EarthCon Consultants, Inc.
1880 West Oak Parkway
Building 100, Suite 106
Marietta, Georgia 30062

P: 770-973-2100
F: 770-973-7395
www.earthcon.com

November 18, 2016

Mr. Kevin Collins
Unit Coordinator
Response and Remediation Program
Georgia Department of Natural Resources
Environmental Protection Division
2 Martin Luther King, Jr. Drive, SE, Suite 1054 East
Atlanta, Georgia 30334

Subject: **Submittal of Fourth VIRP Progress Report**
Apollo Industries, Inc., HSI No. 10333
1850 South Cobb Industrial Boulevard SE, Smyrna, Cobb County, Georgia

Dear Mr. Collins:

EarthCon Consultants, Inc. ("EarthCon"), on behalf of our client AMC Cobb Holdings, LLC ("AMC Cobb") is pleased to submit to the Georgia Environmental Protection Division ("EPD") the Fourth Voluntary Investigation and Remediation ("VIRP") Progress Report for the Apollo Industries, Inc. Site (HSI No. 10333) located in Smyrna, Cobb County, Georgia, which is enclosed with this letter.

If you have any questions regarding the Fourth VIRP Progress Report, please feel free to contact the undersigned at (770) 973-2100.

Sincerely,

Samantha Woolf

Samantha N. Woolf, E.I.T.
Staff Engineer

Carol Northern

Carol D. Northern, P.G.
Principal Geologist

Attachment: Fourth VIRP Progress Report

Cc: Ms. Maria Callas, AMC Cobb Holdings, LLC
Ms. Robin Futch, Georgia EPD
Mr. Adam Sowatzka, King & Spalding

FOURTH VIRP PROGRESS REPORT

APOLLO INDUSTRIES, INC.
1850 SOUTH COBB INDUSTRIAL BOULEVARD SE
SMYRNA, COBB COUNTY, GEORGIA
HSI SITE NUMBER 10333

PREPARED FOR:

AMC COBB HOLDINGS, LLC
1141 CREST VALLEY DRIVE
ATLANTA, GA 30327

PREPARED BY:

EARTHCON CONSULTANTS, INC.
1880 WEST OAK PARKWAY
BUILDING 100, SUITE 106
MARIETTA, GEORGIA 30062
770-973-2100

EarthCon Project No. 02.20140391.16

NOVEMBER 2016

Contents

PG CERTIFICATION iii
1.0 INTRODUCTION 1
2.0 SUMMARY OF SITE ACTIVITIES 1
2.1 Well Installation 1
2.2 Groundwater Sampling 1
3.0 GROUNDWATER Analytical Results 2
4.0 CONCEPTUAL SITE MODEL 2
4.1 Source Areas 2
4.2 Groundwater Flow 3
4.3 Extent of Groundwater Impacts 3
5.0 RECOMMENDATIONS 3
6.0 MONTHLY INVOICE SUMMARY 4
7.0 SCHEDULE 4

TABLES

Table 1 Monitoring Well Construction Details
Table 2 Water Level Measurements
Table 3 Field Parameters
Table 4 Summary of Groundwater Analytical Results
Table 5 Groundwater MNA Results
Table 6 Summary of Monthly Invoices
Table 7 Projected Milestone Schedule

FIGURES

Figure 1 Site Location
Figure 2 Facility Layout and Sample Locations
Figure 3 Potentiometric Surface Map – September 12, 2016
Figure 4 Groundwater Cross Section Locations
Figure 5 Cross Section A – A'
Figure 6 Cross Section B – B'
Figure 7 Total VOCs
Figure 8 Isoconcentration Map 1,1,1-Trichloroethane (1,1,1-TCA) Sept-2016
Figure 9 Isoconcentration Map 1,1-Dichlorothene (1,1-DCE) Sept-2016
Figure 10 Isoconcentration Map cis-1,2-Dichloroethene (cis-1,2-DCE) Sept-2016
Figure 11 Isoconcentration Map Tetrachloroethene (PCE) Sept-2016
Figure 12 Isoconcentration Map Trichloroethene (TCE) Sept-2016
Figure 13 Isoconcentration Map Vinyl Chloride (VC) Sept-2016
Figure 14 Isoconcentration Map Acetone Sept-2016

APPENDICES

Appendix A MW-18 Boring Log
Appendix B Summary of Field Procedures
Appendix C Field Sampling Forms
Appendix D Laboratory Analytical Reports
Appendix E Groundwater Trend Graphs and Historical Data Summary

PG 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."

Carol Northern

Carol D. Northern, P.G.
Principal Geologist

Registration No. 793
State of Georgia

Date: 11/18/16

1.0 INTRODUCTION

The Voluntary Investigation and Remediation Plan ("VIRP") Application for the Apollo Industries, Inc. Hazardous Site Inventory ("HSI") Site Number 10333 located at 1850 South Cobb Industrial Boulevard SE in Smyrna, Cobb County, Georgia (the "Site"), was submitted to the Georgia Environmental Protection Division ("EPD") on March 4, 2014. The Site is currently owned by AMC Cobb Holdings, LLC ("AMC Cobb") and is operated by Apollo Technologies, Inc. ("Apollo"). The Site location is shown on Figure 1. The VIRP was approved by EPD in a letter dated June 4, 2014. On December 15, 2015, AMC Cobb submitted a letter notifying EPD that as of that date, AMC Cobb is responsible for performing the work under the VIRP. This Fourth VIRP Progress Report is being submitted by EarthCon on behalf of AMC Cobb and provides a summary of activities conducted at the Site from May 2016 through October 2016 ("Report Period").

2.0 SUMMARY OF SITE ACTIVITIES

During this Report Period, AMC Cobb conducted the following activities at the Site:

- Installation of groundwater monitoring well MW-18;
- Analyses of groundwater samples for MW-15 and MW-18 for volatile organic compounds ("VOCs") in July;
- A groundwater sampling event including 15 groundwater monitoring wells; and
- Analyses of groundwater samples for VOCs and monitored natural attenuation ("MNA") parameters.

2.1 Well Installation

On July 12, 2016, monitoring well MW-18 was installed adjacent to monitoring well MW-15 to obtain additional information on groundwater quality near the southern property boundary (Figure 2). The total depth of MW-18 is 27 feet and the well is screened from approximately 16 to 26 feet below ground surface ("bgs"), similar to the total depth and screened interval of monitoring well MW-6R. The boring log and monitoring well construction details for MW-18 are provided in Appendix A.

2.2 Groundwater Sampling

Groundwater samples were collected from MW-15 and MW-18 in July 2016. Groundwater samples were collected from fifteen (15) monitoring wells during the groundwater monitoring event conducted in September 2016. The monitoring well locations are shown on Figure 2. The monitoring well construction details are presented in Table 1 and the groundwater elevation data are presented in Table 2. Field parameters are presented in Table 3. A description of the field

procedures is provided in Appendix B and the groundwater sampling field forms from the July 2016 and September 2016 sampling events are provided in Appendix C.

Static water level elevations were measured for all wells on September 12, 2016. Groundwater elevations were calculated using top of casing elevations presented in the VIRP (O'Brien & Gere, March 2014) as well as subsequent surveys for MW-9 on April 8, 2015 and MW-6R and MW-17 on November 3, 2015. The top of casing elevation for well MW-18 was not surveyed during the Report Period.

3.0 GROUNDWATER ANALYTICAL RESULTS

On July 14, 2016, groundwater samples were collected from monitoring wells MW-15 and MW-18. The samples were analyzed for volatile organic compounds ("VOCs") using EPA Method 8260B by Analytical Environmental Services ("AES").

Groundwater samples were collected from fifteen (15) monitoring wells from September 12 to September 14, 2016. The samples were analyzed for VOCs using EPA Method 8260B and for the following monitored natural attenuation ("MNA") parameters: total organic carbon ("TOC") by Method 9060A; sulfide by Method 9030B; chloride, nitrate, and sulfate by Method 9056A; ethane, ethylene, and methane by Method RSK-175; and total alkalinity by Method 2320B. The groundwater samples collected in September 2016 were also field tested for the presence of ferrous iron using a field test kit. A summary of the VOC analyses from July 2016 and September 2016 are provided in Table 4 while the MNA parameter results from September 2016 are summarized in Table 5. The laboratory analytical reports are provided in Appendix D.

The September 2016 groundwater analytical results indicated detections of 11 regulated substances at concentrations above laboratory reporting limits (Table 4). Of those, nine constituents were detected at concentrations above the delineation criteria including: 1,1,1-trichloroethane ("1,1,1-TCA"), 1-1,dichloroethene ("1,1-DCE"), chloroethane, cis-1,2,-dichloroethene ("cis-1,2-DCE"), cyclohexane, methylene chloride, tetrachloroethene ("PCE"), trichloroethene ("TCE"), and vinyl chloride ("VC"). These nine constituents were then compared to EPD-approved Type 1/3 or Type 4 risk reduction standards ("RRS"). Five of the nine constituents were detected at concentrations above the applicable RRS, including: 1,1-DCE, cis-1,2-DCE, PCE, TCE, and VC.

4.0 CONCEPTUAL SITE MODEL

4.1 Source Areas

Historic on-site source areas included the former outdoor and current indoor batching operations and filling processes, as well as the former tank farm and former storm water collection basin near monitoring wells MW-1 and MW-3. Monitoring well MW-4 had been used as a recovery well from its installation in 2005 until September 2014, which appears to have

pulled contaminant mass away from the source area (MW-1 and MW-3) and downgradient toward MW-4. The facility layout is presented on Figure 2.

Off-site source areas include industrial and chemical facilities upgradient and north/northwest of the Site. As previously documented in the December 2015 Second VIRP Progress Report, the contaminant concentrations detected in wells MW-7 and MW-8 are attributed to these upgradient, off-site source area(s).

4.2 Groundwater Flow

The water level measurements collected on September 12, 2016 were used to develop a potentiometric surface map for the Site. As shown on Figure 3, the groundwater flow direction is to the southeast. The current measured groundwater flow is consistent with historic measured groundwater flow.

4.3 Extent of Groundwater Impacts

As shown in Table 4, nine VOCs were detected at concentrations above the delineation criteria. 1,1-DCE, cis-1,2-DCE, PCE, TCE, and VC were detected at concentrations above the applicable RRS. These detections and concentrations are reduced in comparison with previous sampling events. A groundwater cross section location map is provided as Figure 4. Groundwater cross sections are shown on Figures 5 and 6. September 2016 groundwater plume isoconcentration maps for total VOCs and seven of the primary constituents (1,1,1,-TCA, 1,1-DCE, cis-1,2-DCE, PCE, TCE, VC, and acetone) documented in the Apollo Plume Area are provided as Figures 7 through 14, respectively. A summary of historical groundwater data collected since 2001, along with trend graphs, is provided in Appendix E.

With regard to groundwater delineation, horizontal delineation of groundwater is demonstrated by wells MW-2, MW-5, MW-9, MW-10, MW-11, MW-12, MW-13, and MW-15. Although vertical delineation has not been achieved at well DW-1, concentrations are continuing to decrease. Groundwater elevation measurements at wells DW-1, MW-17, and MW-4, indicate the bedrock and overburden are interconnected and it appears groundwater flow transitions from bedrock back into the overburden through this area. Additionally, the Facility is located in a highly industrialized area where chlorinated compounds are likely to be encountered. Since there are multiple plumes at the Site, one of which is associated with off-site sources, further vertical delineation is impracticable.

5.0 RECOMMENDATIONS

We anticipate conducting an additional round of sampling on March 2017. Groundwater data from that event will be assessed for natural attenuation, plume stability analysis, and the need for groundwater modeling. Compliance with applicable cleanup standards will be demonstrated

empirically through the Ricker Method® Plume Stability Analysis, through an environmental covenant, and potentially through fate and transport groundwater modeling.

6.0 MONTHLY INVOICE SUMMARY

EPD requires that a professional engineer or geologist oversee the implementation of the VIRP in accordance with the provisions, purposes, standards and policies of the Georgia Voluntary Remediation Program Act. From May 1, 2016 through October 31, 2016, Ms. Carol D. Northern, P.G., invoiced 15.5 hours to this project. A monthly summary of hours invoiced and a description of services provided is shown in Table 6.

7.0 SCHEDULE

A project schedule for activities is provided in Table 7. AMC Cobb expects to conduct the following activities during the next 6-month reporting period (November 2016 through April 2017):

- Groundwater sampling event in March 2017.

The Fifth VIRP Progress Report will be submitted by AMC Cobb on or before May 20, 2017, unless a compliance status report is submitted before or on that date.

TABLES

TABLE 1. MONITORING WELL CONSTRUCTION DETAILS

Monitoring Well	Installation Date	Total Depth feet, bgs	Screened Interval feet, bgs Top	Screened Interval feet, bgs Bottom	Screen Length feet	Screened Zone	Top of Casing Elevation feet
DW-1	11/3/1997	50.0	45	50	5	BDRK	862.44
MW-1	3/18/1994	35.0	20	35	15	OVB	885.30
MW-2*	5/1/1995	46.0	31	46	15	OVB	896.38
MW-3	5/1/1995	49.0	19	49	30	OVB	883.43
MW-4	1/1/2005	34.0	14	34	20	OVB	857.57
MW-5	2/1/2007	19.5	9.5	19.5	10	OVB	861.75
MW-6R	9/16/2015	27.0	16.8	26.4	9.6	OVB	859.61
MW-7	2/1/2007	14.5	4.5	14.5	10	OVB	865.47
MW-8	9/1/2012	43.0	28	43	15	OVB	892.91
MW-9	9/1/2012	19.0	4	19	15	OVB	859.86
MW-10	10/4/2012	29.0	19	29	10	OVB	901.05
MW-11	10/4/2012	30.0	20	30	10	OVB	892.84
MW-12	10/3/2012	34.0	19	34	15	OVB	891.30
MW-13	10/3/2012	13.0	3	13	10	OVB	864.72
MW-15	10/3/2012	14.5	4.5	14.5	10	OVB	858.14
MW-17	10/21/2015	24.0	13.47	22.97	9.5	OVB	862.75
MW-18	7/12/2016	27.0	16.81	26.46	9.65	OVB	--

Notes

bgs - below ground surface

BDRK - bedrock

OVB - overburden

-- - not measured

* - total depth and screened interval estimated from field measurements

Prepared by: KAH 09/20/2016

Checked by: KRR 10/20/2016

TABLE 2. WATER LEVEL MEASUREMENTS

Monitoring Well	Top of Casing Elevation feet, MSL	July 14, 2016		September 12, 2016	
		Depth to Water feet	Groundwater Elevation feet, MSL	Depth to Water feet	Groundwater Elevation feet, MSL
DW-1	862.44	--	--	4.07	858.37
MW-1	885.30	--	--	24.05	861.25
MW-2	896.38	--	--	27.75	868.63
MW-3	883.43	--	--	23.03	860.40
MW-4	857.57	--	--	2.99	854.58
MW-5	861.75	--	--	7.11	854.64
MW-6R	859.61	--	--	8.70	850.91
MW-7	865.47	--	--	7.54	857.93
MW-8	892.91	--	--	26.40	866.51
MW-9	859.86	--	--	9.30	850.56
MW-10	901.05	--	--	20.05	881.00
MW-11	892.84	--	--	21.30	871.54
MW-12	891.30	--	--	26.61	864.69
MW-13	864.72	--	--	9.00	855.72
MW-15	858.14	6.73	851.41	7.24	850.90
MW-17	862.75	--	--	7.77	854.98
MW-18	--	7.00	NC	7.43	NC

Notes

MSL - mean sea level

-- - not measured

NC - not calculated

Prepared by: KAH 09/20/2016

Checked by: KRR 10/20/2016

TABLE 3. FIELD PARAMETERS

Sample Location	Temperature °C	pH Standard Units	Dissolved Oxygen mg/L	ORP mV	Conductivity µs/cm	Turbidity NTU
September 2016						
DW-1*	20.53	6.14	11.13*	1.1	213	0.58
MW-1	20.42	6.60	5.72	-208.1	421	0.49
MW-3	22.60	6.63	0.43	-99.8	256	7.96
MW-4	23.82	6.08	6.59	27.6	311	1.50
MW-5	26.66	5.03	2.89	48.7	62	2.41
MW-6R	21.52	5.89	7.79	6.9	93	0.90
MW-7	21.10	5.74	1.74	-36.7	289	5.24
MW-8	21.50	5.36	8.9	42.4	52	1.29
MW-9	22.67	4.42	1.38	73.1	80	1.73
MW-10	22.17	5.96	0.51	-88.7	248	2.83
MW-12	19.49	4.88	0.88	95.1	50	1.53
MW-13	19.46	5.70	1.89	-36.3	202	0.96
MW-15	23.30	5.92	1.13	-54.5	552	0.21
MW-17	21.17	6.03	5.02	36	378	0.26
MW-18	22.83	5.66	2.34	77.5	234	1.67

Notes

Prepared by: KAH 09/20/2016

Checked by: KRR 10/20/2016

* - DO sensor malfunction affected DW-1 readings

mg/L - milligrams per liter

mV - millivolts

µs/cm - microsiemens per centimeter

NTU - nephelometric turbidity units

TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Constituent (mg/L)		1,1,1-TCA	1,1-DCA	1,1-DCE	1,2-DCA	Acetone	Chloroethane	cis-1,2-DCE	Cyclohexane	Methylene chloride	PCE	trans-1,2-DCE	TCE	Vinyl Chloride
Delineation Criteria (mg/L)		0.2	4	0.007	0.005	4	DL/0.01	0.07	DL/0.005	0.005	0.005	0.1	0.005	0.002
Type 1/3 RRS (mg/L)		0.2	4*	0.007	0.005*	4	DL/0.01	0.07	DL/0.005	0.005	0.005	0.1	0.005	0.002
Type 4 RRS (mg/L)		13.6*	NC	0.524*	NC	45.6*	29.2*	0.204*	17.5*	0.454*	0.0981*	0.161*	0.00524*	0.00327*
DW-1	9/13/16	0.034	0.098	**0.25**	< 0.005	< 0.050	**0.068**	0.033	< 0.005	< 0.005	**0.36**	< 0.005	**0.047**	**0.031**
MW-1	9/14/16	0.013	0.060	< 0.005	< 0.005	0.56	< 0.010	0.049	< 0.005	< 0.005	**0.012**	< 0.005	< 0.005	**0.032**
MW-3	9/14/16	0.099	0.35	**0.079**	< 0.005	< 0.050	**0.074**	**0.70**	< 0.005	**0.009**	< 0.005	< 0.005	< 0.005	**0.36**
MW-4**	9/14/16	**1.4**	< 0.025	**18**	< 0.024	< 0.53	< 0.039	**0.72**	< 0.16	< 0.031	**0.55**	< 0.022	**0.29 J**	< 0.042
MW-5	9/12/16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-6R	9/13/16	< 0.005	0.005	**0.26**	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	**0.023**	< 0.005	< 0.005	< 0.002
MW-7	9/12/16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	**0.17**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.35**
MW-8	9/13/16	< 0.005	< 0.005	**0.013**	< 0.005	< 0.050	< 0.010	0.029	< 0.005	< 0.005	**0.55**	< 0.005	**0.83**	< 0.002
MW-9	9/12/16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-11	9/13/16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-12	9/13/16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-13	9/12/16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-15	7/14/16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	**0.071**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
	9/13/16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	**0.048**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-17	9/13/16	0.032	0.18	**0.91**	< 0.005	< 0.050	< 0.010	**0.38**	**0.006**	< 0.005	**0.13**	< 0.005	**0.094**	**0.06**
MW-18	7/14/16	< 0.005	0.17	**0.63**	< 0.005	< 0.050	**0.028**	**0.14**	< 0.005	< 0.005	**0.15**	< 0.005	**0.1**	**0.011**
	9/13/16	< 0.005	0.20	**0.47**	< 0.005	< 0.050	**0.015**	**0.16**	< 0.005	< 0.005	**0.19**	< 0.005	**0.11**	**0.01**

Notes

Prepared by: KAH 09/26/2016
Checked by: KRR 10/20/2016

Delineation Criteria equals Type 1 Risk Reduction Standard (RRS)
mg/L - miligrams per liter
DL - Detection Limit
NC - not calculated; comparing to Type 1 RRS
*applicable RRS
** method detection limit (MDL); sample diluted
J - estimated concentration
BOLD - Concentration exceeds delineation criteria
BOLD and SHADED - Concentration exceeds applicable RRS

TABLE 5. GROUNDWATER MNA RESULTS

Monitoring Well	Date	TOC mg/L	Sulfide mg/L	Chloride mg/L	Nitrogen, Nitrate mg/L	Sulfate mg/L	Ethane mg/L	Ethylene mg/L	Methane mg/L	Alkalinity mg/L	Ferrous Iron mg/L
DW-1	9/13/16	0.450 J	2.4	19	0.37	0.82 J	0.026	0.066	0.66	60	1.62
MW-1	9/14/16	15.2	6.72	4.3	< 0.25	1.3	0.015	0.018	0.084	141	0.86
MW-3	9/14/16	11.6	2.32	4.2	< 0.25	1.2	0.12	0.051	1.3	80	3.21*
MW-4	9/14/16	0.789 J	2.72	49	< 0.25	0.85 J	< 0.0090	0.0044 J	0.094	62	0.02
MW-5	9/12/16	< 1	2.8	5.1	0.47	1.1	< 0.0090	< 0.0070	< 0.0040	< 3	0.02
MW-6R	9/13/16	< 1	< 2	4.8	0.86	0.96 J	< 0.0090	< 0.0070	0.0085	30	0.04
MW-7	9/12/16	< 1	2	7.4	< 0.25	1.6	0.0040	0.17	3.3	47	2.06
MW-8	9/13/16	< 1	2.4	4.7	0.19 J	0.57 J	< 0.0090	< 0.0070	0.21	14	0.30
MW-9	9/12/16	< 1	2	10	0.065 J	2.5	< 0.0090	< 0.0070	0.28	< 3	0.05
MW-11	9/13/16	< 1	2	8.8	< 0.25	8	< 0.0090	< 0.0070	3.7	30	3.28*
MW-12	9/13/16	< 1	3.2	6.6	0.41	0.19 J	< 0.0090	< 0.0070	0.0026 J	< 3	0.01
MW-13	9/12/16	< 1	5.2	7.8	< 0.25	0.15 J	0.13	< 0.0070	4.0	54	2.91
MW-15	9/13/16	3.05	1.2 J	32	< 0.25	0.16 J	0.023	< 0.0070	7.5	65	1.38
MW-17	9/13/16	< 1	2.4	23	< 0.25	8.8	0.014	0.0080	0.59	128	0.74
MW-18	9/13/16	1.68	1.2 J	14	< 0.25	2.3	0.017	< 0.0070	2.3	75	1.33

Notes

mg/L - milligrams per liter

TOC - total organic carbon

J - estimated concentration

* - Sampled was diluted three times due to inital reading exceeding 3.30 mg/L on HACH DR/820 colorimeter

Prepared by: KAH 09/26/2016

Checked by: KRR 10/20/2016

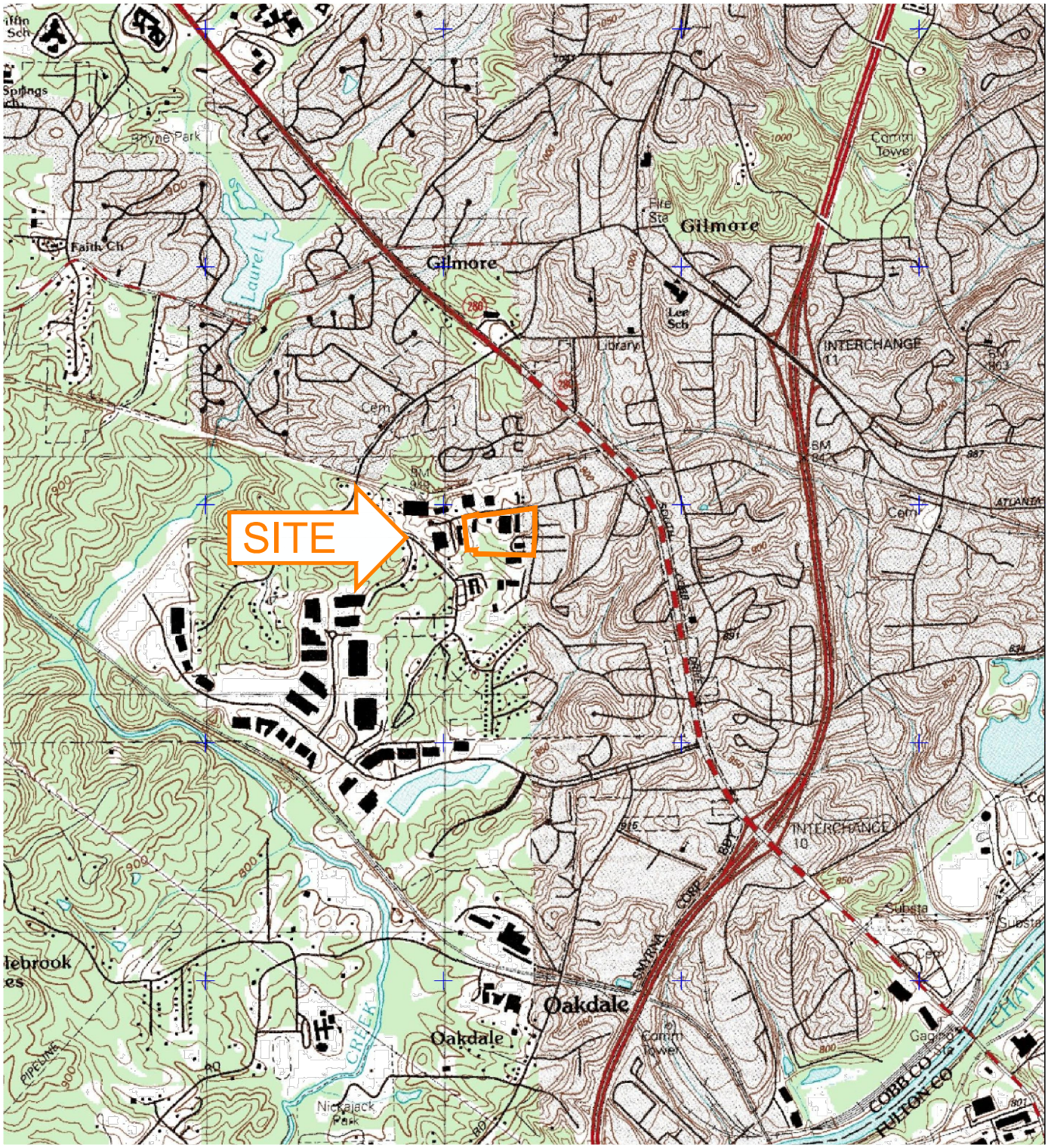
TABLE 6: SUMMARY OF MONTHLY INVOICES

Month	Hours Billed by Carol D. Northern, P.G.	Description of Activities
May 2016	7	– Reviewed the environmental covenant – Reviewed and submitted the Third VIRP Progress Report
June 2016	1.75	– Reviewed EPD's June 2016 Comment Letter – Review well installation plans
July 2016	1	– Reviewed July sampling results
August 2016	2.25	– Scheduling for September sampling event
September 2016	1	– Review results of September sampling event
October 2016	2.5	– Prepared and submitted response to EPD's June 2016 Comment Letter

TABLE 7: PROJECTED MILESTONE SCHEDULE

Date	Activity
June 4, 2014	*VRP Application Approved*
May 2015	*First VIRP Progress Report*
October 2015	*Site wide groundwater sampling event*
December 2015	*Second VIRP Progress Report*
March 2016	*Site wide groundwater sampling event*
May 2016	*Third VIRP Progress Report*
September 2016	*Groundwater sampling event*
November 2016	*Fourth VIRP Progress Report*
March 2017	Groundwater sampling event
May 2017	Fifth VIRP Progress Report
September 2017	Groundwater sampling event
November 2017	Sixth VIRP Progress Report
March 2018	Groundwater sampling event
May 2018	Seventh VIRP Progress Report
September 2018	Groundwater sampling event
November 2018	Eighth VIRP Progress Report
March 2019	Groundwater sampling event
May 2019	Ninth VIRP Progress Report
July 28, 2019	Compliance Status Report

FIGURES



0 1000 2000 4000

SCALE IN FEET

N

SOURCE: MAPCARD TOPOGRAPHIC MAP, SMYRNA, GEORGIA

APOLLO INDUSTRIES, INC.

1850 SOUTH COBB INDUSTRIAL BLVD
HSI SITE NUMBER 10333

PROJECT NO. 02.20140391.16

EARTHCON®

EarthCon Consultants, Inc.

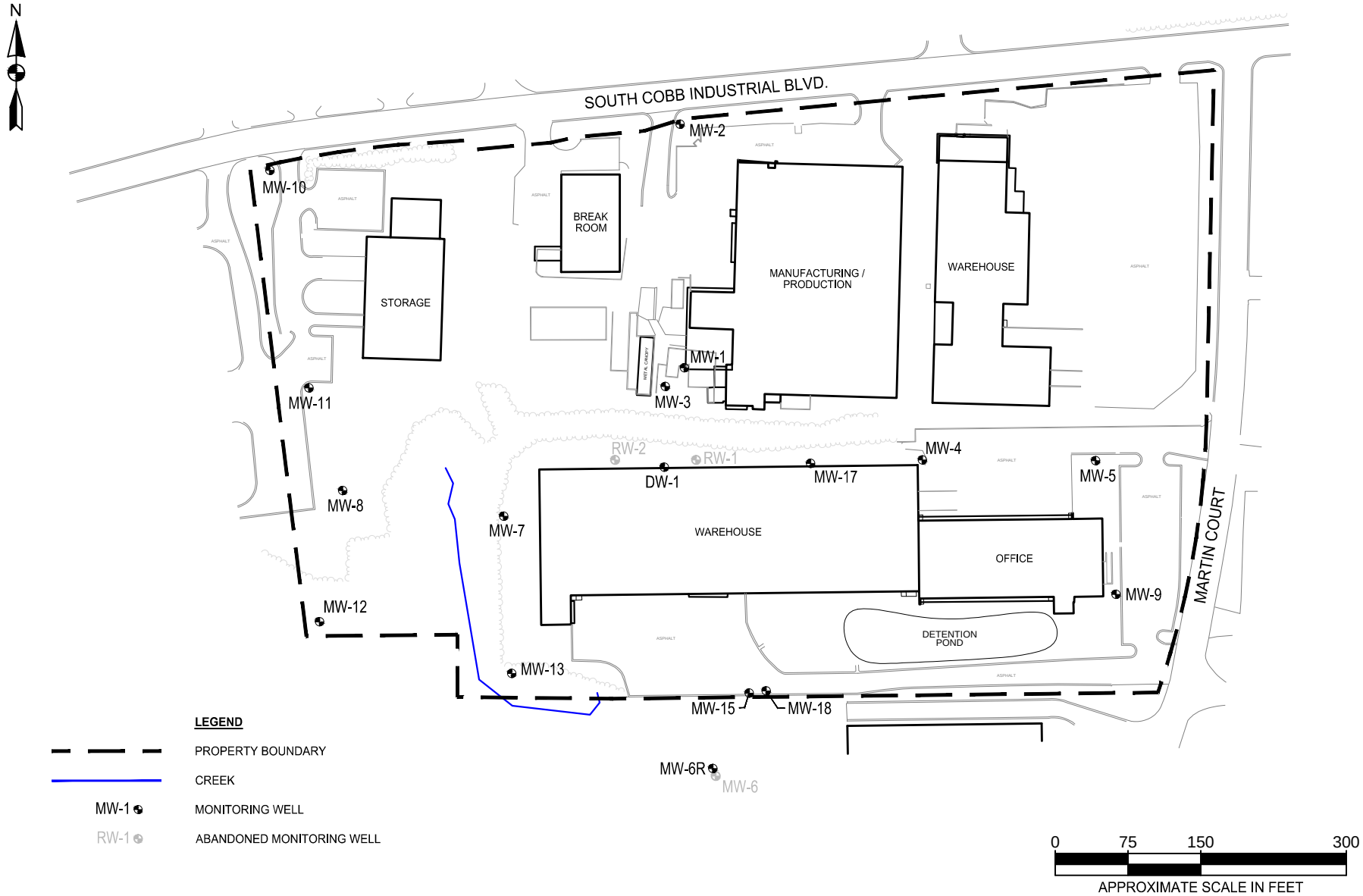
1880 WEST OAK PKWY, BLDG 100, STE 106, MARIETTA, GA, 30062

SITE LOCATION

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	CDN	NOV 1, 2016	1

FILENAME: site location.dwg

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved



BASE MAP SOURCE: TERRAMARK LAND SURVEYING, INC. (6/5/2012)

APOLLO INDUSTRIES, INC.

1850 SOUTH COBB INDUSTRIAL BLVD
HSI SITE NUMBER 10333

PROJECT NO. 02.20140391.16

EARTHCON®

EarthCon Consultants, Inc.

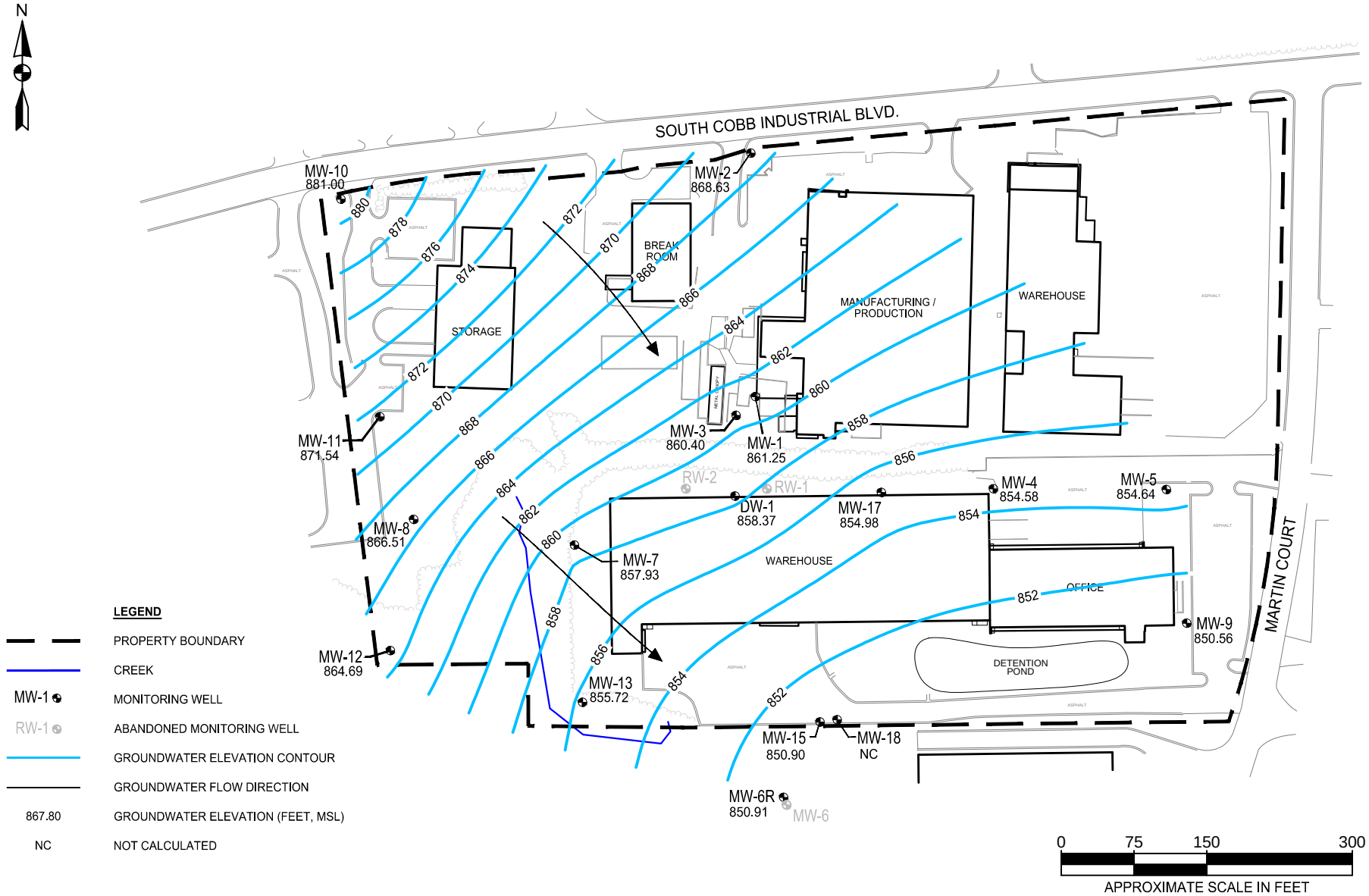
1880 WEST OAK PKWY, BLDG 100, STE 106, MARIETTA, GA, 30062

FACILITY LAYOUT AND SAMPLE LOCATIONS

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	CDN	NOV 1, 2016	2

FILENAME: site map.dwg

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved



LEGEND

— —	PROPERTY BOUNDARY
———	CREEK
MW-1	MONITORING WELL
RW-1	ABANDONED MONITORING WELL
———	GROUNDWATER ELEVATION CONTOUR
———	GROUNDWATER FLOW DIRECTION
867.80	GROUNDWATER ELEVATION (FEET, MSL)
NC	NOT CALCULATED

BASE MAP SOURCE: TERRAMARK LAND SURVEYING, INC. (6/5/2012)

APOLLO INDUSTRIES, INC.

1850 SOUTH COBB INDUSTRIAL BLVD
HSI SITE NUMBER 10333

PROJECT NO. 02.20140391.16

EARTHCON®

EarthCon Consultants, Inc.

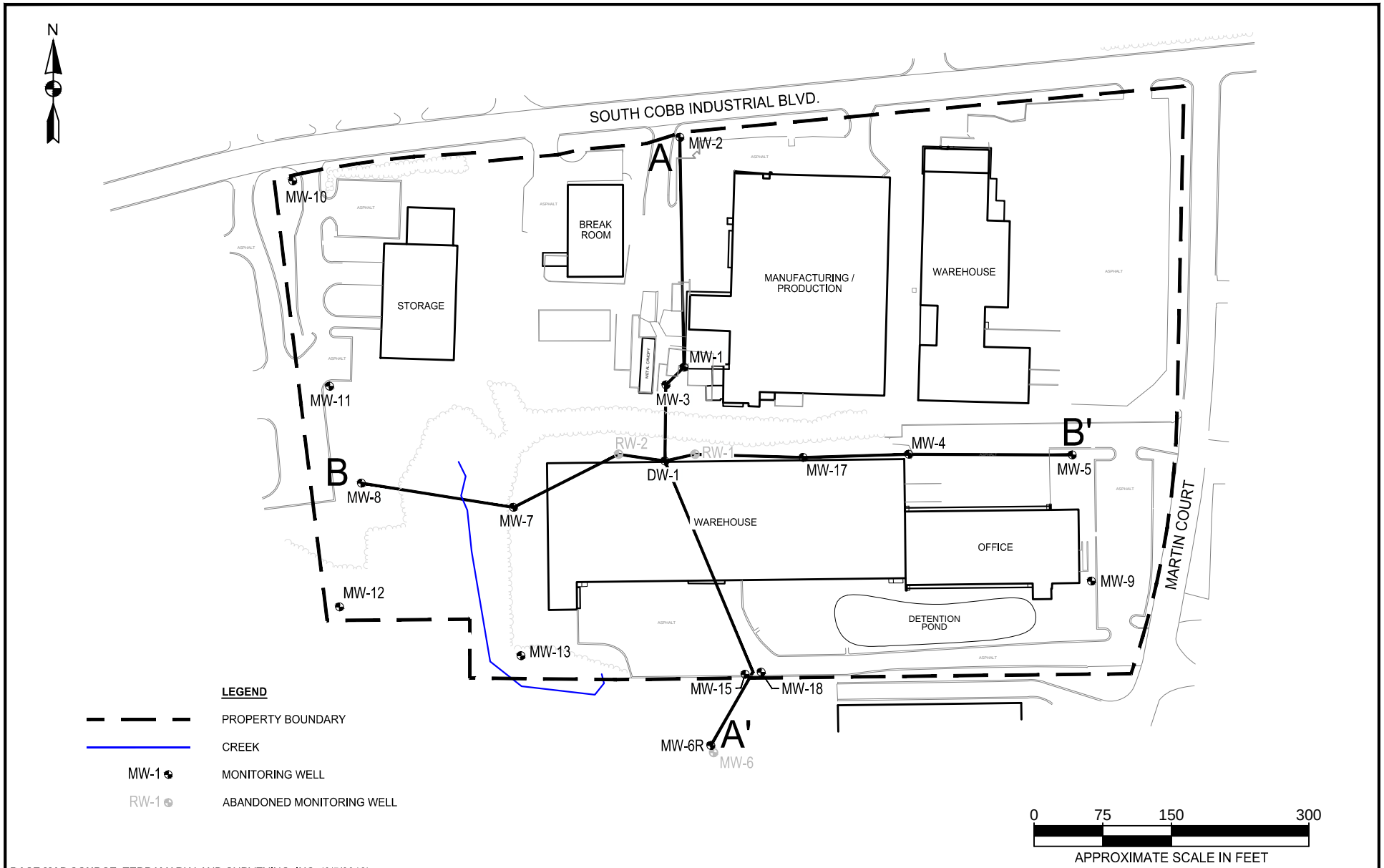
1880 WEST OAK PKWY, BLDG 100, STE 106, MARIETTA, GA, 30062

POTENTIOMETRIC SURFACE MAP
SEPTEMBER 12, 2016

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	CDN	NOV 11, 2016	3

FILENAME: site map.dwg

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved



BASE MAP SOURCE: TERRAMARK LAND SURVEYING, INC. (6/5/2012)

APOLLO INDUSTRIES, INC.

1850 SOUTH COBB INDUSTRIAL BLVD
HSI SITE NUMBER 10333

PROJECT NO. 02.20140391.16

EARTHCON®

EarthCon Consultants, Inc.

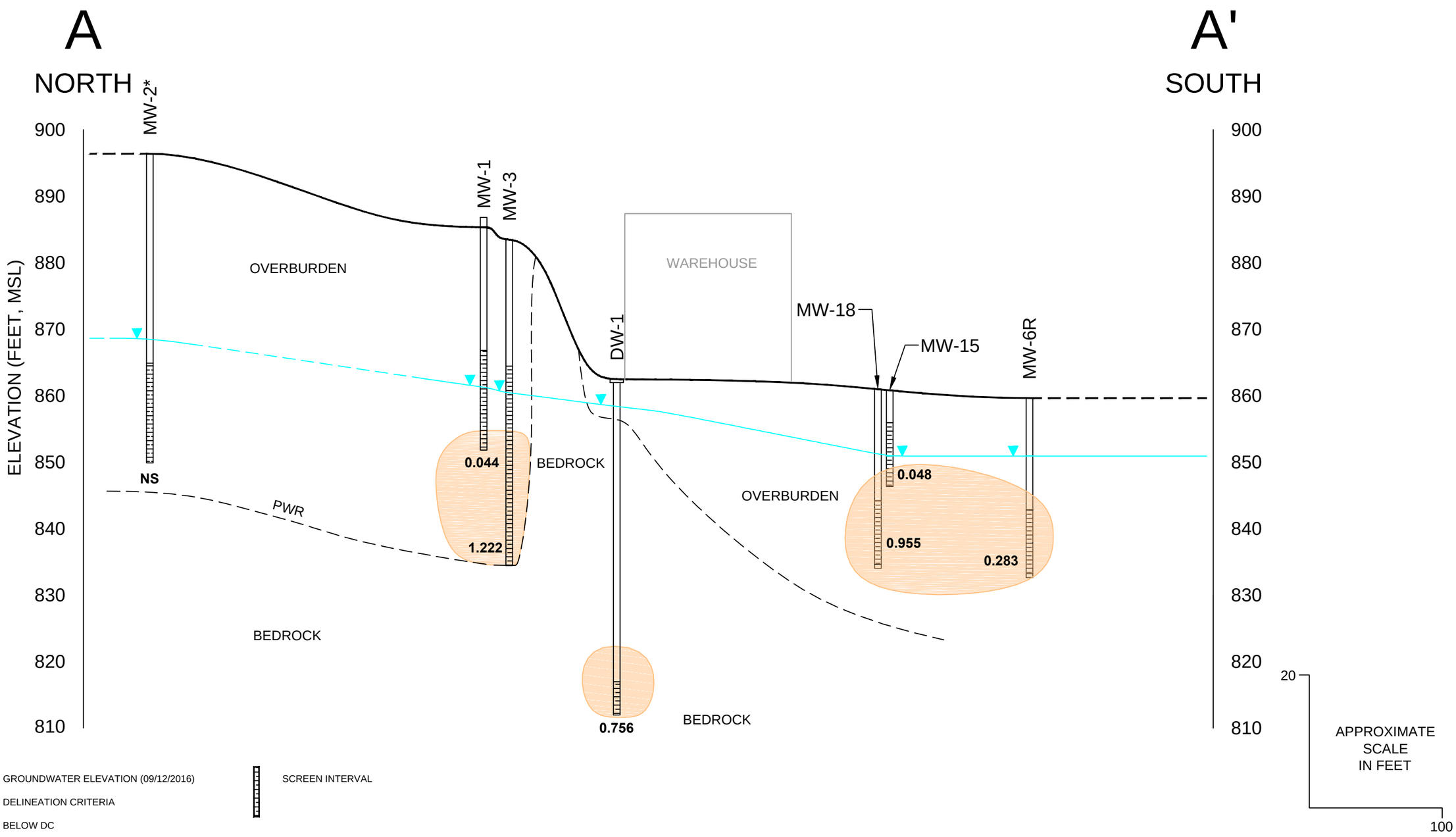
1880 WEST OAK PKWY, BLDG 100, STE 106, MARIETTA, GA, 30062

GROUNDWATER
CROSS SECTION LOCATIONS

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	CDN	NOV 11, 2016	4

FILENAME: site map.dwg

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved



LEGEND

▼	GROUNDWATER ELEVATION (09/12/2016)		SCREEN INTERVAL
DC	DELINEATION CRITERIA		
BDC	BELOW DC		
ND	NOT DETECTED	*	MW-2 TOTAL DEPTH AND SCREEN INTERVAL BASED ON FIELD MEASUREMENTS
mg/L	MILLIGRAMS PER LITER		
— — — —	DASHED WHERE INFERRED	NS	NOT SAMPLED
	0.283 TOTAL CVOC CONCENTRATION (mg/L) IN GROUNDWATER GREATER THAN DC (SEPT-2016)		

OVERBURDEN = FINE-GRAINED MATERIAL (SAND, SILT, CLAY)

PWR = PARTIALLY WEATHERED ROCK

APOLLO INDUSTRIES, INC.

1850 SOUTH COBB INDUSTRIAL BLVD
HSI SITE NUMBER 10333

PROJECT NO. 02.20140391.16

EARTHCON®

EarthCon Consultants, Inc.

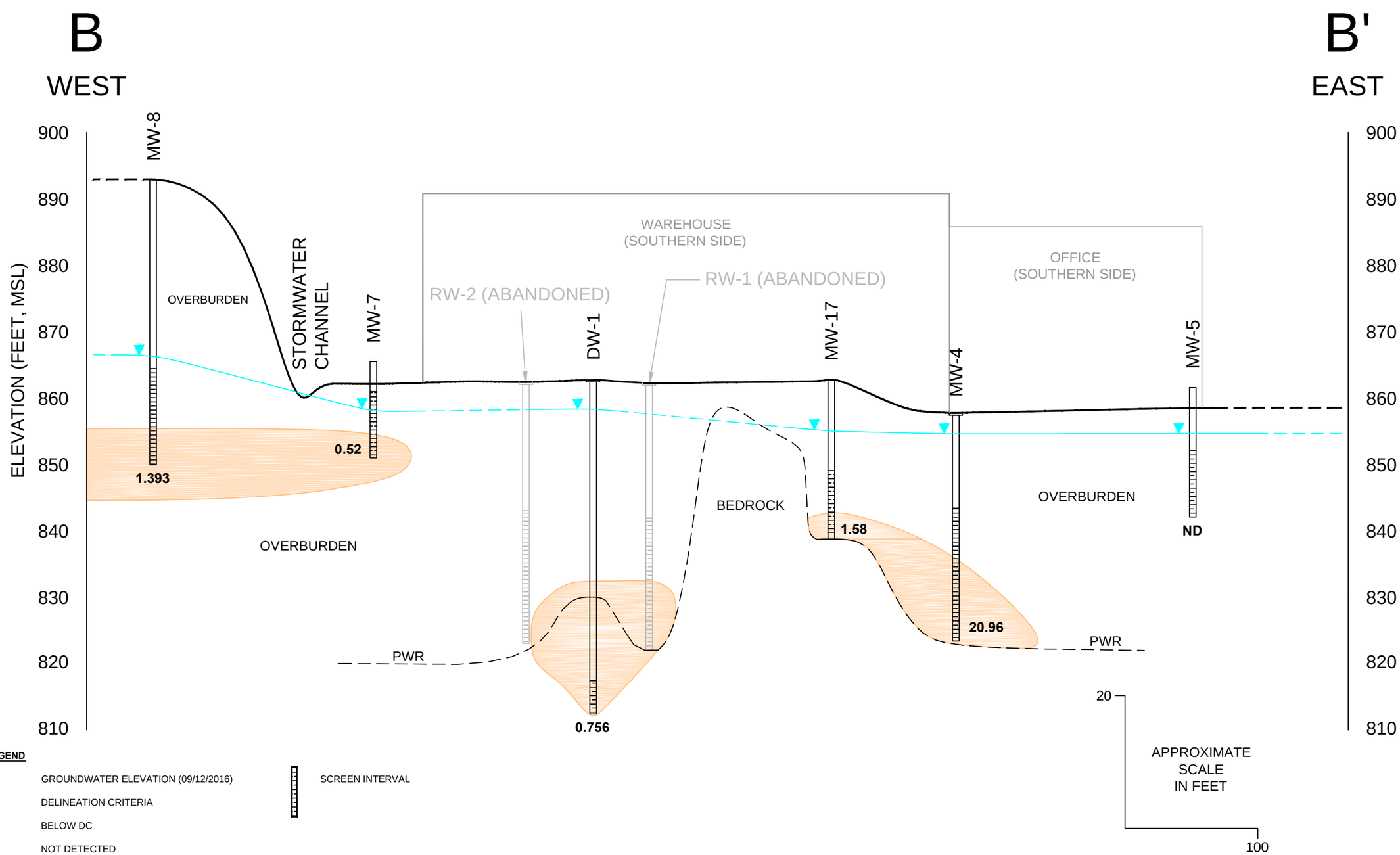
1880 WEST OAK PKWY, BLDG 100, STE 106, MARIETTA, GA, 30062

CROSS SECTION A-A'

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	CDN	NOV 1, 2016	5

FILE:\\NAVRE:... CROSS SECTIONS.DWG

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved



LEGEND

▼	GROUNDWATER ELEVATION (09/12/2016)		SCREEN INTERVAL
DC	DELINEATION CRITERIA		
BDC	BELOW DC		
ND	NOT DETECTED		
mg/L	MILLIGRAMS PER LITER		
— — — —	DASHED WHERE INFERRED		
	1.393 TOTAL CVOC CONCENTRATION (mg/L) IN GROUNDWATER GREATER THAN DC (SEPT-2016)		

OVERBURDEN = FINE-GRAINED MATERIAL (SAND, SILT, CLAY)

PWR = PARTIALLY WEATHERED ROCK

APOLLO INDUSTRIES, INC.

1850 SOUTH COBB INDUSTRIAL BLVD
HSI SITE NUMBER 10333

PROJECT NO. 02.20140391.16

EARTHCON®

EarthCon Consultants, Inc.

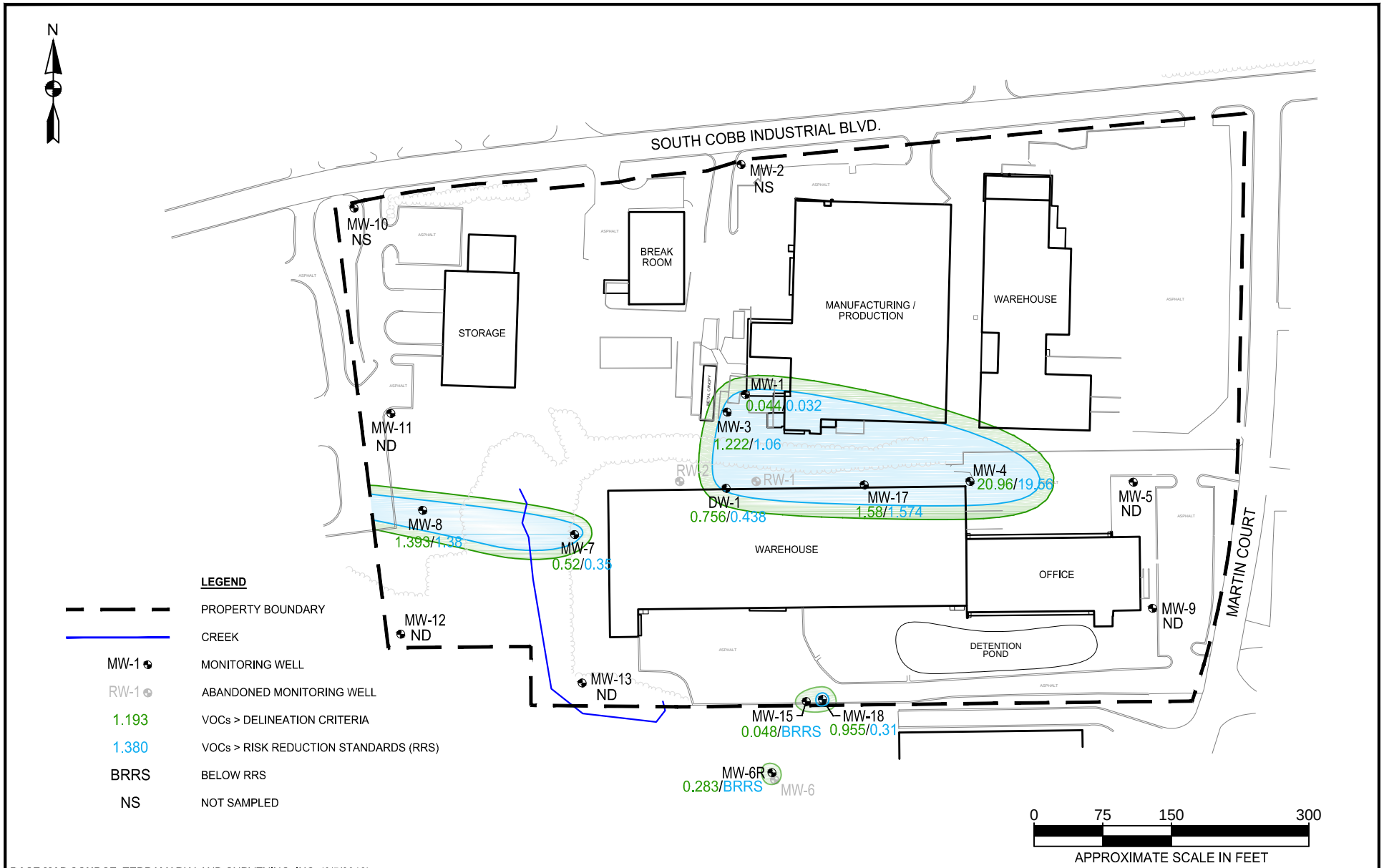
1880 WEST OAK PKWY, BLDG 100, STE 106, MARIETTA, GA, 30062

CROSS SECTION B-B'

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	CDN	NOV 11, 2016	6

FILENAME: cross-sections.dwg

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved



BASE MAP SOURCE: TERRAMARK LAND SURVEYING, INC. (6/5/2012)

APOLLO INDUSTRIES, INC.

1850 SOUTH COBB INDUSTRIAL BLVD
HSI SITE NUMBER 10333

PROJECT NO. 02.20140391.16

EARTHCON®

EarthCon Consultants, Inc.

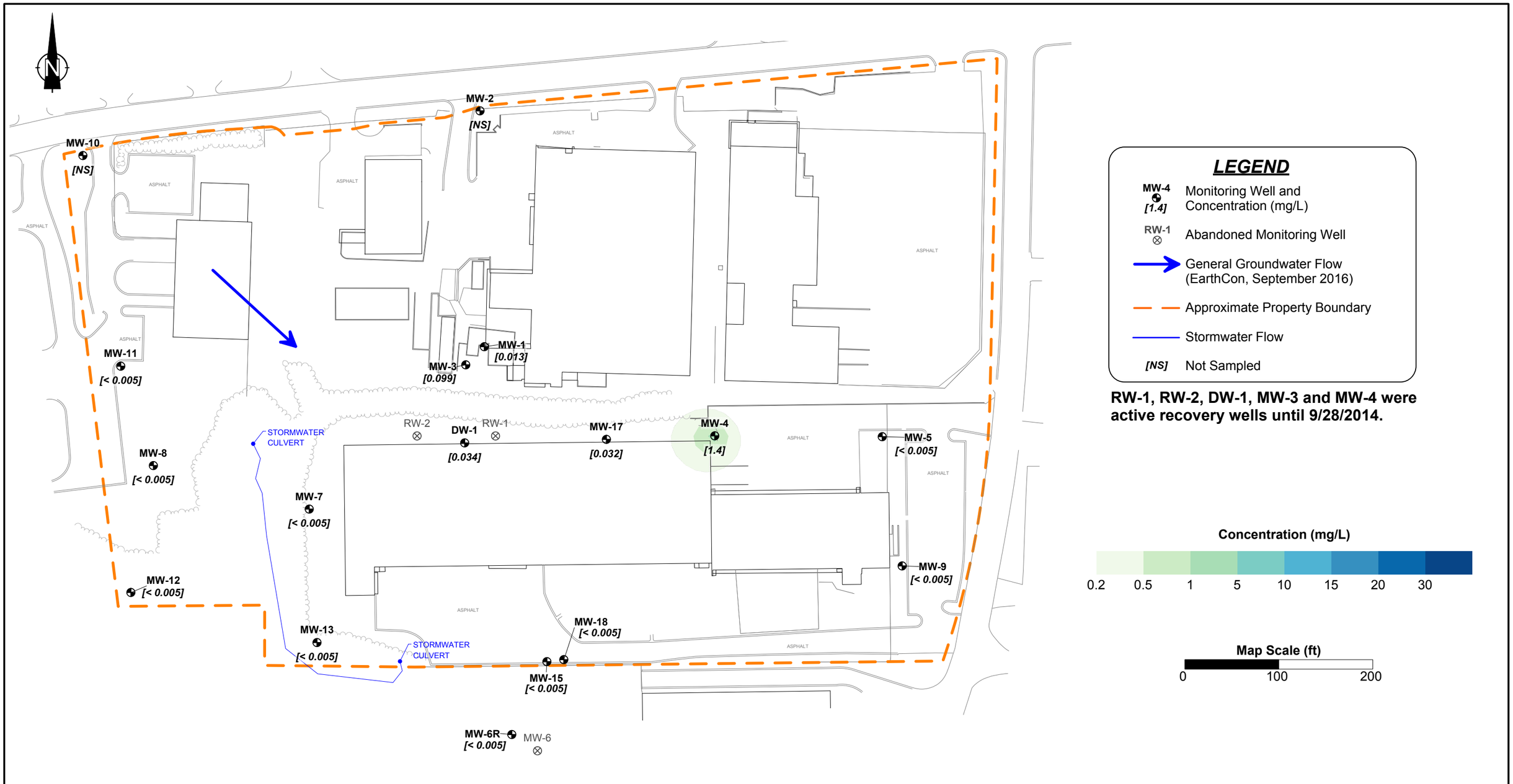
1880 WEST OAK PKWY, BLDG 100, STE 106, MARIETTA, GA, 30062

TOTAL VOCs
SEPTEMBER 2016

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	CDN	NOV 11, 2016	7

FILENAME: site map.dwg

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved



Base Map Source: Terramark Land Surveying, Inc. (6/5/2012)

Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

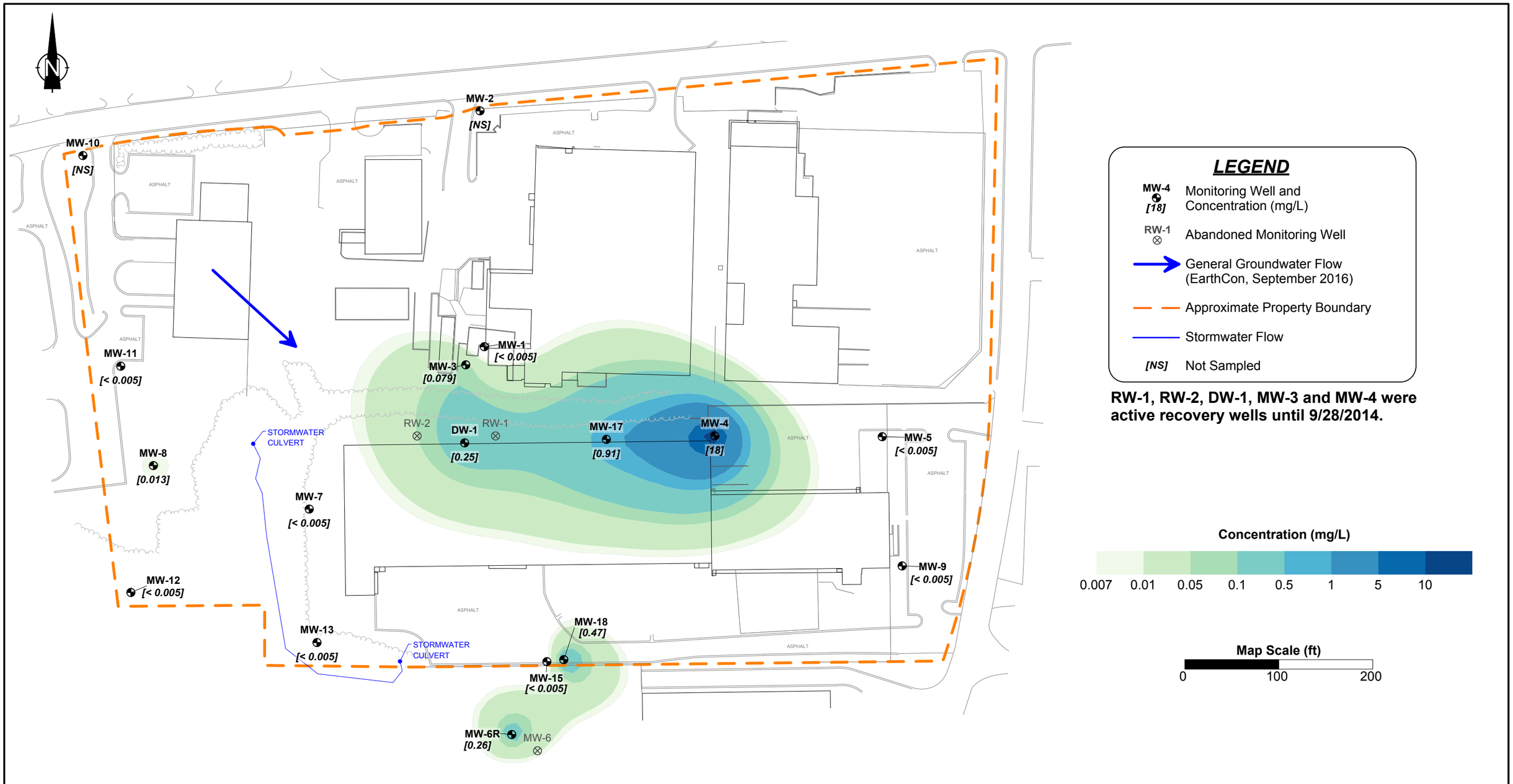
EARTHCON®

1880 West Oak Parkway, Bldg. 100 Suite 106
Marietta, Georgia 30062

Isoconcentration Map
1,1-Trichloroethane (1,1-TCA)
Sept-2016

Prepared by: SNW Checked by: CDN Figure: 8

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved.



Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

EARTHCON®

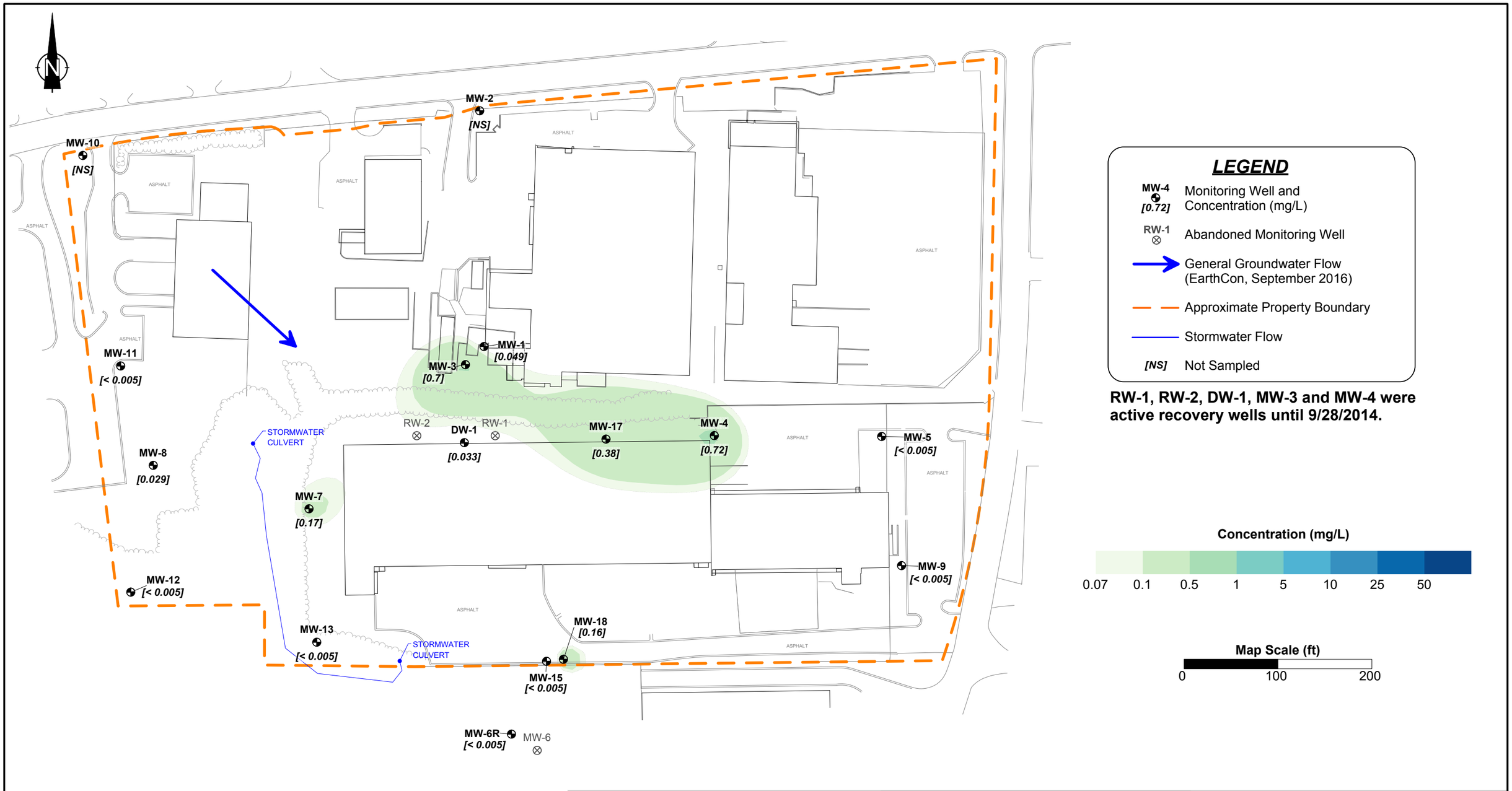
1880 West Oak Parkway, Bldg. 100 Suite 106
Marietta, Georgia 30062

Isoconcentration Map
1,1-Dichloroethene (1,1-DCE)
Sept-2016

Prepared by: SNW Checked by: CDN Figure: 9

Base Map Source: Terramark Land Surveying, Inc. (6/5/2012)

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved.



Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

EARTHCON®

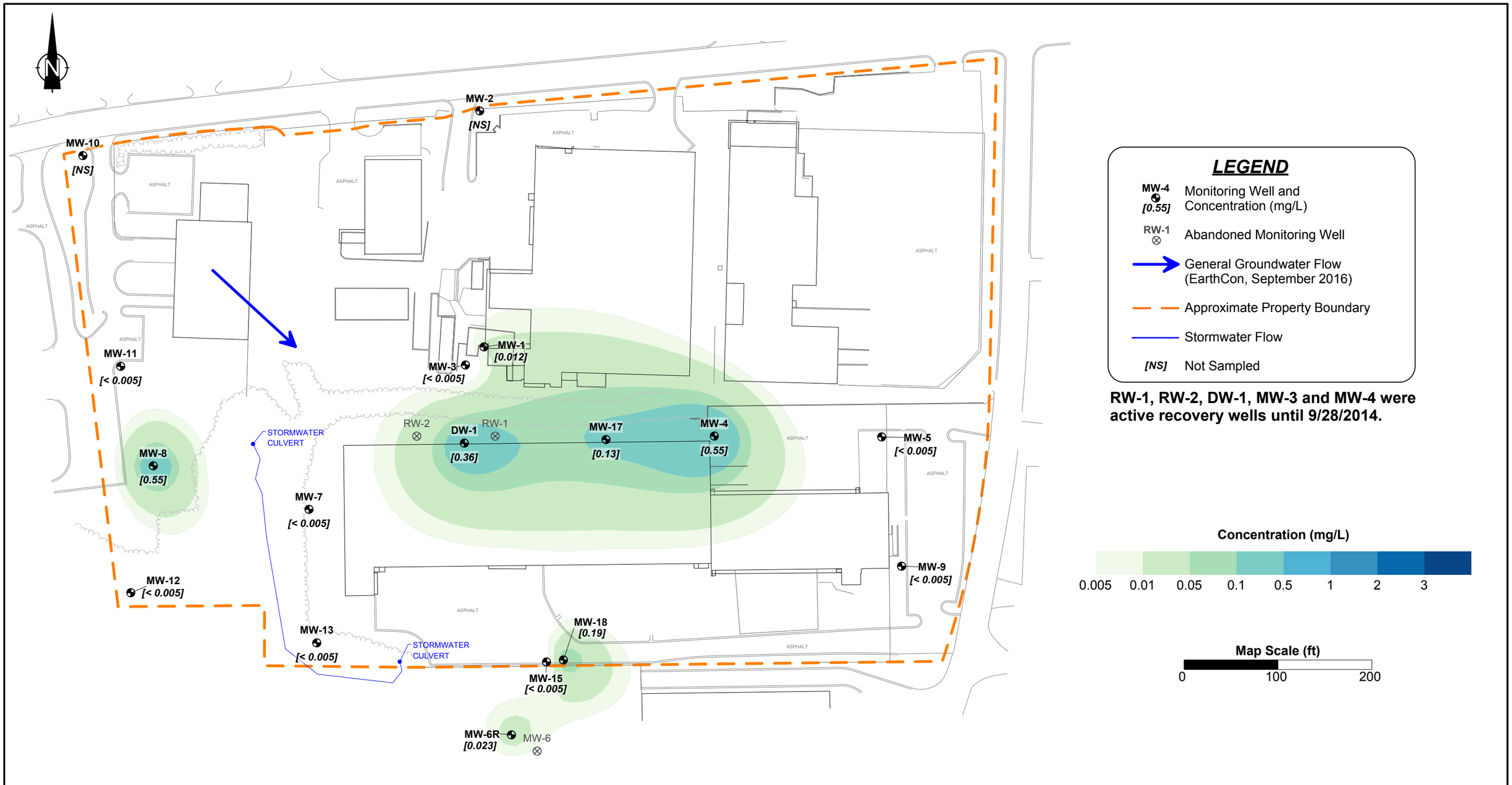
1880 West Oak Parkway, Bldg. 100 Suite 106
Marietta, Georgia 30062

Isoconcentration Map
cis-1,2-Dichloroethene (cis-1,2-DCE)
Sept-2016

Prepared by: SNW Checked by: CDN Figure: 10

Base Map Source: Terramark Land Surveying, Inc. (6/5/2012)

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved.



Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

EARTHCON®

1880 West Oak Parkway, Bldg. 100 Suite 106
Marietta, Georgia 30062

Isoconcentration Map
Tetrachloroethene (PCE)
Sept-2016

Prepared by: SNW Checked by: CDN Figure: 11

Base Map Source: Terramark Land Surveying, Inc. (6/5/2012)

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved.

Base Map Source: Terramark Land Surveying, Inc. (6/5/2012)

Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

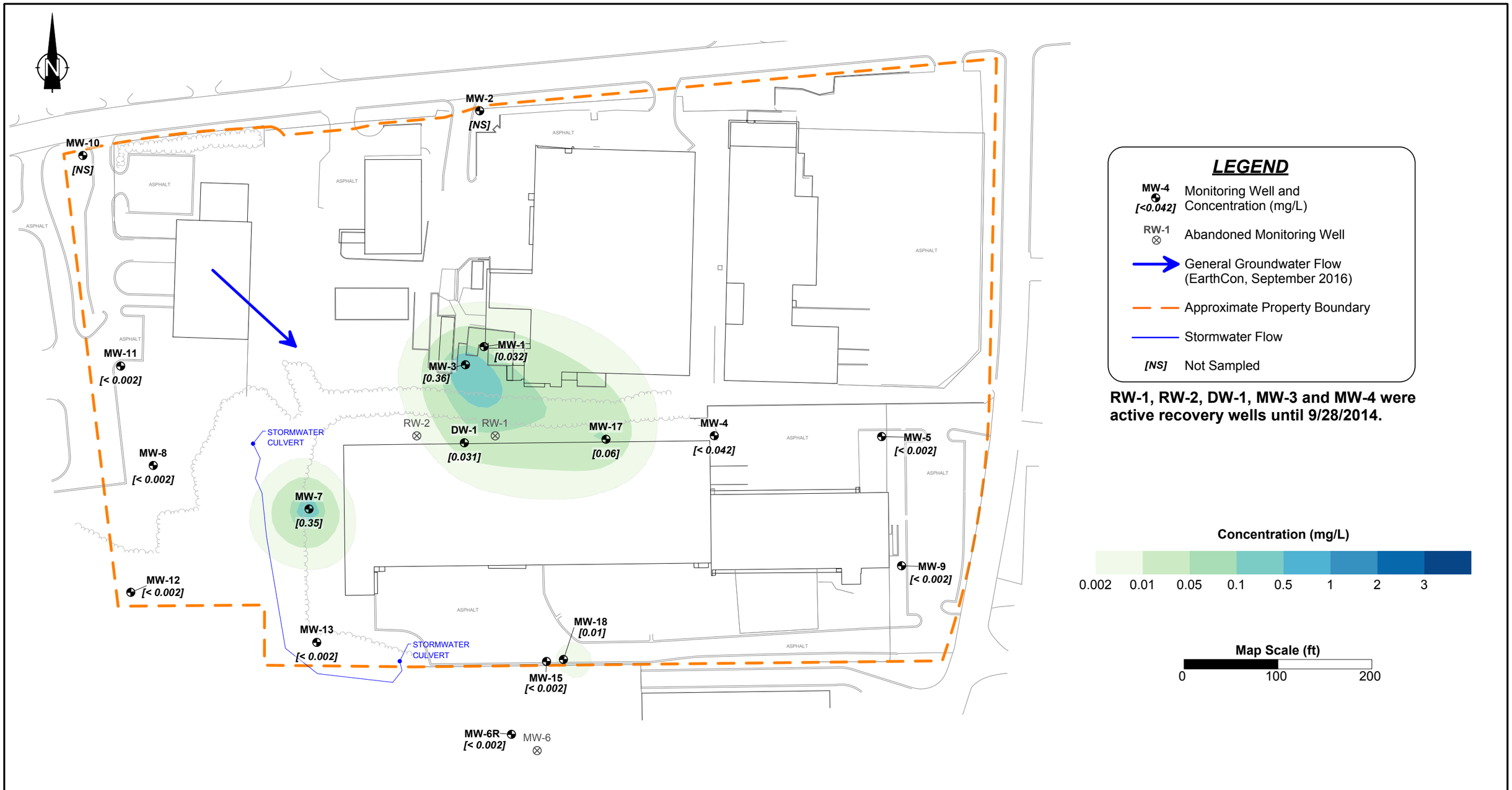
EARTHCON®

1880 West Oak Parkway, Bldg. 100 Suite 106
Marietta, Georgia 30062

Isoconcentration Map
Trichloroethene (TCE)
Sept-2016

Prepared by: SNW Checked by: CDN Figure: 12

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved.



Base Map Source: Terramark Land Surveying, Inc. (6/5/2012)

Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

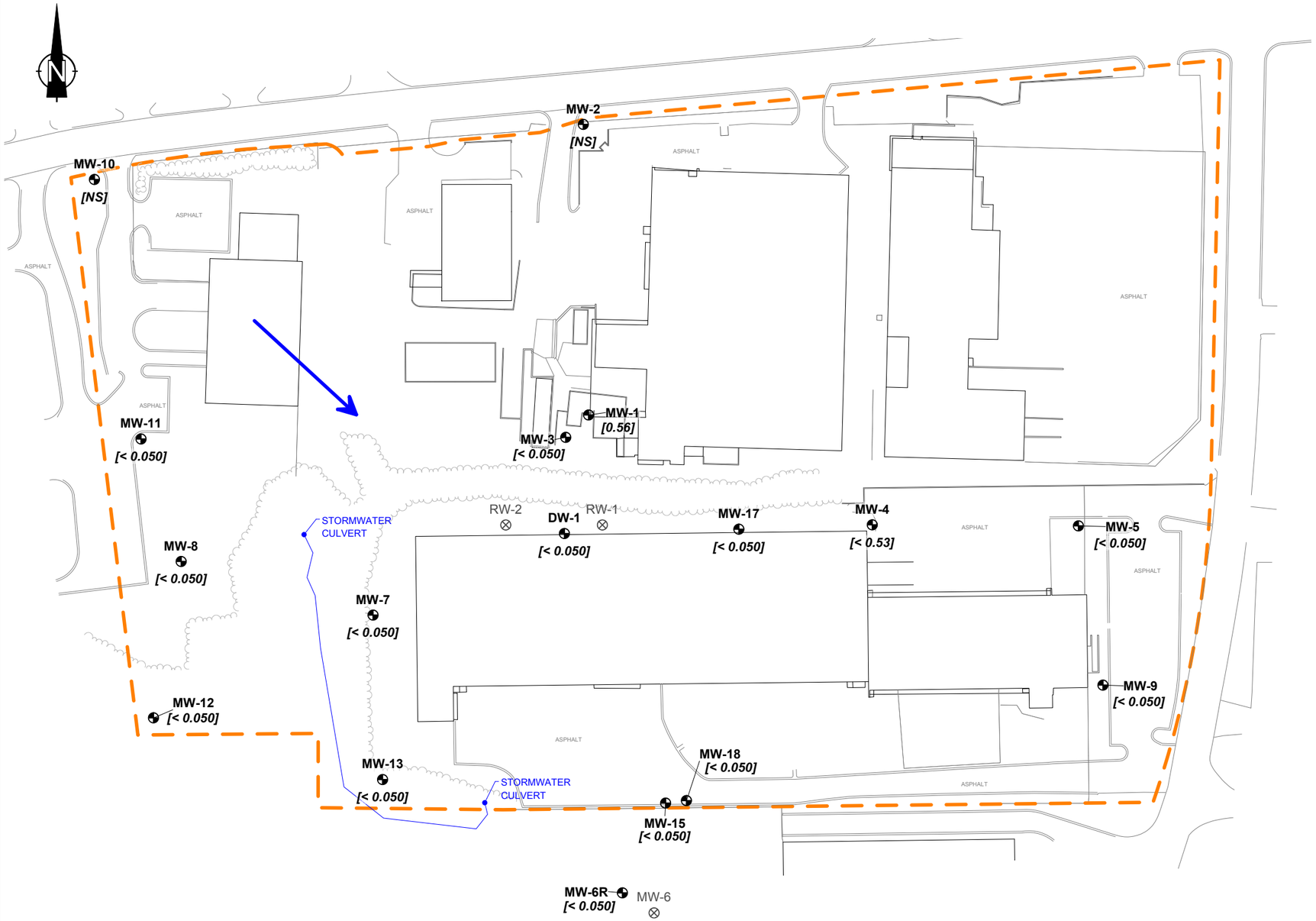
EARTHCON®

1880 West Oak Parkway, Bldg. 100 Suite 106
Marietta, Georgia 30062

Isoconcentration Map
Vinyl Chloride (VC)
Sept-2016

Prepared by: SNW Checked by: CDN Figure: 13

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved.



LEGEND

MW-4 [<0.53]	Monitoring Well and Concentration (mg/L)
RW-1	Abandoned Monitoring Well
	General Groundwater Flow (EarthCon, September 2016)
	Approximate Property Boundary
	Stormwater Flow
[NS]	Not Sampled

RW-1, RW-2, DW-1, MW-3 and MW-4 were active recovery wells until 9/28/2014.

Concentration (mg/L)

4 10 50 100 200 300 400 500

Map Scale (ft)

0 100 200

Base Map Source: Terramark Land Surveying, Inc. (6/5/2012)

Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

EARTHCON®

1880 West Oak Parkway, Bldg. 100 Suite 106
Marietta, Georgia 30062

Isoconcentration Map
Acetone
Sept-2016

Prepared by: SNW Checked by: CDN Figure: 14

Copyright © 2016 EarthCon Consultants, Inc. All Rights Reserved.

APPENDICES

APPENDIX A

MW-18 BORING LOG

Earthcon Consultants, Inc.
1880 West Oak Parkway
Building 100, Suite 106
Marietta, GA 30062

BORING LOG

BORING NO.: MW-18

TOTAL DEPTH: 27.06 feet

PROJECT INFORMATION

PROJECT:	Apollo Smyrna
SITE LOCATION:	1850 S. Cobb Industrial Blvd Smyrna, GA
JOB NO.:	02.20140391.16
PROJECT MANAGER:	K. Rivera
LOGGED BY:	J. Turner/K. Henry

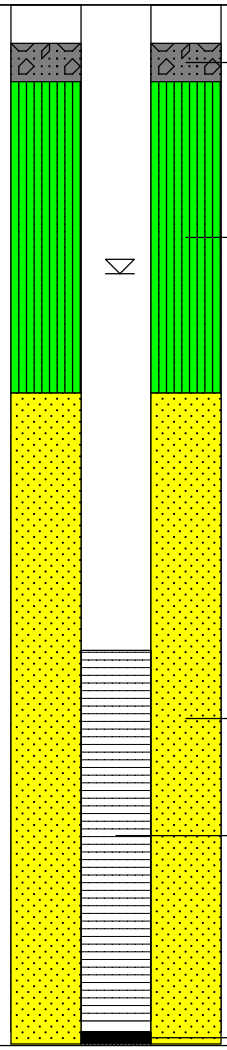
DRILLING INFORMATION

DRILLING CO.:	Atlas Geo Sampling
DRILLING METHOD:	Hollow Stem Auger (HSA)
DATE:	7/12/2016
GPS LOCATION	ACCURACY: N/A
LAT.: Not Measured	LONG.: Not Measured

▽ Water level during drilling

DEPTH (FEET)	LITHOLOGIC SYMBOLS	SOIL DESCRIPTION
-1		ASPHALT: Asphalt
-2		FILL: Fill with gray sand and gravel.
-3		SAND: Brown silty sand.
-4		
-5		
-6		SILT: Gray silt.
-7		CLAY: Gray silty clay. Damp.
-8		
-9		
-10		CLAY: Brown silty clay. Damp.
-11		
-12		
-13		GRAVELLY SAND: Gray gravelly sand. Saturated.
-14		
-15		
-16		Soils not classified.
-17		
-18		
-19		
-20		
-21		
-22		
-23		
-24		
-25		
-26		
-27		

WELL INSTALLATION



Grout

Bentonite

Sand Pack

2-inch diameter Sched 40 PVC 0.010 -inch slotted screen from 16.81 feet to 26.46 feet.

Boring terminated at 27 feet.

COMMENTS

APPENDIX B

SUMMARY OF FIELD PROCEDURES

APPENDIX B: SUMMARY OF FIELD PROCEDURES

Groundwater sampling was conducted in September 2016 at the Apollo Industries, Inc., HSI Site Number 10333 (Site). Field sampling forms are provided in Appendix C. Laboratory analytical reports are provided in Appendix D. The field activities are described in the following sections.

GROUNDWATER SAMPLING

A groundwater sampling event was conducted from September 12 through September 14, 2016. Groundwater samples were collected from fifteen (15) monitoring wells. Groundwater sampling was conducted in general accordance with the United States Environmental Protection Agency (USEPA) Region 4 Science and Ecosystem Support Division (SESD) Operating Procedure (OP) for *Groundwater Sampling* (SESDPROC-301-R3, March 2013). Prior to sampling, water level measurements were collected from each well and water quality parameters were measured. Water level measurements are presented in Table 2. The field parameters measured at the time of groundwater sampling are provided on the field forms in Appendix C. Field parameters collected during the September 2016 groundwater sampling event are presented in Table 3.

Sample Containers

The laboratory provided sample containers met the sampling requirements of the study. The laboratory verified the cleanliness of each batch of containers prior to use. The laboratory supplied the necessary preservation solutions and shipped these with the sample containers.

The field sampler took responsibility for properly identifying the location of each sample taken and for recording the sample date, the type of sample, the preservative used, and the applicable project number. This information was documented in the field book/field form. This same information was then placed on the sample identification label and the chain-of-custody record. Sample labels were filled out with indelible ink. If the field sampler determined that additional information was pertinent to a sample being taken, such data was recorded in the field book/field form.

Groundwater Level Measurement

Prior to well sampling, depth to groundwater and total well depth were measured using an electronic tape or water level indicator. A fixed point was marked with an indelible marker on each well to serve as a reference point for measurement. Depths were measured to the nearest 0.01 foot and recorded on the field sheet. The tape was cleaned with phosphate-free laboratory detergent and water, and rinsed with distilled water prior to each use.

During the last three monitoring events, the total depth field measurement for monitoring well MW-2 was not comparable to the information on the boring log and monitoring well construction diagram, as follows:

	MW-2 Boring Log/Construction Diagram	4/7/2015 Field Measurement	10/6/2015 Field Measurement	3/21/2016 Field Measurement
Total Depth (ft)	35	46.37	46.80	46.14

The monitoring well construction diagram shows that MW-2 was installed with a 15-foot screen from 20 to 35 feet below ground surface (bgs). Based on the 2015 and 2016 field measurements, it appears the total depth of well MW-2 is approximately 46 feet bgs, with an estimated screened interval from approximately 31 to 45 feet bgs. The Monitoring Well Construction Details presented in Table 1 and on Cross Section A to A' (Figure 5) have been updated to reflect the field measurements.

Well Purging

The monitoring wells were purged using a low flow/low volume method with a peristaltic or bladder pump and dedicated, disposable, Teflon-lined tubing. The pumps were decontaminated before use and between each well. The groundwater parameters of temperature, pH, specific conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity were measured during purging.

Purging continued until a minimum of three consecutive stable readings were measured with five-minute intervals between readings. The DO reading for DW-1 was higher than previous sampling events. It appeared that the DO sensor malfunctioned and the DO readings collected were not truly indicative of groundwater at DW-1. For the September 2016 monitoring event, the turbidity criterion of 10 NTUs was met for all wells. Pumping rates were reduced as much as possible to reduce the amount of drawdown in the wells. After purging began, drawdown stabilized and was less than 0.33 feet for all of the wells.

Purging was considered complete after the depth to water and water quality parameters stabilized. Purge water from the wells was temporarily placed in five-gallon buckets and emptied into a 55 gallon drum, which will be picked up and disposed at an appropriate facility off-site. Additional information regarding the purging and sampling activities including the volume of water in each well, purge rate, and depth to water during the purge process are provided in the field sampling forms in Appendix C.

Groundwater Sampling and Analysis

Groundwater samples were collected after the water level, the pH, and the specific conductance measurements appeared stabilized. The groundwater samples were placed in laboratory supplied pre-preserved containers. The containers were labeled, placed in a cooler on ice, and transported under chain-of-custody to Analytical Environmental Services, Inc. (AES) located in Norcross, Georgia. This laboratory is NELAC-certified. Groundwater samples were analyzed for

volatile organic compounds (VOCs) by EPA Method 8260B and for monitored natural attenuation (MNA) parameters including total organic carbon (TOC), alkalinity, sulfide, chloride, nitrate, sulfate, ethane, ethene, and methane. The groundwater samples were also field tested for the presence of ferrous iron using a field test kit.

Decontamination Procedures

Decontamination procedures consisted of the use of dedicated, disposable tubing at each sampling location. Equipment such as the water level indicator and field measurement instrumentation were cleaned with phosphate-free laboratory detergent and rinsed with distilled water in general accordance with the EPA SESD OP for *Field Equipment Cleaning and Decontamination* (SESDPROC-205-R2, December 2011). The equipment was allowed to air dry. Nitrile gloves were also worn and changed between each sampling location.

Equipment Calibration

Equipment used to perform field testing on groundwater samples included the following: a YSI 556 with flow thru cell to measure pH, specific conductivity, temperature, dissolved oxygen, and ORP; a Scientific Micro TPW, HF Scientific, or Hach turbidity meter to measure turbidity; and a Hach DR-890 to measure ferrous iron. Equipment calibration was verified on a daily basis.

Field Sampling Forms

Field personnel maintained a permanently bound, water resistant field notebook. Field activities were recorded with indelible ink. Additionally, sampling field forms were completed for each sample. The notebook, sampling forms, and chain-of-custody records contain sufficient information to allow reconstruction of the sample collection and handling procedures at a later time.

Chain-of-Custody

Sample custody was documented from the time of sample collection when the labeled sample was placed into an iced cooler in the possession of the sampling technician. A corresponding line item on the chain-of-custody record was filled out and initialed by the sampling technician. The chain-of-custody record is used to track custody of samples during transport and shipping. Upon completion of appropriate line items, or upon sample pick-up, the field representative signed, dated, listed the time, and confirmed the completeness of descriptive information contained on the form. The chain-of-custody form accompanied the samples and terminated upon laboratory receipt of samples. Entries were recorded in ink and individual samples had a corresponding entry on a chain-of-custody record.

Analytical Procedures and QA/QC

The groundwater samples were transported to AES in Norcross, Georgia under chain-of-custody protocol. The samples were analyzed for VOCs by EPA Method 8260B. Quality control

samples, consisting of blind duplicates, trip blanks, and laboratory method blanks were also collected and analyzed.

APPENDIX C

FIELD SAMPLING FORMS

EARTHCON®

Groundwater Sampling Record

WELL No. MW-15	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 7/14/16
SAMPLE No. MW-15	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry / Michael Guy /EarthCon	
SAMPLE TIME: 9:30	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Mostly Sunny, 80's	

Well Condition Inspection (circle one)

cover: locked not locked
number: legible not legible
outer casing: good fair poor
inner casing: good fair poor
well photographed: yes no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled deionized
- solvent rinse: acetone hexane
- air dry

Casing Diameter: (circle one) 2" 4" 6" Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 6.73
Depth of Well (feet): ~~14.42~~ 14.42
Water Column (feet): 7.69
Casing Volume (gallons/liters): 1.25
Calculated Purge Volume (gallons/liters): 3.75
Actual Purge Volume (gallons/liters): 2.50 gal
Pump Intake Depth (feet): ~11 ft

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks:
Ferrous Iron (mg/L):

Well Evacuation
Water level recovery is: very slow slow moderate fast
Bailed dry: yes no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
8:41	0								PURGE START
8:45	0.50	23.28	5.78	0.84	3.5	505	0.74	6.98	clear
8:50	0.75	23.71	5.85	1.24	-5.0	510	0.98	7.09	"
8:55	1.0	23.53	5.90	0.74	-9.9	508	~~[illegible]~~ 0.56	7.11	"
9:00	1.25	23.70	5.79	0.55	-6.7	508	0.73	7.15	"
9:05	1.50	23.28	5.86	0.57	-12.2	507	0.64	7.13	"
9:10	1.75	23.38	5.91	0.54	-16.9	506	1.00	7.21	"
9:15	1.95	23.13	5.93	0.55	-19.1	502	0.90	7.19	"
9:20	2.20	23.25	5.94	0.62	-21.0	504	0.51	7.19	"
9:30		s a	m	p	l e				

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS S/N 13C100009	7/14/16
Turbidimeter	LaMotte	2020 e S/N ME-14727	7/14/16
Peristaltic Pump	GeoTech	Geo Pump	—
~~Colorimeter~~	~~HACH~~	~~DR/890~~	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-15	VOCs	40 mL VOA	HCl	
	~~GC Analysis~~	~~40 mL VOA~~	~~HCl~~	
	~~TOC~~	~~250 mL HDPE~~	~~H_2SO_4~~	
	~~Ion Scan~~	~~500 mL HDPE~~	~~--~~	
	~~Sulfide~~	~~500 mL HDPE~~	~~Zn + NaOH~~	
	~~Alkalinity~~	~~250 mL HDPE~~	~~--~~	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-18	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 7/14/16
SAMPLE No. MW-18	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry / Michael Guy	/EarthCon
SAMPLE TIME: 11:50	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 80s	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 7.00
Depth of Well (feet): 26.74
Water Column (feet): 19.74
Casing Volume (gallons/liters): 3.22
Calculated Purge Volume (gallons/liters): 9.65
Actual Purge Volume (gallons/liters): 5.85
Pump Intake Depth (feet): ~23 ft

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks:
Ferrous Iron (mg/L):

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
9:40	0								PURGE START
9:45	0.20	22.74	5.65	12.97	-31.9	226	1612	7.28	cloudy
9:55	0.40	22.62	5.44	1.58	-206.0	226	1813	7.29	"
10:05	0.70	23.38	5.66	1.36	-262.4	230	1258	7.26	"
10:15	1.85	23.94	5.72	1.09	-299.0	229	346	7.26	"
10:25	2.25	23.76	5.74	0.87	-320.9	237	165	7.25	sl cloudy
10:35	2.70	24.16	5.75	0.59	-326.7	250	75.6	7.25	sl cloudy
10:45	3.20	23.78	5.78	0.52	-335.5	259	66.2	7.25	"
10:55	3.90	23.82	5.78	0.47	-338.7	268	31.9	7.25	"
11:05	4.25	24.03	5.79	0.42	-340.4	272	23.8	7.25	clear
11:15	4.75	24.16	5.80	0.38	-338.6	277	14.8	7.25	"
11:25	5.10	24.93	5.82	0.41	-331.7	283	14.0	7.22	"
11:30	5.25	24.95	5.81	0.84	-327.3	284	12.5	7.22	"
11:35	5.45	24.90	5.81	0.65	-321.1	284	10.8	7.22	"
11:40	5.65	25.37	5.81	0.75	-320.9	288	9.88	7.21	"
11:50		S a m p l e							

Measurement and Sampling Equipment

Type	Manufacturer	Model #		Calibration Date
Multi-Parameter	YSI	556 MPS	S/N 17C100009	7/14/16
Turbidimeter	LaMotte	2020 e	S/N ME-14727	7/14/16
Peristaltic Pump	GeoTech	GeoPump		

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-18	VOCs	40 mL VOA	HCl	
	~~GC Analysis~~	~~40 mL VOA~~	~~HCl~~	
	~~TOC~~	~~250 mL HDPE~~	~~H_2SO_4~~	
	~~Ion Scan~~	~~500 mL HDPE~~		
	~~Sulfide~~	~~500 mL HDPE~~	~~Zn + NaOH~~	
	~~Alkalinity~~	~~250 mL HDPE~~	--	

EARTHCON

Apollo Smyrna 02.20140391.16
Water Levels
Date: 9/12/2016

Monitoring Well	Top of Casing Elevation feet, MSL	Time	Depth to Water feet	Total Depth feet	Groundwater Elevation feet, MSL	Notes
DW-1	862.44	1027	4.17	49.46		
MW-1	885.30	11:11	24.05	32.01		
MW-2	896.38	11:06	27.75	46.78		Bolts are warped, needs replacing
MW-3	883.43	11:14	23.03	50.27		
MW-4	857.57	10:57	2.99	34.40		
MW-5	861.75	10:44	9.11	20.14		
MW-6R	859.61	9:54	8.70	27.40		Hard bottom
MW-7	865.47	10:18	7.54	17.10		
MW-8	892.91	9:28	26.40	45.01		
MW-9	859.86	10:38	9.30	19.23		
MW-10	901.05	9:35	20.05	29.35		
MW-11	892.84	9:24	21.30	29.55		Moderate pressure when removing well cap
MW-12	891.30	9:41	26.61	38.15		
MW-13	864.72	~~10:03~~ 10:12	~~7.24~~ 9:00	15.58		
MW-15	858.14	10:03	7.24	14.51		
MW-17	862.75	1052	7.77	23.50		
MW-18		10:01	7.43	26.80		

1.7 in distance b/t sensor and tip of meter.

EARTHCON

Groundwater Sampling Record

WELL No. DW-1	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/13/16
SAMPLE No. DW-1	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Kenton Henry	/EarthCon
SAMPLE TIME: 14:35	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Partly Cloudy, 80's	

Well Condition Inspection (circle one)

cover: locked / not locked KH
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 4.20
Depth of Well (feet): 49.46
Water Column (feet): 45.26
Casing Volume (gallons/liters): 7.38
Calculated Purge Volume (gallons/liters):
Actual Purge Volume (gallons/liters): 3.65
Pump Intake Depth (feet): ~46 ft

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks:
Ferrous Iron (mg/L): 1.62 (no dilution)

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
12:59	0								PURGE START
13:05	0.20	21.06	5.60	12.76	122.9	173	1.06	5.75	clear
13:10	0.50	20.78	5.67	12.33	126.1	172	0.88	6.51	"
13:15	0.75	20.64	5.70	12.26	131.2	172	1.38	7.43	"
13:20	1.0	20.62	5.75	9.83	132.1	173	0.48	8.09	"
13:25	1.20	20.05	5.85	10.75	129.7	172	0.55	8.80	"
13:30	1.45	19.79	5.81	13.51	135.9	172	0.73	9.58	"
13:35	1.60	20.53	5.84	11.41	134.7	173	0.62	9.91	"
13:40	1.80	19.91	6.02	11.82	116.3	170	0.68	10.30	"
13:45	2.0	19.87	5.94	12.53	91.2	173	0.54	10.65	"
13:50	2.15	19.89	6.01	12.20	61.3	175	0.76	11.00	"
13:55	2.40	19.96	6.01	12.25	49.6	177	0.55	11.28	"
14:00	2.60	20.24	6.04	12.08	43.0	179	0.49	11.34	"
14:05	2.75	20.27	6.13	11.85	30.8	182	0.63	11.35	"
14:10	2.95	20.58	6.18	11.27	21.0	197	0.60	11.31	"
14:15	3.05	20.11	6.15	10.65	8.6	204	0.58	11.34	"
14:20	3.20	20.32	6.11	10.66	7.9	206	0.54	11.33	"
14:25	3.45	20.53	6.14	11.13	1.1	213	0.58	11.34	"
14:35		S	a	m	p	l	e		

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS / S/N 12D101751	9/13/16
Turbidimeter	HF Scientific	DRT-15CE	9/13/16
Peristaltic Pump	GeoTech	Geo Pump	
Colorimeter	HACH	DR/890	

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
DW-1	VOCs	40 mL VOA	HCl	
~~DW-1~~ "	GC Analysis	40 mL VOA	HCl	
~~DW~~ "	TOC	250 mL HDPE	H_2SO_4	
"	Ion Scan /Alkalinity	500 mL HDPE	--	
"	Sulfide	250 ~~500~~ mL HDPE	Zn + NaOH	
	~~Alkalinity~~	~~250~~ mL HDPE	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-1	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/14/16
SAMPLE No. MW-1	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL COMPANY Keaton Henry	/EarthCon
SAMPLE TIME 9:55	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Mostly Sunny, 70's	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 24.09
Depth of Well (feet): 32.01
Water Column (feet): 7.92
Casing Volume (gallons/liters): 1.29
Calculated Purge Volume (gallons/liters):
Actual Purge Volume (gallons/liters): 2.55
Pump Intake Depth (feet): ~27 ft

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks: Black hue / silt in purge water
Ferrous iron (mg/L): 0.86 (no dilution)

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
8:45	0								PURGE START
8:50	0.30	20.28	5.87	3.86	-44.9	397	1.19	24.40	clear,
8:55	0.50	20.34	5.86	3.92	-54.0	405	1.80	24.56	"
9:00	0.60	20.63	6.02	5.50	-66.4	404	1.35	24.66	"
9:05	0.75	20.05	6.03	5.96	-86.2	405	0.96	24.84	"
9:10	0.95	20.08	6.21	6.29	-116.5	401	0.68	25.00	" w/ black hue
9:20	1.45	19.79	6.46	5.04	-192.4	345	0.59	25.38	"
9:30	1.75	20.11	6.58	5.79	-208.7	403	0.56	25.50	clear w/ black hue
9:35	1.95	20.12	6.61	5.59	-208.5	407	0.55	25.52	"
9:40	2.15	20.25	6.59	5.41	-207.9	415	0.50	25.56	"
9:45	2.40	20.42	6.60	5.72	-208.1	421	0.49	25.59	"
9:55		S a	m	p	l	e			

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS S/N 12D101751	9/14/16
Turbidimeter	HF Scientific	DRT-15CE	9/14/16
Peristaltic Pump	GeoTech	Geo Pump	—
Colorimeter	HACH	DR/890	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-1	VOCs	40 mL VOA	HCl	
"	GC Analysis	40 mL VOA	HCl	
"	TOC	250 mL HDPE	H_2SO_4	
"	Ion Scan / Alkalinity	500 mL HDPE	--	
"	Sulfide	250 ~~500~~ mL HDPE	Zn + NaOH	
	~~Alkalinity~~	~~250 mL HDPE~~	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-3	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/14/16
SAMPLE No. MW-3	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Rob Andrews /EarthCon	
SAMPLE TIME: 1040	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER 78°F Partly Cloudy	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- ~~potable water rinse~~
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:___

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 23.03
Depth of Well (feet): 50.27
Water Column (feet): 27.24
Casing Volume (gallons/liters): 17.78
Calculated Purge Volume (gallons/liters): 53.36
Actual Purge Volume (gallons/liters): 2.1
Pump Intake Depth (feet): 35

Measuring Point Elevation (feet): —
Groundwater Surface Elevation: —
LNAPL present: — thickness: —
DNAPL present: — thickness: —
Remarks: Initially large slug of sediment
Ferrous Iron (mg/L): 321 (diluted x3)

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
0940	0								PURGE START
0945	0.1	22.63	6.60	1.0	-129.6	0.237	52.6	23.08	Dark black
0950	0.2	22.54	6.65	0.55	-118.7	0.238	38.4	23.08	clear
0955	0.50	22.54	6.67	0.48	-115.2	0.240	24.2	23.08	
1000	0.75	22.53	6.69	0.33	-112.1	0.242	20.7	23.08	
1005	0.90	22.46	6.69	0.30	-116.7	0.245	15.40	23.08	
1010	1.5	22.56	6.56	0.31	-102.5	0.254	11.07	23.08	
1015	1.7	22.58	6.61	0.40	-101.2	0.255	9.84	23.08	
1020	1.8	22.58	6.62	0.41	-100.6	0.255	9.36	23.08	
1025	1.90	22.59	6.63	0.42	-100	0.256	8.04	23.08	
1030	1.95	22.58	6.62	0.42	-100	0.255	7.98	23.08	
1035	2.0	22.60	6.63	0.43	-99.8	0.256	7.96	23.08	
1040	Sample								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Water Quality Meter	YSI	556 MPS	9/14/16
Water Level Meter	Heron	Skinny dipper	—
Turbidity Meter	HF Scientific	DRT-15CE	9/14/16
peri pump	geotech	geopump	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-3	VOCs	40 mL VOA	HCl	
	GC Analysis	40 mL VOA	HCl	
	TOC	250 mL HDPE	H_2SO_4	
	Ion Scan	500 mL HDPE	--	
	Sulfide	500 mL HDPE	Zn + NaOH	
	Alkalinity	250 mL HDPE	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-4	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/14/16
SAMPLE No. MW-4	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry /EarthCon	
SAMPLE TIME: 12:30	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Mostly Sunny, 80s	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 2.99
Depth of Well (feet): 34.40
Water Column (feet): 31.41
Casing Volume (gallons/liters): 20.5
Calculated Purge Volume (gallons/liters):
Actual Purge Volume (gallons/liters): 255
Pump Intake Depth (feet): ~25 ft

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks:
Ferrous Iron (mg/L): 0.02 (no dilution)

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
11:29	0								PURGE START
11:35	0.25	23.90	5.86	2.25	48.2	196	3.36	3.40	clear w/ black silt
11:40	0.50	23.66	5.85	2.32	46.8	201	2.73	3.50	"
11:45	0.75	23.54	5.91	2.64	40.7	222	2.49	3.56	"
11:50	0.95	24.04	5.90	2.38	38.8	258	2.15	3.56	"
11:55	1.05	24.66	6.10	3.01	34.5	289	—	3.56	"
12:00	1.25	23.56	6.08	4.28	26.7	306	1.84	3.59	"
12:05	1.45	23.32	6.02	2.78	29.9	294	1.25	3.61	"
12:10	1.65	23.60	5.97	4.89	33.4	293	1.20	3.62	"
12:15	1.85	23.43	6.04	5.14	30.1	304	1.85	3.64	"
12:20	2.05	23.82	6.08	6.59	27.6	311	1.50	3.65	"
12:30		o a	m	p	l e				

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS S/N 12D101751	9/14/16
Turbidimeter	HF Scientific	DRT-15CE	9/14/16
Peristaltic Pump	Geo Tech	Geo Pump	—
Colorimeter	HACH	DR/890	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-4	VOCs	40 mL VOA	HCl	
"	GC Analysis	40 mL VOA	HCl	
"	TOC	250 mL HDPE	H_2SO_4	
"	Ion Scan/Alkalinity	500 mL HDPE	--	
"	Sulfide	750 ~~500 mL~~ HDPE	Zn + NaOH	
	~~Alkalinity~~	~~250 mL HDPE~~	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-5	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/12/16
SAMPLE No. MW-5	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Rob Andrews	/EarthCon
SAMPLE TIME: 1610	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER 89°F Partly Cloudy	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet):	7.11	Measuring Point Elevation (feet):	—
Depth of Well (feet):	20.14	Groundwater Surface Elevation:	—
Water Column (feet):	13.03	LNAPL present: —	thickness: —
Casing Volume (gallons/liters):	2.12	DNAPL present: —	thickness: —
Calculated Purge Volume (gallons/liters):	6.37	Remarks:	clear
Actual Purge Volume (gallons/liters):	0.80		
Pump Intake Depth (feet):	15	Ferrous Iron (mg/L):	0.02 (no dilution)

Well Evacuation

Water level recovery is: very slow / slow / moderate / fast

Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
1540	0								PURGE START
1545	0.20	27.84	5.12	3.28	35.5	0.065	3.51	7.18	clear
1550	0.28	27.24	5.08	2.84	39.7	0.063	3.26	7.20	↓
1555	0.35	27.12	5.06	2.86	48.5	0.062	2.99	7.20	↓
1600	0.55	26.84	5.04	2.87	48.6	0.062	2.62	7.20	↓
1605	0.75	26.66	5.03	2.89	48.7	0.062	2.41	7.20	↓
1610	sample								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Water Quality Meter	YSI	556 MPS	9/12/16
Water Level Meter	Heron	Skinny Dipper	—
Turbidity Meter	HF Scientific	DRT - 15CE	9/12/16
peri-pump	geotech	geopump	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-5	VOCs	40 mL VOA	HCl	
↓	GC Analysis	40 mL VOA	HCl	
↓	TOC	250 mL HDPE	H_2SO_4	
↓	Ion Scan	500 mL HDPE	--	
↓	Sulfide	500 mL HDPE	Zn + NaOH	
↓	Alkalinity	250 mL HDPE	--	

EARTHCON

Groundwater Sampling Record

WELL No. MW-6R	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/13/16
SAMPLE No. MW-6R	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Rob Andrews	/EarthCon
SAMPLE TIME: 950	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER 71°F Partly Cloudy	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet):	8.70	Measuring Point Elevation (feet):	—
Depth of Well (feet):	27.40	Groundwater Surface Elevation:	—
Water Column (feet):	18.7	LNAPL present:	— thickness: —
Casing Volume (gallons/liters):	3.04	DNAPL present:	— thickness: —
Calculated Purge Volume (gallons/liters):	9.14	Remarks:	Clear
Actual Purge Volume (gallons/liters):	1.75		
Pump Intake Depth (feet):	20	Ferrous Iron (mg/L):	0.04 Cno dilution

Well Evacuation

Water level recovery is: very slow / slow / moderate / fast

Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
855	0								PURGE START
900	0.1	21.12	5.14	3.39	52.6	0.096	1.38	8.82	Clear
905	0.45	20.94	5.41	2.86	30.4	0.095	1.19	8.80	
910	0.75	20.89	5.66	2.31	20.6	0.094	1.05	8.80	
915	0.90	20.97	5.74	5.21	15.7	0.094	1.03	8.77	
920	1.1	21.17	5.85	8.16	9.2	0.093	1.02	8.75	
925	1.25	21.43	5.90	8.09	7.6	0.093	1.01	8.75	
930	1.25	21.64	5.93	8.0	5.3	0.094	1.0	8.75	
935	1.40	21.55	5.90	7.81	6.6	0.094	0.9	8.75	
940	1.50	21.53	5.89	7.79	6.8	0.094	0.9	8.75	
945	1.75	21.52	5.89	7.79	6.9	0.093	0.9	8.75	
950	Sample								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Water Quality Meter	YSI	556 MPS	9/13/16
Water Level Meter	Heron	Skinny Dipper	—
Turbidity Meter	HF Scientific	DRT-15CE	9/13/16
Peri-pump	geotech	Geopump	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-6R	VOCs	40 mL VOA	HCl	
	GC Analysis	40 mL VOA	HCl	
	TOC	250 mL HDPE	H_2SO_4	
	Ion Scan	500 mL HDPE	--	
	Sulfide	500 mL HDPE	Zn + NaOH	
	Alkalinity	250 mL HDPE	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-7	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/12/16
SAMPLE No. MW-7	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry /EarthCon	
SAMPLE TIME: 14:35	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Partly Cloudy, 80s	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 7.55
Depth of Well (feet): 17.10
Water Column (feet): 9.55
Casing Volume (gallons/liters): 1.56
Calculated Purge Volume (gallons/liters):
Actual Purge Volume (gallons/liters): 2.40
Pump Intake Depth (feet): ~13

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks:
Ferrous Iron (mg/L): 2.06 (no dilution)

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
13:43	0								PURGE START
13:50	0.40	21.99	4.74	4.56	123.8	123	54.2	7.69	sl cloudy
13:55	0.60	21.62	4.83	3.54	106.1	136	49.4	7.69	"
14:00	0.85	21.43	5.06	3.58	67.8	171	38.8	7.70	"
14:05	1.00	21.51	5.29	2.64	26.6	211	29.1	7.71	"
14:10	1.30	21.18	5.50	1.12	-0.1	235	20.6	7.77	"
14:15	1.55	21.27	5.62	1.53	-23.8	286	12.6	7.74	clear
14:20	1.80	21.21	5.70	1.82	-32.7	288	5.90	7.74	"
14:25	2.05	21.10	5.74	1.74	-36.7	289	5.24	7.74	"
14:35		S a	m	p	l e				

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS SN 12D101751	9/12/16
Turbidimeter	HF Scientific	DRT-15CE	9/12/16
Peristaltic Pump	GeoTech	Geo Pump	—
Colorimeter	HACH	DR/890	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-7	VOCs	40 mL VOA	HCl	
"	GC Analysis	40 mL VOA	HCl	
"	TOC	250 mL HDPE	H_2SO_4	
"	~~Ion Scan~~	~~500 mL HDPE~~	--	
"	Sulfide	250 ~~500~~ mL HDPE	Zn + NaOH	
"	Alkalinity/Ion Scan	~~250 mL~~ 500 mL HDPE	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-8	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/13/16
SAMPLE No. MW-8	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Rob Andrews	/EarthCon
SAMPLE TIME: 1610	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER 78°F Partly Cloudy	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet):	26.40	Measuring Point Elevation (feet):	—
Depth of Well (feet):	45.01	Groundwater Surface Elevation:	—
Water Column (feet):	18.61	LNAPL present:	— thickness: —
Casing Volume (gallons/liters):	3.03	DNAPL present:	— thickness: —
Calculated Purge Volume (gallons/liters):	9.1	Remarks:	clear
Actual Purge Volume (gallons/liters):	1.2		
Pump Intake Depth (feet):	35	Ferrous Iron (mg/L):	0.30 (no dilution)

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
1535	0								PURGE START
1540	0.1	21.93	5.48	10.91	32	0.058	1.80	26.60	clear
1545	0.4	21.85	5.40	10.82	35	0.054	1.76	26.60	↓
1550	0.5	21.76	5.39	9.36	37	0.053	1.52	26.60	↓
1555	0.90	21.67	5.37	8.94	41.9	0.052	1.41	26.60	↓
1600	1.0	21.59	5.36	8.93	42.3	0.052	1.36	26.60	↓
1605	1.1	21.50	5.36	8.90	42.4	0.052	1.29	26.60	↓
1610	Sample								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Water Quality Meter	YSI	556 MPS	9/13/16
Water Level Meter	Heron	Skinny dipper	—
Turbidity Meter	HF Scientific	DRT-15CE	9/13/16
peri-pump	geotech	geopump	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-8	VOCs	40 mL VOA	HCl	
↓	GC Analysis	40 mL VOA	HCl	
↓	TOC	250 mL HDPE	H_2SO_4	
↓	Ion Scan	500 mL HDPE	--	
↓	Sulfide	500 mL HDPE	Zn + NaOH	
↓	Alkalinity	250 mL HDPE	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-9	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/12/16
SAMPLE No. MW-9	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Rob Andrews	/EarthCon
SAMPLE TIME: 14:30	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER 89°F Partly Cloudy	

Well Condition Inspection (circle one)

cover: locked not locked
number: legible not legible
outer casing: good fair poor
inner casing: good fair poor
well photographed: yes no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled deionized
- solvent rinse: acetone hexane
- air dry

Casing Diameter: (circle one) 2" 4" 6" Other:___

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet):	9.3	Measuring Point Elevation (feet):	—
Depth of Well (feet):	19.23	Groundwater Surface Elevation:	—
Water Column (feet):	9.93	LNAPL present: —	thickness: —
Casing Volume (gallons/liters):	1.61	DNAPL present: —	thickness: —
Calculated Purge Volume (gallons/liters):	4.8	Remarks:	Clear
Actual Purge Volume (gallons/liters):	1.25		
Pump Intake Depth (feet):	15	Ferrous Iron (mg/L):	0.05 (no dilution

Well Evacuation
Water level recovery is: very slow slow moderate fast
Bailed dry: yes no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
1350	0								PURGE START
1355	0.1	25.24	5.45	4.04	25.5	0.133	3.85	9.37	Clear
1400	0.3	24.51	5.03	3.79	42.7	0.113	3.43	9.39	
1405	0.5	23.11	4.37	2.30	73.6	0.081	2.39	9.39	
1410	0.60	22.93	4.39	1.92	73.8	0.081	2.22	9.39	
1415	0.75	22.63	4.40	1.41	73.9	0.080	1.80	9.39	
1420	0.90	22.65	4.41	1.39	73.2	0.080	1.86	9.39	
1425	1.25	22.67	4.42	1.38	73.1	0.080	1.73	9.39	
1430	sample								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Water Quality Meter	YSI	556 MPS	9/12/16
Water Level Meter	Heron	Skinny Dipper	—
Turbidity Meter	HF Scientific	DRT-15CE	→ 9/12/16
Peri-pump	geotech	geopump	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-9	VOCs	40 mL VOA	HCl	
	GC Analysis	40 mL VOA	HCl	
	TOC	250 mL HDPE	H_2SO_4	
	Ion Scan	500 mL HDPE	--	
	Sulfide	500 mL HDPE	Zn + NaOH	
	Alkalinity	250 mL HDPE	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-11	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/13/16
SAMPLE No. MW-11	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Rob Andreas	/EarthCon
SAMPLE TIME: 11:50	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER 74°F Partly Cloudy	

Well Condition Inspection (circle one)

cover: locked not locked
number: legible not legible
outer casing: good fair poor
inner casing: good fair poor
well photographed: yes no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled deionized
- solvent rinse: acetone hexane
- air dry

Casing Diameter: (circle one) 2" 4" 6" Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 21.30
Depth of Well (feet): 29.55
Water Column (feet): 8.25
Casing Volume (gallons/liters): 1.34
Calculated Purge Volume (gallons/liters): 4.03
Actual Purge Volume (gallons/liters): 1.25
Pump Intake Depth (feet): 25

Measuring Point Elevation (feet): —
Groundwater Surface Elevation: —
LNAPL present: — thickness: —
DNAPL present: — thickness: —
Remarks: Clear
Ferrous Iron (mg/L): 3.38 (diluted three X)

Well Evacuation
Water level recovery is: very slow slow moderate fast
Bailed dry: yes no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
1100	0								PURGE START
1105	0.1	23.50	5.87	1.98	-59	0.245	4.80	21.31	clear
1110	0.25	23.48	5.92	1.47	-60.2	0.262	4.65	21.31	
1115	0.70	23.44	5.94	0.94	-63.1	0.270	4.11	21.31	
1120	0.90	23.26	5.94	0.72	-81.4	0.261	4.02	21.31	
1125	1.20	22.95	5.94	0.63	-92.4	0.256	4.0	21.31	
1130	1.40	22.72	5.96	0.59	-91.1	0.253	3.52	21.31	
1135	1.50	22.23	5.97	0.53	-89.3	0.249	3.14	21.31	
1140	1.60	22.20	5.96	0.52	-88.7	0.247	2.96	21.31	
1145	1.70	22.17	5.96	0.51	-88.7	0.248	2.83	21.31	
1150	Sample								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Water Quality Meter	YSI	556 MPS	9/13/16
Water Level Meter	Heron	Skinny dipper	—
Turbidity Meter	HF Scientific	DRT-15 CE	9/13/16
peri-pump	geotech	geopump	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-11	VOCs	40 mL VOA	HCl	
	GC Analysis	40 mL VOA	HCl	
	TOC	250 mL HDPE	H_2SO_4	
	Ion Scan	500 mL HDPE	--	
	Sulfide	500 mL HDPE	Zn + NaOH	
	Alkalinity	250 mL HDPE	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-12	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/13/16
SAMPLE No. MW-12	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Rob Andrews /EarthCon	
SAMPLE TIME: 1445	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER 78°F, Partly Cloudy	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 26.61
Depth of Well (feet): 38.15
Water Column (feet): 11.54
Casing Volume (gallons/liters): 1.88
Calculated Purge Volume (gallons/liters): 5.64
Actual Purge Volume (gallons/liters): 1.25
Pump Intake Depth (feet): 30

Measuring Point Elevation (feet): —
Groundwater Surface Elevation: —
LNAPL present: — thickness: —
DNAPL present: — thickness: —
Remarks: clear
Ferrous Iron (mg/L): 0.01 (no dilution)

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
1350	0								PURGE START
1355	0.1	19.95	4.31	2.13	136.4	0.050	4.62	26.73	clear
1400	0.25	19.72	4.52	1.76	122.3	0.049	4.12	26.75	
1405	0.5	19.53	4.76	1.18	108.7	0.047	3.91	26.79	
1410	0.6	19.51	4.88	1.33	97.9	0.048	3.46	26.79	
1415	0.75	19.50	4.88	1.11	95.3	0.049	2.83	26.79	
1420	0.90	19.50	4.89	0.89	95.2	0.049	2.21	26.79	
1425	0.95	19.49	4.88	0.88	95.1	0.049	1.87	26.78	
1430	1.0	19.49	4.88	0.88	95.1	0.050	1.53	26.78	
1445	Sample								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Water Quality Meter	YSI	556 MPS	9/13/16
Water Level Meter	Heron	Skinny Dipper	—
Turbidity Meter	HF Scientific	DRT-15CE	9/13/16
peri-pump	geotech	geopump	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-12	VOCs	40 mL VOA	HCl	
	GC Analysis	40 mL VOA	HCl	
	TOC	250 mL HDPE	H_2SO_4	
	Ion Scan	500 mL HDPE	--	
	Sulfide	500 mL HDPE	Zn + NaOH	
	Alkalinity	250 mL HDPE	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-13	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/12/16
SAMPLE No. MW-13	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL-COMPANY Keaton Henry	/EarthCon
SAMPLE TIME: 16:10	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Partly Cloudy, 80s	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 8.99
Depth of Well (feet): ~~15.58~~ 15.58
Water Column (feet): 6.59
Casing Volume (gallons/liters): 1.07
Calculated Purge Volume (gallons/liters):
Actual Purge Volume (gallons/liters): 2:20
Pump Intake Depth (feet): ~11 ft

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks:
Ferrous Iron (mg/L): 2.91 (no dilution)

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
1523	0								PURGE START
15:30	0.50	20.11	5.32	1.56	11.9	197	1.72	9.44	clear
15:35	0.80	19.83	5.38	2.30	-0.5	198	1.40	9.52	"
15:40	1.00	19.93	5.48	2.27	-11.9	199	1.61	9.60	"
15:45	1.25	19.35	5.53	2.29	-18.0	200	1.49	9.65	"
15:50	1.50	19.46	5.57	1.60	-24.3	201	1.02	9.69	"
15 [illegible]:55	1.70	19.35	5.65	1.95	-31.6	200	0.96	9.70	"
16:00	1.95	19:46	5.70	1.89	-36.3	202		9.70	"
16:10 16:[illegible]		s a	m	p	l	e			

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS S/N 12D101751	9/12/16
Turbidimeter	HF Scientific	DRI-15CE	9/12/16
Peristaltic Pump	GeoTech	Geo Pump	—
Colorimeter	HACH	DR1890	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-13	VOCs	40 mL VOA	HCl	
"	GC Analysis	40 mL VOA	HCl	
"	TOC	250 mL HDPE	H_2SO_4	
	~~Ion Scan~~	~~500 mL HDPE~~	--	
"	Sulfide	250 ~~500~~ mL HDPE	Zn + NaOH	
"	Alkalinity / Ion Scan	500 ~~250~~ mL HDPE	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-15	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/13/16
SAMPLE No. MW-15	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry /EarthCon	
SAMPLE TIME: 10:10	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Mostly Sunny, 80s	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 7.27
Depth of Well (feet): 14.51
Water Column (feet): 7.24
Casing Volume (gallons/liters): 1.18
Calculated Purge Volume (gallons/liters):
Actual Purge Volume (gallons/liters): 2.0
Pump Intake Depth (feet): ~10

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks:
Ferrous Iron (mg/L): 1.38 (no dilution)

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
9:28	0								PURGE START
9:35	0.40	23.24	5.86	1.57	-55.8	554	0.56	7.47	clear
9:40	0.70	23.26	5.89	1.07	-55.7	554	0.25	7.54	"
9:45	0.95	23.28	5.91	1.00	-56.3	553	0.27	7.56	"
9:50	1.10	23.33	5.90	1.06	-55.3	553	0.34	7.60	"
9:55	1.25	23.46	5.93	1.04	-56.4	553	0.26	7.61	"
10:00	1.45	23.30	5.92	1.13	-54.5	552	0.21	7.62	
10:10		a	m	p	l	e			

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS S/N 12D101751	9/13/16
Turbidimeter	HF Scientific	DRT-15CE	9/13/16
~~Geo~~ Peristaltic Pump	GeoTech	Geo Pump	—
Colorimeter	HACH	DR/890	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-15	VOCs	40 mL VOA	HCl	
"	GC Analysis	40 mL VOA	HCl	
"	TOC	250 mL HDPE	H_2SO_4	
	~~Ion Scan~~	~~500 mL HDPE~~	--	
"	Sulfide	250 ~~500~~ mL HDPE	Zn + NaOH	
"	Alkalinity / Ion Scan	500 ~~250~~ mL HDPE	--	

EARTHCON®

Groundwater Sampling Record

WELL No. MW-17	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/13/16
SAMPLE No. MW-17	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry /EarthCon	
SAMPLE TIME: 16:05	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Partly Cloudy, 80's, Light Rain	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" / 4" / 6" / Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 7.74
Depth of Well (feet): 23.50
Water Column (feet): 15.76
Casing Volume (gallons/liters): 2.5
Calculated Purge Volume (gallons/liters):
Actual Purge Volume (gallons/liters): 2.25
Pump Intake Depth (feet): ~18 ft

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks:
Ferrous Iron (mg/L): 0.74 (no dilution)

Well Evacuation
Water level recovery is: very slow / slow / moderate / fast
Bailed dry: yes / no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
15:10	0								PURGE START
15:15	0.35	21.58	6.02	3.54	66.1	378	2.45	8.99	clear
15:20	0.55	21.65	5.83	4.19	67.8	377	1.18	9.12	"
15:25	0.75	21.40	5.82	5.06	60.4	376	1.24	9.25	"
15:30	1.0	21.45	5.88	5.48	56.1	376	0.94	9.26	"
15:35	1.15	22.14	6.06	6.12	41.9	377	0.65	9.02	"
15:40	1.40	21.86	6.06	5.01	38.1	377	0.35	8.99	"
15:45	1.60	21.38	6.05	5.12	37.5	377	0.45	9.08	"
15:50	1.75	21.24	6.01	5.49	38.7	377	0.33	9.10	"
15:55	1.95	21.17	6.03	5.02	36.0	378	0.26	9.09	
16:05		s a	m p	l	e				

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS S/N 12D101751	9/13/16
Turbidimeter	HF Scientific	DRT-15CE	9/13/16
Peristaltic Pump	Geo Tech	Geo Pump	—
Colorimeter	HACH	DR 2890	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-17	VOCs	40 mL VOA	HCl	
"	GC Analysis	40 mL VOA	HCl	
"	TOC	250 mL HDPE	H_2SO_4	
"	Ion Scan/Alkalinity	500 mL HDPE	--	
"	Sulfide	250 ~~500~~ mL HDPE	Zn + NaOH	
	~~Alkalinity~~	~~250 mL HDPE~~		

EARTHCON®

Groundwater Sampling Record

WELL No. MW-18	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 9/13/16
SAMPLE No. MW-18	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry /EarthCon	
SAMPLE TIME: 11:25	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Mostly Sunny, 80s	

Well Condition Inspection (circle one)

cover: locked / not locked
number: legible / not legible
outer casing: good / fair / poor
inner casing: good / fair / poor
well photographed: yes / no

Equipment Cleaning Procedures

- potable water and phosphate-free soap
- potable water rinse
- water rinse: distilled / deionized
- solvent rinse: acetone / hexane
- air dry

Casing Diameter: (circle one) 2" 4" 6" Other:____

Casing Volume Calculation: $(\pi r^2 h)(7.48\ gal/ft^3)$
Casing Volume (gallons/ft) for: 2" = 0.163; 4" = 0.653; 6" = 1.47
Casing Volume (liters/ft) for: 2" = 0.618; 4" = 2.47; 6" = 5.56

Depth to Water (feet): 7.47
Depth of Well (feet): 26.80
Water Column (feet): 19.33
Casing Volume (gallons/liters): 3.15
Calculated Purge Volume (gallons/liters):
Actual Purge Volume (gallons/liters): 2.25
Pump Intake Depth (feet): ~22 ft

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks:
Ferrous Iron (mg/L): 1.33 (no dilution)

Well Evacuation
Water level recovery is: very slow slow moderate fast
Bailed dry: yes no

TIME 2400 hrs	CUMULATIVE VOLUME (gal)	TEMPERATURE (°C)	pH	DISSOLVED OXYGEN (mg/L)	ORP (mV)	CONDUCTIVITY (µs/cm)	TURBIDITY (NTU)	Depth to Water (Feet)	ODOR/COLOR/ REMARKS
10:40	0								PURGE START
10:45	0.35	21.86	5.62	4.08	86.1	247	3.60	7.98	clear
10:50	0.55	22.65	5.43	3.38	90.7	250	6.72	7.84	"
10:55	0.75	22.39	5.50	2.27	86.9	250	8.30	7.84	"
11:00	1.0	22.88	5.51	2.04	84.8	247	8.08	7.85	"
11:05	1.25	22.65	5.63	2.23	82.0	240	4.64	7.86	"
11:10	1.45	22.49	5.64	2.25	81.3	237	2.40	7.87	"
11:15	1.70	22.83	5.66	2.34	77.5	234	1.67	7.89	"
11:25		S	a m	p	l	e			

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS S/N 12D101751	9/13/16
Turbidimeter	HF Scientific	DRT-15CE	9/13/16
Peristaltic Pump	GeoTech	GeoPump	—
Colorimeter	HACH	DR/890	—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-18	VOCs	40 mL VOA	HCl	
"	GC Analysis	40 mL VOA	HCl	
"	TOC	250 mL HDPE	H_2SO_4	
"	Ion Scan/Alkalinity	500 mL HDPE	--	
"	Sulfide	250 ~~500~~ mL HDPE	Zn + NaOH	
	~~Alkalinity~~	~~250 mL HDPE~~	--	

Apollo Smyrna 9/12/15
Keaton Henry
Rob Andrews
Weather: Partly Cloudy

- K. Henry arrived on-site at 8:15
  - signed in at Apollo Technologies bldg 4
  - went to landscape company on adjacent property to notify them that we will sample MW-6R either today or tomorrow
  - Spoke to Rob Huey! at 8:34 to let him know that we will be on-site for the next 3 days.
  - Rob Andrews arrived on-site at 8:50
  - Held H·S Meeting at 9:10
- Began taking GW Levels at 9:19
  - finish at 11:

Rite in the Rain

Apollo Smyrna 9/13/16
Keaton Henry
Rob Andrews

- Arrived onsite at 7:25
- Signed in at Apollo Technologies Bldg 4

Calibration
YSI 556 MPS S/N 12D101751
DO - 763.8 mmHg @ 22.5°C = 8.6 mg/L ✓
Cond: 4.44 mS/cm = 4.44 ✓
pH 4 = 4.0 ✓
7 = 7.0 ✓
10 = ~~10.0~~ 9.97 ✓
ORP: 228 mV = 228 mV ✓
Turbidimeter DRT-15CE
0.02 NTU = 0.01 NTU ✓

- Rob Andrews arrived onsite at 7:50

- left site at 8:15 to meet Javeed to pick up 55 gal drums
- arrived back onsite w/ drums at 9:00

Apollo Smyrna 9/13/16

- Arrived at MW-15 at 9:08
  - began purging at 9:28
  - Sampled at 10:10
- Arrival at MW-18 at 10:35
  - began purging at 10:40
  - Sampled at 11:25
  - left well at 11:46
- Left site for lunch at 11:55
- Arrived back on-site at 12:30
  - assisted R Andrews w/ colorimeter issues.
- Arrival at DW-1 at 12:46
  - began purging at 12:59
  - Sampled at 14:35
  - left well at 14:52

Rite in the Rain

Apollo Smyrna 9/13/16

- Arrived at MW-17 at 14:35
  - begun purging at 15:10
  - sampled at 16:05
  - left well at 16:30

- met w/ Danielle Edwards and transferred samples and one 55 gal drum at 17:10

- left site at 17:23.

Apollo Smyrna 9/14/16

Keaton Henry
Rob Andrews

- Arrived on-site at 7:25
  - signed in at Apollo Technologies Bldg 4

- Calibration 7:40
  YSI 556 MPS - S/N 12D101751
  - DO 23.5°C, 763.8 mmHg - 8.5 mg/L = 8.5 ✓
  - cond. 4.49 mS/cm = 4.49 mS/cm ✓
  - pH 4: 4 ✓
    7: 7 ✓
  - ORP 228 mV = 228 mV

- Arrived at MW-1 at 8:10
  - begun purging at 8:45
  - assisted R Andrews w/ tubing issues at MW-3
  - sampled at 9:55
    - collected Field DUP (VOCs only
  - WELL NEEDS NEW LOCK!!!
  - left well at 10:39
    - note, well area, potentially purge water, had slight septic smell

Rite in the Rain

Apollo Sampling 9/14/16

- Arrived at MW-4 at 10:42
  - tubing would not go past 10 ft in well. Added check valve to end tip of tubing to guide tubing down well.
  - begun purging at 11:29.
  - sampled at 12:30
  - left well at 12:53

- Pack up and left site at 13:05

9/12/16

0830 R. Andrews (Earth Con) on-site.
0835 Review and sign HASP
0840 Begin collecting MW DTWs

1130 Begin Calibrating equipment

YSI 556 MPS - 10M100160

DO @ 768.10 @ 25.20°C →

	Begin	Cal To	End
Cond	4.16	4.49	4.60
pH 4	3.88	4.0	4.0
pH 7	7.02	7.0	7.0
ORP	223.4	228	228.0 - lost
pH 10	9.88	10.0	9.98

HF Scientific DRT-15CE Turbidimeter

	Begin	Cal To	End
NTU	0.17	0.02	0.02

1200 Off-site for lunch.

9/12/16

1300 On-site, return from lunch.

1330 Set up on MW-9.

1350 Begin purging MW-9

1430 Begin sampling MW-9 for VOCs, GC Analysis, TOC, Ion Scan, sulfide and alkalinity.

1540 Begin purging MW-5.

1610 Begin sampling MW-5 for VOCs, GC Analysis, TOC, Ion Scan, sulfide and alkalinity.

1630 Pack samples, wait for DE.

1730 DE picks up samples. Leave site.

RJA

Rite in the Rain

9/13/16

0800 R. Andrews (Earth Con) on-site.

0815 Begin calibrating equipement.

YSI 556 MPS - 10 M 100 160

DO @ 768.2 @ 21.13°C →

	Begin	Cal To	End
Cond	4.41	4.49	4.53
pH4	4.07	4.0	4.0
pH7	7.03	7.0	7.0
pH10	9.93	10.0	9.99
ORP	231.7	228	228

HF Scientific ORT-15CE Turbidimeter

	Begin	Cal to	End
NTU	0.06	0.02	0.02

0820 Set up on MW-6R

0855 Begin purging MW-6R.

9/13/16

0950 Sample MW-6R for VOCs, TOC, Ion Scan, GC Analysis, ~~Iron Scan~~ (RA) Sulfide, Alkalinity.

1040 Setup on MW-11.

1100 Begin purging MW-11.

1150 Sample MW-11 for VOCs, TOC, Ion Scan, GC Analysis, Sulfide, Alkalinity

1200 Lunch

1350 Begin purging MW-12.

1445 Sample MW-12 for VOCs, TOC, Ion Scan, GC Analysis, Sulfide, Alkalinity

1535 Begin purging MW-8.

1610 Sample MW-8 for VOCs, TOC

Rite in the Rain

9/13/16

Ion Scan, GC Analysis, Sulfide, Alkalinity

1700 OE on-site to pick-up samples.

1730 off-site.

9/14/16

0800 R. Andrews (Earth Cal) on-site.

0805 Begin calibrating equipment.

YSI 556 MPS - 10 M100160

DO @ 766.5 @ 22.70

	Begin	Cal To	End
Cond	4.43	4.49	4.46
pH 4	3.94	4.0	4.0
pH 7	7.11	7.0	7.0
pH 10	9.82	10.0	10.0
ORP	220.4	228	228

HF Scientific DRT-15CE Turbidimeter

	Begin	Cal To	End
NTU	0.07	0.02	0.02

0830 Set-up on MW-3.

0940 Begin purging MW-3.

Rite in the Rain

9/14/16

1040 Sample MW-3 for VOCs, G.C Analysis, TOC, Ion Scan, Sulfide & Alkalinity

1130 Inspect well flush mounts, replace bolts/washers if missing

1150 MW-10 eyelet broken, only 1 bolt holding well cover.

1200 Pack-up / organize / decon equipment.

1300 Leave site.

RJ

APPENDIX D

LABORATORY ANALYTICAL REPORTS

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

July 19, 2016

Kristen Rivera
EarthCon Consultants, Inc.
1880 West Oak Parkway
Marietta GA 30062

TEL: (770) 973-2100
FAX: (770) 973-7395

RE: Apollo Smyrna

Dear Kristen Rivera: Order No: 1607A61

Analytical Environmental Services, Inc. received 3 samples on July 14, 2016 1:09 pm 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's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Chris Pafford
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1607A61

Date: 7/14/16 Page 1 of 1

COMPANY: EarthCon Consultants, Inc

ADDRESS: 1880 W Oak Pkwy Bldg 100 Suite 106 Marietta, GA 30062

PHONE: 770-973-2100

FAX: 770-973-7395

SAMPLED BY: Keaton Henry/I

SIGNATURE: [signature]

ANALYSIS REQUESTED: VOC

PRESERVATION (See codes): H+I

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC (H+I)	REMARKS	No # of Containers
1	MW-15	7/14/16	9:30	✓		GW	2		2
2	MW-18	7/14/16	11:50	✓		GW	2		2
3	Trip Blank	7/14/16	—	✓		W	2		2
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	7/14/16 13:09	1: Pamo Masoud	7-14-16 1:09
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER _____

PROJECT INFORMATION
PROJECT NAME: Apollo Smyrna
PROJECT #: 02.20140391.16
SITE ADDRESS:
SEND REPORT TO: Kristen Rivera
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers: 6

Turnaround Time Request
- ● Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other _____

STATE PROGRAM (if any): _____
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 I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

1607A61

COMPANY: EARTHCON CONSULTANTS

PHONE: 770-973-2100

PROJECT MANAGER: KRISTEN RIVERA

PROJECT NAME: APOLLO SMYRNA

PROJECT NUMBER: 02.20140391.16

SITE ADDRESS: 1850 SOUTH COBB INDUSTRIAL BLVD, SMYRNA, GEORGIA

FOR SAMPLE ANALYSES VIA METHOD 8260B, PLEASE REPORT ONLY THE FOLLOWING VOC CONSTITUENTS AT THE RESPECTIVE REPORTING LIMITS IN UNITS OF PPM:

ACETONE – 0.050 mg/L

1,1,1-TRICHLOROETHANE (1,1,1-TCA) – 0.005 mg/L

1,1-DICHLOROETHANE (1,1-DCA) – 0.005 mg/L

1,1-DICHLORETHENE (1,1-DCE) – 0.005 mg/L

1,2-DICHLORETHANE (1,2-DCA) – 0.005 mg/L

CHLOROETHANE – 0.010 mg/L

cis-1,2-DICHLOROETHENE (cis-1,2-DCE) – 0.005 mg/L

CYCLOHEXANE – 0.005 mg/L

METHYLENE CHLORIDE – 0.005 mg/L

TETRACHLOROETHENE (PCE) – 0.005 mg/L

trans-1,2-DICHLORETHENE (trans-1,2-DCE) – 0.005 mg/L

TRICHLOROETHENE (TCE) – 0.005 mg/L

VINYL CHLORIDE – 0.002 mg/L

Analytical Environmental Services, Inc

Date: 19-Jul-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-15
Project Name:	Apollo Smyrna	**Collection Date:**	7/14/2016 9:30:00 AM
Lab ID:	1607A61-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	226834	1	07/15/2016 17:04	NP
1,1-Dichloroethane	0.001	J	0.00025	0.005	mg/L	226834	1	07/15/2016 17:04	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	226834	1	07/15/2016 17:04	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	226834	1	07/15/2016 17:04	NP
Acetone	BRL		0.0053	0.050	mg/L	226834	1	07/15/2016 17:04	NP
Chloroethane	0.071		0.00039	0.010	mg/L	226834	1	07/15/2016 17:04	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	226834	1	07/15/2016 17:04	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	226834	1	07/15/2016 17:04	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	226834	1	07/15/2016 17:04	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	226834	1	07/15/2016 17:04	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	226834	1	07/15/2016 17:04	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	226834	1	07/15/2016 17:04	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	226834	1	07/15/2016 17:04	NP
Surr: 4-Bromofluorobenzene	92.4		0	70.7-125	%REC	226834	1	07/15/2016 17:04	NP
Surr: Dibromofluoromethane	112		0	82.2-120	%REC	226834	1	07/15/2016 17:04	NP
Surr: Toluene-d8	101		0	81.8-120	%REC	226834	1	07/15/2016 17:04	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 19-Jul-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-18
Project Name:	Apollo Smyrna	**Collection Date:**	7/14/2016 11:50:00 AM
Lab ID:	1607A61-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.001	J	0.00025	0.005	mg/L	226834	1	07/15/2016 17:27	NP
1,1-Dichloroethane	0.17		0.00025	0.005	mg/L	226834	1	07/15/2016 17:27	NP
1,1-Dichloroethene	0.63		0.0036	0.050	mg/L	226834	10	07/18/2016 15:07	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	226834	1	07/15/2016 17:27	NP
Acetone	BRL		0.0053	0.050	mg/L	226834	1	07/15/2016 17:27	NP
Chloroethane	0.028		0.00039	0.010	mg/L	226834	1	07/15/2016 17:27	NP
cis-1,2-Dichloroethene	0.14		0.00027	0.005	mg/L	226834	1	07/15/2016 17:27	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	226834	1	07/15/2016 17:27	NP
Methylene chloride	0.001	J	0.00031	0.005	mg/L	226834	1	07/15/2016 17:27	NP
Tetrachloroethene	0.15		0.00029	0.005	mg/L	226834	1	07/15/2016 17:27	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	226834	1	07/15/2016 17:27	NP
Trichloroethene	0.10		0.00035	0.005	mg/L	226834	1	07/15/2016 17:27	NP
Vinyl chloride	0.011		0.00042	0.002	mg/L	226834	1	07/15/2016 17:27	NP
Surr: 4-Bromofluorobenzene	93.4		0	70.7-125	%REC	226834	1	07/15/2016 17:27	NP
Surr: 4-Bromofluorobenzene	94.3		0	70.7-125	%REC	226834	10	07/18/2016 15:07	NP
Surr: Dibromofluoromethane	114		0	82.2-120	%REC	226834	1	07/15/2016 17:27	NP
Surr: Dibromofluoromethane	115		0	82.2-120	%REC	226834	10	07/18/2016 15:07	NP
Surr: Toluene-d8	101		0	81.8-120	%REC	226834	1	07/15/2016 17:27	NP
Surr: Toluene-d8	101		0	81.8-120	%REC	226834	10	07/18/2016 15:07	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 19-Jul-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Apollo Smyrna	**Collection Date:**	7/14/2016
Lab ID:	1607A61-003	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	226834	1	07/15/2016 16:40	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	226834	1	07/15/2016 16:40	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	226834	1	07/15/2016 16:40	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	226834	1	07/15/2016 16:40	NP
Acetone	BRL		0.0053	0.050	mg/L	226834	1	07/15/2016 16:40	NP
Chloroethane	BRL		0.00039	0.010	mg/L	226834	1	07/15/2016 16:40	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	226834	1	07/15/2016 16:40	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	226834	1	07/15/2016 16:40	NP
Methylene chloride	0.002	J	0.00031	0.005	mg/L	226834	1	07/15/2016 16:40	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	226834	1	07/15/2016 16:40	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	226834	1	07/15/2016 16:40	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	226834	1	07/15/2016 16:40	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	226834	1	07/15/2016 16:40	NP
Surr: 4-Bromofluorobenzene	95.8		0	70.7-125	%REC	226834	1	07/15/2016 16:40	NP
Surr: Dibromofluoromethane	110		0	82.2-120	%REC	226834	1	07/15/2016 16:40	NP
Surr: Toluene-d8	98.9		0	81.8-120	%REC	226834	1	07/15/2016 16:40	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Earthcon Work Order Number 1607A61

Checklist completed by Rama Masoud 7/14/16
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (0°≤6°C)*	Yes ✓	No __	

Cooler #1 1-2 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.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1607A61

ANALYTICAL QC SUMMARY REPORT

BatchID: 226834

Sample ID: **MB-226834** Client ID: Units: **mg/L** Prep Date: **07/15/2016** Run No: **321114**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **226834** Analysis Date: **07/15/2016** Seq No: **6938474**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	0.005									
1,1-Dichloroethane	BRL	0.005									
1,1-Dichloroethene	BRL	0.005									
1,2-Dichloroethane	BRL	0.005									
Acetone	BRL	0.050									
Chloroethane	BRL	0.010									
cis-1,2-Dichloroethene	BRL	0.005									
Cyclohexane	BRL	0.005									
Methylene chloride	BRL	0.005									
Tetrachloroethene	BRL	0.005									
trans-1,2-Dichloroethene	BRL	0.005									
Trichloroethene	BRL	0.005									
Vinyl chloride	BRL	0.002									
Surr: 4-Bromofluorobenzene	0.04821	0	50.00		96.4	70.7	125				
Surr: Dibromofluoromethane	0.05707	0	50.00		114	82.2	120				
Surr: Toluene-d8	0.05037	0	50.00		101	81.8	120				

Sample ID: **LCS-226834** Client ID: Units: **mg/L** Prep Date: **07/15/2016** Run No: **321114**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **226834** Analysis Date: **07/15/2016** Seq No: **6938472**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.05482	0.005	50.00		110	65.3	137				
Trichloroethene	0.04778	0.005	50.00		95.6	73.1	128				
Surr: 4-Bromofluorobenzene	0.04842	0	50.00		96.8	70.7	125				
Surr: Dibromofluoromethane	0.05467	0	50.00		109	82.2	120				
Surr: Toluene-d8	0.04957	0	50.00		99.1	81.8	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1607A61

ANALYTICAL QC SUMMARY REPORT

BatchID: **226834**

Sample ID: **1607A61-001AMS** Client ID: **MW-15** Units: **mg/L** Prep Date: **07/15/2016** Run No: **321219**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **226834** Analysis Date: **07/18/2016** Seq No: **6940875**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.07113	0.005	50.00		142	60	150				
Trichloroethene	0.05284	0.005	50.00		106	70	136				
Surr: 4-Bromofluorobenzene	0.04865	0	50.00		97.3	70.7	125				
Surr: Dibromofluoromethane	0.05599	0	50.00		112	82.2	120				
Surr: Toluene-d8	0.05031	0	50.00		101	81.8	120				

Sample ID: **1607A61-001AMSD** Client ID: **MW-15** Units: **mg/L** Prep Date: **07/15/2016** Run No: **321219**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **226834** Analysis Date: **07/18/2016** Seq No: **6940876**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.07460	0.005	50.00		149	60	150	71.13	4.76	17.7	
Trichloroethene	0.05677	0.005	50.00		114	70	136	52.84	7.17	20	
Surr: 4-Bromofluorobenzene	0.04645	0	50.00		92.9	70.7	125	48.65	0	0	
Surr: Dibromofluoromethane	0.05571	0	50.00		111	82.2	120	55.99	0	0	
Surr: Toluene-d8	0.04961	0	50.00		99.2	81.8	120	50.31	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		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

September 21, 2016

Samantha Woolf
EarthCon Consultants, Inc.
1880 West Oak Parkway
Marietta GA 30062

TEL: (770) 973-2100
FAX: (770) 973-7395

RE: Apollo Smyrna

Dear Samantha Woolf: Order No: 1609A03

Analytical Environmental Services, Inc. received 5 samples on September 13, 2016 5:00 pm 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's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Chris Pafford
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1609A03

Date: 9/12/16 Page 1 of 1

COMPANY: EarthCon Consultants
ADDRESS: 1880 West Oak Pkwy Bldg 100 Suite 106 Marietta, GA 30062
PHONE: 770-973-2100
FAX: 770-973-7395
SAMPLED BY: Keaston Henry / Rob Andrews
SIGNATURE:

ANALYSIS REQUESTED: VOCs; GC Analysis; TOC; Sulfide; Alkalinity, Iron Scan

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs	GC Analysis	TOC	Sulfide	Alkalinity, Iron Scan	REMARKS	No # of Containers
1	MW-7	9/12/16	14:35	X		GW	2	2	1	1	1		7
2	MW-13	9/12/16	16:10	X		GW	2	2	1	1	1		7
3	MW-5	9/12/16	16:10	X		GW	2	2	1	1	1		7
4	MW-9	9/12/16	14:30	X		GW	2	2	1	1	1		7
5	Trip Blank	9/12/16	—	X		W	2						2
6													
7													
8													
9													
10													
11													
12													
13													
14													

PRESERVATION (See codes)

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	9/12/16 1745	1:	9/12/16 17:45
2:	9/13/16 13:36	2:	9/13/16 13:36
3:	9/13/16 ~~1336~~ 17:00	3:	9/13/16 ~~1336~~ TD 9/13 1700

SPECIAL INSTRUCTIONS/COMMENTS: Nitrates: 48 hr hold tim

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Apollo Smyrna
PROJECT #: 02.20140391.16
SITE ADDRESS:
SEND REPORT TO: Samantha Wood
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers: 30

Turnaround Time Request
- (●) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other _____

STATE PROGRAM (if any): _____
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 I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

1609A03

COMPANY: EARTHCON CONSULTANTS

PHONE: 770-973-2100

PROJECT MANAGER: SAMANTHA WOOLF

PROJECT NAME: APOLLO SMYRNA

PROJECT NUMBER: 02.20140391.16

SITE ADDRESS: 1850 SOUTH COBB INDUSTRIAL BLVD, SMYRNA, GEORGIA

FOR SAMPLE ANALYSES VIA METHOD 8260B, PLEASE REPORT ONLY THE FOLLOWING VOC CONSTITUENTS AT THE RESPECTIVE REPORTING LIMITS IN UNITS OF PPM:

ACETONE – 0.050 mg/L

1,1,1-TRICHLOROETHANE (1,1,1-TCA) – 0.005 mg/L

1,1-DICHLOROETHANE (1,1-DCA) – 0.005 mg/L

1,1-DICHLORETHENE (1,1-DCE) – 0.005 mg/L

1,2-DICHLORETHANE (1,2-DCA) – 0.005 mg/L

CHLOROETHANE – 0.010 mg/L

cis-1,2-DICHLOROETHENE (cis-1,2-DCE) – 0.005 mg/L

CYCLOHEXANE – 0.005 mg/L

METHYLENE CHLORIDE – 0.005 mg/L

TETRACHLOROETHENE (PCE) – 0.005 mg/L

trans-1,2-DICHLORETHENE (trans-1,2-DCE) – 0.005 mg/L

TRICHLOROETHENE (TCE) – 0.005 mg/L

VINYL CHLORIDE – 0.002 mg/L

Analytical Environmental Services, Inc

Date: 21-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-7
Project Name:	Apollo Smyrna	**Collection Date:**	9/12/2016 2:35:00 PM
Lab ID:	1609A03-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R325429	1	09/16/2016 18:02	JW
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	229399	1	09/14/2016 17:49	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	229399	1	09/14/2016 17:49	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229399	1	09/14/2016 17:49	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229399	1	09/14/2016 17:49	NP
Acetone	BRL		0.0053	0.050	mg/L	229399	1	09/14/2016 17:49	NP
Chloroethane	BRL		0.00039	0.010	mg/L	229399	1	09/14/2016 17:49	NP
cis-1,2-Dichloroethene	0.17		0.00027	0.005	mg/L	229399	1	09/14/2016 17:49	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229399	1	09/14/2016 17:49	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229399	1	09/14/2016 17:49	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229399	1	09/14/2016 17:49	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229399	1	09/14/2016 17:49	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	229399	1	09/14/2016 17:49	NP
Vinyl chloride	0.35		0.0042	0.020	mg/L	229399	10	09/15/2016 15:21	NP
Surr: 4-Bromofluorobenzene	91		0	70.7-125	%REC	229399	1	09/14/2016 17:49	NP
Surr: 4-Bromofluorobenzene	85.9		0	70.7-125	%REC	229399	10	09/15/2016 15:21	NP
Surr: Dibromofluoromethane	119		0	82.2-120	%REC	229399	1	09/14/2016 17:49	NP
Surr: Dibromofluoromethane	114		0	82.2-120	%REC	229399	10	09/15/2016 15:21	NP
Surr: Toluene-d8	104		0	81.8-120	%REC	229399	1	09/14/2016 17:49	NP
Surr: Toluene-d8	102		0	81.8-120	%REC	229399	10	09/15/2016 15:21	NP
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	2.00		0.764	2.00	mg/L	229608	1	09/19/2016 12:15	BD
ION SCAN SW9056A									
Chloride	7.4		0.11	1.0	mg/L	R325419	1	09/14/2016 03:55	JW
Nitrate	BRL		0.024	0.25	mg/L	R325419	1	09/14/2016 03:55	JW
Sulfate	1.6		0.10	1.0	mg/L	R325419	1	09/14/2016 03:55	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.040		0.0019	0.0090	mg/L	229481	1	09/16/2016 11:00	MD
Ethylene	0.17		0.0035	0.0070	mg/L	229481	1	09/16/2016 11:00	MD
Methane	3.3		0.024	0.080	mg/L	229481	20	09/16/2016 12:01	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	47.0		1.68	3.00	mg/L	R325605	1	09/20/2016 20:00	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 21-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-13
Project Name:	Apollo Smyrna	**Collection Date:**	9/12/2016 4:10:00 PM
Lab ID:	1609A03-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R325429	1	09/16/2016 19:27	JW
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	229399	1	09/14/2016 18:12	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	229399	1	09/14/2016 18:12	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229399	1	09/14/2016 18:12	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229399	1	09/14/2016 18:12	NP
Acetone	BRL		0.0053	0.050	mg/L	229399	1	09/14/2016 18:12	NP
Chloroethane	BRL		0.00039	0.010	mg/L	229399	1	09/14/2016 18:12	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	229399	1	09/14/2016 18:12	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229399	1	09/14/2016 18:12	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229399	1	09/14/2016 18:12	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229399	1	09/14/2016 18:12	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229399	1	09/14/2016 18:12	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	229399	1	09/14/2016 18:12	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	229399	1	09/14/2016 18:12	NP
Surr: 4-Bromofluorobenzene	86.5		0	70.7-125	%REC	229399	1	09/14/2016 18:12	NP
Surr: Dibromofluoromethane	116		0	82.2-120	%REC	229399	1	09/14/2016 18:12	NP
Surr: Toluene-d8	102		0	81.8-120	%REC	229399	1	09/14/2016 18:12	NP
Sulfide by SW9030B/9034 (SW9030B)									
Sulfide	5.20		0.764	2.00	mg/L	229608	1	09/19/2016 12:15	BD
ION SCAN SW9056A									
Chloride	7.8		0.11	1.0	mg/L	R325419	1	09/14/2016 04:10	JW
Nitrate	BRL		0.024	0.25	mg/L	R325419	1	09/14/2016 04:10	JW
Sulfate	0.15	J	0.10	1.0	mg/L	R325419	1	09/14/2016 04:10	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)									
Ethane	0.13		0.0019	0.0090	mg/L	229481	1	09/16/2016 11:05	MD
Ethylene	BRL		0.0035	0.0070	mg/L	229481	1	09/16/2016 11:05	MD
Methane	4.0		0.047	0.16	mg/L	229481	40	09/16/2016 12:06	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	54.0		1.68	3.00	mg/L	R325605	1	09/20/2016 20:00	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 21-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-5
Project Name:	Apollo Smyrna	**Collection Date:**	9/12/2016 4:10:00 PM
Lab ID:	1609A03-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R325429	1	09/16/2016 19:54	JW
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	229399	1	09/14/2016 18:36	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	229399	1	09/14/2016 18:36	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229399	1	09/14/2016 18:36	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229399	1	09/14/2016 18:36	NP
Acetone	BRL		0.0053	0.050	mg/L	229399	1	09/14/2016 18:36	NP
Chloroethane	BRL		0.00039	0.010	mg/L	229399	1	09/14/2016 18:36	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	229399	1	09/14/2016 18:36	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229399	1	09/14/2016 18:36	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229399	1	09/14/2016 18:36	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229399	1	09/14/2016 18:36	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229399	1	09/14/2016 18:36	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	229399	1	09/14/2016 18:36	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	229399	1	09/14/2016 18:36	NP
Surr: 4-Bromofluorobenzene	91.7		0	70.7-125	%REC	229399	1	09/14/2016 18:36	NP
Surr: Dibromofluoromethane	119		0	82.2-120	%REC	229399	1	09/14/2016 18:36	NP
Surr: Toluene-d8	104		0	81.8-120	%REC	229399	1	09/14/2016 18:36	NP
Sulfide by SW9030B/9034 (SW9030B)									
Sulfide	2.80		0.764	2.00	mg/L	229608	1	09/19/2016 12:15	BD
ION SCAN SW9056A									
Chloride	5.1		0.11	1.0	mg/L	R325419	1	09/14/2016 04:25	JW
Nitrate	0.47		0.024	0.25	mg/L	R325419	1	09/14/2016 04:25	JW
Sulfate	1.1		0.10	1.0	mg/L	R325419	1	09/14/2016 04:25	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)									
Ethane	BRL		0.0019	0.0090	mg/L	229481	1	09/16/2016 11:11	MD
Ethylene	BRL		0.0035	0.0070	mg/L	229481	1	09/16/2016 11:11	MD
Methane	BRL		0.0012	0.0040	mg/L	229481	1	09/16/2016 11:11	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	BRL		1.68	3.00	mg/L	R325605	1	09/20/2016 20:00	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 21-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-9
Project Name:	Apollo Smyrna	**Collection Date:**	9/12/2016 2:30:00 PM
Lab ID:	1609A03-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R325429	1	09/16/2016 20:23	JW
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	229399	1	09/14/2016 18:59	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	229399	1	09/14/2016 18:59	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229399	1	09/14/2016 18:59	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229399	1	09/14/2016 18:59	NP
Acetone	BRL		0.0053	0.050	mg/L	229399	1	09/14/2016 18:59	NP
Chloroethane	BRL		0.00039	0.010	mg/L	229399	1	09/14/2016 18:59	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	229399	1	09/14/2016 18:59	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229399	1	09/14/2016 18:59	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229399	1	09/14/2016 18:59	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229399	1	09/14/2016 18:59	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229399	1	09/14/2016 18:59	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	229399	1	09/14/2016 18:59	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	229399	1	09/14/2016 18:59	NP
Surr: 4-Bromofluorobenzene	88.1		0	70.7-125	%REC	229399	1	09/14/2016 18:59	NP
Surr: Dibromofluoromethane	116		0	82.2-120	%REC	229399	1	09/14/2016 18:59	NP
Surr: Toluene-d8	100		0	81.8-120	%REC	229399	1	09/14/2016 18:59	NP
Sulfide by SW9030B/9034 (SW9030B)									
Sulfide	2.00		0.764	2.00	mg/L	229608	1	09/19/2016 12:15	BD
ION SCAN SW9056A									
Chloride	10.0		0.11	1.0	mg/L	R325419	1	09/14/2016 04:39	JW
Nitrate	0.065	J	0.024	0.25	mg/L	R325419	1	09/14/2016 04:39	JW
Sulfate	2.5		0.10	1.0	mg/L	R325419	1	09/14/2016 04:39	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)									
Ethane	BRL		0.0019	0.0090	mg/L	229481	1	09/16/2016 11:17	MD
Ethylene	BRL		0.0035	0.0070	mg/L	229481	1	09/16/2016 11:17	MD
Methane	0.28		0.0024	0.0080	mg/L	229481	2	09/16/2016 12:11	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	BRL		1.68	3.00	mg/L	R325605	1	09/20/2016 20:00	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 21-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Apollo Smyrna	**Collection Date:**	9/13/2016
Lab ID:	1609A03-005	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	229399	1	09/14/2016 17:25	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	229399	1	09/14/2016 17:25	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229399	1	09/14/2016 17:25	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229399	1	09/14/2016 17:25	NP
Acetone	0.015	J	0.0053	0.050	mg/L	229399	1	09/14/2016 17:25	NP
Chloroethane	BRL		0.00039	0.010	mg/L	229399	1	09/14/2016 17:25	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	229399	1	09/14/2016 17:25	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229399	1	09/14/2016 17:25	NP
Methylene chloride	0.003	J	0.00031	0.005	mg/L	229399	1	09/14/2016 17:25	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229399	1	09/14/2016 17:25	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229399	1	09/14/2016 17:25	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	229399	1	09/14/2016 17:25	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	229399	1	09/14/2016 17:25	NP
Surr: 4-Bromofluorobenzene	92.6		0	70.7-125	%REC	229399	1	09/14/2016 17:25	NP
Surr: Dibromofluoromethane	114		0	82.2-120	%REC	229399	1	09/14/2016 17:25	NP
Surr: Toluene-d8	102		0	81.8-120	%REC	229399	1	09/14/2016 17:25	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Earthcare Work Order Number 1609HA03

Checklist completed by [signature] 9/13/10
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 1.8 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 TB

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.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Analytical Environmental Services, Inc

Date: 21-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Lab Order: 1609A03

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1609A03-001A	MW-7	9/12/2016 2:35:00PM	Groundwater	TCL VOLATILE ORGANICS		9/14/2016 9:09:00 AM	09/14/2016
1609A03-001A	MW-7	9/12/2016 2:35:00PM	Groundwater	TCL VOLATILE ORGANICS		9/14/2016 9:09:00 AM	09/15/2016
1609A03-001B	MW-7	9/12/2016 2:35:00PM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A03-001C	MW-7	9/12/2016 2:35:00PM	Groundwater	Total Organic Carbon (TOC)			09/16/2016
1609A03-001D	MW-7	9/12/2016 2:35:00PM	Groundwater	Sulfide by SW9030/9034		9/19/2016 12:15:00 PM	09/19/2016
1609A03-001E	MW-7	9/12/2016 2:35:00PM	Groundwater	ION SCAN			09/14/2016
1609A03-001E	MW-7	9/12/2016 2:35:00PM	Groundwater	Alkalinity by SM2320B			09/20/2016
1609A03-002A	MW-13	9/12/2016 4:10:00PM	Groundwater	TCL VOLATILE ORGANICS		9/14/2016 9:09:00 AM	09/14/2016
1609A03-002B	MW-13	9/12/2016 4:10:00PM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A03-002C	MW-13	9/12/2016 4:10:00PM	Groundwater	Total Organic Carbon (TOC)			09/16/2016
1609A03-002D	MW-13	9/12/2016 4:10:00PM	Groundwater	Sulfide by SW9030/9034		9/19/2016 12:15:00 PM	09/19/2016
1609A03-002E	MW-13	9/12/2016 4:10:00PM	Groundwater	ION SCAN			09/14/2016
1609A03-002E	MW-13	9/12/2016 4:10:00PM	Groundwater	Alkalinity by SM2320B			09/20/2016
1609A03-003A	MW-5	9/12/2016 4:10:00PM	Groundwater	TCL VOLATILE ORGANICS		9/14/2016 9:09:00 AM	09/14/2016
1609A03-003B	MW-5	9/12/2016 4:10:00PM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A03-003C	MW-5	9/12/2016 4:10:00PM	Groundwater	Total Organic Carbon (TOC)			09/16/2016
1609A03-003D	MW-5	9/12/2016 4:10:00PM	Groundwater	Sulfide by SW9030/9034		9/19/2016 12:15:00 PM	09/19/2016
1609A03-003E	MW-5	9/12/2016 4:10:00PM	Groundwater	ION SCAN			09/14/2016
1609A03-003E	MW-5	9/12/2016 4:10:00PM	Groundwater	Alkalinity by SM2320B			09/20/2016
1609A03-004A	MW-9	9/12/2016 2:30:00PM	Groundwater	TCL VOLATILE ORGANICS		9/14/2016 9:09:00 AM	09/14/2016
1609A03-004B	MW-9	9/12/2016 2:30:00PM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A03-004C	MW-9	9/12/2016 2:30:00PM	Groundwater	Total Organic Carbon (TOC)			09/16/2016
1609A03-004D	MW-9	9/12/2016 2:30:00PM	Groundwater	Sulfide by SW9030/9034		9/19/2016 12:15:00 PM	09/19/2016
1609A03-004E	MW-9	9/12/2016 2:30:00PM	Groundwater	ION SCAN			09/14/2016
1609A03-004E	MW-9	9/12/2016 2:30:00PM	Groundwater	Alkalinity by SM2320B			09/20/2016
1609A03-005A	TRIP BLANK	9/13/2016 12:00:00AM	Aqueous	TCL VOLATILE ORGANICS		9/14/2016 9:09:00 AM	09/14/2016

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A03

ANALYTICAL QC SUMMARY REPORT

BatchID: 229399

Sample ID: **MB-229399** Client ID: Units: **mg/L** Prep Date: **09/14/2016** Run No: **325113**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229399** Analysis Date: **09/14/2016** Seq No: **7037543**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	0.005									
1,1-Dichloroethane	BRL	0.005									
1,1-Dichloroethene	BRL	0.005									
1,2-Dichloroethane	BRL	0.005									
Acetone	BRL	0.050									
Chloroethane	BRL	0.010									
cis-1,2-Dichloroethene	BRL	0.005									
Cyclohexane	BRL	0.005									
Methylene chloride	BRL	0.005									
Tetrachloroethene	BRL	0.005									
trans-1,2-Dichloroethene	BRL	0.005									
Trichloroethene	BRL	0.005									
Vinyl chloride	BRL	0.002									
Surr: 4-Bromofluorobenzene	0.04609	0	50.00		92.2	70.7	125				
Surr: Dibromofluoromethane	0.05795	0	50.00		116	82.2	120				
Surr: Toluene-d8	0.04959	0	50.00		99.2	81.8	120				

Sample ID: **LCS-229399** Client ID: Units: **mg/L** Prep Date: **09/14/2016** Run No: **325113**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229399** Analysis Date: **09/14/2016** Seq No: **7037542**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.05136	0.005	50.00		103	65.3	137				
Trichloroethene	0.05109	0.005	50.00		102	73.1	128				
Surr: 4-Bromofluorobenzene	0.04546	0	50.00		90.9	70.7	125				
Surr: Dibromofluoromethane	0.05617	0	50.00		112	82.2	120				
Surr: Toluene-d8	0.05002	0	50.00		100	81.8	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A03

ANALYTICAL QC SUMMARY REPORT

BatchID: **229399**

Sample ID: **1609785-001AMS** Client ID: Units: **mg/L** Prep Date: **09/14/2016** Run No: **325113**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229399** Analysis Date: **09/14/2016** Seq No: **7039073**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.04982	0.005	50.00		99.6	60	150				
Trichloroethene	0.04894	0.005	50.00		97.9	70	136				
Surr: 4-Bromofluorobenzene	0.04507	0	50.00		90.1	70.7	125				
Surr: Dibromofluoromethane	0.05615	0	50.00		112	82.2	120				
Surr: Toluene-d8	0.05031	0	50.00		101	81.8	120				

Sample ID: **1609785-001AMSD** Client ID: Units: **mg/L** Prep Date: **09/14/2016** Run No: **325113**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229399** Analysis Date: **09/14/2016** Seq No: **7039074**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.04876	0.005	50.00		97.5	60	150	49.82	2.15	17.7	
Trichloroethene	0.04835	0.005	50.00		96.7	70	136	48.94	1.21	20	
Surr: 4-Bromofluorobenzene	0.04343	0	50.00		86.9	70.7	125	45.07	0	0	
Surr: Dibromofluoromethane	0.05738	0	50.00		115	82.2	120	56.15	0	0	
Surr: Toluene-d8	0.05108	0	50.00		102	81.8	120	50.31	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		

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A03

ANALYTICAL QC SUMMARY REPORT

BatchID: 229481

Sample ID: **MB-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043116**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	0.0090									
Ethylene	BRL	0.0070									
Methane	BRL	0.0040									

Sample ID: **LCS-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043117**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1171	0.0090	200.0		58.6	40.9	115				
Ethylene	0.07677	0.0070	200.0		38.4	26.8	115				
Methane	0.1215	0.0040	200.0		60.8	45.9	115				

Sample ID: **LCSD-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043118**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1141	0.0090	200.0		57.0	40.9	115	117.1	2.62	20	
Ethylene	0.07594	0.0070	200.0		38.0	26.8	115	76.77	1.09	20	
Methane	0.1182	0.0040	200.0		59.1	45.9	115	121.5	2.73	20	

Sample ID: **1609A85-001BMS** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043200**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1265	0.0090	200.0		63.2	40.5	115				
Ethylene	0.08314	0.0070	200.0		41.6	23	115				
Methane	0.1319	0.0040	200.0	8.503	61.7	40	115				

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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A03

ANALYTICAL QC SUMMARY REPORT

BatchID: **229481**

Sample ID: **1609A85-001BMSD** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043201**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1297	0.0090	200.0		64.8	40.5	115	126.5	2.50	20	
Ethylene	0.08705	0.0070	200.0		43.5	23	115	83.14	4.60	20	
Methane	0.1357	0.0040	200.0	8.503	63.6	40	115	131.9	2.78	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A03

ANALYTICAL QC SUMMARY REPORT

BatchID: 229608

Sample ID: **MB-229608** Client ID: Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **MBLK** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045439**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	BRL	2.00									

Sample ID: **LCS-229608** Client ID: Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **LCS** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045440**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	368.0	2.00	368.0		100	40	120				

Sample ID: **1609A03-001DMS** Client ID: **MW-7** Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **MS** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045461**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	34.40	2.00	36.80	2.000	88.0	61.2	120				

Sample ID: **1609A03-001DMSD** Client ID: **MW-7** Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **MSD** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045466**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	33.20	2.00	36.80	2.000	84.8	61.2	120	34.40	3.55	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A03

ANALYTICAL QC SUMMARY REPORT

BatchID: R325419

Sample ID: **MB-R325419** Client ID: Units: **mg/L** Prep Date: Run No: **325419**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R325419** Analysis Date: **09/13/2016** Seq No: **7044494**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	0.1221	1.0									J
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R325419** Client ID: Units: **mg/L** Prep Date: Run No: **325419**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R325419** Analysis Date: **09/13/2016** Seq No: **7044493**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	9.863	1.0	10.00	0.1221	97.4	90	110				
Nitrate	4.726	0.25	5.000		94.5	90	110				
Sulfate	24.48	1.0	25.00		97.9	90	110				

Sample ID: **1609998-012AMS** Client ID: Units: **mg/L** Prep Date: Run No: **325419**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R325419** Analysis Date: **09/13/2016** Seq No: **7044496**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	10.61	1.0	10.00	1.262	93.5	90	110				
Nitrate	4.668	0.25	5.000	0.04315	92.5	90	110				
Sulfate	30.41	1.0	25.00	6.740	94.7	90	110				

Sample ID: **1609998-012AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **325419**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R325419** Analysis Date: **09/14/2016** Seq No: **7044512**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	10.72	1.0	10.00	1.262	94.5	90	110	10.61	0.943	20	
Nitrate	4.710	0.25	5.000	0.04315	93.3	90	110	4.668	0.894	20	
Sulfate	30.78	1.0	25.00	6.740	96.1	90	110	30.41	1.19	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A03

ANALYTICAL QC SUMMARY REPORT

BatchID: **R325429**

Sample ID: **MB-R325429** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044754**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R325429** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044753**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.06	1.00	25.00		92.2	90	110				

Sample ID: **1609A03-001CMS** Client ID: **MW-7** Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044757**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.63	1.00	25.00		94.5	80	120				

Sample ID: **1609A03-001CMSD** Client ID: **MW-7** Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044758**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	24.29	1.00	25.00		97.2	80	120	23.63	2.75	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		

Analytical Environmental Services, Inc

Date: 21-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A03

ANALYTICAL QC SUMMARY REPORT

BatchID: R325605

Sample ID: **MB-R325605** Client ID: Units: **mg/L** Prep Date: Run No: **325605**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R325605** Analysis Date: **09/20/2016** Seq No: **7049251**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R325605** Client ID: Units: **mg/L** Prep Date: Run No: **325605**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R325605** Analysis Date: **09/20/2016** Seq No: **7049252**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	126.0	3.00	125.0		101	75	125				

Sample ID: **1609989-001ADUP** Client ID: Units: **mg/L** Prep Date: Run No: **325605**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R325605** Analysis Date: **09/20/2016** Seq No: **7049259**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	670.0	30.0						660.0	1.50	30	

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		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

September 22, 2016

Samantha Woolf
EarthCon Consultants, Inc.
1880 West Oak Parkway
Marietta GA 30062

TEL: (770) 973-2100
FAX: (770) 973-7395

RE: Apollo Smyrna

Dear Samantha Woolf: Order No: 1609A84

Analytical Environmental Services, Inc. received 8 samples on 9/14/2016 11:40:00 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's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Chris Pafford
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1609A84

Date: _____ Page _____ of _____

COMPANY: EarthCon Consultants

ADDRESS: 1880 West Oak Pkwy Bldg 100 Suite 106 Marietta, GA 30062

PHONE: 770-973-2100

FAX: 770-973-7395

SAMPLED BY: Keaton Henry / Rob Andrews

SIGNATURE:

ANALYSIS REQUESTED: VOC; GC Analysis; TOC; Alkalinity / Ion Scan; Sulfide Cr + NaOH

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC (H+I)	GC Analysis (H+I)	TOC (S+I)	Alkalinity / Ion Scan (I)	Sulfide Cr + NaOH (O)	REMARKS	No # of Containers
1	MW-8	9/13/16	16:10	X		GW	2	2	1	1	1	RA	7
2	MW-12	9/13/16	14:45	X		GW	2	2	1	1	1	RA	7
3	MW-11	9/13/16	11:50	X		GW	2	2	1	1	1	RA	7
4	MW-17	9/13/16	16:05	X		GW	2	2	1	1	1	KH	7
5	DW-1	9/13/16	14:35	X		GW	2	2	1	1	1	KH	7
6	MW-15	9/13/16	10:10	X		GW	2	2	1	1	1	KH	7
7	MW-18	9/13/16	11:25	X		GW	2	2	1	1	1	KH	7
8	Trip Blank	9/13/16	—	X		W	2						2
9													
10													
11													
12													
13													
14													

PRESERVATION (See codes): H+I = Hydrochloric acid + ice; I = Ice only; S+I = Sulfuric acid + ice; O = Other (specify)

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	9/13/16 19:05	1: [signature]	19:05
2: [signature]	9/14/16 9:05	2: [signature]	9/14/16 9:05
3: [signature]	9/14/16 11:40	3: [signature]	9/14/16 11:40 am

SPECIAL INSTRUCTIONS/COMMENTS: Nitrates – 48 hr hold time

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Apollo Smyrna
PROJECT #: 02 20140391 16
SITE ADDRESS:
SEND REPORT TO: Samantha Woolf
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers: 54

Turnaround Time Request
- ● Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other _____

STATE PROGRAM (if any): _____
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 I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 22-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-8
Project Name:	Apollo Smyrna	**Collection Date:**	9/13/2016 4:10:00 PM
Lab ID:	1609A84-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R325429	1	09/16/2016 20:48	JW
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.002	J	0.00025	0.005	mg/L	229483	1	09/15/2016 19:54	NP
1,1-Dichloroethane	0.002	J	0.00025	0.005	mg/L	229483	1	09/15/2016 19:54	NP
1,1-Dichloroethene	0.013		0.00036	0.005	mg/L	229483	1	09/15/2016 19:54	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229483	1	09/15/2016 19:54	NP
Acetone	BRL		0.0053	0.050	mg/L	229483	1	09/15/2016 19:54	NP
Chloroethane	BRL		0.00039	0.010	mg/L	229483	1	09/15/2016 19:54	NP
cis-1,2-Dichloroethene	0.029		0.00027	0.005	mg/L	229483	1	09/15/2016 19:54	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229483	1	09/15/2016 19:54	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229483	1	09/15/2016 19:54	NP
Tetrachloroethene	0.55		0.0029	0.050	mg/L	229483	10	09/15/2016 20:17	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229483	1	09/15/2016 19:54	NP
Trichloroethene	0.83		0.0035	0.050	mg/L	229483	10	09/15/2016 20:17	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	229483	1	09/15/2016 19:54	NP
Surr: 4-Bromofluorobenzene	98.1		0	70.7-125	%REC	229483	1	09/15/2016 19:54	NP
Surr: 4-Bromofluorobenzene	98.5		0	70.7-125	%REC	229483	10	09/15/2016 20:17	NP
Surr: Dibromofluoromethane	90.4		0	82.2-120	%REC	229483	1	09/15/2016 19:54	NP
Surr: Dibromofluoromethane	89		0	82.2-120	%REC	229483	10	09/15/2016 20:17	NP
Surr: Toluene-d8	99.1		0	81.8-120	%REC	229483	1	09/15/2016 19:54	NP
Surr: Toluene-d8	98.6		0	81.8-120	%REC	229483	10	09/15/2016 20:17	NP
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	2.40		0.764	2.00	mg/L	229608	1	09/19/2016 12:15	BD
ION SCAN SW9056A									
Chloride	4.7		0.11	1.0	mg/L	R325452	1	09/14/2016 19:11	JW
Nitrate	0.19	J	0.024	0.25	mg/L	R325452	1	09/14/2016 19:11	JW
Sulfate	0.57	J	0.10	1.0	mg/L	R325452	1	09/14/2016 19:11	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		0.0019	0.0090	mg/L	229481	1	09/16/2016 12:24	MD
Ethylene	BRL		0.0035	0.0070	mg/L	229481	1	09/16/2016 12:24	MD
Methane	0.21		0.0012	0.0040	mg/L	229481	1	09/16/2016 12:24	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	14.0		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 22-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-12
Project Name:	Apollo Smyrna	**Collection Date:**	9/13/2016 2:45:00 PM
Lab ID:	1609A84-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R325429	1	09/16/2016 21:10	JW
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	229483	1	09/15/2016 18:43	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	229483	1	09/15/2016 18:43	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229483	1	09/15/2016 18:43	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229483	1	09/15/2016 18:43	NP
Acetone	BRL		0.0053	0.050	mg/L	229483	1	09/15/2016 18:43	NP
Chloroethane	BRL		0.00039	0.010	mg/L	229483	1	09/15/2016 18:43	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	229483	1	09/15/2016 18:43	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229483	1	09/15/2016 18:43	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229483	1	09/15/2016 18:43	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229483	1	09/15/2016 18:43	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229483	1	09/15/2016 18:43	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	229483	1	09/15/2016 18:43	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	229483	1	09/15/2016 18:43	NP
Surr: 4-Bromofluorobenzene	99.2		0	70.7-125	%REC	229483	1	09/15/2016 18:43	NP
Surr: Dibromofluoromethane	90.4		0	82.2-120	%REC	229483	1	09/15/2016 18:43	NP
Surr: Toluene-d8	97.6		0	81.8-120	%REC	229483	1	09/15/2016 18:43	NP
Sulfide by SW9030B/9034 (SW9030B)									
Sulfide	3.20		0.764	2.00	mg/L	229608	1	09/19/2016 12:15	BD
ION SCAN SW9056A									
Chloride	6.6		0.11	1.0	mg/L	R325452	1	09/14/2016 19:26	JW
Nitrate	0.41		0.024	0.25	mg/L	R325452	1	09/14/2016 19:26	JW
Sulfate	0.19	J	0.10	1.0	mg/L	R325452	1	09/14/2016 19:26	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)									
Ethane	BRL		0.0019	0.0090	mg/L	229481	1	09/16/2016 12:29	MD
Ethylene	BRL		0.0035	0.0070	mg/L	229481	1	09/16/2016 12:29	MD
Methane	0.0026	J	0.0012	0.0040	mg/L	229481	1	09/16/2016 12:29	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	BRL		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 22-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-11
Project Name:	Apollo Smyrna	**Collection Date:**	9/13/2016 11:50:00 AM
Lab ID:	1609A84-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R325429	1	09/16/2016 21:35	JW
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	229483	1	09/15/2016 19:06	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	229483	1	09/15/2016 19:06	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229483	1	09/15/2016 19:06	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229483	1	09/15/2016 19:06	NP
Acetone	BRL		0.0053	0.050	mg/L	229483	1	09/15/2016 19:06	NP
Chloroethane	BRL		0.00039	0.010	mg/L	229483	1	09/15/2016 19:06	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	229483	1	09/15/2016 19:06	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229483	1	09/15/2016 19:06	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229483	1	09/15/2016 19:06	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229483	1	09/15/2016 19:06	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229483	1	09/15/2016 19:06	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	229483	1	09/15/2016 19:06	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	229483	1	09/15/2016 19:06	NP
Surr: 4-Bromofluorobenzene	100		0	70.7-125	%REC	229483	1	09/15/2016 19:06	NP
Surr: Dibromofluoromethane	90.8		0	82.2-120	%REC	229483	1	09/15/2016 19:06	NP
Surr: Toluene-d8	100		0	81.8-120	%REC	229483	1	09/15/2016 19:06	NP
Sulfide by SW9030B/9034 (SW9030B)									
Sulfide	2.00		0.764	2.00	mg/L	229608	1	09/20/2016 08:00	BD
ION SCAN SW9056A									
Chloride	8.8		0.11	1.0	mg/L	R325452	1	09/14/2016 19:40	JW
Nitrate	BRL		0.024	0.25	mg/L	R325452	1	09/14/2016 19:40	JW
Sulfate	8.0		0.10	1.0	mg/L	R325452	1	09/14/2016 19:40	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)									
Ethane	BRL		0.0019	0.0090	mg/L	229481	1	09/16/2016 12:33	MD
Ethylene	BRL		0.0035	0.0070	mg/L	229481	1	09/16/2016 12:33	MD
Methane	3.7		0.024	0.080	mg/L	229481	20	09/16/2016 13:10	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	30.0		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 22-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-17
Project Name:	Apollo Smyrna	**Collection Date:**	9/13/2016 4:05:00 PM
Lab ID:	1609A84-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R325429	1	09/16/2016 23:06	JW
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.032		0.00025	0.005	mg/L	229483	1	09/15/2016 20:41	NP
1,1-Dichloroethane	0.18		0.00025	0.005	mg/L	229483	1	09/15/2016 20:41	NP
1,1-Dichloroethene	0.91		0.0036	0.050	mg/L	229483	10	09/15/2016 21:04	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229483	1	09/15/2016 20:41	NP
Acetone	BRL		0.0053	0.050	mg/L	229483	1	09/15/2016 20:41	NP
Chloroethane	0.004	J	0.00039	0.010	mg/L	229483	1	09/15/2016 20:41	NP
cis-1,2-Dichloroethene	0.38		0.0027	0.050	mg/L	229483	10	09/15/2016 21:04	NP
Cyclohexane	0.006		0.0016	0.005	mg/L	229483	1	09/15/2016 20:41	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229483	1	09/15/2016 20:41	NP
Tetrachloroethene	0.13		0.00029	0.005	mg/L	229483	1	09/15/2016 20:41	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229483	1	09/15/2016 20:41	NP
Trichloroethene	0.094		0.00035	0.005	mg/L	229483	1	09/15/2016 20:41	NP
Vinyl chloride	0.060		0.00042	0.002	mg/L	229483	1	09/15/2016 20:41	NP
Surr: 4-Bromofluorobenzene	96.4		0	70.7-125	%REC	229483	1	09/15/2016 20:41	NP
Surr: 4-Bromofluorobenzene	98.7		0	70.7-125	%REC	229483	10	09/15/2016 21:04	NP
Surr: Dibromofluoromethane	92.9		0	82.2-120	%REC	229483	1	09/15/2016 20:41	NP
Surr: Dibromofluoromethane	89.8		0	82.2-120	%REC	229483	10	09/15/2016 21:04	NP
Surr: Toluene-d8	98.5		0	81.8-120	%REC	229483	1	09/15/2016 20:41	NP
Surr: Toluene-d8	98.2		0	81.8-120	%REC	229483	10	09/15/2016 21:04	NP
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	2.40		0.764	2.00	mg/L	229608	1	09/20/2016 08:00	BD
ION SCAN SW9056A									
Chloride	23		0.11	1.0	mg/L	R325452	1	09/14/2016 19:55	JW
Nitrate	BRL		0.024	0.25	mg/L	R325452	1	09/14/2016 19:55	JW
Sulfate	8.8		0.10	1.0	mg/L	R325452	1	09/14/2016 19:55	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.014		0.0019	0.0090	mg/L	229481	1	09/16/2016 12:38	MD
Ethylene	0.0080		0.0035	0.0070	mg/L	229481	1	09/16/2016 12:38	MD
Methane	0.59		0.012	0.040	mg/L	229481	10	09/16/2016 13:15	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	128		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 22-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	DW-1
Project Name:	Apollo Smyrna	**Collection Date:**	9/13/2016 2:35:00 PM
Lab ID:	1609A84-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.450	J	0.337	1.00	mg/L	R325429	1	09/16/2016 23:29	JW
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.034		0.00025	0.005	mg/L	229483	1	09/15/2016 21:28	NP
1,1-Dichloroethane	0.098		0.00025	0.005	mg/L	229483	1	09/15/2016 21:28	NP
1,1-Dichloroethene	0.25		0.0036	0.050	mg/L	229483	10	09/15/2016 21:51	NP
1,2-Dichloroethane	0.001	J	0.00024	0.005	mg/L	229483	1	09/15/2016 21:28	NP
Acetone	BRL		0.0053	0.050	mg/L	229483	1	09/15/2016 21:28	NP
Chloroethane	0.068		0.00039	0.010	mg/L	229483	1	09/15/2016 21:28	NP
cis-1,2-Dichloroethene	0.033		0.00027	0.005	mg/L	229483	1	09/15/2016 21:28	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229483	1	09/15/2016 21:28	NP
Methylene chloride	0.002	J	0.00031	0.005	mg/L	229483	1	09/15/2016 21:28	NP
Tetrachloroethene	0.36		0.0029	0.050	mg/L	229483	10	09/15/2016 21:51	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229483	1	09/15/2016 21:28	NP
Trichloroethene	0.047		0.00035	0.005	mg/L	229483	1	09/15/2016 21:28	NP
Vinyl chloride	0.031		0.00042	0.002	mg/L	229483	1	09/15/2016 21:28	NP
Surr: 4-Bromofluorobenzene	101		0	70.7-125	%REC	229483	1	09/15/2016 21:28	NP
Surr: 4-Bromofluorobenzene	98.6		0	70.7-125	%REC	229483	10	09/15/2016 21:51	NP
Surr: Dibromofluoromethane	95.5		0	82.2-120	%REC	229483	1	09/15/2016 21:28	NP
Surr: Dibromofluoromethane	89.7		0	82.2-120	%REC	229483	10	09/15/2016 21:51	NP
Surr: Toluene-d8	99.8		0	81.8-120	%REC	229483	1	09/15/2016 21:28	NP
Surr: Toluene-d8	99.3		0	81.8-120	%REC	229483	10	09/15/2016 21:51	NP
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	2.40		0.764	2.00	mg/L	229608	1	09/20/2016 08:00	BD
ION SCAN SW9056A									
Chloride	19		0.11	1.0	mg/L	R325452	1	09/14/2016 20:10	JW
Nitrate	0.37		0.024	0.25	mg/L	R325452	1	09/14/2016 20:10	JW
Sulfate	0.82	J	0.10	1.0	mg/L	R325452	1	09/14/2016 20:10	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.026		0.0019	0.0090	mg/L	229481	1	09/16/2016 12:42	MD
Ethylene	0.066		0.0035	0.0070	mg/L	229481	1	09/16/2016 12:42	MD
Methane	0.66		0.012	0.040	mg/L	229481	10	09/16/2016 13:19	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	60.0		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 22-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-15
Project Name:	Apollo Smyrna	**Collection Date:**	9/13/2016 10:10:00 AM
Lab ID:	1609A84-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	3.05		0.337	1.00	mg/L	R325429	1	09/16/2016 23:54	JW
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	229483	1	09/15/2016 19:30	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	229483	1	09/15/2016 19:30	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229483	1	09/15/2016 19:30	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229483	1	09/15/2016 19:30	NP
Acetone	BRL		0.0053	0.050	mg/L	229483	1	09/15/2016 19:30	NP
Chloroethane	0.048		0.00039	0.010	mg/L	229483	1	09/15/2016 19:30	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	229483	1	09/15/2016 19:30	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229483	1	09/15/2016 19:30	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229483	1	09/15/2016 19:30	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229483	1	09/15/2016 19:30	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229483	1	09/15/2016 19:30	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	229483	1	09/15/2016 19:30	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	229483	1	09/15/2016 19:30	NP
Surr: 4-Bromofluorobenzene	97.7		0	70.7-125	%REC	229483	1	09/15/2016 19:30	NP
Surr: Dibromofluoromethane	90.9		0	82.2-120	%REC	229483	1	09/15/2016 19:30	NP
Surr: Toluene-d8	101		0	81.8-120	%REC	229483	1	09/15/2016 19:30	NP
Sulfide by SW9030B/9034 (SW9030B)									
Sulfide	1.20	J	0.764	2.00	mg/L	229608	1	09/20/2016 08:00	BD
ION SCAN SW9056A									
Chloride	32		0.11	1.0	mg/L	R325452	1	09/14/2016 20:25	JW
Nitrate	BRL		0.024	0.25	mg/L	R325452	1	09/14/2016 20:25	JW
Sulfate	0.16	J	0.10	1.0	mg/L	R325452	1	09/14/2016 20:25	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)									
Ethane	0.023		0.0019	0.0090	mg/L	229481	1	09/16/2016 15:31	MD
Ethylene	BRL		0.0035	0.0070	mg/L	229481	1	09/16/2016 15:31	MD
Methane	7.5		0.12	0.40	mg/L	229481	100	09/16/2016 15:48	MD
Alkalinity by SM2320B									
Alkalinity, Total (As $CaCO_3$)	65.0		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 22-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-18
Project Name:	Apollo Smyrna	**Collection Date:**	9/13/2016 11:25:00 AM
Lab ID:	1609A84-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.68		0.337	1.00	mg/L	R325429	1	09/17/2016 00:21	JW
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.001	J	0.00025	0.005	mg/L	229483	1	09/16/2016 10:08	NP
1,1-Dichloroethane	0.20		0.00025	0.005	mg/L	229483	1	09/16/2016 10:08	NP
1,1-Dichloroethene	0.47		0.0036	0.050	mg/L	229483	10	09/16/2016 10:34	NP
1,2-Dichloroethane	0.001	J	0.00024	0.005	mg/L	229483	1	09/16/2016 10:08	NP
Acetone	BRL		0.0053	0.050	mg/L	229483	1	09/16/2016 10:08	NP
Chloroethane	0.015		0.00039	0.010	mg/L	229483	1	09/16/2016 10:08	NP
cis-1,2-Dichloroethene	0.16		0.00027	0.005	mg/L	229483	1	09/16/2016 10:08	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229483	1	09/16/2016 10:08	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229483	1	09/16/2016 10:08	NP
Tetrachloroethene	0.19		0.00029	0.005	mg/L	229483	1	09/16/2016 10:08	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229483	1	09/16/2016 10:08	NP
Trichloroethene	0.11		0.00035	0.005	mg/L	229483	1	09/16/2016 10:08	NP
Vinyl chloride	0.010		0.00042	0.002	mg/L	229483	1	09/16/2016 10:08	NP
Surr: 4-Bromofluorobenzene	87.3		0	70.7-125	%REC	229483	1	09/16/2016 10:08	NP
Surr: 4-Bromofluorobenzene	91.3		0	70.7-125	%REC	229483	10	09/16/2016 10:34	NP
Surr: Dibromofluoromethane	114		0	82.2-120	%REC	229483	1	09/16/2016 10:08	NP
Surr: Dibromofluoromethane	117		0	82.2-120	%REC	229483	10	09/16/2016 10:34	NP
Surr: Toluene-d8	99		0	81.8-120	%REC	229483	1	09/16/2016 10:08	NP
Surr: Toluene-d8	100		0	81.8-120	%REC	229483	10	09/16/2016 10:34	NP
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	1.20	J	0.764	2.00	mg/L	229608	1	09/20/2016 08:00	BD
ION SCAN SW9056A									
Chloride	14		0.11	1.0	mg/L	R325452	1	09/14/2016 20:39	JW
Nitrate	BRL		0.024	0.25	mg/L	R325452	1	09/14/2016 20:39	JW
Sulfate	2.3		0.10	1.0	mg/L	R325452	1	09/14/2016 20:39	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.017		0.0019	0.0090	mg/L	229481	1	09/16/2016 13:30	MD
Ethylene	BRL		0.0035	0.0070	mg/L	229481	1	09/16/2016 13:30	MD
Methane	2.3		0.024	0.080	mg/L	229481	20	09/16/2016 15:54	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	75.0		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 22-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Apollo Smyrna	**Collection Date:**	9/13/2016
Lab ID:	1609A84-008	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	229483	1	09/15/2016 18:18	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	229483	1	09/15/2016 18:18	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229483	1	09/15/2016 18:18	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229483	1	09/15/2016 18:18	NP
Acetone	BRL		0.0053	0.050	mg/L	229483	1	09/15/2016 18:18	NP
Chloroethane	BRL		0.00039	0.010	mg/L	229483	1	09/15/2016 18:18	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	229483	1	09/15/2016 18:18	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229483	1	09/15/2016 18:18	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	229483	1	09/15/2016 18:18	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229483	1	09/15/2016 18:18	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229483	1	09/15/2016 18:18	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	229483	1	09/15/2016 18:18	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	229483	1	09/15/2016 18:18	NP
Surr: 4-Bromofluorobenzene	98.2		0	70.7-125	%REC	229483	1	09/15/2016 18:18	NP
Surr: Dibromofluoromethane	91.8		0	82.2-120	%REC	229483	1	09/15/2016 18:18	NP
Surr: Toluene-d8	101		0	81.8-120	%REC	229483	1	09/15/2016 18:18	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Earthcon Work Order Number 1609A84

Checklist completed by [signature] 9/14/10
Signature Date

Carrier name: FedEx __ UPS __ Courier ✓ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 5.2 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 CJ

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.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Analytical Environmental Services, Inc

Date: 22-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Lab Order: 1609A84

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1609A84-001A	MW-8	9/13/2016 4:10:00PM	Groundwater	TCL VOLATILE ORGANICS		9/15/2016 5:30:00 PM	09/15/2016
1609A84-001B	MW-8	9/13/2016 4:10:00PM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A84-001C	MW-8	9/13/2016 4:10:00PM	Groundwater	Total Organic Carbon (TOC)			09/16/2016
1609A84-001D	MW-8	9/13/2016 4:10:00PM	Groundwater	ION SCAN			09/14/2016
1609A84-001D	MW-8	9/13/2016 4:10:00PM	Groundwater	Alkalinity by SM2320B			09/21/2016
1609A84-001E	MW-8	9/13/2016 4:10:00PM	Groundwater	Sulfide by SW9030/9034		9/19/2016 12:15:00 PM	09/19/2016
1609A84-002A	MW-12	9/13/2016 2:45:00PM	Groundwater	TCL VOLATILE ORGANICS		9/15/2016 5:30:00 PM	09/15/2016
1609A84-002B	MW-12	9/13/2016 2:45:00PM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A84-002C	MW-12	9/13/2016 2:45:00PM	Groundwater	Total Organic Carbon (TOC)			09/16/2016
1609A84-002D	MW-12	9/13/2016 2:45:00PM	Groundwater	ION SCAN			09/14/2016
1609A84-002D	MW-12	9/13/2016 2:45:00PM	Groundwater	Alkalinity by SM2320B			09/21/2016
1609A84-002E	MW-12	9/13/2016 2:45:00PM	Groundwater	Sulfide by SW9030/9034		9/19/2016 12:15:00 PM	09/19/2016
1609A84-003A	MW-11	9/13/2016 11:50:00AM	Groundwater	TCL VOLATILE ORGANICS		9/15/2016 5:30:00 PM	09/15/2016
1609A84-003B	MW-11	9/13/2016 11:50:00AM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A84-003C	MW-11	9/13/2016 11:50:00AM	Groundwater	Total Organic Carbon (TOC)			09/16/2016
1609A84-003D	MW-11	9/13/2016 11:50:00AM	Groundwater	ION SCAN			09/14/2016
1609A84-003D	MW-11	9/13/2016 11:50:00AM	Groundwater	Alkalinity by SM2320B			09/21/2016
1609A84-003E	MW-11	9/13/2016 11:50:00AM	Groundwater	Sulfide by SW9030/9034		9/20/2016 8:00:00 AM	09/20/2016
1609A84-004A	MW-17	9/13/2016 4:05:00PM	Groundwater	TCL VOLATILE ORGANICS		9/15/2016 5:30:00 PM	09/15/2016
1609A84-004B	MW-17	9/13/2016 4:05:00PM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A84-004C	MW-17	9/13/2016 4:05:00PM	Groundwater	Total Organic Carbon (TOC)			09/16/2016
1609A84-004D	MW-17	9/13/2016 4:05:00PM	Groundwater	ION SCAN			09/14/2016
1609A84-004D	MW-17	9/13/2016 4:05:00PM	Groundwater	Alkalinity by SM2320B			09/21/2016
1609A84-004E	MW-17	9/13/2016 4:05:00PM	Groundwater	Sulfide by SW9030/9034		9/20/2016 8:00:00 AM	09/20/2016
1609A84-005A	DW-1	9/13/2016 2:35:00PM	Groundwater	TCL VOLATILE ORGANICS		9/15/2016 5:30:00 PM	09/15/2016
1609A84-005B	DW-1	9/13/2016 2:35:00PM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A84-005C	DW-1	9/13/2016 2:35:00PM	Groundwater	Total Organic Carbon (TOC)			09/16/2016
1609A84-005D	DW-1	9/13/2016 2:35:00PM	Groundwater	ION SCAN			09/14/2016
1609A84-005D	DW-1	9/13/2016 2:35:00PM	Groundwater	Alkalinity by SM2320B			09/21/2016

Analytical Environmental Services, Inc

Date: 22-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Lab Order: 1609A84

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1609A84-005E	DW-1	9/13/2016 2:35:00PM	Groundwater	Sulfide by SW9030/9034		9/20/2016 8:00:00 AM	09/20/2016
1609A84-006A	MW-15	9/13/2016 10:10:00AM	Groundwater	TCL VOLATILE ORGANICS		9/15/2016 5:30:00 PM	09/15/2016
1609A84-006B	MW-15	9/13/2016 10:10:00AM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A84-006C	MW-15	9/13/2016 10:10:00AM	Groundwater	Total Organic Carbon (TOC)			09/16/2016
1609A84-006D	MW-15	9/13/2016 10:10:00AM	Groundwater	ION SCAN			09/14/2016
1609A84-006D	MW-15	9/13/2016 10:10:00AM	Groundwater	Alkalinity by SM2320B			09/21/2016
1609A84-006E	MW-15	9/13/2016 10:10:00AM	Groundwater	Sulfide by SW9030/9034		9/20/2016 8:00:00 AM	09/20/2016
1609A84-007A	MW-18	9/13/2016 11:25:00AM	Groundwater	TCL VOLATILE ORGANICS		9/15/2016 5:30:00 PM	09/16/2016
1609A84-007B	MW-18	9/13/2016 11:25:00AM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A84-007C	MW-18	9/13/2016 11:25:00AM	Groundwater	Total Organic Carbon (TOC)			09/17/2016
1609A84-007D	MW-18	9/13/2016 11:25:00AM	Groundwater	ION SCAN			09/14/2016
1609A84-007D	MW-18	9/13/2016 11:25:00AM	Groundwater	Alkalinity by SM2320B			09/21/2016
1609A84-007E	MW-18	9/13/2016 11:25:00AM	Groundwater	Sulfide by SW9030/9034		9/20/2016 8:00:00 AM	09/20/2016
1609A84-008A	TRIP BLANK	9/13/2016 12:00:00AM	Aqueous	TCL VOLATILE ORGANICS		9/15/2016 5:30:00 PM	09/15/2016

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A84

ANALYTICAL QC SUMMARY REPORT

BatchID: 229481

Sample ID: **MB-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043116**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	0.0090									
Ethylene	BRL	0.0070									
Methane	BRL	0.0040									

Sample ID: **LCS-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043117**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1171	0.0090	200.0		58.6	40.9	115				
Ethylene	0.07677	0.0070	200.0		38.4	26.8	115				
Methane	0.1215	0.0040	200.0		60.8	45.9	115				

Sample ID: **LCSD-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043118**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1141	0.0090	200.0		57.0	40.9	115	117.1	2.62	20	
Ethylene	0.07594	0.0070	200.0		38.0	26.8	115	76.77	1.09	20	
Methane	0.1182	0.0040	200.0		59.1	45.9	115	121.5	2.73	20	

Sample ID: **1609A85-001BMS** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043200**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1265	0.0090	200.0		63.2	40.5	115				
Ethylene	0.08314	0.0070	200.0		41.6	23	115				
Methane	0.1319	0.0040	200.0	8.503	61.7	40	115				

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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A84

ANALYTICAL QC SUMMARY REPORT

BatchID: **229481**

Sample ID: **1609A85-001BMSD** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043201**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1297	0.0090	200.0		64.8	40.5	115	126.5	2.50	20	
Ethylene	0.08705	0.0070	200.0		43.5	23	115	83.14	4.60	20	
Methane	0.1357	0.0040	200.0	8.503	63.6	40	115	131.9	2.78	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A84

ANALYTICAL QC SUMMARY REPORT

BatchID: **229483**

Sample ID: **MB-229483** Client ID: Units: **mg/L** Prep Date: **09/15/2016** Run No: **325204**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229483** Analysis Date: **09/15/2016** Seq No: **7041297**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	0.005									
1,1-Dichloroethane	BRL	0.005									
1,1-Dichloroethene	BRL	0.005									
1,2-Dichloroethane	BRL	0.005									
Acetone	BRL	0.050									
Chloroethane	BRL	0.010									
cis-1,2-Dichloroethene	BRL	0.005									
Cyclohexane	BRL	0.005									
Methylene chloride	BRL	0.005									
Tetrachloroethene	BRL	0.005									
trans-1,2-Dichloroethene	BRL	0.005									
Trichloroethene	BRL	0.005									
Vinyl chloride	BRL	0.002									
Surr: 4-Bromofluorobenzene	0.04866	0	50.00		97.3	70.7	125				
Surr: Dibromofluoromethane	0.04544	0	50.00		90.9	82.2	120				
Surr: Toluene-d8	0.04911	0	50.00		98.2	81.8	120				

Sample ID: **LCS-229483** Client ID: Units: **mg/L** Prep Date: **09/15/2016** Run No: **325204**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229483** Analysis Date: **09/15/2016** Seq No: **7041296**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.04744	0.005	50.00		94.9	65.3	137				
Trichloroethene	0.05362	0.005	50.00		107	73.1	128				
Surr: 4-Bromofluorobenzene	0.04903	0	50.00		98.1	70.7	125				
Surr: Dibromofluoromethane	0.04531	0	50.00		90.6	82.2	120				
Surr: Toluene-d8	0.04958	0	50.00		99.2	81.8	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A84

ANALYTICAL QC SUMMARY REPORT

BatchID: **229483**

Sample ID: **1609A84-007AMS** Client ID: **MW-18** Units: **mg/L** Prep Date: **09/15/2016** Run No: **325204**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229483** Analysis Date: **09/15/2016** Seq No: **7041310**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1.066	0.050	500.0	528.7	107	60	150				
Trichloroethene	0.7185	0.050	500.0	126.0	118	70	136				
Surr: 4-Bromofluorobenzene	0.4915	0	500.0		98.3	70.7	125				
Surr: Dibromofluoromethane	0.4635	0	500.0		92.7	82.2	120				
Surr: Toluene-d8	0.5050	0	500.0		101	81.8	120				

Sample ID: **1609A84-007AMSD** Client ID: **MW-18** Units: **mg/L** Prep Date: **09/15/2016** Run No: **325204**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229483** Analysis Date: **09/15/2016** Seq No: **7041311**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1.017	0.050	500.0	528.7	97.6	60	150	1066	4.72	17.7	
Trichloroethene	0.6803	0.050	500.0	126.0	111	70	136	718.5	5.46	20	
Surr: 4-Bromofluorobenzene	0.4928	0	500.0		98.6	70.7	125	491.5	0	0	
Surr: Dibromofluoromethane	0.4468	0	500.0		89.4	82.2	120	463.5	0	0	
Surr: Toluene-d8	0.5051	0	500.0		101	81.8	120	505.0	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		

Analytical Environmental Services, Inc

Date: 22-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A84

ANALYTICAL QC SUMMARY REPORT

BatchID: **229608**

Sample ID: **MB-229608** Client ID: Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **MBLK** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045439**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	BRL	2.00									

Sample ID: **LCS-229608** Client ID: Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **LCS** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045440**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	368.0	2.00	368.0		100	40	120				

Sample ID: **1609A03-001DMS** Client ID: Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **MS** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045461**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	34.40	2.00	36.80	2.000	88.0	61.2	120				

Sample ID: **1609A03-001DMSD** Client ID: Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **MSD** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045466**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	33.20	2.00	36.80	2.000	84.8	61.2	120	34.40	3.55	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A84

ANALYTICAL QC SUMMARY REPORT

BatchID: R325429

Sample ID: **MB-R325429** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044754**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R325429** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044753**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.06	1.00	25.00		92.2	90	110				

Sample ID: **1609A03-001CMS** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044757**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.63	1.00	25.00		94.5	80	120				

Sample ID: **1609A03-001CMSD** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044758**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	24.29	1.00	25.00		97.2	80	120	23.63	2.75	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A84

ANALYTICAL QC SUMMARY REPORT

BatchID: **R325452**

Sample ID: **MB-R325452** Client ID: Units: **mg/L** Prep Date: Run No: **325452**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R325452** Analysis Date: **09/14/2016** Seq No: **7045359**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	0.1606	1.0									J
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R325452** Client ID: Units: **mg/L** Prep Date: Run No: **325452**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R325452** Analysis Date: **09/14/2016** Seq No: **7045358**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	9.947	1.0	10.00	0.1606	97.9	90	110				
Nitrate	4.727	0.25	5.000		94.5	90	110				
Sulfate	24.44	1.0	25.00		97.7	90	110				

Sample ID: **1609A56-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **325452**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R325452** Analysis Date: **09/14/2016** Seq No: **7045362**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	144.8	10	100.0	52.61	92.2	90	110				
Nitrate	57.05	2.5	50.00	11.13	91.8	90	110				
Sulfate	274.3	10	250.0	41.18	93.3	90	110				

Sample ID: **1609A57-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **325452**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R325452** Analysis Date: **09/14/2016** Seq No: **7045366**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	134.4	10	100.0	44.34	90.1	90	110				
Nitrate	54.30	2.5	50.00	7.422	93.7	90	110				
Sulfate	269.5	10	250.0	36.11	93.4	90	110				

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		

Analytical Environmental Services, Inc

Date: 22-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A84

ANALYTICAL QC SUMMARY REPORT

BatchID: R325452

Sample ID: **1609A56-002BMSD** Client ID: Units: **mg/L** Prep Date: Run No: **325452**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R325452** Analysis Date: **09/14/2016** Seq No: **7045363**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	145.8	10	100.0	52.61	93.2	90	110	144.8	0.669	20	
Nitrate	57.43	2.5	50.00	11.13	92.6	90	110	57.05	0.670	20	
Sulfate	274.9	10	250.0	41.18	93.5	90	110	274.3	0.204	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A84

ANALYTICAL QC SUMMARY REPORT

BatchID: R325741

Sample ID: **MB-R325741** Client ID: Units: **mg/L** Prep Date: Run No: **325741**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R325741** Analysis Date: **09/21/2016** Seq No: **7052885**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R325741** Client ID: Units: **mg/L** Prep Date: Run No: **325741**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R325741** Analysis Date: **09/21/2016** Seq No: **7052886**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	127.0	3.00	125.0		102	75	125				

Sample ID: **1609A45-005ADUP** Client ID: Units: **mg/L** Prep Date: Run No: **325741**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R325741** Analysis Date: **09/21/2016** Seq No: **7052901**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	16.00	3.00						16.00	0	30	

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		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

September 22, 2016

Samantha Woolf
EarthCon Consultants, Inc.
1880 West Oak Parkway
Marietta GA 30062

TEL: (770) 973-2100
FAX: (770) 973-7395

RE: Apollo Smyrna

Dear Samantha Woolf: Order No: 1609A85

Analytical Environmental Services, Inc. received 1 samples on 9/14/2016 11:40:00 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's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Chris Pafford
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1609A85

Date: 9/13/16 Page 1 of 1

COMPANY: Earth Con Consultants
ADDRESS: 1580 West Oak Pkwy Bldg 100, Suite 106 Marietta, GA 30062
PHONE: 770-973-2100
FAX: 770-973-7395
SAMPLED BY: Rob Andrews
SIGNATURE:

ANALYSIS REQUESTED: VOC; GC Analysis; TOC; Alkalinity/Iron Sieve; Sulfide, Cn+Mo

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC (H+T)	GC Analysis (H+T)	TOC (S+I)	Alkalinity/Iron Sieve (I)	Sulfide, Cn+Mo (O)									REMARKS	No # of Containers
1	MW-6R	9/13/16	9:50	X		GW	2	2	1	1	1									RA	7
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	9/13/16 19:05	1: Danielle Edwards	19:05
2: Danielle Edwards	9/14/16 9:05	2: [signature]	9/14/16 9:05
3: [signature]	9/14/16 11:40	3: [signature]	9/14/16 11:40 am

SPECIAL INSTRUCTIONS/COMMENTS: Nitrates - 48 hold time

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER

PROJECT INFORMATION
PROJECT NAME: Apollo Smyrna
PROJECT #: 02.20140391.16
SITE ADDRESS:
SEND REPORT TO: Samantha Woolf
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers 7

Turnaround Time Request
- (●) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other

STATE PROGRAM (if any):
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 I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 22-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-6R
Project Name:	Apollo Smyrna	**Collection Date:**	9/13/2016 9:50:00 AM
Lab ID:	1609A85-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R325429	1	09/17/2016 00:45	JW
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.002	J	0.00025	0.005	mg/L	229483	1	09/15/2016 21:34	NP
1,1-Dichloroethane	0.005		0.00025	0.005	mg/L	229483	1	09/15/2016 21:34	NP
1,1-Dichloroethene	0.26		0.0036	0.050	mg/L	229483	10	09/16/2016 14:01	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229483	1	09/15/2016 21:34	NP
Acetone	BRL		0.0053	0.050	mg/L	229483	1	09/15/2016 21:34	NP
Chloroethane	BRL		0.00039	0.010	mg/L	229483	1	09/15/2016 21:34	NP
cis-1,2-Dichloroethene	0.002	J	0.00027	0.005	mg/L	229483	1	09/15/2016 21:34	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	229483	1	09/15/2016 21:34	NP
Methylene chloride	0.002	J	0.00031	0.005	mg/L	229483	1	09/15/2016 21:34	NP
Tetrachloroethene	0.023		0.00029	0.005	mg/L	229483	1	09/15/2016 21:34	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229483	1	09/15/2016 21:34	NP
Trichloroethene	0.002	J	0.00035	0.005	mg/L	229483	1	09/15/2016 21:34	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	229483	1	09/15/2016 21:34	NP
Surr: 4-Bromofluorobenzene	81.7		0	70.7-125	%REC	229483	1	09/15/2016 21:34	NP
Surr: 4-Bromofluorobenzene	82.9		0	70.7-125	%REC	229483	10	09/16/2016 14:01	NP
Surr: Dibromofluoromethane	111		0	82.2-120	%REC	229483	1	09/15/2016 21:34	NP
Surr: Dibromofluoromethane	97.9		0	82.2-120	%REC	229483	10	09/16/2016 14:01	NP
Surr: Toluene-d8	93.7		0	81.8-120	%REC	229483	1	09/15/2016 21:34	NP
Surr: Toluene-d8	91.9		0	81.8-120	%REC	229483	10	09/16/2016 14:01	NP
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	BRL		0.764	2.00	mg/L	229608	1	09/20/2016 08:00	BD
ION SCAN SW9056A									
Chloride	4.8		0.11	1.0	mg/L	R325452	1	09/14/2016 18:56	JW
Nitrate	0.86		0.024	0.25	mg/L	R325452	1	09/14/2016 18:56	JW
Sulfate	0.96	J	0.10	1.0	mg/L	R325452	1	09/14/2016 18:56	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		0.0019	0.0090	mg/L	229481	1	09/16/2016 13:34	MD
Ethylene	BRL		0.0035	0.0070	mg/L	229481	1	09/16/2016 13:34	MD
Methane	0.0085		0.0012	0.0040	mg/L	229481	1	09/16/2016 13:34	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	30.0		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Earthcon Work Order Number 1609A85

Checklist completed by [signature] 9/14/10
Signature Date

Carrier name: FedEx __ UPS __ Courier ✓ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 5.2 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 CJ

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.

\\Aes_server\l\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Analytical Environmental Services, Inc

Date: 22-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Lab Order: 1609A85

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1609A85-001A	MW-6R	9/13/2016 9:50:00AM	Groundwater	TCL VOLATILE ORGANICS		9/15/2016 5:30:00 PM	09/15/2016
1609A85-001A	MW-6R	9/13/2016 9:50:00AM	Groundwater	TCL VOLATILE ORGANICS		9/15/2016 5:30:00 PM	09/16/2016
1609A85-001B	MW-6R	9/13/2016 9:50:00AM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609A85-001C	MW-6R	9/13/2016 9:50:00AM	Groundwater	Total Organic Carbon (TOC)			09/17/2016
1609A85-001D	MW-6R	9/13/2016 9:50:00AM	Groundwater	ION SCAN			09/14/2016
1609A85-001D	MW-6R	9/13/2016 9:50:00AM	Groundwater	Alkalinity by SM2320B			09/21/2016
1609A85-001E	MW-6R	9/13/2016 9:50:00AM	Groundwater	Sulfide by SW9030/9034		9/20/2016 8:00:00 AM	09/20/2016

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A85

ANALYTICAL QC SUMMARY REPORT

BatchID: 229481

Sample ID: **MB-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043116**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	0.0090									
Ethylene	BRL	0.0070									
Methane	BRL	0.0040									

Sample ID: **LCS-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043117**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1171	0.0090	200.0		58.6	40.9	115				
Ethylene	0.07677	0.0070	200.0		38.4	26.8	115				
Methane	0.1215	0.0040	200.0		60.8	45.9	115				

Sample ID: **LCSD-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043118**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1141	0.0090	200.0		57.0	40.9	115	117.1	2.62	20	
Ethylene	0.07594	0.0070	200.0		38.0	26.8	115	76.77	1.09	20	
Methane	0.1182	0.0040	200.0		59.1	45.9	115	121.5	2.73	20	

Sample ID: **1609A85-001BMS** Client ID: **MW-6R** Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043200**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1265	0.0090	200.0		63.2	40.5	115				
Ethylene	0.08314	0.0070	200.0		41.6	23	115				
Methane	0.1319	0.0040	200.0	8.503	61.7	40	115				

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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A85

ANALYTICAL QC SUMMARY REPORT

BatchID: **229481**

Sample ID: **1609A85-001BMSD** Client ID: **MW-6R** Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043201**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1297	0.0090	200.0		64.8	40.5	115	126.5	2.50	20	
Ethylene	0.08705	0.0070	200.0		43.5	23	115	83.14	4.60	20	
Methane	0.1357	0.0040	200.0	8.503	63.6	40	115	131.9	2.78	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A85

ANALYTICAL QC SUMMARY REPORT

BatchID: **229483**

Sample ID: **MB-229483** Client ID: Units: **mg/L** Prep Date: **09/15/2016** Run No: **325204**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229483** Analysis Date: **09/15/2016** Seq No: **7041297**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	0.005									
1,1-Dichloroethane	BRL	0.005									
1,1-Dichloroethene	BRL	0.005									
1,2-Dichloroethane	BRL	0.005									
Acetone	BRL	0.050									
Chloroethane	BRL	0.010									
cis-1,2-Dichloroethene	BRL	0.005									
Cyclohexane	BRL	0.005									
Methylene chloride	BRL	0.005									
Tetrachloroethene	BRL	0.005									
trans-1,2-Dichloroethene	BRL	0.005									
Trichloroethene	BRL	0.005									
Vinyl chloride	BRL	0.002									
Surr: 4-Bromofluorobenzene	0.04866	0	50.00		97.3	70.7	125				
Surr: Dibromofluoromethane	0.04544	0	50.00		90.9	82.2	120				
Surr: Toluene-d8	0.04911	0	50.00		98.2	81.8	120				

Sample ID: **LCS-229483** Client ID: Units: **mg/L** Prep Date: **09/15/2016** Run No: **325204**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229483** Analysis Date: **09/15/2016** Seq No: **7041296**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.04744	0.005	50.00		94.9	65.3	137				
Trichloroethene	0.05362	0.005	50.00		107	73.1	128				
Surr: 4-Bromofluorobenzene	0.04903	0	50.00		98.1	70.7	125				
Surr: Dibromofluoromethane	0.04531	0	50.00		90.6	82.2	120				
Surr: Toluene-d8	0.04958	0	50.00		99.2	81.8	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A85

ANALYTICAL QC SUMMARY REPORT

BatchID: **229483**

Sample ID: **1609A84-007AMS** Client ID: Units: **mg/L** Prep Date: **09/15/2016** Run No: **325204**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229483** Analysis Date: **09/15/2016** Seq No: **7041310**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1.066	0.050	500.0	528.7	107	60	150				
Trichloroethene	0.7185	0.050	500.0	126.0	118	70	136				
Surr: 4-Bromofluorobenzene	0.4915	0	500.0		98.3	70.7	125				
Surr: Dibromofluoromethane	0.4635	0	500.0		92.7	82.2	120				
Surr: Toluene-d8	0.5050	0	500.0		101	81.8	120				

Sample ID: **1609A84-007AMSD** Client ID: Units: **mg/L** Prep Date: **09/15/2016** Run No: **325204**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229483** Analysis Date: **09/15/2016** Seq No: **7041311**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1.017	0.050	500.0	528.7	97.6	60	150	1066	4.72	17.7	
Trichloroethene	0.6803	0.050	500.0	126.0	111	70	136	718.5	5.46	20	
Surr: 4-Bromofluorobenzene	0.4928	0	500.0		98.6	70.7	125	491.5	0	0	
Surr: Dibromofluoromethane	0.4468	0	500.0		89.4	82.2	120	463.5	0	0	
Surr: Toluene-d8	0.5051	0	500.0		101	81.8	120	505.0	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		

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A85

ANALYTICAL QC SUMMARY REPORT

BatchID: 229608

Sample ID: **MB-229608** Client ID: Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **MBLK** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045439**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	BRL	2.00									

Sample ID: **LCS-229608** Client ID: Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **LCS** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045440**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	368.0	2.00	368.0		100	40	120				

Sample ID: **1609A03-001DMS** Client ID: Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **MS** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045461**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	34.40	2.00	36.80	2.000	88.0	61.2	120				

Sample ID: **1609A03-001DMSD** Client ID: Units: **mg/L** Prep Date: **09/19/2016** Run No: **325458**
SampleType: **MSD** TestCode: **Sulfide by SW9030B/9034** BatchID: **229608** Analysis Date: **09/19/2016** Seq No: **7045466**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	33.20	2.00	36.80	2.000	84.8	61.2	120	34.40	3.55	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A85

ANALYTICAL QC SUMMARY REPORT

BatchID: R325429

Sample ID: **MB-R325429** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044754**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R325429** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044753**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.06	1.00	25.00		92.2	90	110				

Sample ID: **1609A03-001CMS** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044757**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.63	1.00	25.00		94.5	80	120				

Sample ID: **1609A03-001CMSD** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044758**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	24.29	1.00	25.00		97.2	80	120	23.63	2.75	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A85

ANALYTICAL QC SUMMARY REPORT

BatchID: **R325452**

Sample ID: **MB-R325452** Client ID: Units: **mg/L** Prep Date: Run No: **325452**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R325452** Analysis Date: **09/14/2016** Seq No: **7045359**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	0.1606	1.0									J
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R325452** Client ID: Units: **mg/L** Prep Date: Run No: **325452**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R325452** Analysis Date: **09/14/2016** Seq No: **7045358**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	9.947	1.0	10.00	0.1606	97.9	90	110				
Nitrate	4.727	0.25	5.000		94.5	90	110				
Sulfate	24.44	1.0	25.00		97.7	90	110				

Sample ID: **1609A56-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **325452**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R325452** Analysis Date: **09/14/2016** Seq No: **7045362**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	144.8	10	100.0	52.61	92.2	90	110				
Nitrate	57.05	2.5	50.00	11.13	91.8	90	110				
Sulfate	274.3	10	250.0	41.18	93.3	90	110				

Sample ID: **1609A57-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **325452**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R325452** Analysis Date: **09/14/2016** Seq No: **7045366**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	134.4	10	100.0	44.34	90.1	90	110				
Nitrate	54.30	2.5	50.00	7.422	93.7	90	110				
Sulfate	269.5	10	250.0	36.11	93.4	90	110				

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		

Analytical Environmental Services, Inc

Date: 22-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A85

ANALYTICAL QC SUMMARY REPORT

BatchID: **R325452**

Sample ID: **1609A56-002BMSD** Client ID: Units: **mg/L** Prep Date: Run No: **325452**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R325452** Analysis Date: **09/14/2016** Seq No: **7045363**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	145.8	10	100.0	52.61	93.2	90	110	144.8	0.669	20	
Nitrate	57.43	2.5	50.00	11.13	92.6	90	110	57.05	0.670	20	
Sulfate	274.9	10	250.0	41.18	93.5	90	110	274.3	0.204	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		

Analytical Environmental Services, Inc

Date: 22-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609A85

ANALYTICAL QC SUMMARY REPORT

BatchID: R325741

Sample ID: **MB-R325741** Client ID: Units: **mg/L** Prep Date: Run No: **325741**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R325741** Analysis Date: **09/21/2016** Seq No: **7052885**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R325741** Client ID: Units: **mg/L** Prep Date: Run No: **325741**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R325741** Analysis Date: **09/21/2016** Seq No: **7052886**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	127.0	3.00	125.0		102	75	125				

Sample ID: **1609A45-005ADUP** Client ID: Units: **mg/L** Prep Date: Run No: **325741**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R325741** Analysis Date: **09/21/2016** Seq No: **7052901**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	16.00	3.00						16.00	0	30	

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		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

September 23, 2016

Samantha Woolf
EarthCon Consultants, Inc.
1880 West Oak Parkway
Marietta GA 30062

TEL: (770) 973-2100
FAX: (770) 973-7395

RE: Apollo Smyrna

Dear Samantha Woolf: Order No: 1609D04

Analytical Environmental Services, Inc. received 5 samples on 9/15/2016 3:15:00 PM 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's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Chris Pafford
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1609004
Date: 9/14/16 Page 1 of 1

COMPANY: Earth Con Consultants
ADDRESS: 1880 West Oak Pkwy Bldg 100 Suite 106 Marietta, GA 30062
PHONE: 770-973-2100
FAX: 770-973-7395
SAMPLED BY: Keaton Henry/Rob Andrews
SIGNATURE: [signature]

ANALYSIS REQUESTED: VOCs; GC Analysis; TOC; Ion Scan/Alkalinity; Sulfide Cat+Anion

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs (H+I)	GC Analysis (H+I)	TOC (S+I)	Ion Scan/Alkalinity (I)	Sulfide Cat+Anion (O)	REMARKS	No # of Containers
1	MW-1	9/14/16	9:55	X		GW	2	2	1	1	1		7
2	MW-4	9/14/16	12:30	X		GW	2	2	1	1	1		7
3	MW-3	9/14/16	10:40	X		GW	2	2	1	1	1		7
4	Field Dup	9/14/16	—	X		GW	2						2
5	Trip Blank	9/14/16	—	X		W	2						2
6													
7													
8													
9													
10													
11													
12													
13													
14													

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	9/14/16 13:56	1: Danielle Edwards	9/14/16 13:58
2: Danielle Edwards	9/15/16 12:45	2: [signature]	9/15/16 12:45
3: [signature]	9/15/16 3:15	3: Jamie Shelly	9/15/16 3:15 pm

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Apollo Smyrna
PROJECT #: 02.20140341.16
SITE ADDRESS:
SEND REPORT TO: Samantha Woolf
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers: 25

Turnaround Time Request
- (●) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other _____

STATE PROGRAM (if any): _____
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 I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 23-Sep-16

Client: EarthCon Consultants, Inc.
Project: Apollo Smyrna
Lab ID: 1609D04

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

Due to sample matrix, sample 1609D04-002A required dilution during preparation and/or analysis resulting in elevated reporting limits.

1,1-Dichloroethene value for the QC sample 1609D04-002AMS/MSD is "E" qualified indicating estimated value over linear calibration range due to the level of target analyte present in the unspiked sample.

Analytical Environmental Services, Inc

Date: 23-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-1
Project Name:	Apollo Smyrna	**Collection Date:**	9/14/2016 9:55:00 AM
Lab ID:	1609D04-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	15.2		0.337	1.00	mg/L	R325429	1	09/17/2016 01:08	JW
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.013		0.00025	0.005	mg/L	229563	1	09/16/2016 18:23	BN
1,1-Dichloroethane	0.060		0.00025	0.005	mg/L	229563	1	09/16/2016 18:23	BN
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229563	1	09/16/2016 18:23	BN
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229563	1	09/16/2016 18:23	BN
Acetone	0.56		0.053	0.50	mg/L	229563	10	09/19/2016 13:48	BN
Chloroethane	BRL		0.00039	0.010	mg/L	229563	1	09/16/2016 18:23	BN
cis-1,2-Dichloroethene	0.049		0.00027	0.005	mg/L	229563	1	09/16/2016 18:23	BN
Cyclohexane	BRL		0.0016	0.005	mg/L	229563	1	09/16/2016 18:23	BN
Methylene chloride	BRL		0.00031	0.005	mg/L	229563	1	09/16/2016 18:23	BN
Tetrachloroethene	0.012		0.00029	0.005	mg/L	229563	1	09/16/2016 18:23	BN
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229563	1	09/16/2016 18:23	BN
Trichloroethene	0.004	J	0.00035	0.005	mg/L	229563	1	09/16/2016 18:23	BN
Vinyl chloride	0.032		0.00042	0.002	mg/L	229563	1	09/16/2016 18:23	BN
Surr: 4-Bromofluorobenzene	87.7		0	70.7-125	%REC	229563	1	09/16/2016 18:23	BN
Surr: 4-Bromofluorobenzene	88.5		0	70.7-125	%REC	229563	10	09/19/2016 13:48	BN
Surr: Dibromofluoromethane	114		0	82.2-120	%REC	229563	1	09/16/2016 18:23	BN
Surr: Dibromofluoromethane	120		0	82.2-120	%REC	229563	10	09/19/2016 13:48	BN
Surr: Toluene-d8	101		0	81.8-120	%REC	229563	1	09/16/2016 18:23	BN
Surr: Toluene-d8	103		0	81.8-120	%REC	229563	10	09/19/2016 13:48	BN
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	6.72		0.764	2.00	mg/L	229767	1	09/21/2016 09:00	BD
ION SCAN SW9056A									
Chloride	4.3		0.11	1.0	mg/L	R325760	1	09/15/2016 20:01	JC
Nitrate	BRL		0.024	0.25	mg/L	R325760	1	09/15/2016 20:01	JC
Sulfate	1.3		0.10	1.0	mg/L	R325760	1	09/15/2016 20:01	JC
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.015		0.0019	0.0090	mg/L	229481	1	09/16/2016 13:39	MD
Ethylene	0.018		0.0035	0.0070	mg/L	229481	1	09/16/2016 13:39	MD
Methane	0.084		0.0012	0.0040	mg/L	229481	1	09/16/2016 13:39	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	141		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 23-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-4
Project Name:	Apollo Smyrna	**Collection Date:**	9/14/2016 12:30:00 PM
Lab ID:	1609D04-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.789	J	0.337	1.00	mg/L	R325429	1	09/17/2016 01:29	JW
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	1.4		0.025	0.50	mg/L	229563	100	09/16/2016 17:06	BN
1,1-Dichloroethane	BRL		0.025	0.50	mg/L	229563	100	09/16/2016 17:06	BN
1,1-Dichloroethene	18		0.18	2.5	mg/L	229563	500	09/19/2016 11:13	BN
1,2-Dichloroethane	BRL		0.024	0.50	mg/L	229563	100	09/16/2016 17:06	BN
Acetone	BRL		0.53	5.0	mg/L	229563	100	09/16/2016 17:06	BN
Chloroethane	BRL		0.039	1.0	mg/L	229563	100	09/16/2016 17:06	BN
cis-1,2-Dichloroethene	0.72		0.027	0.50	mg/L	229563	100	09/16/2016 17:06	BN
Cyclohexane	BRL		0.16	0.50	mg/L	229563	100	09/16/2016 17:06	BN
Methylene chloride	BRL		0.031	0.50	mg/L	229563	100	09/16/2016 17:06	BN
Tetrachloroethene	0.55		0.029	0.50	mg/L	229563	100	09/16/2016 17:06	BN
trans-1,2-Dichloroethene	BRL		0.022	0.50	mg/L	229563	100	09/16/2016 17:06	BN
Trichloroethene	0.29	J	0.035	0.50	mg/L	229563	100	09/16/2016 17:06	BN
Vinyl chloride	BRL		0.042	0.20	mg/L	229563	100	09/16/2016 17:06	BN
Surr: 4-Bromofluorobenzene	88.2		0	70.7-125	%REC	229563	500	09/19/2016 11:13	BN
Surr: 4-Bromofluorobenzene	87.3		0	70.7-125	%REC	229563	100	09/16/2016 17:06	BN
Surr: Dibromofluoromethane	110		0	82.2-120	%REC	229563	500	09/19/2016 11:13	BN
Surr: Dibromofluoromethane	113		0	82.2-120	%REC	229563	100	09/16/2016 17:06	BN
Surr: Toluene-d8	94.5		0	81.8-120	%REC	229563	500	09/19/2016 11:13	BN
Surr: Toluene-d8	98.6		0	81.8-120	%REC	229563	100	09/16/2016 17:06	BN
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	2.72		0.764	2.00	mg/L	229767	1	09/21/2016 09:00	BD
ION SCAN SW9056A									
Chloride	49		1.1	10	mg/L	R325760	10	09/16/2016 09:50	JC
Nitrate	BRL		0.024	0.25	mg/L	R325760	1	09/15/2016 20:15	JC
Sulfate	0.85	J	0.10	1.0	mg/L	R325760	1	09/15/2016 20:15	JC
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		0.0019	0.0090	mg/L	229481	1	09/16/2016 13:43	MD
Ethylene	0.0044	J	0.0035	0.0070	mg/L	229481	1	09/16/2016 13:43	MD
Methane	0.094		0.0012	0.0040	mg/L	229481	1	09/16/2016 13:43	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	62.0		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 23-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-3
Project Name:	Apollo Smyrna	**Collection Date:**	9/14/2016 10:40:00 AM
Lab ID:	1609D04-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	11.6		0.337	1.00	mg/L	R325429	1	09/17/2016 01:51	JW
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.099		0.00025	0.005	mg/L	229563	1	09/16/2016 16:08	BN
1,1-Dichloroethane	0.35		0.0025	0.050	mg/L	229563	10	09/16/2016 16:40	BN
1,1-Dichloroethene	0.079		0.00036	0.005	mg/L	229563	1	09/16/2016 16:08	BN
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229563	1	09/16/2016 16:08	BN
Acetone	BRL		0.0053	0.050	mg/L	229563	1	09/16/2016 16:08	BN
Chloroethane	0.074		0.00039	0.010	mg/L	229563	1	09/16/2016 16:08	BN
cis-1,2-Dichloroethene	0.70		0.0027	0.050	mg/L	229563	10	09/16/2016 16:40	BN
Cyclohexane	BRL		0.0016	0.005	mg/L	229563	1	09/16/2016 16:08	BN
Methylene chloride	0.009		0.00031	0.005	mg/L	229563	1	09/16/2016 16:08	BN
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229563	1	09/16/2016 16:08	BN
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229563	1	09/16/2016 16:08	BN
Trichloroethene	BRL		0.00035	0.005	mg/L	229563	1	09/16/2016 16:08	BN
Vinyl chloride	0.36		0.0042	0.020	mg/L	229563	10	09/16/2016 16:40	BN
Surr: 4-Bromofluorobenzene	96.8		0	70.7-125	%REC	229563	1	09/16/2016 16:08	BN
Surr: 4-Bromofluorobenzene	89.6		0	70.7-125	%REC	229563	10	09/16/2016 16:40	BN
Surr: Dibromofluoromethane	118		0	82.2-120	%REC	229563	1	09/16/2016 16:08	BN
Surr: Dibromofluoromethane	118		0	82.2-120	%REC	229563	10	09/16/2016 16:40	BN
Surr: Toluene-d8	103		0	81.8-120	%REC	229563	1	09/16/2016 16:08	BN
Surr: Toluene-d8	99.1		0	81.8-120	%REC	229563	10	09/16/2016 16:40	BN
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	2.32		0.764	2.00	mg/L	229767	1	09/21/2016 09:00	BD
ION SCAN SW9056A									
Chloride	4.2		0.11	1.0	mg/L	R325760	1	09/15/2016 20:59	JC
Nitrate	BRL		0.024	0.25	mg/L	R325760	1	09/15/2016 20:59	JC
Sulfate	1.2		0.10	1.0	mg/L	R325760	1	09/15/2016 20:59	JC
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.12		0.0019	0.0090	mg/L	229481	1	09/16/2016 15:24	MD
Ethylene	0.051		0.0035	0.0070	mg/L	229481	1	09/16/2016 15:24	MD
Methane	1.3		0.012	0.040	mg/L	229481	10	09/16/2016 15:59	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	80.0		1.68	3.00	mg/L	R325741	1	09/21/2016 19:25	BD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 23-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	FIELD DUP
Project Name:	Apollo Smyrna	**Collection Date:**	9/14/2016
Lab ID:	1609D04-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.015		0.00025	0.005	mg/L	229563	1	09/19/2016 13:23	BN
1,1-Dichloroethane	0.068		0.00025	0.005	mg/L	229563	1	09/19/2016 13:23	BN
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229563	1	09/19/2016 13:23	BN
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229563	1	09/19/2016 13:23	BN
Acetone	0.38		0.0053	0.050	mg/L	229563	1	09/19/2016 13:23	BN
Chloroethane	0.007	J	0.00039	0.010	mg/L	229563	1	09/19/2016 13:23	BN
cis-1,2-Dichloroethene	0.048		0.00027	0.005	mg/L	229563	1	09/19/2016 13:23	BN
Cyclohexane	BRL		0.0016	0.005	mg/L	229563	1	09/19/2016 13:23	BN
Methylene chloride	BRL		0.00031	0.005	mg/L	229563	1	09/19/2016 13:23	BN
Tetrachloroethene	0.006		0.00029	0.005	mg/L	229563	1	09/19/2016 13:23	BN
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229563	1	09/19/2016 13:23	BN
Trichloroethene	0.004	J	0.00035	0.005	mg/L	229563	1	09/19/2016 13:23	BN
Vinyl chloride	0.030		0.00042	0.002	mg/L	229563	1	09/19/2016 13:23	BN
Surr: 4-Bromofluorobenzene	90.8		0	70.7-125	%REC	229563	1	09/19/2016 13:23	BN
Surr: Dibromofluoromethane	119		0	82.2-120	%REC	229563	1	09/19/2016 13:23	BN
Surr: Toluene-d8	102		0	81.8-120	%REC	229563	1	09/19/2016 13:23	BN

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 23-Sep-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Apollo Smyrna	**Collection Date:**	9/14/2016
Lab ID:	1609D04-005	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	229563	1	09/16/2016 19:15	BN
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	229563	1	09/16/2016 19:15	BN
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	229563	1	09/16/2016 19:15	BN
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	229563	1	09/16/2016 19:15	BN
Acetone	BRL		0.0053	0.050	mg/L	229563	1	09/16/2016 19:15	BN
Chloroethane	BRL		0.00039	0.010	mg/L	229563	1	09/16/2016 19:15	BN
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	229563	1	09/16/2016 19:15	BN
Cyclohexane	BRL		0.0016	0.005	mg/L	229563	1	09/16/2016 19:15	BN
Methylene chloride	BRL		0.00031	0.005	mg/L	229563	1	09/16/2016 19:15	BN
Tetrachloroethene	BRL		0.00029	0.005	mg/L	229563	1	09/16/2016 19:15	BN
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	229563	1	09/16/2016 19:15	BN
Trichloroethene	BRL		0.00035	0.005	mg/L	229563	1	09/16/2016 19:15	BN
Vinyl chloride	BRL		0.00042	0.002	mg/L	229563	1	09/16/2016 19:15	BN
Surr: 4-Bromofluorobenzene	89		0	70.7-125	%REC	229563	1	09/16/2016 19:15	BN
Surr: Dibromofluoromethane	113		0	82.2-120	%REC	229563	1	09/16/2016 19:15	BN
Surr: Toluene-d8	96.4		0	81.8-120	%REC	229563	1	09/16/2016 19:15	BN

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Eastheon Work Order Number 1609D04

Checklist completed by [signature] 9/15/2014
Signature Date

Carrier name: FedEx __ UPS __ Courier ✓ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 1.6°C 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 CJ

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.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Analytical Environmental Services, Inc

Date: 23-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Lab Order: 1609D04

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1609D04-001A	MW-1	9/14/2016 9:55:00AM	Groundwater	TCL VOLATILE ORGANICS		9/16/2016 10:42:00 AM	09/16/2016
1609D04-001A	MW-1	9/14/2016 9:55:00AM	Groundwater	TCL VOLATILE ORGANICS		9/16/2016 10:42:00 AM	09/19/2016
1609D04-001B	MW-1	9/14/2016 9:55:00AM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609D04-001C	MW-1	9/14/2016 9:55:00AM	Groundwater	Total Organic Carbon (TOC)			09/17/2016
1609D04-001D	MW-1	9/14/2016 9:55:00AM	Groundwater	ION SCAN			09/15/2016
1609D04-001D	MW-1	9/14/2016 9:55:00AM	Groundwater	Alkalinity by SM2320B			09/21/2016
1609D04-001E	MW-1	9/14/2016 9:55:00AM	Groundwater	Sulfide by SW9030/9034		9/21/2016 9:00:00 AM	09/21/2016
1609D04-002A	MW-4	9/14/2016 12:30:00PM	Groundwater	TCL VOLATILE ORGANICS		9/16/2016 10:42:00 AM	09/16/2016
1609D04-002A	MW-4	9/14/2016 12:30:00PM	Groundwater	TCL VOLATILE ORGANICS		9/16/2016 10:42:00 AM	09/19/2016
1609D04-002B	MW-4	9/14/2016 12:30:00PM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609D04-002C	MW-4	9/14/2016 12:30:00PM	Groundwater	Total Organic Carbon (TOC)			09/17/2016
1609D04-002D	MW-4	9/14/2016 12:30:00PM	Groundwater	ION SCAN			09/15/2016
1609D04-002D	MW-4	9/14/2016 12:30:00PM	Groundwater	ION SCAN			09/16/2016
1609D04-002D	MW-4	9/14/2016 12:30:00PM	Groundwater	Alkalinity by SM2320B			09/21/2016
1609D04-002E	MW-4	9/14/2016 12:30:00PM	Groundwater	Sulfide by SW9030/9034		9/21/2016 9:00:00 AM	09/21/2016
1609D04-003A	MW-3	9/14/2016 10:40:00AM	Groundwater	TCL VOLATILE ORGANICS		9/16/2016 10:42:00 AM	09/16/2016
1609D04-003B	MW-3	9/14/2016 10:40:00AM	Groundwater	GC Analysis of Gaseous Samples		9/16/2016 8:54:27 AM	09/16/2016
1609D04-003C	MW-3	9/14/2016 10:40:00AM	Groundwater	Total Organic Carbon (TOC)			09/17/2016
1609D04-003D	MW-3	9/14/2016 10:40:00AM	Groundwater	ION SCAN			09/15/2016
1609D04-003D	MW-3	9/14/2016 10:40:00AM	Groundwater	Alkalinity by SM2320B			09/21/2016
1609D04-003E	MW-3	9/14/2016 10:40:00AM	Groundwater	Sulfide by SW9030/9034		9/21/2016 9:00:00 AM	09/21/2016
1609D04-004A	FIELD DUP	9/14/2016 12:00:00AM	Groundwater	TCL VOLATILE ORGANICS		9/16/2016 10:42:00 AM	09/19/2016
1609D04-005A	TRIP BLANK	9/14/2016 12:00:00AM	Aqueous	TCL VOLATILE ORGANICS		9/16/2016 10:42:00 AM	09/16/2016

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609D04

ANALYTICAL QC SUMMARY REPORT

BatchID: 229481

Sample ID: **MB-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043116**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	0.0090									
Ethylene	BRL	0.0070									
Methane	BRL	0.0040									

Sample ID: **LCS-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043117**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1171	0.0090	200.0		58.6	40.9	115				
Ethylene	0.07677	0.0070	200.0		38.4	26.8	115				
Methane	0.1215	0.0040	200.0		60.8	45.9	115				

Sample ID: **LCSD-229481** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043118**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1141	0.0090	200.0		57.0	40.9	115	117.1	2.62	20	
Ethylene	0.07594	0.0070	200.0		38.0	26.8	115	76.77	1.09	20	
Methane	0.1182	0.0040	200.0		59.1	45.9	115	121.5	2.73	20	

Sample ID: **1609A85-001BMS** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043200**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1265	0.0090	200.0		63.2	40.5	115				
Ethylene	0.08314	0.0070	200.0		41.6	23	115				
Methane	0.1319	0.0040	200.0	8.503	61.7	40	115				

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		

Analytical Environmental Services, Inc

Date: 23-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609D04

ANALYTICAL QC SUMMARY REPORT

BatchID: **229481**

Sample ID: **1609A85-001BMSD** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325358**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **229481** Analysis Date: **09/16/2016** Seq No: **7043201**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1297	0.0090	200.0		64.8	40.5	115	126.5	2.50	20	
Ethylene	0.08705	0.0070	200.0		43.5	23	115	83.14	4.60	20	
Methane	0.1357	0.0040	200.0	8.503	63.6	40	115	131.9	2.78	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609D04

ANALYTICAL QC SUMMARY REPORT

BatchID: **229563**

Sample ID: **MB-229563** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325389**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229563** Analysis Date: **09/16/2016** Seq No: **7043985**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	0.005									
1,1-Dichloroethane	BRL	0.005									
1,1-Dichloroethene	BRL	0.005									
1,2-Dichloroethane	BRL	0.005									
Acetone	BRL	0.050									
Chloroethane	BRL	0.010									
cis-1,2-Dichloroethene	BRL	0.005									
Cyclohexane	BRL	0.005									
Methylene chloride	BRL	0.005									
Tetrachloroethene	BRL	0.005									
trans-1,2-Dichloroethene	BRL	0.005									
Trichloroethene	BRL	0.005									
Vinyl chloride	BRL	0.002									
Surr: 4-Bromofluorobenzene	0.04417	0	50.00		88.3	70.7	125				
Surr: Dibromofluoromethane	0.05335	0	50.00		107	82.2	120				
Surr: Toluene-d8	0.04673	0	50.00		93.5	81.8	120				

Sample ID: **LCS-229563** Client ID: Units: **mg/L** Prep Date: **09/16/2016** Run No: **325389**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229563** Analysis Date: **09/16/2016** Seq No: **7043984**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.06075	0.005	50.00		122	65.3	137				
Trichloroethene	0.04730	0.005	50.00		94.6	73.1	128				
Surr: 4-Bromofluorobenzene	0.04586	0	50.00		91.7	70.7	125				
Surr: Dibromofluoromethane	0.05002	0	50.00		100	82.2	120				
Surr: Toluene-d8	0.04487	0	50.00		89.7	81.8	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609D04

ANALYTICAL QC SUMMARY REPORT

BatchID: **229563**

Sample ID: **1609D04-002AMS** Client ID: **MW-4** Units: **mg/L** Prep Date: **09/16/2016** Run No: **325389**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229563** Analysis Date: **09/16/2016** Seq No: **7043999**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	25.64	0.50	5000	21470	83.2	60	150				E
Trichloroethene	4.820	0.50	5000	287.0	90.7	70	136				
Surr: 4-Bromofluorobenzene	4.492	0	5000		89.8	70.7	125				
Surr: Dibromofluoromethane	5.291	0	5000		106	82.2	120				
Surr: Toluene-d8	4.515	0	5000		90.3	81.8	120				

Sample ID: **1609D04-002AMSD** Client ID: **MW-4** Units: **mg/L** Prep Date: **09/16/2016** Run No: **325389**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **229563** Analysis Date: **09/16/2016** Seq No: **7044000**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	24.73	0.50	5000	21470	65.2	60	150	25640	3.59	17.7	E
Trichloroethene	4.769	0.50	5000	287.0	89.6	70	136	4820	1.06	20	
Surr: 4-Bromofluorobenzene	4.391	0	5000		87.8	70.7	125	4492	0	0	
Surr: Dibromofluoromethane	5.351	0	5000		107	82.2	120	5291	0	0	
Surr: Toluene-d8	4.658	0	5000		93.2	81.8	120	4515	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		

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609D04

ANALYTICAL QC SUMMARY REPORT

BatchID: 229767

Sample ID: **MB-229767** Client ID: Units: **mg/L** Prep Date: **09/21/2016** Run No: **325723**
SampleType: **MBLK** TestCode: **Sulfide by SW9030B/9034** BatchID: **229767** Analysis Date: **09/21/2016** Seq No: **7052285**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	BRL	2.00									

Sample ID: **LCS-229767** Client ID: Units: **mg/L** Prep Date: **09/21/2016** Run No: **325723**
SampleType: **LCS** TestCode: **Sulfide by SW9030B/9034** BatchID: **229767** Analysis Date: **09/21/2016** Seq No: **7052286**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	339.2	2.00	339.2		100	40	120				

Sample ID: **1609D04-001EMS** Client ID: **MW-1** Units: **mg/L** Prep Date: **09/21/2016** Run No: **325723**
SampleType: **MS** TestCode: **Sulfide by SW9030B/9034** BatchID: **229767** Analysis Date: **09/21/2016** Seq No: **7052336**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	39.12	2.00	33.92	6.720	95.5	61.2	120				

Sample ID: **1609D04-001EMSD** Client ID: **MW-1** Units: **mg/L** Prep Date: **09/21/2016** Run No: **325723**
SampleType: **MSD** TestCode: **Sulfide by SW9030B/9034** BatchID: **229767** Analysis Date: **09/21/2016** Seq No: **7052402**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	37.12	2.00	33.92	6.720	89.6	61.2	120	39.12	5.25	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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609D04

ANALYTICAL QC SUMMARY REPORT

BatchID: R325429

Sample ID: **MB-R325429** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044754**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R325429** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044753**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.06	1.00	25.00		92.2	90	110				

Sample ID: **1609A03-001CMS** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044757**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.63	1.00	25.00		94.5	80	120				

Sample ID: **1609A03-001CMSD** Client ID: Units: **mg/L** Prep Date: Run No: **325429**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R325429** Analysis Date: **09/16/2016** Seq No: **7044758**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	24.29	1.00	25.00		97.2	80	120	23.63	2.75	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		

Analytical Environmental Services, Inc

Date: 23-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609D04

ANALYTICAL QC SUMMARY REPORT

BatchID: R325741

Sample ID: **MB-R325741** Client ID: Units: **mg/L** Prep Date: Run No: **325741**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R325741** Analysis Date: **09/21/2016** Seq No: **7052885**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R325741** Client ID: Units: **mg/L** Prep Date: Run No: **325741**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R325741** Analysis Date: **09/21/2016** Seq No: **7052886**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	127.0	3.00	125.0		102	75	125				

Sample ID: **1609A45-005ADUP** Client ID: Units: **mg/L** Prep Date: Run No: **325741**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R325741** Analysis Date: **09/21/2016** Seq No: **7052901**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	16.00	3.00						16.00	0	30	

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: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609D04

ANALYTICAL QC SUMMARY REPORT

BatchID: R325760

Sample ID: **MB-R325760** Client ID: Units: **mg/L** Prep Date: Run No: **325760**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R325760** Analysis Date: **09/15/2016** Seq No: **7053234**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	0.1231	1.0									J
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R325760** Client ID: Units: **mg/L** Prep Date: Run No: **325760**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R325760** Analysis Date: **09/15/2016** Seq No: **7053232**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	9.432	1.0	10.00	0.1231	93.1	90	110				
Nitrate	4.696	0.25	5.000		93.9	90	110				
Sulfate	24.15	1.0	25.00		96.6	90	110				

Sample ID: **1609D01-009AMS** Client ID: Units: **mg/L** Prep Date: Run No: **325760**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R325760** Analysis Date: **09/15/2016** Seq No: **7053259**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	11.71	1.0	10.00	2.580	91.4	90	110				
Nitrate	4.722	0.25	5.000		94.4	90	110				
Sulfate	24.57	1.0	25.00	0.2246	97.4	90	110				

Sample ID: **1609D04-002DMS** Client ID: **MW-4** Units: **mg/L** Prep Date: Run No: **325760**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R325760** Analysis Date: **09/16/2016** Seq No: **7053290**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	144.8	10	100.0	48.62	96.2	90	110				
Nitrate	45.28	2.5	50.00		90.6	90	110				
Sulfate	240.6	10	250.0	1.813	95.5	90	110				

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		

Analytical Environmental Services, Inc

Date: 23-Sep-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1609D04

ANALYTICAL QC SUMMARY REPORT

BatchID: **R325760**

Sample ID: **1609D04-002DMSD** Client ID: **MW-4** Units: **mg/L** Prep Date: Run No: **325760**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R325760** Analysis Date: **09/16/2016** Seq No: **7053291**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	145.4	10	100.0	48.62	96.8	90	110	144.8	0.408	20	
Nitrate	45.35	2.5	50.00		90.7	90	110	45.28	0.154	20	
Sulfate	240.8	10	250.0	1.813	95.6	90	110	240.6	0.101	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		

APPENDIX E

GROUNDWATER TREND GRAPHS AND HISTORICAL DATA SUMMARY

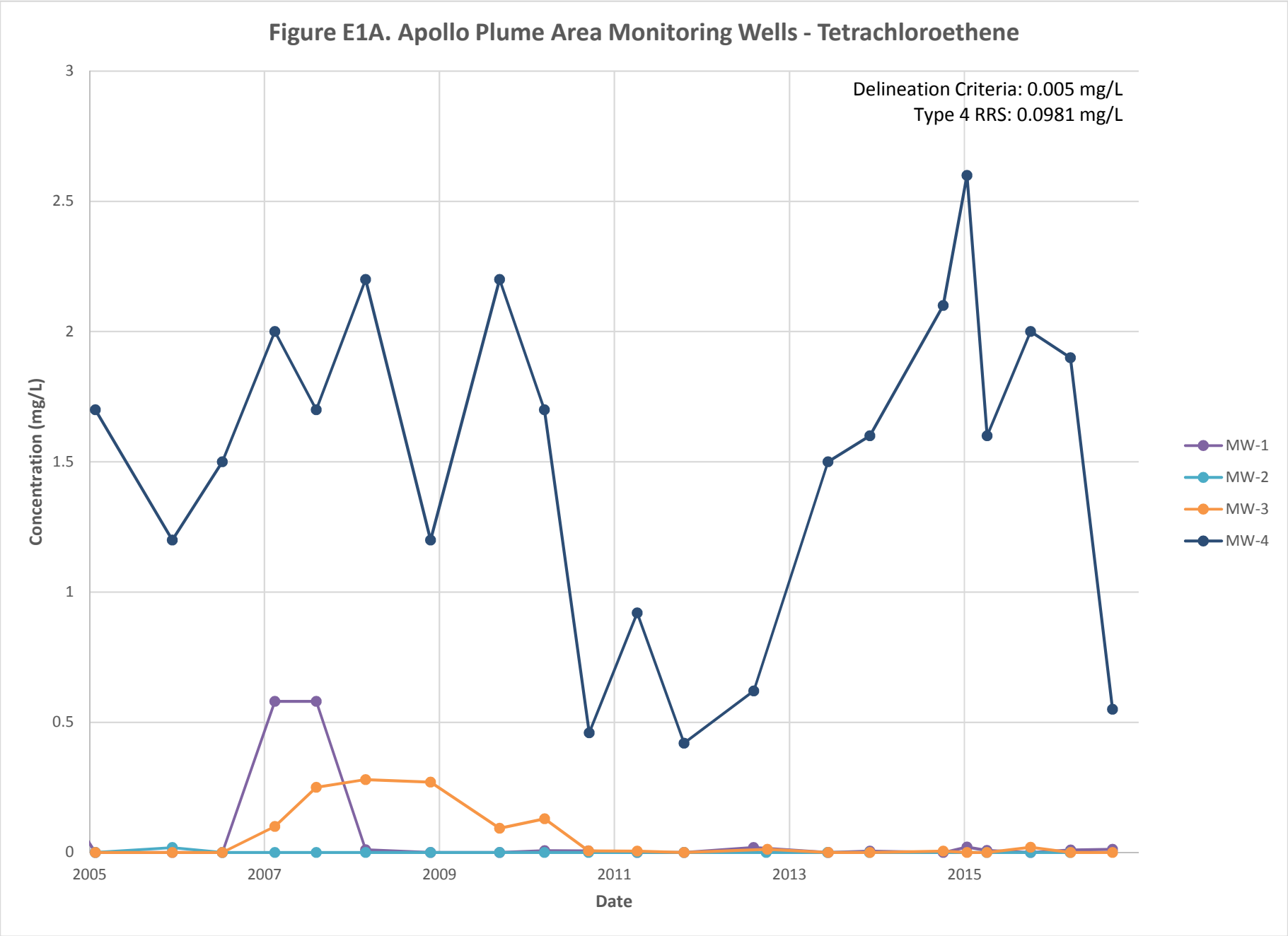


Figure E1A. Apollo Plume Area Monitoring Wells - Tetrachloroethene
Delineation Criteria: 0.005 mg/L
Type 4 RRS: 0.0981 mg/L
Concentration (mg/L)
3
2.5
2
1.5
1
0.5
0
2005
2007
2009
2011
2013
2015
Date
MW-1
MW-2
MW-3
MW-4

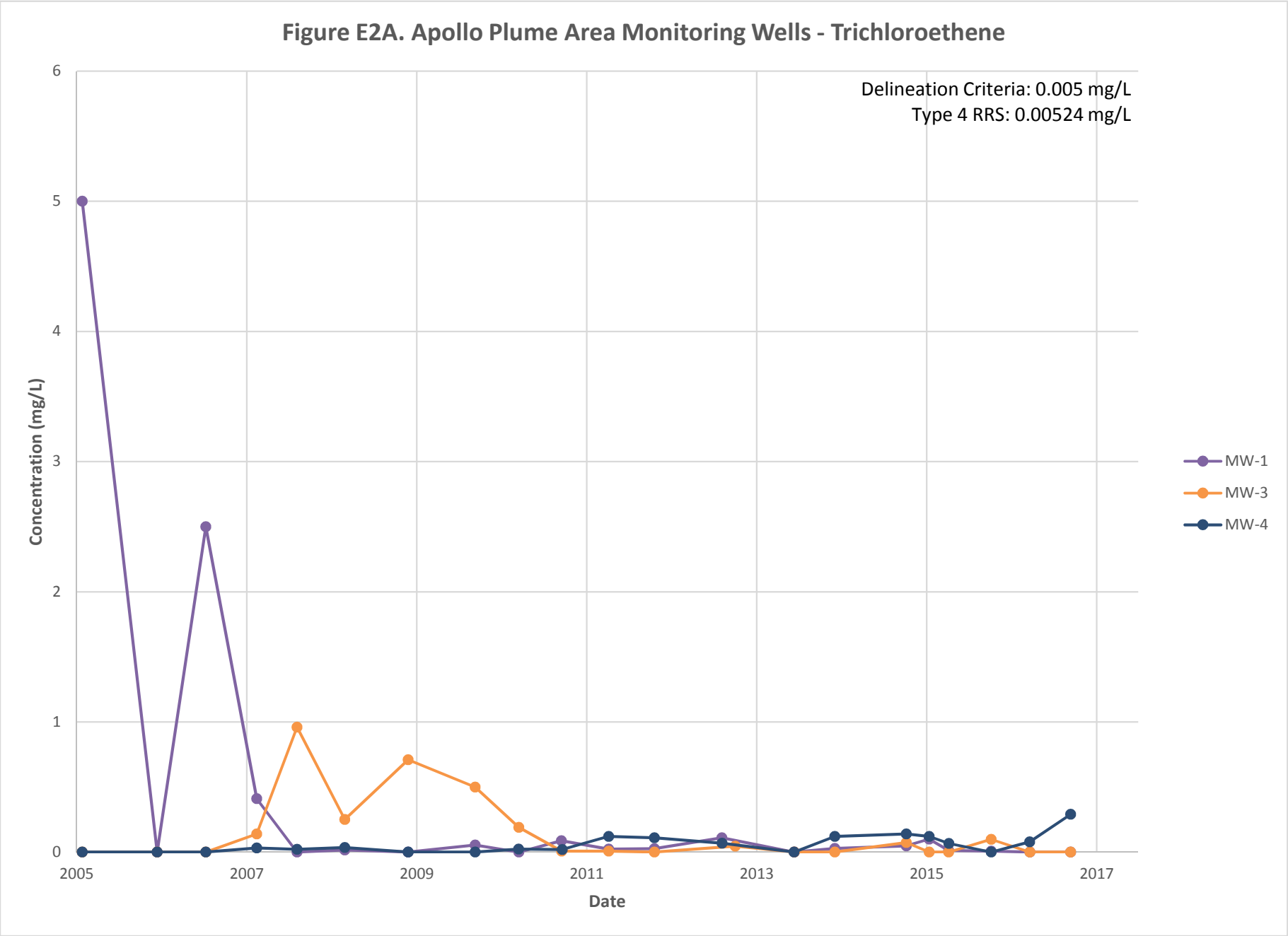


Figure E2A. Apollo Plume Area Monitoring Wells - Trichloroethene
Delineation Criteria: 0.005 mg/L
Type 4 RRS: 0.00524 mg/L
Concentration (mg/L)
6
5
4
3
2
1
0
2005
2007
2009
2011
2013
2015
2017
Date
MW-1
MW-3
MW-4

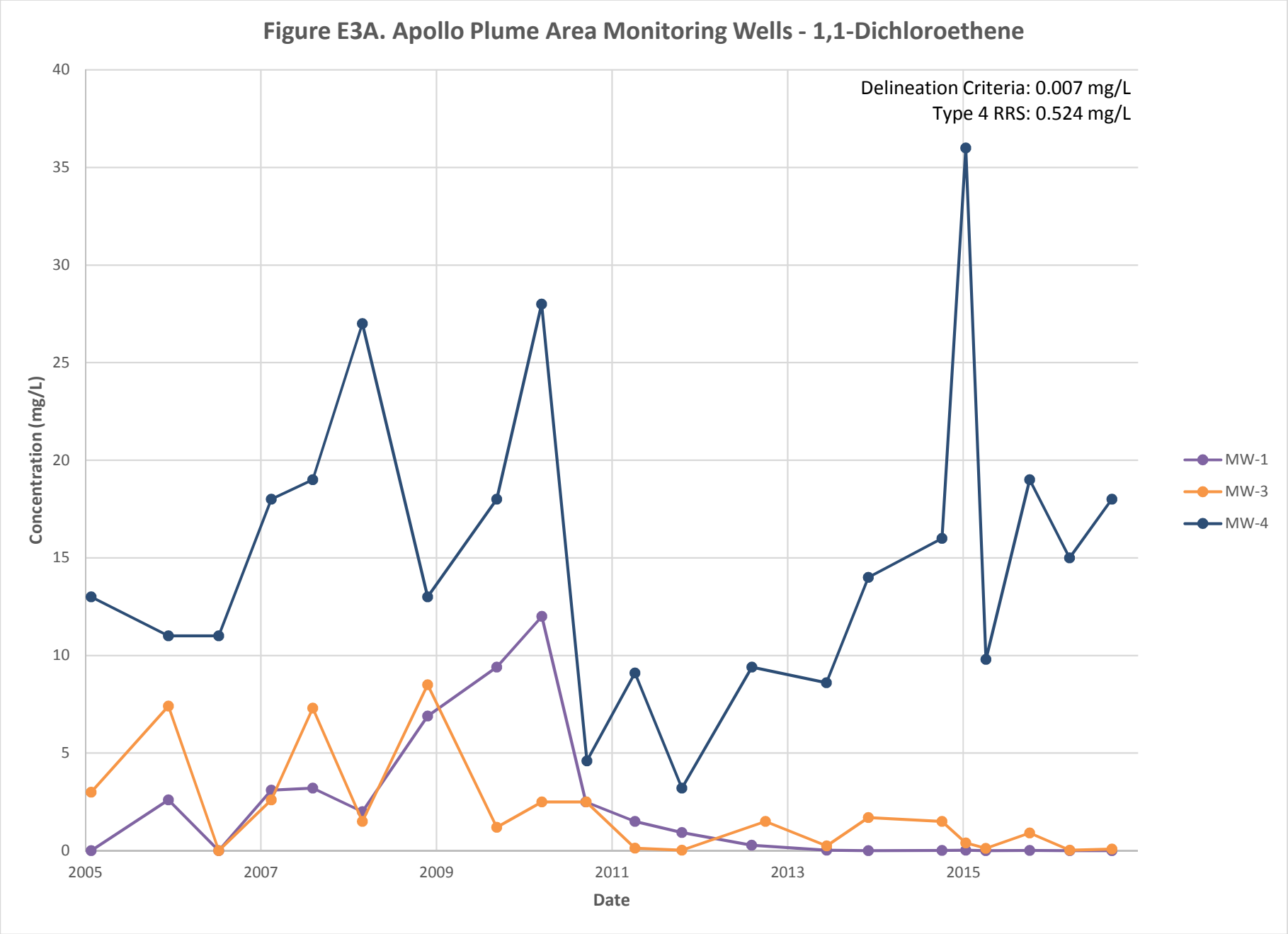


Figure E3A. Apollo Plume Area Monitoring Wells - 1,1-Dichloroethene
Delineation Criteria: 0.007 mg/L
Type 4 RRS: 0.524 mg/L
Concentration (mg/L)
40
35
30
25
20
15
10
5
0
2005
2007
2009
2011
2013
2015
Date
MW-1
MW-3
MW-4

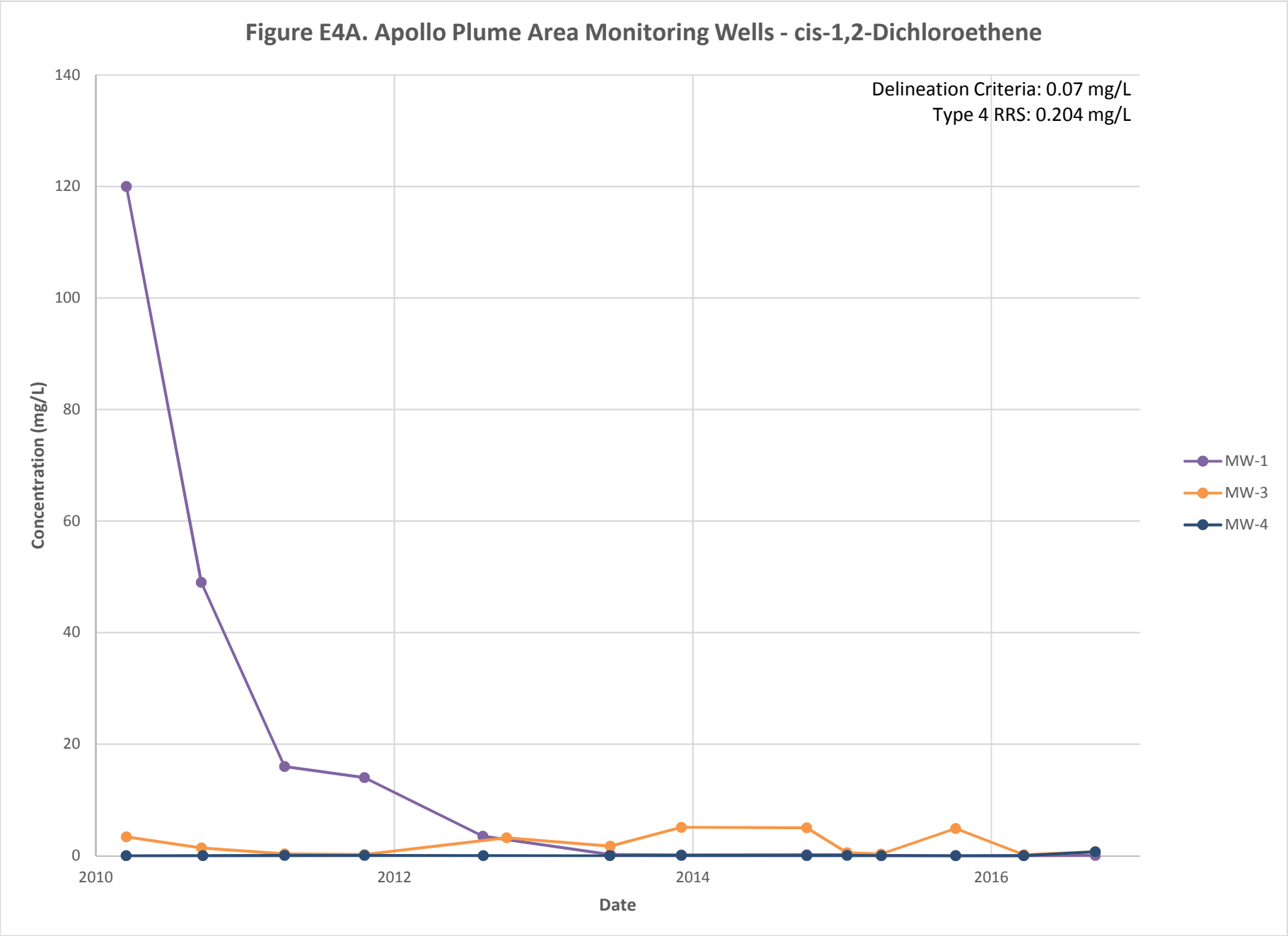


Figure E4A. Apollo Plume Area Monitoring Wells - cis-1,2-Dichloroethene
Delineation Criteria: 0.07 mg/L
Type 4 RRS: 0.204 mg/L
Concentration (mg/L)
140
120
100
80
60
40
20
0
2010
2012
2014
2016
Date
MW-1
MW-3
MW-4

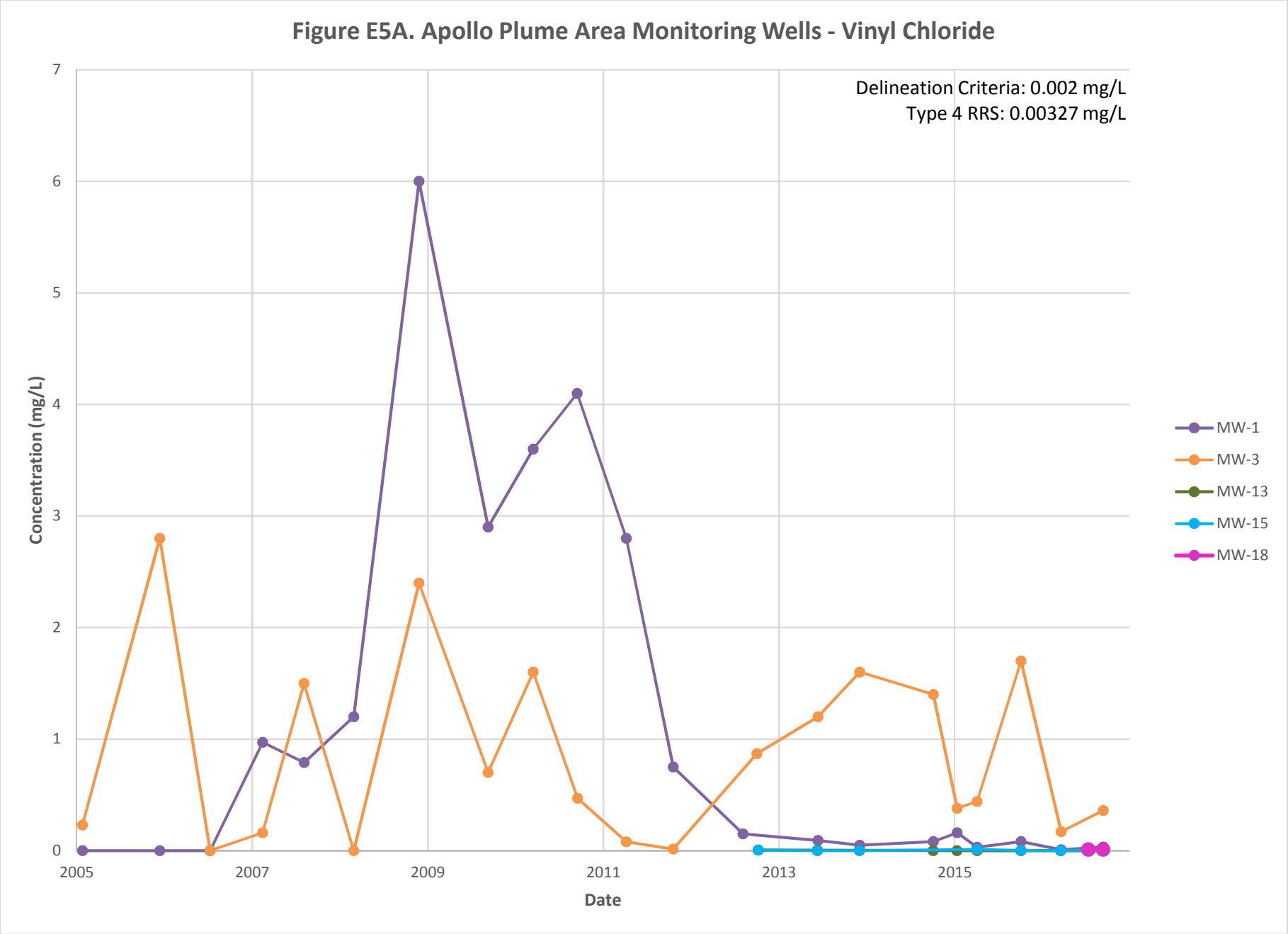


Figure E5A. Apollo Plume Area Monitoring Wells - Vinyl Chloride
Delineation Criteria: 0.002 mg/L
Type 4 RRS: 0.00327 mg/L
Concentration (mg/L)
0
1
2
3
4
5
6
7
2005
2007
2009
2011
2013
2015
Date
MW-1
MW-3
MW-13
MW-15
MW-18

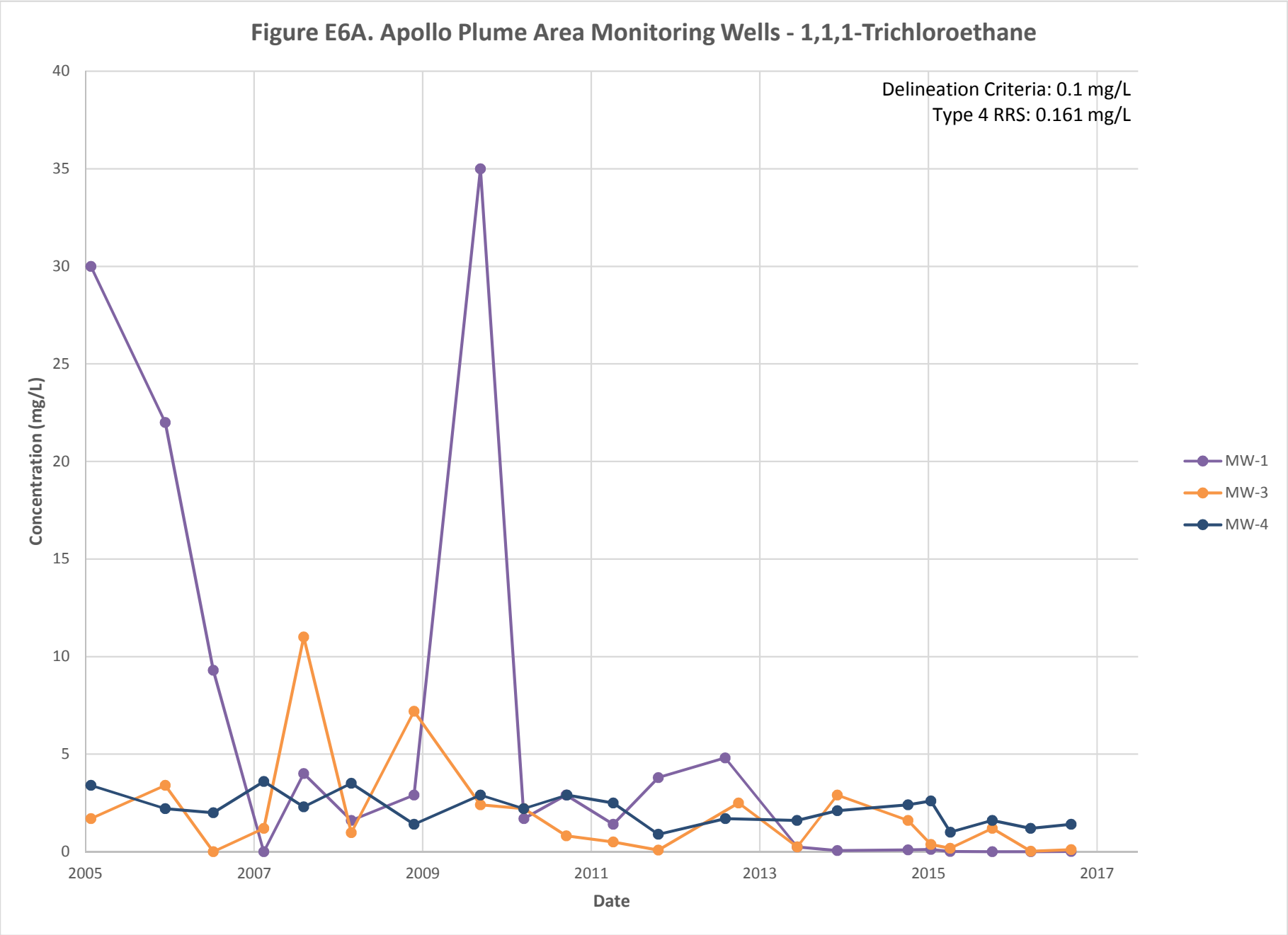


Figure E6A. Apollo Plume Area Monitoring Wells - 1,1,1-Trichloroethane
Delineation Criteria: 0.1 mg/L
Type 4 RRS: 0.161 mg/L
Concentration (mg/L)
40
35
30
25
20
15
10
5
0
2005
2007
2009
2011
2013
2015
2017
Date
MW-1
MW-3
MW-4

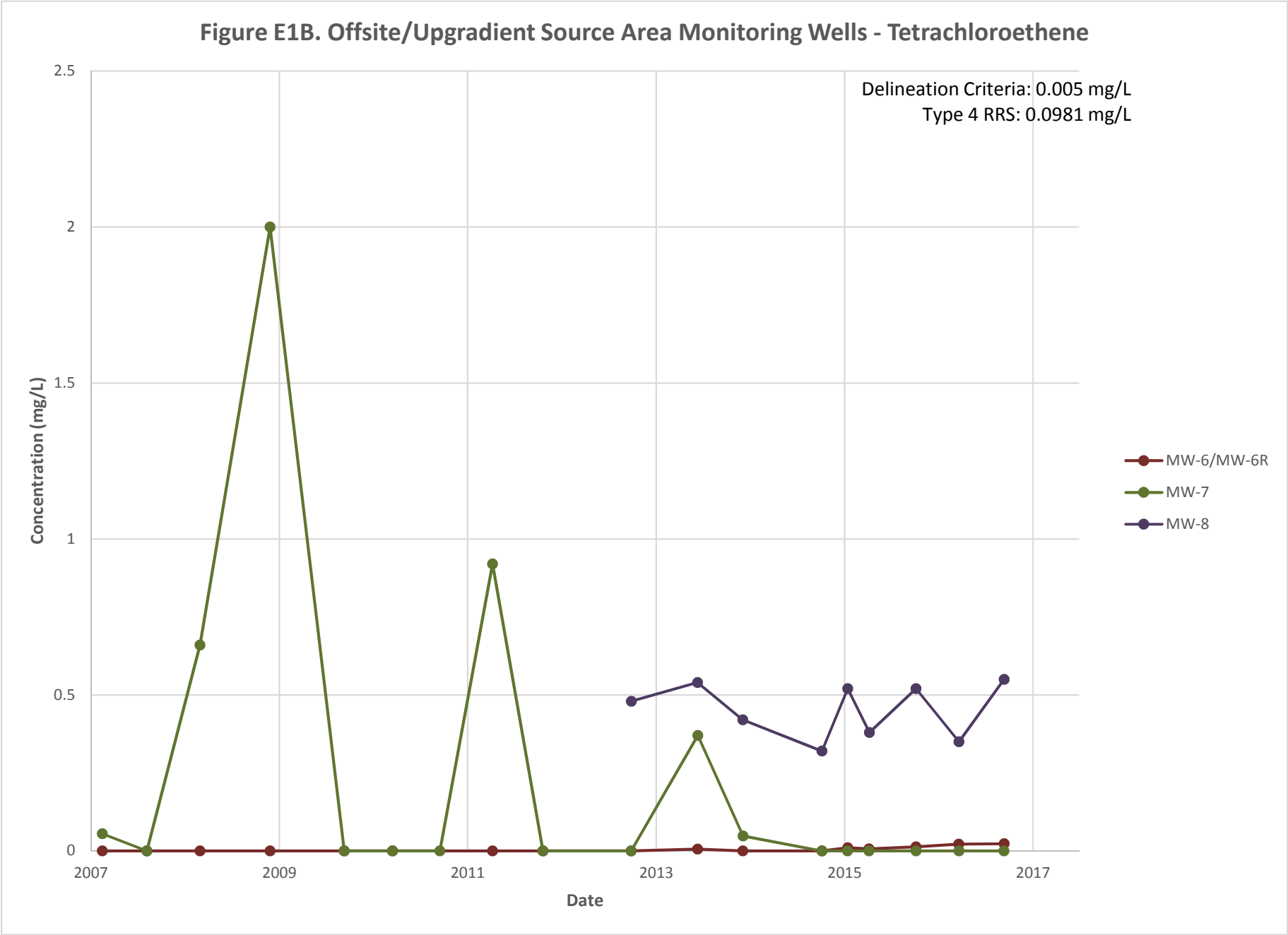


Figure E1B. Offsite/Upgradient Source Area Monitoring Wells - Tetrachloroethene
Delineation Criteria: 0.005 mg/L
Type 4 RRS: 0.0981 mg/L
Concentration (mg/L)
2.5
2
1.5
1
0.5
0
2007
2009
2011
2013
2015
2017
Date
MW-6/MW-6R
MW-7
MW-8

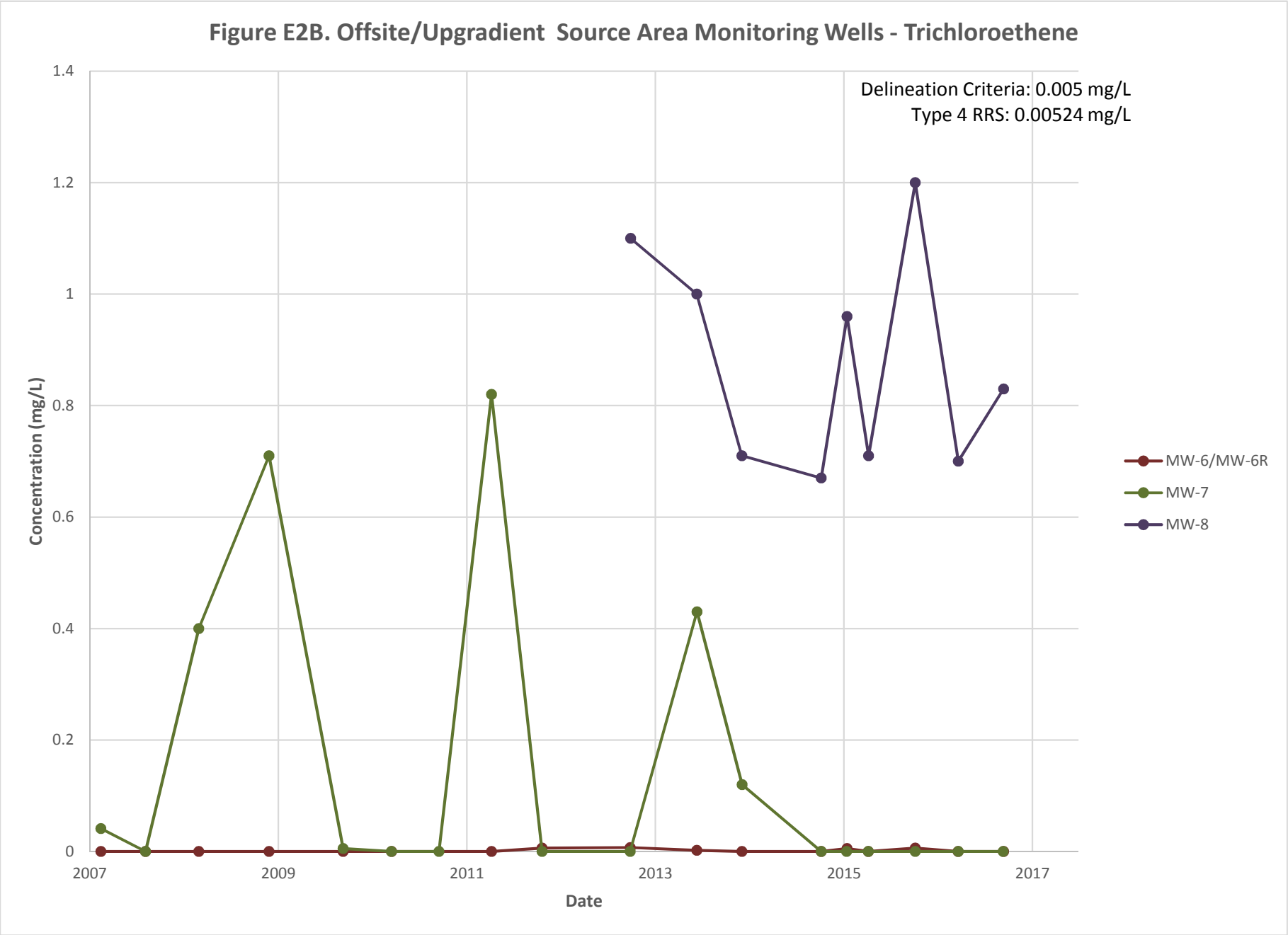


Figure E2B. Offsite/Upgradient Source Area Monitoring Wells - Trichloroethene
Delineation Criteria: 0.005 mg/L
Type 4 RRS: 0.00524 mg/L
Concentration (mg/L)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2007
2009
2011
2013
2015
2017
Date
MW-6/MW-6R
MW-7
MW-8

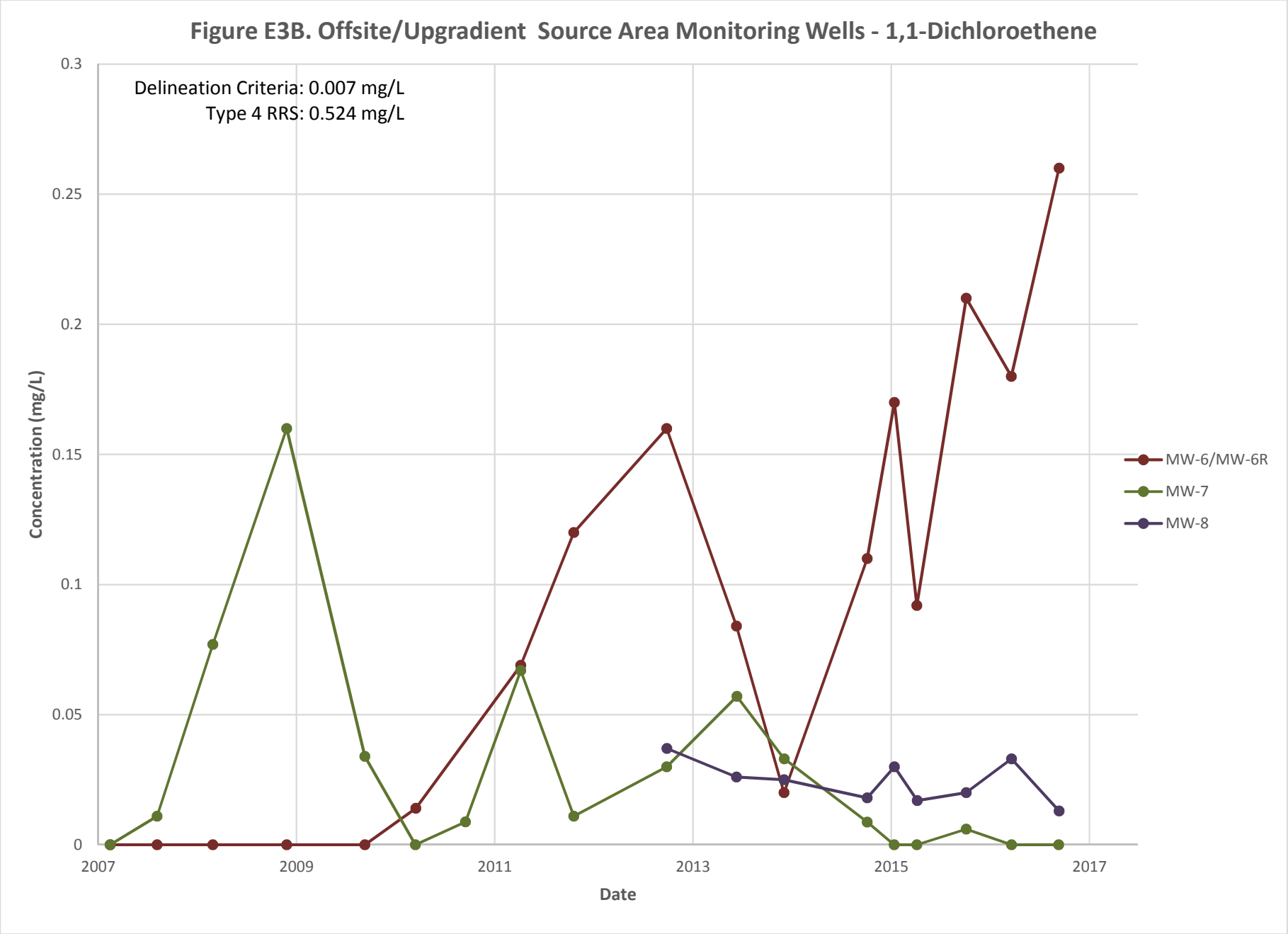


Figure E3B. Offsite/Upgradient Source Area Monitoring Wells - 1,1-Dichloroethene
Delineation Criteria: 0.007 mg/L
Type 4 RRS: 0.524 mg/L
Concentration (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
2007
2009
2011
2013
2015
2017
Date
MW-6/MW-6R
MW-7
MW-8

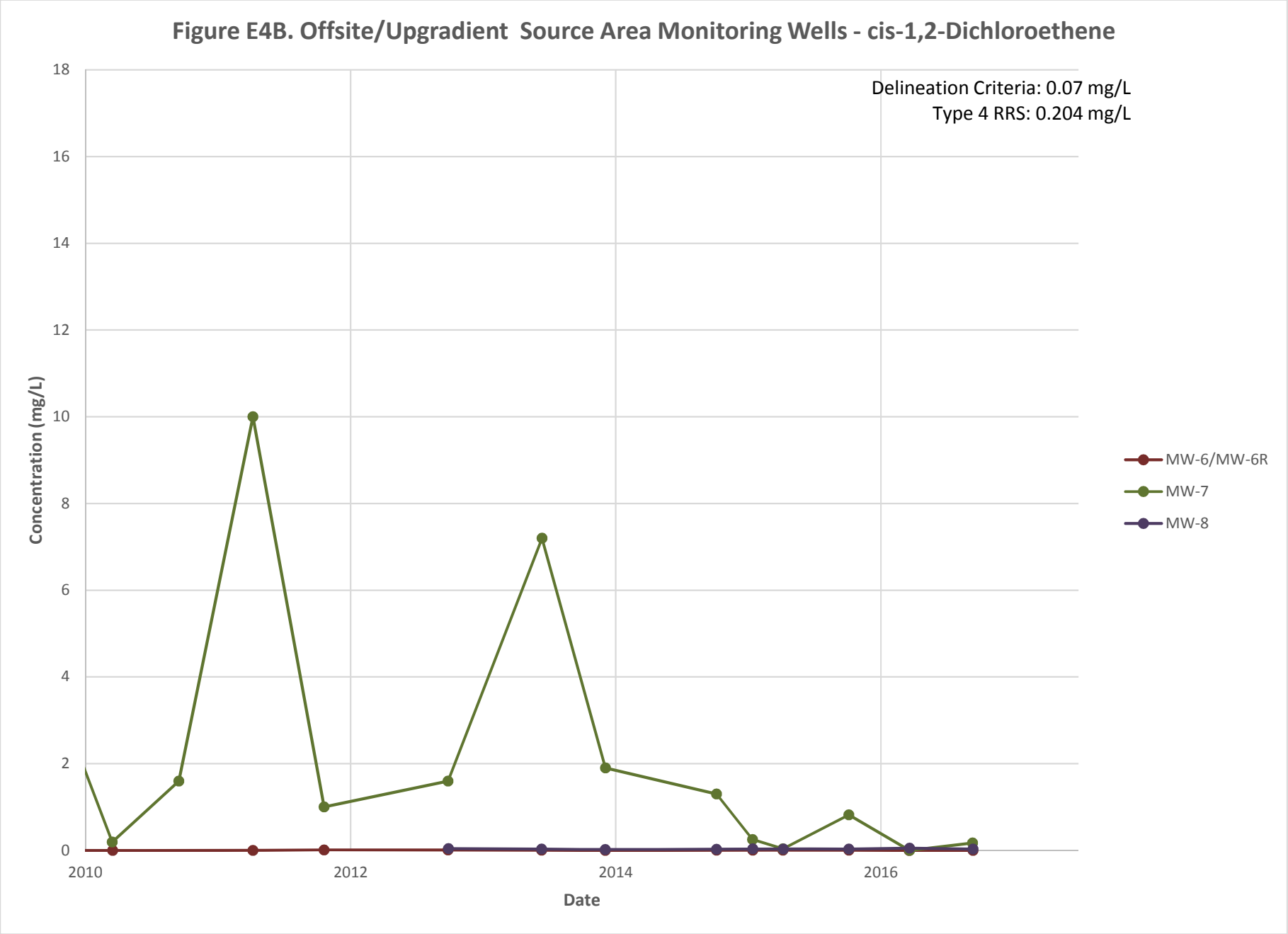


Figure E4B. Offsite/Upgradient Source Area Monitoring Wells - cis-1,2-Dichloroethene
Delineation Criteria: 0.07 mg/L
Type 4 RRS: 0.204 mg/L
Concentration (mg/L)
18
16
14
12
10
8
6
4
2
0
2010
2012
2014
2016
Date
MW-6/MW-6R
MW-7
MW-8

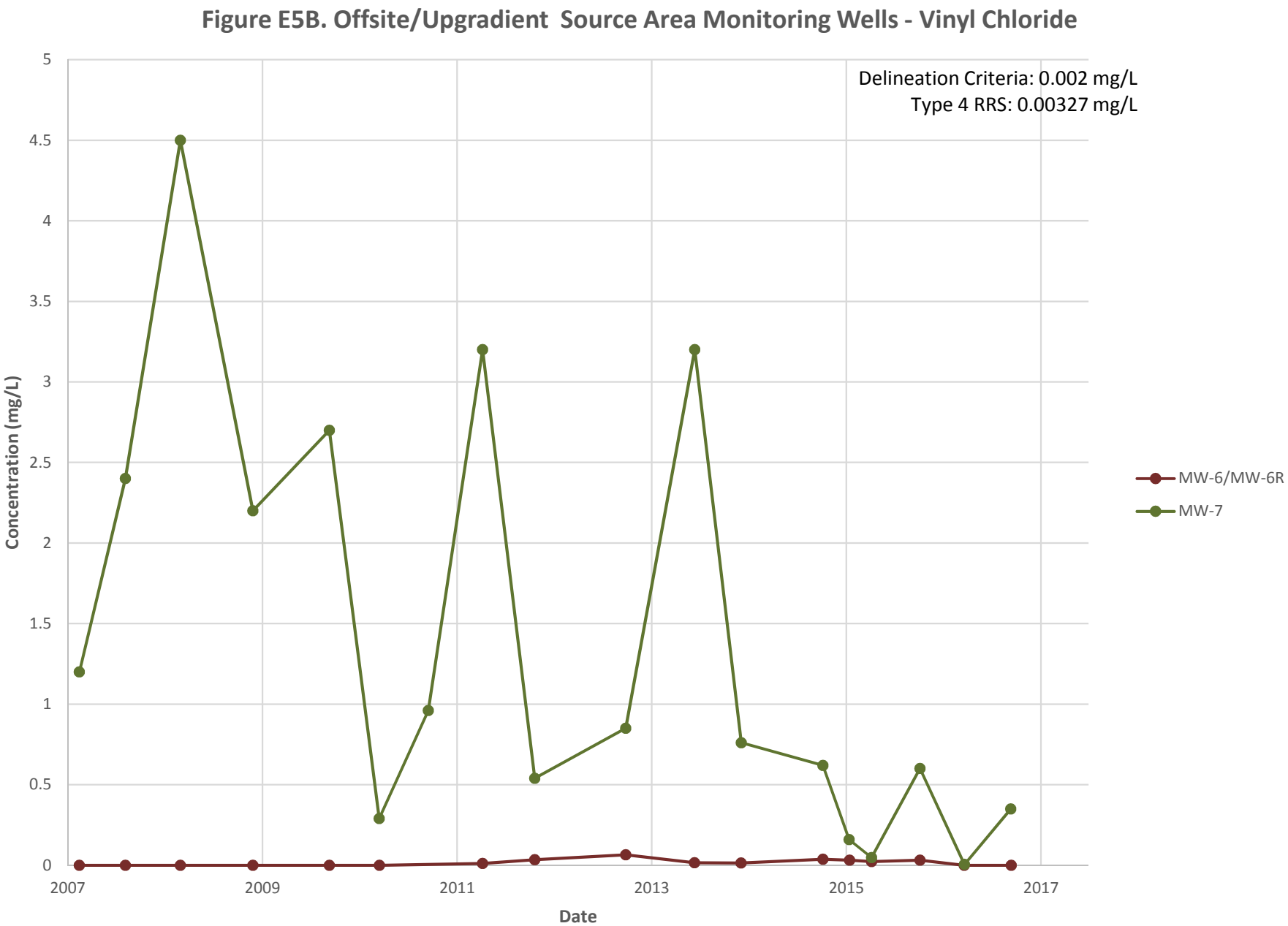


Figure E5B. Offsite/Upgradient Source Area Monitoring Wells - Vinyl Chloride
Delineation Criteria: 0.002 mg/L
Type 4 RRS: 0.00327 mg/L
Concentration (mg/L)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
2007
2009
2011
2013
2015
2017
Date
MW-6/MW-6R
MW-7

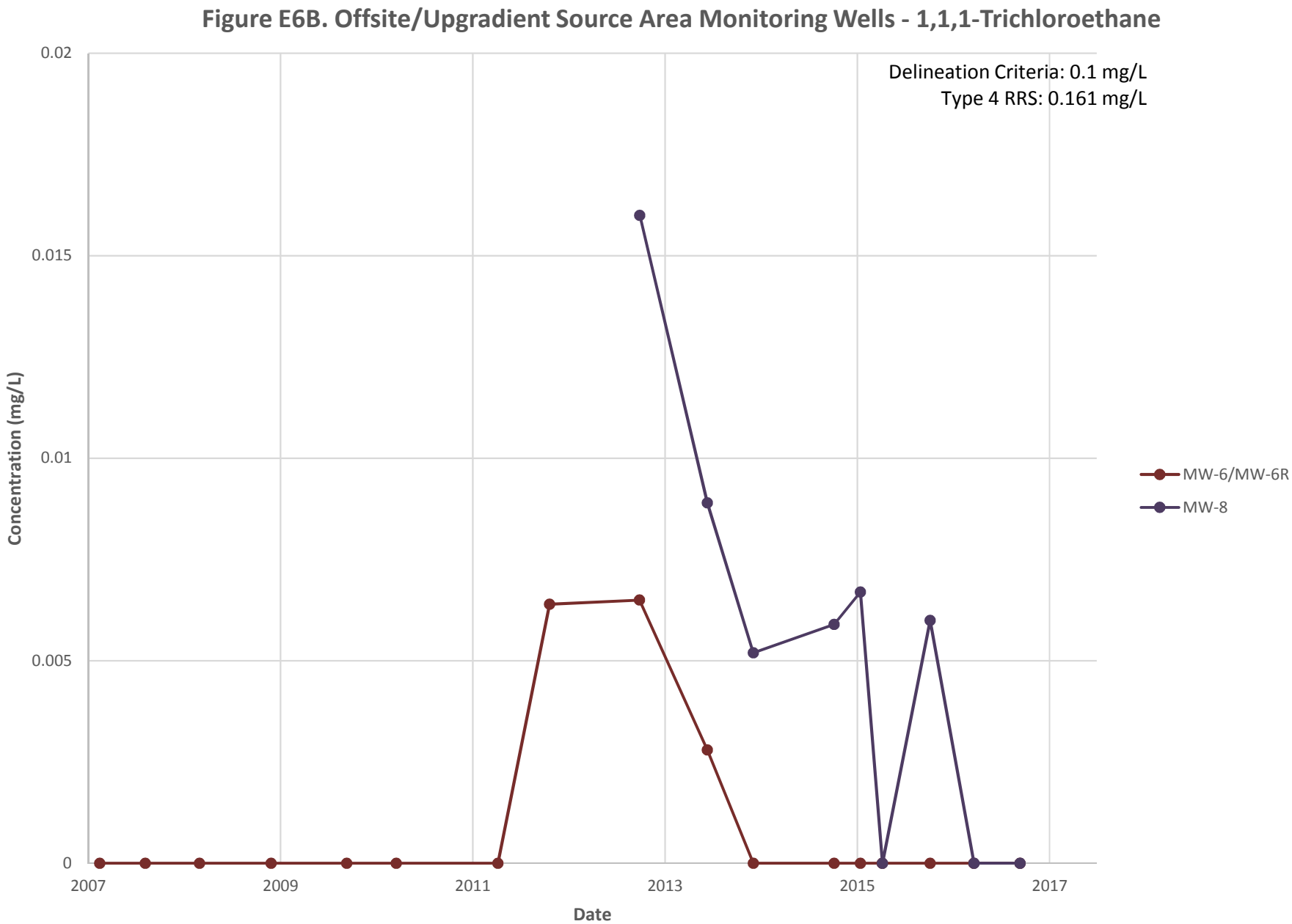


Figure E6B. Offsite/Upgradient Source Area Monitoring Wells - 1,1,1-Trichloroethane
Delineation Criteria: 0.1 mg/L
Type 4 RRS: 0.161 mg/L
Concentration (mg/L)
0.02
0.015
0.01
0.005
0
2007
2009
2011
2013
2015
2017
Date
MW-6/MW-6R
MW-8

TABLE E1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	Acetone	Chloroethane	cis-1,2-Dichloroethene	Cyclohexane	Methylene chloride	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RW-1	7/13/1995	16.249	4.435	9.113	9.113	3.705	< 0.5	--	--	11.604	--	--	< 0.05	< 0.5
RW-1	3/22/1996	13	2.2	6.4	0.001	0.12	--	--	--	3.8	0.47	--	0.033	--
RW-1	8/15/1997	0.68	0.16	0.16	< 0.005	< 0.5	< 0.005	--	--	< 0.05	0.13	--	< 0.025	< 0.005
RW-1	11/5/1997	18	4.5	11	< 0.005	77	< 0.005	--	--	61	1.1	--	< 0.25	< 0.005
RW-1	11/27/2000	11	8.4	16	0.032	23	0.72	--	--	21	1	--	0.48	1.7
RW-1	7/20/2001	0.28	0.21	0.49	< 0.005	< 0.005	0.03	--	--	0.1	0.11	--	0.081	0.043
RW-1	2/5/2002	6	4.1	10	< 0.005	0.8	0.65	--	--	1.2	0.8	--	0.36	1
RW-1	7/23/2002	10	6.5	17	0.011	< 0.005	< 0.005	--	--	0.61	0.27	--	0.35	0.93
RW-1	12/18/2002	13	6.9	21	0.011	< 0.005	1.2	--	--	1.1	0.72	--	0.26	1
RW-1	6/5/2003	6.6	5.2	15	0.013	< 0.005	0.65	--	--	0.32	0.93	--	0.38	< 0.005
RW-1	12/10/2003	12	11	14	0.013	< 0.02	< 1	0.63	--	0.19	0.94	--	< 0.5	2.5
RW-1	6/17/2004	11	5.7	14	0.014	< 0.02	0.17	0.51	--	0.27	0.48	--	0.3	0.97
RW-1	1/25/2005	9.1	6.9	15	< 0.5	< 2	< 1	<0.5	--	< 0.5	0.63	--	< 0.5	1
RW-1	12/13/2005	6.3	11	18	< 0.5	17	< 1	<0.5	--	1.4	0.52	--	< 0.5	1.7
RW-1	7/10/2006	4.6	5.2	11	< 0.5	15	< 1	<0.5	--	0.86	< 0.5	--	< 0.5	0.64
RW-1	2/14/2007	5.3	7.9	16	0.019	37	1.5	0.78	--	1.7	0.56	--	0.3	1.4
RW-1	8/6/2007	2.5	5.4	11	0.015	55	1.6	0.35	--	2.3	0.16	--	0.19	0.79
RW-1	2/28/2008	4.7	4.7	14	0.017	53	3	0.85	--	2.2	0.31	--	0.19	0.87
RW-1	11/26/2008	3.9	3.4	15	< 0.5	43	3.7	0.67	--	4.4	< 0.5	--	< 0.5	0.82
RW-1	9/10/2009	5.4	3.2	15	0.017	50	< 0.01	0.77	--	3.2	0.11	--	0.23	0.8
RW-1	3/17/2010	2	1.4	8.8	0.0086	19	2.9	0.41	< 0.005	2.2	0.07	< 0.005	0.46	0.46
RW-1	9/20/2010	0.81	1.8	1.8	< 0.5	49	3.9	< 0.5	< 0.5	1.6	< 0.5	< 0.5	< 0.5	1.8
RW-1	4/8/2011	1.6	2.4	9.5	0.014	53	2.9	0.53	< 0.005	4	0.078	< 0.005	0.15	0.88
RW-1	10/21/2011	2.2	2.3	11	0.012	37	3.5	0.4	< 0.005	3.1	0.06	< 0.005	0.15	1.3
RW-1	10/3/2012	0.19	0.21	1.1	< 0.005	1.9	0.32	0.054	--	0.25	0.022	< 0.005	0.019	0.19
RW-1	6/13/2013	0.16	1.2	1.7	< 0.1	10	1.1	0.16	--	1.2	< 0.1	< 0.1	< 0.1	1.2
RW-1	12/5/2013	0.76	1.4	< 0.001	0.012	2.5	1.4	0.39	0.019	0.2	0.082	0.0026	0.14	0.68
RW-1	10/8/2014	0.3	1.8	1.2	0.015	1.7	0.78	0.15	< 0.005	0.2	0.0072	< 0.005	0.014	0.61
RW-1	1/16/2015	0.18	0.47	0.87	0.0086	4.5	0.89	0.11	0.02	0.018	0.023	< 0.005	0.031	0.35
RW-2	7/13/1995	0.377	0.062	0.192	0.192	3.792	< 0.5	--	--	1.306	0.335	--	< 0.05	< 0.5
RW-2	3/22/1996	0.084	0.028	0.044	--	0.76	--	--	--	0.37	0.015	--	0.008	--
RW-2	8/15/1997	0.17	0.02	0.039	< 0.005	< 0.1	< 0.005	--	--	0.065	0.015	--	< 0.005	< 0.005
RW-2	11/5/1997	0.54	0.082	0.31	< 0.005	< 0.5	< 0.005	--	--	0.6	0.05	--	< 0.025	< 0.005
RW-2	11/27/2000	0.063	0.0079	0.054	< 0.005	< 0.005	< 0.005	--	--	< 0.005	0.044	--	< 0.005	< 0.005
RW-2	7/20/2001	0.025	< 0.005	0.027	< 0.005	< 0.005	< 0.005	--	--	< 0.005	0.021	--	< 0.005	< 0.005
RW-2	2/5/2002	0.058	0.012	0.06	< 0.005	< 0.005	< 0.005	--	--	< 0.005	0.053	--	< 0.005	< 0.005
RW-2	7/23/2002	0.033	0.024	0.043	< 0.005	< 0.005	< 0.005	--	--	< 0.005	0.035	--	< 0.005	< 0.005
RW-2	12/18/2002	0.13	< 0.005	0.13	< 0.005	< 0.005	0.0061	--	--	< 0.005	1.209	--	0.0054	0.0062
RW-2	6/5/2003	0.048	0.13	0.11	< 0.005	< 0.005	< 0.005	--	--	< 0.005	0.11	--	0.0068	< 0.005
RW-2	12/10/2003	0.12	0.29	0.25	< 0.005	0.21	0.019	0.021	--	0.0063	0.2	--	0.011	0.0045
RW-2	6/17/2004	0.16	0.23	0.33	< 0.005	< 0.02	0.047	0.036	--	0.038	0.18	--	0.041	0.01
RW-2	1/25/2005	0.092	0.18	0.2	< 0.005	< 0.02	0.033	0.033	--	0.032	0.087	--	0.028	0.01
RW-2	12/13/2005	0.15	0.54	0.54	< 0.005	< 0.05	0.071	0.14	--	0.015	0.16	--	0.11	0.044
RW-2	7/10/2006	0.059	0.18	0.32	< 0.005	< 0.05	0.03	0.056	--	0.0085	0.091	--	0.06	0.0077
RW-2	2/14/2007	0.061	0.28	0.21	< 0.005	0.34	0.043	0.1	--	0.012	0.1	--	0.075	0.015
RW-2	8/6/2007	0.077	0.22	0.27	< 0.005	0.6	0.026	0.088	--	< 0.005	0.11	--	0.11	0.031
RW-2	2/28/2008	0.065	0.22	0.19	< 0.005	< 0.05	0.017	0.078	--	< 0.005	0.09	--	0.094	0.021
RW-2	11/26/2008	0.069	0.14	0.25	< 0.005	0.99	0.021	0.081	--	0.274	0.1	--	0.13	0.029
RW-2	9/10/2009	0.043	0.093	0.1	< 0.005	< 0.05	< 0.01	0.071	--	< 0.005	0.069	--	0.1	0.023
RW-2	3/17/2010	< 0.005	< 0.005	< 0.005	< 0.005	0.19	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
RW-2	9/17/2010	0.095	0.037	0.51	< 0.005	< 0.05	0.01	0.0066	< 0.005	0.0058	0.081	< 0.005	0.0075	0.0067
RW-2	4/8/2011	0.019	0.089	0.057	< 0.005	0.077	< 0.01	0.086	< 0.005	< 0.005	0.059	< 0.005	0.1	0.022
RW-2	10/21/2011	0.012	0.081	0.032	< 0.005	< 0.05	< 0.01	0.12	< 0.005	< 0.005	0.04	< 0.005	0.06	0.018
RW-2	10/2/2012	0.015	0.1	0.038	< 0.005	< 0.05	0.041	0.16	--	< 0.005	0.071	< 0.005	0.11	0.022
RW-2	6/13/2013	0.013	0.038	0.016	< 0.001	< 0.05	0.015	0.25	--	< 0.005	0.092	< 0.001	0.13	0.0065
RW-2	12/4/2013	0.013	0.046	0.03	< 0.001	< 0.05	0.036	0.32	< 0.001	< 0.005	0.083	< 0.001	0.13	0.014
RW-2	10/8/2014	0.014	0.036	0.027	< 0.005	< 0.05	0.022	0.36	< 0.005	< 0.005	0.13	< 0.005	0.18	0.0088
RW-2	1/16/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
DW-1	11/5/1997	3	< 0.25	1.9	< 0.005	54	< 0.005	--	--	28	0.32	--	< 0.25	< 0.005
DW-1	11/27/2000	0.78	< 0.005	0.85	< 0.005	< 0.005	< 0.005	--	--	< 0.005	0.14	--	< 0.005	< 0.005
DW-1	7/20/2001	0.49	0.011	0.54	< 0.005	< 0.005	< 0.005	--	--	< 0.005	0.14	--	0.0084	< 0.005
DW-1	2/5/2002	1.2	0.0092	1.7	< 0.005	< 0.005	< 0.005	--	--	< 0.005	0.3	--	0.0054	< 0.005
DW-1	7/23/2002	0.46	< 0.005	0.75	< 0.005	< 0.005	< 0.005	--	--	< 0.005	0.15	--	< 0.005	< 0.005
DW-1	12/18/2002	1	1.6	1.6	< 0.005	< 0.005	< 0.005	--	--	< 0.005	0.24	--	< 0.005	< 0.005
DW-1	6/5/2003	5	0.1	11	0.0076	< 0.005	< 0.005	--	--	0.014	2	--	0.04	< 0.005
DW-1	12/10/2003	12	< 0.5	15	< 0.5	< 2	< 1	< 0.5	--	< 0.5	3.6	--	< 0.5	< 0.2
DW-1	6/17/2004	4.2	0.12	6.5	< 0.005	< 0.02	< 0.01	0.0055	--	< 0.005	1.2	--	0.023	< 0.002
DW-1	1/25/2005	6.2	< 0.5	12	< 0.5	< 2	< 1	< 0.5	--	< 0.5	2.3	--	< 0.5	< 0.2
DW-1	12/13/2005	1.5	5.8	5.7	< 0.5	39	< 1	< 0.5	--	3.6	0.76	--	< 0.5	0.74
DW-1	7/10/2006	0.61	12	3.9	< 0.5	150	< 1	< 0.5	--	6.3	< 0.5	--	< 0.5	1.7
DW-1	2/14/2007	0.026	0.16	0.06	< 0.005	0.38	< 0.01	0.012	--	< 0.005	0.031	--	0.013	0.013
DW-1	8/6/2007	0.55	7.3	2.3	0.0091	330	0.86	0.16	--	3.9	0.27	--	0.079	0.82
DW-1	2/28/2008	0.49	7.1	2.3	0.015	150	16	0.22	--	2	0.37	--	0.13	1.2
DW-1	11/26/2008	0.29	3.6	1.6	0.0097	140	1.3	0.16	--	0.85	0.24	--	0.1	0.77
DW-1	9/10/2009	0.36	3.4	1.2	0.0079	48	< 0.01	0.2	--	0.43	0.23	--	0.12	0.7
DW-1	3/17/2010	0.37	2.1	1.4	0.0062	14	1.7	0.19	< 0.005	0.26	0.28	< 0.005	0.52	0.52
DW-1	9/17/2010	0.31	1.4	1	0.0058	11	1	0.16	< 0.5	0.13	0.34	< 0.005	0.14	0.31
DW-1	4/8/2011	0.35	1.5	1.1	< 0.005	10	0.73	0.16	< 0.005	0.12	0.37	< 0.005	0.14	0.29
DW-1	10/21/2011	0.24	0.78	0.76	< 0.005	3.5	0.63	0.097	< 0.005	0.046	0.3	< 0.005	0.11	0.15
DW-1	10/2/2012	0.23	0.68	0.84	0.0054	2.5	1.2	0.069	--	0.032	0.26	< 0.005	0.049	0.14
DW-1	6/13/2013	0.25	0.53	0.68	0.007	0.77	0.88	0.056	--	0.024	0.34	0.0011	0.04	0.11
DW-1	12/5/2013	0.41	0.93	1.2	0.0095	0.077	1.4	0.08	0.0019	0.037	0.54	0.001	0.051	0.18
DW-1	10/8/2014	0.2	0.5	0.76	0.0091	0.36	0.89	0.29	< 0.005	0.022	0.097	< 0.005	0.067	0.11
DW-1	1/16/2015	0.077	0.28	0.69	0.0067	0.093	0.76	0.052	< 0.005	0.019	0.52	< 0.005	0.038	0.051
DW-1	4/8/2015	0.02	0.088	0.15	<0.005	< 0.05	0.48	0.022	< 0.005	0.0053	0.12	< 0.005	0.016	0.019
DW-1	10/8/2015	0.088	0.46	0.68	0.005	<0.05	0.49	0.079	< 0.005	0.015	0.54	< 0.005	0.086	0.11
DW-1	3/22/2016	0.038	0.18	0.28	< 0.005	< 0.050	0.25	0.073	< 0.005	0.005 J	0.20	< 0.005	0.042	0.05

Notes
mg/L - milligrams per liter
< - less than reporting limit; -- no data

TABLE E1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	Acetone	Chloroethane	cis-1,2-Dichloroethene	Cyclohexane	Methylene chloride	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
DW-1	9/13/2016	0.034	0.098	0.25	< 0.005	< 0.050	0.068	0.033	< 0.005	< 0.005	0.36	< 0.005	0.047	0.031
MW-1	7/13/1995	140	1.69	53.816	1.69	95.204	< 0.5	--	--	141.054	16.293	--	0.358	< 0.05
MW-1	3/22/1996	200	4.5	13	--	55	0.26	--	--	160	2.3	--	0.017	< 0.05
MW-1	8/15/1997	500	< 25	26	< 0.005	< 500	< 0.005	--	--	390	< 25	--	< 2.5	< 10
MW-1	11/27/2000	64	1.9	7.6	< 0.005	8.1	0.011	--	--	29	1.1	--	0.41	< 0.005
MW-1	7/20/2001	74	1.1	6.7	< 0.005	< 0.005	< 0.005	--	--	8.3	1.1	--	0.94	< 0.005
MW-1	2/5/2002	6.1	1.8	6.8	< 0.005	9	< 0.005	--	--	4.3	0.57	--	2.6	< 0.005
MW-1	7/23/2002	65	0.75	4.9	0.011	2.9	< 0.005	--	--	16	0.91	--	0.67	< 0.005
MW-1	12/18/2002	96	1.2	6.4	< 0.005	19	< 0.005	--	--	15	1.8	--	1.4	0.0071
MW-1	6/5/2003	45	0.55	3.4	< 0.005	< 0.005	< 0.005	--	--	3.5	0.81	--	2.4	< 0.005
MW-1	12/10/2003	73	< 2.5	15	< 2.5	< 10	< 5	5.4	--	4.8	2.9	--	< 2.5	< 1
MW-1	6/17/2004	42	0.32	2.2	< 0.005	< 0.02	< 0.01	4.7	--	5.9	0.32	--	0.93	< 0.002
MW-1	1/25/2005	30	15	< 2.5	< 2.5	< 10	< 5	15	--	< 2.5	< 2.3	--	5	< 1
MW-1	12/13/2005	22	9.7	2.6	< 2.5	480	< 5	49	--	3.4	< 2.5	--	< 2.5	< 1
MW-1	7/10/2006	9.3	9.6	< 2.5	< 2.5	1000	< 5	56	--	< 2.5	< 2.5	--	2.5	< 2.5
MW-1	2/14/2007	< 0.005	18	3.1	< 0.005	3900	< 0.01	91	--	< 0.005	0.58	--	0.41	0.97
MW-1	8/6/2007	4	22	3.2	< 0.25	12000	< 0.5	100	--	7.5	0.58	--	< 0.25	0.79
MW-1	2/28/2008	1.6	18	2	< 0.005	900	< 0.01	100	--	< 0.005	0.011	--	0.016	1.2
MW-1	11/26/2008	2.9	27	6.9	< 0.25	7000	< 0.5	110	--	0.98	< 0.25	--	< 0.25	6
MW-1	9/10/2009	35	25	9.4	0.038	3200	< 0.0099	100	--	4.4	< 0.0086	--	0.054	2.9
MW-1	3/17/2010	1.7	36	12	< 0.005	2600	0.017	120	0.027	0.065	0.0073	0.11	< 0.005	3.6
MW-1	9/16/2010	2.9	8.5	2.5	< 0.005	1200	< 0.01	49	0.023	< 0.005	0.0064	0.089	0.088	4.1
MW-1	4/8/2011	1.4	9.4	1.5	0.009	420	< 0.01	16	0.038	0.23	< 0.005	0.016	0.023	2.8
MW-1	10/21/2011	3.8	6.8	0.93	< 0.005	460	< 0.01	14	< 0.005	0.49	< 0.005	< 0.005	0.027	0.75
MW-1	8/6/2012	4.8	1.5	0.28	< 0.005	92	< 0.01	3.5	--	0.19	0.019	0.0094	0.11	0.15
MW-1	6/14/2013	0.24	0.56	0.018	< 0.01	0.78	< 0.05	0.2	--	< 0.05	< 0.01	< 0.01	< 0.01	0.092
MW-1	12/5/2013	0.057	0.12	0.0031	< 0.001	0.26	< 0.005	0.12	0.0093	< 0.005	0.0051	< 0.001	0.028	0.049
MW-1	10/8/2014	0.09	0.19	0.012	< 0.005	0.17	< 0.01	0.16	< 0.005	< 0.005	< 0.005	< 0.005	0.047	0.082
MW-1	1/15/2015	0.11	0.57	0.019	< 0.005	4.5	0.057	0.19	0.011	< 0.005	0.021	< 0.005	0.1	0.16
MW-1	4/8/2015	0.014	0.084	< 0.005	< 0.005	< 0.05	0.01	0.041	< 0.005	< 0.005	0.0081	< 0.005	0.013	0.03
MW-1	10/8/2015	0.10	0.37	0.015	< 0.005	3.6	0.056	0.13	0.008	< 0.005	< 0.005	< 0.005	0.008	0.082
MW-1	3/23/2016	< 0.005	0.008	< 0.005	< 0.005	< 0.050	< 0.010	0.022	< 0.005	< 0.005	0.010	< 0.005	< 0.005	0.008
MW-1	9/14/2016	0.013	0.06	< 0.005	< 0.005	0.56	< 0.010	0.049	< 0.005	< 0.005	0.012	< 0.005	< 0.005	0.032
MW-2	7/13/1995	0.016	0.013	0.0071	--	0.262	< 0.01	--	--	0.047	--	--	0.0012	< 0.001
MW-2	3/22/1996	0.003	0.002	< 0	--	0.017	--	--	--	0.009	0.003	--	< 0.01	< 0.01
MW-2	8/15/1997	< 0.005	< 0.005	< 0.005	< 0.005	< 0.1	< 0.005	--	--	< 0.01	< 0.005	--	< 0.005	< 0.002
MW-2	11/27/2000	--	< 0.005	< 0.005	< 0.005	--	< 0.005	--	--	< 0.005	< 0.005	--	< 0.005	< 0.005
MW-2	7/20/2001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	--	--	< 0.005	< 0.005	--	< 0.005	< 0.005
MW-2	2/5/2002	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	--	--	< 0.005	< 0.005	--	< 0.005	< 0.005
MW-2	7/23/2002	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	--	--	< 0.005	< 0.005	--	< 0.005	< 0.005
MW-2	12/18/2002	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	--	--	< 0.005	< 0.005	--	< 0.005	< 0.005
MW-2	6/5/2003	< 0.005	< 0.005	0.029	< 0.005	0.029	< 0.005	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.005
MW-2	12/10/2003	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-2	6/17/2004	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-2	1/25/2005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-2	12/13/2005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	0.019	--	< 0.005	< 0.002
MW-2	7/10/2006	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-2	2/14/2007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-2	8/6/2007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-2	2/28/2008	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-2	11/26/2008	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-2	9/10/2009	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-2	3/16/2010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-2	9/17/2010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-2	4/8/2011	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-2	10/21/2011	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-2	9/28/2012	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-2	6/11/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	--	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-2	12/3/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-2	4/7/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-2	10/8/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-2	3/21/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-3	7/13/1995	203.981	4.298	34.101	34.101	89.065	< 0.5	--	--	77.212	0.721	--	< 0.05	< 0.05
MW-3	3/22/1996	25	0.56	4.5	0.051	46	0.012	--	--	1	2.1	--	0.79	< 0.01
MW-3	8/15/1997	43	3.6	9.5	< 0.005	100	< 0.005	--	--	110	< 2.5	--	< 2.5	< 1
MW-3	11/27/2000	11	10	6.6	0.029	42	0.35	--	--	52	0.56	--	0.66	0.73
MW-3	7/20/2001	34	25	16	0.072	< 0.005	1.1	--	--	130	0.53	--	1.4	1.4
MW-3	2/5/2002	29	24	11	< 0.005	560	1.4	--	--	160	0.37	--	1.7	1.4
MW-3	7/23/2002	13	33	13	0.074	110	2.7	--	--	150	0.23	--	1.1	3.6
MW-3	12/18/2002	3.4	7.2	1.6	0.02	83	0.19	--	--	28	0.08	--	0.18	0.13
MW-3	6/5/2003	2.9	0.007	6.1	0.0069	< 0.005	0.16	--	--	1.2	0.31	--	0.14	0.57
MW-3	12/10/2003	0.7	0.78	1.8	< 0.005	< 0.02	0.018	0.06	--	0.26	0.046	--	0.026	0.064
MW-3	6/17/2004	1.4	1.9	1.5	< 0.005	3.1	0.31	0.58	--	2.2	0.018	--	0.05	0.19
MW-3	1/25/2005	1.7	2.5	3	< 0.5	< 2	< 1	< 0.5	--	< 0.5	< 0.5	--	< 0.5	0.23
MW-3	12/13/2005	3.4	17	7.4	< 0.5	59	1.6	5.2	--	6.5	< 0.5	--	< 0.5	2.8
MW-3	7/10/2006	< 0.005	0.008	< 5	< 0.005	4.3	< 0.01	< 0.005	--	0.0093	< 0.005	--	< 0.005	< 0.002
MW-3	2/14/2007	1.2	1.6	2.6	0.0073	18	0.21	0.17	--	0.44	0.1	--	0.14	0.16
MW-3	8/6/2007	11	15	7.3	0.022	270	0.84	7.1	--	14	0.25	--	0.96	1.5
MW-3	2/28/2008	0.97	2.3	1.5	0.0074	85	0.88	0.73	--	1.9	0.28	--	0.25	< 0.002
MW-3	11/26/2008	7.2	9.8	8.5	< 0.1	150	1.7	4.9	--	17	0.27	--	0.71	2.4
MW-3	9/10/2009	2.4	3.2	1.2	< 0.005	44	< 0.01	2	--	0.28	0.093	--	0.5	0.7
MW-3	3/17/2010	2.2	5.3	2.5	0.011	160	2	3.4	< 0.005	2.2	0.13	< 0.005	0.19	1.6
MW-3	9/17/2010	0.81	1.9	2.5	< 0.005	19	0.12	1.4	< 0.005	0.027	0.0064	< 0.005	0.0077	0.47
MW-3	4/8/2011	0.5	0.41	0.13	< 0.005	0.72	0.028	0.32	< 0.005	< 0.005	0.0058	< 0.005	0.0074	0.08
MW-3	10/21/2011	0.085	0.17	0.021	< 0.005	86	< 0.01	0.23	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.015
MW-3	10/3/2012	2.5	2.3	1.5	0.0061	39	0.24	3.2	--	< 0.005	0.012	0.0051	0.045	0.87

Notes

mg/L - milligrams per liter

< - less than reporting limit; -- no data

TABLE E1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	Acetone	Chloroethane	cis-1,2-Dichloroethene	Cyclohexane	Methylene chloride	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-3	6/14/2013	0.24	4	0.24	< 0.05	15	0.27	1.7	--	< 0.25	< 0.05	< 0.05	< 0.05	1.2
MW-3	12/5/2013	2.9	2.9	1.7	< 0.25	--	< 1.2	5.1	< 0.25	< 1.2	< 0.25	< 0.25	< 0.25	1.6
MW-3	10/8/2014	1.6	3	1.5	0.0093	53	0.24	5	0.013	< 0.005	0.0057	0.0065	0.073	1.4
MW-3	1/15/2015	0.37	0.76	0.39	< 0.005	18	0.29	0.55	0.0055	0.018	< 0.005	0.0067	< 0.005	0.38
MW-3	4/8/2015	0.17	0.83	0.11	< 0.005	20	0.6	0.28	< 0.005	0.0087	< 0.005	< 0.005	< 0.005	0.44
MW-3	10/8/2015	1.2	1.8	0.9	0.008	10	0.42	4.9	0.007	0.005	0.02	0.006	0.10	1.70
MW-3	3/23/2016	0.022	0.18	0.023	< 0.005	0.33	0.32	0.17	< 0.005	0.009	< 0.005	< 0.005	< 0.005	0.17
MW-3	9/14/2016	0.099	0.35	0.079	< 0.005	< 0.050	0.074	0.7	< 0.005	0.009	< 0.005	< 0.005	< 0.005	0.36
MW-4	1/25/2005	3.4	< 0.5	13	< 0.5	< 0.5	< 1	< 0.5	--	< 0.5	1.7	--	< 0.5	< 0.2
MW-4	12/13/2005	2.2	< 0.5	11	< 0.5	7	< 1	< 0.5	--	< 0.5	1.2	--	< 0.5	< 0.2
MW-4	7/10/2006	2	< 0.5	11	< 0.5	< 5	< 1	< 0.005	--	< 0.5	1.5	--	< 0.5	< 0.2
MW-4	2/14/2007	3.6	< 0.005	18	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	2	--	0.032	< 0.002
MW-4	8/6/2007	2.3	0.033	19	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	1.7	--	0.021	< 0.002
MW-4	2/28/2008	3.5	0.063	27	0.0075	< 0.05	< 0.01	0.022	--	< 0.005	2.2	--	0.035	< 0.002
MW-4	11/26/2008	1.4	< 0.5	13	< 0.5	< 5	< 1	< 0.5	--	< 0.5	1.2	--	< 0.5	< 0.2
MW-4	9/10/2009	2.9	< 0.013	18	0.024	< 0.55	< 0.02	< 0.5	--	< 0.096	2.2	--	< 0.012	< 0.019
MW-4	3/16/2010	2.2	0.046	28	< 0.005	< 0.05	< 0.01	< 0.005	0.012	< 0.005	1.7	< 0.005	0.023	< 0.002
MW-4	9/20/2010	2.9	0.023	4.6	< 0.005	< 0.05	< 0.01	0.015	< 0.005	< 0.005	0.46	< 0.005	0.02	< 0.002
MW-4	4/8/2011	2.5	0.09	9.1	< 0.005	< 0.05	< 0.01	0.042	< 0.005	< 0.005	0.92	< 0.005	0.12	< 0.002
MW-4	10/21/2011	0.89	0.088	3.2	< 0.005	< 0.05	< 0.01	0.069	< 0.005	< 0.005	0.42	< 0.005	0.11	< 0.002
MW-4	8/7/2012	1.7	0.061	9.4	< 0.005	< 0.05	< 0.01	0.013	--	< 0.005	0.62	< 0.005	0.069	< 0.002
MW-4	6/13/2013	1.6	< 0.2	8.6	< 0.2	< 10	< 1	< 0.2	--	< 1	1.5	< 0.2	< 0.2	< 0.2
MW-4	12/5/2013	2.1	0.12	14	< 0.025	< 1.2	< 0.12	0.039	< 0.025	< 0.12	1.6	< 0.025	0.12	< 0.025
MW-4	10/8/2014	2.4	0.075	16	< 0.005	< 0.05	< 0.01	0.011	0.011	< 0.005	2.1	< 0.005	0.14	< 0.002
MW-4	1/15/2015	2.6	0.083	36	< 0.005	< 0.05	< 0.01	0.037	0.016	< 0.005	2.6	< 0.005	0.12	< 0.002
MW-4	4/9/2015	1	0.056	9.8	< 0.005	< 0.05	< 0.01	0.019	0.0091	< 0.005	1.6	< 0.005	0.067	0.0055
MW-4	10/8/2015	1.6	< 0.50	19	< 0.50	< 5.0	< 1.0	< 0.50	< 0.50	< 0.50	2.0	< 0.50	< 0.50	< 0.20
MW-4	3/22/2016	1.2	0.063	15	< 0.005	< 0.050	< 0.010	0.014	< 0.005	< 0.005	1.9	< 0.005	0.079	0.006
MW-4	9/14/2016	1.4	< 0.025	18	< 0.024	< 0.53	< 0.039	0.72	< 0.16	< 0.031	0.55	< 0.022	0.29	< 0.042
MW-5	2/14/2007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-5	8/6/2007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-5	2/28/2008	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-5	11/26/2008	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-5	9/10/2009	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-5	3/16/2010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-5	9/17/2010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-5	4/8/2011	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-5	10/21/2011	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-5	9/27/2012	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-5	6/11/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	--	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-5	12/3/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-5	4/8/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-5	10/7/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-5	3/21/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-5	9/12/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-6	2/14/2007	< 0.005	< 0.005	< 0.005	--	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-6	8/6/2007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-6	2/28/2008	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-6	11/26/2008	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-6	9/10/2009	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	--	< 0.005	< 0.002
MW-6	3/17/2010	< 0.005	< 0.005	0.014	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-6	4/8/2011	< 0.005	0.0051	0.069	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.012
MW-6	10/21/2011	0.0064	0.012	0.12	< 0.005	< 0.05	< 0.01	0.012	< 0.005	< 0.005	< 0.005	< 0.005	0.006	0.035
MW-6	9/27/2012	0.0065	0.021	0.16	< 0.005	< 0.05	< 0.01	0.01	--	< 0.005	< 0.005	< 0.005	0.007	0.065
MW-6	6/12/2013	0.0028	0.0053	0.084	< 0.001	< 0.05	< 0.005	0.0033	--	< 0.005	0.0059	< 0.001	0.002	0.016
MW-6	12/4/2013	< 0.001	0.0043	0.02	< 0.001	< 0.05	< 0.005	0.0016	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	0.014
MW-6	10/7/2014	< 0.005	0.015	0.11	< 0.005	< 0.05	< 0.01	0.0058	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.037
MW-6	1/15/2015	< 0.005	0.014	0.17	< 0.005	< 0.05	< 0.01	0.0064	< 0.005	< 0.005	0.01	< 0.005	0.0052	0.032
MW-6	4/8/2015	< 0.005	0.01	0.092	< 0.005	< 0.05	< 0.01	0.0052	< 0.005	< 0.005	0.0069	< 0.005	< 0.005	0.023
MW-6R	10/7/2015	< 0.005	0.016	0.21	< 0.005	< 0.050	< 0.010	0.007	< 0.005	< 0.005	0.013	< 0.005	0.006	0.031
MW-6R	3/21/2016	< 0.005	< 0.005	0.18	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	0.022	< 0.005	< 0.005	< 0.002
MW-6R	9/13/2016	< 0.005	0.005	0.26	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	0.023	< 0.005	< 0.005	< 0.002
MW-7	2/14/2007	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	4.7	--	< 0.005	0.055	--	0.041	1.2
MW-7	8/6/2007	0.0063	0.0065	0.011	< 0.005	4.2	< 0.01	4.8	--	< 0.005	< 0.005	--	< 0.005	2.4
MW-7	2/28/2008	< 0.005	< 0.005	0.077	< 0.005	< 0.05	< 0.01	16	--	< 0.005	0.66	--	0.4	4.5
MW-7	11/26/2008	< 0.005	< 0.005	0.16	< 0.005	< 0.05	< 0.01	4.5	--	< 0.005	2	--	0.71	2.2
MW-7	9/10/2009	< 0.005	< 0.005	0.034	< 0.005	< 0.05	< 0.01	4.3	--	< 0.005	< 0.005	--	0.0051	2.7
MW-7	3/16/2010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	0.19	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.29
MW-7	9/16/2010	< 0.005	< 0.005	0.0088	< 0.005	< 0.05	< 0.01	1.6	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.96
MW-7	4/8/2011	< 0.005	< 0.005	0.067	< 0.005	< 0.05	< 0.01	10	< 0.005	< 0.005	0.92	0.019	0.82	3.2
MW-7	10/21/2011	< 0.005	< 0.005	0.011	< 0.005	< 0.05	< 0.01	1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.54
MW-7	9/27/2012	< 0.005	< 0.005	0.03	< 0.005	< 0.05	< 0.01	1.6	--	< 0.005	< 0.005	< 0.005	< 0.005	0.85
MW-7	6/13/2013	< 0.001	< 0.001	0.057	< 0.001	< 0.05	< 0.005	7.2	--	< 0.005	0.37	0.013	0.43	3.2
MW-7	12/5/2013	< 0.001	< 0.001	0.033	< 0.001	< 0.05	< 0.005	1.9	0.0016	< 0.005	0.048	0.0058	0.12	0.76
MW-7	10/7/2014	< 0.005	< 0.005	0.0087	< 0.005	< 0.05	< 0.01	1.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.62
MW-7	1/14/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	0.25	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	0.16
MW-7	4/8/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	0.035	< 0.005	0.005	< 0.005	< 0.005	< 0.005	0.047
MW-7	10/7/2015	< 0.005	< 0.005	0.006	< 0.005	< 0.050	< 0.010	0.82	< 0.005	< 0.005	< 0.005	< 0.005	< 0.001	0.6
MW-7	3/22/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
MW-7	9/12/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	0.17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.35
MW-8	9/28/2012	0.016	< 0.005	0.037	< 0.005	< 0.05	< 0.01	0.041	--	< 0.005	0.48	< 0.005	1.1	< 0.002
MW-8	6/12/2013	0.0089	0.0033	0.026	< 0.001	< 0.05	< 0.005	0.028	--	< 0.005	0.54	< 0.001	1	< 0.001
MW-8	12/4/2013	0.0052	0.0022	0.025	< 0.001	< 0.05	< 0.005	0.022	< 0.001	< 0.005	0.42	< 0.001	0.71	< 0.001
MW-8	10/7/2014	0.0059	< 0.005	0.018	< 0.005	< 0.05	< 0.01	0.025	< 0.005	< 0.005	0.32	< 0.005	0.67	< 0.002

Notes

mg/L - milligrams per liter

< - less than reporting limit; -- no data

TABLE E1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	Acetone	Chloroethane	cis-1,2-Dichloroethene	Cyclohexane	Methylene chloride	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-8	1/15/2015	0.0067	< 0.005	0.03	< 0.005	< 0.05	< 0.01	0.037	< 0.005	< 0.005	0.52	< 0.005	0.96	< 0.002
MW-8	4/9/2015	< 0.005	< 0.005	0.017	< 0.005	< 0.05	< 0.01	0.033	< 0.005	< 0.005	0.38	< 0.005	0.71	< 0.002
MW-8	10/7/2015	0.006	< 0.005	0.020	< 0.005	< 0.050	< 0.010	0.033	< 0.005	< 0.005	0.52	< 0.005	1.2	< 0.002
MW-8	3/22/2016	< 0.005	< 0.005	0.033	< 0.005	< 0.050	< 0.010	0.051	< 0.005	< 0.005	0.35	< 0.005	0.70	0.002 J
MW-8	9/13/2016	< 0.005	< 0.005	0.013	< 0.005	< 0.050	< 0.010	0.029	< 0.005	< 0.005	0.55	< 0.005	0.83	< 0.002
MW-9	9/27/2012	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-9	6/11/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	--	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-9	12/3/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-9	10/7/2014	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-9	1/14/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.002
MW-9	4/8/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-9	10/7/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-9	3/21/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-9	9/12/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-10	10/8/2012	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-10	6/12/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	--	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-10	12/4/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-10	4/7/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-10	10/7/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-10	3/22/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-11	10/8/2012	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-11	6/12/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	--	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-11	12/4/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-11	4/7/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-11	10/7/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-11	3/22/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-11	9/13/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-12	10/8/2012	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	--	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-12	6/12/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	--	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-12	12/3/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-12	4/7/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-12	10/7/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-12	3/22/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-12	9/13/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-13	10/8/2012	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	0.0055	--	< 0.005	< 0.005	< 0.005	< 0.005	0.0059
MW-13	6/12/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.005	0.011	--	< 0.005	< 0.001	< 0.001	< 0.001	0.0041
MW-13	12/4/2013	< 0.001	0.001	< 0.001	< 0.001	< 0.05	< 0.005	0.009	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	0.0035
MW-13	10/7/2014	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-13	1/14/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.002
MW-13	4/8/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.01	< 0.005	< 0.005	0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-13	10/7/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-13	3/21/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-13	9/12/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-15	10/8/2012	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	0.078	< 0.005	--	< 0.005	< 0.005	< 0.005	< 0.005	0.0037
MW-15	6/12/2013	< 0.001	0.0017	< 0.001	< 0.001	< 0.05	0.042	< 0.001	--	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-15	12/4/2013	< 0.001	0.0014	< 0.001	< 0.001	< 0.05	0.064	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001
MW-15	4/8/2015	< 0.005	0.0081	< 0.005	< 0.005	< 0.05	0.11	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01
MW-15	10/8/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	0.078	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.002
MW-15	3/21/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	0.070	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.002
MW-15	7/14/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	0.071	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.002
MW-15	9/13/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	0.048	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
MW-17	10/30/2015	0.006	0.047	0.22	< 0.005	0.009	< 0.010	0.089	< 0.005	< 0.005	0.045	< 0.005	0.019	0.024
MW-17	3/22/2016	0.015	0.11	0.67	< 0.005	< 0.050	< 0.010	0.23	< 0.005	< 0.005	0.079	< 0.005	0.041	0.073
MW-17	9/13/2016	0.032	0.18	0.91	< 0.005	< 0.050	< 0.010	0.38	0.006	< 0.005	0.13	< 0.005	0.094	0.06
MW-18	7/14/2016	< 0.005	0.17	0.63	< 0.005	< 0.050	0.028	0.14	< 0.005	< 0.005	0.15	< 0.005	0.1	0.011
MW-18	9/13/2016	< 0.005	0.2	0.47	< 0.005	< 0.050	0.015	0.16	< 0.005	< 0.005	0.19	< 0.005	0.11	0.01

Notes
mg/L - milligrams per liter
< - less than reporting limit; -- no data