	672.05	3.46
MW-2D	4/22/2011	674.79	675.36	0	Artesian	0
	4/29/2011			0	Artesian	0
	5/6/2011			6.00	668.79	6.57
	2/7/2012			0	Artesian	0
	8/23/2012			6.04	668.75	6.61
	2/4/2013			0	Artesian	0
	8/5/2013			2.57	672.22	3.14
MW-3	4/22/2011	673.83	673.87	0	Artesian	0
	4/29/2011			0.51	673.32	0.55
	5/6/2011			0.71	673.12	0.75
	2/7/2012			1.29	672.54	1.33
	8/23/2012			5.40	668.43	5.44
	2/4/2013			0.98	672.85	1.02
	8/5/2013			2.58	671.25	2.62
MW-3D	4/22/2011	673.87	674.14	0.58	673.29	0.85
	4/29/2011			0.52	673.35	0.79
	5/6/2011			0.74	673.13	1.01
	2/7/2012			0.4	673.47	0.67
	8/23/2012			5.25	668.62	5.52
	2/4/2013			0.75	673.12	1.02
	8/5/2013			2.73	671.14	3.00
MW-3B	8/24/2012	674.32	NM	5.29	669.03	
	2/4/2013			0.25	674.07	
	8/5/2013			2.45	671.87	
MW-4	4/22/2011	671.38	671.85	0	Artesian	0
	4/29/2011			0	Artesian	0
	5/6/2011			0	Artesian	0
	2/7/2012			0	Artesian	0
	8/23/2012	671.93 ¹		2.62	669.31	2.54
	2/4/2013			0	Artesian	0
	8/5/2013			0.23	671.70	0.15

Capitol Adhesives
Table 1. Depth to Groundwater Measurements 2011-2013

		TOC Elevation (ft msl)	Ground Elevation (ft msl)	Depth to Water (ft btoc)	Potentiometric Elevation (ft msl)	Depth to GW from Ground Surface (ft)
MW-5	4/22/2011	670.88	670.13	0	Artesian	0
	4/29/2011			0	Artesian	0
	5/6/2011			0	Artesian	0
	2/7/2012			0	Artesian	0
	8/23/2012			2.47	668.41	1.72
	2/4/2013			0	Artesian	0
	8/5/2013			0.36	670.52	-0.39
MW-6	4/22/2011	674.92	675.28	2.42	672.50	2.78
	4/29/2011			3.82	671.10	4.18
	5/6/2011			3.01	671.91	3.37
	2/7/2012			2.72	672.20	3.08
	8/23/2012			6.36	668.56	6.72
	2/4/2013			2.93	671.99	3.29
	8/5/2013			4.31	670.61	4.67
MW-7	4/22/2011	675.63	674.71	0	Artesian	0
	4/29/2011			0.32	675.31	-0.60
	5/6/2011			0.87	674.76	-0.05
	2/7/2012			0	Artesian	0
	8/23/2012			6.79	668.84	5.87
	2/4/2013			0.25	675.38	-0.67
	8/5/2013			3.58	672.05	2.66
MW-8	4/22/2011	674.52	674.99	0	Artesian	0
	4/29/2011			0	Artesian	0
	5/6/2011			0	Artesian	0
	2/7/2012			0	Artesian	0
	8/23/2012			5.82	668.70	6.29
	2/4/2013			0	Artesian	0
	8/5/2013			2.29	672.23	2.76
MW-9	4/22/2011	675.44	675.80	0	Artesian	0
	4/29/2011			0	Artesian	0
	5/6/2011			0.51	674.93	0.87
	2/7/2012			0	Artesian	0
	8/23/2012			6.48	668.96	6.84
	2/4/2013			0	Artesian	0
	8/5/2013			3.05	672.39	3.41
MW-10	4/22/2011	675.54	675.70	0.43	675.11	0.59
	4/29/2011			0.80	674.74	0.96
	5/6/2011			1.35	674.19	1.51
	2/7/2012			0.7	674.84	0.86
	8/23/2012			6.33	669.21	6.49
	2/4/2013			0.96	674.58	1.12
	8/5/2013			3.31	672.23	3.47

Capitol Adhesives
Table 1. Depth to Groundwater Measurements 2011-2013

		TOC Elevation (ft msl)	Ground Elevation (ft msl)	Depth to Water (ft btoc)	Potentiometric Elevation (ft msl)	Depth to GW from Ground Surface (ft)
MW-11	4/22/2011	675.31	675.80	1.60	673.71	2.09
	4/29/2011			2.08	673.23	2.57
	5/6/2011			2.42	672.89	2.91
	2/7/2012			1.92	673.39	2.41
	8/23/2012			--	Artesian	
	2/4/2013			2.18	673.13	2.67
	8/5/2013			4.00	671.31	4.49
MW-12	4/22/2011	675.76	675.76	3.32	672.44	3.32
	4/29/2011			3.29	672.47	3.29
	5/6/2011			3.53	672.23	3.53
	2/7/2012			3.36	672.40	3.36
	8/23/2012			6.92	668.84	6.92
	2/4/2013			3.51	672.25	3.51
	8/5/2013			4.85	670.91	4.85
MW-13	4/22/2011	676.70	677.06	1.80	674.90	2.16
	4/29/2011			2.53	674.17	2.89
	5/6/2011			3.23	673.47	3.59
	2/7/2012			2.24	674.46	2.60
	8/23/2012			8.53	668.17	8.89
	2/4/2013			2.35	674.35	2.71
	8/5/2013			5.65	671.05	6.01
MW-14	4/22/2011	673.05	673.36	0	Artesian	0
	4/29/2011			0.45	672.60	0.76
	5/6/2011			0.75	672.30	1.06
	2/7/2012			0	Artesian	0
	8/23/2012			5.00	668.05	5.31
	2/4/2013			0.25	672.80	0.56
	8/5/2013			2.71	670.34	3.02
MW-15	4/22/2011	670.91	671.33	0	Artesian	0
	4/29/2011			0	Artesian	0
	5/6/2011			0	Artesian	0
	2/7/2012			0	Artesian	0
	8/23/2012			3.07	667.84	3.49
	2/4/2013			0	Artesian	0
	8/5/2013			1.34	669.57	1.76
MW-16	4/22/2011	669.70	670.24	0.13	669.58	0.66
	4/29/2011			0.45	669.25	0.99
	5/6/2011			0.69	669.01	1.23
	2/7/2012			0.3	669.40	0.84
	8/23/2012			2.62	667.08	3.16
	2/4/2013			0.25	669.45	0.79
	8/5/2013			2.07	667.63	2.61

Capitol Adhesives

Table 1. Depth to Groundwater Measurements 2011-2013

		TOC Elevation (ft msl)	Ground Elevation (ft msl)	Depth to Water (ft btoc)	Potentiometric Elevation (ft msl)	Depth to GW from Ground Surface (ft)
MW-17	4/22/2011	676.26	NM	0.72	675.54	
	4/29/2011			1.18	675.08	
	5/6/2011			1.50	674.76	
	2/7/2012			0.88	675.38	
	8/23/2012			--	Artesian	
	2/4/2013			1.24	675.02	
	8/5/2013			3	672.97	

NM - not measured

1) Top of casing re-surveyed after the well was repaired.

Capitol Adhesives

Table 2. Analytical Results for Constituents Detected in Groundwater - August 2013 Sampling Event (mg/L)

Well	Date Sampled	Tetra chloro ethene (mg/L)	Trichloro ethene (mg/L)	cis-1,2-Dichloro ethene (mg/L)	Vinyl chloride (mg/L)	Total Chlorinated Ethenes (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1-Dichloro ethane (mg/L)	Chloro ethane (mg/L)	Total Chlorinated Ethanes (mg/L)
Type 1 RRS		0.005	0.005	0.07	0.002		0.2	4	DL	
MW-3	8/6/13	2.9	4.8	2.3	0.23	10.23	0.47	0.32	<0.01	11.0
MW-3 (Dup)	8/6/13	2.9	4.9	2.3	0.23	10.33	0.45	0.32	<0.01	11.1
MW-3D	8/6/13	2.9	4.8	2.9	0.28	10.88	0.53	0.28	0.011	11.7
MW-4	8/5/13	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND
MW-5	8/6/13	<0.005	0.0052	0.11	0.14	0.2552	0.0068	0.081	0.062	0.41
MW-15	8/6/13	<0.005	0.02	0.029	0.0058	0.0548	<0.005	0.0057	<0.01	0.061
MW-16	8/5/13	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND

ND: Not detected

Result greater than Type 1 RRS

Capitol Adhesives

Table 2. Analytical Results for Constituents Detected in Groundwater - August 2013 Sampling Event (mg/L)

Well	Date Sampled	1,1,2-Trichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	1,2-Dichloroethane (mg/L)	Acetone (mg/L)	Benzene (mg/L)	Chloroform (mg/L)	Dichloromethane (Methylene chloride) (mg/L)	Freon-113 (mg/L)	Methyl cyclohexane (mg/L)	m&p-Xylene (mg/L)	o-Xylene (mg/L)	Toluene (mg/L)	trans-1,2-Dichloroethene (mg/L)
Type 1 RRS		0.005	0.007	0.005	4	0.005	0.08	0.005	1000	DL	10	10	1	0.1
MW-3	8/6/13	0.025	1.6	0.66	0.39	0.007	0.7	0.0063	0.18	0.022	0.013	0.007	0.12	<0.005
MW-3(Dup)	8/6/13	0.021	1.6	0.67	0.29	0.0066	0.72	0.0056	0.15	0.017	0.011	0.0065	0.11	<0.005
MW-3D	8/6/13	0.017	0.87	0.41	0.1	<0.005	0.36	0.027	0.13	0.051	0.026	0.02	0.063	0.0073
MW-4	8/5/13	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-5	8/6/13	<0.005	0.013	0.047	<0.05	<0.005	0.006	<0.005	<0.01	<0.005	0.0056	<0.005	0.018	<0.005
MW-15	8/6/13	<0.005	0.014	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-16	8/5/13	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005

ND: Not detected

Result greater than Type 1 RRS

Capitol Adhesives

Table 3. Comparison of Solid Aquifer Matrix Material to SSL_{mod}

Sample ID	Depth (ft bgs)	Date Sampled	Tetrachloroethene (mg/kg)	Trichloroethene (mg/kg)	1,1,1-Trichloroethane (mg/kg)
SSL_{mod} (mg/kg)			7.5	7.0	16.0
Maximum Concentration (mg/kg)			2700	200	66
Solid Aquifer Matrix					
GP001	6-8	8/9/05	<0.0054	<0.0054	<0.0054
GP002	4-6	8/9/05	<0.0049	<0.0049	<0.0049
GP003	2-4	8/9/05	<0.0048	<0.0048	<0.0048
GP004	4-6	8/9/05	<0.004	<0.004	<0.004
GP005	4-6	8/9/05	<0.0045	<0.0045	<0.0045
GP006	2-4	8/9/05	<0.0046	<0.0046	<0.0046
GP009	2-4	8/10/05	<0.0043	<0.0043	<0.0043
GP010	4-6	8/10/05	0.13	0.33	0.15
GP011	2-4	8/10/05	0.13	0.63	<0.061
GP012	4-6	8/10/05	1.5	1.8	0.41
GP013	4-6	8/10/05	<0.0052	<0.0052	<0.0052
MIP-1	2	10/16/08	15	12	0.2
MIP-1	5	10/16/08	0.036	0.02	<0.0067
MIP-1	9	10/16/08	0.024	0.0052	<0.0029
MIP-5	3	10/16/08	<0.0022	<0.0022	<0.0022
MIP-6	6	10/16/08	<0.008	<0.008	<0.008
MIP-8	2	10/16/08	0.37	2.4	0.014
MIP-8	4	10/16/08	0.091	0.2	<0.007
MIP-12	12	10/16/08	0.73	0.38	0.13
MIP-12	4	10/16/08	<0.0069	<0.0069	<0.0069
MIP-12	6	10/16/08	<0.0076	<0.0076	<0.0076
MIP-13	1	10/16/08	0.0087	<0.0038	<0.0038
MIP-13	3	10/16/08	0.0069	0.0093	0.0034
MIP-13	6	10/16/08	1.5	2.6	0.42
MIP-19	1	10/16/08	<0.0059	<0.0059	<0.0059
MIP-19	3	10/16/08	<0.0071	<0.0071	<0.0071
MW-1D	8-10	7/13/04	<0.0019	<0.0019	<0.0019
MW-2D	8-10	7/13/04	<0.0017	<0.0017	<0.0017
MW-3	8-10	7/14/04	0.0191	0.0138	0.0312
MW-3D	13-15	7/14/04	2.44	1.31	0.416
MW-8	8-10	6/27/06	<0.005	<0.005	<0.005
MW-9	8-10	6/27/06	<0.005	<0.005	<0.005
MW-10	5-10	7/7/06	<0.005	0.006	<0.005
MW-11	5-10	7/6/06	<0.005	0.008	<0.005
MW-12	5-10	7/6/06	<0.005	<0.005	<0.005
MW-13	13-15	6/27/06	<0.005	<0.005	<0.005
MW-14	13-15	6/27/06	<0.005	<0.005	<0.005
MW-15	8-10	6/28/06	<0.005	<0.005	<0.005
MW-16	8-10	6/27/06	<0.005	<0.005	<0.005

Capitol Adhesives

Table 3. Comparison of Solid Aquifer Matrix Material to SSL_{mod}

Sample ID	Depth (ft bgs)	Date Sampled	Tetrachloroethene (mg/kg)	Trichloroethene (mg/kg)	1,1,1-Trichloroethane (mg/kg)
SSL_{mod} (mg/kg)			7.5	7.0	16.0
Maximum Concentration (mg/kg)			2700	200	66
SB-1	1	2/20/13	1.3	0.02	<0.0033
SB-1 (Dup)	1	2/20/13	5	0.016	<0.0038
SB-1	2	2/20/13	0.053	<0.006	<0.006
SB-1	4	2/20/13	0.079	0.012	<0.0062
SB-2	1	2/20/13	0.05	<0.0029	<0.0029
SB-2	2	2/20/13	<0.0029	0.011	<0.0029
SB-2	4	2/20/13	<0.0029	<0.0029	<0.0029
SB-3	1	2/20/13	0.0042	<0.0039	<0.0039
SB-3	2	2/20/13	0.0077	<0.0031	<0.0031
SB-3	4	2/20/13	0.0065	<0.004	<0.004
SB-4	1	2/20/13	1.3	0.053	0.023
SB-4	2	2/20/13	0.0085	<0.0034	<0.0034
SB-4	4	2/20/13	<0.0036	<0.0036	<0.0036
SB-5	1	2/20/13	0.84	0.63	0.0046
SB-5	2	2/20/13	1.1	0.6	0.009
SB-5	4	2/20/13	0.99	0.63	0.024
SB-6	1	2/20/13	<0.0031	<0.0031	<0.0031
SB-6	2	2/20/13	<0.0038	<0.0038	<0.0038
SB-6	4	2/20/13	<0.004	<0.004	<0.004
SB-7	1	2/20/13	0.009	<0.0037	<0.0037
SB-7	2	2/20/13	<0.0065	<0.0065	<0.0065
SB-7	4	2/20/13	<0.0036	<0.0036	<0.0036
SB-8	1	2/20/13	0.021	0.071	<0.0025
SB-8	2	2/20/13	0.023	0.18	<0.0028
SB-8	4	2/20/13	<0.18	0.51	<0.18
SB-9	1	2/20/13	0.0051	0.016	<0.0036
SB-9	2	2/20/13	0.017	0.065	<0.0048
SB-9	4	2/20/13	0.0074	0.03	<0.0043
SO-2	1	3/10/09	<0.0029	<0.0029	<0.0029
SO-2	3	3/10/09	0.098	0.11	0.0064
SO-3	1	3/10/09	2700	62	5.3
SO-3	3	3/10/09	23	4.9	<2.4
SO-4	1	3/10/09	0.74	1.2	<0.0032
SO-4	3	3/10/09	0.93	1.6	<0.11
SO-5	5	3/10/09	0.39	0.35	0.07
SO-5	9	3/10/09	<0.0062	<0.0062	<0.0062
SO-6	5	3/10/09	0.066	0.089	0.01
SO-7	3	3/10/09	1.9	2.4	0.072
SO-10	1	10/12/10	43	16	7.2

Capitol Adhesives

Table 3. Comparison of Solid Aquifer Matrix Material to SSL_{mod}

Sample ID	Depth (ft bgs)	Date Sampled	Tetrachloroethene (mg/kg)	Trichloroethene (mg/kg)	1,1,1-Trichloroethane (mg/kg)
SSL_{mod} (mg/kg)			7.5	7.0	16.0
Maximum Concentration (mg/kg)			2700	200	66
SS-AST-1	1	1/12/09	7.09	0.159	0.0805
SS-AST-2	1	1/12/09	12.2	7.75	1.11
SS-AST-3	1	7/23/12	0.11	0.058	<0.003
SS-AST-3	2	7/23/12	0.35	0.18	<0.0032
SS-AST-4	1	7/23/12	0.0047	<0.0028	<0.0028
SS-AST-4	2	7/23/12	0.0042	<0.0033	<0.0033
SS-AST-5	1	7/23/12	0.0039	<0.0027	<0.0027
SS-AST-5	2	7/23/12	0.011	<0.0032	<0.0032
SS-AST-6	1	7/23/12	0.039	0.0088	0.0035
SS-AST-6	2	7/23/12	0.047	0.011	<0.0033
SS-AST-7	1	7/23/12	0.013	0.0096	<0.003
SS-AST-7	2	7/23/12	0.014	0.0086	<0.0031
SS-AST-8	1	7/23/12	64	58	66
SS-AST-8	2	7/23/12	6.5	13	4.7
SS-AST-9	1	7/23/12	380	34	2.1
SS-AST-9	2	7/23/12	660	97	15
SS-AST-10	1	7/23/12	0.0054	<0.0029	<0.0029
SS-AST-10	2	7/23/12	0.02	0.01	<0.0033
SS-AST-10 (Dup)	1	7/23/12	0.058	0.018	0.0043
SS-AST-11	1	7/23/12	0.0095	0.0061	<0.0028
SS-AST-11	2	7/23/12	0.013	0.008	<0.0034
SS-BLDG-1	1	1/12/09	<0.0024	<0.0024	<0.0024
SS-BLDG-1	5	1/12/09	<0.00284	<0.00284	<0.00284
SS-BLDG-2	5	1/12/09	<0.00349	<0.00349	<0.00349
SS-BLDG-5	1	1/12/09	<0.00247	<0.00247	<0.00247
SS-BLDG-6	1	1/12/09	0.0037	0.00288	<0.00246
SS-HA-1	1	1/12/09	0.0108	<0.00284	<0.00284
SS-HA-2	1	1/12/09	0.0139	<0.00325	<0.00325
Vadose Zone Soil					
GP007	2-4	8/9/05	<0.0045	<0.0045	<0.0045
GP008	2-4	8/9/05	<0.0054	<0.0054	<0.0054
SS-BLDG-2	1	1/12/09	<0.00268	<0.00268	<0.00268
SS-BLDG-3	1	1/12/09	<0.00301	<0.00301	<0.00301
SS-BLDG-4	1	1/12/09	<0.00299	0.161	<0.00299
Other (sediment)					
South Ditch	0-2	6/19/04	<0.0064	0.012	<0.0064

Exceeds SSL_{mod}

Matrix: Vadose Zone Soil - sample collected above or at the high water table mark

Solid Aquifer Matrix - sample collected below the high water table mark

Capitol Adhesives
Table 4. Vadose Zone Soil Delineation

Sample ID	Depth (ft bgs)	Date Sampled	Tetrachloroethene (mg/kg)	Trichloroethene (mg/kg)	cis-1,2-Dichloroethene (mg/kg)	Vinyl chloride (mg/kg)	1,1,1-Trichloroethane (mg/kg)	1,1-Dichloroethane (mg/kg)	Chloroethane (mg/kg)	1,1,2-Trichloroethane (mg/kg)	1,1-Dichloroethane (mg/kg)	1,2-Dichloroethane (mg/kg)	1,2-Dichloropropane (mg/kg)	1,4-Dioxane (mg/kg)
Delineation Criteria (Type 1 RRS)			0.5	0.5	7	0.2	20	0.7	0.17	0.5	400	0.5	0.5	7
Maximum Detected Conc			ND	0.161	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vadose Zone Soil														
GP007	2-4	8/9/05	<0.0045	<0.0045	<0.0045		<0.0045				<0.0045	<0.0045	<4.5	
GP008	2-4	8/9/05	<0.0054	<0.0054	<0.0054		<0.0054				<0.0054	<0.0054	<5.4	
SS-BLDG-2	1	1/12/09	<0.00268	<0.00268	<0.00268	<0.00536	<0.00268	<0.00268	<0.00536	<0.00268	<0.00268	<0.00268	<0.00268	NA
SS-BLDG-3	1	1/12/09	<0.00301	<0.00301	<0.00301	<0.00602	<0.00301	<0.00301	<0.00602	<0.00301	<0.00301	<0.00301	<0.00301	NA
SS-BLDG-4	1	1/12/09	<0.00299	0.161	<0.00299	<0.00598	<0.00299	<0.00299	<0.00598	<0.00299	<0.00299	<0.00299	<0.00299	NA
Solid Aquifer Matrix														
GP001	6-8	8/9/05	<0.0054	<0.0054	<0.0054		<0.0054				<0.0054	<0.0054	<5.4	
GP002	4-6	8/9/05	<0.0049	<0.0049	<0.0049		<0.0049				<0.0049	<0.0049	<4.9	
GP003	2-4	8/9/05	<0.0048	<0.0048	<0.0048		<0.0048				<0.0048	<0.0048	<4.8	
GP004	4-6	8/9/05	<0.004	<0.004	<0.004		<0.004				<0.004	<0.004	<4	
GP005	4-6	8/9/05	<0.0045	<0.0045	<0.0045		<0.0045				<0.0045	<0.0045	<4.5	
GP006	2-4	8/9/05	<0.0046	<0.0046	<0.0046		<0.0046				<0.0046	<0.0046	<4.6	
GP013	4-6	8/10/05	<0.0052	<0.0052	<0.0052		<0.0052				<0.0052	<0.0052	<5.2	
MIP-5	3	10/16/08	<0.0022	<0.0022	<0.0022	<0.0045	<0.0022	<0.0022	<0.0045	<0.0022	<0.0022	<0.0022	<0.0022	<0.067
MW-10	5-10	7/7/06	<0.005	0.006	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	5
MW-11	5-10	7/6/06	<0.005	0.008	0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	5
MW-12	5-10	7/6/06	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	5
MW-13	13-15	6/27/06	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	5
MW-16	8-10	6/27/06	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	5
MW-8	8-10	6/27/06	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	5
MW-9	8-10	6/27/06	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	5

NA: Not analyzed

ND: Not detected

Matrix: Vadose Zone Soil - sample collected above or at the high water table mark

Solid Aquifer Matrix - sample collected below the high water table mark

Capitol Adhesives

Table 4. Vadose Zone Soil Delineation

Sample ID	Depth (ft bgs)	Date Sampled	2-Butanone (MEK) (mg/kg)	Acetone (mg/kg)	Benzene (mg/kg)	Chloroform (mg/kg)	Cyclo hexane (mg/kg)	Dichloro methane (Methylene chloride) (mg/kg)	Ethyl benzene (mg/kg)	Freon-11 (Trichlorof luorometha ne (mg/kg)	Freon-113 (mg/kg)	Toluene (mg/kg)	trans-1,2- Dichloro ethene (mg/kg)
Delinement Criteria (Type 1 RRS)			200	400	0.5	3.9	20	0.5	70	200	24,039	100	10
Maximum Detected Conc			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vadose Zone Soil													
GP007	2-4	8/9/05				<0.0045		<0.0045	<0.0045			<0.0045	
GP008	2-4	8/9/05				<0.0054		<0.0054	<0.0054			<0.0054	
SS-BLDG-2	1	1/12/09	<0.0268	<0.0536	<0.00268	<0.00268	<0.00268	<0.00268	<0.00268	<0.00268	<0.00536	<0.00268	<0.00268
SS-BLDG-3	1	1/12/09	<0.0301	<0.0602	<0.00301	<0.00301	<0.00301	<0.00301	<0.00301	<0.00301	<0.00602	<0.00301	<0.00301
SS-BLDG-4	1	1/12/09	<0.0299	<0.0598	<0.00299	<0.00299	<0.00299	<0.00299	<0.00299	<0.00299	<0.00598	<0.00299	<0.00299
Solid Aquifer Matrix													
GP001	6-8	8/9/05				<0.0054		<0.0054	<0.0054			<0.0054	
GP002	4-6	8/9/05				<0.0049		<0.0049	<0.0049			<0.0049	
GP003	2-4	8/9/05				<0.0048		<0.0048	<0.0048			<0.0048	
GP004	4-6	8/9/05				<0.004		<0.004	<0.004			<0.004	
GP005	4-6	8/9/05				<0.0045		<0.0045	<0.0045			<0.0045	
GP006	2-4	8/9/05				<0.0046		<0.0046	<0.0046			<0.0046	
GP013	4-6	8/10/05				<0.0052		<0.0052	<0.0052			<0.0052	
MIP-5	3	10/16/08	<0.022	<0.045	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0045	<0.0022	<0.0022
MW-10	5-10	7/7/06	<0.1	<0.1	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	<0.005	<0.005
MW-11	5-10	7/6/06	<0.1	<0.1	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	<0.005	<0.005
MW-12	5-10	7/6/06	<0.1	<0.1	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	<0.005	<0.005
MW-13	13-15	6/27/06	<0.1	<0.1	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	<0.005	<0.005
MW-16	8-10	6/27/06	<0.1	<0.1	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	<0.005	<0.005
MW-8	8-10	6/27/06	<0.1	<0.1	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	<0.005	<0.005
MW-9	8-10	6/27/06	<0.1	<0.1	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	<0.005	<0.005

NA: Not analyzed

ND: Not detected

Matrix: Vadose Zone Soil - sample collected above or at the high water table mark

Solid Aquifer Matrix - sample collected below the high water table mark

Capitol Adhesives

Table 5. Groundwater Delineation

Well	Date Sampled	Tetra chloro ethene (mg/L)	Trichloro ethene (mg/L)	cis-1,2-Dichloro ethene (mg/L)	Vinyl chloride (mg/L)	Total Chlorinated Ethenes (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1-Dichloroethane (mg/L)	Chloro ethane (mg/L)	Total Chlorinated Ethanes (mg/L)	1,1,2-Trichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	1,2-Dichloroethane (mg/L)	Acetone (mg/L)	Benzene (mg/L)	Chloroform (mg/L)	Cyclo hexane (mg/L)	Dichloro methane (mg/L)	Freon-11 (mg/L)	Freon-113 (mg/L)	Methyl cyclo hexane (mg/L)	o-Xylene (mg/L)	Toluene (mg/L)	trans-1,2-Dichloroethene (mg/L)
Type 1 RRS or DL		0.005	0.005	0.07	0.002		0.2	4	DL		0.005	0.007	0.005	4	0.005	0.08	DL	0.005	2	1000	DL	10	1	0.1
MW-1R	8/23/2012	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-1R	2/5/2013	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-2	2/8/2012	<0.005	<0.005	0.0061	0.0025	0.0086	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	0.38	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-2	2/5/2013	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-2D	2/8/2012	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	0.071	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-2D	2/5/2013	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	0.31	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-3	2/9/12	3 E	4.2 E	1.9 E	0.24 E	9.34	0.59 E	0.49 E	<0.01	1.08	0.024	2.6 E	1 E	<0.05	0.0076	1.1 E	0.024	0.066	0.0096	0.24 E	0.012	<0.005	0.0052	0.17
MW-3	8/24/2012	3.4	6.1	2.9	0.23	12.63	0.52	0.54	<0.01	1.06	0.047	3	1.3	<0.05	0.013	1.8	<0.005	0.045	<0.005	<0.01	0.0068	0.0052	0.0072	0.18
MW-3	2/6/13	3.5	5	2.6	0.3	11.4	0.56	0.6	<0.01	1.16	<0.005	2.9	1.3	3.7	0.0098	1.80	0.023	0.011	0.0078	0.3	0.016	<0.005	<0.005	0.24
MW-3	8/6/2013	2.9	4.8	2.3	0.23	10.23	0.47	0.32	<0.01	11.02	0.025	1.6	0.66	0.39	0.007	0.70	<0.005	0.0063	<0.005	0.18	0.022	0.007	0.12	<0.005
MW-3 (Dup)	8/6/2013	2.9	4.9	2.3	0.23	10.33	0.45	0.32	<0.01	11.1	0.021	1.6	0.67	0.29	0.0066	0.72	<0.005	0.0056	<0.005	0.15	0.017	0.0065	0.11	<0.005
MW-3D	2/8/12	0.93	1	0.41	0.12	2.46	0.46	0.19	<0.01	0.65	<0.005	0.55	0.16	<0.05	<0.005	0.15	<0.005	<0.005	<0.082	0.005	<0.005	<0.005	<0.034	
MW-3D (Dup)	2/8/12	0.99	1.1	0.46	0.12	2.67	0.48	0.19	<0.01	0.67	0.0056	0.6	0.16	<0.05	<0.005	0.18	<0.005	<0.005	<0.08	0.0055	<0.005	<0.005	<0.034	
MW-3D	8/24/12	0.88	1.1	0.51	0.1	2.59	0.3	0.18	<0.01	0.48	0.0079	0.46	0.24	<0.05	<0.005	0.23	<0.005	0.014	<0.005	<0.01	<0.005	<0.005	<0.033	
MW-3D (Dup)	8/24/2012	0.9	1.1	0.45	0.11	2.56	0.25	0.18	<0.01	0.43	0.0075	0.49	0.19	<0.05	<0.005	0.23	<0.005	0.014	<0.005	<0.01	<0.005	<0.005	0.032	
MW-3D	2/6/2013	2.00	1.7	0.97	0.15	4.82	0.45	0.14	<0.01	0.59	<0.005	0.57	0.19	0.62	<0.005	0.15	0.061	0.017	<0.005	0.04	0.013	<0.005	0.028	
MW-3D	8/6/2013	2.9	4.8	2.9	0.28	10.88	0.53	0.28	0.011	11.701	0.017	0.87	0.41	0.1	<0.005	0.36	<0.005	0.027	<0.005	0.13	0.051	0.02	0.063	0.0073
MW-3B	8/24/2012	0.52	0.37	0.15	0.061	1.10	0.04	0.075	<0.01	0.115	<0.005	0.17	0.04	<0.05	<0.005	0.02	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	0.0089
MW-3B	2/6/2013	0.82	0.36	0.17	0.071	1.42	0.052	0.064	<0.01	0.116	<0.005	0.2	0.032	<0.05	<0.005	0.031	<0.005	<0.005	<0.005	0.03	<0.005	<0.005	<0.005	0.0086
MW-4	2/8/12	0.017	0.041	0.033	0.011	0.102	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-4	8/23/12	<0.005	0.013	0.012	0.0058	0.0308	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-4	2/5/13	<0.005	0.0066	<0.005	<0.002	0.0066	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-4	8/5/13	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-5	2/9/12	<0.005	<0.005	<0.005	0.011	0.011	<0.005	0.023	0.2	0.223	<0.005	<0.005	0.017	<0.05	<0.005	<0.005	<0.005	0.0095	<0.005	<0.01	<0.005	<0.005	<0.024	
MW-5	8/23/2012	<0.005	<0.005	<0.005	0.0044	0.0044	<0.005	0.025	0.17	0.195	<0.005	<0.005	0.0085	<0.05	<0.005	<0.005	<0.005	0.0061	<					

[EPS]

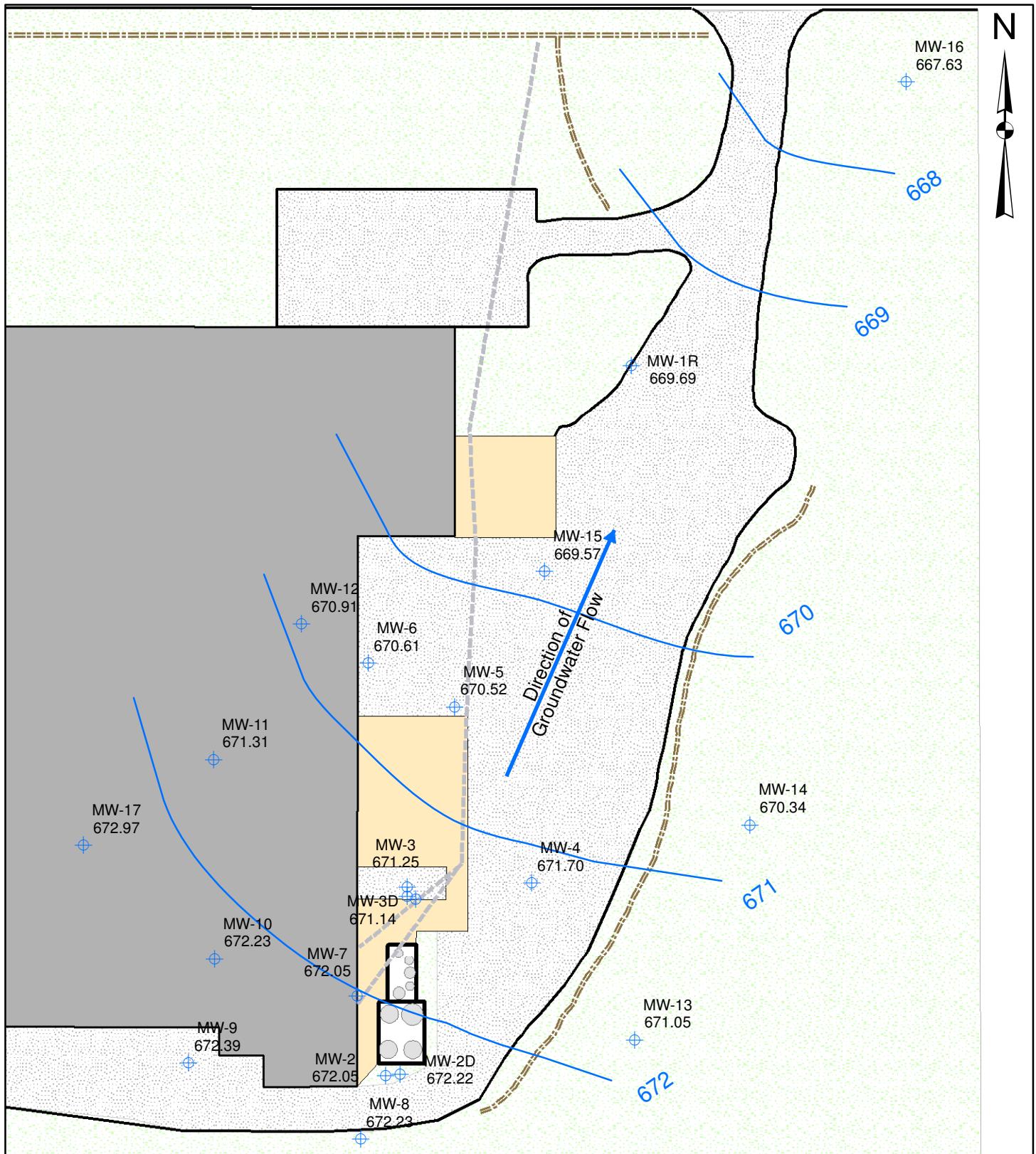
FIGURES

Figure 1
Projected Milestone Schedule

ID	Task Name	2011	2012				2013				2014				2015				2016			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Project Management																					
	Financial Assurance with cost estimate	Nov 1																				
	Semiannual Progress Reports			Apr 3		Oct 3		Apr 3		Oct 3		Apr 3		Oct 3		Apr 3		Oct 3		Apr 3		CSR Oct 3
	Horizontal and vertical delineation, final remediation plan, cost estimate for remediation										Oct 3 Delin.		Apr 3									
2	Well Installation				Annual		Semi-Annual		Annual		Semi-Annual											
3	Groundwater Sampling		Annual			Semi-Annual											Final Remediation Plan					
4	Source Area Evaluation and Remedial Action							Prelim Remediation Plan					Final Remediation Plan	Remedial Action								
	Pilot Scale ISCO Treatment										Internal Deadline											
5	Human Health Risk Evaluation										Prelim Risk Evaluation											CSR

- Complete
- EPD Deadline
- Internal Deadline

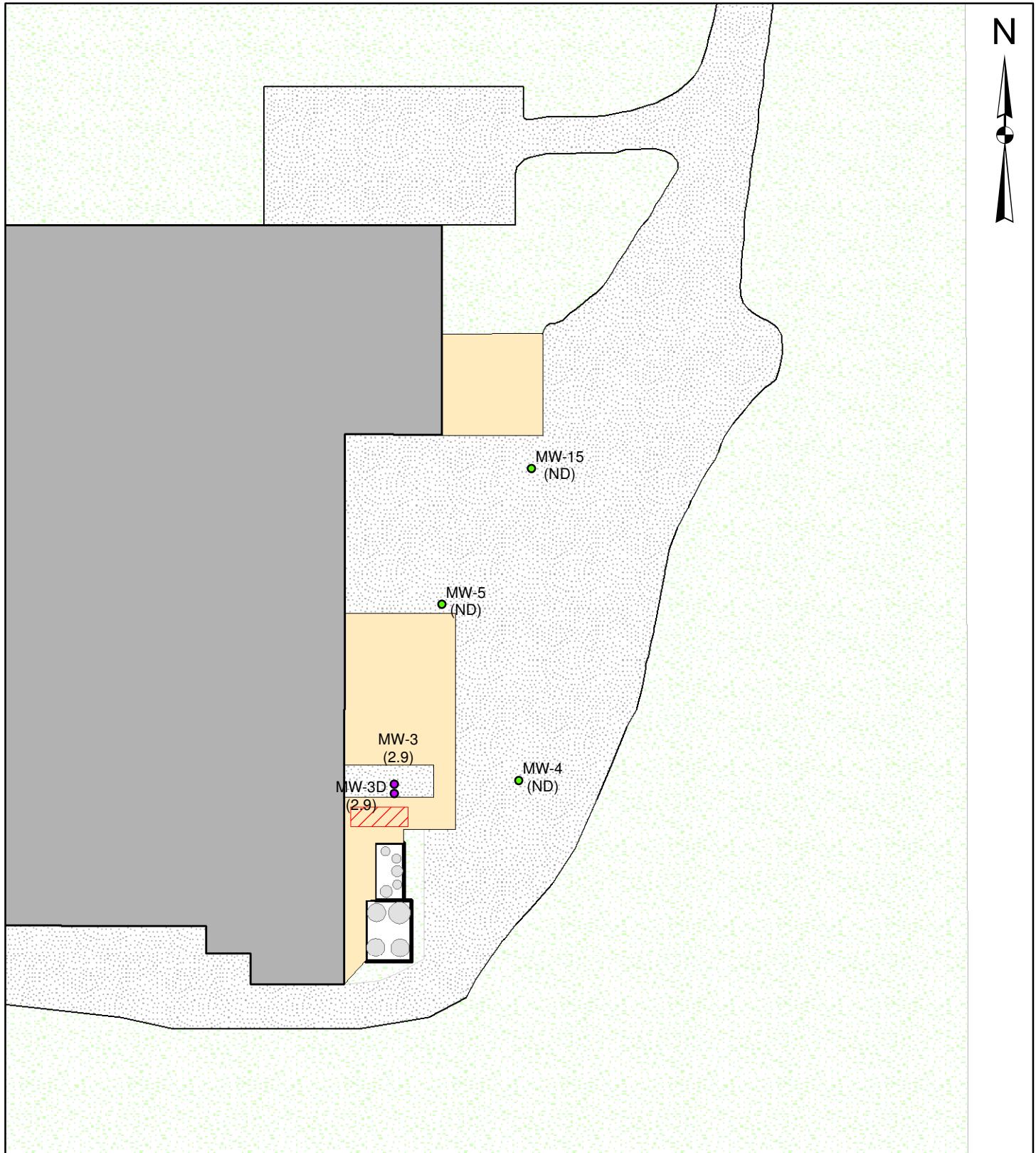
Capitol Adhesives
Potentiometric Surface Map of Surficial Aquifer (August 2013)



0 50 100
Feet

- | | |
|--|---|
| — Potentiometric Surface Elevation (ft msl)
- - - - Surface Drainage Ditch | Building
 Concrete Pad
 AST Containment Area
 Packed Gravel Drive/Parking
 Grass |
|--|---|

Capitol Adhesives
Groundwater PCE (August 2013)



0 50 100
Feet

PCE (mg/L)

- Non-detect
- < 0.005 (Type 1 RRS)
- 0.005 - 2
- > 2

Location of 1995 Spill (approx)

Building

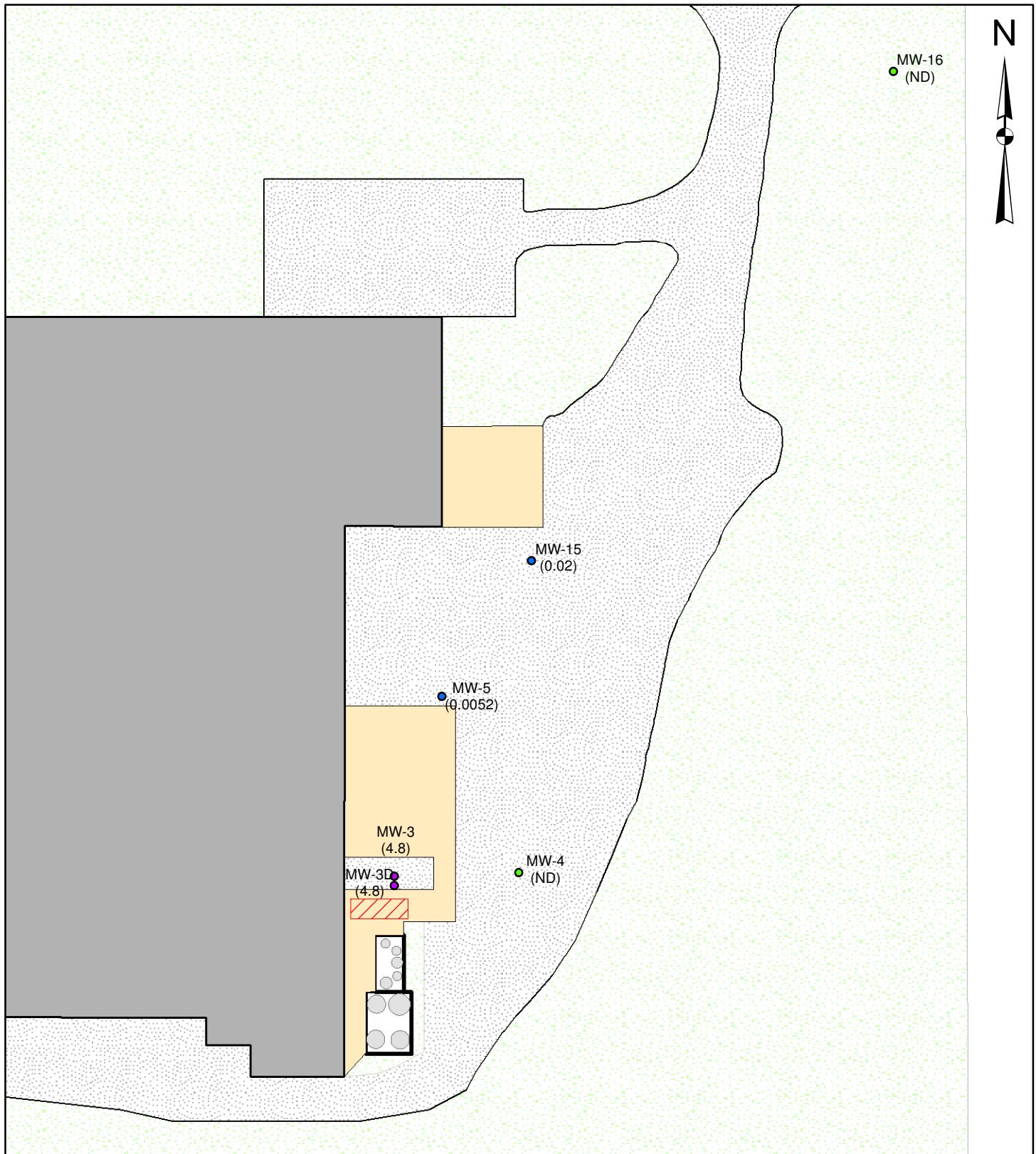
Concrete Pad

AST Containment Area

Packed Gravel Drive/Parking

Grass

Capitol Adhesives
Groundwater TCE (August 2013)

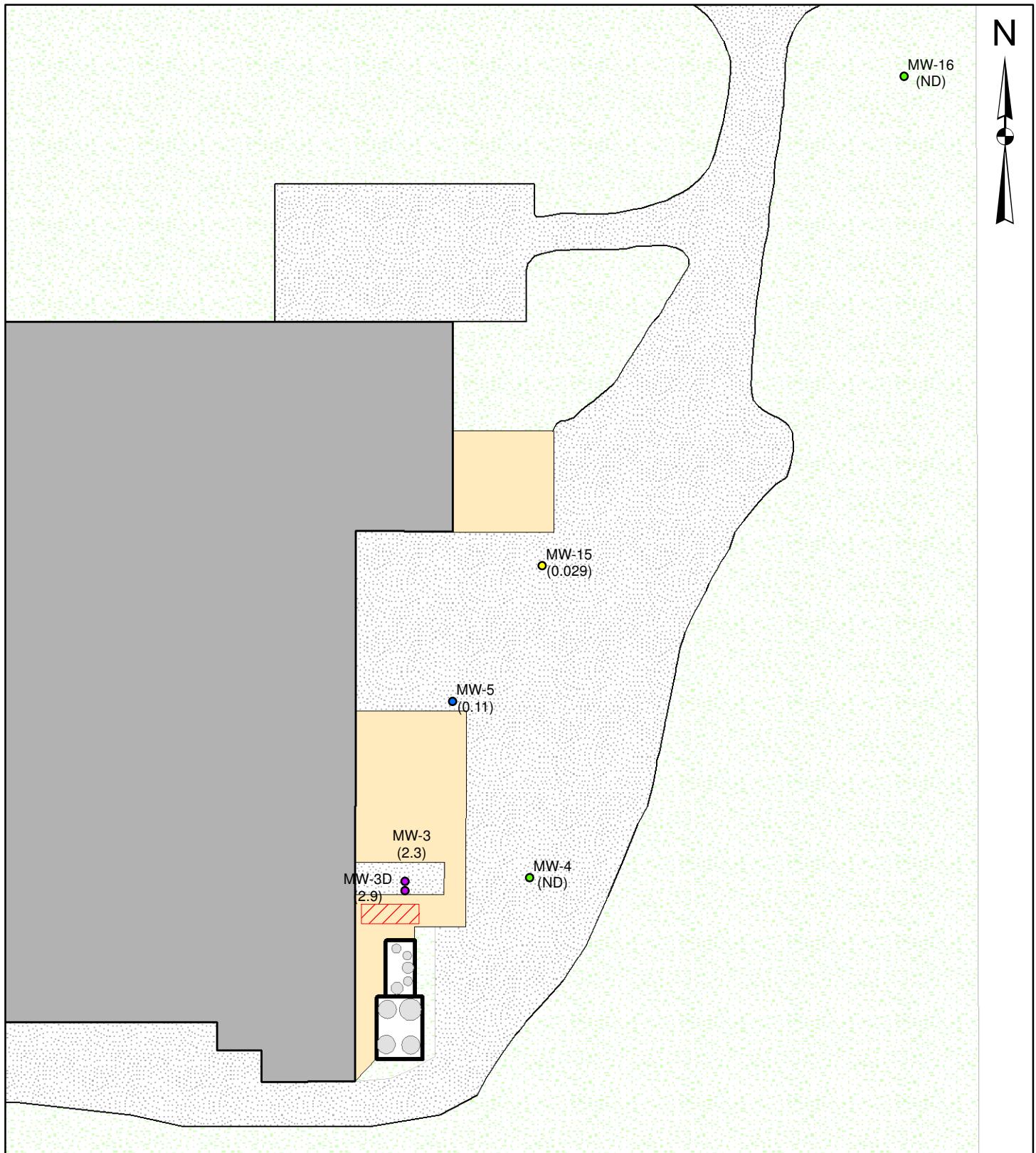


0 50 100
Feet

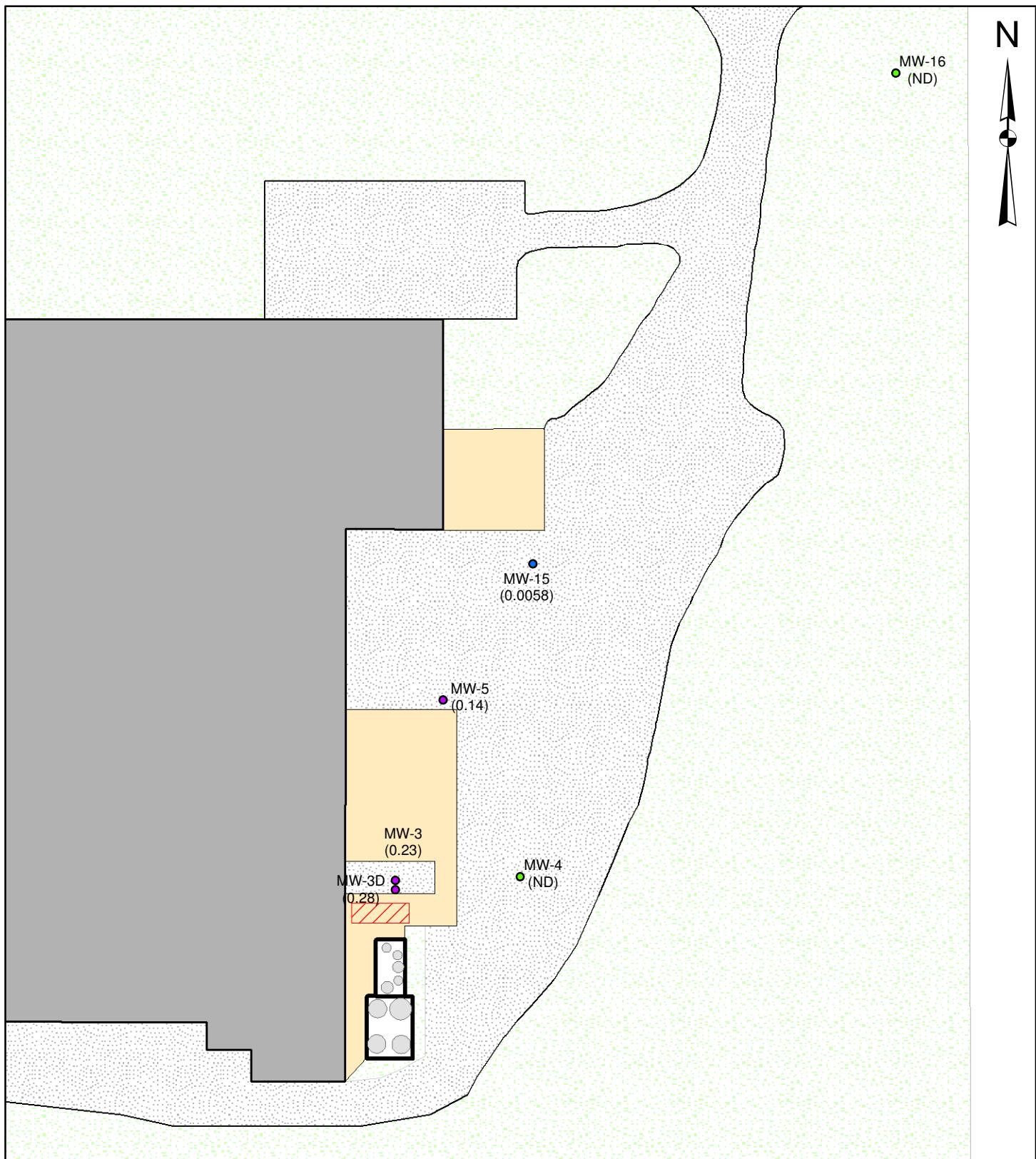
TCE (mg/L)

- Non-detect
 - < 0.005 (Type 1 RRS)
 - 0.0505 - 2
 - > 2
- Location of 1995 Spill (approx)
 - Building
 - Concrete Pad
 - AST Containment Area
 - Packed Gravel Drive/Parking
 - Grass

Capitol Adhesives
Groundwater DCE (August 2013)



**Capitol Adhesives
Groundwater Vinyl Chloride (August 2013)**



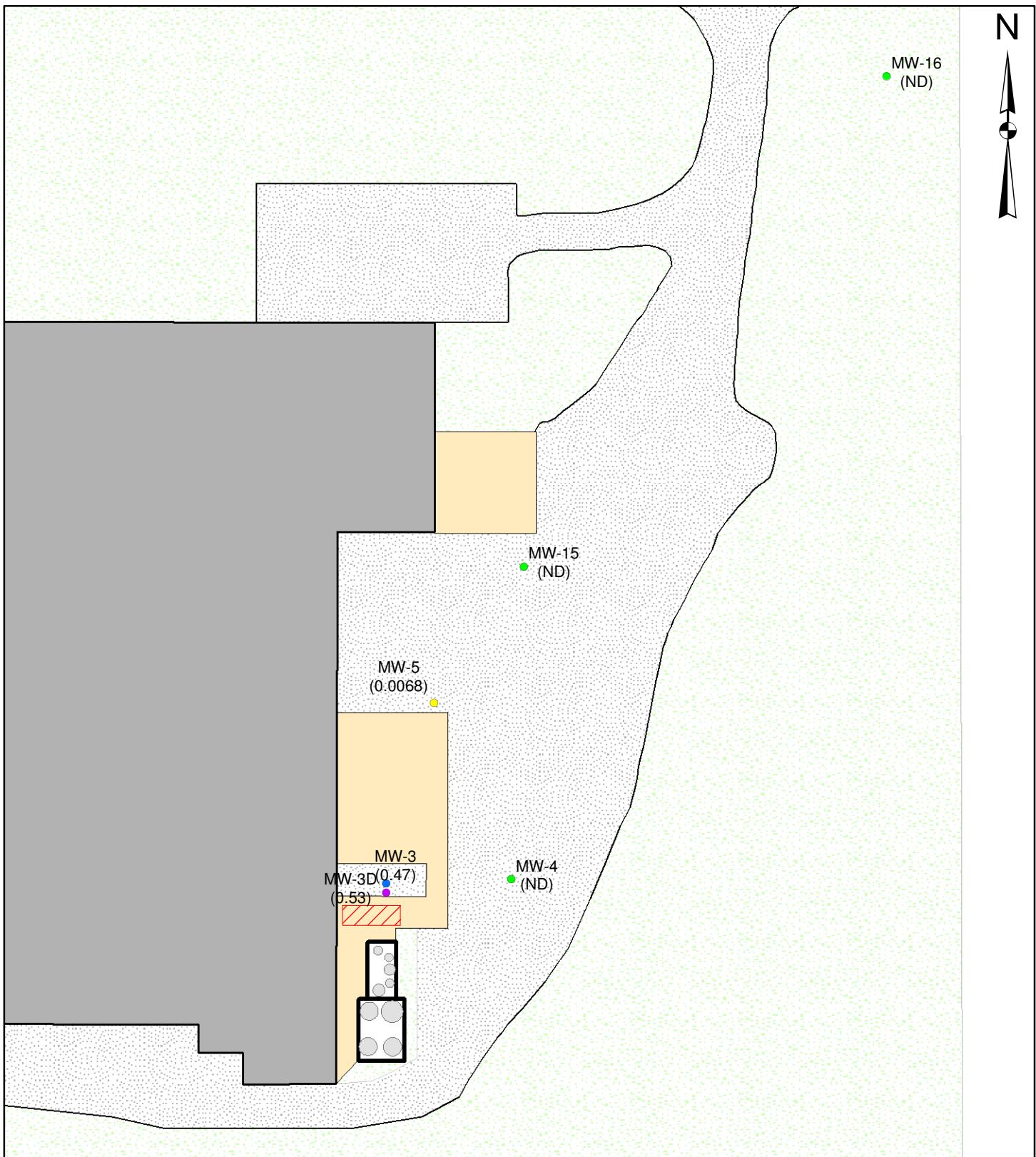
0 50 100
Feet

VC (mg/L)

- Non-detect
- < 0.002 (Type 1 RRS)
- 0.002 - 0.1
- > 0.1

- Location of 1995 Spill (approx)
- AST Containment Area
- Building
- Concrete Pad
- Packed Gravel Drive/Parking
- Grass

**Capitol Adhesives
Groundwater 1,1,1-TCA (August 2013)**

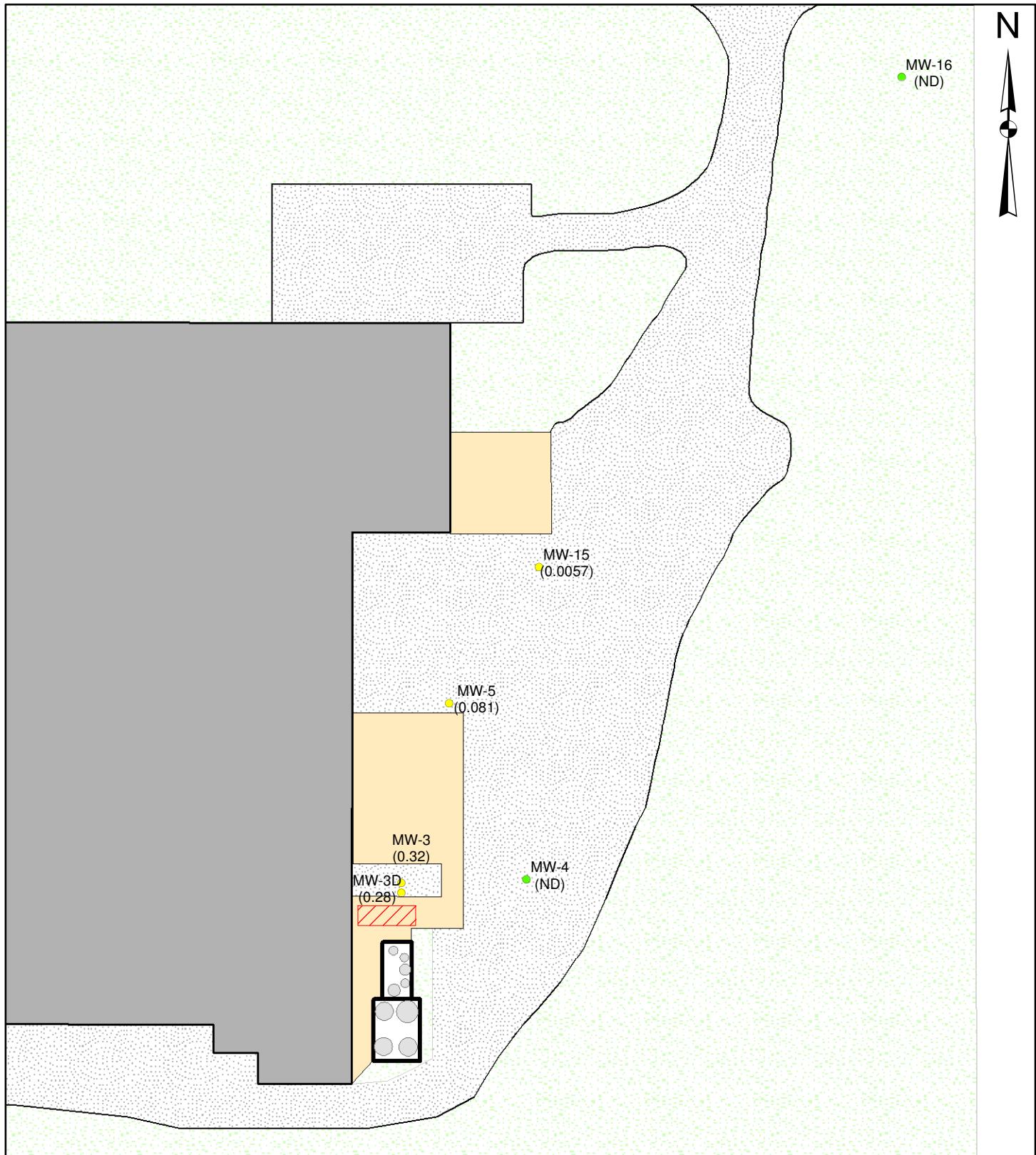


0 50 100
Feet

1,1,1-TCA (mg/L)

- Non-detect
 - < 0.2 (Type 1 RRS)
 - 0.2 - 0.5
 - > 0.5
- Location of 1995 Spill (approx)
 - AST Containment Area
 - Building
 - Concrete Pad
 - Packed Gravel Drive/Parking
 - Grass

Capitol Adhesives
Groundwater DCA (August 2013)



0 50 100
Feet

DCA (mg/L)

● Non-detect

● <4 (Type 1 RRS)

● > 4

Location of 1995 Spill (approx)

AST Containment Area

Building

Concrete Pad

Packed Gravel Drive/Parking

Grass

Figure 5. Chlorinated Ethene Modeling Results (August 2013)
Modeled Dissolved Chlorinated Ethene Concentrations Along Plume Centerline

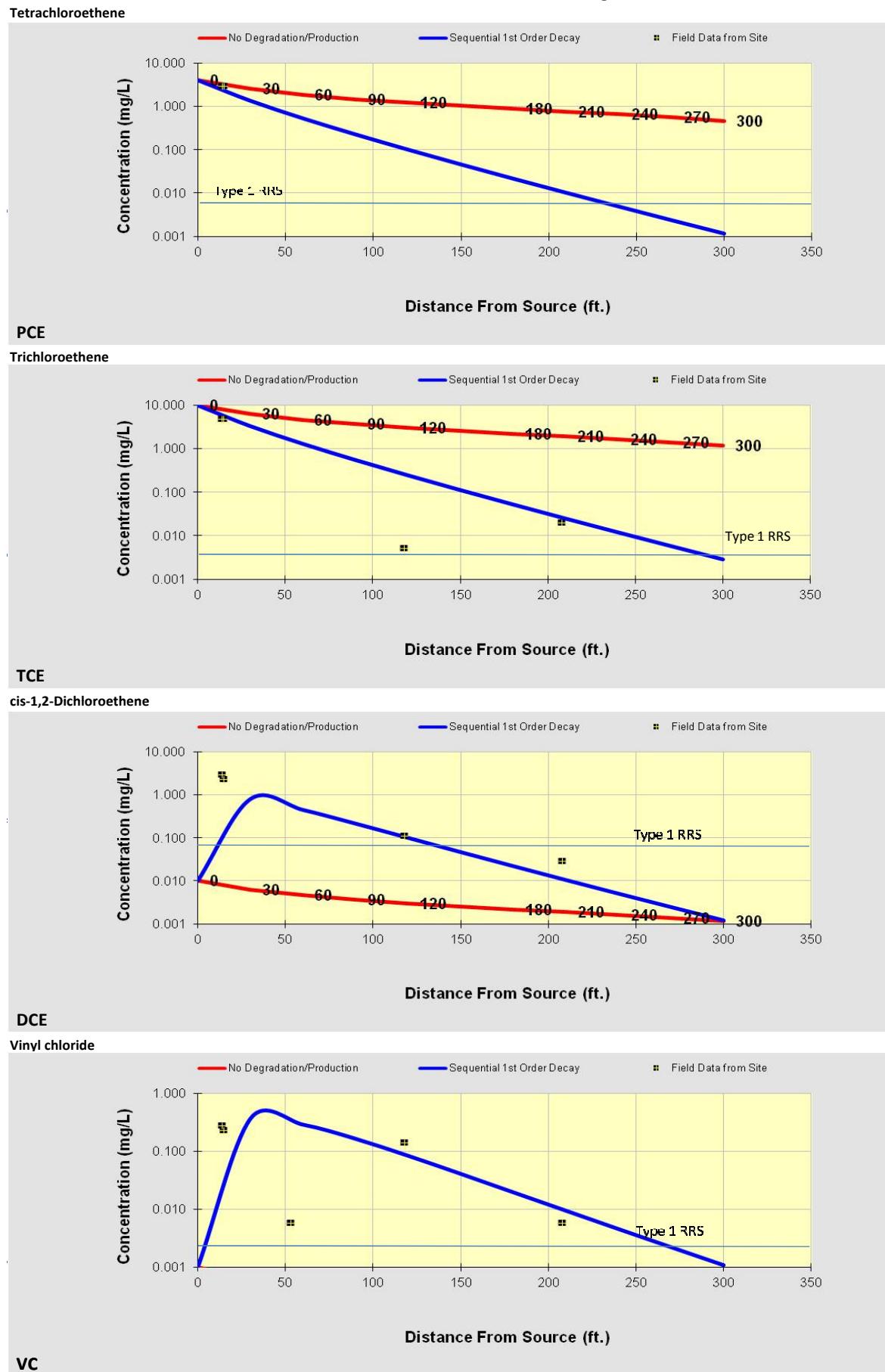
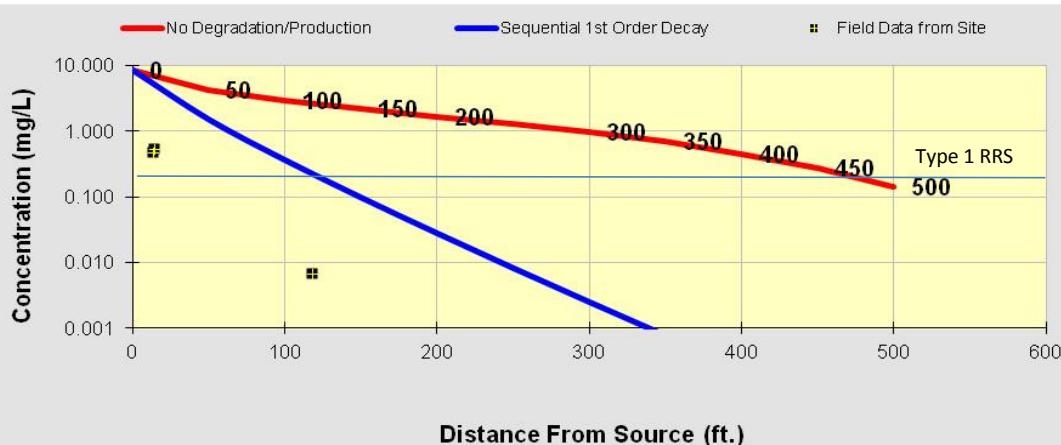


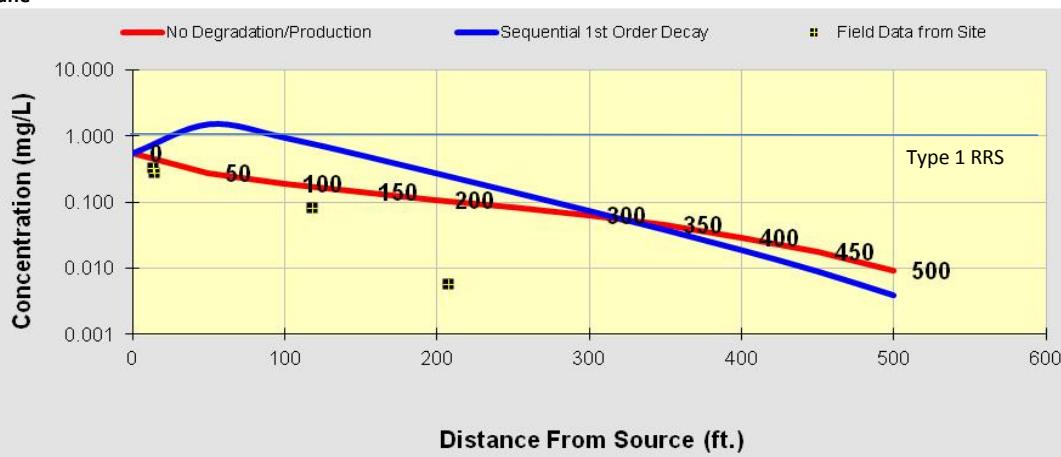
Figure 6. Chlorinated Ethane Modeling Results (August 2013)
Modeled Dissolved Chlorinated Ethane Concentrations Along Plume Centerline

1,1,1-Trichloroethane



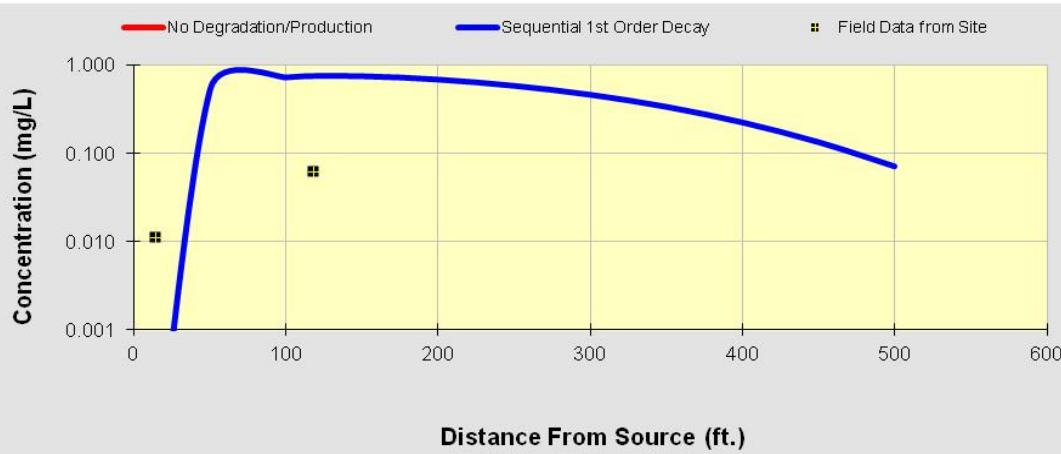
TCA

1,1-Dichloroethane



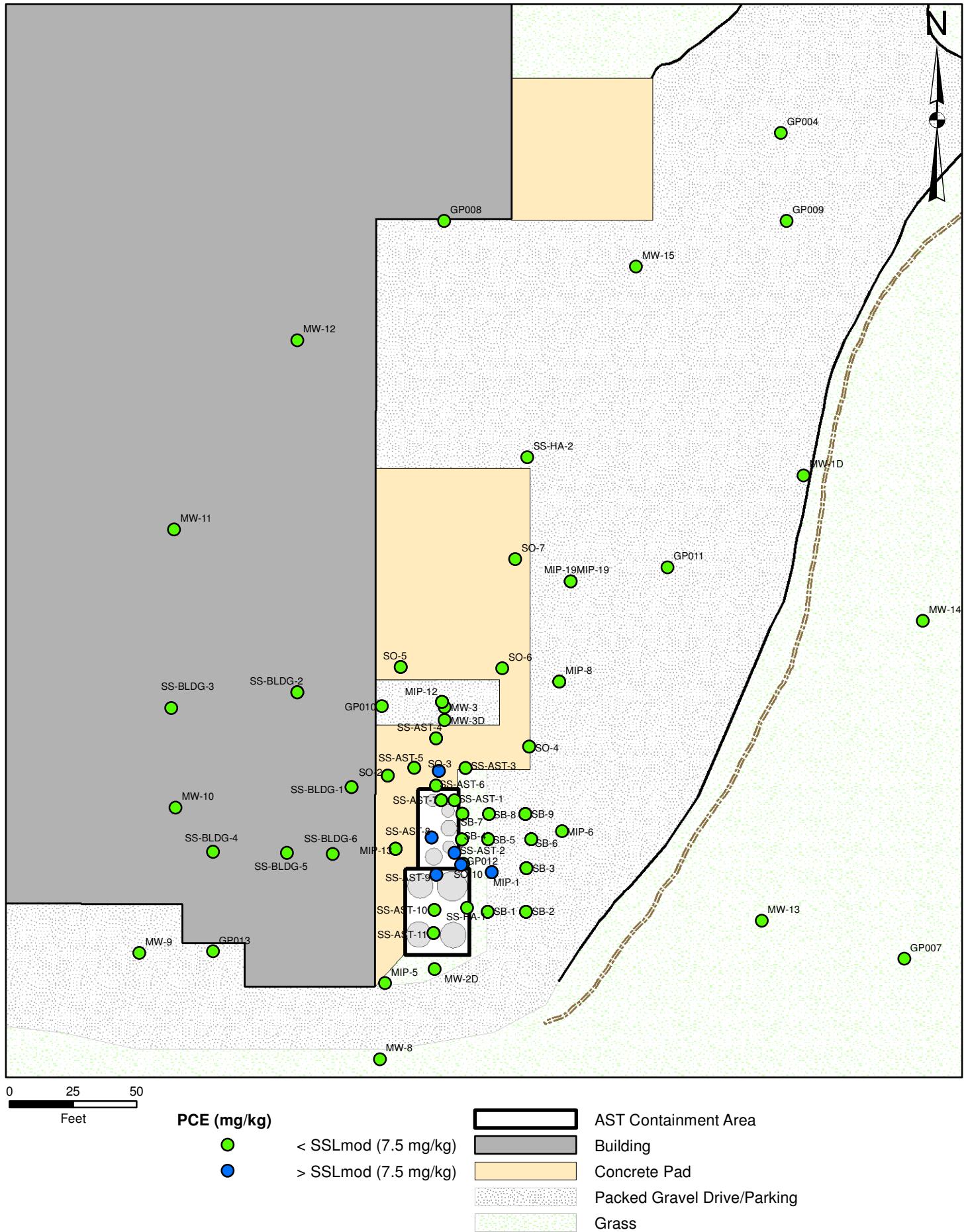
DCA

Chloroethane

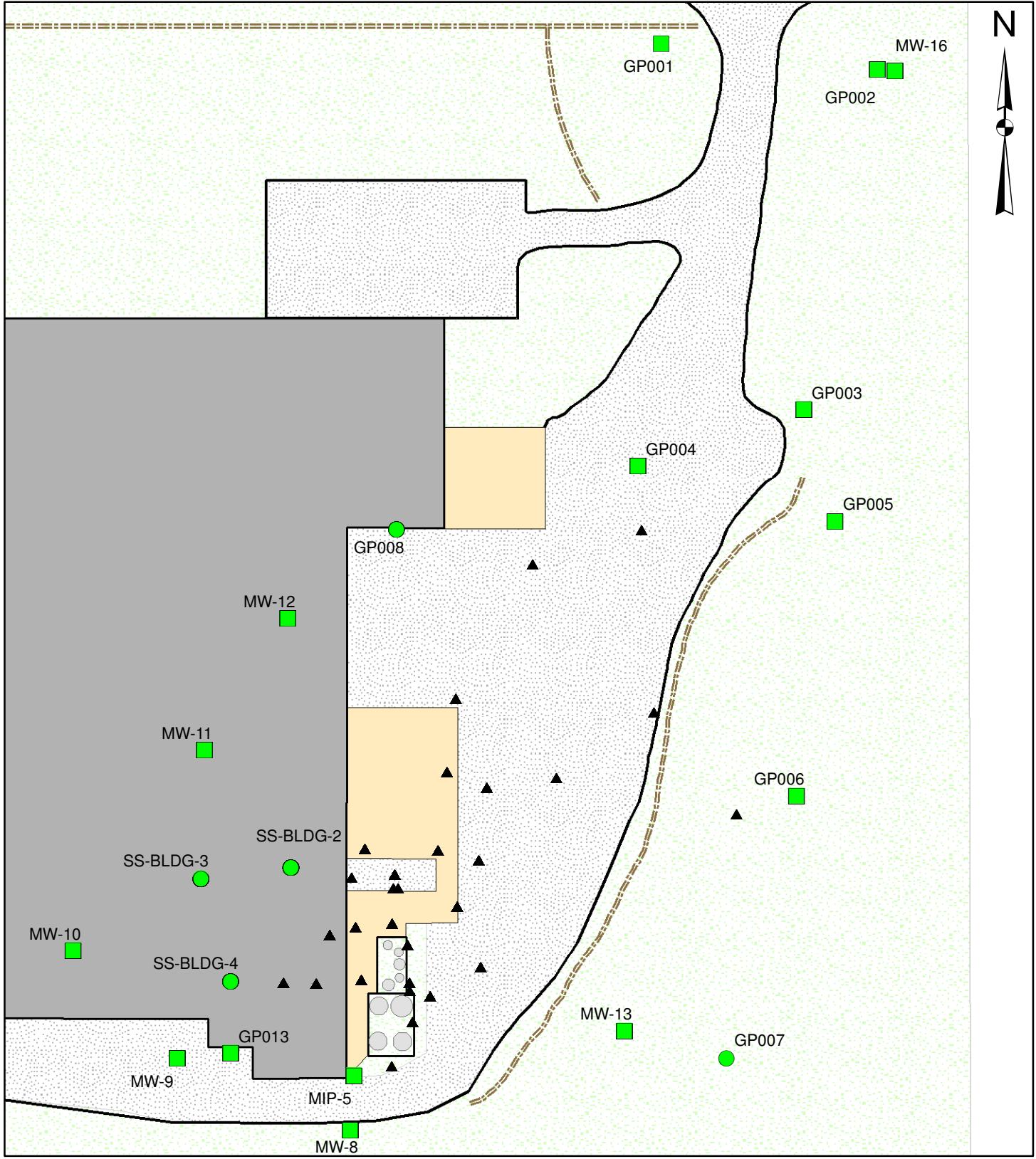


CA

Capitol Adhesives
Solid Aquifer Matrix PCE Results Compared to Remedial Extent Level



Capitol Adhesives Vadose Zone Soil Delineation



0 50 100
Feet

Vadose Zone Soil Delineation Locations

- Below Delineation Criteria
- Above Delineation Criteria

AST Containment Area

Building

Concrete Pad

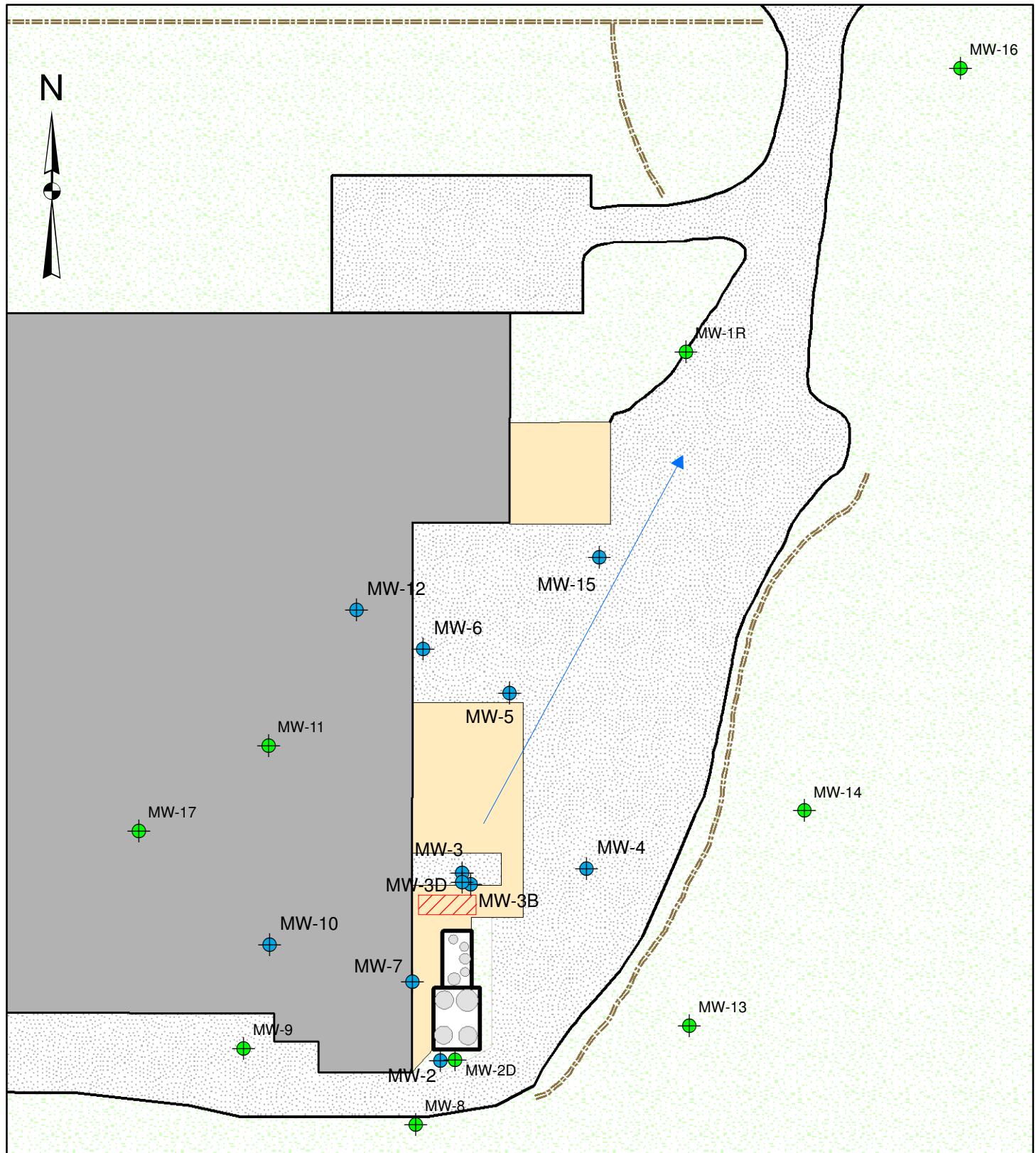
Packed Gravel Drive/Parking

Grass

Solid Aquifer Matrix Locations used for Delineation

- Below Delineation Criteria
- Above Delineation Criteria
- ▲ Other Soil or Solid Aquifer Matrix Locations

**Capitol Adhesives
Groundwater Delineation**



0 50 100
Feet

- | | |
|------------------------------------|-------------------------------|
| ● Wells Below Delineation Criteria | ■ AST Containment Area |
| ● Wells Above Delineation Criteria | ■ Building |
| ■ Location of Spill (approx) | ■ Concrete Pad |
| → Groundwater Flow Direction | ■ Packed Gravel Drive/Parking |
| | ■ Grass |

APPENDIX A

PROFESSIONAL GEOLOGIST SUMMARY OF HOURS

4:19 PM

09/30/13

Environmental Planning Specialists, Inc.

April through September 2013

	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13	TOTAL
River Associates:Dalton Adhesives:Progress Reports SP-Senior Principal:SP-Document Review	0.00	0.00	0.00	0.00	0.00	2.00	2.00
Total River Associates:Dalton Adhesives:Progress Reports	0.00	0.00	0.00	0.00	0.00	2.00	2.00
River Associates:Dalton Adhesives:Project Management SP-Senior Principal:SP-Meeting SP-Senior Principal:SP-Project Support	0.00 0.00	3.50 4.50	0.00 2.00	0.00 1.00	0.00 2.00	0.00 0.00	3.50 9.50
Total River Associates:Dalton Adhesives:Project Management	0.00	8.00	2.00	1.00	2.00	0.00	13.00
TOTAL	0.00	8.00	2.00	1.00	2.00	2.00	15.00

APPENDIX B

CONCEPTUAL SITE MODEL

APPENDIX B

CONCEPTUAL SITE MODEL

B. CONCEPTUAL SITE MODEL

B.1.	Elements of the Conceptual Site Model	B-1
B.2.	Ground Surface Features	B-1
B.3.	Source of Contamination	B-1
B.4.	Subsurface Features	B-2
	B.4.1. Geological Setting.....	B-2
	B.4.2. Hydrogeological Setting.....	B-2
B.5.	Extent of Contamination	B-4
	B.5.1. Groundwater Conditions	B-5
	B.5.2. Solid Aquifer Matrix and Vadose Zone Soil	B-5
B.6.	Fate and Transport Summary.....	B-9
	B.6.1. Physical Fate and Transport.....	B-9
	B.6.2. Biological Degradation.....	B-10
B.7.	Potential Receptors and Exposure Pathways.....	B-13
	B.7.1. Setting	B-13
	B.7.2. Human Health.....	B-13
	B.7.3. Ecological	B-14

Tables

- B-1 Analytical Results for Constituents Detected in Groundwater (mg/L)
- B-2 Analytical Results for Constituents Detected in Subsurface Solids (mg/kg)
- B-3 Anaerobic Biodegradation Preliminary Screening
- B-4 Anaerobic Microbial Testing Results (October, 2010)
- B-5 Aerobic Microbial Testing Results (October, 2010)

Figures

- B-1 Topographic Map
- B-2 Aerial of Property and Site Features
- B-3 Cross Section Location Map
- B-4 Cross Section A-A'
- B-5 Cross Section B-B'
- B-6 Soil Zones Based on High Water Table Conditions
- B-7 Groundwater Total Chlorinated Ethenes (February 2013)
- B-8 Groundwater Total Chlorinated Ethanes (February 2013)
- B-9 MW-5 PCE Degradation Time Series
- B-10 MW-5 TCA Degradation Time Series
- B-11 Location of Solid Matrix Samples and Water Table Zones
- B-12 Total Chlorinated Ethenes in Subsurface Solids
- B-13 Total Chlorinated Ethanes in Subsurface Solids

B. CONCEPTUAL SITE MODEL

The Conceptual Site Model (CSM) is intended to establish a common knowledge base about the Site and its environmental condition, to facilitate the development of basic remedial action objectives appropriate for the Site, and to allow an informed decision regarding possible remedial action measures for the Site. This section describes the surface and subsurface features at the Site, discusses the fate and transport of chlorinated solvents, and discusses the potential receptors and exposure pathways associated with the Site.

B.1. Elements of the Conceptual Site Model

The figures attached to this section and the Progress Report are plan view and profile diagrams depicting the extent of chlorinated solvents in the subsurface. Viewed in total, these figures give a three-dimensional representation of the site conditions.

B.2. Ground Surface Features

The Site consists of one steel frame building (approximately 100,000 sf) with concrete masonry walls and slab on grade concrete floor with a metal roof. Parking lots are located to the north and east of the building and a hard-packed gravel road/driveway runs along the eastern and southern sides of the building. Ten loading docks are located on the east wall of the facility; here the driving surface is paved in concrete. Several lean-to structures are on the south and west sides of the building. There is limited grassy terrain on the eastern and northern side of the Site. The topography of the Site gently slopes from the south to northeast. A shallow drainage ditch is located around the southern and eastern side of the Site and conveys runoff toward Cross Plains Boulevard. Samples collected from the southern drainage ditch did not contain concentrations of VOCs above HSRA Notification Concentrations (WRS, 2006). A subgrade storm drain system runs from the southeastern side of the building, across the spill area and then north to the ditch along Cross Plains Boulevard. There are no stream features on or adjacent to the Site. A topographic map is provided in Figure B-1 and the Site features are shown on Figure B-2.

B.3. Source of Contamination

In January 1995, a documented release of approximately 585 gallons of reclaimed 1,1,1-trichloroethane (TCA) occurred from a delivery truck due to failure of the tanker sidewall. Figure B-2 depicts the approximate location of the spill³. Spill response involved containment of the spill area with dikes and product was recovered using a vac truck. Post spill response involved excavation of surface soils at the spill site and off-site disposal⁴. Groundwater samples

³ The location depicted for the tanker truck spill has been modified from previous depictions in the Corrective Action Plan Addendum (EPS, 2009) due to subsequently-discovered information.

⁴ There is no documentation of the dimensions or specific locations of the soil excavation.

were not collected during the post spill response. An Environmental Investigation (Tri-State, 2004a) in August 2004, identified TCE, PCE, and daughter products in the subsurface and groundwater samples. This spill is the likely source of TCA and the daughter products detected in the groundwater. The spill is also the likely source of PCE/TCE and daughter products detected in the groundwater, as the reclaimed TCA likely contained PCE/TCE.

The ASTs near the tanker spill location are currently being used to store solvents for use in the facility's processes. The secondary containment appears in good condition.

B.4. Subsurface Features

B.4.1. Geological Setting

The Site occurs within the Valley and Ridge Physiographic Province of northwest Georgia. The province is dominated by a northward-trending valleys separated by low, rounded ridges and by high, steep-sided ridges (Cressler, 1974). The stratigraphic units below the Site are within the Conasauga Formation of the middle and late Cambrian system, which is underlain by the Rome Formation. Cressler (1974) describes the Conasauga Formation as follows:

Thickness: 3,000-5,000 feet (maximum thickness unknown)

Lithology: The formation consists of alternating units of shale and limestone that vary in thickness and relative proportion from place to place. In some areas the formation is mainly shale.

The middle unit of the Conasauga Formation is composed of approximately 1,000 feet of light green and yellowish clay shale containing small lenses of blue limestone. Some silty shale is also present, but in smaller quantities than in the lower unit.

A cross section location map is included as Figure B-3, and cross sections are shown on Figures B-4 and B-5. As depicted on these figures, the shallow stratigraphic profile at the Site consists of 4 to 6 feet of fill material placed during construction of the facility, followed by 10 to 15 feet of unconsolidated soil (clayey sand or sandy clay or shaley clay, but predominantly sandy clay) grading to weathered shale approximately to 15 to 30 feet bgs. Competent shale has been observed from 31 to 41 feet bgs and a harder rock (possibly limestone) has been observed below 41 feet bgs.

B.4.2. Hydrogeological Setting

Cressler (1974) describes the hydrologic properties of the Conasauga Formation as follows:

Wells in shale yield up to 5 gpm, or in some locations 17 gpm; and dry wells also occur. Wells in limestone normally supply between 5 and 25 gpm and ones properly located with respect to the drainage will furnish up to 300 gpm. Most wells are less than 300 feet deep, though some extend to a depth of 500 feet. Wells penetrating shale and limestone mixed generally supply from about 2 to 20 gpm, but some yield up to 100 gpm if they are near a source of recharge. The well water varies from soft to hard and has a low to

moderate iron content. Some large springs have openings in the Conasauga, but discharge water from the Knox Group.

The water table at the Site fluctuates on the scale of 5 to 8 ft at a given location, with many locations exhibiting a high water table mark at the ground surface (i.e., artesian conditions). Although the water table intersects the ground surface, the conditions are such that there is no or minimal pooling of water on the ground surface. In the spring of 2011 a weekly groundwater measurement program was implemented for three consecutive weeks to better define the high water table conditions. Depth to groundwater measurements were made at all the existing wells at the Site on three consecutive weekly site visits. The results are presented in Table 1 of the Progress Report along with the results from sampling events since 2011. This information was combined with the historical groundwater measurements to determine the historical high water table elevations, which can be seen on the cross-sections (Figures B-4 and B-5). The table below shows the high water table mark for the shallow wells. Ten of the shallow wells have exhibited conditions where the groundwater table intersects the ground surface. The only wells that have consistently shown groundwater deeper than two feet below the ground surface are MW-6, MW-11, MW-12 and MW-13. Figure B-6 shows the locations of the wells and their high water table marks. The overall groundwater flow direction is to the northeast (as shown in the VIRP).

Well	High Water Table Mark: Depth Below Ground Surface (ft)
MW-1	0
MW-2	0
MW-3	0
MW-4	0
MW-5	0
MW-6	2.78
MW-7	0
MW-8	0
MW-9	0
MW-10	0.59
MW-11	2.09
MW-12	3.29
MW-13	2.16
MW-14	0
MW-15	0
MW-16	0.67
MW-17	0.72*

* Ground surface elevation unknown, depth below top of casing shown

The topographic map (Figure B-1) is dated 1982, prior to the construction of the facility. This map shows that the facility is located in a low topographic relief (valley) area. This figure (which shows the approximate location of the facility) also shows that an intermittent stream ran through where the southeastern corner of the building now stands. This stream ran in a northeasterly direction across where the Site now exists. This is the same direction as the groundwater flow seen currently at the site. As mentioned previously, there is 4 to 6 feet of fill material that was placed in this low topographic area during construction of the facility. The high water table conditions are explained by this original topographic setting. The valley bottom pitches from the south to the north creating artesian pressure when the water table is high.

Figure B-6 was used to define soil zones on the Site based on the high water table marks. The fully saturated zone is the area where the subsurface is fully saturated due to the water table intersecting the ground surface. The fully saturated zone shown on Figure B-6 was conservatively assumed to be the area between the wells where the groundwater table intersects the ground surface. It is likely that the actual fully saturated zone is larger than this area. In the fully saturated zone there is no vadose zone. The approximate depth of the vadose zone in other areas of the site shown on Figure B-6 are based on the depth to groundwater measurements. It is reasonable to infer that the fully saturated zone is located where the intermittent stream formerly ran.

Hydraulic gradients, hydraulic conductivity and transmissivity calculations⁵ were presented in the CAP (WRS, 2006). Horizontal hydraulic gradients range from 0.0083 to 0.0125 ft/ft. The hydraulic conductivity ranges from 2.63 to 8.09 ft/day with an average and geometric mean of 5.3 and 4.5 ft/day. The transmissivity ranges from 244.61 to 1,452 gallons per day per foot (gpd/ft). Ranges of groundwater flow velocities were estimated using the modified Darcy equation:

$$V = Ki/n_e$$

where:
 V = average linear velocity
 K = hydraulic conductivity
 i = hydraulic gradient
 n_e = effective porosity

Groundwater flow velocities were estimated using the average hydraulic conductivity 5.3 ft/day and an estimated effective porosity (n_e) for Site soils of 0.3. Using the range of hydraulic gradients (0.0083 to 0.0125 feet/ft), the range of groundwater flow velocities were calculated to be approximately 53 to 80 ft/year.

B.5. Extent of Contamination

As mentioned previously, three different matrices are of interest at this Site: groundwater, vadose zone soil, and the solid aquifer matrix. The extent of contamination in each of these matrices is discussed in this section.

⁵ Hydraulic conductivity and transmissivity were determined by slug tests on four monitoring wells using the Bouwer and Rice method.

B.5.1. Groundwater Conditions

Twenty groundwater monitoring wells at the Site have been sampled over time (boring logs and well construction diagrams are presented in Appendix F and Appendix G of the VIRP, respectively) and two new wells were installed in 2012. Additionally, nine direct push-point water samples were collected in March 2009. A summary of the historical analytical results for constituents detected in the recent sampling event is presented in Table B-1.

Chlorinated ethenes and ethanes are the constituent groups of interest at the Site, associated with the 1995 spill event. TCA, PCE, and TCE have been consistently detected in groundwater above RRSs. These chlorinated solvents can degrade biologically in the subsurface. Through reductive dechlorination, parent compounds (i.e., TCA and PCE/TCE) can be degraded biologically into daughter products. TCA can be degraded into 1,1-dichloroethane (DCA) and then chloroethane (CA). Similarly, PCE can be degraded into TCE, cis-1,2-dichloroethene (DCE) and vinyl chloride (VC). Groundwater concentrations of total chlorinated ethenes (PCE, TCE, DCE and VC) in 2013 are shown in Figure B-7. Similarly, groundwater concentrations of total chlorinated ethanes (TCA, DCA and CA) are shown in Figure B-8. The spatial distribution of constituents in groundwater is consistent with the pattern observed in the subsurface solid matrix with groundwater exhibiting the highest concentrations at the location of the tanker truck spill. The primarily direction of the groundwater plumes are to north and northeast of the basin, consistent with the direction of groundwater flow.

The distribution of parent compounds and daughter products demonstrate degradation has occurred over the Site's history, with degradation products having a tendency to exhibit a greater spatial distribution in the downgradient direction compared to the parent compounds. Degradation products also tend to exhibit higher concentrations down gradient from the tanker truck spill area compared to the source area at the tanker truck spill area.

Figures B-9 and B-10 show time series graphs for monitoring well MW-5 (which is in the plume, downgradient from the tanker truck spill area) for the PCE and TCA degradation parameters, respectively. These figures demonstrate that biodegradation is occurring in the plume. The figures clearly show that the peak for the parent compounds (TCE and TCA) appears first followed by the next degradation parameters (DCE and DCA) then the final degradation parameters (VC and CA). (There were only very small concentrations of PCE, likely due to biodegradation occurring prior to reaching MW-5.)

The plume has been characterized and delineated horizontally (see Figures B-7 and B-8) with MW-16 and MW-1R to the north, MW-14 to the east, MW-8 to the south and MW-17 to the west.

Two monitoring well clusters are available to evaluate vertical delineation (MW-2/MW-2D and MW-3/MW-3D/MW-3B). A review of data from the MW-2 and MW-3 well clusters identified VOCs in both the shallow and deeper wells, but both the number of constituents and concentrations are lower in the deepest well of each cluster. Thus, the concentrations of constituents decrease with depth.

Additionally, there is an upward vertical migration of groundwater. The tables below show the depth to groundwater measurements in each well cluster during the last three sampling events. Also shown on these tables are the range of possible vertical gradients and the groundwater vertical flow direction as determined by the EPA's online vertical gradient calculator⁶.

Date	MW-2	MW-2D		
TOC (ft)	675.33	674.79		
Well Depth (ft)	15	17.3		
Screen Interval (ft)	5-15	12.3-17.3		
Depth to Water (ft)			Vertical Gradient	Flow Direction
8/23/2012	6.65	6.04	0.009 to 0.21	Up
2/4/2013	Artesian	Artesian	NA	Up
8/5/2013	3.28	2.57	0.022 – 0.5	Up

Date	MW-3	MW-3D	MW-3B		
TOC (ft)	673.83	673.87	674.32		
Well Depth (ft)	15	22.5	49		
Screen Interval (ft)	5-15	17.5-22.5	35-45		
Depth to Water (ft)				Vertical Gradient MW-3/3B	Flow Direction MW-3/3B
8/23/2012	5.4	5.25	5.29	0.015-0.031	Up
2/4/2013	0.98	0.75	0.25	0.031-0.062	Up
8/5/2013	2.58	2.73	2.45	0.015-0.03	Up

TOC: Top of casing elevation (ft msl)

Therefore, vertical delineation of groundwater has been addressed based on the upward vertical migration of groundwater, the decreasing concentrations with depth, and because source material is being addressed at the Site and the vertical groundwater condition does not affect the BIOCHLOR model predictions.

B.5.2. Solid Aquifer Matrix and Vadose Zone Soil

B.5.2.1. Subsurface Investigations and Matrix Classification

Although the solid aquifer matrix and vadose zone soil will be considered separately in terms of potential corrective action, for ease of presentation and delineation both matrices will be

⁶ <http://www.epa.gov/athens/learn2model/part-two/onsite/vgradient.html>

discussed together. Seven subsurface investigations have been completed to date at the Site. A brief summary of the historical investigations is provided below. Solid-matrix samples were collected and analyzed for VOCs during these investigations both from the zone of the water table fluctuation and from beneath the low water table mark, for the purpose of helping to describe/define the groundwater conditions from a perspective of source area(s) that might warrant a different remedial action approach to that for the dissolved-phase plume. A summary of the analytical results is presented in Table B-2 and the sample locations are shown on Figure B-11. Available boring logs are presented in Appendix F of the VIRP.

Figure B-11 also shows the high water table zones. This figure was used to classify each sample collected as either vadose zone soil or being in the solid aquifer matrix by determining whether the sample collected was above or below the estimated high water table mark at that location and depth. Thus, Table B-2 indicates whether each sample is in the solid aquifer matrix or vadose zone soil.

July 2004 Subsurface Investigation. In July 2004, four solid matrix samples were collected during the installation of MW-1D, MW-2D, MW-3 and MW-3D. Sample collection depth ranged from 8 to 15 ft bgs. Chlorinated ethenes, ethanes and a single detection of toluene (at MW-2D) were detected in these solid matrix samples. Note that the high water table mark for these wells is less than 1 ft bgs (with all but MW-3D having a groundwater level at the ground surface), indicating that all of these solid matrix samples were collected from below the high water table mark.

August 2005 Subsurface Investigation. In August 2005, 13 solid matrix samples were collected from direct-push cores to the east of the main facility building (identified as the GP samples in Figure B-11). Samples were collected at depths from 2 to 8 ft bgs. The only sample locations that are in the greater than 2 ft high water table zone are GP007 and GP008. These two samples will be considered as representing the vadose zone while the remaining samples are in the solid aquifer matrix. Consistent with the July 2004 investigation, chlorinated ethenes and ethanes were detected in these samples.

June 2006 Subsurface Investigation. In June and July 2006, nine solid matrix samples were collected during the installation of additional site monitoring wells (MW-8 to MW-16 in Figure B-11). Samples were collected at depths from 5 to 15 ft bgs. The high water table mark for all of these locations is less than 5 feet, thus all of these samples are in the solid aquifer matrix. Only two sample locations exhibited chlorinated ethenes (MW-10 and MW-11) and one location exhibited compounds characteristic of petroleum hydrocarbons or BTEX compounds (MW-15).

MIP Profiling and Associated Core Sampling. Subsurface investigations were performed in October, 2008 to delineate conditions beneath the AST containment basin, beneath the nearby facility structure and areas hydraulically downgradient. These investigations were completed with a combination of both traditional direct-push core sampling and membrane interface probe (MIP) profiling. The MIP profiling, unlike tradition core sampling, yields nearly continuous measurements of total VOCs in the subsurface as it is advanced, providing a more continuous screening-level characterization of the subsurface conditions. Appendix I of the VIRP contains excerpts of the MIP data originally provided in the *Source Area Investigation Report* (EPS,

2008). Interpretation of the MIP profiles indicate that residual VOC product (if present) is entrained in the upper surficial deposits and has not been released in sufficient quantities to remain mobile and transport to deep depths. The MIP profiles also suggest the presence of a dissolved-phase plume.

After completion of the MIP field screening, six core samples were collected at offsets (1 to 2 ft) to the completed MIP borings to quantify VOCs and their respective concentrations (MIP sample series on Figure B-11). Solid media samples were collected to characterize a range of electron capture detector (ECD) responses from the MIP both above and below the measured water table during this point in time. A comparison of the core sample and MIP result are presented in Appendix I of the VIRP. All but two (MIP-6 and MIP-12) of these sample locations fall in the fully saturated zone, and are, therefore, classified as being in the solid aquifer matrix. MIP-6 and MIP-12 fall in the 0-1ft high water table zone. However, all of the samples collected at these locations were at depths greater than 1 ft bgs. Therefore, these samples are also classified as being in the solid aquifer matrix.

AST and Facility Subsurface Samples. On 12 January 2009, subsurface solid matrix samples (designated as “SS” samples on Figure B-11) were collected from multiple locations beneath the facility foundation slab, from beneath the AST containment basin slab, and one sample adjacent to the subgrade site storm drain. Concrete cores were removed from the facility foundation prior to the collection of direct-push cores. Samples from beneath the AST containment basin were collected by first hand-excavating a trench adjacent to the containment basin wall to allow access under the basin slab with a hand auger. A hand auger was then advanced at an angle horizontally underneath the AST containment basin slab (a few feet to the basin interior from the outer wall) to a depth of 1.5 to 2 ft. Seven of the locations (SS-BLDG-1, SS-BLDG-5, SS-BLDG-6, SS-AST-1, SS-AST-2, SS-HA-1, and SS-HA-2) sampled are within the fully saturated zones, and are thus in the solid aquifer matrix. Two of the locations (SS-BLDG-2 and SS-BLDG-4) are in the 0-1 ft high water table zone. Samples were collected at 1 ft bgs at each of these locations. Thus, these two samples are considered to be at the high water table, and, thus, are being considered vadose zone soil. However, another sample was collected below 1 ft bgs at location SS-BLDG-2 and is, thus, considered to be in the solid aquifer matrix. The remaining sample (SS-BLDG-3) is in the 1-2 ft high water table zone. The sample collected from this location was collected at 1 ft bgs and is, thus, considered a vadose zone soil.

Supplemental Subsurface and Groundwater Samples. On March 10, 2009, 10 subsurface solid matrix samples were collected from the area north of the AST containment basin and at the furthest known extent of the VOC groundwater plume. The highest concentrations were observed in SO-3, which was collected in the truck spill area, just north of the AST containment area. With the exception of SO-5, all of these sample locations were within the fully saturated zone. Therefore, the samples collected from these locations are considered to be in the solid aquifer matrix. SO-5 is in the 0-1 ft high water table zone; however, the sample collected at this location was at 5 ft bgs and is, thus, also in the solid aquifer matrix. In 2010, three soil samples were collected for estimating the permanganate natural oxidant demand. VOCs were also analyzed from one of these locations (SO-10), which was located next to the AST containment area.

AST Subgrade Investigation 2012. In July 2012, five locations in the AST containment area and four locations north of the AST containment area were sampled. Two samples were collected from each location at 1 and 2-ft bgs. All sample locations were within the fully saturated zone, and thus are classified as solid matrix samples.

Solid Matrix Investigation February 2013. In February 2013, nine locations east of the AST containment area were sampled. Three samples were collected from each location at 1-ft, 2-ft, and 4-ft bgs. All sample locations were within the fully saturated zone, and thus are classified as solid matrix samples.

B.5.2.2. Extent of Chlorinated Solvents

Figures B-12 and B-13 show the extent of total chlorinated ethenes and ethanes in these solid matrix samples, respectively. Where more than one sample was taken at a location, the highest total result is shown. The spatial distribution of chlorinated ethenes in the solid subsurface matrix exhibits a clear concentration gradient with the highest values occurring adjacent to the tanker truck spill location at the north end of the AST containment and the second highest concentrations toward the center of the AST containment area. The highest concentrations of chlorinated ethanes have been found in the AST containment area. Chlorinated solvent concentrations lessen with distance from the AST containment area. These areas of high concentrations are in the fully saturated zone indicating that it is comprised of the solid aquifer matrix (without any vadose zone soil).

B.5.2.3. Delineation

Delineation is only appropriate for the vadose zone soils. However, because much of the area of interest on the Site does not have vadose zone soils, the solid aquifer matrix is included on the delineation figures to aid in demonstrating delineation for the vadose zone soils. Figures B-12 and B-13 show that the solid matrix has been delineated to background in all directions, except for MW-11 on the west side. The only constituent detected in MW-11 is TCE at a concentration of 0.008 mg/kg, which is below the Type 1 RRS for trichloroethene (0.5 mg/kg). Thus, the solid matrix material has been delineated to the Type 1 RRS in all directions.

B.6. Fate and Transport Summary

B.6.1. Physical Fate and Transport

The primary parent constituents of interest at this Site are TCA, PCE, TCE and their breakdown products. In their product state, TCA, PCE and TCE are dense nonaqueous phase liquids (DNAPLs), which can be classified as either mobile or immobile. In the groundwater, they are found in a dissolved state. Thus, there are three states of interest: mobile DNAPL, immobile DNAPL and dissolved-phase. Following release at the surface, DNAPLs actively spread primarily due to gravity. Vertical migration continues through the vadose zone and aquifer until the released DNAPL either loses continuity and becomes dispersed into isolated bodies (referred to as ganglia or globules) or reaches a less permeable layer where it either accumulates in a pool or flows semi-laterally along the layer. During downward migration, a globule trail of residual

product and sorbed-phase contamination is left. The DNAPLs in this trail are incapable of further migration. Eventually, the entire DNAPL mass becomes immobile as the gravity head is lost.

When the groundwater comes in contact with a DNAPL, an aqueous phase plume is created and slowly fed by the sorbed, residual or pooled DNAPL. A residual-phase DNAPL source offers a large surface contact area (as compared to a pooled DNAPL) for contact with the groundwater, which results in a higher flux from the DNAPL state to the dissolved phase. This in turn results in an accelerated rate of DNAPL depletion. Once in the dissolved-phase, the solvents are transported in the water primarily along in the direction of the groundwater flow, but also horizontally (cross- or up-gradient) due to dispersion and diffusion. The aqueous phase plumes become elongated in the hydraulically down-gradient direction and are subject to attenuation process such as dispersion, sorption, matrix diffusion and biodegradation (discussed in the next section). All aqueous plumes will eventually reach a steady-state condition where the leading edge and side edges no longer expand. For this Site, the predominant groundwater flow is laterally downgradient (to the northeast). Additionally, the rapid rise and fall of the water table gives evidence that the groundwater provides for transport of dissolved phase chlorinated solvents to the ground surface (upward migration) through artesian flow and very shallow water table conditions. The water table fluctuation brings dissolved phase contaminants into contact with the solid matrix, resulting in the contaminant becoming entrained and sorbed in the solid matrix. Thus, the fluctuating groundwater table is another transport mechanism occurring at the Site. The groundwater could carry the solvents both horizontally and upwards toward the surface. This creates another potential exposure pathway (exposure to groundwater at the ground surface) that will be evaluated.

PCE has been measured as high as 3.9 mg/L at MW-3, which is next to the location of the spill. This concentration represents approximately 3.2% of the aqueous solubility. According to Cherry and Feenstra (1991), concentrations exceeding 1% of the compound's aqueous solubility indicates the possible presence of DNAPL. Thus, there may be a continuing flushing of PCE from the aquifer matrix near the spill site. An evaluation of the site conditions indicates that at this Site any DNAPLs have remained as a residual smearing in the upper portions of the subsurface and are not present as mobile "pools" of NAPL.

Data collected from groundwater and solid matrix samples at the Site support the lateral movement of dissolved-phase solvents by groundwater. Concentrations in the shallow solid matrix samples outside the vicinity of the AST containment area are attributable to the migration of the contaminants in the shallow fluctuating groundwater. The analytical results of the downgradient wells indicate that the plume has migrated to the northeast (in the direction of groundwater flow). The dissolved plume has been delineated in the downgradient direction and has not migrated off the Site.

B.6.2. Biological Degradation

Chlorinated solvents can also degrade biologically in the subsurface through reductive dechlorination. As mentioned previously, parent compounds (i.e., TCA and PCE) can be

degraded biologically into daughter products (DCA, CA, TCE, DCE and VC). Four lines of evidence are presented in this section to demonstrate that reductive dechlorination is occurring.

B.6.2.1. Daughter Products and Time Series Graphs

The presence of the daughter products at the Site indicates that biological degradation is occurring. Additionally, time series figures (Figures B-9 and B-10) show the decrease of parent products and subsequent increase in daughter products over time.

B.6.2.2. MNA Parameters and Screening Method

Other parameters can also be used to indicate that biodegradation is occurring. During the October 2010 sampling event, additional analyses were conducted to provide evidence as to whether or not reductive dechlorination is occurring at the Site. Monitored Natural Attenuation (MNA) parameters were analyzed in samples collected from MW-3, MW-3D, MW-4, MW-5 and MW-8. The following parameters were analyzed by AES for each of these wells: alkalinity, sulfide, methane/ethane/ethene, chloride, ferrous iron, nitrate, nitrite, sulfate, and total organic carbon. These laboratory data sheets are presented in Appendix H of the VIRP. Parameters measured in the field during sample collection included: dissolved oxygen, temperature, pH and Redox potential. As a part of the microbial testing conducted by Microbe Inotech Laboratories, certain MNA parameters (pH, iron, ammonia, nitrite, nitrate, orthophosphate, sulfate and total organic carbon) were also analyzed for MW-3, MW-3D, MW-4 and MW-5.

As part of the process for determining whether anaerobic biodegradation is occurring, the Environmental Protection Agency (EPA) guidance document “*Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater*” (EPA, 1998) includes a scoring process using indicator parameters. Table B-3 shows the results of this screening at the Site using data collected during the October 2010 sampling event. Results are shown for the primary wells within the plume (MW-3/3D, MW-4, and MW-5), two side-gradient wells (MW-12 and MW-14), and an upgradient well (MW-8) and downgradient well (MW-16). Based on the October 2010 results, the wells within the plume show strong evidence that reductive dechlorination is occurring, while the wells up-, side- or down-gradient of the plume show limited or inadequate evidence that reductive dechlorination is occurring, which is not unexpected since there are low to non-detectable concentrations of chlorinated solvents in these wells. Results of MNA testing from the February 2012 sampling event continue to show that reductive dechlorination is occurring (see Table 4 of the First Semiannual Progress Report).

B.6.2.3. Microbial Testing

Tables B-4 and B-5 show the results of microbial testing at two different laboratories. Microbe Inotech Laboratories performed the first type of testing, which was based on doing anaerobic (Table B-4) and aerobic (Table B-5) cultures using plate counting techniques. The laboratory data report can be found in Appendix H of the VIRP. The first column shows the density (number of colony forming units per mL) of anaerobic or aerobic organisms from each well. The next several columns show the percent of different strains of organisms that were seen in the culture from each well. After identification of the strains, an endpoint assay was conducted on each strain. The strains were individually cultured with either TCA or TCE as the carbon source. The endpoint assay results (shown at the bottom of each table) show that the microorganisms

present in MW-3D and MW-5 grow very well on TCA and TCE. Interestingly, the aerobic assay shows that the microorganisms in MW-5 also grow very well on TCA or TCE. This indicates the potential for multiple types of mechanisms to occur at the Site. This testing shows that degradation of TCA and TCE is favorable in MW-5 and to a lesser extent in MW-3D. One drawback of the plate counting technique is that it does not account for viable (live) cells and cultivation techniques can underestimate the total population.

Microbial Insights performed the second microbial testing technique, which is called CENSUS. The laboratory data report is presented in Appendix H of the VIRP. DNA is extracted from the groundwater samples and quantitative real-time polymerase chain reaction analysis is used to detect and quantify specific targets of interest (e.g., a specific microbial species). Samples from MW-3 and MW-5 were analyzed for *Dehalococcoides spp* and *Dehalobacter spp*, both of which are common dechlorinating bacteria. *Dehalococcoides spp* is the only known group of bacteria capable of completely degrading PCE to ethene. *Dehalobacter spp* is capable of dechlorinating PCE to cis-DCE and TCA to chloroethane. Thus, the presence of these species indicates that reductive dechlorination of PCE/TCE and TCA is favorable and likely occurring. The functional genes for *Dehalococcoides spp* were also analyzed to determine if the genes are present that are necessary for the different steps in the dechlorination chain. *tceA* reductase is the gene responsible for reducing TCE to DCE. Vinyl chloride reductase is the gene responsible for reducing vinyl chloride to ethene in multiple strains. Similarly, *bvcA* reductase is the gene responsible for vinyl chloride reducing to ethene, but only for a specific strain (BAV1) of *Dehalococcoides spp*. The absence of VCreductase and *bvcA* reductase would indicate that vinyl chloride would accumulate instead of further degrading to ethene. The results (Table B-4) show that these organisms and genes are present in both wells, but are significantly higher in MW-5. This indicates that the conditions are favorable and most likely occurring for reductive dechlorination of PCE to ethene and TCA to chloroethane in both of these wells, but is much more likely in MW-5.

Based on these results, conditions are favorable at the Site for reductive dechlorination, especially in the direction of MW-3 to MW-5.

B6.2.4. Modeling

Computer modeling using BIOCHLOR (see Appendix J of the VIRP) provides further evidence that reductive dechlorination is occurring. BIOCHLOR is a computer model that simulates natural attenuation of dissolved chlorinated solvents. In an effort to conservatively model site conditions, the model was calibrated using the empirical data collected from 2004 through 2007, prior to the EHC® injections. Therefore, the model assumes that there is no impact from the injections. Model simulations were conducted through 2030 to determine estimated concentrations at different wells throughout and beyond the plume. Please refer to Appendix J of the VIRP for more information. Results from the August 2013 sampling event are compared to the 2013 model results in Figures 5 and 6 of the Progress Report.

B.7. Potential Receptors and Exposure Pathways

B.7.1. Setting

The Site includes a single-story manufacturing building, parking lots located to the east and north of the building, loading docks on the east side of the building, a gravel driveway to the east and south of the building and small grassy areas on the eastern and northern portions of the Site.

The adjoining properties are used for commercial purposes or are currently vacant. Properties immediately adjacent to the Site include the Parish Towing Company to the north, the Anderson Company to the east and vacant wooded properties to the South and West. The area surrounding the Site is zoned for heavy manufacturing, with some general agricultural zoned areas beyond the manufacturing zoning.

B.7.2. Human Health

The nearest residence is greater than 2000 feet northwest of the Site. The Site and surrounding area are serviced by public drinking water system provided by Dalton Utilities. According to a representative at Dalton Utilities, all of Whitfield County is served by the utility. The closest drinking water well is located 1.125 miles from the Site. In addition, as described in the Release Notification (Tri-State, 2004b): a) groundwater flow at the Site is to the northeast and this well is to the north-northwest, b) the Site and the well are approximately at the same elevation resulting in no head difference to drive groundwater toward the well, c) based on surface water drainages the Site and the well are cross-gradient, and d) there are multiple groundwater divides between the Site and the well that would prevent groundwater migration from the Site to the well. Thus, the well is not directly downgradient of the Site and the well is located in an area where public water is available. As the Site and surrounding areas are on public water, ingestion of groundwater is not a complete exposure pathway.

The other potential exposure pathways include exposure to vadose zone soil, source material in the solid aquifer matrix, dermal contact with groundwater and vapor intrusion. The potential human receptors include an industrial worker and construction/utility worker.

B.7.2.1. Industrial Worker

As the area impacted by the release is mostly covered by concrete and/or gravel, exposure to vadose zone soil or potential source material in the solid aquifer matrix is not a complete exposure pathway for the industrial worker. However, due to the shallow depth of groundwater, potential exposure of workers to groundwater at the surface will be evaluated under the VRP program for this Site; however, there is no or minimal pooling of water at the ground surface.

Some chlorinated compounds have been detected in wells inside the manufacturing building. Thus, there is a potential for a vapor intrusion pathway. The EPD has requested that vapor intrusion modeling be conducted for the Site. However, as discussed in Section 6.1 of the First Semiannual Progress Report, the evaluation of vapor intrusion is inappropriate for this Site as OSHA regulations take precedence for the protection of worker safety. However, we will revisit vapor intrusion at the time of the evaluation of the remedial action at the site.

B.7.2.2. Construction and Utility Workers

The current and/or potential future human receptors are Construction and Utility Workers. No construction or utility activities are currently planned at the Site; however, it is possible that additional buildings could be constructed on the Site in the future. Construction or utility works may be exposed by physical contact with contaminated groundwater, vadose zone soils and/or the solid aquifer matrix. The potential risk to Construction or Utility Workers in physical contact with groundwater, vadose zone soils and/or source material in the solid aquifer matrix at the Site will be evaluated as a part of the VRP program.

B.7.3. Ecological

The area impacted by the release is mostly covered by concrete and/or gravel. There is continual traffic over this area and unloading operations. The area does not represent quality habitat as it lacks natural vegetative cover, structure, and diversity and is unlikely to ever have substantial vegetative cover due to ongoing maintenance activities. Disturbances from vehicles and facility operations have and will continue to disturb wildlife and cause animals to seek less frequently disturbed areas off the Site.

TABLES

Capitol Adhesives

Table B-1. Analytical Results for Constituents Detected in Groundwater (mg/L)

Well	Date Sampled	Tetra chloro ethene (mg/L)	Trichloro ethene (mg/L)	cis-1,2-Dichloro ethene (mg/L)	Vinyl chloride (mg/L)	Total Chlorinated Ethenes (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1-Dichloroethane (mg/L)	Chloro ethane (mg/L)	Total Chlorinated Ethanes (mg/L)	1,1,2-Trichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	1,2-Dichloroethane (mg/L)	Acetone (mg/L)	Benzene (mg/L)	Chloroform (mg/L)	Cyclo hexane (mg/L)	Dichloro methane (mg/L)	Freon-11 (mg/L)	Freon-113 (mg/L)	Methyl cyclo hexane (mg/L)	o-Xylene (mg/L)	Toluene (mg/L)	trans-1,2-Dichloroethene (mg/L)
Type 1 RRS or DL		0.005	0.005	0.07	0.002		0.2	4	DL		0.005	0.007	0.005	4	0.005	0.08	DL	0.005	2	1000	DL	10	1	0.1
DPGW-1	3/10/09	0.24	0.25	0.058	0.016	0.564	0.08	0.038	<0.01	0.118	<0.005	0.077	0.04	<0.05	<0.005	0.061	<0.005	0.063	<0.005	<0.01	0.0055	<0.005	0.005	0.0072
DPGW-2	3/10/09	0.0085	0.044	0.97	1.3	2.3225	0.03	0.24	0.61	0.88	<0.005	0.22	0.33	1.8	<0.005	0.029	<0.005	0.077	<0.005	0.064	<0.005	<0.005	<0.005	0.085
DPGW-3	3/10/09	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
DPGW-4	3/10/09	<0.005	0.0074	<0.005	<0.002	0.0074	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
DPGW-5	3/10/09	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
DPGW-6	3/10/09	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
DPGW-7	3/10/09	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
DPGW-8	3/10/09	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-1R	8/23/2012	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-1R	2/5/2013	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-2	7/15/04	0.0424	0.0089	ND	ND	0.0513	0.0039	ND	ND	0.0039	<0.005	ND	ND	<0.1	ND	ND		ND	ND				ND	ND
MW-2	8/10/05	0.19	0.057	0.0082	0.003	0.2582	0.0017	0.017	<0.001	0.0187	<0.001	0.004	<0.001	<0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-2	6/28/06	0.065	0.01	<0.005	<0.002	0.075	<0.005	0.004 J	<0.005	0.004	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-2	3/7/07	<0.005	<0.005	0.02	<0.002	0.02	<0.005	<0.005	<0.005	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	4.23	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-2	6/25/07	<0.005	<0.005	0.004 J	0.061	0.065	<0.005	<0.005	<0.005	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	0.934	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005
MW-2	9/13/07	ND	ND	ND	0.022	0.022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-2	4/8/08	ND	ND	ND	0.008	0.008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.09
MW-2	10/14/08	0.083	0.061	0.034	0.17	0.348	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	0.71	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	0.41	<0.005
MW-2	6/22/09	<0.005	<0.005	<0.005	0.0037	0.0037	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	0.11	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-2	10/8/10	0.069	0.096	0.033	0.0075	0.2055	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-2	2/8/2012	<0.005	<0.005	0.0061	0.0025	0.0086	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	0.38	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-2	2/5/2013	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	0.2	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-2D	7/19/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.1	ND	ND		ND	ND				0.0041	ND
MW-2D	8/10/05	0.0037	0.018	<0.001	<0.001	0.0217	0.0024	<0.001	<0.001	0.0024	<0.001	<0.001	<0.001	<0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-2D	6/28/06	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.005	ND	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005							

Capitol Adhesives

Table B-1. Analytical Results for Constituents Detected in Groundwater (mg/L)

Well	Date Sampled	Tetra chloro ethene (mg/L)	Trichloro ethene (mg/L)	cis-1,2-Dichloro ethene (mg/L)	Vinyl chloride (mg/L)	Total Chlorinated Ethenes (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1-Dichloroethane (mg/L)	Chloro ethane (mg/L)	Total Chlorinated Ethanes (mg/L)	1,1,2-Trichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	1,2-Dichloroethane (mg/L)	Acetone (mg/L)	Benzene (mg/L)	Chloroform (mg/L)	Cyclo hexane (mg/L)	Dichloro methane (mg/L)	Freon-11 (mg/L)	Freon-113 (mg/L)	Methyl cyclo hexane (mg/L)	o-Xylene (mg/L)	Toluene (mg/L)	trans-1,2-Dichloroethene (mg/L)
Type 1 RRS or DL		0.005	0.005	0.07	0.002		0.2	4	DL		0.005	0.007	0.005	4	0.005	0.08	DL	0.005	2	1000	DL	10	1	0.1
MW-3D (Dup)	6/23/09	0.86	0.86	0.19	0.058	1.97	0.53	0.13	<0.01	0.66	<0.005	0.29	0.13	<0.05	<0.005	0.13	<0.005	<0.005	0.098	<0.005	<0.005	<0.005	0.023	
MW-3D	10/7/10	1.1	1.3	0.3	0.077	2.78	0.53	0.15	<0.01	0.68	0.0065	0.52	0.2	<0.05	<0.005	0.21	<0.005	<0.005	0.07	<0.005	<0.005	<0.005	0.031	
MW-3D	2/8/12	0.93	1	0.41	0.12	2.46	0.48	0.19	<0.01	0.65	<0.005	0.55	0.16	<0.05	<0.005	0.15	<0.005	<0.005	0.082	0.005	<0.005	<0.005	0.034	
MW-3D (Dup)	2/8/12	0.99	1.1	0.46	0.12	2.67	0.48	0.19	<0.01	0.67	0.0056	0.6	0.16	<0.05	<0.005	0.18	<0.005	<0.005	0.08000001	0.0055	<0.005	<0.005	0.034	
MW-3D	8/24/12	0.88	1.1	0.51	0.1	2.59	0.3	0.18	<0.01	0.48	0.0079	0.46	0.24	<0.05	<0.005	0.23	<0.005	0.014	<0.005	<0.01	<0.005	<0.005	0.033	
MW-3D (Dup)	8/24/2012	0.9	1.1	0.45	0.11	2.56	0.25	0.18	<0.01	0.43	0.0075	0.49	0.19	<0.05	<0.005	0.23	<0.005	0.014	<0.005	<0.01	<0.005	<0.005	0.032	
MW-3D	2/6/2013	2.00	1.7	0.97	0.15	4.82	0.45	0.14	<0.01	0.59	<0.005	0.57	0.19	0.62	<0.005	0.15	0.0061	0.017	<0.005	0.04	0.013	<0.005	0.028	
MW-3D	8/6/2013	2.9	4.8	2.9	0.28	10.88	0.53	0.28	0.011	11.701	0.017	0.87	0.41	0.1	<0.005	0.36	<0.005	0.027	<0.005	0.13	0.051	0.02	0.063	0.0073
MW-3B	8/24/2012	0.52	0.37	0.15	0.061	1.10	0.04	0.075	<0.01	0.115	<0.005	0.17	0.04	<0.05	<0.005	0.02	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	0.0089	
MW-3B	2/6/2013	0.82	0.36	0.17	0.071	1.42	0.052	0.064	<0.01	0.116	<0.005	0.2	0.032	<0.05	<0.005	0.031	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	0.0086	
MW-4	8/10/05	0.064	0.52	<0.005	<0.005	0.584	0.028	<0.005	<0.005	0.028	<0.005	0.0078	<0.005	<0.1	<0.005	0.0056		<0.005	<0.005				<0.005	<0.005
MW-4	6/27/06	0.157	0.615	<0.005	<0.002	0.772	0.024	<0.005	<0.005	0.024	<0.005	0.017	<0.005	<0.1	<0.005	0.005		<0.005	<0.005				<0.005	<0.005
MW-4	3/7/07	0.049	0.138	0.139	<0.002	0.326	<0.005	<0.005	<0.01	ND	<0.005	0.006	<0.005	6.3	<0.005	<0.005		<0.005	<0.005				<0.005	<0.005
MW-4	6/25/07	<0.005	<0.005	0.832	0.003	0.835	<0.005	0.008	<0.01	0.008	<0.005	0.016	<0.005	2.74	<0.005	<0.005		<0.005	<0.005				<0.005	<0.005
MW-4	9/14/07	ND	0.005	0.846	0.055	0.906	ND	0.014	ND	0.014	ND	0.034	0.009	ND	ND	ND		ND	ND				ND	ND
MW-4	4/8/08	0.01	0.018	0.244	0.022	0.294	ND	ND	ND	ND	0.006	ND	ND	ND	ND		ND	ND				ND	ND	
MW-4	10/15/08	0.013	0.034	0.76	0.3	1.11	<0.005	0.011	<0.01	0.011	<0.005	0.022	0.0069	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-4	6/23/09	0.03	0.064	0.12	0.12	0.334	<0.005	<0.005	<0.01	ND	<0.005	0.0054	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-4	10/12/10	0.019	0.086	0.057	0.059	0.221	<0.005	0.0062	<0.01	0.0062	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-4	2/8/12	0.017	0.041	0.033	0.011	0.102	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-4	8/23/12	<0.005	0.013	0.012	0.0058	0.0308	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-4	2/5/13	<0.005	0.0066	<0.005	<0.002	0.0066	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-4	8/5/13	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	
MW-5	8/10/05	0.016	0.56	0.093	<0.005	0.669	0.44	0.34	<0.005	0.78	0.0082	0.85	0.32	<0.01	<0.005	0.34		<0.005	<0.005				<0.005	0.051
MW-5	6/27/06	0.077	1.37	0.141	0.008	1.596	0.511	0.485	<0.005	0.996	0.012	1.3	0.388	<0.01	0.005	0.361		<0.005	<0.005				<0.005	0.086
MW-5	3/6/07	0.085	1.07	1	0.004	2.159	<0.005	0.58	<0.01	0.58	0.012	1.87	0.781	<0.01	0.005	0.527		<0.005	<0.005				<0.005	0.084
MW-5	6/25/07	0.015	0.325	2.32	0.007	2.667	0.309	0.483	<0.01	0.792	0.													

Capitol Adhesives

Table B-1. Analytical Results for Constituents Detected in Groundwater (mg/L)

Well	Date Sampled	Tetra chloro ethene (mg/L)	Trichloro ethene (mg/L)	cis-1,2-Dichloro ethene (mg/L)	Vinyl chloride (mg/L)	Total Chlorinated Ethenes (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1-Dichloroethane (mg/L)	Chloro ethane (mg/L)	Total Chlorinated Ethanes (mg/L)	1,1,2-Trichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	1,2-Dichloroethane (mg/L)	Acetone (mg/L)	Benzene (mg/L)	Chloroform (mg/L)	Cyclo hexane (mg/L)	Dichloro methane (mg/L)	Freon-11 (mg/L)	Freon-113 (mg/L)	Methyl cyclo hexane (mg/L)	o-Xylene (mg/L)	Toluene (mg/L)	trans-1,2-Dichloroethene (mg/L)
Type 1 RRS or DL		0.005	0.005	0.07	0.002		0.2	4	DL		0.005	0.007	0.005	4	0.005	0.08	DL	0.005	2	1000	DL	10	1	0.1
MW-8	6/28/06	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.005	ND	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005		<0.005	<0.005				<0.005	<0.005
MW-8	3/6/07	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005		<0.005	<0.005				<0.005	<0.005
MW-8	6/25/07	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005		<0.005	<0.005				<0.005	<0.005
MW-8	9/13/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND				ND	ND
MW-8	4/8/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND				ND	ND
MW-8	10/14/08	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-8	6/22/09	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	0.19	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-8	10/7/10	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-8	2/8/2012	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-8	2/5/2013	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-9	6/29/2006	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-9	3/6/07	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-9	6/25/07	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-9	6/29/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-9	9/13/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-9	4/8/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-9	10/15/08	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-9	6/22/09	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-9	10/7/10	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-9	2/8/2012	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-9	2/5/2013	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
MW-10	7/8/06	<0.005	0.025	0.008	<0.002	0.033	0.004 J	<0.005	<0.01	0.004	<0.005	<0.005	0.004 J	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-10	3/6/07	<0.005	0.031	0.008	<0.002	0.039	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
MW-10	6/26/07	<0.005	0.058	0.015	<0.002	0.073	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
MW-10	9/14/07	ND	0.064	0.015	ND	0.079	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-10	4/9/08	ND	0.039	0.013	ND	0.052	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-10	10/16/08	<0.005	0.06	0.021	0.0024	0.0834	<0.005	<0.005	<0.01	ND</														

Capitol Adhesives

Table B-1. Analytical Results for Constituents Detected in Groundwater (mg/L)

Well	Date Sampled	Tetra chloro ethene (mg/L)	Trichloro ethene (mg/L)	cis-1,2-Dichloro ethene (mg/L)	Vinyl chloride (mg/L)	Total Chlorinated Ethenes (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1-Dichloroethane (mg/L)	Chloro ethane (mg/L)	Total Chlorinated Ethanes (mg/L)	1,1,2-Trichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	1,2-Dichloroethane (mg/L)	Acetone (mg/L)	Benzene (mg/L)	Chloroform (mg/L)	Cyclo hexane (mg/L)	Dichloro methane (mg/L)	Freon-11 (mg/L)	Freon-113 (mg/L)	Methyl cyclo hexane (mg/L)	o-Xylene (mg/L)	Toluene (mg/L)	trans-1,2-Dichloroethene (mg/L)
Type 1 RRS or DL		0.005	0.005	0.07	0.002		0.2	4	DL		0.005	0.007	0.005	4	0.005	0.08	DL	0.005	2	1000	DL	10	1	0.1
MW-13	10/15/08	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-13	6/22/09	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-13	10/12/10	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-13 (Dup)	10/12/10	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-13 (Dup)	2/8/12	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-13	2/8/2012	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-13	2/5/2013	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-14	6/29/06	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-14	3/6/07	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-14	6/25/07	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-14	9/13/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MW-14	4/9/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MW-15	10/15/08	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-15	6/22/09	<0.005	0.011	0.015	<0.002	0.026	0.0084	<0.005	<0.01	0.0084	<0.005	0.016	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-15	10/12/10	<0.005	0.0089	0.022	0.0059	0.0368	0.0089	<0.005	<0.01	0.0089	<0.005	0.023	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-15	2/8/12	<0.005	0.021	0.037	0.0082	0.0662	0.0053	0.0057	<0.01	0.011	<0.005	0.019	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-15	8/23/2012	<0.005	0.017	0.027	0.0054	0.0494	<0.005	<0.005	<0.01	ND	<0.005	0.016	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-15	2/6/2013	<0.005	0.02	0.029	0.008	0.057	<0.005	<0.005	<0.01	ND	<0.005	0.022	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-15	8/6/2013	<0.005	0.02	0.029	0.0058	0.0548	<0.005	0.0057	<0.01	0.0605	<0.005	0.014	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
MW-16	6/29/06	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
MW-16	3/6/07	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
MW-16	6/25/07	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
MW-16	9/13/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
MW-16	4/9/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
MW-16	10/14/08	<0.005	<0.005	<0.005	<0.002	ND	<0.005	<0.005	<0.01	ND	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005</td				

Capitol Adhesives

Table B-2. Analytical Results for Constituents Detected in Subsurface Solids (mg/kg)

Sample ID	Depth (ft bgs)	Date Sampled	Tetrachloroethene (mg/kg)	Trichloroethene (mg/kg)	cis-1,2-Dichloroethene (mg/kg)	Vinyl chloride (mg/kg)	Total Chlorinated Ethenes (mg/kg)	1,1,1-Trichloroethane (mg/kg)	1,1-Dichloroethane (mg/kg)	Chloroethane (mg/kg)	Total Chlorinated Ethanes (mg/kg)	1,1,2-Trichloroethane (mg/kg)	1,1-Dichloroethene (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	1,2-Dibromoethane (mg/kg)	1,2-Dichlorobenzene (mg/kg)	1,2-Dichloroethane (mg/kg)	1,2-Dichloropropane (mg/kg)	1,3,5-Trimethylbenzene (mg/kg)	1,4-Dioxane (mg/kg)	2-Butanone (MEK) (mg/kg)	4-Methyl-2-pentanone (mg/kg)	Acetone (mg/kg)	Benzene (mg/kg)	
Solid Aquifer Matrix																									
GP001	6-8	8/9/05	<0.0054	<0.0054	<0.0054		ND	<0.0054			ND		<0.0054	<0.0054				<0.0054	<5.4	<0.0054					
GP002	4-6	8/9/05	<0.0049	<0.0049	<0.0049		ND	<0.0049			ND		<0.0049	<0.0049				<0.0049	<4.9	<0.0049					
GP003	2-4	8/9/05	<0.0048	<0.0048	<0.0048		ND	<0.0048			ND		<0.0048	<0.0048				<0.0048	<4.8	<0.0048					
GP004	4-6	8/9/05	<0.004	<0.004	<0.004		ND	<0.004			ND		<0.004	<0.004				<0.004	<4	<0.004					
GP005	4-6	8/9/05	<0.0045	<0.0045	<0.0045		ND	<0.0045			ND		<0.0045	<0.0045				<0.0045	<4.5	<0.0045					
GP006	2-4	8/9/05	<0.0046	<0.0046	<0.0046		ND	<0.0046			ND		<0.0046	<0.0046				<0.0046	<4.6	<0.0046					
GP009	2-4	8/10/05	<0.0043	<0.0043	<0.0043		ND	<0.0043			ND		<0.0043	<0.0043				<0.0043	<4.3	<0.0043					
GP010	4-6	8/10/05	0.13	0.33	<0.067		0.46	0.15			0.15		0.093	<0.067				<0.067	<67	<0.067					
GP011	2-4	8/10/05	0.13	0.63	<0.061		0.76	<0.061			ND		0.099	<0.061				<0.061	<61	<0.061					
GP012	4-6	8/10/05	1.5	1.8	0.56		3.86	0.41			0.41		0.72	<0.063				0.15	150	<0.063					
GP013	4-6	8/10/05	<0.0052	<0.0052	<0.0052		ND	<0.0052			ND		<0.0052	<0.0052				<0.0052	<5.2	<0.0052					
MIP-1	2	10/16/08	15	12	0.025	29.225	0.2	0.18	<0.012	0.38	0.029	0.35	NA	<0.006	<0.006	0.36	<0.006	NA	<8.40E-02	<0.06	<0.012	<0.12	<0.006		
MIP-1	5	10/16/08	0.036	0.02	<0.0067	<0.013	0.056	<0.0067	<0.0067	<0.013	ND	<0.0067	<0.0067	NA	<0.0067	<0.0067	<0.0067	NA	<0.2	<0.067	<0.013	<0.13	<0.0067		
MIP-1	9	10/16/08	0.024	0.0052	0.018	0.015	0.0622	<0.0029	<0.0029	<0.0058	ND	<0.0029	<0.0029	NA	<0.0029	<0.0029	<0.0029	NA	<8.80E-02	<0.029	<0.0058	<0.058	<0.0029		
MIP-5	3	10/16/08	<0.0022	<0.0022	<0.0022	<0.0045	ND	<0.0022	<0.0022	<0.0045	ND	<0.0022	<0.0022	NA	<0.0022	<0.0022	<0.0022	NA	<0.067	<0.022	<0.0045	<0.045	<0.0022		
MIP-6	6	10/16/08	<0.008	<0.008	<0.008	<0.016	ND	<0.008	<0.008	<0.016	ND	<0.008	<0.008	NA	<0.008	<0.008	<0.008	NA	<0.24	<0.08	<0.016	<0.16	<0.008		
MIP-8	2	10/16/08	0.37	2.4	0.068	0.04	2.878	0.014	0.031	<0.0026	0.045	0.0048	0.21	NA	<0.0013	<0.0013	0.14	<0.0013	NA	<0.039	<0.013	<0.0026	0.54	<0.0013	
MIP-8	4	10/16/08	0.091	0.2	<0.007	<0.014	0.291	<0.007	<0.007	<0.014	ND	<0.007	<0.007	NA	<0.007	<0.007	<0.007	NA	<0.21	<0.07	<0.014	<0.14	<0.007		
MIP-12	12	10/16/08	0.73	0.38	<0.11	0.0056	1.1156	0.13	0.018	<0.0038	0.148	0.0022	0.21	NA	<0.0019	<0.0019	0.038	<0.0019	NA	<0.056	<0.019	<0.0038	<0.038	<0.0019	
MIP-12	4	10/16/08	<0.0069	<0.0069	<0.0069	<0.014	ND	<0.0069	<0.0069	<0.014	ND	<0.0069	<0.0069	NA	<0.0069	<0.0069	<0.0069	NA	<0.21	<0.069	<0.014	<0.14	<0.0069		
MIP-12	6	10/16/08	<0.0076	<0.0076	<0.0076	<0.015	ND	<0.0076	<0.0076	<0.015	ND	<0.0076	<0.0076	NA	<0.0076	<0.0076	0.026	<0.0076	NA	<0.23	<0.076	<0.015	<0.15	<0.0076	
MIP-13	1	10/16/08	0.0087	<0.0038	0.0068	0.54	0.5555	<0.0038	0.12	0.42	0.54	<0.0038	<0.0038	NA	<0.0038	<0.0038	0.052	<0.0038	NA	1.4	0.12	0.0098	<0.076	0.0071	
MIP-13	3	10/16/08	0.0069	0.0093	0.058	0.79	0.8642	0.0034	0.22	0.14	0.3634	<0.0027	0.047	NA	<0.0027	<0.0027	0.046	<0.0027	NA	0.510	<0.027	<0.0053	<0.053	<0.0027	
MIP-13	6	10/16/08	1.5	2.6	2	0.66	6.76	0.42	0.44	0.03	0.89	0.017	1.8	NA	<0.0027	<0.0027	0.78	<0.0027	NA	0.64	<0.027	<0.0054	<0.054	0.0066	
MIP-19	1	10/16/08	<0.0059	<0.0059	<0.0059	<0.012	ND	<0.0059	<0.0059	<0.012	ND	<0.0059	<0.0059	NA	<0.0059	<0.0059	<0.0059	NA	<0.18	<0.059	<0.012	<0.12	<0.0059		
MIP-19	3	10/16/08	<0.0071	<0.0071	<0.0071	<0.014	ND	<0.0071	<0.0071	<0.014	ND	<0.0071	<0.0071	NA	<0.0071	<0.0071	<0.0071	NA	<0.21	<0.071	<0.014	<0.14	<0.0071		
MW-1D	8-10	7/13/04	<0.0019	<0.0019	<0.0019		ND	<0.0019	<0.0019	<0.0019	ND	<0.0019	<0.0019	<0.00184	<0.0019	<0.0019	<1.9	<0.00184	NA	<0.0461	<0.00921	<0.0461	<0.0019		
MW-2D	8-10	7/13/																							

Capitol Adhesives

Table B-2. Analytical Results for Constituents Detected in Subsurface Solids (mg/kg)

Sample ID	Depth (ft bgs)	Date Sampled	Carbon disulfide (mg/kg)	Carbon tetra chloride (mg/kg)	Chloro benzene (mg/kg)	Chloroform (mg/kg)	cis/trans1,2-Dichloro ethene (mg/kg)	Cyclo hexane (mg/kg)	Dichloro methane (Methylene chloride) (mg/kg)	Ethyl benzene (mg/kg)	Freon-11 (Trichlorofluoromethane (mg/kg)	Freon-113 (mg/kg)	Isopropyl benzene (mg/kg)	m&p-Xylene (mg/kg)	Methyl acetate (mg/kg)	Methyl cyclo hexane (mg/kg)	Naphthalene (mg/kg)	n-Propyl benzene (mg/kg)	o-Xylene (mg/kg)	sec-Butyl benzene (mg/kg)	Toluene (mg/kg)	trans-1,2-Dichloro ethene (mg/kg)
Solid Aquifer Matrix																						
GP001	6-8	8/9/05					<0.0054	<0.0054		<0.0054	<0.0054			<0.0054			<0.0054	<0.0054		<0.0054	<0.0054	
GP002	4-6	8/9/05					<0.0049	<0.0049		<0.0049	<0.0049			<0.0049			<0.0049	<0.0049		<0.0049	<0.0049	
GP003	2-4	8/9/05					<0.0048	<0.0048		<0.0048	<0.0048			<0.0048			<0.0048	<0.0048		<0.0048	<0.0048	
GP004	4-6	8/9/05					<0.004	<0.004		<0.004	<0.004			<0.004			<0.004	<0.004		<0.004	<0.004	
GP005	4-6	8/9/05					<0.0045	<0.0045		<0.0045	<0.0045			<0.0045			<0.0045	<0.0045		<0.0045	<0.0045	
GP006	2-4	8/9/05					<0.0046	<0.0046		<0.0046	<0.0046			<0.0046			<0.0046	<0.0046		<0.0046	<0.0046	
GP009	2-4	8/10/05					<0.0043	<0.0043		<0.0043	<0.0043			<0.0043			<0.0043	<0.0043		<0.0043	<0.0043	
GP010	4-6	8/10/05					<0.067	0.093		<0.067	<0.067			<0.067			<0.067	<0.067		<0.067	<0.067	
GP011	2-4	8/10/05					0.064	0.099		<0.061	<0.061			<0.061			<0.061	<0.061		<0.061	<0.061	
GP012	4-6	8/10/05					0.29	0.72		0.29	<0.063			<0.063			<0.063	<0.063		<0.063	<0.063	
GP013	4-6	8/10/05					<0.0052	<0.0052		<0.0052	<0.0052			<0.0052			<0.0052	<0.0052		<0.0052	<0.0052	
MIP-1	2	10/16/08	<0.012	<0.006	<0.006	0.73	NA	<0.006	<0.006	<0.006	<0.012	<0.006	<0.012	<0.006	0.0094	NA	NA	<0.006	NA	0.027	0.055	
MIP-1	5	10/16/08	<0.013	<0.0067	<0.0067	<0.0067	NA	<0.0067	<0.0067	<0.0067	<0.013	<0.0067	<0.013	<0.0067	<0.0067	NA	NA	<0.0067	NA	<0.0067	<0.0067	
MIP-1	9	10/16/08	<0.0058	<0.0029	<0.0029	<0.0029	NA	<0.0029	<0.0029	<0.0029	<0.0058	<0.0029	<0.0058	<0.0029	<0.0029	NA	NA	<0.0029	NA	<0.0029	<0.0029	
MIP-5	3	10/16/08	<0.0045	<0.0022	<0.0022	<0.0022	NA	<0.0022	<0.0022	<0.0022	<0.0045	<0.0022	<0.0045	<0.0022	<0.0022	NA	NA	<0.0022	NA	<0.0022	<0.0022	
MIP-6	6	10/16/08	<0.016	<0.008	<0.008	<0.008	NA	<0.008	<0.008	<0.008	<0.016	<0.008	<0.016	<0.008	<0.008	NA	NA	<0.008	NA	<0.008	<0.008	
MIP-8	2	10/16/08	<0.0026	<0.0013	<0.0013	0.069	NA	<0.0013	0.11	<0.0013	<0.0026	<0.0013	<0.0026	<0.0013	0.015	NA	NA	<0.0013	NA	0.006	0.014	
MIP-8	4	10/16/08	<0.014	<0.007	<0.007	<0.007	NA	<0.007	<0.007	<0.007	<0.014	<0.007	<0.014	<0.007	<0.007	NA	NA	<0.007	NA	0.0076	<0.007	
MIP-12	12	10/16/08	<0.0038	<0.0019	<0.0019	0.12	NA	<0.0019	<0.0019	<0.0027	<0.0038	<0.0019	<0.0038	<0.0019	<0.0019	NA	NA	<0.0019	NA	<0.0019	0.0077	
MIP-12	4	10/16/08	<0.014	<0.0069	<0.0069	<0.0069	NA	<0.0069	<0.0069	<0.0069	<0.014	<0.0069	<0.014	<0.0069	<0.0069	NA	NA	<0.0069	NA	<0.0069	<0.0069	
MIP-12	6	10/16/08	<0.015	<0.0076	<0.0076	<0.0076	NA	<0.0076	<0.0076	<0.0076	<0.015	<0.0076	<0.015	<0.0076	<0.0076	NA	NA	<0.0076	NA	<0.0076	<0.0076	
MIP-13	1	10/16/08	<0.0076	<0.0038	<0.0038	<0.0038	NA	0.014	0.12	<0.0038	<0.0038	0.073	<0.0038	<0.0038	0.18	NA	NA	<0.0038	NA	0.096	0.02	
MIP-13	3	10/16/08	<0.0053	<0.0027	<0.0027	0.029	NA	<0.0027	0.067	<0.0027	<0.0027	<0.0053	<0.0027	<0.0053	0.031	NA	NA	<0.0027	NA	0.02	0.011	
MIP-13	6	10/16/08	<0.0054	<0.0027	<0.0027	1.4	NA	<0.0027	1.9	<0.0027	<0.0067	<0.0054	<0.0027	<0.0054	0.013	NA	NA	<0.0027	NA	0.017	0.058	
MIP-19	1	10/16/08	<0.012	<0.0059	<0.0059	<0.0059	NA	<0.0059	<0.0059	<0.012	<0.0059	<0.012	<0.0059	<0.012	<0.0059	NA	NA	<0.0059	NA	<0.0059	<0.0059	
MIP-19	3	10/16/08	<0.014	<0.0071	<0.0071	<0.0071	NA	<0.0071	<0.0071	<0.014	<0.0071	<0.014	<0.0071	<0.014	<0.0071	NA	NA	<0.0071	NA	<0.0071	<0.0071	
MW-1D	8-10	7/13/04	<0.00184	<0.0019	<0.0019	<0.0019	NA	<0.0046	<0.0019	<0.0019	NA	<0.00184	NA	NA	<0.00461	<0.00184	NA	<0.00184	<0.0019	<0.0019		
MW-2D	8-10	7/13/04	<0.0171	<0.0017	<0.0017	<0.0017	NA	<0.0043	<0.0017	<0.0017	NA	<0.00171	NA	NA	<0.00428	<0.00171	NA	<0.00171	0.0026	<0.0017		
MW-3	8-10	7/14/04	<0.0018	<0.0018	<0.0018	0.0078	0.0025	NA	<0.0045	<0.0018	<0.0018	NA	<0.0018	NA	<0.0048	<0.0018	NA	<0.0018	<0.0018	<0.0018		
MW-3D	13-15	7/14/04	<0.134	<0.134	<0.134	<0.134	NA	<0.336	<0.134	<0.134	NA	<0.134	NA	NA	<0.366</td							

Capitol Adhesives

Table B-2. Analytical Results for Constituents Detected in Subsurface Solids (mg/kg)

Sample ID	Depth (ft bgs)	Date Sampled	Tetrachloroethene (mg/kg)	Trichloroethene (mg/kg)	cis-1,2-Dichloroethene (mg/kg)	Vinyl chloride (mg/kg)	Total Chlorinated Ethenes (mg/kg)	1,1,1-Trichloroethane (mg/kg)	1,1-Dichloroethane (mg/kg)	Chloroethane (mg/kg)	Total Chlorinated Ethanes (mg/kg)	1,1,2-Trichloroethane (mg/kg)	1,1-Dichloroethene (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	1,2-Dibromoethane (mg/kg)	1,2-Dichlorobenzene (mg/kg)	1,2-Dichloroethane (mg/kg)	1,2-Dichloropropane (mg/kg)	1,3,5-Trimethylbenzene (mg/kg)	1,4-Dioxane (mg/kg)	2-Butanone (MEK) (mg/kg)	4-Methyl-2-pentanone (mg/kg)	Acetone (mg/kg)	Benzene (mg/kg)
SB-6	4	2/20/13	<0.004	<0.004			ND	<0.004			ND	<0.004												
SB-7	1	2/20/13	0.009	<0.0037			0.009	<0.0037			ND	<0.0037												
SB-7	2	2/20/13	<0.0065	<0.0065			ND	<0.0065			ND	<0.0065												
SB-7	4	2/20/13	<0.0036	<0.0036			ND	<0.0036			ND	<0.0036												
SB-8	1	2/20/13	0.021	0.071			0.092	<0.0025			ND	<0.0025												
SB-8	2	2/20/13	0.023	0.18			0.203	<0.0028			ND	<0.0028												
SB-8	4	2/20/13	<0.18	0.51			0.51	<0.18			ND	<0.18												
SB-9	1	2/20/13	0.0051	0.016			0.0211	<0.0036			ND	<0.0036												
SB-9	2	2/20/13	0.017	0.065			0.082	<0.0048			ND	<0.0048												
SB-9	4	2/20/13	0.0074	0.03			0.0374	<0.0043			ND	<0.0043												
SO-2	1	3/10/09	<0.0029	<0.0029	0.003	0.33	0.333	<0.0029	0.42	0.023	0.443	<0.0029	<0.0029	0.0069	<0.0029	NA	NA	NA	NA	<0.029	<0.0059	<0.059	<0.0029	
SO-2	3	3/10/09	0.098	0.11	1.1	0.57	1.878	0.0064	0.78	<0.0059	0.7864	<0.0029	0.23	NA	<0.0029	<0.0029	0.18	<0.0029	NA	NA	<0.029	<0.0059	<0.059	<0.0029
SO-3	1	3/10/09	2700	62	7.6	<5.7	2769.6	5.3	<2.8	<5.7	5.3	<2.8	<2.8	NA	<2.8	<2.8	<2.8	NA	NA	<28	<5.7	<57	<2.8	
SO-3	3	3/10/09	23	4.9	12	<4.8	39.9	<2.4	<2.4	<4.8	ND	<2.4	<2.4	NA	<2.4	<2.4	<2.4	NA	NA	<24	<4.8	<48	<2.4	
SO-4	1	3/10/09	0.74	1.2	0.48	<0.0063	2.42	<0.0032	0.035	<0.0063	0.035	0.0033	0.44	NA	<0.0032	<0.0032	0.042	<0.0032	NA	NA	<0.032	<0.0063	<0.063	<0.0032
SO-4	3	3/10/09	0.93	1.6	0.7	<0.23	3.23	<0.11	<0.11	<0.23	ND	<0.11	0.63	NA	<0.11	<0.11	<0.11	NA	NA	<1.1	<0.23	<2.3	<0.11	
SO-5	5	3/10/09	0.39	0.35	0.035	<0.006	0.775	0.07	0.02	<0.006	0.09	<0.003	0.21	NA	<0.003	<0.003	0.053	<0.003	NA	NA	<0.03	<0.006	<0.06	<0.003
SO-5	9	3/10/09	<0.0062	<0.0062	<0.012	ND	<0.0062	<0.0062	<0.012	ND	<0.0062	<0.0062	NA	<0.0062	<0.0062	<0.0062	<0.0062	NA	NA	<0.062	<0.012	<0.12	<0.0062	
SO-6	5	3/10/09	0.066	0.089	0.48	0.16	0.795	0.01	0.087	<0.0052	0.097	<0.0026	0.19	NA	<0.0026	<0.0026	0.077	<0.0026	NA	NA	<0.026	<0.0052	<0.052	<0.0026
SO-7	3	3/10/09	1.9	2.4	0.015	<0.01	4.315	0.072	0.18	<0.01	0.252	0.0072	0.89	NA	<0.0052	<0.0052	0.13	<0.0052	NA	NA	<0.052	<0.01	<0.1	<0.0052
SO-10	1	10/12/10	43	16	7.8	<0.241	66.8	7.2	4.2	<0.241	0.252	<0.121	0.63	NA	<0.121	<0.121	3.4	<0.121	NA	<1.21	<1.21	<0.241	<2.41	<0.121
SS-AST-1	1	1/12/09	7.09	0.159	0.0768	0.0207	7.3465	0.0805	0.0663	<0.00632	0.1468	<0.00316	0.107	NA	<0.00316	<0.00316	0.0407	<0.00316	NA	NA	<0.0316	<0.00632	<0.0632	<0.00316
SS-AST-2	1	1/12/09	12.2	7.75	5.95	0.0331	25.9331	1.11	3.45	<0.00532	4.56	0.197	0.59	NA	<0.00266	0.00713	1.69	<0.00266	NA	NA	<0.0266	0.0476	0.739	0.0147
SS-AST-3	1	7/23/12	0.11	0.058	3.6	0.042	3.81	<0.003	0.05	<0.0061	0.05													
SS-AST-3	2	7/23/12	0.35	0.18	3.3	0.081	3.911	<0.0032	0.075	<0.0064	0.075													
SS-AST-4	1	7/23/12	0.0047	<0.0028	0.0031	<0.0056	0.0078	<0.0028	<0.0028	<0.0056	ND													
SS-AST-4	2	7/23/12	0.0042	<0.0033	<0.0033	<0.0066	0.0042	<0.0033	<0.0033	<0.0066	ND													
SS-AST-5	1	7/23/12	0.0039	<0.0027	<0.0027	<0.0055	0.0039	<0.0027	<0.0027	<0.0055	ND													
SS-AST-5	2	7/23/12	0.011	<0.0032	0.0083	<0.0064	0.0193	<0.0032	<0.0032	<0.0064	ND													
SS-AST-6	1	7/23/12	0.039	0.0088	0.011	<0.0057	0.0588	0.0035	<0.0028	<0.0057	0.0035													
SS-AST-6	2	7/23/12	0.047	0.011	0.0077	<0.0066	0.0657	<0.0033	<0.0033	<0.0066	ND													
SS-AST-7	1	7/23/12	0.013	0.0096	1.9	0.24	2.1626	<0.003	0.62	0.07	0.69													
SS-AST-7	2	7/23/12	0.014	0.0086	2	0.31	2.3326	<0.0031	1.2	0.037	1.237													
SS-AST-8	1	7/23/12	64	58	11	<3.4	133	66	6.8	<3.4</														

Capitol Adhesives

Table B-2. Analytical Results for Constituents Detected in Subsurface Solids (mg/kg)

Sample ID	Depth (ft bgs)	Date Sampled	Carbon disulfide (mg/kg)	Carbon tetra chloride (mg/kg)	Chloro benzene (mg/kg)	Chloroform (mg/kg)	cis/trans 1,2-Dichloro ethene (mg/kg)	Cyclo hexane (mg/kg)	Dichloro methane (Methylene chloride) (mg/kg)	Ethyl benzene (mg/kg)	Freon-11 (Trichlorofluoromethane (mg/kg)	Freon-113 (mg/kg)	Isopropyl benzene (mg/kg)	m&p-Xylene (mg/kg)	Methyl acetate (mg/kg)	Methyl cyclo hexane (mg/kg)	Naphthalene (mg/kg)	n-Propyl benzene (mg/kg)	o-Xylene (mg/kg)	sec-Butyl benzene (mg/kg)	Toluene (mg/kg)	trans-1,2-Dichloro ethene (mg/kg)
SB-6	4	2/20/13																				
SB-7	1	2/20/13																				
SB-7	2	2/20/13																				
SB-7	4	2/20/13																				
SB-8	1	2/20/13																				
SB-8	2	2/20/13																				
SB-8	4	2/20/13																				
SB-9	1	2/20/13																				
SB-9	2	2/20/13																				
SB-9	4	2/20/13																				
SO-2	1	3/10/09	<0.0059	<0.0029	<0.0029	<0.0029	NA	0.0036	<0.0029	<0.0029	<0.0059	<0.0029	<0.0059	<0.0029	<0.0029	NA	NA	<0.0029	NA	0.051	0.0047	
SO-2	3	3/10/09	<0.0059	<0.0029	<0.0029	0.04	NA	0.14	<0.0029	<0.0029	<0.0059	<0.0029	<0.0059	<0.0029	<0.0029	0.087	NA	NA	<0.0029	NA	0.05	0.026
SO-3	1	3/10/09	<5.7	<2.8	<2.8	<2.8	NA	8	<2.8	<2.8	<2.8	<2.8	<5.7	<2.8	<2.8	130	NA	NA	<2.8	NA	3.3	<2.8
SO-3	3	3/10/09	<4.8	<2.4	<2.4	<2.4	2.5	NA	<2.4	4.5	<2.4	<2.4	<4.8	<2.4	<4.8	<2.4	NA	NA	<2.4	NA	<2.4	<2.4
SO-4	1	3/10/09	<0.0063	<0.0032	<0.0032	0.06	NA	<0.0032	<0.0032	<0.0032	<0.0063	<0.0032	<0.0063	<0.0032	<0.0032	0.032	NA	NA	<0.0032	NA	<0.0032	0.0055
SO-4	3	3/10/09	<0.23	<0.11	<0.11	0.13	NA	<0.11	<0.11	<0.11	<0.23	<0.11	<0.23	<0.11	<0.23	<0.11	NA	NA	<0.11	NA	<0.11	<0.11
SO-5	5	3/10/09	<0.006	0.004	<0.003	0.12	NA	<0.003	<0.003	<0.003	<0.006	<0.003	<0.006	<0.003	<0.003	NA	NA	<0.003	NA	<0.003	0.015	
SO-5	9	3/10/09	<0.012	<0.0062	<0.0062	<0.0062	NA	<0.0062	<0.0062	<0.0062	<0.012	<0.0062	<0.0062	<0.012	<0.0062	NA	NA	<0.0062	NA	<0.0062	<0.0062	
SO-6	5	3/10/09	<0.0052	<0.0026	<0.0026	0.084	NA	<0.0026	<0.0026	<0.0026	<0.0052	<0.0026	<0.0052	<0.0026	<0.0026	NA	NA	<0.0026	NA	<0.0026	0.017	
SO-7	3	3/10/09	<0.01	<0.0052	<0.0052	0.17	NA	<0.0052	0.049	<0.0052	<0.0052	<0.01	<0.0052	<0.01	<0.0052	NA	NA	<0.0052	NA	<0.0052	0.025	
SO-10	1	10/12/10	<0.241	<0.121	<0.121	3.1	NA	<0.121	5.9	<0.121	<0.121	<0.241	<0.121	0.34	0.13	0.26	NA	NA	0.16	NA	1.1	0.17
SS-AST-1	1	1/12/09	<0.00632	<0.00316	<0.00316	0.0397	NA	0.0178	<0.00316	<0.00316	<0.00316	0.155	<0.00316	0.0156	<0.00316	0.0494	NA	NA	<0.00316	NA	0.0105	0.00856
SS-AST-2	1	1/12/09	0.0121	<0.00266	0.00319	1.31	NA	0.00707	3.8	0.012	<0.00266	<0.00532	<0.00266	0.0534	<0.00266	0.0123	NA	NA	0.021	NA	2.17	0.187
SS-AST-3	1	7/23/12																				
SS-AST-3	2	7/23/12																				
SS-AST-4	1	7/23/12																				
SS-AST-4	2	7/23/12																				
SS-AST-5	1	7/23/12																				
SS-AST-5	2	7/23/12																				
SS-AST-6	1	7/23/12																				
SS-AST-6	2	7/23/12																				
SS-AST-7	1	7/23/12																				
SS-AST-7	2	7/23/12																				
SS-AST-8	1	7/23/12																				
SS-AST-8	2	7/23/12																				
SS-AST-9	1	7/23/12																				
SS-AST-9	2	7/23/12																				
SS-AST-10	1	7/23/12																				
SS-AST-10	2	7/23/12																				
SS-AST-10 (Dup)	1	7/23/12																				
SS-AST-11	1	7/23/12																				
SS-AST-11	2	7/23/12																				
SS-BLDG-1	1	1/12/09	<0.0048	<0.0024	<0.0024	<0.0024	NA	<0.0024	<0.0024	<0.0024	0.012	<0.0024	<0.0048	<0.0024	<0.0024	NA	NA	<0.0024	NA	<0.0024	<0.0024	
SS-BLDG-1	5	1/12/09	<0.00568	<0.00284	<0.00284	<0.00284	NA	<0.00284	<0.00284	<0.00284	0.0615	<0.00284	<0.00568	<0.00284	0.00426	NA	NA	<0.00284	NA	<0.00284	<0.00284	
SS-BLDG-2	5	1/12/09	<0																			

Capitol Adhesives
Table B-3. Anaerobic Biodegradation Preliminary Screening

Indicator Parameter	Criterion	Scoring Value	Plume				Sidegradient		Downgradient	Upgradient
			MW-3	MW-3D	MW-4	MW-5	MW-12	MW-14	MW-16	MW-8
Oxygen	< 0.5 mg/L	3	0.44	0.53	0.41	0.26	0.3	0.69	0.37	0.62
Nitrate	< 1 mg/L	2	0.019	0.017	0.016	0.015				1
Iron II	> 1 mg/L	3	0.1	0.6	0.5	3.4				
Total Iron	>10		0.791	0.549	7.15	7.46				
Sulfate	< 20 mg/L	2	11	8	5	5				6
Sulfide	> 1 mg/L	3	ND	ND	ND	ND				ND
Methane	<0.5 mg/L	0	1.5	0.27	4.3	8.1				0.004
	>0.5 mg/L	3								
ORP	< 50 mV	1	-54	-109	-57	-147	160	76	137	98
	< -100 mV	2								
pH	5-9	0	6.71	7.07	6.73	6.9	6.66	7.39	6.48	6.82
	<5 or >9	-2								
TOC	> 20 mg/L	2	1.3	0.5	0.7	5.9				< 5
Phosphorus			0.028	<0.02	0.049	0.115				
Temp	> 20 C	1	23.67	21.24	22.88	28.7	21.44	18.77	20.72	20.63
Alkalinity	> 2 x Bkg	1	181	160	233	915				126
Chloride	> 2 x Bkg	2	34	15	9.7	33				6.5
TCE		2	4.5	1.3	0.086	<0.005	0.0068	<0.005	<0.005	<0.005
DCE		2	1	0.3	0.057	<0.005	0.0076	<0.005	<0.005	<0.005
VC		2	0.11	0.077	0.059	0.011	<0.002	<0.002	<0.002	<0.002
DCA		2	0.31	0.15	0.0062	0.0051	<0.005	<0.005	<0.005	<0.005
Chloroethane		2	<0.01	<0.01	<0.01	0.24	<0.01	<0.01	<0.01	<0.01
Ethene/Ethane	> 0.01 mg/L	2	0.055	ND	0.048	0.31				ND
	> 0.1 mg/L	3								
Score			28	24.5	26	31	12	7.5	8	12.5
Evidence for reductive dechlorination			Strong	Strong	Strong	Strong	Limited	Limited	Limited	Limited

Strong (>20) = Strong evidence for reductive dechlorination

Adequate (15-20) = Adequate evidence for reductive dechlorination

Limited (6-14) = Limited evidence for reductive dechlorination

Inadequate (0-5) = Inadequate evidence for reductive dechlorination

Data from October 2010

Meets criterion

Capitol Adhesives
Table B-4. Anaerobic Microbial Testing Results (October, 2010)

	Test 1: Plate Counting				Test 2: CENSUS					
	Anaerobic CFU/mL at 48 hrs	% Strain 1A (low discrimination)	% Strain 5A (<i>Achromobacter denitrificans</i>)	% Strain 6 (<i>Kocuria kristinae</i>)	% Strain 7 (low discrimination)	<i>Dehalococcoid es spp.</i> (cells/mL)	tceA Reductase	vinyl chloride reductase	bva Reductase	<i>Dehaloba cter spp.</i>
Groundwater Testing										
MW-3	70		10%	90%		93.9	42.2	5.6	<0.4	1600
MW-3D	20	34%		33%	33%					
MW-5	30		100%			64,800	3,860	37,300	<0.8	7340
MW-4	<10									
Endpoint Assay										
111-TCA		Excellent	Excellent	No Effect	Inhibited					
TCE		Excellent	Excellent	Inhibited	Good					

10-1,000 potential if VC Rdases present
>10,000 good if RDases present

Table B-5. Aerobic Microbial Testing Results (October, 2010)

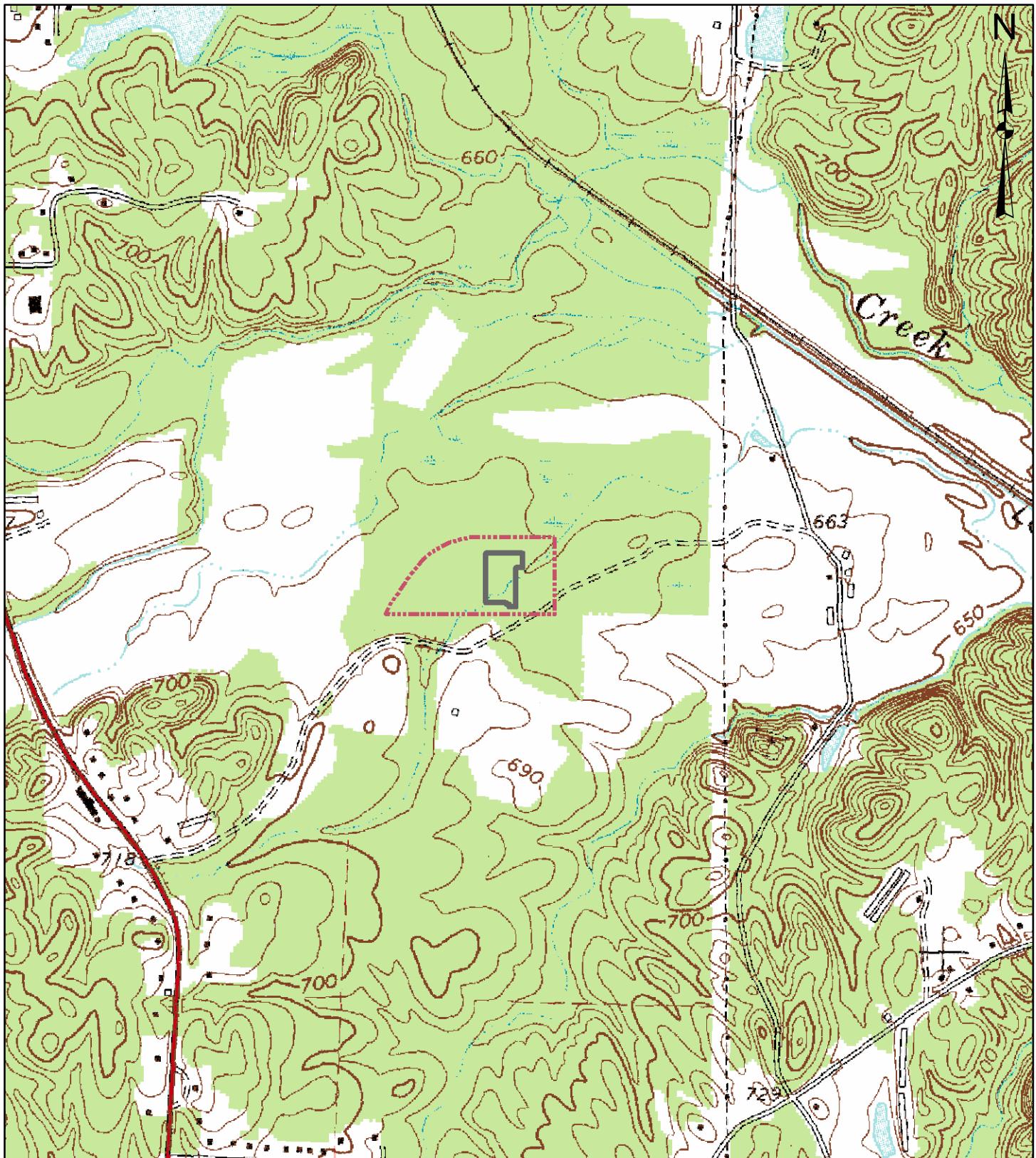
	Test 1: Plate Counting						
	Aerobic CFU/mL at 48 hrs	% Strain 1 (<i>Kocuria kristinae</i>)	% Strain 2 (<i>Micrococcus luteus / lylae</i>)	% Strain 3 (<i>Pseudomonas luteus / lylae</i>)	% Strain 4 (<i>Pseudomonas aeruginosa</i>)	% Strain 5 (<i>Pseudomonas aeruginosa</i>)	(unidentified)
Groundwater Testing							
MW-3	100	95%	5%				
MW-3D	<10						
MW-5	250			98%	2%		
MW-4	70					100%	
Endpoint Assay							
111-TCA		Minimal	Inhibited	Excellent	Excellent	Fair	
TCE		No Effect	Inhibited	Excellent	Excellent	Minimal	

 Good indication of biodegradation

 Moderate indication of biodegradation

FIGURES

Capitol Adhesives
Topographic Map



0 500 1,000
Feet

Source: USGS Quadrangle Dalton South, Georgia 1982

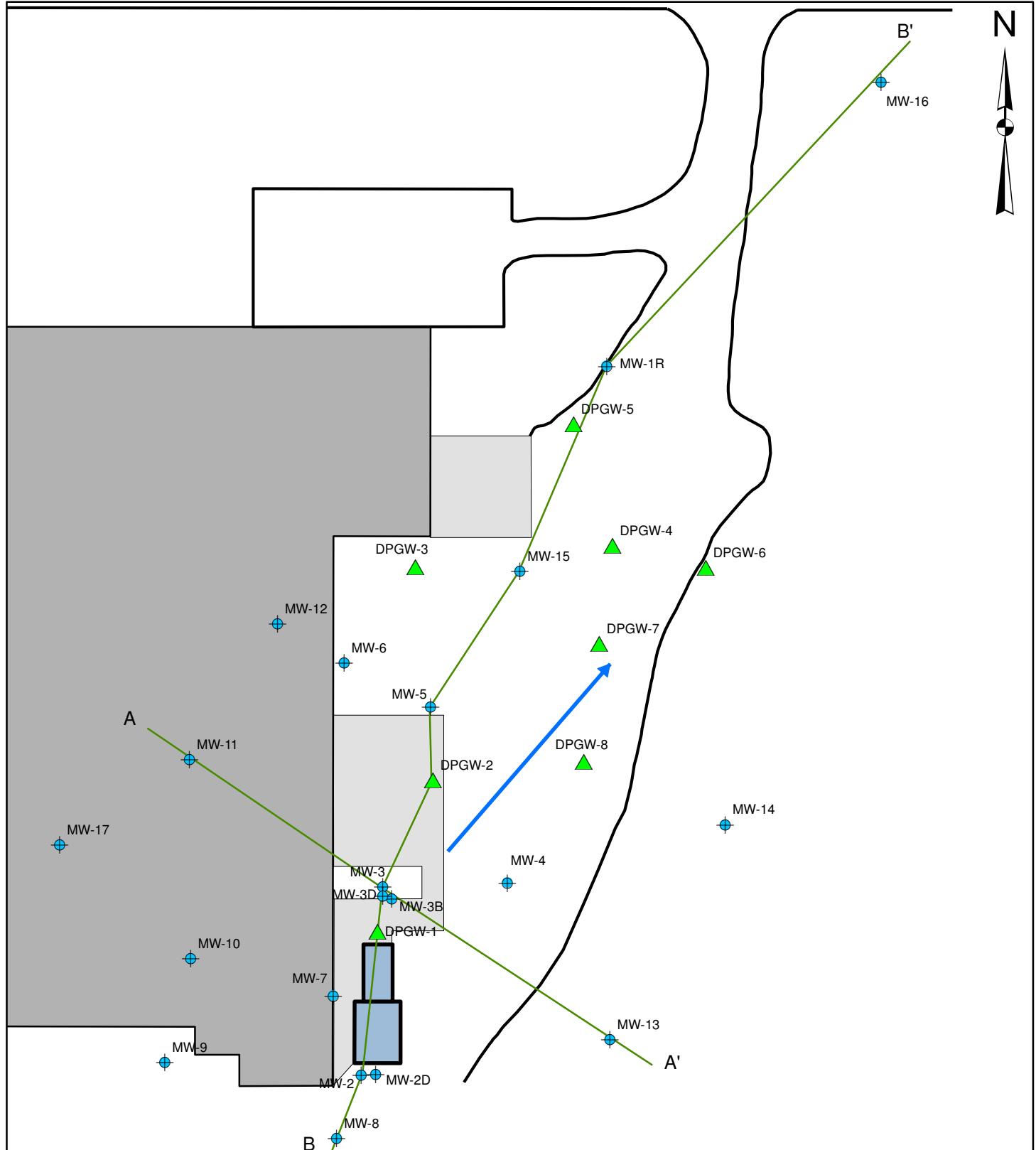
Legend

- Building
- Property Boundary

Capitol Adhesives
Aerial of Property and Site Features



**Capitol Adhesives
Cross-Section Location Map**



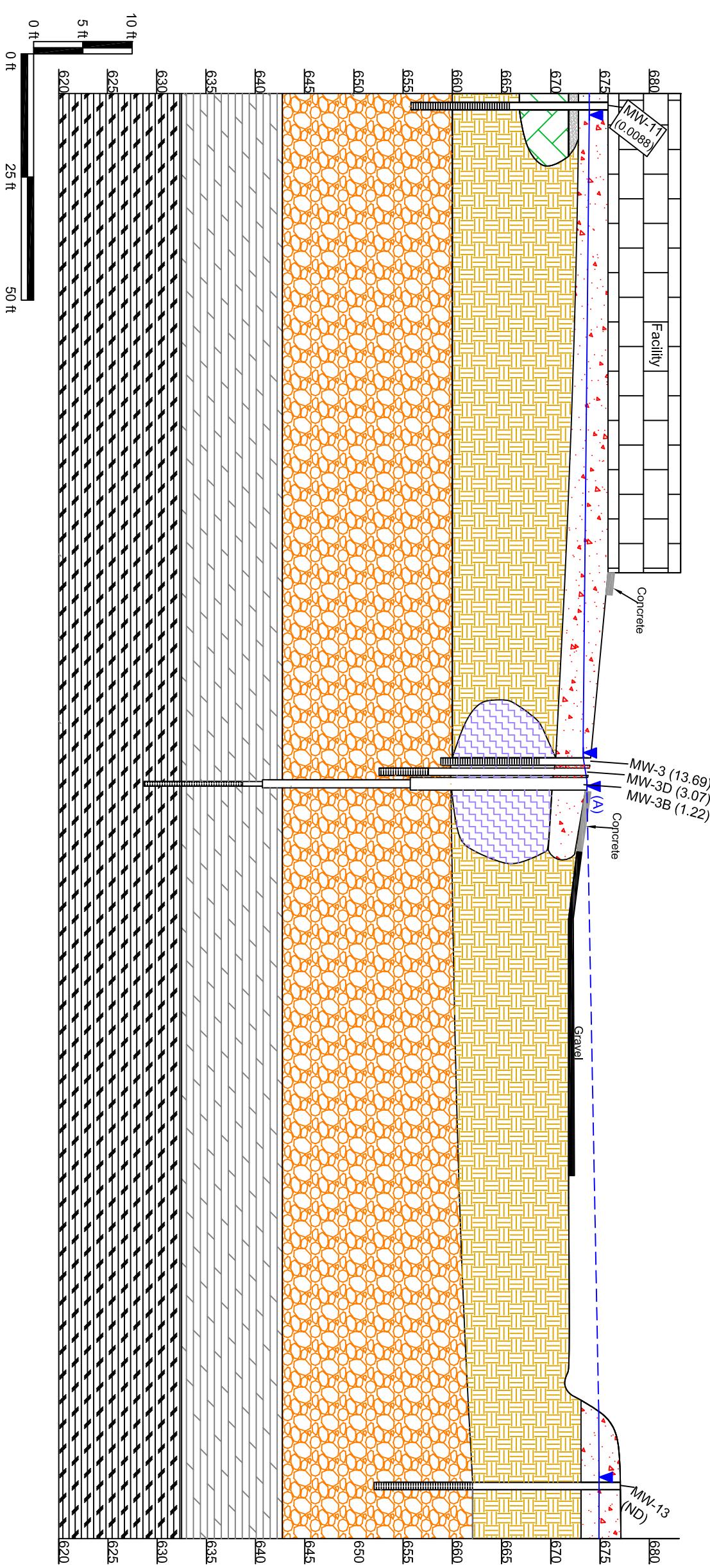
0 50 100
Feet

Legend

- MW Monitoring Well Location
- DPGW Direct-push Groundwater Sampling Location
- AST Containment
- Facility
- Concrete Surface

Lithological
Cross Section A-A'
(Profile)

West
A
East
A'



(9.8) Total chlorinated ethanes and ethenes (mg/L) in 2012:
includes TCA, DCA, CA, PCE, TCE, DCE, VC;
(A) Well was artesian at time of gauging

EPS	DES	JD	DATE: October 2012
	DRN		
	CHK		Capitol Adhesives
	REV	FR	300 Cross Plains Blvd.
	APP		Dalton, GA 30721
	PROJ MGR	TB	
	OPER	10/10	

1050 Crown Pointe Parkway
Suite 550
Atlanta, Ga 30338
Phone: (404) 315-9113

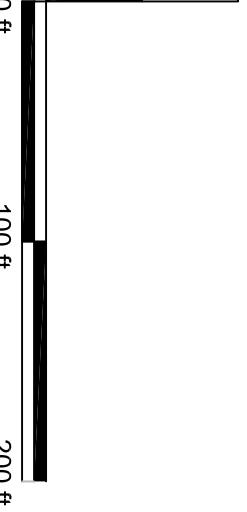
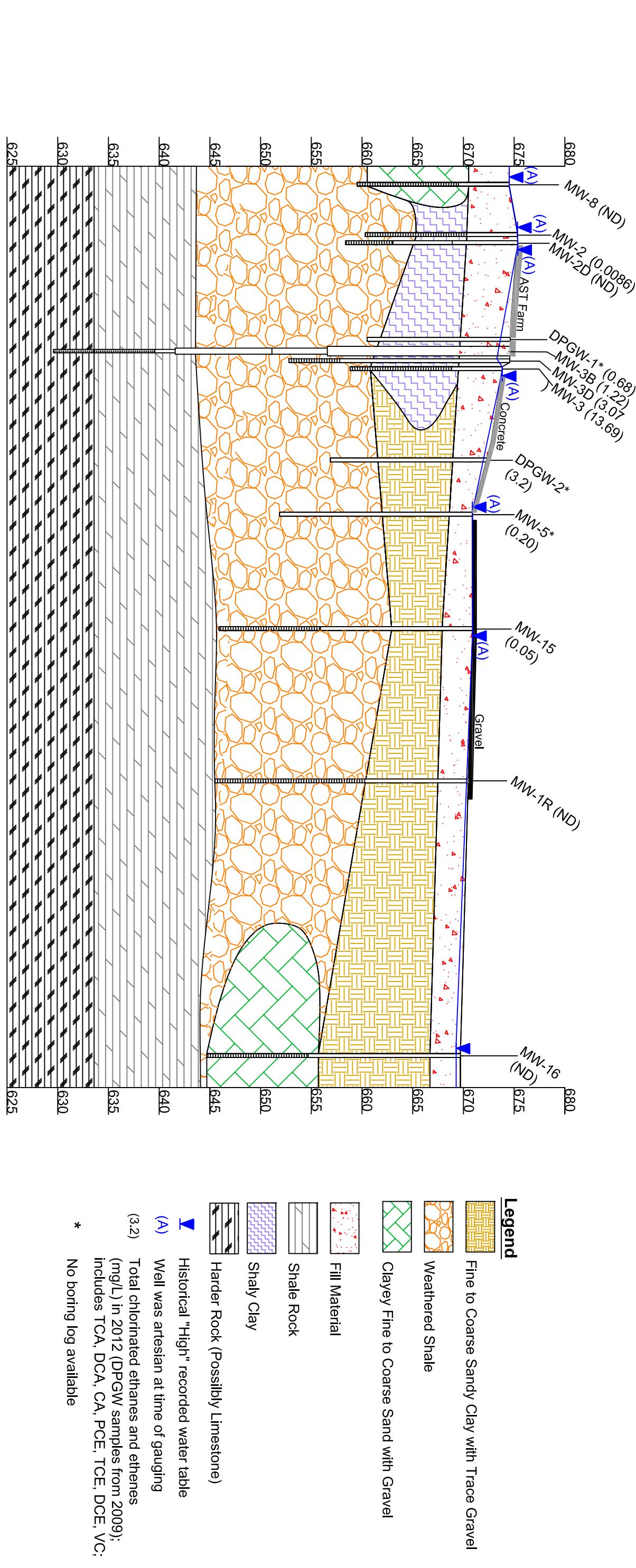
Lithological Cross-Section
A-A'

FIGURE
B-4

South
B

North
B'

Lithological
Cross Section B-B'
(Profile)



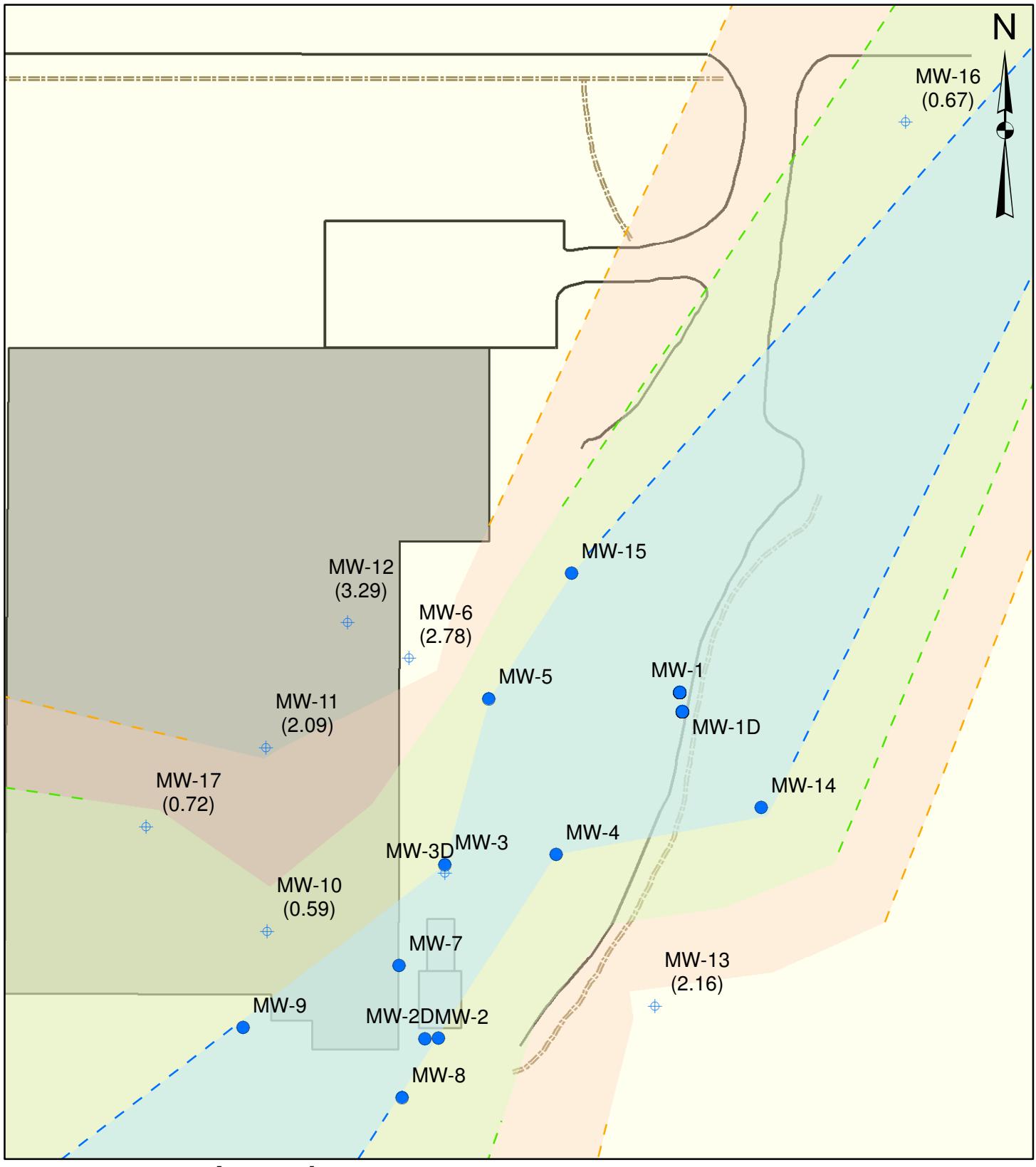
EPS	DES	JD	DATE: October 2012
	DRN	1010	
	CHK		Capitol Adhesives
	REV	FR	5111
	APP		300 Cross Plains Blvd.
	PROJ MGR	TB	1010
	OPER		Dalton, GA 30721

1050 Crown Pointe Parkway
Atlanta, GA 30338
Phone: (404) 315-9113

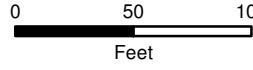
Lithological Cross-Section
B-B'

FIGURE
B-5

Capitol Adhesives
Soil Zones Based on High Water Table Conditions



Legend

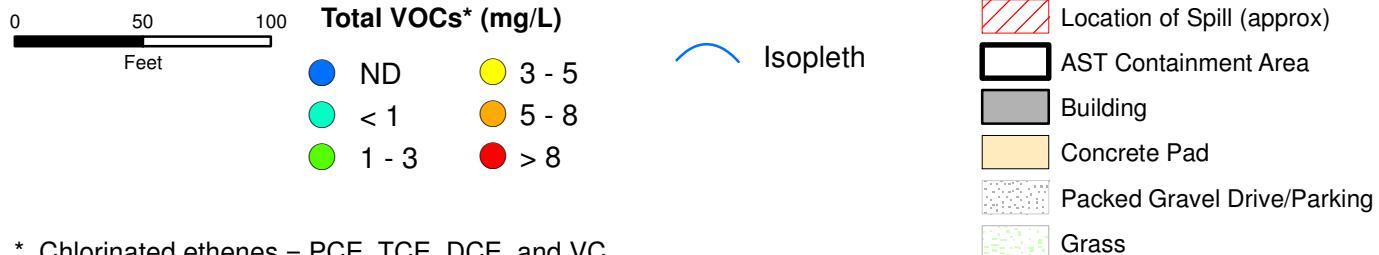
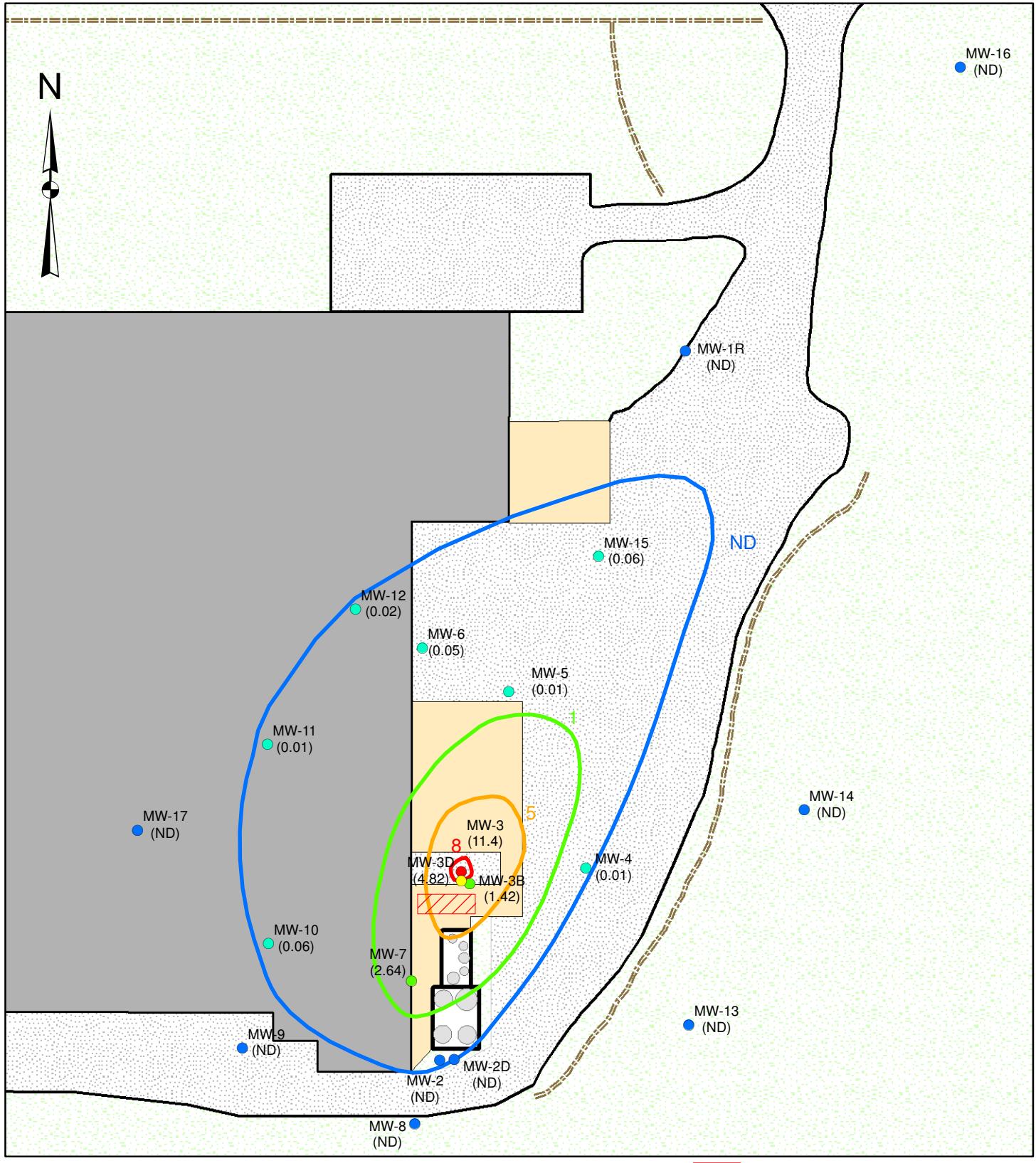


- Wells in Fully Saturated Zone
- ◆ Monitoring Wells
(depth to groundwater in feet)
- - - Dashed Lines Where Inferred

Soil Zones from High Water Tables

	Fully Saturated Zone
	0-1' Vadose Zone
	1-2' Vadose Zone
	>2' Vadose Zone

Capitol Adhesives
Groundwater Total Chlorinated Ethenes* (February 2013)



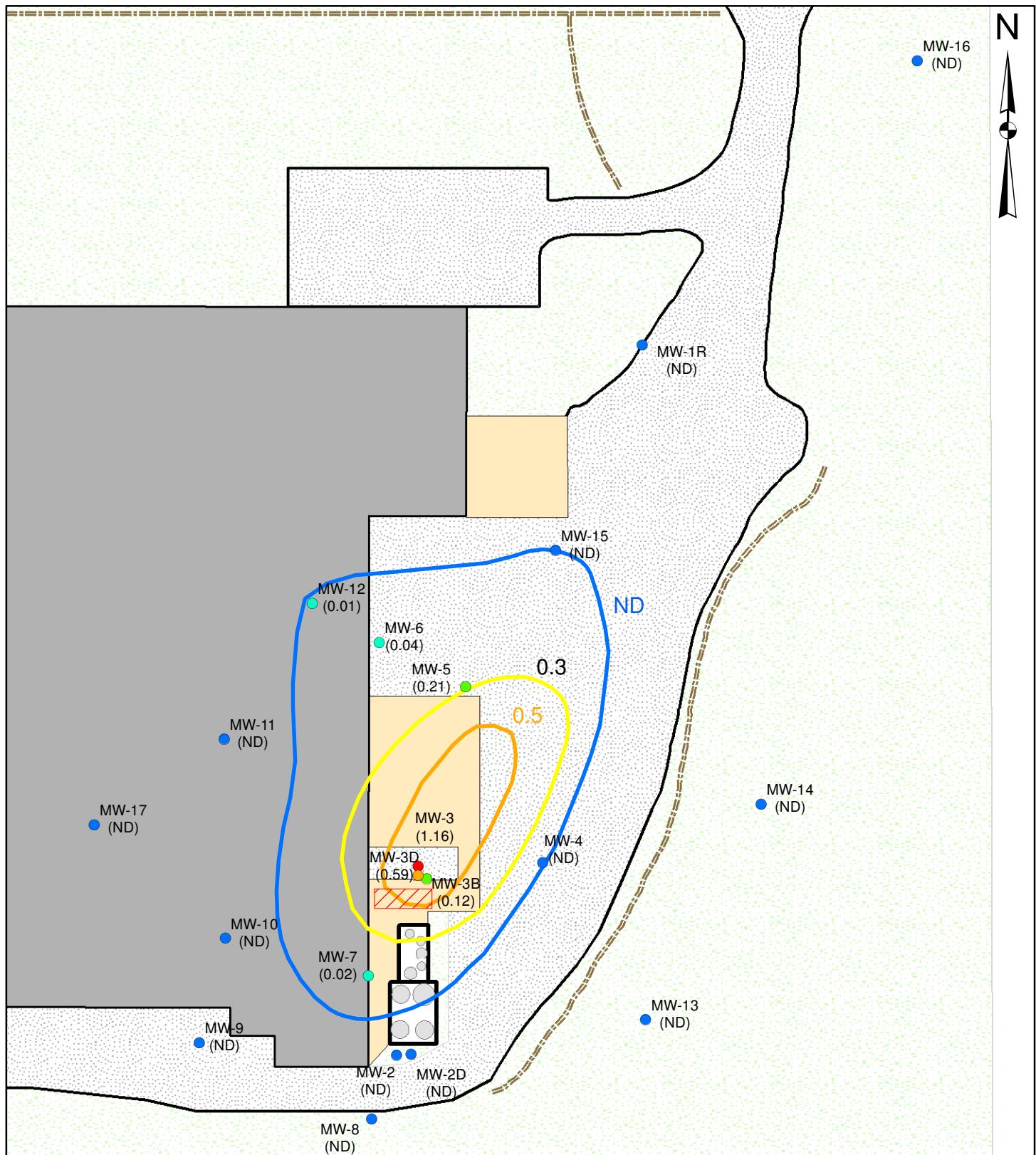
* Chlorinated ethenes = PCE, TCE, DCE, and VC

EPS

G:\River Associates\Capitol Adhesives\VRP Program\GIS\Progress Reports\April 2013\CSMFig7_GWPCE.mxd

Figure No. B-7

Capitol Adhesives
Groundwater Total Chlorinated Ethanes* (February 2013)



0 50 100
 Feet

Total VOCs* (mg/L)

- ND
- < 1
- 1 - 3
- 3 - 5
- 5 - 8
- > 8

Isopleth

Location of Spill (approx)

AST Containment Area

Building

Concrete Pad

Packed Gravel Drive/Parking

Grass

* Circles - Feb 2012 data Squares - Aug 2012 data
 Chlorinated ethanes = TCA, DCA, and CA

EPS

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Figure No. B-8

Figure B-9. MW-5 PCE Degradation Time Series

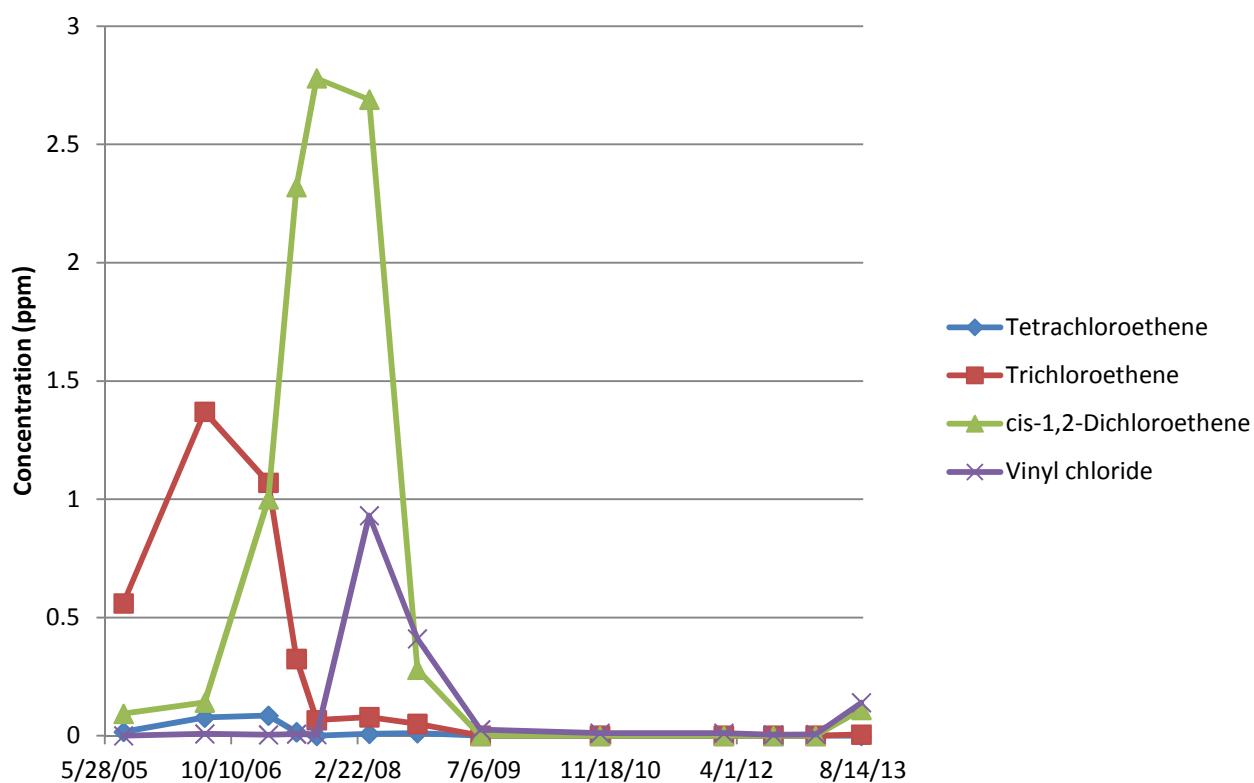
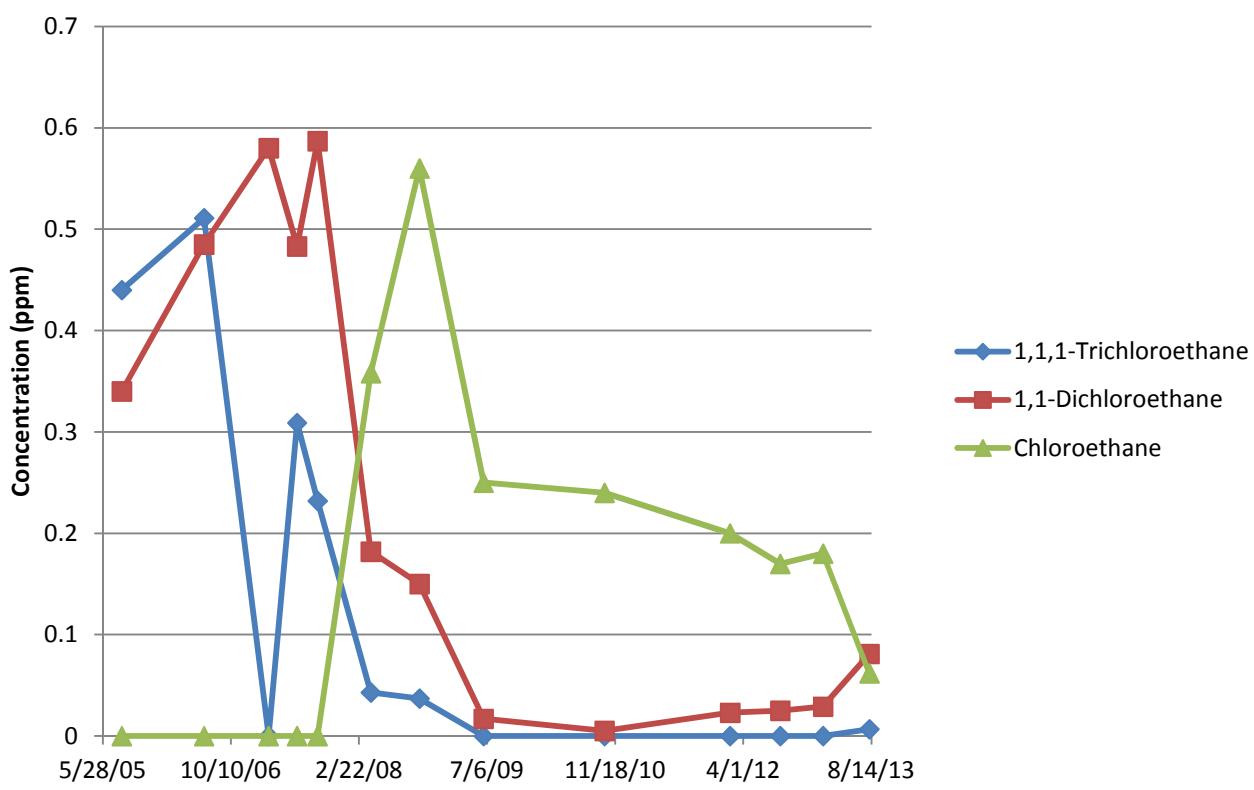
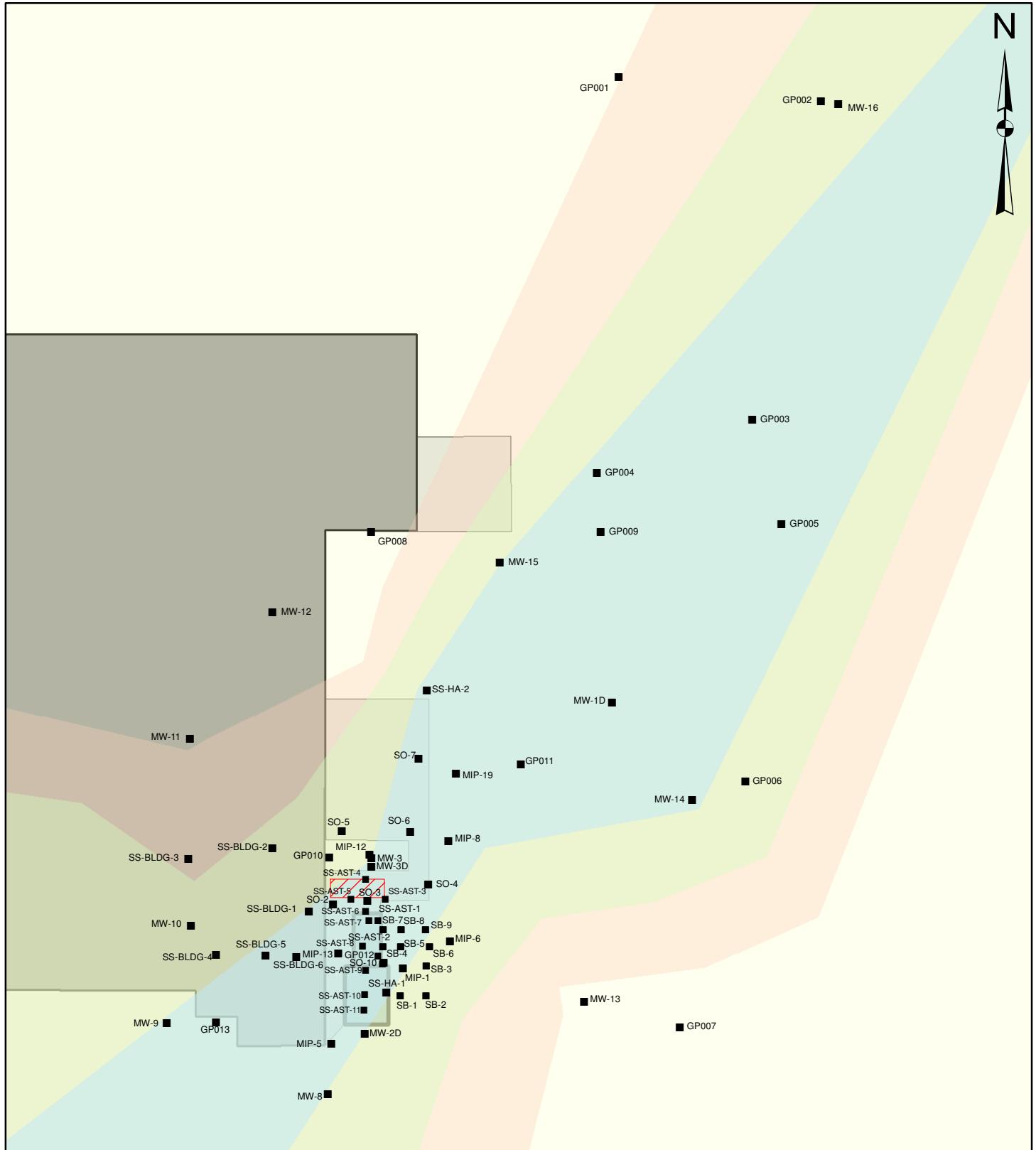


Figure B-10. MW-5 TCA Degradation Time Series



Capitol Adhesives

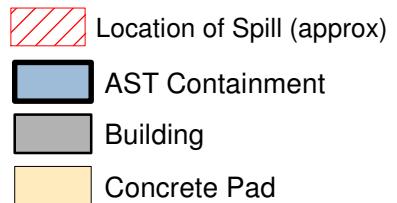
Location of Solid Matrix Samples and Water Table Zones



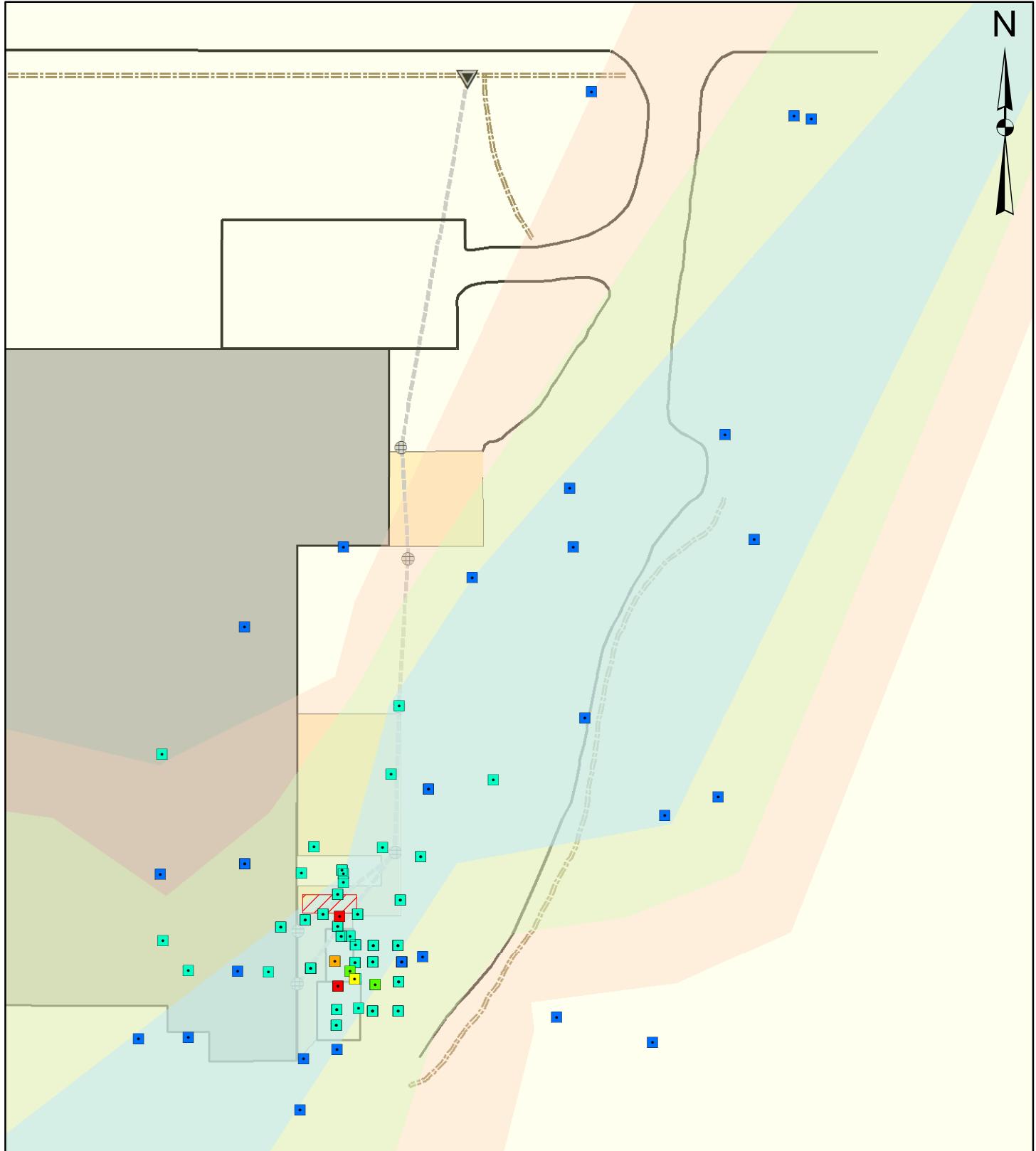
A scale bar representing distance in feet. It consists of a horizontal black line segment from 0 to 100, with tick marks at 0, 50, and 100. Below the line is the label "Feet".

Soil Zone

- Fully Saturated Zone
 - 0-1' Vadose Zone
 - 1-2' Vadose Zone
 - >2' Vadose Zone



**Capitol Adhesives
Total Chlorinated Ethenes* in Subsurface Solids**



0 50 100
Feet

Total VOCs* (mg/kg)

- | | |
|-----------|------------|
| ■ ND | ■ 30 - 75 |
| ■ < 15 | ■ 75 - 150 |
| ■ 15 - 30 | ■ > 150 |

■ Location of 1995 Spill (approx)

Soil Zones

- | |
|------------------------|
| ■ Fully Saturated Zone |
| ■ 0-1' Vadose Zone |
| ■ 1-2' Vadose Zone |
| ■ >2' Vadose Zone |

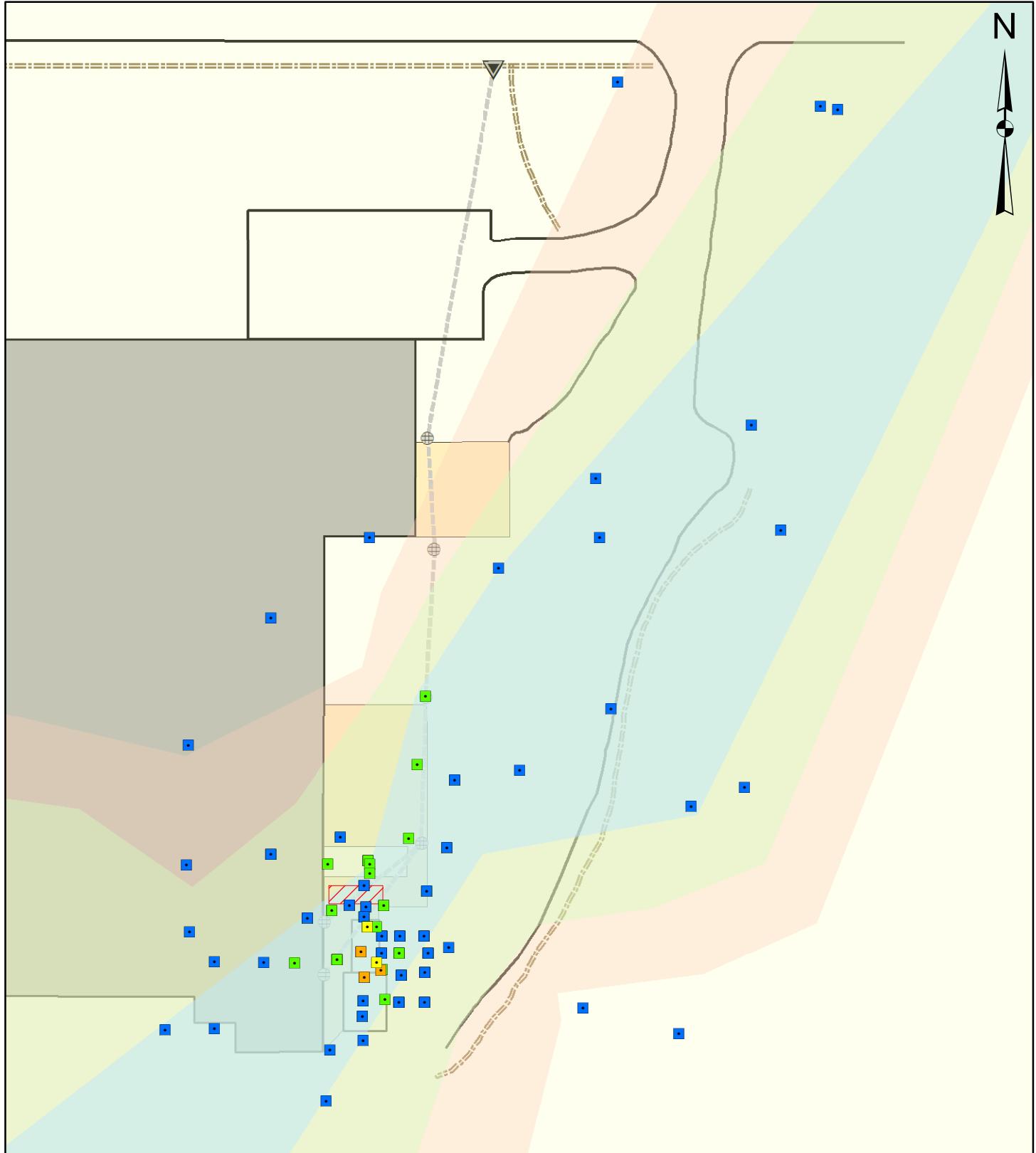
* Where multiple samples were collected, the maximum total VOC value is shown. Chlorinated ethenes = PCE, TCE, DCE, and VC

EPS

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Figure No. B-12

**Capitol Adhesives
Total Chlorinated Ethanes* in Subsurface Solids**



0 50 100
Feet

Total VOCs* (mg/kg)

■ ND	■ 5 - 20
■ < 1	■ > 20
■ 1 - 5	

Location of 1995 Spill (approx)

Soil Zones

Fully Saturated Zone
0-1' Vadose Zone
1-2' Vadose Zone
>2' Vadose Zone

Squares represent solid aquifer matrix samples.
Circles represent vadose zone soil samples.

* Where multiple samples were collected, the maximum total VOC value is shown. Chlorinated ethanes = TCA, DCA and CA

APPENDIX C

GROUNDWATER LABORATORY DATA REPORT AND WELL FORMS



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

August 14, 2013

Gregg Henry
Environmental Planning Specialists, Inc.
1050 Crown Pointe Parkway
Atlanta GA 30338

TEL: (404) 315-9113
FAX: (404) 315-8509

RE: Capitol Adhesives

Dear Gregg Henry:

Order No: 1308512

Analytical Environmental Services, Inc. received 9 samples on 8/7/2013 8:35:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/13-06/30/14.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in black ink that reads "Dorothy deBruyn".

Dorothy deBruyn
Project Manager



CHAIN OF CUSTODY

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

Work Order: 1308512Date: 8/6/13 Page 1 of 1

COMPANY		ADDRESS:		ANALYSIS REQUESTED		Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.	
SAMPLED BY	SIGNATURE						
#	SAMPLE ID	SAMPLED	DATE	TIME	TYPE	Matrix (See codes)	PRESERVATION (See codes)
1	13217 - MW-16		8/5/13	1635	X	GW	X
2	13217 - MW-4		8/5/13	1722	X	GW	X
3	13218 - MW-5		8/6/13	1005	X	GW	X
4	13218 - MW-15		8/6/13	1115	X	GW	X
5	13218 - MW-3D		8/6/13	1245	X	GW	X
6	13218 - MW-3		8/6/13	1257	X	GW	X
7	13218 - DUR		8/6/13		X	GW	X
8	13218 - Range		8/6/13	1135	X	3	X
9	Trip Blank		8/5/13		X	3	X
10							
11							
12							
13							
14							
RELINQUISHED BY		DATE/TIME RECEIVED BY		DATE/TIME		PROJECT INFORMATION	
<u>C. Henry J.W. Grouse</u>		<u>8/7/13 0835</u>		<u>8/7/13</u>		<u>Capital Adhesives</u>	
2.						PROJECT #:	
3.						SITE ADDRESS: <u>Cross Regns Bldg, Person, Ga</u>	
4.						SEND REPORT TO: <u>TBurman@envplanning.com</u>	
INVOICE TO: (IF DIFFERENT FROM ABOVE)						INVOICE TO: (IF DIFFERENT FROM ABOVE)	
SPECIAL INSTRUCTIONS/COMMENTS:						QUOTE #: <u>PO#</u>	
OUT / IN <u>CLIENT</u> <u>FedEx</u>		SHIPMENT METHOD VIA: <u>UPS MAIL COURIER</u>				RECEIPT Total # of Containers <u>10</u>	
IN <u>GREYHOUND</u> OTHER						STATE PROGRAM (if any): <input checked="" type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same Day Rush (auth req) <input type="checkbox"/> Other	
						E-mail? Y / N, Fax? Y / N	
						DATA PACKAGE: I II III IV	

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
 PRESERVATIVE CODES: H+I = Hydrochloric acid + ice 1 = Ice only N = Nitric acid S+I = Sulfuric acid + ice O = Other (specify) NA = None
 White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13217-MW-16					
Project Name:	Capitol Adhesives	Collection Date:	8/5/2013 4:35:00 PM					
Lab ID:	1308512-001	Matrix:	Groundwater					
<hr/>								
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,1-Dichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,1-Dichloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,2-Dibromoethane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,2-Dichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,2-Dichloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
2-Butanone	BRL	50		ug/L	179620	1	08/09/2013 17:49	GK
2-Hexanone	BRL	10		ug/L	179620	1	08/09/2013 17:49	GK
4-Methyl-2-pentanone	BRL	10		ug/L	179620	1	08/09/2013 17:49	GK
Acetone	BRL	50		ug/L	179620	1	08/09/2013 17:49	GK
Benzene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Bromodichloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Bromoform	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Bromomethane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Carbon disulfide	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Carbon tetrachloride	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Chlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Chloroethane	BRL	10		ug/L	179620	1	08/09/2013 17:49	GK
Chloroform	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Chloromethane	BRL	10		ug/L	179620	1	08/09/2013 17:49	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Cyclohexane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Dibromochloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Dichlorodifluoromethane	BRL	10		ug/L	179620	1	08/09/2013 17:49	GK
Ethylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Freon-113	BRL	10		ug/L	179620	1	08/09/2013 17:49	GK
Isopropylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
m,p-Xylene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Methyl acetate	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Methylcyclohexane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Methylene chloride	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
o-Xylene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13217-MW-16
Project Name:	Capitol Adhesives	Collection Date:	8/5/2013 4:35:00 PM
Lab ID:	1308512-001	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Tetrachloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Toluene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Trichloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Trichlorofluoromethane	BRL	5.0		ug/L	179620	1	08/09/2013 17:49	GK
Vinyl chloride	BRL	2.0		ug/L	179620	1	08/09/2013 17:49	GK
Surr: 4-Bromofluorobenzene	99.3	64.6-123		%REC	179620	1	08/09/2013 17:49	GK
Surr: Dibromofluoromethane	110	76.6-133		%REC	179620	1	08/09/2013 17:49	GK
Surr: Toluene-d8	108	77.8-120		%REC	179620	1	08/09/2013 17:49	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13217-MW-4
Project Name:	Capitol Adhesives	Collection Date:	8/5/2013 5:22:00 PM
Lab ID:	1308512-002	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,1-Dichloroethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,1-Dichloroethene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,2-Dibromoethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,2-Dichloroethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,2-Dichloropropane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
2-Butanone	BRL	50		ug/L	179620	1	08/12/2013 23:20	GK
2-Hexanone	BRL	10		ug/L	179620	1	08/12/2013 23:20	GK
4-Methyl-2-pentanone	BRL	10		ug/L	179620	1	08/12/2013 23:20	GK
Acetone	BRL	50		ug/L	179620	1	08/12/2013 23:20	GK
Benzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Bromodichloromethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Bromoform	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Bromomethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Carbon disulfide	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Carbon tetrachloride	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Chlorobenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Chloroethane	BRL	10		ug/L	179620	1	08/12/2013 23:20	GK
Chloroform	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Chloromethane	BRL	10		ug/L	179620	1	08/12/2013 23:20	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Cyclohexane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Dibromochloromethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Dichlorodifluoromethane	BRL	10		ug/L	179620	1	08/12/2013 23:20	GK
Ethylbenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Freon-113	BRL	10		ug/L	179620	1	08/12/2013 23:20	GK
Isopropylbenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
m,p-Xylene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Methyl acetate	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Methylcyclohexane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Methylene chloride	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
o-Xylene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13217-MW-4
Project Name:	Capitol Adhesives	Collection Date:	8/5/2013 5:22:00 PM
Lab ID:	1308512-002	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Tetrachloroethene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Toluene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Trichloroethene	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Trichlorofluoromethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:20	GK
Vinyl chloride	BRL	2.0		ug/L	179620	1	08/12/2013 23:20	GK
Surr: 4-Bromofluorobenzene	99.1	64.6-123		%REC	179620	1	08/12/2013 23:20	GK
Surr: Dibromofluoromethane	96.2	76.6-133		%REC	179620	1	08/12/2013 23:20	GK
Surr: Toluene-d8	98	77.8-120		%REC	179620	1	08/12/2013 23:20	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-MW-5
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013 10:05:00 AM
Lab ID:	1308512-003	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	6.8	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,1-Dichloroethane	81	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,1-Dichloroethene	13	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,2-Dibromoethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,2-Dichloroethane	47	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,2-Dichloropropane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
2-Butanone	BRL	50		ug/L	179620	1	08/12/2013 23:49	GK
2-Hexanone	BRL	10		ug/L	179620	1	08/12/2013 23:49	GK
4-Methyl-2-pentanone	BRL	10		ug/L	179620	1	08/12/2013 23:49	GK
Acetone	BRL	50		ug/L	179620	1	08/12/2013 23:49	GK
Benzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Bromodichloromethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Bromoform	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Bromomethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Carbon disulfide	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Carbon tetrachloride	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Chlorobenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Chloroethane	62	10		ug/L	179620	1	08/12/2013 23:49	GK
Chloroform	6.0	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Chloromethane	BRL	10		ug/L	179620	1	08/12/2013 23:49	GK
cis-1,2-Dichloroethene	110	5.0		ug/L	179620	1	08/12/2013 23:49	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Cyclohexane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Dibromochloromethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Dichlorodifluoromethane	BRL	10		ug/L	179620	1	08/12/2013 23:49	GK
Ethylbenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Freon-113	BRL	10		ug/L	179620	1	08/12/2013 23:49	GK
Isopropylbenzene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
m,p-Xylene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Methyl acetate	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Methylcyclohexane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Methylene chloride	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
o-Xylene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-MW-5
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013 10:05:00 AM
Lab ID:	1308512-003	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Tetrachloroethene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Toluene	5.6	5.0		ug/L	179620	1	08/12/2013 23:49	GK
trans-1,2-Dichloroethene	18	5.0		ug/L	179620	1	08/12/2013 23:49	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Trichloroethene	5.2	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Trichlorofluoromethane	BRL	5.0		ug/L	179620	1	08/12/2013 23:49	GK
Vinyl chloride	140	2.0		ug/L	179620	1	08/12/2013 23:49	GK
Surr: 4-Bromofluorobenzene	98.6	64.6-123	%REC		179620	1	08/12/2013 23:49	GK
Surr: Dibromofluoromethane	98.7	76.6-133	%REC		179620	1	08/12/2013 23:49	GK
Surr: Toluene-d8	98	77.8-120	%REC		179620	1	08/12/2013 23:49	GK

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-MW-15
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013 11:15:00 AM
Lab ID:	1308512-004	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
1,1-Dichloroethane		5.7	5.0	ug/L	179620	1	08/09/2013 19:12	GK
1,1-Dichloroethene		14	5.0	ug/L	179620	1	08/09/2013 19:12	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
1,2-Dibromoethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
1,2-Dichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
1,2-Dichloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
2-Butanone	BRL	50		ug/L	179620	1	08/09/2013 19:12	GK
2-Hexanone	BRL	10		ug/L	179620	1	08/09/2013 19:12	GK
4-Methyl-2-pentanone	BRL	10		ug/L	179620	1	08/09/2013 19:12	GK
Acetone	BRL	50		ug/L	179620	1	08/09/2013 19:12	GK
Benzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Bromodichloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Bromoform	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Bromomethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Carbon disulfide	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Carbon tetrachloride	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Chlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Chloroethane	BRL	10		ug/L	179620	1	08/09/2013 19:12	GK
Chloroform	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Chloromethane	BRL	10		ug/L	179620	1	08/09/2013 19:12	GK
cis-1,2-Dichloroethene		29	5.0	ug/L	179620	1	08/09/2013 19:12	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Cyclohexane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Dibromochloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Dichlorodifluoromethane	BRL	10		ug/L	179620	1	08/09/2013 19:12	GK
Ethylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Freon-113	BRL	10		ug/L	179620	1	08/09/2013 19:12	GK
Isopropylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
m,p-Xylene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Methyl acetate	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Methylcyclohexane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Methylene chloride	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
o-Xylene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-MW-15
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013 11:15:00 AM
Lab ID:	1308512-004	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Tetrachloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Toluene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Trichloroethene	20	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Trichlorofluoromethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:12	GK
Vinyl chloride	5.8	2.0		ug/L	179620	1	08/09/2013 19:12	GK
Surr: 4-Bromofluorobenzene	102	64.6-123	%REC		179620	1	08/09/2013 19:12	GK
Surr: Dibromofluoromethane	108	76.6-133	%REC		179620	1	08/09/2013 19:12	GK
Surr: Toluene-d8	103	77.8-120	%REC		179620	1	08/09/2013 19:12	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-MW-3D
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013 12:45:00 PM
Lab ID:	1308512-005	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	530	100		ug/L	179620	20	08/13/2013 13:38	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
1,1,2-Trichloroethane		17	5.0	ug/L	179620	1	08/09/2013 19:39	GK
1,1-Dichloroethane	280	100		ug/L	179620	20	08/13/2013 13:38	GK
1,1-Dichloroethene	870	100		ug/L	179620	20	08/13/2013 13:38	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
1,2-Dibromoethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
1,2-Dichloroethane	410	100		ug/L	179620	20	08/13/2013 13:38	GK
1,2-Dichloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
2-Butanone	BRL	50		ug/L	179620	1	08/09/2013 19:39	GK
2-Hexanone	BRL	10		ug/L	179620	1	08/09/2013 19:39	GK
4-Methyl-2-pentanone	BRL	10		ug/L	179620	1	08/09/2013 19:39	GK
Acetone	100	50		ug/L	179620	1	08/09/2013 19:39	GK
Benzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Bromodichloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Bromoform	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Bromomethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Carbon disulfide	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Carbon tetrachloride	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Chlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Chloroethane		11	10	ug/L	179620	1	08/09/2013 19:39	GK
Chloroform	360	100		ug/L	179620	20	08/13/2013 13:38	GK
Chloromethane	BRL	10		ug/L	179620	1	08/09/2013 19:39	GK
cis-1,2-Dichloroethene	2900	100		ug/L	179620	20	08/13/2013 13:38	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Cyclohexane	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Dibromochloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Dichlorodifluoromethane	BRL	10		ug/L	179620	1	08/09/2013 19:39	GK
Ethylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Freon-113	130	10		ug/L	179620	1	08/09/2013 19:39	GK
Isopropylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
m,p-Xylene	7.3	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Methyl acetate	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Methylcyclohexane	51	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Methylene chloride	27	5.0		ug/L	179620	1	08/09/2013 19:39	GK
o-Xylene	20	5.0		ug/L	179620	1	08/09/2013 19:39	GK

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-MW-3D
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013 12:45:00 PM
Lab ID:	1308512-005	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Tetrachloroethene	2900	100		ug/L	179620	20	08/13/2013 13:38	GK
Toluene	26	5.0		ug/L	179620	1	08/09/2013 19:39	GK
trans-1,2-Dichloroethene	63	5.0		ug/L	179620	1	08/09/2013 19:39	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Trichloroethene	4800	500		ug/L	179620	100	08/13/2013 00:48	GK
Trichlorofluoromethane	BRL	5.0		ug/L	179620	1	08/09/2013 19:39	GK
Vinyl chloride	280	40		ug/L	179620	20	08/13/2013 13:38	GK
Surr: 4-Bromofluorobenzene	97.7	64.6-123		%REC	179620	100	08/13/2013 00:48	GK
Surr: 4-Bromofluorobenzene	110	64.6-123		%REC	179620	1	08/09/2013 19:39	GK
Surr: 4-Bromofluorobenzene	96.5	64.6-123		%REC	179620	20	08/13/2013 13:38	GK
Surr: Dibromofluoromethane	103	76.6-133		%REC	179620	20	08/13/2013 13:38	GK
Surr: Dibromofluoromethane	99.4	76.6-133		%REC	179620	100	08/13/2013 00:48	GK
Surr: Dibromofluoromethane	110	76.6-133		%REC	179620	1	08/09/2013 19:39	GK
Surr: Toluene-d8	97.6	77.8-120		%REC	179620	100	08/13/2013 00:48	GK
Surr: Toluene-d8	101	77.8-120		%REC	179620	1	08/09/2013 19:39	GK
Surr: Toluene-d8	99.3	77.8-120		%REC	179620	20	08/13/2013 13:38	GK

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-MW-3
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013 12:57:00 PM
Lab ID:	1308512-006	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	470	250		ug/L	179620	50	08/13/2013 12:39	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
1,1,2-Trichloroethane		25		ug/L	179620	1	08/09/2013 20:07	GK
1,1-Dichloroethane	320	250		ug/L	179620	50	08/13/2013 12:39	GK
1,1-Dichloroethene	1600	250		ug/L	179620	50	08/13/2013 12:39	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
1,2-Dibromoethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
1,2-Dichloroethane	660	250		ug/L	179620	50	08/13/2013 12:39	GK
1,2-Dichloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
2-Butanone	BRL	50		ug/L	179620	1	08/09/2013 20:07	GK
2-Hexanone	BRL	10		ug/L	179620	1	08/09/2013 20:07	GK
4-Methyl-2-pentanone	BRL	10		ug/L	179620	1	08/09/2013 20:07	GK
Acetone	390	50		ug/L	179620	1	08/09/2013 20:07	GK
Benzene	7.0	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Bromodichloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Bromoform	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Bromomethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Carbon disulfide	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Carbon tetrachloride	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Chlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Chloroethane	BRL	10		ug/L	179620	1	08/09/2013 20:07	GK
Chloroform	700	250		ug/L	179620	50	08/13/2013 12:39	GK
Chloromethane	BRL	10		ug/L	179620	1	08/09/2013 20:07	GK
cis-1,2-Dichloroethene	2300	250		ug/L	179620	50	08/13/2013 12:39	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Cyclohexane	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Dibromochloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Dichlorodifluoromethane	BRL	10		ug/L	179620	1	08/09/2013 20:07	GK
Ethylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Freon-113	180	10		ug/L	179620	1	08/09/2013 20:07	GK
Isopropylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
m,p-Xylene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Methyl acetate	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Methylcyclohexane		22		ug/L	179620	1	08/09/2013 20:07	GK
Methylene chloride		6.3		ug/L	179620	1	08/09/2013 20:07	GK
o-Xylene		7.0		ug/L	179620	1	08/09/2013 20:07	GK

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-MW-3
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013 12:57:00 PM
Lab ID:	1308512-006	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Tetrachloroethene	2900	250		ug/L	179620	50	08/13/2013 12:39	GK
Toluene	13	5.0		ug/L	179620	1	08/09/2013 20:07	GK
trans-1,2-Dichloroethene	120	5.0		ug/L	179620	1	08/09/2013 20:07	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Trichloroethene	4800	250		ug/L	179620	50	08/13/2013 12:39	GK
Trichlorofluoromethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:07	GK
Vinyl chloride	230	100		ug/L	179620	50	08/13/2013 12:39	GK
Surr: 4-Bromofluorobenzene	97.5	64.6-123		%REC	179620	50	08/13/2013 12:39	GK
Surr: 4-Bromofluorobenzene	109	64.6-123		%REC	179620	1	08/09/2013 20:07	GK
Surr: Dibromofluoromethane	102	76.6-133		%REC	179620	50	08/13/2013 12:39	GK
Surr: Dibromofluoromethane	107	76.6-133		%REC	179620	1	08/09/2013 20:07	GK
Surr: Toluene-d8	98.3	77.8-120		%REC	179620	50	08/13/2013 12:39	GK
Surr: Toluene-d8	102	77.8-120		%REC	179620	1	08/09/2013 20:07	GK

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

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S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-DUP
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013
Lab ID:	1308512-007	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	450	250		ug/L	179620	50	08/13/2013 13:08	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
1,1,2-Trichloroethane	21	5.0		ug/L	179620	1	08/09/2013 20:34	GK
1,1-Dichloroethane	320	250		ug/L	179620	50	08/13/2013 13:08	GK
1,1-Dichloroethene	1600	250		ug/L	179620	50	08/13/2013 13:08	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
1,2-Dibromoethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
1,2-Dichloroethane	670	250		ug/L	179620	50	08/13/2013 13:08	GK
1,2-Dichloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
2-Butanone	BRL	50		ug/L	179620	1	08/09/2013 20:34	GK
2-Hexanone	BRL	10		ug/L	179620	1	08/09/2013 20:34	GK
4-Methyl-2-pentanone	BRL	10		ug/L	179620	1	08/09/2013 20:34	GK
Acetone	290	50		ug/L	179620	1	08/09/2013 20:34	GK
Benzene	6.6	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Bromodichloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Bromoform	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Bromomethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Carbon disulfide	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Carbon tetrachloride	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Chlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Chloroethane	BRL	10		ug/L	179620	1	08/09/2013 20:34	GK
Chloroform	720	250		ug/L	179620	50	08/13/2013 13:08	GK
Chloromethane	BRL	10		ug/L	179620	1	08/09/2013 20:34	GK
cis-1,2-Dichloroethene	2300	250		ug/L	179620	50	08/13/2013 13:08	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Cyclohexane	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Dibromochloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Dichlorodifluoromethane	BRL	10		ug/L	179620	1	08/09/2013 20:34	GK
Ethylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Freon-113	150	10		ug/L	179620	1	08/09/2013 20:34	GK
Isopropylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
m,p-Xylene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Methyl acetate	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Methylcyclohexane	17	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Methylene chloride	5.6	5.0		ug/L	179620	1	08/09/2013 20:34	GK
o-Xylene	6.5	5.0		ug/L	179620	1	08/09/2013 20:34	GK

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-DUP
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013
Lab ID:	1308512-007	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Tetrachloroethene	2900	250		ug/L	179620	50	08/13/2013 13:08	GK
Toluene	11	5.0		ug/L	179620	1	08/09/2013 20:34	GK
trans-1,2-Dichloroethene	110	5.0		ug/L	179620	1	08/09/2013 20:34	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Trichloroethene	4900	250		ug/L	179620	50	08/13/2013 13:08	GK
Trichlorofluoromethane	BRL	5.0		ug/L	179620	1	08/09/2013 20:34	GK
Vinyl chloride	230	100		ug/L	179620	50	08/13/2013 13:08	GK
Surr: 4-Bromofluorobenzene	96.6	64.6-123		%REC	179620	50	08/13/2013 13:08	GK
Surr: 4-Bromofluorobenzene	109	64.6-123		%REC	179620	1	08/09/2013 20:34	GK
Surr: Dibromofluoromethane	105	76.6-133		%REC	179620	50	08/13/2013 13:08	GK
Surr: Dibromofluoromethane	110	76.6-133		%REC	179620	1	08/09/2013 20:34	GK
Surr: Toluene-d8	98.7	77.8-120		%REC	179620	50	08/13/2013 13:08	GK
Surr: Toluene-d8	101	77.8-120		%REC	179620	1	08/09/2013 20:34	GK

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-RINSE
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013 11:35:00 AM
Lab ID:	1308512-008	Matrix:	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,1-Dichloroethane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,1-Dichloroethene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,2-Dibromoethane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,2-Dichloroethane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,2-Dichloropropane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
2-Butanone	BRL	50		ug/L	179620	1	08/10/2013 15:54	GK
2-Hexanone	BRL	10		ug/L	179620	1	08/10/2013 15:54	GK
4-Methyl-2-pentanone	BRL	10		ug/L	179620	1	08/10/2013 15:54	GK
Acetone	BRL	50		ug/L	179620	1	08/10/2013 15:54	GK
Benzene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Bromodichloromethane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Bromoform	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Bromomethane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Carbon disulfide	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Carbon tetrachloride	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Chlorobenzene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Chloroethane	BRL	10		ug/L	179620	1	08/10/2013 15:54	GK
Chloroform	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Chloromethane	BRL	10		ug/L	179620	1	08/10/2013 15:54	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Cyclohexane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Dibromochloromethane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Dichlorodifluoromethane	BRL	10		ug/L	179620	1	08/10/2013 15:54	GK
Ethylbenzene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Freon-113	BRL	10		ug/L	179620	1	08/10/2013 15:54	GK
Isopropylbenzene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
m,p-Xylene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Methyl acetate	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Methylcyclohexane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Methylene chloride	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
o-Xylene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	13218-RINSE
Project Name:	Capitol Adhesives	Collection Date:	8/6/2013 11:35:00 AM
Lab ID:	1308512-008	Matrix:	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Tetrachloroethene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Toluene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Trichloroethene	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Trichlorofluoromethane	BRL	5.0		ug/L	179620	1	08/10/2013 15:54	GK
Vinyl chloride	BRL	2.0		ug/L	179620	1	08/10/2013 15:54	GK
Surr: 4-Bromofluorobenzene	96.6	64.6-123		%REC	179620	1	08/10/2013 15:54	GK
Surr: Dibromofluoromethane	107	76.6-133		%REC	179620	1	08/10/2013 15:54	GK
Surr: Toluene-d8	98.2	77.8-120		%REC	179620	1	08/10/2013 15:54	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	TRIPBLANK
Project Name:	Capitol Adhesives	Collection Date:	8/7/2013
Lab ID:	1308512-009	Matrix:	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,1-Dichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,1-Dichloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,2-Dibromoethane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,2-Dichloroethane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,2-Dichloropropane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
2-Butanone	BRL	50		ug/L	179620	1	08/09/2013 11:53	GK
2-Hexanone	BRL	10		ug/L	179620	1	08/09/2013 11:53	GK
4-Methyl-2-pentanone	BRL	10		ug/L	179620	1	08/09/2013 11:53	GK
Acetone	BRL	50		ug/L	179620	1	08/09/2013 11:53	GK
Benzene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Bromodichloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Bromoform	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Bromomethane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Carbon disulfide	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Carbon tetrachloride	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Chlorobenzene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Chloroethane	BRL	10		ug/L	179620	1	08/09/2013 11:53	GK
Chloroform	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Chloromethane	BRL	10		ug/L	179620	1	08/09/2013 11:53	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Cyclohexane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Dibromochloromethane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Dichlorodifluoromethane	BRL	10		ug/L	179620	1	08/09/2013 11:53	GK
Ethylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Freon-113	BRL	10		ug/L	179620	1	08/09/2013 11:53	GK
Isopropylbenzene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
m,p-Xylene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Methyl acetate	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Methylcyclohexane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Methylene chloride	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
o-Xylene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Aug-13

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	TRIPBLANK
Project Name:	Capitol Adhesives	Collection Date:	8/7/2013
Lab ID:	1308512-009	Matrix:	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Tetrachloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Toluene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Trichloroethene	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Trichlorofluoromethane	BRL	5.0		ug/L	179620	1	08/09/2013 11:53	GK
Vinyl chloride	BRL	2.0		ug/L	179620	1	08/09/2013 11:53	GK
Surr: 4-Bromofluorobenzene	102	64.6-123	%REC		179620	1	08/09/2013 11:53	GK
Surr: Dibromofluoromethane	102	76.6-133	%REC		179620	1	08/09/2013 11:53	GK
Surr: Toluene-d8	102	77.8-120	%REC		179620	1	08/09/2013 11:53	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client EPJ

Work Order Number B08512

Checklist completed by Stephen M. Weller Date 8/7/13

Carrier name: FedEx UPS Courier Client US Mail Other

Shipping container/coolers in good condition? Yes No Not Present

Custody seals intact on shipping container/coolers? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Container/Temp Blank temperature in compliance? (4°C±2)* Yes No

Cooler #1 3.1P Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6

Chain of custody present? Yes No

Chain of custody signed when relinquished and received? Yes No

Chain of custody agrees with sample labels? Yes No

Samples in proper container/bottle? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test? Yes No

All samples received within holding time? Yes No

Was TAT marked on the COC? Yes No

Proceed with Standard TAT as per project history? Yes No Not Applicable

Water - VOA vials have zero headspace? No VOA vials submitted Yes No

Water - pH acceptable upon receipt? Yes No Not Applicable

Adjusted? _____ Checked by _____

Sample Condition: Good Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes No

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: Environmental Planning Specialists, Inc.
Project Name: Capitol Adhesives
Workorder: 1308512

ANALYTICAL QC SUMMARY REPORT
BatchID: 179620

Sample ID: MB-179620	Client ID:				Units: ug/L	Prep Date: 08/09/2013	Run No: 249648
SampleType: MLBK	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 179620	Analysis Date: 08/09/2013	Seq No: 5234198
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit
1,1,1-Trichloroethane	BRL	5.0					
1,1,2,2-Tetrachloroethane	BRL	5.0					
1,1,2-Trichloroethane	BRL	5.0					
1,1-Dichloroethane	BRL	5.0					
1,1-Dichloroethene	BRL	5.0					
1,2,4-Trichlorobenzene	BRL	5.0					
1,2-Dibromo-3-chloropropane	BRL	5.0					
1,2-Dibromoethane	BRL	5.0					
1,2-Dichlorobenzene	BRL	5.0					
1,2-Dichloroethane	BRL	5.0					
1,2-Dichloropropane	BRL	5.0					
1,3-Dichlorobenzene	BRL	5.0					
1,4-Dichlorobenzene	BRL	5.0					
2-Butanone	BRL	50					
2-Hexanone	BRL	10					
4-Methyl-2-pentanone	BRL	10					
Acetone	BRL	50					
Benzene	BRL	5.0					
Bromodichloromethane	BRL	5.0					
Bromoform	BRL	5.0					
Bromomethane	BRL	5.0					
Carbon disulfide	BRL	5.0					
Carbon tetrachloride	BRL	5.0					
Chlorobenzene	BRL	5.0					
Chloroethane	BRL	10					
Chloroform	BRL	5.0					
Chloromethane	BRL	10					

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Capitol Adhesives
Workorder: 1308512

ANALYTICAL QC SUMMARY REPORT**BatchID: 179620**

Sample ID: MB-179620	Client ID:				Units: ug/L	Prep Date: 08/09/2013	Run No: 249648				
SampleType: MLBK	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 179620	Analysis Date: 08/09/2013	Seq No: 5234198				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	52.31	0	50.00		105	64.6	123				
Surr: Dibromofluoromethane	55.96	0	50.00		112	76.6	133				
Surr: Toluene-d8	51.03	0	50.00		102	77.8	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Capitol Adhesives
Workorder: 1308512

ANALYTICAL QC SUMMARY REPORT**BatchID: 179620**

Sample ID: LCS-179620	Client ID:				Units: ug/L	Prep Date: 08/09/2013	Run No: 249648				
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 179620	Analysis Date: 08/09/2013	Seq No: 5234228				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	48.26	5.0	50.00		96.5	61.1	142				
Benzene	50.52	5.0	50.00		101	73.5	130				
Chlorobenzene	45.34	5.0	50.00		90.7	72.4	123				
Toluene	47.55	5.0	50.00		95.1	73.6	130				
Trichloroethene	41.36	5.0	50.00		82.7	70	135				
Surr: 4-Bromofluorobenzene	60.30	0	50.00		121	64.6	123				
Surr: Dibromofluoromethane	52.01	0	50.00		104	76.6	133				
Surr: Toluene-d8	54.42	0	50.00		109	77.8	120				

Sample ID: 1308645-002AMS	Client ID:				Units: ug/L	Prep Date: 08/09/2013	Run No: 249648				
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 179620	Analysis Date: 08/09/2013	Seq No: 5234208				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	55.18	5.0	50.00		110	60	168				
Benzene	60.70	5.0	50.00		121	66.6	148				
Chlorobenzene	56.17	5.0	50.00		112	71.9	135				
Toluene	56.67	5.0	50.00		113	68	149				
Trichloroethene	47.25	5.0	50.00		94.5	71.1	154				
Surr: 4-Bromofluorobenzene	60.73	0	50.00		121	64.6	123				
Surr: Dibromofluoromethane	49.08	0	50.00		98.2	76.6	133				
Surr: Toluene-d8	53.08	0	50.00		106	77.8	120				

Sample ID: 1308645-002AMSD	Client ID:				Units: ug/L	Prep Date: 08/09/2013	Run No: 249648				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 179620	Analysis Date: 08/09/2013	Seq No: 5234209				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	55.43	5.0	50.00		111	60	168	55.18	0.452	18.6	
Benzene	59.09	5.0	50.00		118	66.6	148	60.70	2.69	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value		B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)		H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified		R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix			

Client: Environmental Planning Specialists, Inc.
Project Name: Capitol Adhesives
Workorder: 1308512

ANALYTICAL QC SUMMARY REPORT**BatchID: 179620**

Sample ID: 1308645-002AMSD	Client ID:				Units: ug/L	Prep Date: 08/09/2013	Run No: 249648				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 179620	Analysis Date: 08/09/2013	Seq No: 5234209				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	53.78	5.0	50.00		108	71.9	135	56.17	4.35	20	
Toluene	56.10	5.0	50.00		112	68	149	56.67	1.01	20	
Trichloroethene	47.89	5.0	50.00		95.8	71.1	154	47.25	1.35	20	
Surr: 4-Bromofluorobenzene	59.83	0	50.00		120	64.6	123	60.73	0	0	
Surr: Dibromofluoromethane	52.40	0	50.00		105	76.6	133	49.08	0	0	
Surr: Toluene-d8	53.56	0	50.00		107	77.8	120	53.08	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Monitoring Worksheet Sampling Form



Monitoring Wetland Sampling Form

Monitoring Worksheet Sampling Form

EPS Project: Capitol Adhesives								
Well ID:	MW-4	Sampling Performed By:	Colbyany / W. Linsome	Field Conditions:	Sunny, 86°	Date:	8.5.13	
Well Construction:	2" stainless steel	Well Labeled:	No	General Condition of Well:	Good			
Well Diameter (in):	2"	Well depth from TOC:	9.75	Condition of surrounding area:	gravel			
Height (Ht) of water in well (Well depth from TOC):	1.469 ft (1.469 for 6")	Method of measure:	9.52	Depth to Water from TOC:	8.23			
Volume of water in well (Ht. x(1.16 for 2")x(1.469 for 6")):	1.653 gal	Time @ Start of Purge:	1.52	Three Well Volumes (gal):	4.54			
Purging Method:	Peri Pump Water Flood Success	Sample Parameters:	1.635 gal	Sample Parameters:	1.635 gal			
Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
1.64.2	1.0	23.42	6.83	0.425	1.69	39.9	-107	8.18 - Success
1.65.3	2.0	25.93	6.90	0.442	1.70	34.0	-141	8.23 - Second Again
1.70.2	3.0	23.43	6.85	0.418	1.17	17.3	-115	8.17
1.71.1	4.0	24.74	6.84	0.412	1.90	7.84	-114	8.00
1.72.0	5.0	23.77	6.84	0.412	1.57	2.90	-115	8.09

Monitoring Webs Sampling Form

Monitoring Worksheet Sampling Form

Monitoring Worksheet Sampling Form

APPENDIX D

**INJECTION WELL OPERATING PERMIT
APPLICATION**

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
WATERSHED PROTECTION BRANCH

INJECTION WELL OPERATING PERMIT APPLICATION

REGULATORY AGENCY:

Regulatory Support Program
Watershed Protection Branch
Environmental Protection Division
Georgia Department of Natural Resource
Suite 1062 East Tower
2 Martin Luther King Jr. Dr.
Atlanta, Georgia 30334

LEGAL AUTHORITY:

Georgia Department of Natural Resources
Rules for Underground Injection Control,
Chapter 391-3-6-.13
Georgia Water Quality Control Act
O.C.G.A. 12-5-20 et. seq.

FACILITY DATA

Capitol USA

Business/Corporate Name

300 Cross Plains Blvd	Dalton	Whitfield County
Street	City	County
Georgia	30721	423-755-0870 (W. Craig Baker)
State	Zip Code	Telephone Number

34 40' 27.63" N 84 58' 9.90" W

Location: Latitude and Longitude (Degrees, Minutes, Seconds)

Manufacturing, water-based and organic solvent-based adhesives

Type of Industry

CEA, LLC., W. Craig Baker

Name of Owner or Authorized Representative

Vice President, CEA, LLC

Title of Authorized Representative Number if Different from Above

Is the underground injection part of a corrective action or remediation plan to be included in another EPD permit? If so, please explain.
Georgia Voluntary Remediation Program

Revised July 2010

Page Two
Application

INJECTION WELL DATA

DRILLER:

Not applicable, sub slab injection points

Ga. Licensed Water Well Contractor or Bonded Environmental Drilling Company	Lic. Num. Bond Num.
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Street	City	County
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State	Zip Code	Telephone Number
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How many injection wells or devices does this application include?
Please supply number here: 1

Are the wells or devices proposed or existing ? Proposed

Classification of injection well(s) or devices (please circle):
I, II, III, IV (prohibited), V

INJECTION WELL CONSTRUCTION

Well Depth 2.5' Borehole Dia. 4" Csg. Depth 2.5'

Csg. Dia. 2" Screen Type 0.02" Slot Screen Dia. 2"

Screened Interval: from 0.5' to 2.5'

Grout Type Bentonite/Vinyl ester polymer grout (seal concrete, see attachment)

Grouted Interval: from 0' to 0.5' Grout Thick. 0.5'

Csg. Material (please check material used):

PVC Black Steel Galvanized Steel Polybutylene

Polyethylene Black Latex Fiberglass Stainless Steel

Other

Please provide a detailed diagram of the injection well(s) or device(s)
showing the items described above.

INJECTION SYSTEM DATA

Type of Injection Fluid: Chemical Oxidant, Persulfate (RengenOx, see MSDS)

INJECTION SYSTEM DATA (CONT.)

Source of Injected Fluid: RegenOx Stock Solution (see MSDS)

Purpose of Injection: Oxidation of chlorinated solvents

Proposed Injection Rate: 1.3 maximum daily gallons per minute per well
(SCFM for air)

Proposed Injection Volume: 620 maximum daily gallons per well
(SCFM for air)

Proposed Injection Pressure: Gravity Feed, or low PSI if necessary
maximum daily lbs./sq. inch (psi)

Please include the following with the application:

- Attachment D a. A chemical analysis of the injected fluid. The analysis must include all constituents specified in the currently applicable Georgia Rules for Safe Drinking Water.
- Attachment F b. A detailed diagram showing the engineering layout of the injection equipment and all piping associated with the system.
- VRP Application c. A comprehensive subsurface report, prepared by or directly supervised by a Georgia Professional Geologist, including all the geological and hydrogeological parameters of the site.
- NA d. A notarized statement may be required from the applicable local government stating that the injection project is consistent with the local land use plan or zoning requirements.
- Attachment F e. A detailed map orienting the injection well(s) and any other wells to two (2) nearby reference points such as roads, streams or nearby structures, etc. Please clearly mark the distances from the wells to the reference points.
- Attachment H/I f. The approved Corrective Action Plan for the UIC permit file.

The applicant specifically grants to EPD or any authorized agent of the Director the right of entry and travel upon the injection well site for the purpose of conducting necessary compliance inspections.

Certification:

I certify under the penalty of law that I have examined and am familiar with the information contained in this document and all attachments and that, based on the inquiry of the individuals responsible for the data, I believe that the information is true, accurate and complete. I am aware that there are penalties for submitting false information, including the possibility of fine and imprisonment.

W. Craig Baker, Vice President, CEA, LLC.

Owner or Authorized Representative

Signature

8-26-13

Date Signed