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May 20, 2016

Mr. Jason Metzger
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 Third VIRP Progress Report**
Apollo Industries, Inc., HSI No. 10333
1850 South Cobb Industrial Boulevard SE, Smyrna, Cobb County, Georgia

Dear Mr. Metzger:

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 Third 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.

Please be advised that AMC Cobb will no longer receive mail at the 1850 South Cobb Industrial Boulevard SE address in Smyrna. Please direct all future correspondence for AMC Cobb to 1141 Crest Valley Drive, Atlanta, Georgia 30327.

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

Sincerely,

Kristen R. Rivera, P.G.
Senior Geologist

Carol D. Northern, P.G.
Principal Geologist

Attachment: Third VIRP Progress Report

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

THIRD 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

MAY 2016

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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 seg.). 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."

Kristen R. Rivera, P.G.
Senior Geologist

Registration No. 2049
State of Georgia

Date: May 20, 2016

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 Third VIRP Progress Report is being submitted by EarthCon on behalf of AMC Cobb and provides a summary of activities conducted at the Site from November 2015 through April 2016 ("Report Period").

2.0 SUMMARY OF SITE ACTIVITIES

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

- A site wide groundwater sampling event including 16 groundwater monitoring wells;
- Analyses of groundwater samples for volatile organic compounds ("VOCs") and monitored natural attenuation ("MNA") parameters;
- Shut down of the soil vapor extraction ("SVE") system; and
- A draft Uniform Environmental Covenant ("UEC") was submitted on May 3, 2016 to the EPD for EPD's review and approval.

2.1 Groundwater Sampling

Groundwater samples were collected from sixteen (16) monitoring wells during the site-wide monitoring event conducted in March 2016. The locations of the monitoring wells 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 A and the groundwater sampling field forms are provided in Appendix B. The results of the sampling are described in Section 3.0.

Static water level elevations were measured for all wells on March 21, 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.

2.2 SVE System Shut Down

As presented in the Second VIRP Progress Report, an SVE System Evaluation, which reviewed historical groundwater and vapor sampling data, was completed. Overall, the SVE system has contributed to the remediation efforts at the Site. The dissolved phase VOC concentrations from the nearest monitoring well (MW-1) to the SVE system were reduced by more than two to three orders of magnitude since 1997. However, given the significant decreasing trend of dissolved phase concentrations in the vicinity, and the age of the SVE system, it had surpassed its useful life. As a result, the SVE system was shut down on April 24, 2016.

During shut down, the power of the SVE blower was locked and the control valves on the process line of the SVE recovery wells were closed to reduce preferential pathways. After the completion of the VIRP, the SVE equipment components will be emptied, decontaminated, and dismantled for relocation. Each SVE recovery well will be abandoned with grout using a tremie pressurized method. The recovery lines will be removed to a practical extent and then grouted to seal the lines. Derived waste from the SVE system (spent activated carbon and knock-out drum condensate) will be disposed in accordance with regulatory requirements.

3.0 GROUNDWATER ANALYTICAL RESULTS

Groundwater samples were collected from sixteen (16) monitoring wells from March 21 to March 23, 2016. The samples were analyzed for VOCs using EPA Method 8260B and for the following 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 were also field tested for the presence of ferrous iron using a field test kit. A summary of the VOC analyses is provided in Table 4 while the MNA parameter results are summarized in Table 5. The laboratory analytical reports are provided in Appendix C.

The March 2016 groundwater analytical results indicated detections of 10 regulated substances at concentrations above laboratory reporting limits (Table 4). Of those, eight 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”), methylene chloride, tetrachloroethene (“PCE”), trichloroethene (“TCE”), and vinyl chloride (“VC”). These eight regulated substances were then compared to Type 1/3 or Type 4 risk reduction standards (“RRS”), which EPD approved for the Site on June 4, 2014. Five of the eight 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 stormwater 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 March 21, 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, eight 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 on Figure 4. Groundwater cross sections are shown on Figures 5 and 6. March 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 D.

Based on the results of a Ricker Method® Plume Stability Analysis conducted using data from 2005 through April 2015 and discussed in the December 2015 Updated Technical Memorandum, the total VOC plume is stable and decreasing, supported by the stable to decreasing trends in area, average concentration, and mass indicator for all seven primary VOCs, as well as total VOCs. The March 2016 groundwater results are consistent with these stable to decreasing trends.

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 GROUNDWATER MODELING

The VRPA allows institutional and engineering controls to demonstrate compliance with site-specific cleanup standards based on fate and transport modeling as long as concentrations of site-specific constituents of concern in groundwater are shown to be protective of any established downgradient point of exposure ("POE"). Institutional controls will be used to eliminate possible groundwater exposure pathways. AMC Cobb submitted a draft environmental covenant, in conformance with Georgia's Uniform Environmental Covenants Act (O.C.G.A. § 44-16-1), to EPD on May 3, 2016. The draft covenant restricts the property to non-residential use and restricts the use of impacted groundwater. Groundwater modeling will be conducted to verify the extent and stability of the groundwater contaminant plume to demonstrate compliance with applicable cleanup standards.

The POE is defined as the nearest of the following:

1) closest existing downgradient drinking water supply well;
2) likely nearest future location of a downgradient drinking water supply well; or
3) hypothetical point of drinking water exposure located at a distance of 1,000 feet downgradient from the delineated site contamination.

There are no documented water supply wells within a one-mile radius of the Site. Therefore, the downgradient receptor/POE will be a hypothetical point of drinking water exposure located at a distance of 1,000 feet downgradient from the delineated site contamination.

The models currently being evaluated for use at the Site include BIOCHLOR, BIOPLUME and BIOSCREEN, which are all EPA-supported models. BIOCHLOR and BIOSCREEN are both programmed in the Microsoft Excel spreadsheet environment and are based on the Domenico analytical solute transport model. BIOPLUME is a two-dimensional contaminant transport model for use where oxygen, nitrate, iron, sulfate, and/or methanogenic biodegradation is occurring. BIOPLUME is based on the U.S. Geological Survey's solute transport code MOC and solves the solute transport equation six times to determine the fate and transport of hydrocarbons and the electron acceptors (O_2, NO_3^-, Fe_3^+, SO_4^{2-}, and CO_2) and reaction by-products (Fe_2^+).

Groundwater analytical data from the November 2015, March 2016, and September 2016 groundwater sampling events will be used to calibrate the model. The September 2016 sampling event will be limited to those wells where data is necessary for the Ricker Method® Plume Stability Analysis and fate and transport modeling.

6.0 RECOMMENDATIONS

Based on the evaluation conducted during this reporting period, semi-annual groundwater sampling will continue. Groundwater data will be assessed for natural attenuation, plume stability analysis, and groundwater modeling. Compliance with applicable cleanup standards will be demonstrated empirically through the Ricker Method® Plume Stability Analysis and through fate and transport groundwater modeling.

Additionally, wells MW-2 and MW-10 will be removed from the groundwater monitoring program. The wells are located hydraulically upgradient from the Apollo Plume Area and are not used in the Ricker Method® Plume Stability Analysis or in the fate and transport modeling. VOC concentrations have not been detected above delineation criteria since installation in 2012 for well MW-10 and since 1996 for well MW-2. Water levels will continue to be measured at wells MW-2 and MW-10 during future monitoring events to evaluate groundwater flow direction.

7.0 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 November 1, 2015 through April 30, 2016, Ms. Kristen Rivera, P.G., invoiced 82.25 hours to this project. A monthly summary of hours invoiced and a description of services provided is shown in Table 6.

8.0 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 (May 2016 through October 2016):

- Site-wide groundwater sampling event in September 2016;
- Development of the groundwater model; and
- Calibration of the groundwater model.

The Fourth VIRP Progress Report will be submitted by AMC Cobb on or before November 20, 2016.

TABLES

TABLE 1. MONITORING WELL CONSTRUCTION DETAILS

Monitoring Well	Installation Date	Total Depth feet, bgs	Screened Interval feet, bgs		Screen Length feet	Screened Zone	Top of Casing Elevation feet
			Top	Bottom			
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

Notes

Prepared by: SNW 11/05/2015

Checked by: KRR 5/4/2016

bgs - below ground surface

BDRK - bedrock

OVB - overburden

* - total depth and screened interval estimated from field measurements

TABLE 2. WATER LEVEL MEASUREMENTS

Monitoring Well	Top of Casing Elevation feet, MSL	March 21, 2016	
		Depth to Water feet	Groundwater Elevation feet, MSL
DW-1	862.44	2.44	860.00
MW-1	885.30	22.01	863.29
MW-2	896.38	23.18	873.20
MW-3	883.43	20.78	862.65
MW-4	857.57	2.20	855.37
MW-5	861.75	6.35	855.40
MW-6R	859.61	7.00	852.61
MW-7	865.47	6.18	859.29
MW-8	892.91	24.09	868.82
MW-9	859.86	8.42	851.44
MW-10	901.05	17.68	883.37
MW-11	892.84	19.01	873.83
MW-12	891.30	23.50	867.80
MW-13	864.72	7.33	857.39
MW-15	858.14	5.64	852.50
MW-17	862.75	5.71	857.04

Notes

MSL - mean sea level

Prepared by: KAH 03/24/16

Checked by: CDN 4/7/16

TABLE 3. FIELD PARAMETERS

Sample Location	Temperature °C	pH Standard Units	Dissolved Oxygen mg/L	ORP mV	Conductivity µs/cm	Turbidity NTU
March 2016						
DW-1	16.91	6.35	7.92	-311.0	333	1.71
MW-1	17.62	6.16	6.25	-328.3	301	0.48
MW-2	19.31	5.92	5.81	-139.9	64	9.60
MW-3	17.88	6.87	0.49	-116.4	355	9.62
MW-4	17.42	6.55	0.71	69.7	303	8.85
MW-5	16.43	4.71	1.16	222.8	64	4.86
MW-6R	15.57	5.41	7.77	162.9	105	2.53
MW-7	13.95	5.59	9.08	-310.1	188	7.48
MW-8	17.30	5.49	7.03	84.3	55	1.41
MW-9	17.73	4.91	7.90	176	82	1.63
MW-10	16.84	6.45	0.61	-58.2	184	1.02
MW-11	17.92	6.17	4.28	-281	199	0.79
MW-12	15.02	5.01	7.28	-142.7	51	0.77
MW-13	13.85	5.47	1.15	-168.9	208	1.90
MW-15	15.57	5.86	12.55	-212	563	0.17
MW-17	16.20	6.76	7.04	-12.9	526	0.95

Notes

mg/L - milligrams per liter

mV - millivolts

µs/cm - microsiemens per centimeter

NTU - nephelometric turbidity units

Prepared by: KAH 03/24/16

Checked by: CDN 4/7/16

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	3/22/16	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**	**0.050**
MW-1	3/23/16	< 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-2	3/21/16	< 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-3	3/23/16	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-4	3/22/16	**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-5	3/21/16	< 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	3/21/16	< 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-7	3/22/16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.050	< 0.010	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.005**
MW-8	3/22/16	< 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-9	3/21/16	< 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-10	3/22/16	< 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	3/22/16	< 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	3/22/16	< 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	3/21/16	< 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	3/21/16	< 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-17	3/22/16	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**

Notes

Prepared by: SNW 4/6/16

Checked by: CDN 4/8/16

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

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	3/22/16	3.25	< 2.00	37	0.19 J	0.43 J	0.0090 J	0.15	0.76	103	2.69
MW-1	3/23/16	9.73	< 2.00	6.4	1.5	59	< 0.0090	0.0035 J	0.0098	54.0	0.62
MW-2	3/21/16	1.45	< 2.00	2.6	0.73	8.4	< 0.0090	< 0.0070	< 0.0040	21.0	0.00
MW-3	3/23/16	11.6	< 2.00	48	0.040 J	7.7	0.25	0.057	3.3	200	2.09*
MW-4	3/22/16	2.66	< 2.00	58	0.037 J	0.55 J	< 0.0090	< 0.0070	0.0046	52.0	0.09
MW-5	3/21/16	0.804 J	< 2.00	4.6	0.56	1.0	< 0.0090	< 0.0070	< 0.0040	21.0	0.00
MW-6R	3/21/16	<1.00	< 2.00	4.2	0.94	0.81 J	< 0.0090	< 0.0070	0.0056	30.0	0.00
MW-7	3/22/16	1.21	< 2.00	4.4	< 0.25	1.2	0.026	0.0084	1.5	87.0	2.98
MW-8	3/22/16	1.01	< 2.00	4.7	0.079 J	0.42 J	< 0.0090	< 0.0070	0.81	29.0	0.65
MW-9	3/21/16	0.733 J	< 2.00	9.4	0.065 J	1.7	< 0.0090	< 0.0070	0.27	19.0	0.21
MW-10	3/22/16	1.51	< 2.00	7.1	< 0.25	0.76 J	< 0.0090	< 0.0070	2.2	65.0	0.62*
MW-11	3/22/16	<1.00	< 2.00	8.0	0.047 J	7.1	< 0.0090	< 0.0070	1.7	70.0	0.57
MW-12	3/22/16	1.09	< 2.00	6.6	0.47	0.18 J	< 0.0090	< 0.0070	0.0070	19.0	0.00
MW-13	3/21/16	2.96	< 2.00	9.5	0.024 J	1.1	0.18	< 0.0070	5.0	66.0	0.82
MW-15	3/21/16	5.56	< 2.00	36	0.031 J	< 1.0	0.062	< 0.0070	12	124	1.19
MW-17	3/22/16	3.29	< 2.00	22	0.031 J	14	0.019	0.010	0.76	220	1.19

Notes

mg/L - milligrams per liter

TOC - total organic carbon

J - estimated concentration

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

Prepared by: SNW 4/6/16
Checked by: CDN 4/8/16

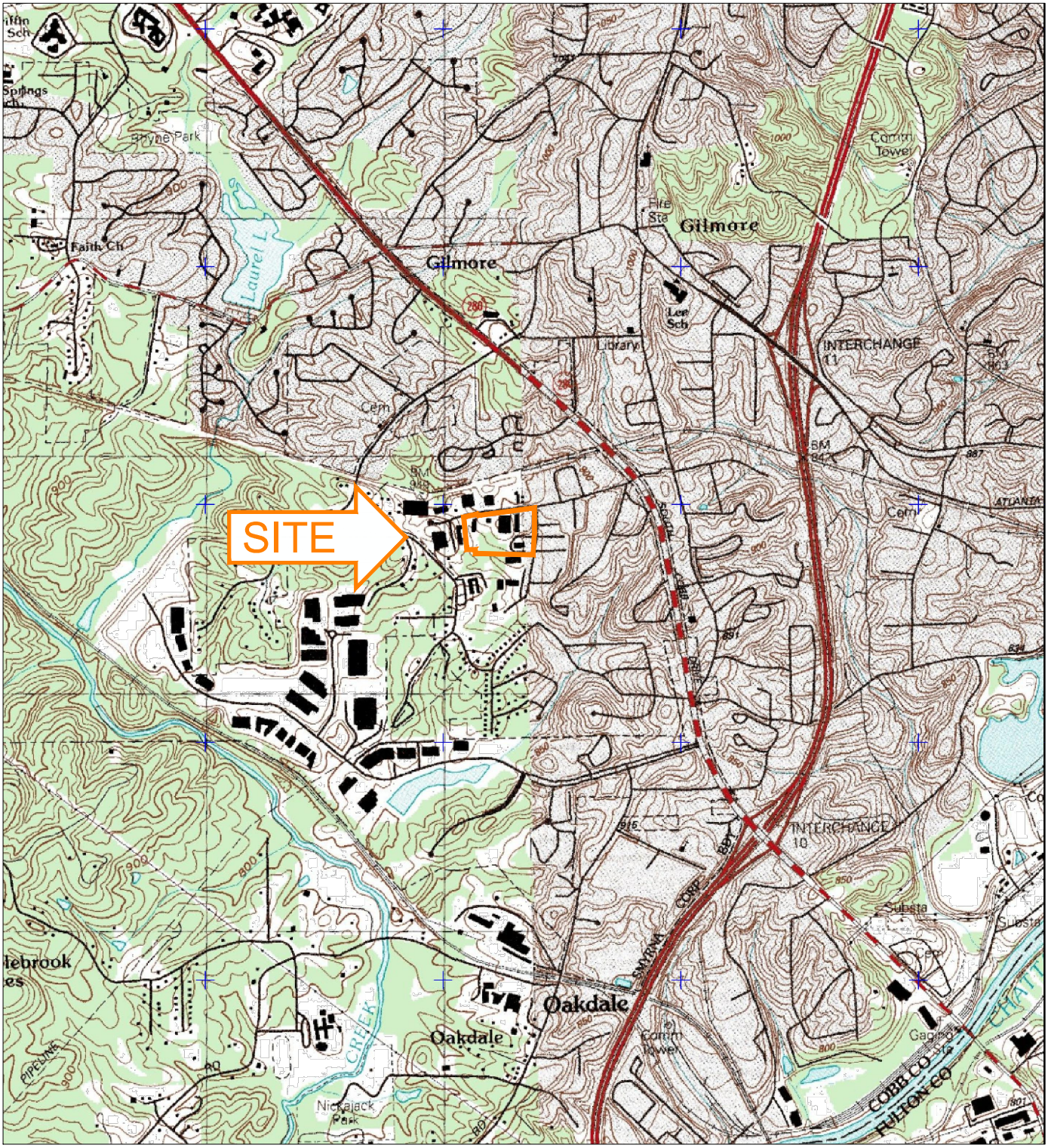
TABLE 6: SUMMARY OF MONTHLY INVOICES

Month	Hours Billed by Kristen Rivera, P.G.	Description of Activities
November 2015	24.75	– Reviewed historical data – Updated the VRP financial assurance cost estimate and Letter of Credit – Updated the Plume Stability Analysis with the new well network – Prepared the Second VIRP Progress Report
December 2015	33	– Finalized and submitted the Second VIRP Progress Report to EPD
January 2016	0	
February 2016	0	
March 2016	6.75	– Field work preparation – Oversight for groundwater sampling event – Began drafting the Third VIRP Progress Report
April 2016	17.75	– Data assessment – Prepared Third VIRP Progress Report

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	Site wide groundwater sampling event
November 2016	Fourth VIRP Progress Report
March 2017	Site wide groundwater sampling event
May 2017	Fifth VIRP Progress Report
September 2017	Site wide groundwater sampling event
November 2017	Sixth VIRP Progress Report
March 2018	Site wide groundwater sampling event
May 2018	Seventh VIRP Progress Report
September 2018	Site wide groundwater sampling event
November 2018	Eighth VIRP Progress Report
March 2019	Site wide groundwater sampling event
May 2019	Ninth VIRP Progress Report
July 28, 2019	Compliance Status Report

FIGURES



SOURCE: MAPCARD TOPOGRAPHIC MAP, SMYRNA, GEORGIA

APOLLO INDUSTRIES, INC.

1850 SOUTH COBB INDUSTRIAL BLVD

HSI SITE NUMBER 10333

PROJECT NO. 02.20140391.16

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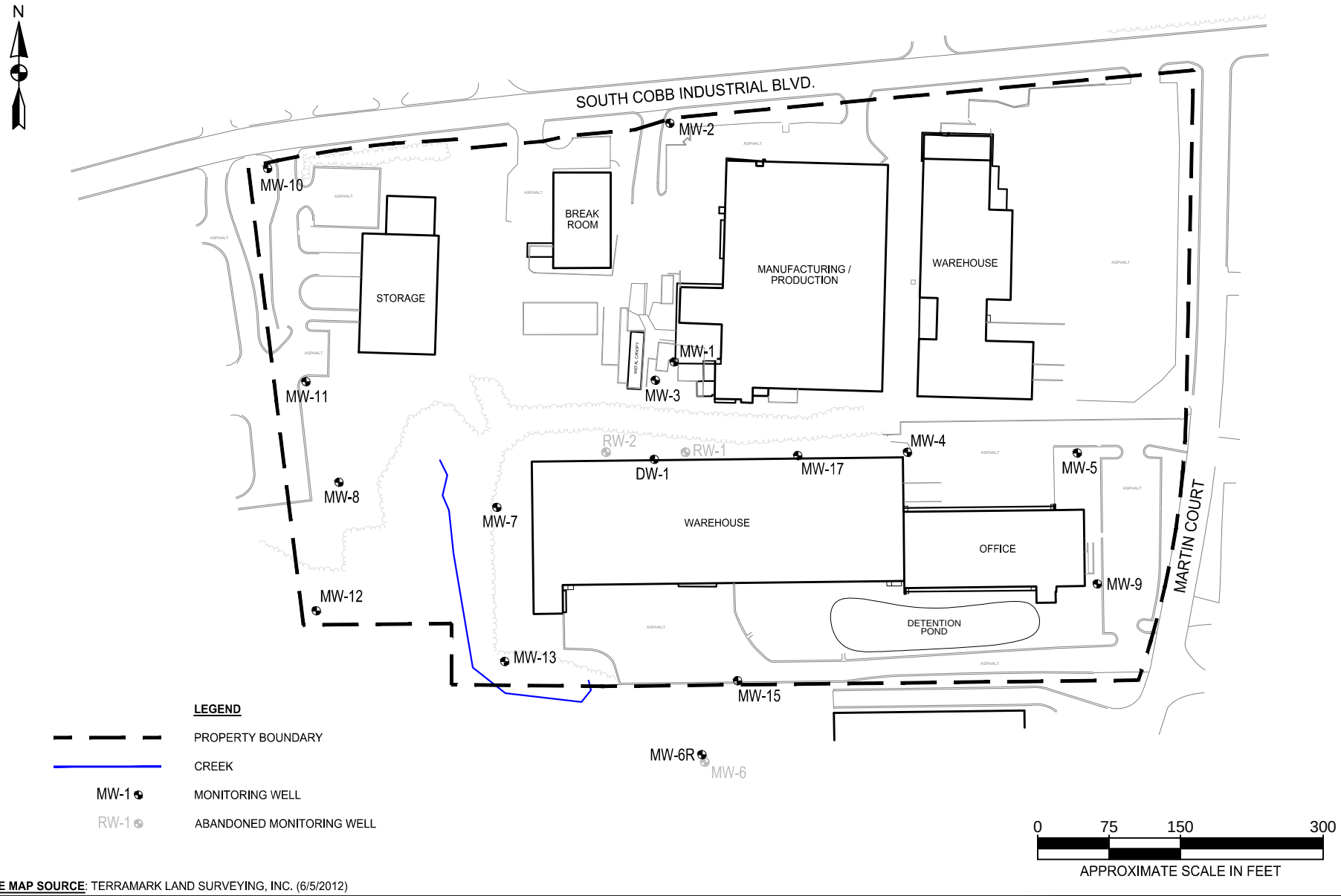
EarthCon Consultants, Inc.

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

SITE LOCATION

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	KRR	APR 22, 2016	1

FILENAME: site location.dwg



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

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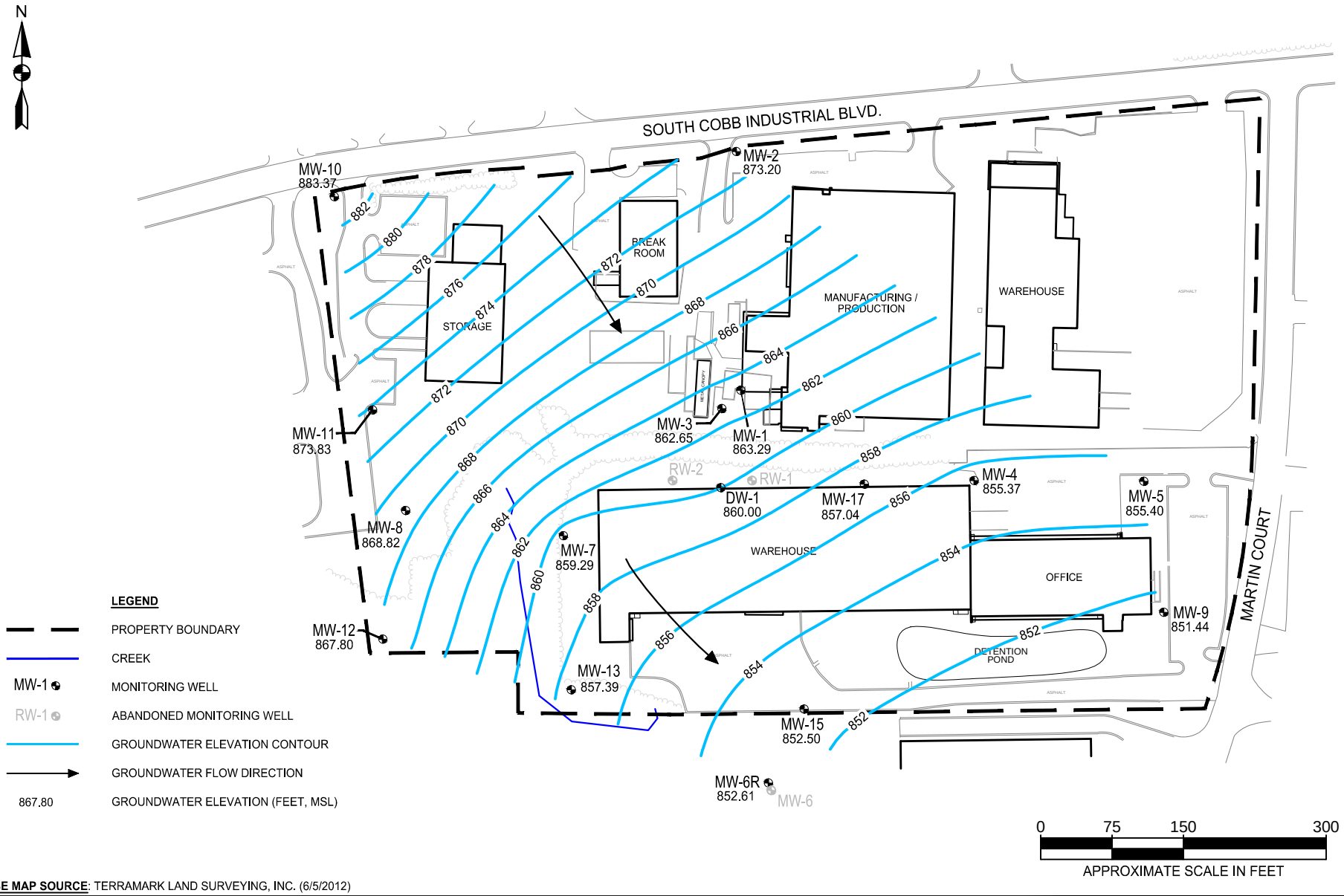
FACILITY LAYOUT AND SAMPLE LOCATIONS

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	KRR	MAY 2, 2016	2

FILENAME: site map.dwg



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

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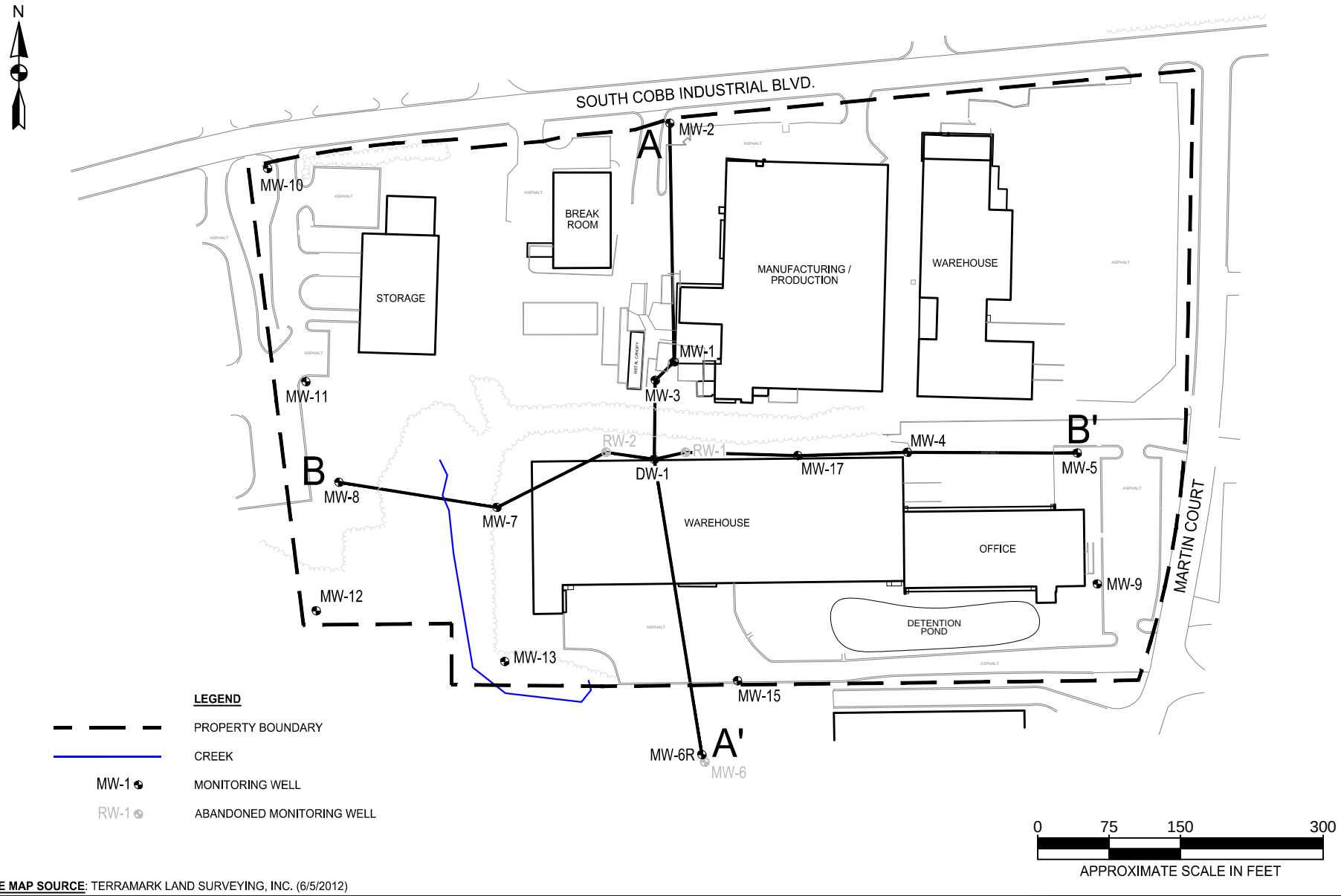
POTENTIOMETRIC SURFACE MAP
MARCH 21, 2016

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	KRR	MAY 2, 2016	3

FILENAME: site map.dwg



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

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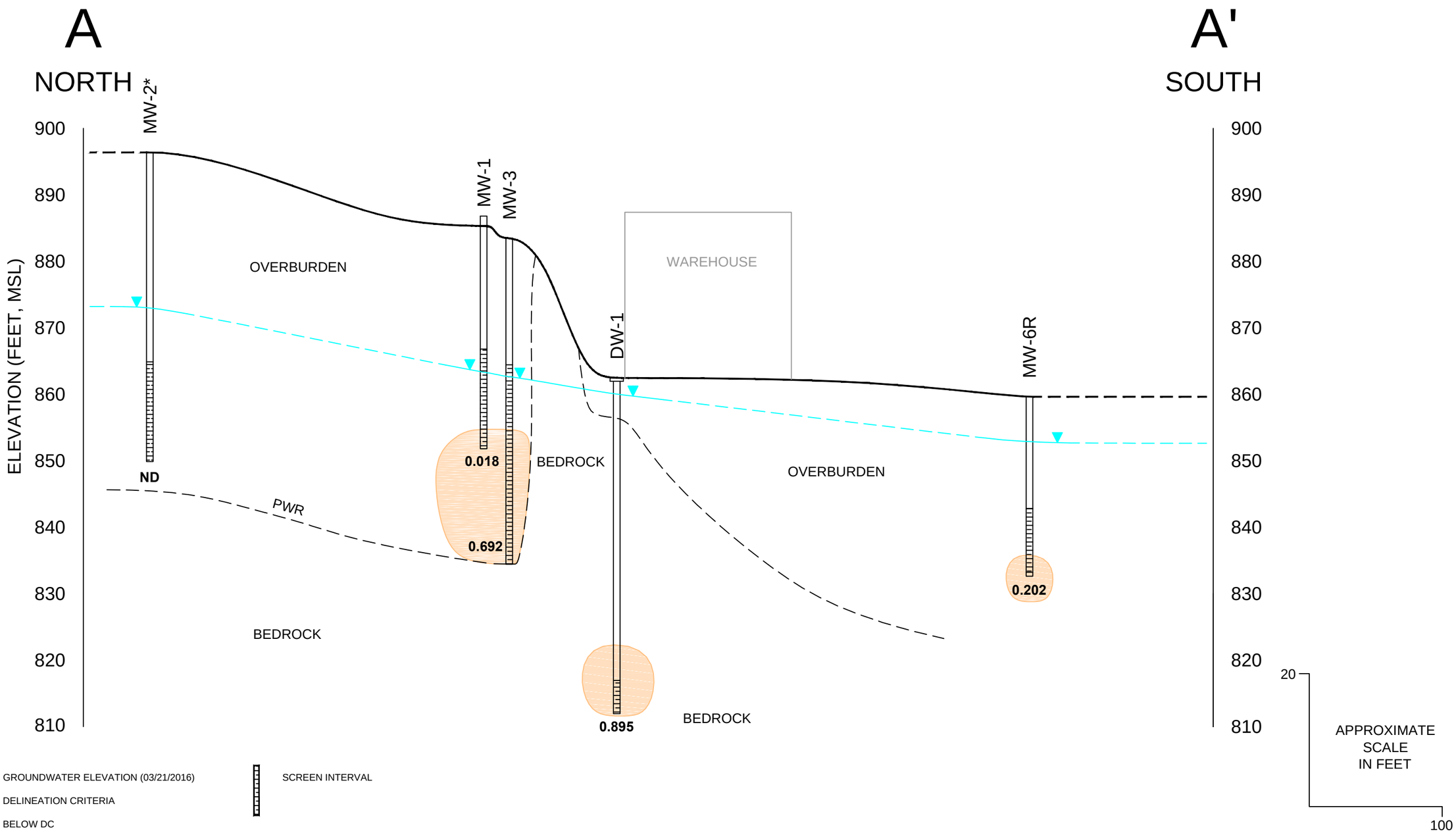
GROUNDWATER CROSS SECTION LOCATIONS

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	KRR	MAY 2, 2016	4

FILENAME: site map.dwg



LEGEND

▼	GROUNDWATER ELEVATION (03/21/2016)		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		
	0.202 TOTAL CVOC CONCENTRATION (mg/L) IN GROUNDWATER GREATER THAN DC (MARCH 2016)		

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

PWR = PARTIALLY WEATHERED ROCK

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HSI SITE NUMBER 10333

PROJECT NO. 02.20140391.16

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CROSS SECTION A-A'

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	KRR	MAY 2, 2016	5

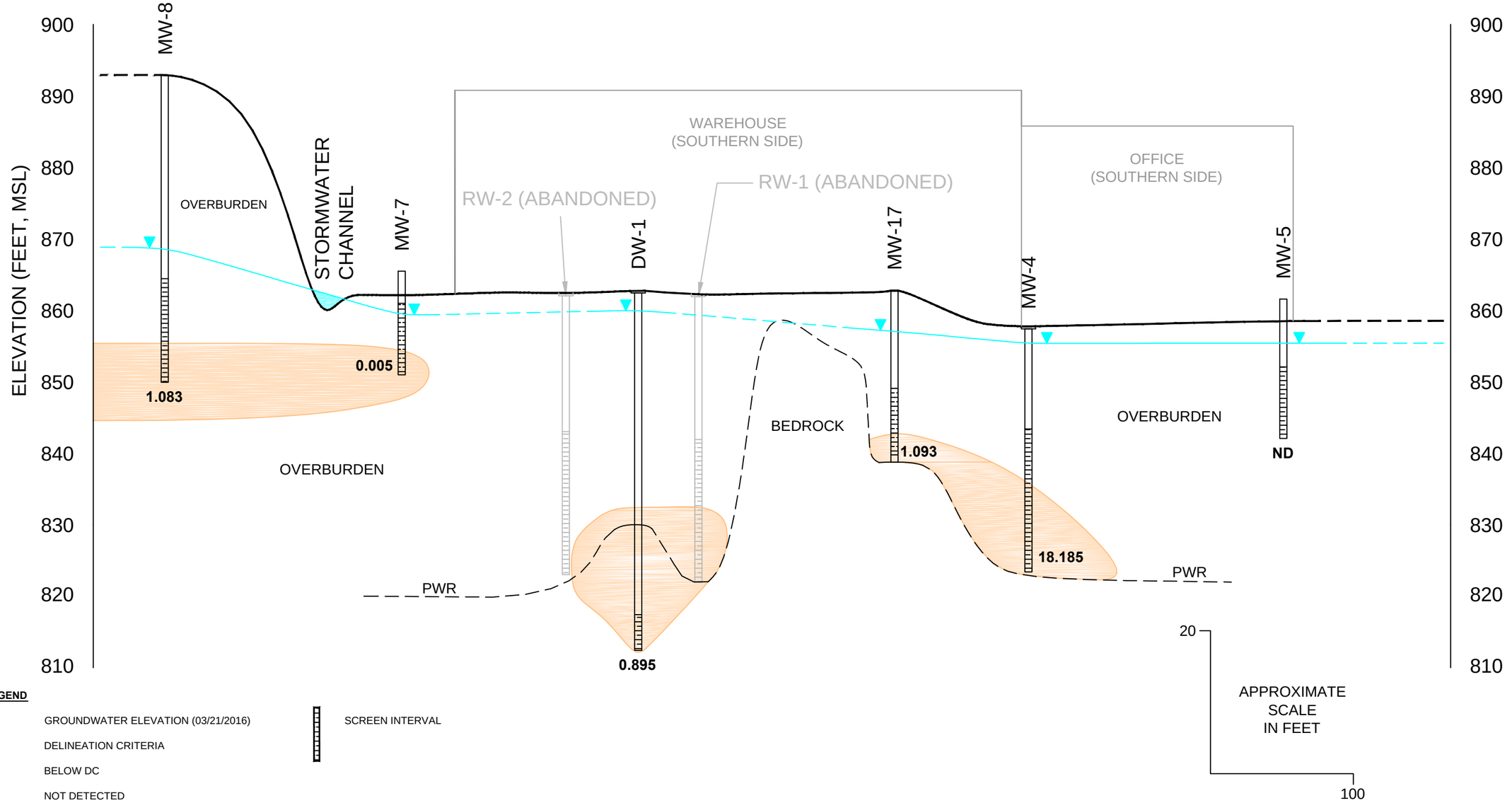
FILE NAME: ...\CROSS SECTIONS.DWG]

B

WEST

B'

EAST



LEGEND

▼	GROUNDWATER ELEVATION (03/21/2016)		SCREEN INTERVAL
DC	DELINEATION CRITERIA		
BDC	BELOW DC		
ND	NOT DETECTED		
mg/L	MILLIGRAMS PER LITER		
– — – —	DASHED WHERE INFERRED		
	1.083 TOTAL CVOC CONCENTRATION (mg/L) IN GROUNDWATER GREATER THAN DC (MARCH 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

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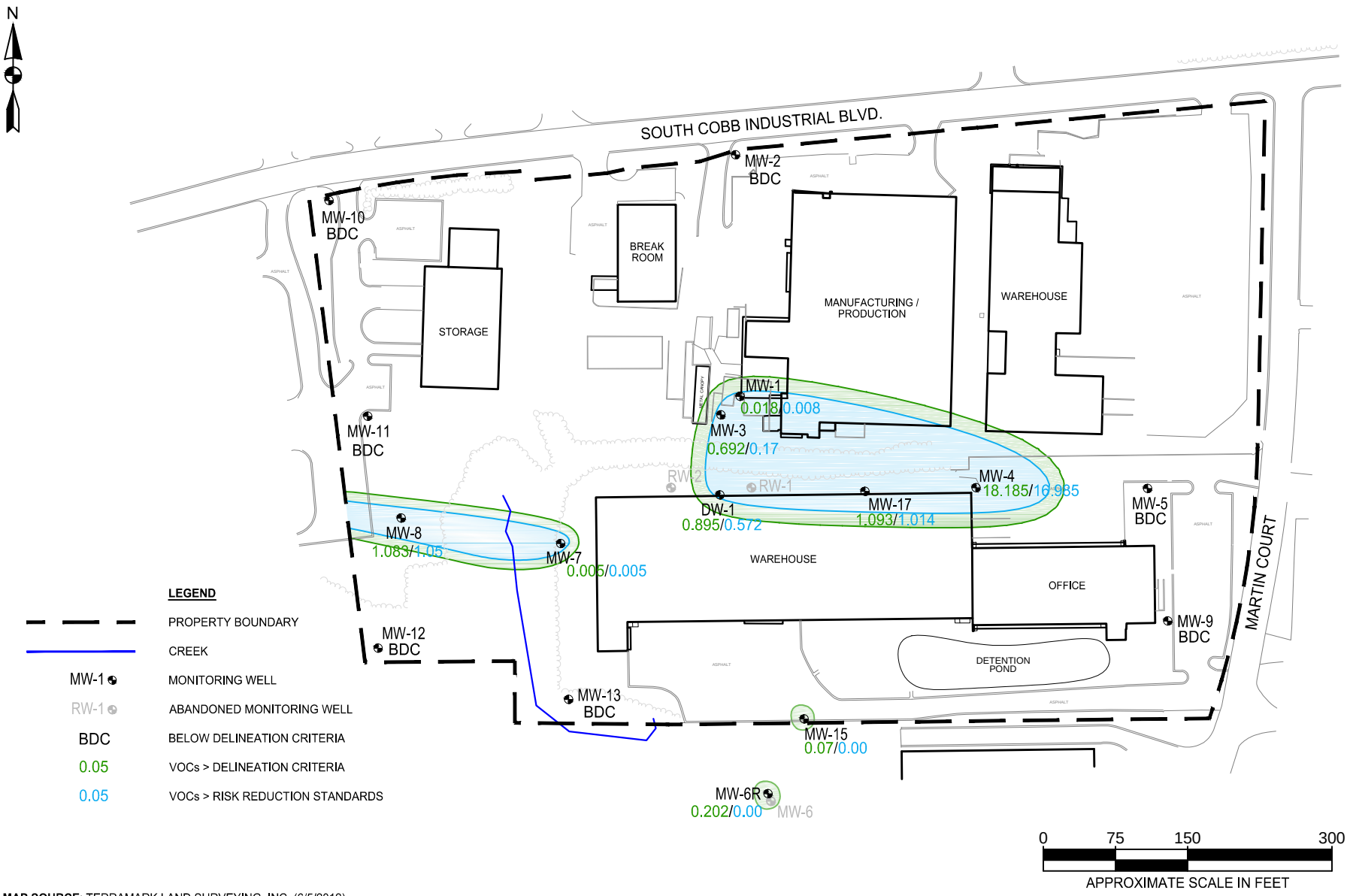
CROSS SECTION B-B'

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	KRR	MAY 2, 2016	6

FILENAME: cross sections.dwg



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

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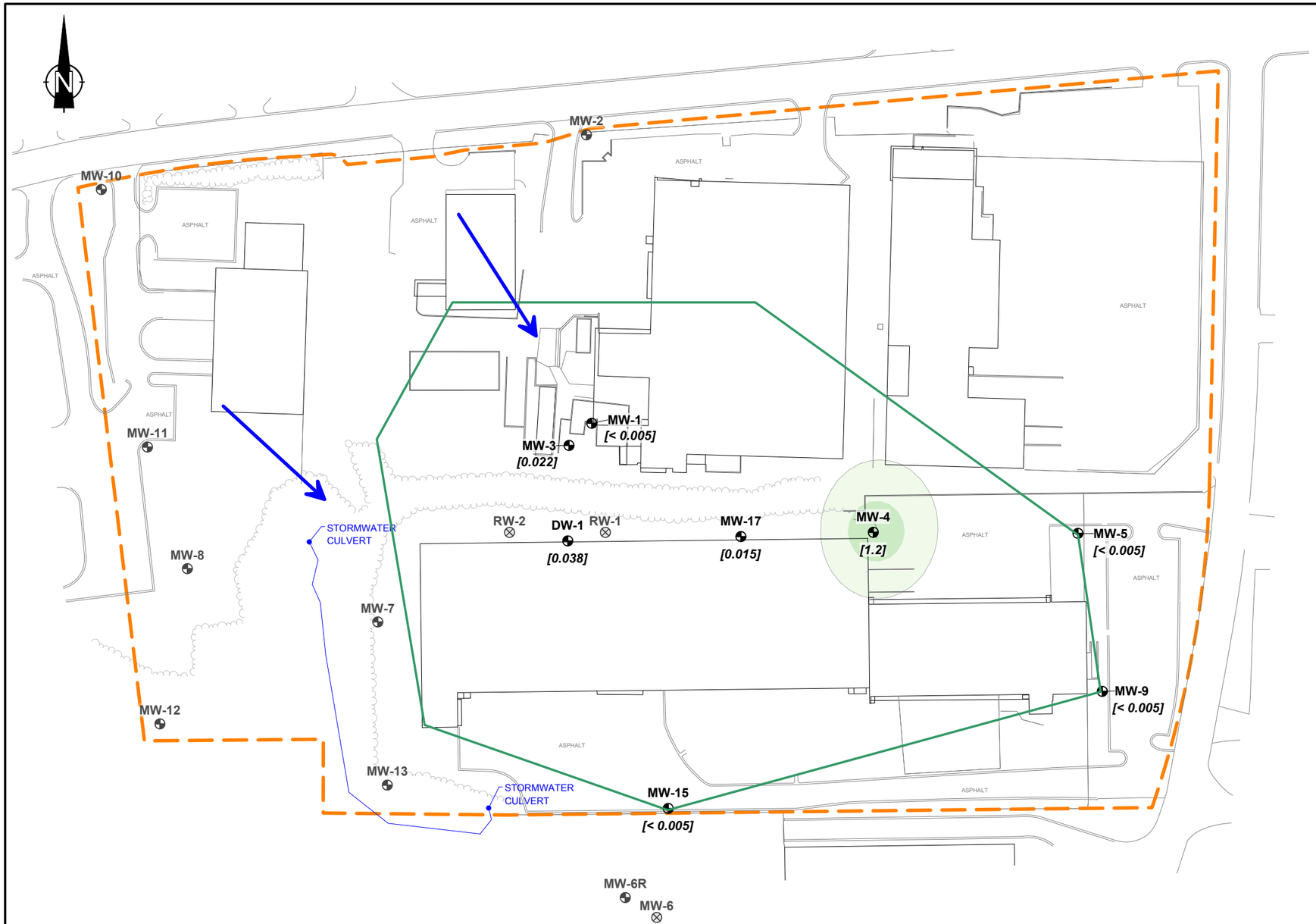
TOTAL VOCs
MARCH 2016

DRAWN:	CHECKED:	DATE:	FIGURE:
SNW	KRR	APR 26, 2016	7

FILENAME: site map.dwg



LEGEND

- MW-4 [1.2] — Monitoring Well and Concentration (mg/L)
- MW-5 — Monitoring Well - not used in analysis
- RW-1 — Abandoned Monitoring Well (Fall 2015)
- General Groundwater Flow (EarthCon, March 2016)
- Approximate Property Boundary
- Stormwater Flow
- Apollo Plume Window

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

Concentration (mg/L)

0.2 0.5 1 5 10 15 20 25

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

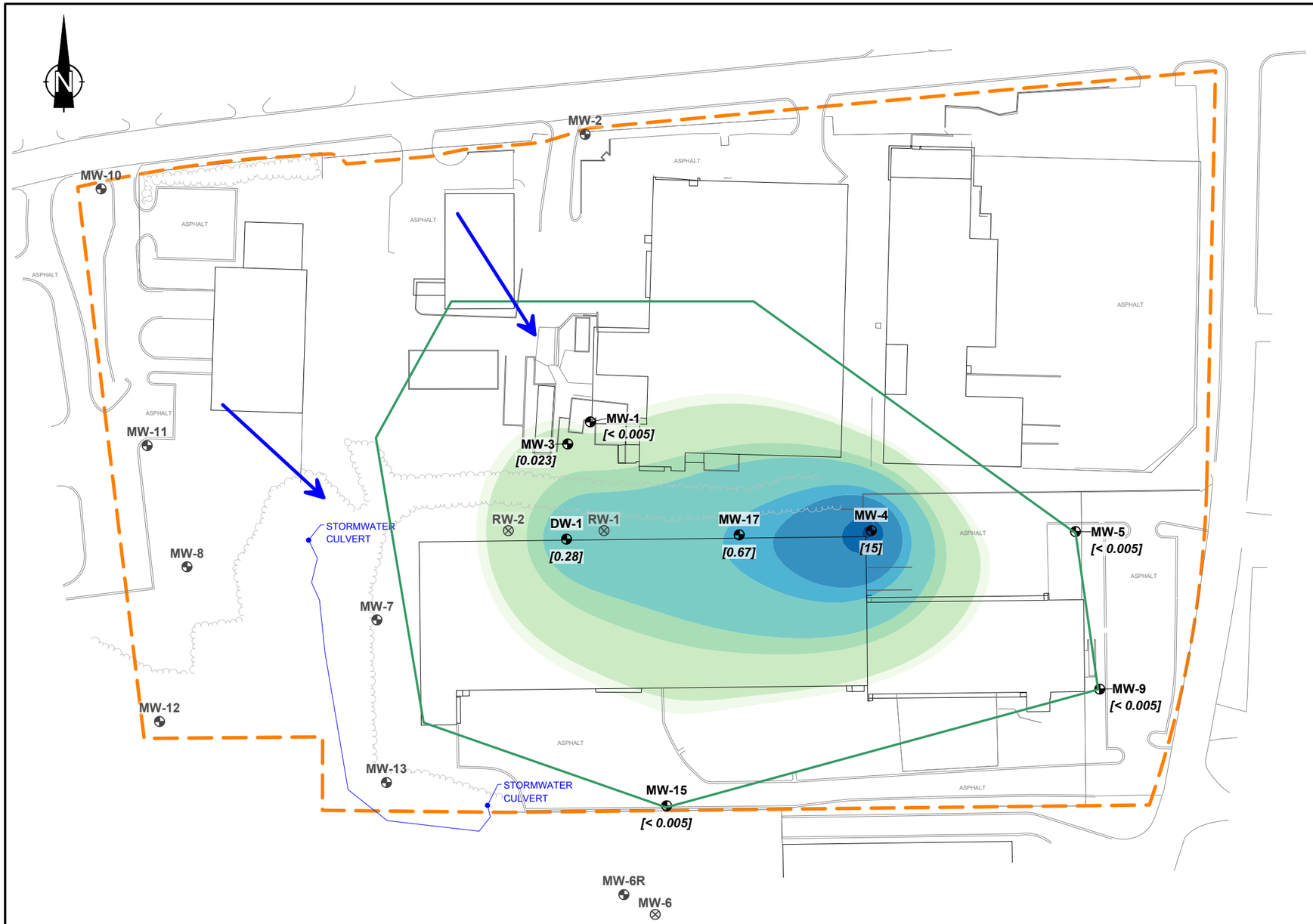
Project Number: 02.20140391.16

EARTHCON®

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

Apollo Plume
1,1,1-Trichloroethane (1,1,1-TCA)
Mar-2016

Prepared by: SNW Checked by: KRR Figure: 8



LEGEND

- MW-4 [15] — Monitoring Well and Concentration (mg/L)
- MW-5 — Monitoring Well - not used in analysis
- RW-1 — Abandoned Monitoring Well (Fall 2015)
- General Groundwater Flow (EarthCon, March 2016)
- Approximate Property Boundary
- Stormwater Flow
- Apollo Plume Window

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

Concentration (mg/L)

0.007 0.01 0.05 0.1 0.5 1 5 10

Map Scale (ft)

0 100 200

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

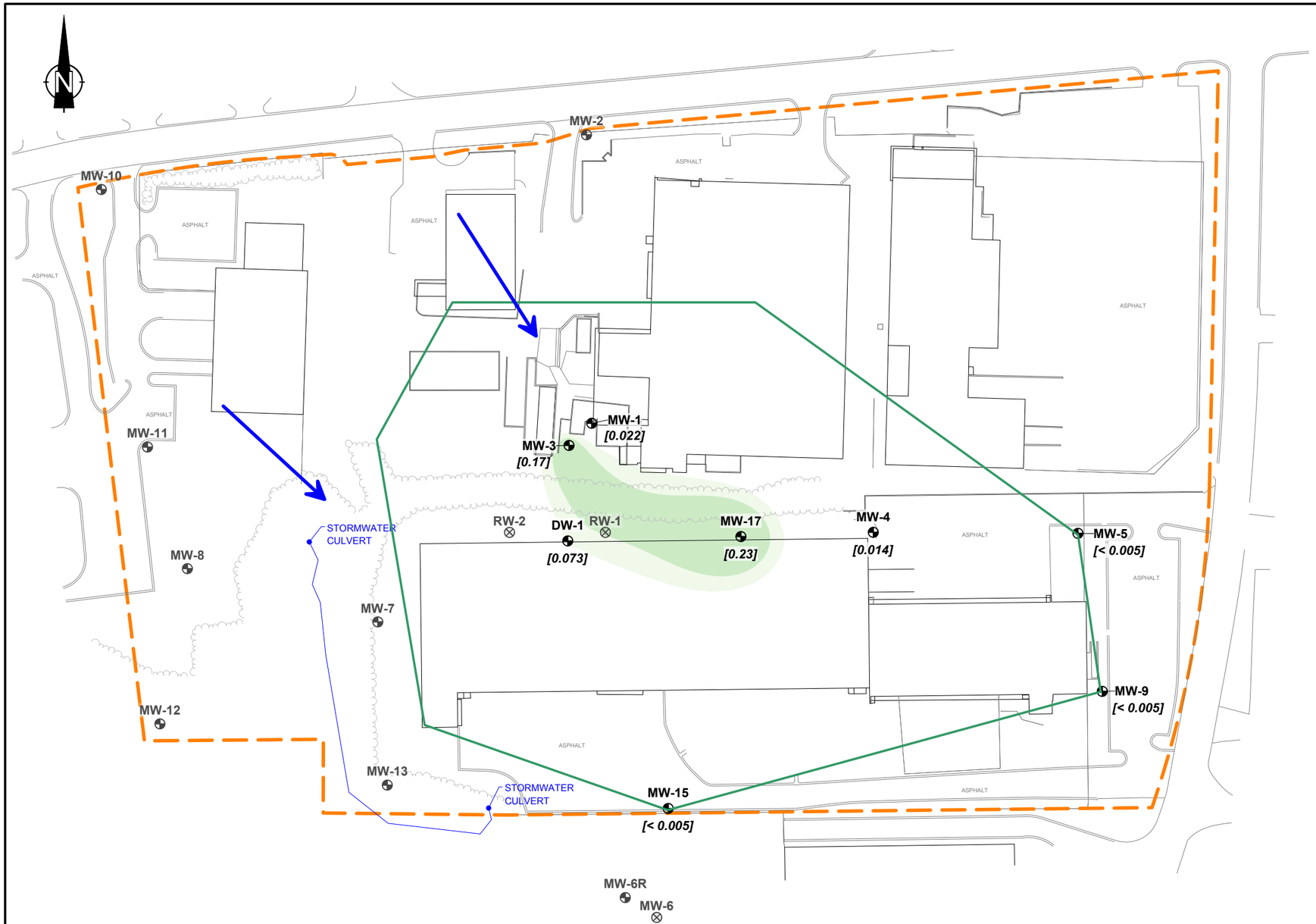
Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

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

Apollo Plume
1,1-Dichloroethene (1,1-DCE)
Mar-2016

Prepared by: SNW Checked by: KRR Figure: 9



LEGEND

- MW-17 [0.23] — Monitoring Well and Concentration (mg/L)
- MW-5 — Monitoring Well - not used in analysis
- RW-1 — Abandoned Monitoring Well (Fall 2015)
- General Groundwater Flow (EarthCon, March 2016)
- Approximate Property Boundary
- Stormwater Flow
- Apollo Plume Window

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

Concentration (mg/L)

0.07 0.1 0.5 1 5 10 25 50

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®

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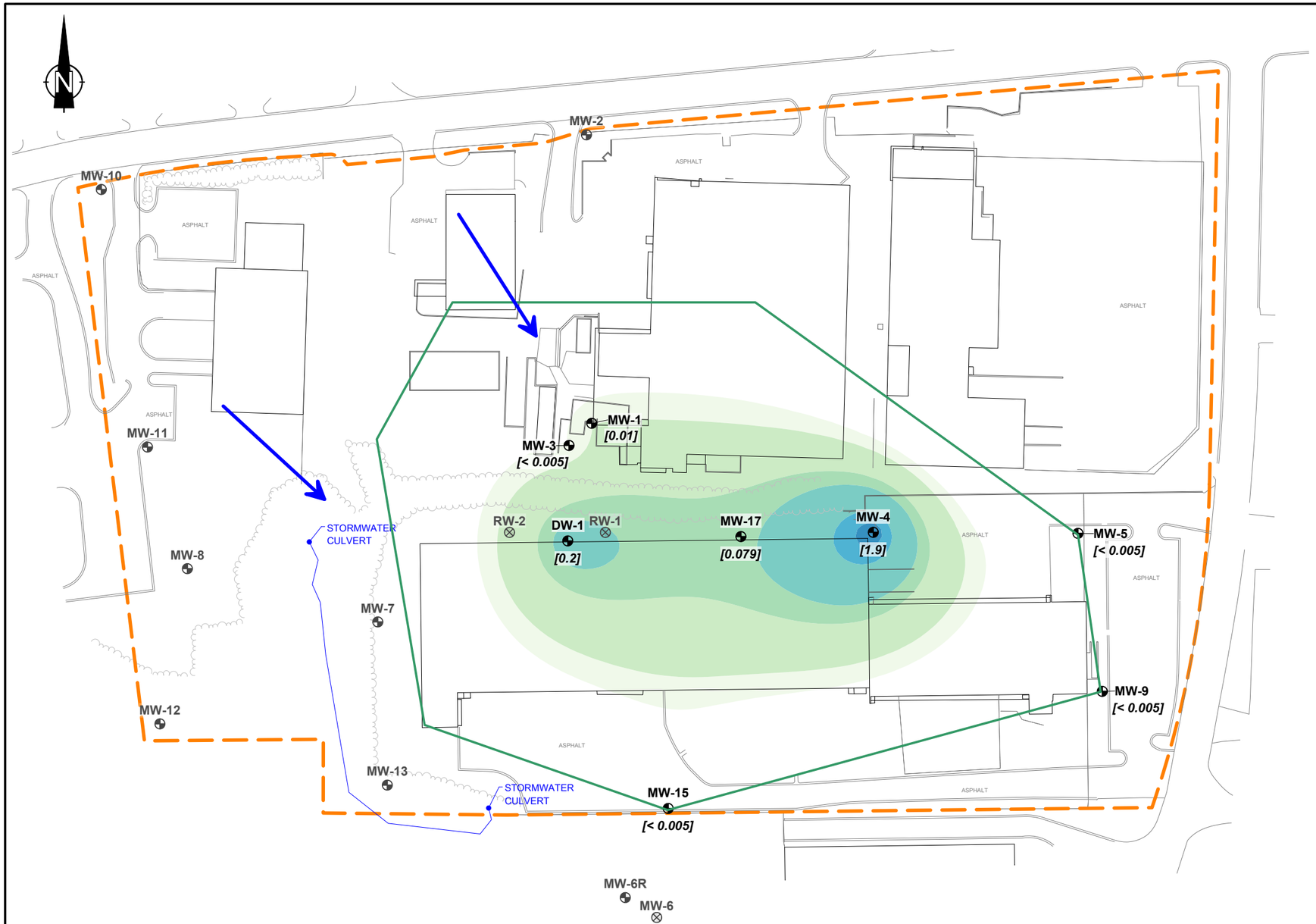
Marietta, Georgia 30062

Apollo Plume cis-1,2-Dichloroethene (cis-1,2-DCE) Mar-2016

Prepared by: SNW Checked by: KRR Figure: 10



LEGEND

- MW-4 [1.9] — Monitoring Well and Concentration (mg/L)
- MW-5 — Monitoring Well - not used in analysis
- RW-1 — Abandoned Monitoring Well (Fall 2015)
- General Groundwater Flow (EarthCon, March 2016)
- Approximate Property Boundary
- Stormwater Flow
- Apollo Plume Window

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

Concentration (mg/L)

0.005 0.01 0.05 0.1 0.5 1 2 3

Map Scale (ft)

0 100 200

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

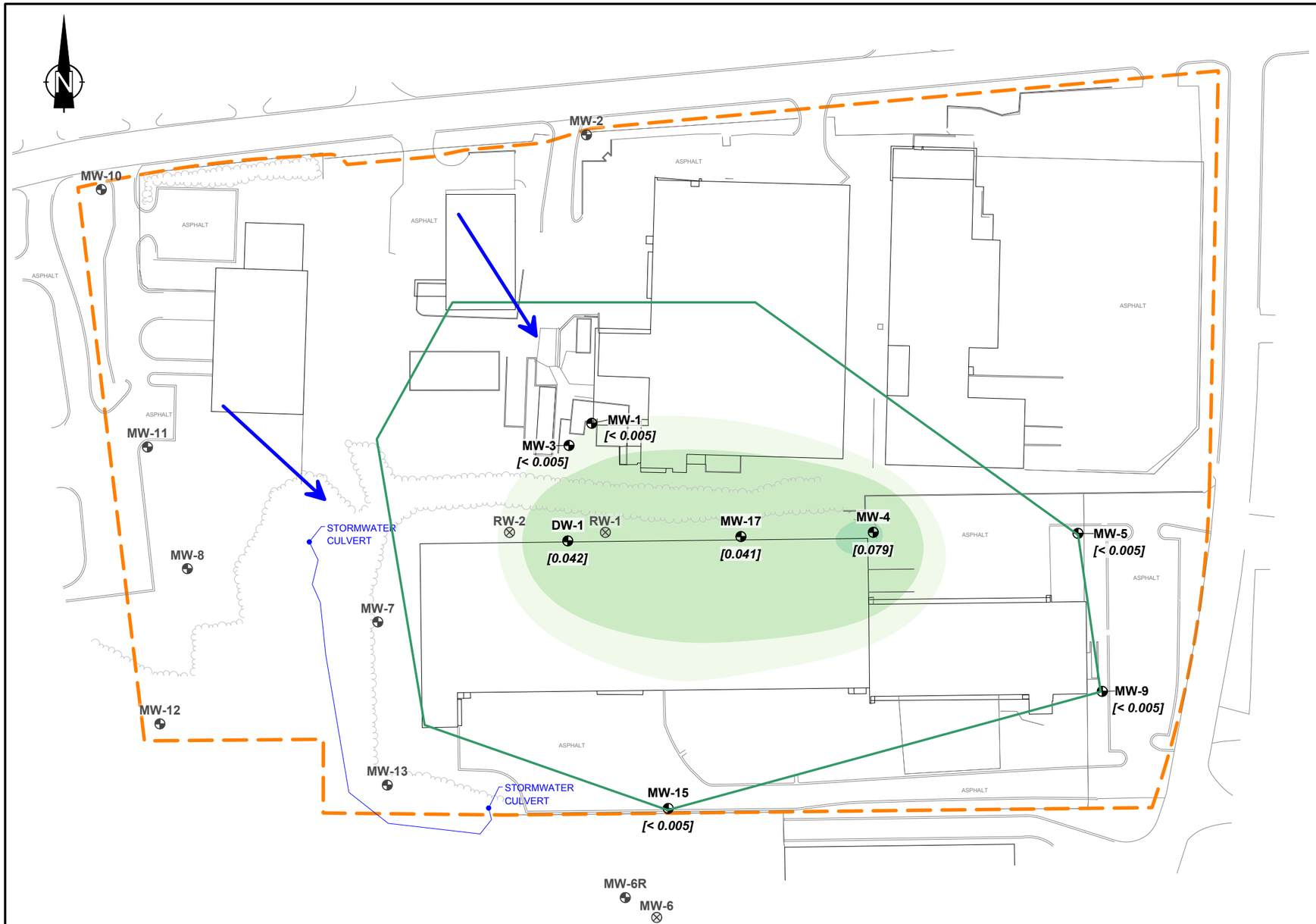
Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

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

Apollo Plume
Tetrachloroethene (PCE)
Mar-2016

Prepared by: SNW Checked by: KRR Figure: 11



LEGEND

- MW-4 [0.079] — Monitoring Well and Concentration (mg/L)
- MW-5 — Monitoring Well - not used in analysis
- RW-1 — Abandoned Monitoring Well (Fall 2015)
- General Groundwater Flow (EarthCon, March 2016)
- Approximate Property Boundary
- Stormwater Flow
- Apollo Plume Window

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

Concentration (mg/L)

0.005 0.01 0.05 0.1 0.5 1 2 3

Map Scale (ft)

0 100 200

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

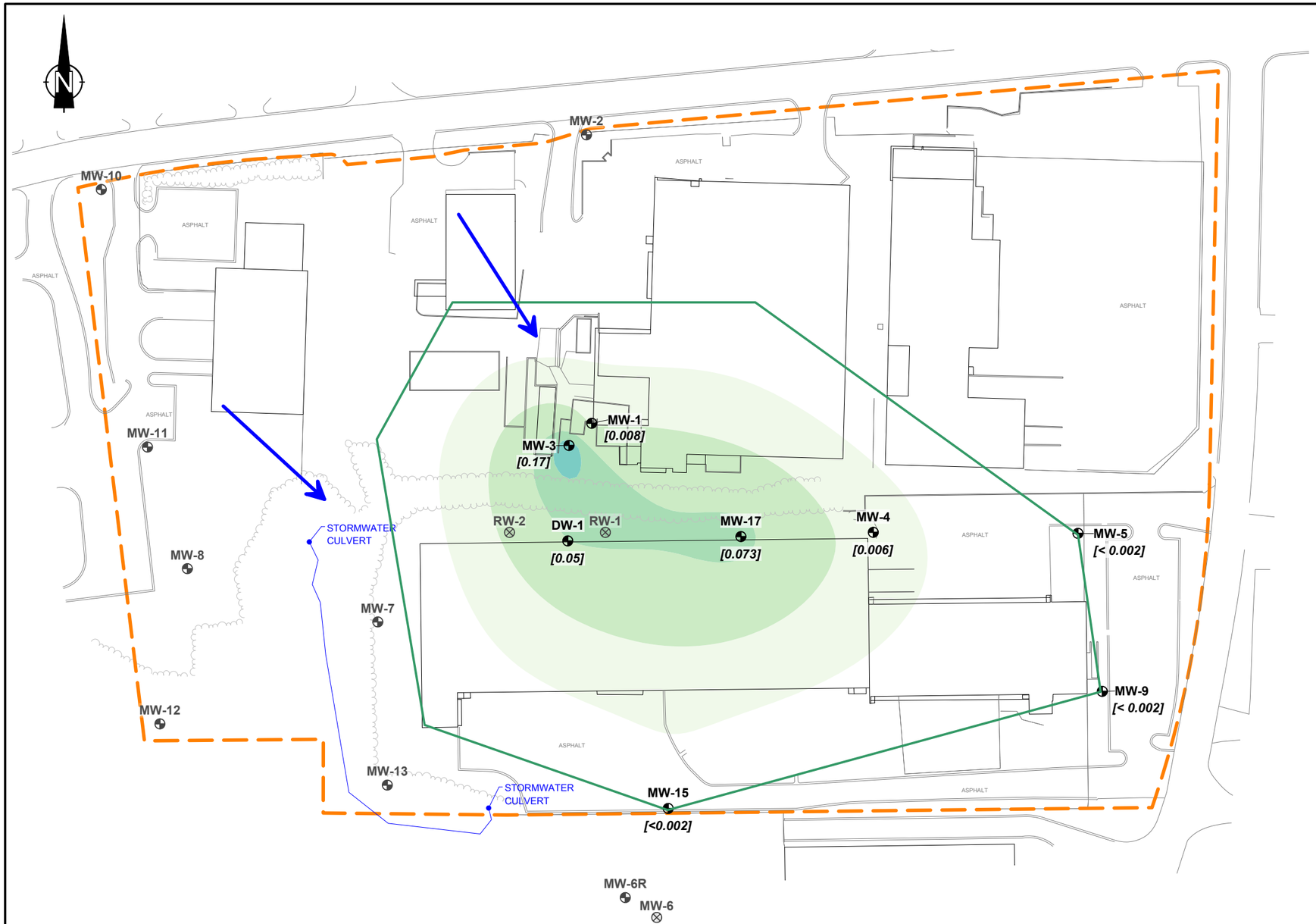
Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

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

Apollo Plume
Trichloroethene (TCE)
Mar-2016

Prepared by: SNW Checked by: KRR Figure: 12



LEGEND

- MW-3 [0.17] — Monitoring Well and Concentration (mg/L)
- MW-5 — Monitoring Well - not used in analysis
- RW-1 — Abandoned Monitoring Well (Fall 2015)
- General Groundwater Flow (EarthCon, March 2016)
- Approximate Property Boundary
- Stormwater Flow
- Apollo Plume Window

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

Concentration (mg/L)

0.002 0.01 0.05 0.1 0.5 1 2 3

Map Scale (ft)

0 100 200

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

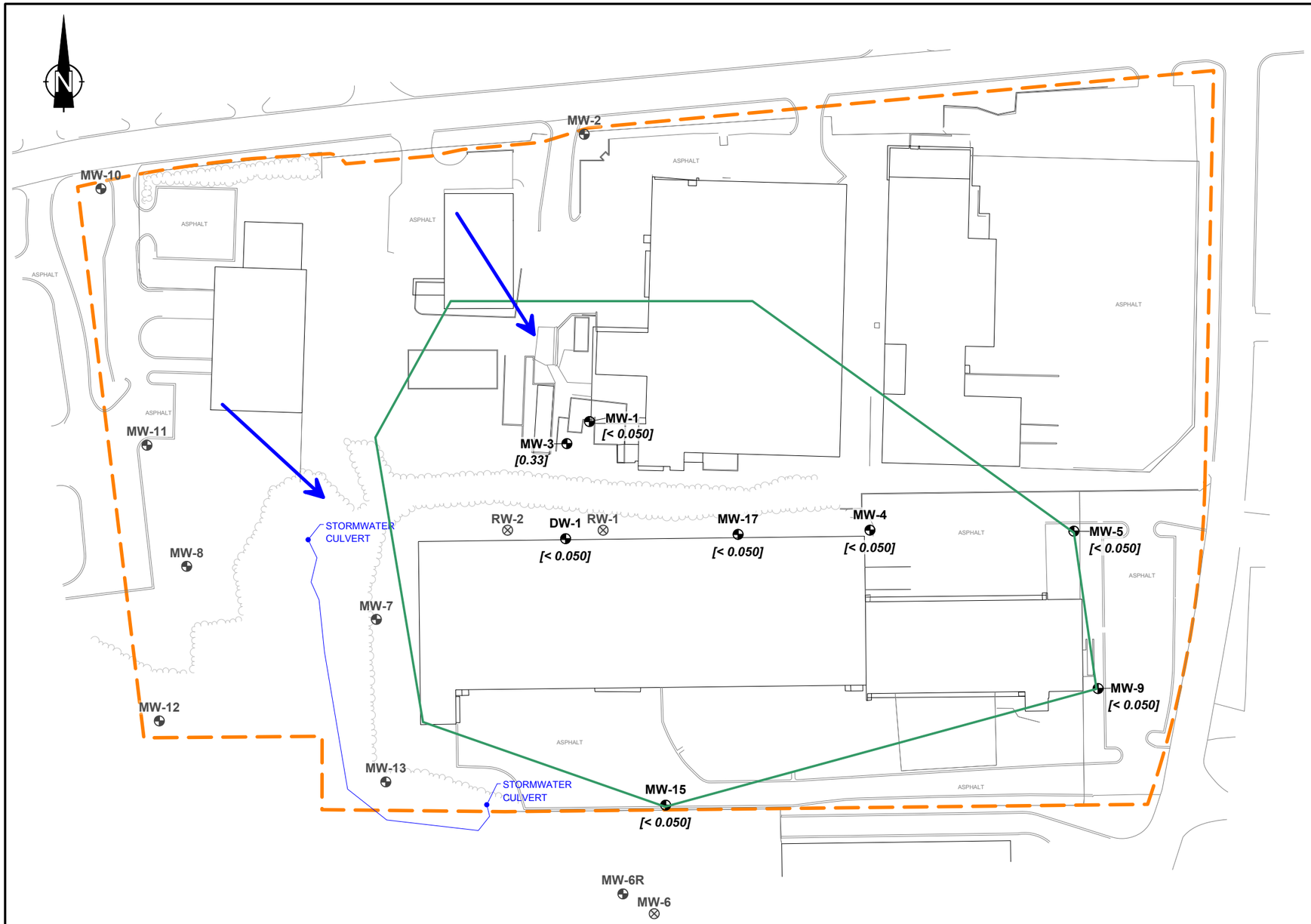
Apollo Industries, Inc.
1850 South Cobb Industrial Blvd.
HSI Site Number 10333

Project Number: 02.20140391.16

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

Apollo Plume
Vinyl Chloride (VC)
Mar-2016

Prepared by: SNW Checked by: KRR Figure: 13



LEGEND

- MW-3 [0.33] — Monitoring Well and Concentration (mg/L)
- MW-5 — Monitoring Well - not used in analysis
- RW-1 — Abandoned Monitoring Well (Fall 2015)
- General Groundwater Flow (EarthCon, March 2016)
- Approximate Property Boundary
- Stormwater Flow
- Apollo Plume Window

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

Concentration (mg/L)

4 10 50 100 500 1000 5000 10000

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

Apollo Plume
Acetone
Mar-2016

Prepared by: SNW Checked by: KRR Figure: 14

APPENDICES

APPENDIX A

SUMMARY OF FIELD PROCEDURES

APPENDIX A: SUMMARY OF FIELD PROCEDURES

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

GROUNDWATER SAMPLING

A site wide groundwater sampling event was conducted from March 21 through March 23, 2016. Groundwater samples were collected from sixteen (16) 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 B. Field parameters collected during the March 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 boring log and monitoring well construction diagram for MW-2 and the 2015 and 2016 groundwater level field measurements are included at the end of this section. 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. For the March 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 generally less than 0.33 feet for the majority 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 the facility's waste water storage container. 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 B.

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 B

FIELD SAMPLING FORMS

EARTHCON

Apollo Smyrna 02.20140391.16
Water Levels
Date: 3/21/2016

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	9 45	2 44	44 50		
MW-1	885.30	9.27	22 01	31.80		Hard bottom
MW-2	896.38	9 25	23 18	46.14		Soft bottom
MW-3	883.43	9 30	20 78	48 70		Soft bottom
MW-4	857.57	955	220	33.65		
MW-5	861.75	9 40	6 35	14 94 ~~33.65~~		
MW-6R	859.61	8 39	~~7~~ 7.00	27.30		Cracked bentonite in well casing
MW-7	865.47	8 48	6 18	17 04		
MW-8	892.91	9 04	24 09	~~24.09~~ 44.75		Soft Bottom
MW-9	859.86	8 27	8.42	14 22		
MW-10	901.05	9 15	17.68	24 20		
MW-11	892.84	9 00	19.01	24 75		Soft Bottom
MW-12	891.30	9 10	23 50	38.01		
MW-13	864.72	8 45	7 33	15 45		Hard Bottom
MW-15	858.14	8 37	5 64	14 40		Hard Bottom
MW-17	862.75	9 50	5 71	27 25		

EARTHCON®

Groundwater Sampling Record

WELL No. DW-1	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 3/22/16
SAMPLE No. DW-1	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY S. Woolf	/EarthCon
SAMPLE TIME: 1600	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 65°F	

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): 2.00
Depth of Well (feet): 49.50 (measured 3/21/16)
Water Column (feet): 47.50
Casing Volume (gallons/liters): 7.74
Calculated Purge Volume (gallons/liters): 23.23
Actual Purge Volume (gallons/liters): 3.20
Pump Intake Depth (feet): ~47 feet

Measuring Point Elevation (feet): ____
Groundwater Surface Elevation: ____
LNAPL present: ____ thickness: ____
DNAPL present: ____ thickness: ____
Remarks: 5-ft screen
Sampled @ 1600
Ferrous Iron (mg/L): 2.169 mg/L (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
1445	0								PURGE START
1450	0.1	16.52	6.36	8.42	-83.1	271	4.18	3.29	clear
1560	0.8	16.60	6.35	8.58	-193.7	272	2.63	5.96	" "
1510	1.4	16.62	6.33	8.60	-291.5	278	1.88	8.00	" "
1515	1.6	16.54	6.32	8.60	-297.8	285	1.67	8.48	" "
1520	1.7	16.71	6.31	8.46	-309.7	294	2.36	8.82	" "
1525	1.9	16.74	6.32	8.40	-315.8	301	3.38	9.13	" "
1530	2.2	16.74	6.33	8.37	-318.1	311	1.85	9.41	" "
1535	2.4	16.85	6.33	8.23	-318.9	320	2.43	9.74	" "
1540	2.8	16.85	6.34	8.01	-319.8	327	2.37	10.18	" "
1550	3.0	16.96	6.34	7.90	-316.4	331	1.93	10.30	" "
1555	3.2	16.91	6.35	7.92	-311.0	333	1.71	10.53	" "
1600	Sampled								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Peristaltic Pump	GeoPump		
Water Quality	YSI 556 MPS	07A1477AF	3-22-2016
Turbidimeter	LaMotte	2020e; PN-26858	3-22-2016

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
DW-1	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	--	

DUP-1

EARTHCON®

Groundwater Sampling Record

WELL No. MW-1	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 3/23/16
SAMPLE No. MW-1	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY S. Wolf	/EarthCon
SAMPLE TIME: 0940	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, partly cloudy, 50°F	

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):	21.07	Measuring Point Elevation (feet):	
Depth of Well (feet):	31.80 (measured 3/21/16)	Groundwater Surface Elevation:	
Water Column (feet):	10.73	LNAPL present: —	thickness: —
Casing Volume (gallons/liters):	1.75	DNAPL present: —	thickness: —
Calculated Purge Volume (gallons/liters):	5.25	Remarks: 15 ft screen; DUP-1 @ 0945	
Actual Purge Volume (gallons/liters):	1.40	Sampled at 09:40	
Pump Intake Depth (feet):	~25 feet	Ferrous Iron (mg/L):	0.62 mg/L (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
0845	0							SNW	PURGE START
0850	0.1	16.96	6.07	6.91	-83.8	298	0.63	[illegible]	clear
0900	0.25	16.81	6.02	7.09	-170.1	291	0.74	22.30	" "
0910	0.5	17.80	6.03	6.61	-270.8	294	1.20	23.48	" "
0915	0.7	17.63	6.10	6.60	-297.3	294	0.75	23.55	" "
0920	0.9	17.69	6.15	6.36	-321.4	298	1.14	23.65	" "
0925	1.1	17.63	6.14	6.27	-335.0	299	0.06	23.67	" "
0930	1.2	17.61	6.17	6.23	-328.7	300	0.27	23.71	" "
0935	1.4	17.62	6.16	6.25	-328.3	301	0.48	23.73	" "
0940	sampled								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Peristaltic Pump	Geo Pump		3-22-16
Water Quality	YSI 556 MPS	07A1977AF	3-23-16
Turbidimeter	LaMotte	2020e; PN-26858	

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-1	VOCs	40 mL VOA	HCl	DUP-1 @ 0945 for VOCs only
	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-2	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 3/21/16
SAMPLE No. MW-2	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY S. Woolf	/EarthCon
SAMPLE TIME: 1705	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER sunny, 60°F	

Well Condition Inspection (circle one)

cover:	locked	(not locked)	cover broken
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):	23.20	Measuring Point Elevation (feet):	
Depth of Well (feet):	46.14 (measured 3/21/16)	Groundwater Surface Elevation:	
Water Column (feet):	22.94	LNAPL present: —	thickness: —
Casing Volume (gallons/liters):	3.74	DNAPL present: —	thickness: —
Calculated Purge Volume (gallons/liters):	11.22	Remarks: 15-ft screen	
Actual Purge Volume (gallons/liters):	2.50	Sampled at 17:05	
Pump Intake Depth (feet):	~38 feet	Ferrous Iron (mg/L):	0.00 mg/L (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
1610	0								PURGE START
1615	0.1	18.89	6.14	8.11	-68.7	63	54.8	23.34	cloudy
1620	0.25	19.12	6.13	6.84	-83.8	62	64.7	23.40	" "
1625	0.4	19.20	6.10	6.47	-99.3	63	45.5	23.42	" "
1630	0.8	19.23	6.04	6.11	-110.5	63	35.9	23.46	" "
1635	1.0	19.37	5.98	5.86	-137.2	64	24.5	23.57	" "
1640	1.3	19.26	5.97	5.89	-138.2	64	18.1	23.60	clear
1645	1.6	19.32	5.96	5.80	-138.1	64	9.9	23.62	" "
1650	2.0	19.30	5.94	5.85	-139.2	64	8.7	23.67	" "
1655	2.3	19.32	5.93	5.87	-138.7	64	9.1	23.67	" "
1700	2.5	19.31	5.92	5.81	-139.9	64	9.6	23.68	" "
1705	Sampled								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Peristaltic Pump	GeoPump		
Water Quality	YSI 556 MPS	07A1477AF	3-21-16
Turbidimeter	LaMotte	2020e; PN-26858	3-21-16

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-2	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-3	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 3/23/2016
SAMPLE No. MW-3	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry	/EarthCon
SAMPLE TIME: 10:50	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Partly Cloudy, 40's-50'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): 20.80
Depth of Well (feet): 48.70
Water Column (feet): 27.9
Casing Volume (gallons/liters): 18.2
Calculated Purge Volume (gallons/liters): 54.7 3x18.2
Actual Purge Volume (gallons/liters): 4.30
Pump Intake Depth (feet): ~ 35'

Measuring Point Elevation (feet):
Groundwater Surface Elevation:
LNAPL present: thickness:
DNAPL present: thickness:
Remarks:
Ferrous Iron (mg/L): 2.09 (diluted 1 time)

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
8:44	0								PURGE START
8:55	0.30	15.73	6.25	5.60	73.8	569	48.9	~~48.42~~ 21.09	cloudy
9:00	0.60	15.78	6.37	4.00	47.0	346	47.0	21.20	"
9:05	0.80	16.03	6.47	3.43	26.1	325	42.1	21.23	sl cloudy
9:10	1.00	16.27	6.54	3.39	14.6	323	39.9	21.26	"
9:15	1.10	16.38	6.58	3.06	2.0	325	37.5	21.30	"
9:20	1.30	16.13	6.60	2.75	-10.5	328	36.0	21.30	"
9:25	1.50	16.44	6.65	2.32	-24.9	327	34.3	21.33	"
9:30	1.70	16.76	6.69	1.94	-35.0	328	32.0	21.35	"
9:40	2.0	16.72	6.72	1.27	-53.1	332	29.0	21.41	"
9:45	2.20	17.10	6.75	1.01	-66.8	336	26.8	21.43	"
9:50	2.45	17.07	6.75	0.93	-76.1	337	23.6	21.46	"
10:00	2.90	17.28	6.81	0.74	-99.3	342	19.7	21.50	clear
10:05	3.05	17.23	6.82	0.62	-106.0	345	17.8	21.52	clear
10:10	3.25	17.12	6.82	0.50	-107.7	345	18.5	21.50	"
10:15	3.50	17.30	6.84	0.48	-110.1	349	16.7	21.50	"

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-parameter	YSI	556 MPS	3/23/2016
Turbidimeter	LaMotte	2020 We	3/23/2016
Peristaltic 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-3	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 3/23/2016
SAMPLE No. MW-3	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry	/EarthCon
SAMPLE TIME: 10:50	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Partly Cloudy - 40's - 50'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):	20.80	Measuring Point Elevation (feet):	
Depth of Well (feet):	48.70	Groundwater Surface Elevation:	
Water Column (feet):	27.9	LNAPL present:	thickness:
Casing Volume (gallons/liters):	18.2	DNAPL present:	thickness:
Calculated Purge Volume (gallons/liters):	54.7	Remarks:	
Actual Purge Volume (gallons/liters):	4.30		
Pump Intake Depth (feet):	~35'	Ferrous Iron (mg/L):	2.09 (diluted 1 time)

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
	0								PURGE START
10:20	3.65	17.55	6.86	0.49	-113.0	351	15.4	21.50	clear
10:30	3.90	17.69	6.86	0.48	-117.0	356	13.1	21.48	"
10:35	4.10	17.85	6.87	0.46	-117.1	355	10.73	21.49	"
10:40	4.30	17.88	6.87	0.49	-116.4	355	9.62	21.50	"
10:50		s a	m	p	l	e			

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-parameter	YSI	556 MPS	3/23/2016
Turbidimeter	LaMotte	2020 we	3/23/2016
Peristaltic 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 3/22/16
SAMPLE No. 16.50	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry	/EarthCon
SAMPLE TIME: 16.50	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 60'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):	2.15	Measuring Point Elevation (feet):	
Depth of Well (feet):	33.65	Groundwater Surface Elevation:	
Water Column (feet):	31.5	LNAPL present:	thickness:
Casing Volume (gallons/liters):	20.6	DNAPL present:	thickness:
Calculated Purge Volume (gallons/liters):	61.7	Remarks:	
Actual Purge Volume (gallons/liters):	3.5 (16:52)		
Pump Intake Depth (feet):	~24'	Ferrous Iron (mg/L):	0.09 (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
15:49	0								PURGE START
15:55	0.30	17.26	6.63	0.88	33.7	304	13.0	2.70	clear w/ black specs
16:00	0.75	17.32	6.60	0.83	42.0	304	12.4	2.89	"
16:05	1.0	17.38	6.58	0.88	47.0	303	11.3	2.93	"
16:00	1.25	17.39	6.59	0.87	50.9	303	10.13	2.92	"
1615	1.50	17.45	6.58	0.83	55.3	303	11.7	2.92	"
16:25	2.0	17.34	6.56	0.79	61.9	303	8.36	2.94	"
16:30	2.25	17.32	6.55	0.96	66.7	303	9.78	2.95	"
16:35	2.5	17.42	6.55	0.71	69.7	303	8.85	2.96	"
16:50		S G	M	P I	E				

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-parameter	YSI	556 MPS	3/22/16
Turbidimeter	LaMotte	2020 we	3/22/16
Peristaltic Pump	GeoTech	Geopump	

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	500 mL HDPE	--	
"	Sulfide	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 7/21/16
SAMPLE No. MW-5	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry	/EarthCon
SAMPLE TIME: 17:00	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 60'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):	6.40	Measuring Point Elevation (feet):	
Depth of Well (feet):	19.94	Groundwater Surface Elevation:	
Water Column (feet):	13.54	LNAPL present:	thickness:
Casing Volume (gallons/liters):	2.21	DNAPL present:	thickness:
Calculated Purge Volume (gallons/liters):	6.62	Remarks:	
Actual Purge Volume (gallons/liters):	3.0 (17:00)		
Pump Intake Depth (feet):	~14'	Ferrous Iron (mg/L):	0.00

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
16:10	0								PURGE START
16:15	0.40	16.47	4.97	10.96	200.8	65	7.70	6.84	clear
16:20	0.80	16.40	4.91	2.50	200.7	65	7.22	6.83	"
16:25	1.10	16.32	4.81	3.55	210.1	65	7.07	6.78	"
16:30	1.30	16.20	4.78	2.75	213.2	65	6.69	6.76	"
16:35	1.65	16.04	4.84	1.67	210.7	65	5.62	6.72	"
16:40	1.40	16.40	4.82	1.21	214.6	65	4.75	6.80	"
16:45	2.20	16.15	4.76	1.36	214.0	65	5.24	6.78	"
16:50	2.50	16.43	4.71	1.16	222.8	64	4.86	6.77	"
17:00		Sample							

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS	3/21/2016
Turbidimeter	LaMotte	2020 we	3/21/2016
Peristaltic 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 3/21/16
SAMPLE No. MW-6R	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry	/EarthCon
SAMPLE TIME: 13.50	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 50'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):	7.00	Measuring Point Elevation (feet):	
Depth of Well (feet):	27.30	Groundwater Surface Elevation:	
Water Column (feet):	20.3	LNAPL present:	thickness:
Casing Volume (gallons/liters):	3.30	DNAPL present:	thickness:
Calculated Purge Volume (gallons/liters):	9.90	Remarks:	
Actual Purge Volume (gallons/liters):	3.00 (14.20)		
Pump Intake Depth (feet):	~21'	Ferrous Iron (mg/L):	0.00

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
13.09	0								PURGE START
13.15	0.35	15.45	5.37	7.86	138.2	111	6.59	7.28	clear
13.20	0.70	15.75	5.31	7.77	146.3	108	5.92	7.26	"
13.25	1.00	15.32	5.31	8.03	152.0	107	5.44	7.26	"
13.30	1.25	15.36	5.32	7.96	156.8	106	3.58	7.27	"
13.35	1.55	15.42	5.34	7.88	159.7	106	3.93	7.27	"
13.40	1.85	15.57	5.41	7.77	162.9	105	2.53	7.28	"
13.50		s a	m	p	l	e			

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-parameter	YSI	556-MPS	3/21/2016
Turbidimeter	LaMotte	2020 we	3/21/2016
Geo Peristaltic	Geopump Tech	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 3/22/2016	
SAMPLE No. MW-7	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY S. Woolf	/EarthCon	
SAMPLE TIME: 1410	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 60°F		

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):	6.15	Measuring Point Elevation (feet):	
Depth of Well (feet):	17.04 (measured 3-21-16)	Groundwater Surface Elevation:	
Water Column (feet):	10.89	LNAPL present: —	thickness: —
Casing Volume (gallons/liters):	1.78	DNAPL present: —	thickness: —
Calculated Purge Volume (gallons/liters):	5.32	Remarks: 10-ft screen	
Actual Purge Volume (gallons/liters):	9.30	Sampled at 1410	
Pump Intake Depth (feet):	~12 feet	Ferrous Iron (mg/L):	2.98 mg/L (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
1240	0								PURGE START
1245	0.1	15.37	5.67	15.05	-168.9	105	154	6.32	red/orange
1250	0.3	14.81	5.23	12.74	-203.0	107	147	6.34	cloudy
1300	0.8	14.57	5.30	14.18	-250.4	122	72.2	6.35	" "
1310	1.3	14.17	5.44	13.84	-286.3	136	46.0	6.35	" "
1315	1.6	14.13	5.49	12.91	-288.5	145	34.1	6.35	" "
1320	1.8	14.03	5.54	12.27	-289.1	151	28.1	6.35	clear
1330	2.4	13.92	5.60	11.29	-288.2	168	17.6	6.36	" "
1340	3.0	14.08	5.64	10.00	-290.6	176	13.2	6.36	" "
1350	3.5	14.01	5.67	9.40	-303.2	186	9.95	6.37	" "
1355	3.7	13.97	5.67	9.18	-303.7	188	7.97	6.37	" "
1400	4.0	13.93	5.61	9.02	-307.4	187	7.84	6.37	" "
1405	4.3	13.95	5.59	9.08	-310.1	188	7.48	6.37	" "
1410	Sampled								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Peristaltic Pump	Geo Pump		
Water Quality	YSI 556 MPS	07A1477AF	3-22-16
Turbidimeter	LaMotte	2020e; PN-26858	3-22-16

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	500 mL HDPE	Zn + NaOH	turned green/brown
	Alkalinity	250 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 3/22/16
SAMPLE No. MW-8	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry	/EarthCon
SAMPLE TIME: 12:20	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 50'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	Measuring Point Elevation (feet):	
Depth of Well (feet):	44.75	Groundwater Surface Elevation:	
Water Column (feet):	20.66	LNAPL present:	thickness:
Casing Volume (gallons/liters):	3.37	DNAPL present:	thickness:
Calculated Purge Volume (gallons/liters):	10.10	Remarks:	
Actual Purge Volume (gallons/liters):	~35' 2.10 (12:25)		
Pump Intake Depth (feet):		Ferrous Iron (mg/L):	0.65 (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
11:33	0								PURGE START
11:35	0.15	16.76	5.51	1.67	7.8	60	378	24.25	clear
11:40	0.40	16.97	5.51	0.94	20.3	59	372	24.26	"
11:45	0.60	17.10	5.49	1.17	37.4	56	1.92	24.23	"
11:50	0.80	17.21	5.53	7.61	44.7	55	1.40	24.26	"
11:55	1.05	17.20	5.45	7.75	63.0	54	2.32	24.29	"
12:00	1.30	17.43	5.54	7.29	65.2	54	2.46	24.29	"
12:05	1.50	17.35	5.47	7.11	78.7	54	2.34	24.29	"
12:10	1.75	17.30	5.49	7.03	84.3	55	1.41	24.30	"
12:20		s a	m	p	l	e			

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556 MPS	3/22/2016
Turbidimeter	LaMotte	2020 we	3/22/2016
Peristaltic 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 3/21/16	
SAMPLE No. MW-9	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry	/EarthCon	
SAMPLE TIME: 15:20	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Mostly Sunny, 50'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):	8.43	Measuring Point Elevation (feet):	
Depth of Well (feet):	19.22	Groundwater Surface Elevation:	
Water Column (feet):	10.79	LNAPL present:	thickness:
Casing Volume (gallons/liters):	1.76	DNAPL present:	thickness:
Calculated Purge Volume (gallons/liters):	5.28	Remarks:	
Actual Purge Volume (gallons/liters):	2.45 (15:25)		
Pump Intake Depth (feet):	~12'	Ferrous Iron (mg/L):	0.21 (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
14:45	0								PURGE START
14:50	0.30	17.38	4.94	8.70	162.1	86	3.81	8.68	clear
14:55	0.75	17.06	4.91	8.81	165.2	86	2.66	8.70	"
15:00	1.0	17.46	4.91	8.33	170.0	84	1.72	8.71	"
15:05	1.30	17.31	4.87	8.32	176.0	83	0.97	8.71	"
15:10	1.55	17.73	4.91	7.90	176.0	82	1.63	8.71	"
15:20		Sample							

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556-MPS	3/21/2016
Turbidimeter	LaMotte	2020 we	3/21/2016
Peristaltic 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-10	PROJECT # 02.20140391.16	LOCATION 1850 S Cobb Industrial Blvd SE, Smyrna, GA 30082	DATE 3/22/16
SAMPLE No. MW-10	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry	/EarthCon
SAMPLE TIME: 10:15	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 30'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):	17.63	Measuring Point Elevation (feet):	
Depth of Well (feet):	29.20	Groundwater Surface Elevation:	
Water Column (feet):	11.57	LNAPL present:	thickness:
Casing Volume (gallons/liters):	1.89	DNAPL present:	thickness:
Calculated Purge Volume (gallons/liters):	5.66	Remarks:	
Actual Purge Volume (gallons/liters):	3.25 (10:15)		
Pump Intake Depth (feet):	~24'	Ferrous Iron (mg/L):	0.62 (diluted 1 time)

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
8:54	0								PURGE START
9:00	0.35	15.81	5.86	3.85	15.2	203	12.4	18.11	clear
9:05	0.65	15.90	5.96	4.34	-1.8	201	17.0	18.13	"
9:10	0.90	16.57	6.09	0.77	-18.2	200	5.12	18.25	"
9:15	1.20	15.87	6.16	1.23	-27.6	198	6.81	18.15	"
9:20	1.45	16.08	6.23	0.84	-34.2	195	3.84	18.12	"
9:25	1.60	15.99	6.26	0.76	-37.9	188	2.43	18.12	"
9:30	1.85	16.78	6.30	0.56	-42.2	186	1.59	18.16	"
9:35	2.05	16.75	6.35	0.56	-48.1	189	1.36	18.14	"
9:40	2.35	16.95	6.38	0.57	-52.1	187	1.42	18.12	"
9:45	2.60	16.03	6.38	0.57	-52.5	188	1.71	18.11	"
9:50	2.85	16.84	6.45	0.61	-58.2	184	1.02	18.13	"
10:05	s a	m	p	l	e				

Measurement and Sampling Equipment

Type	Manufacturer		Model #	Calibration Date
Multi-Parameter	YSI	556	MPS	3/22/2016
Turbidimeter	LaMotte	2020	we	3/22/2016
Peristaltic Pump	GeoTech	GeoPump		—

SAMPLE NUMBER	ANALYTICAL METHOD	BOTTLE TYPE/	PRESERVATIVES	QA REMARKS
MW-10	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 3/22/16
SAMPLE No. MW-11	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY S. Woolf	/EarthCon
SAMPLE TIME: 0905	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 35°F	

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): 18.97
Depth of Well (feet): 29.75 (measured 3/21/16)
Water Column (feet): 10.78
Casing Volume (gallons/liters): 1.76
Calculated Purge Volume (gallons/liters): 5.27
Actual Purge Volume (gallons/liters): 3.10
Pump Intake Depth (feet): ~25 feet

Measuring Point Elevation (feet): —
Groundwater Surface Elevation: —
LNAPL present: — thickness: —
DNAPL present: — thickness: —
Remarks: 10-ft screen sampled at 09:05
Ferrous Iron (mg/L): 0.57 mg/L (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
0810	0								PURGE START
0815	0.1	16.86	5.36	5.11	20.2	234	0.88	19.48	clear
0820	0.6	17.69	6.20	4.88	-112.1	204	1.02	19.54	" "
0825	1.0	17.86	6.18	4.77	-162.8	211	0.91	19.65	" "
0830	1.25	17.85	6.16	4.66	-193.8	210	0.69	19.72	" "
0835	1.5	18.12	6.16	4.49	-210.9	207	0.86	19.75	" "
0840	1.7	18.06	6.16	4.47	-230.7	208	1.00	19.75	" "
0845	2.1	17.98	6.17	4.41	-253.8	199	0.83	19.76	" "
0850	~~2.3~~ 2.3	18.01	6.15	4.31	-267.3	203	0.96	19.75	" "
0855	2.5	17.81	6.17	4.29	-273.8	201	1.07	19.75	" "
0900	3.1	17.92	6.17	4.28	-281.0	199	0.79	19.72	" "
0905	Sampled								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Peristaltic Pump	GeoPump		
Water Quality	YSI 556 MPS	07A1477AF	3-22-2016
Turbidimeter	LaMotte	2020e; PN-26858	3-22-2016

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	turned green/brown
	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 3/22/16
SAMPLE No. MW-12	PROJECT NAME Apollo Smyma	FIELD PERSONNEL/COMPANY S. Woolf	/EarthCon
SAMPLE TIME: 1100	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER sunny, 40°F	

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):	23.50	Measuring Point Elevation (feet):	
Depth of Well (feet):	38.01 (measured 3/21/16)	Groundwater Surface Elevation:	
Water Column (feet):	14.51	LNAPL present: —	thickness: —
Casing Volume (gallons/liters):	2.37	DNAPL present: —	thickness: —
Calculated Purge Volume (gallons/liters):	7.10	Remarks: 15-ft screen	
Actual Purge Volume (gallons/liters):	2.00	sampled at 11:00	
Pump Intake Depth (feet):	~31 feet	Ferrous Iron (mg/L):	0.00 mg/L (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
1005	0								PURGE START
1010	0.1	13.95	5.25	10.58	-29.3	48	2.39	23.68	clear
1015	0.4	14.18	5.29	10.52	-40.9	45	3.34	23.80	" "
1020	0.8	14.41	5.24	7.52	-68.7	48	0.81	23.92	" "
1025	1.0	14.45	5.18	7.19	-70.9	50	0.80	23.95	" "
1030	1.2	14.59	5.15	7.11	-80.9	49	2.41	23.97	" "
1035	1.4	14.65	5.14	7.18	-100.5	46	1.23	24.03	" "
1040	1.6	14.85	5.11	7.24	-131.1	42	1.36	24.03	" "
1045	1.8	14.89	5.01	7.29	-126.9	51	1.19	24.07	" "
1050	2.0	15.03	5.02	7.33	-138.3	52	1.31	24.08	" "
1055	2.2	15.02	5.01	7.28	-142.7	51	0.77	24.10	" "
1100	sampled								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Peristaltic Pump	GeoPump		
Water Quality	YSI 556 MPS	07A1477AF	3-22-2016
Turbidimeter	LaMotte	2020e; PN-26858	3-22-2016

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 3/21/16
SAMPLE No. MW-13	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY S. Woolf	/EarthCon
SAMPLE TIME: 1530	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER sunny, 60-65°F	

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):	7.32	Measuring Point Elevation (feet):	
Depth of Well (feet):	15.45 (measured 3/21/16)	Groundwater Surface Elevation:	
Water Column (feet):	8.13	LNAPL present: —	thickness: —
Casing Volume (gallons/liters):	1.33	DNAPL present: —	thickness: —
Calculated Purge Volume (gallons/liters):	3.98	Remarks: 10-ft screen, slight odor	
Actual Purge Volume (gallons/liters):	2.80	Sampled at 1530	
Pump Intake Depth (feet):	~10 feet	Ferrous Iron (mg/L):	0.82 mg/L (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
1445	0								PURGE START
1450	0.25	13.43	5.37	1.34	-2.8	203	136	7.57	red/orange
1455	0.6	13.61	5.25	1.16	-31.7	203	89.0	7.96	cloudy
1500	0.8	13.66	5.36	1.22	-59.2	206	66.7	8.04	" "
1505	1.5	13.72	5.42	1.16	-120.8	206	36.7	8.20	" "
1510	1.8	13.81	5.45	1.14	-160.3	207	21.4	8.23	" "
1515	2.0	13.82	5.46	1.15	-163.9	207	9.90	8.26	clear
1520	2.3	13.83	5.46	1.15	-165.3	207	6.23	8.29	" "
1525	2.8	13.85	5.47	1.15	-168.9	208	1.90	8.31	" "
1530	Sampled								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Peristaltic Pump	GeoPump		
Water Quality	YSI 556 MPS	07A1477AF	3-21-16
Turbidimeter	LaMotte	2020e; PN-21858	3-21-16

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	500 mL HDPE	Zn + NaOH	
	Alkalinity	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 3/21/16
SAMPLE No. MW-15	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY S. Woolf	/EarthCon
SAMPLE TIME: 1405	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 60°F	

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):	5.62	Measuring Point Elevation (feet):	
Depth of Well (feet):	19.40 (measured 3/21/16)	Groundwater Surface Elevation:	
Water Column (feet):	8.78	LNAPL present: —	thickness: —
Casing Volume (gallons/liters):	1.43	DNAPL present: —	thickness: —
Calculated Purge Volume (gallons/liters):	4.29	Remarks: 10-ft screen	
Actual Purge Volume (gallons/liters):	2.00	Sampled at 14:05	
Pump Intake Depth (feet):	~16 feet	Ferrous Iron (mg/L):	1.19 mg/L (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
1320	0								PURGE START
1325	0.1	15.56	5.63	3.93	-17.3	562	2.04	5.73	clear
1330	0.25	15.60	5.76	8.49	-69.9	558	1.56	5.82	" "
1335	0.75	15.57	5.78	13.05	-98.5	559	1.57	5.90	" "
1340	1.0	15.57	5.84	13.02	-131.2	559	0.89	5.93	" "
1345	1.25	15.63	5.86	12.88	-172.4	560	0.15	5.97	" "
1350	1.5	15.59	5.87	12.60	-189.3	562	0.23	6.00	" "
1355	1.75	15.58	5.87	12.51	-210.9	562	0.18	6.01	" "
1400	2.0	15.57	5.86	12.55	-212.0	563	0.17	6.04	" "
1405	Sampled								

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Peristaltic Pump	Geo Pump		
Water Quality	YSI 556MPS	07A1477AF	3/21/16
Turbidimeter	LaMotte	SNW ~~220~~ 2020e; PN-26858	3/21/16

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	turned green
	Alkalinity	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 3/22/16	
SAMPLE No. MW-17	PROJECT NAME Apollo Smyrna	FIELD PERSONNEL/COMPANY Keaton Henry	/EarthCon	
SAMPLE TIME: 14:30	SITE Smyrna, GA	FIELD CONDITIONS/WEATHER Sunny, 60'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):	5.72	Measuring Point Elevation (feet):	
Depth of Well (feet):	23.25	Groundwater Surface Elevation:	
Water Column (feet):	17.53	LNAPL present:	thickness:
Casing Volume (gallons/liters):	2.86	DNAPL present:	thickness:
Calculated Purge Volume (gallons/liters):	8.57	Remarks:	
Actual Purge Volume (gallons/liters):			
Pump Intake Depth (feet):	~18'	Ferrous Iron (mg/L):	1.19 (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
13:47	0								PURGE START
13:50	0.10	15.99	6.50	10.02	41.9	531	2.13	6.34	clear
13:55	0.45	16.08	6.58	9.18	20.5	531	1.70	7.35	"
14:00	0.80	15.93	6.64	8.45	6.5	527	1.70	7.79	"
14:05	1.20	16.05	6.70	7.81	-2.4	525	1.85	7.68	"
14:10	1.55	16.07	6.73	7.47	-7.5	526	1.38	7.65	"
14:15	1.75	16.11	6.75	7.26	-10.4	526	1.12	7.62	"
14:20	2.0	16.20	6.76	7.04	-12.9	526	0.95	7.62	
14:30		s a	m	p	l	e			

Measurement and Sampling Equipment

Type	Manufacturer	Model #	Calibration Date
Multi-Parameter	YSI	556-MPS	3/22/2016
Turbidimeter	LaMotte	2020 we	3/22/2016
Peristaltic Pump	GeoTech	Geopump	

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	500 mL HDPE	--	
"	Sulfide	500 mL HDPE	Zn + NaOH	
"	Alkalinity	250 mL HDPE	--	

Apollo Smyrna 3/21/2016

Samantha Wadd

Kendra Henry

Weather: Mostly Sunny, 30's-80's

- Arrived on-site at 6:55
- S Wadd arrived at 7:10
- Signal in at 7:30 (Bldg #4)
- Held H&S tailgate Meeting at 7:35
- Began collecting WL from 8-10
- Calibration - S/N 08G100018

YSI 556 MPS

DO - 753.1 mgHg = 99% = 10.97 mg/L ✓

temp = 11.17°C

Cond - 4490 → 4.49 ✓

pH 4.0 → 4.0 ✓

7.0 → 7.0 ✓

ORP - 228 → 228

Rite in the Rain

Apollo Smyrna 3/21/16

Turbidimeter: LaMotte 2020 we SN 1510-MW

10 NTU → 9.63 ✓

1.0 NTU - 1.01 ✓

- contact AIR about calibration issues. Issues were resolved

- Left site for lunch at 11:25

- Arrived back on-site at 12:35

- Arrival at MW-6R at 12:40
  - Began purging at 13:09
  - Sampled at 13:50
  - left well at 14:25

- Arrived at MW-9 at 14:35
  - Began purging at 14:45
  - Sampled at 15:20
  - left well at 15:55

Apollo Smyrna 3/21/16

- Arrived at MW-5 at ~~14:05~~ exit 16:00
- Began purging at 16:10
- Sampled at 17:00
- left well at 17:30

- Packed up samples at left site at 18:05

Rite in the Rain

Apollo Smyrna 3/22/16
Keaton Henry
Samantha Woolf

- Arrived onsite at 7:10
  - signed in at main office (Bldg 4)

- Calibration
  YSI 556 MPS - SN 08610018 mg/L
  DO: Temp 5.8°C, DO% = 99.4% ✓ 12.69 ✓
  * Note - barometric pressure is different from Samantha. 750.6 (Keaton) vs. 757 (Samantha)
  - changed from 750.6 to 757
  Cond. 4.49 mS/cm = 4.49 ✓
  pH - 4.0 = 4.0 ✓
  7.0 = 7.0 ✓
  ORP 228 mV = 228 mV ✓

LaMotte 2020 we - S/N 1510-4111
  10 NTU = 9.67 ✓
  1 NTU = 1.01 ✓

Apollo Smyrna 3/22/2016

- Arrived at MW-10 at 8:00
  - Issues w/ tubing.
    - Wrapped around WL meter tape/ pulled tubing out.
    - Suction didn't occur. Attempted multiple ways to correct issue.
      - Replaced medical tubing.
    - w/ assistance of S. Woolf, got suction
  - Began purging at 8:54
  - Sampled at 10:15
    - pump loss suction while collecting VOCs / GC Analysis using soda straw method. Had to lower tubing to get suction
  - left well at 11:00
  * Note - diluted Ferrous Iron once
- Arrived at MW-8 at 11:05
  - began purging at 11:33
  - Sampled at 12:20
  - left well at 13:00

- Field site for lunch at 13:05

Rite in the Rain

Apollo Smyrna 3/22/16

- Arrived back on-site at 13:30

- Arrived at MW-17 at 13:40
  - began purging at 13:48
  - Sampled at 14:30
  - left well at 15:10

- Arrived at MW-4 at 15:15
  - had issues placing tubing inside casing. Used new tubing from different spool and w/ assistance from S. Woolf, was able to place tube in well.
  - Began purging at 16:49
    - purge water has black specs in it.
  - Sampled at 16:50
  - left site and well at 17:30

Apollo Smyrna 3/23/16

Keaton Henry
Samantha Woolf
Weather - partly cloudy, 40's - 50's

- Arrival on-site at 7:30
  - signed in at Bldg 4

- Calibration
  YSI 556 - MPS - S/N 06100018
  - DO - baro pressure = 752.1, temp ~ 61.3°F
    DO% = 98.8 ✓ mg/L = 10.74 ✓
  - cond. - 449 = 449 ✓
  - pH - 4.0 = 4.0 ✓
    7.0 = 7.0 ✓
  - ORP - 228.0 = 228 ✓
  LaMotte 2020 we turbidimeter S/N 1510-4115
  10 NTU - 9.66 ✓
  1 NTU - 0.80 ✓

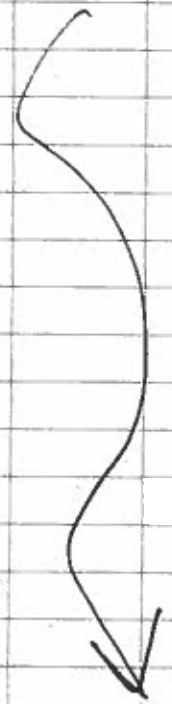
- Arrived at MW-3, at 8:10
  - unload materials / equipment
  - began purging at 8:49

Rite in the Rain

Apollo Smyrna 3/23/16

- Note: inside well casing is a reddish-brown residue.
- sampled at 10:50
- left well at 11:10

- Left site at 11:30



3/21/2016

0630 Departed home

0715 Arrived on-site and met Keaton Henry

0730 Checked in at front office and had health and safety tailgate meeting

0800 Began unlocking flush-mount wells and began water level measurements

1000 Finished water level measurements and began calibration of equipment

YSI 556 MPS - 07A1477AF

	Begin	Cal To	End
DO @ 757.0 mmHg	11.00 °C	⟶	99.6 %
pH 7	7.02	7.00	7.00
pH 4	3.75	4.00	4.00
Cond (mS/cm)	4.58	4.49	4.49
ORP (mV)	240.2	228.0	228.0

3/21/2016 PN-26858

Lamotte 2020e Turbidimeter

	Begin	Cal To	End
10 NTU	7.30	10.00	~~7.30~~ SNW 9.47
~~1 NTU~~ SNW			
1 NTU	—	1.00	—

* Calibration at 1 NTU was not performed due to calibration solution

1130 Depart site for lunch

1230 Set up on MW-15

1245 Batteries on YSI went dead. Recalibrated ~~YSI~~

DO @ 755.0mm Hg @ 17°C → 99.3%

	Begin	Cal To	End
pH 4	4.26	4.00	4.00
pH 7	7.00	7.00	7.00
Cond (mS/cm)	4.37	4.49	4.49
ORP (mV)	220.8	228.0	228.2

1320 Started purging MW-15

1405 Sampled MW-15 for VOCs, GC Analysis, TOC, Ion Scan, Sulfide, and Alkalinity

1430 Set up on MW-13

1445 Started purging MW-13

1530 Sampled MW-13 for VOCs, GC Analysis, TOC, Ion Scan, Sulfide, and Alkalinity

1605 Set up on MW-2

1705 Sampled MW-2 for VOCs, GC Analysis, TOC, Ion Scan, Sulfide, and Alkalinity

1800 Departed site

1840 Dropped off sample cooler at Earthcon office

Rite in the Rain

3/22/2016

0630 Left home

0700 Arrived on site and met Keaton Henry

0715 Began calibrating equipment

YSI 556 MPS - Ø7A1477AF

DO @ 757.0 mmHg @ 6°C → 99.6°C

	Begin	Cal To	End
Cond	4.54	4.49	4.49
pH4	3.72	4.00	4.01
pH7	7.21	7.00	7.00
ORP	250.4	228.0	227.9

LaMotte 2020e; PN-28858

	Begin	Cal To	End
10 NTU	8.35	10.00	10.03

0800 Set up on MW-11

0810 Started purging MW-11

(1)

3/22/2016

0905 Sampled MW-11 for VOCs, GC Analysis, TOC, Ion Scan, Sulfide, and Alkalinity

0940 Set up on MW-12

1005 Started purging MW-12

1100 Sampled MW-12 for VOCs, GC Analysis, TOC, Ion Scan, Sulfide, and Alkalinity

1130 Off site for lunch

1230 Back on-site and set up on MW-7

1240 Started purging MW-7

1410 Sampled MW-7 for VOCs, GC Analysis, TOC, Ion Scan, Sulfide, and Alkalinity.

1435 Set up on DW-1

1445 Started purging DW-1

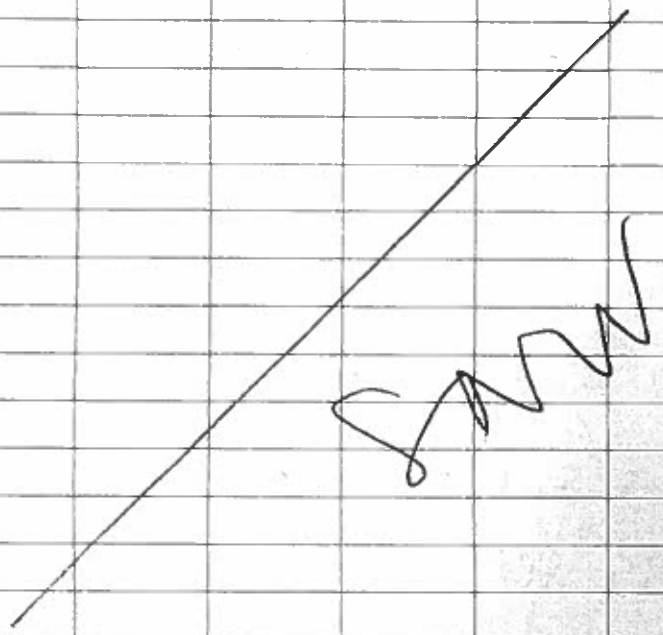
Rite in the (2).

3/22/2016

1600 Sampled DW-1 for VOCs, GC Analysis, TOC, Ion Scan, Sulfide, and Alkalinity

1730 Left site

1815 Dropped sample cooler off at Earthcon office



③

3/23/2016

0700 Left home

0730 Arrived on site and met Keaton Henry. Signed in at lobby

0745 Began calibration

LaMotte 2020e; PN-26858

	Begin	Cal To	End
10 NTU	9.41	10.00	9.96

YSI 556 MPS - 07A1477AF

DO @ 755.4 mmHg @ 11.5°C →

	Begin	Cal To	End
Cond	4.38	4.49	4.49
pH4	4.06	4.00	4.01
pH7	6.82	7.00	7.00
ORP	216.6	228.0	227.9

0815 Set up on MW-1 and helped K. Henry set up on MW-3

Rite in the Rain ①

3/23/2016

0845 Started purging MW-1

0940 Sampled MW-1 for VOCs, GC Analysis, TVC, Ion Scan, Sulfide, and Alkalinity

** collected DUP-1 from MW-1 at 0945 for VOCs only

SMW
~~JS~~ 1130 Off-site

1340 Dropped sample cooler off at Eakhlon office

SMW

APPENDIX C

LABORATORY ANALYTICAL REPORTS

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

March 31, 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: 1603L51

Analytical Environmental Services, Inc. received 6 samples on March 22, 2016 3:16 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 07/01/15-06/30/16.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
-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, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Chantelle Kanhai
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: 1603L57

Date: 3/21/2016 Page 1 of 1

COMPANY: Earth Con Consultants, Inc

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

PHONE: 770-973-2100

FAX: 770-973-7395

SAMPLED BY: Keaton Henry / Samantha Woolf

SIGNATURE: [signature]

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

ANALYSIS REQUESTED / PRESERVATION (See codes)

#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	VOCs	GC Analysis	TOC	Ion Scan	Sulfide (Zn+NaOH)	Alkalinity	REMARKS	No # of Containers
1	MW-9	3/21/2016	15:20	✓		GW	2	2	1	1	1	1		8
2	MW-5	3/21/2016	17:00	✓		GW	2	2	1	1	1	1		8
3	MW-15	3/21/2016	14:05	✓		GW	2	2	1	1	1	1		8
4	MW-13	3/21/2016	15:30	✓		GW	2	2	1	1	1	1		8
5	MW-2	3/21/2016	17:05	✓		GW	2	2	1	1	1	1		8
6	Trip Blank	3/21/2016	—				2							2
7														
8														
9														
10														
11														
12														
13														
14														

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	3/21/2016 1840	1: [signature] March-22-16	10:05
2: [signature] March-22-16	3:16	2: [signature]	3/22/16 3:16 PM
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Apollo Smyrna

PROJECT #: 02.20140391.16

SITE ADDRESS:

SEND REPORT TO: Samantha Woolf / Kristen Rivera

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 42

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

SPECIAL INSTRUCTIONS/COMMENTS:

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

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:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-9
Project Name:	Apollo Smyrna	**Collection Date:**	3/21/2016 3:20:00 PM
Lab ID:	1603L51-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.733	J	0.337	1.00	mg/L	R313342	1	03/25/2016 23:20	YS
TCL VOLATILE ORGANICS SW8260B						**(SW5030B)**			
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221515	1	03/23/2016 13:19	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221515	1	03/23/2016 13:19	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221515	1	03/23/2016 13:19	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221515	1	03/23/2016 13:19	NP
Acetone	BRL		0.0053	0.050	mg/L	221515	1	03/23/2016 13:19	NP
Chloroethane	BRL		0.00039	0.010	mg/L	221515	1	03/23/2016 13:19	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221515	1	03/23/2016 13:19	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	221515	1	03/23/2016 13:19	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	221515	1	03/23/2016 13:19	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221515	1	03/23/2016 13:19	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221515	1	03/23/2016 13:19	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	221515	1	03/23/2016 13:19	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	221515	1	03/23/2016 13:19	NP
Surr: 4-Bromofluorobenzene	78.4		0	70.7-125	%REC	221515	1	03/23/2016 13:19	NP
Surr: Dibromofluoromethane	94.4		0	82.2-120	%REC	221515	1	03/23/2016 13:19	NP
Surr: Toluene-d8	87.2		0	81.8-120	%REC	221515	1	03/23/2016 13:19	NP
Sulfide by SW9030B/9034						**(SW9030B)**			
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	9.4		0.11	1.0	mg/L	R313300	1	03/22/2016 21:33	JW
Nitrate	0.065	J	0.024	0.25	mg/L	R313300	1	03/22/2016 21:33	JW
Sulfate	1.7		0.10	1.0	mg/L	R313300	1	03/22/2016 21:33	JW
GC Analysis of Gaseous Samples SOP-RSK 175						**(RSK175)**			
Ethane	BRL		0.0019	0.0090	mg/L	221509	1	03/23/2016 13:31	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221509	1	03/23/2016 13:31	MD
Methane	0.27		0.0024	0.0080	mg/L	221509	2	03/23/2016 14:00	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	19.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-5
Project Name:	Apollo Smyrna	**Collection Date:**	3/21/2016 5:00:00 PM
Lab ID:	1603L51-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.804	J	0.337	1.00	mg/L	R313342	1	03/25/2016 23:46	YS
TCL VOLATILE ORGANICS SW8260B						**(SW5030B)**			
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221515	1	03/23/2016 14:13	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221515	1	03/23/2016 14:13	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221515	1	03/23/2016 14:13	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221515	1	03/23/2016 14:13	NP
Acetone	BRL		0.0053	0.050	mg/L	221515	1	03/23/2016 14:13	NP
Chloroethane	BRL		0.00039	0.010	mg/L	221515	1	03/23/2016 14:13	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221515	1	03/23/2016 14:13	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	221515	1	03/23/2016 14:13	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	221515	1	03/23/2016 14:13	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221515	1	03/23/2016 14:13	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221515	1	03/23/2016 14:13	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	221515	1	03/23/2016 14:13	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	221515	1	03/23/2016 14:13	NP
Surr: 4-Bromofluorobenzene	74		0	70.7-125	%REC	221515	1	03/23/2016 14:13	NP
Surr: Dibromofluoromethane	98.9		0	82.2-120	%REC	221515	1	03/23/2016 14:13	NP
Surr: Toluene-d8	87.1		0	81.8-120	%REC	221515	1	03/23/2016 14:13	NP
Sulfide by SW9030B/9034						**(SW9030B)**			
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	4.6		0.11	1.0	mg/L	R313300	1	03/22/2016 21:48	JW
Nitrate	0.56		0.024	0.25	mg/L	R313300	1	03/22/2016 21:48	JW
Sulfate	1.0		0.10	1.0	mg/L	R313300	1	03/22/2016 21:48	JW
GC Analysis of Gaseous Samples SOP-RSK 175						**(RSK175)**			
Ethane	BRL		0.0019	0.0090	mg/L	221509	1	03/23/2016 13:36	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221509	1	03/23/2016 13:36	MD
Methane	BRL		0.0012	0.0040	mg/L	221509	1	03/23/2016 13:36	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	21.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-15
Project Name:	Apollo Smyrna	**Collection Date:**	3/21/2016 2:05:00 PM
Lab ID:	1603L51-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	5.56		0.337	1.00	mg/L	R313342	1	03/26/2016 00:12	YS
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221515	1	03/23/2016 14:40	NP
1,1-Dichloroethane	0.002	J	0.00025	0.005	mg/L	221515	1	03/23/2016 14:40	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221515	1	03/23/2016 14:40	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221515	1	03/23/2016 14:40	NP
Acetone	BRL		0.0053	0.050	mg/L	221515	1	03/23/2016 14:40	NP
Chloroethane	0.070		0.00039	0.010	mg/L	221515	1	03/23/2016 14:40	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221515	1	03/23/2016 14:40	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	221515	1	03/23/2016 14:40	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	221515	1	03/23/2016 14:40	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221515	1	03/23/2016 14:40	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221515	1	03/23/2016 14:40	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	221515	1	03/23/2016 14:40	NP
Vinyl chloride	0.001	J	0.00042	0.002	mg/L	221515	1	03/23/2016 14:40	NP
Surr: 4-Bromofluorobenzene	74.2		0	70.7-125	%REC	221515	1	03/23/2016 14:40	NP
Surr: Dibromofluoromethane	96.4		0	82.2-120	%REC	221515	1	03/23/2016 14:40	NP
Surr: Toluene-d8	84.7		0	81.8-120	%REC	221515	1	03/23/2016 14:40	NP
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	BRL		0.764	2.00	mg/L	221790	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	36		0.56	5.0	mg/L	R313300	5	03/23/2016 09:49	JW
Nitrate	0.031	J	0.024	0.25	mg/L	R313300	1	03/22/2016 22:03	JW
Sulfate	BRL		0.10	1.0	mg/L	R313300	1	03/22/2016 22:03	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.062		0.0019	0.0090	mg/L	221509	1	03/23/2016 13:41	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221509	1	03/23/2016 13:41	MD
Methane	12		0.12	0.40	mg/L	221509	100	03/23/2016 14:05	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	124		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-13
Project Name:	Apollo Smyrna	**Collection Date:**	3/21/2016 3:30:00 PM
Lab ID:	1603L51-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	2.96		0.337	1.00	mg/L	R313342	1	03/26/2016 00:37	YS
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221515	1	03/23/2016 15:07	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221515	1	03/23/2016 15:07	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221515	1	03/23/2016 15:07	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221515	1	03/23/2016 15:07	NP
Acetone	BRL		0.0053	0.050	mg/L	221515	1	03/23/2016 15:07	NP
Chloroethane	BRL		0.00039	0.010	mg/L	221515	1	03/23/2016 15:07	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221515	1	03/23/2016 15:07	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	221515	1	03/23/2016 15:07	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	221515	1	03/23/2016 15:07	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221515	1	03/23/2016 15:07	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221515	1	03/23/2016 15:07	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	221515	1	03/23/2016 15:07	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	221515	1	03/23/2016 15:07	NP
Surr: 4-Bromofluorobenzene	73.6		0	70.7-125	%REC	221515	1	03/23/2016 15:07	NP
Surr: Dibromofluoromethane	95.4		0	82.2-120	%REC	221515	1	03/23/2016 15:07	NP
Surr: Toluene-d8	86.8		0	81.8-120	%REC	221515	1	03/23/2016 15:07	NP
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	BRL		0.764	2.00	mg/L	221790	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	9.5		0.11	1.0	mg/L	R313300	1	03/22/2016 22:18	JW
Nitrate	0.024	J	0.024	0.25	mg/L	R313300	1	03/22/2016 22:18	JW
Sulfate	1.1		0.10	1.0	mg/L	R313300	1	03/22/2016 22:18	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.18		0.0019	0.0090	mg/L	221509	1	03/23/2016 13:46	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221509	1	03/23/2016 13:46	MD
Methane	5.0		0.12	0.40	mg/L	221509	100	03/23/2016 14:09	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	66.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-2
Project Name:	Apollo Smyrna	**Collection Date:**	3/21/2016 5:05:00 PM
Lab ID:	1603L51-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.45		0.337	1.00	mg/L	R313342	1	03/26/2016 01:01	YS
TCL VOLATILE ORGANICS SW8260B						**(SW5030B)**			
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221515	1	03/23/2016 15:34	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221515	1	03/23/2016 15:34	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221515	1	03/23/2016 15:34	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221515	1	03/23/2016 15:34	NP
Acetone	BRL		0.0053	0.050	mg/L	221515	1	03/23/2016 15:34	NP
Chloroethane	BRL		0.00039	0.010	mg/L	221515	1	03/23/2016 15:34	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221515	1	03/23/2016 15:34	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	221515	1	03/23/2016 15:34	NP
Methylene chloride	BRL		0.00031	0.005	mg/L	221515	1	03/23/2016 15:34	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221515	1	03/23/2016 15:34	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221515	1	03/23/2016 15:34	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	221515	1	03/23/2016 15:34	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	221515	1	03/23/2016 15:34	NP
Surr: 4-Bromofluorobenzene	71.9		0	70.7-125	%REC	221515	1	03/23/2016 15:34	NP
Surr: Dibromofluoromethane	101		0	82.2-120	%REC	221515	1	03/23/2016 15:34	NP
Surr: Toluene-d8	85.5		0	81.8-120	%REC	221515	1	03/23/2016 15:34	NP
Sulfide by SW9030B/9034						**(SW9030B)**			
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	2.6		0.11	1.0	mg/L	R313300	1	03/22/2016 22:33	JW
Nitrate	0.73		0.024	0.25	mg/L	R313300	1	03/22/2016 22:33	JW
Sulfate	8.4		0.10	1.0	mg/L	R313300	1	03/22/2016 22:33	JW
GC Analysis of Gaseous Samples SOP-RSK 175						**(RSK175)**			
Ethane	BRL		0.0019	0.0090	mg/L	221509	1	03/23/2016 13:50	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221509	1	03/23/2016 13:50	MD
Methane	BRL		0.0012	0.0040	mg/L	221509	1	03/23/2016 13:50	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	21.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016
Lab ID:	1603L51-006	**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	221515	1	03/23/2016 12:52	NP
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221515	1	03/23/2016 12:52	NP
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221515	1	03/23/2016 12:52	NP
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221515	1	03/23/2016 12:52	NP
Acetone	BRL		0.0053	0.050	mg/L	221515	1	03/23/2016 12:52	NP
Chloroethane	BRL		0.00039	0.010	mg/L	221515	1	03/23/2016 12:52	NP
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221515	1	03/23/2016 12:52	NP
Cyclohexane	BRL		0.0016	0.005	mg/L	221515	1	03/23/2016 12:52	NP
Methylene chloride	0.001	J	0.00031	0.005	mg/L	221515	1	03/23/2016 12:52	NP
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221515	1	03/23/2016 12:52	NP
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221515	1	03/23/2016 12:52	NP
Trichloroethene	BRL		0.00035	0.005	mg/L	221515	1	03/23/2016 12:52	NP
Vinyl chloride	BRL		0.00042	0.002	mg/L	221515	1	03/23/2016 12:52	NP
Surr: 4-Bromofluorobenzene	73.8		0	70.7-125	%REC	221515	1	03/23/2016 12:52	NP
Surr: Dibromofluoromethane	92.3		0	82.2-120	%REC	221515	1	03/23/2016 12:52	NP
Surr: Toluene-d8	83.8		0	81.8-120	%REC	221515	1	03/23/2016 12:52	NP

Qualifiers:

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

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Earthcon Consultants Work Order Number 1603L51

Checklist completed by [signature] Signature 3/22/16 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 2.2°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 CT

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
Lab Order: 1603L51

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1603L51-001A	MW-9	3/21/2016 3:20:00PM	Groundwater	TCL VOLATILE ORGANICS		3/23/2016 10:43:00AM	03/23/2016
1603L51-001B	MW-9	3/21/2016 3:20:00PM	Groundwater	GC Analysis of Gaseous Samples		3/23/2016 9:49:21AM	03/23/2016
1603L51-001C	MW-9	3/21/2016 3:20:00PM	Groundwater	Total Organic Carbon (TOC)			03/25/2016
1603L51-001D	MW-9	3/21/2016 3:20:00PM	Groundwater	ION SCAN			03/22/2016
1603L51-001E	MW-9	3/21/2016 3:20:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603L51-001F	MW-9	3/21/2016 3:20:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603L51-002A	MW-5	3/21/2016 5:00:00PM	Groundwater	TCL VOLATILE ORGANICS		3/23/2016 10:43:00AM	03/23/2016
1603L51-002B	MW-5	3/21/2016 5:00:00PM	Groundwater	GC Analysis of Gaseous Samples		3/23/2016 9:49:21AM	03/23/2016
1603L51-002C	MW-5	3/21/2016 5:00:00PM	Groundwater	Total Organic Carbon (TOC)			03/25/2016
1603L51-002D	MW-5	3/21/2016 5:00:00PM	Groundwater	ION SCAN			03/22/2016
1603L51-002E	MW-5	3/21/2016 5:00:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603L51-002F	MW-5	3/21/2016 5:00:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603L51-003A	MW-15	3/21/2016 2:05:00PM	Groundwater	TCL VOLATILE ORGANICS		3/23/2016 10:43:00AM	03/23/2016
1603L51-003B	MW-15	3/21/2016 2:05:00PM	Groundwater	GC Analysis of Gaseous Samples		3/23/2016 9:49:21AM	03/23/2016
1603L51-003C	MW-15	3/21/2016 2:05:00PM	Groundwater	Total Organic Carbon (TOC)			03/26/2016
1603L51-003D	MW-15	3/21/2016 2:05:00PM	Groundwater	ION SCAN			03/22/2016
1603L51-003D	MW-15	3/21/2016 2:05:00PM	Groundwater	ION SCAN			03/23/2016
1603L51-003E	MW-15	3/21/2016 2:05:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603L51-003F	MW-15	3/21/2016 2:05:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603L51-004A	MW-13	3/21/2016 3:30:00PM	Groundwater	TCL VOLATILE ORGANICS		3/23/2016 10:43:00AM	03/23/2016
1603L51-004B	MW-13	3/21/2016 3:30:00PM	Groundwater	GC Analysis of Gaseous Samples		3/23/2016 9:49:21AM	03/23/2016
1603L51-004C	MW-13	3/21/2016 3:30:00PM	Groundwater	Total Organic Carbon (TOC)			03/26/2016
1603L51-004D	MW-13	3/21/2016 3:30:00PM	Groundwater	ION SCAN			03/22/2016
1603L51-004E	MW-13	3/21/2016 3:30:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603L51-004F	MW-13	3/21/2016 3:30:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603L51-005A	MW-2	3/21/2016 5:05:00PM	Groundwater	TCL VOLATILE ORGANICS		3/23/2016 10:43:00AM	03/23/2016
1603L51-005B	MW-2	3/21/2016 5:05:00PM	Groundwater	GC Analysis of Gaseous Samples		3/23/2016 9:49:21AM	03/23/2016
1603L51-005C	MW-2	3/21/2016 5:05:00PM	Groundwater	Total Organic Carbon (TOC)			03/26/2016
1603L51-005D	MW-2	3/21/2016 5:05:00PM	Groundwater	ION SCAN			03/22/2016

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Lab Order: 1603L51

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1603L51-005E	MW-2	3/21/2016 5:05:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603L51-005F	MW-2	3/21/2016 5:05:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603L51-006A	TRIP BLANK	3/22/2016 12:00:00AM	Aqueous	TCL VOLATILE ORGANICS		3/23/2016 10:43:00AM	03/23/2016

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1603L51

ANALYTICAL QC SUMMARY REPORT

BatchID: 221509

Sample ID: **MB-221509** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313095**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221509** Analysis Date: **03/23/2016** Seq No: **6733942**

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-221509** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313095**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221509** Analysis Date: **03/23/2016** Seq No: **6733943**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1394	0.0090	200.0		69.7	40.9	115				
Ethylene	0.09310	0.0070	200.0		46.5	26.8	115				
Methane	0.1558	0.0040	200.0		77.9	45.9	115				

Sample ID: **LCSD-221509** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313095**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221509** Analysis Date: **03/23/2016** Seq No: **6733944**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1316	0.0090	200.0		65.8	40.9	115	139.4	5.71	20	
Ethylene	0.09041	0.0070	200.0		45.2	26.8	115	93.10	2.93	20	
Methane	0.1482	0.0040	200.0		74.1	45.9	115	155.8	4.99	20	

Sample ID: **1603K80-010BMS** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313095**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221509** Analysis Date: **03/23/2016** Seq No: **6733955**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1275	0.0090	200.0		63.8	40.5	115				
Ethylene	0.08686	0.0070	200.0		43.4	23	115				
Methane	0.1469	0.0040	200.0	4.942	71.0	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: 1603L51

ANALYTICAL QC SUMMARY REPORT

BatchID: 221509

Sample ID: **1603K80-010BMSD** Client ID:
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**
Units: **mg/L** Prep Date: **03/23/2016** Run No: **313095**
BatchID: **221509** Analysis Date: **03/23/2016** Seq No: **6733956**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1277	0.0090	200.0		63.8	40.5	115	127.5	0.111	20	
Ethylene	0.08831	0.0070	200.0		44.2	23	115	86.86	1.65	20	
Methane	0.1479	0.0040	200.0	4.942	71.5	40	115	146.9	0.684	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: 1603L51

ANALYTICAL QC SUMMARY REPORT

BatchID: 221515

Sample ID: **MB-221515** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313002**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221515** Analysis Date: **03/23/2016** Seq No: **6733007**

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	0.001310	0.005									J
Tetrachloroethene	BRL	0.005									
trans-1,2-Dichloroethene	BRL	0.005									
Trichloroethene	BRL	0.005									
Vinyl chloride	BRL	0.002									
Surr: 4-Bromofluorobenzene	0.04528	0	50.00		90.6	70.7	125				
Surr: Dibromofluoromethane	0.05431	0	50.00		109	82.2	120				
Surr: Toluene-d8	0.04885	0	50.00		97.7	81.8	120				

Sample ID: **LCS-221515** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313002**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221515** Analysis Date: **03/23/2016** Seq No: **6733006**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.06154	0.005	50.00		123	65.3	137				
Trichloroethene	0.05346	0.005	50.00		107	73.1	128				
Surr: 4-Bromofluorobenzene	0.04587	0	50.00		91.7	70.7	125				
Surr: Dibromofluoromethane	0.05323	0	50.00		106	82.2	120				
Surr: Toluene-d8	0.04810	0	50.00		96.2	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: 1603L51

ANALYTICAL QC SUMMARY REPORT

BatchID: 221515

Sample ID: **1603H07-003AMS**	Client ID:		Units: **mg/L**	Prep Date: **03/23/2016**	Run No: **313002**
SampleType: **MS**	TestCode: **TCL VOLATILE ORGANICS SW8260B**		BatchID: **221515**	Analysis Date: **03/23/2016**	Seq No: **6733009**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.06284	0.005	50.00		126	60	150				
Trichloroethene	0.05347	0.005	50.00		107	70	136				
Surr: 4-Bromofluorobenzene	0.04613	0	50.00		92.3	70.7	125				
Surr: Dibromofluoromethane	0.05306	0	50.00		106	82.2	120				
Surr: Toluene-d8	0.04723	0	50.00		94.5	81.8	120				

Sample ID: **1603H07-003AMSD**	Client ID:		Units: **mg/L**	Prep Date: **03/23/2016**	Run No: **313002**
SampleType: **MSD**	TestCode: **TCL VOLATILE ORGANICS SW8260B**		BatchID: **221515**	Analysis Date: **03/23/2016**	Seq No: **6733010**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.05733	0.005	50.00		115	60	150	62.84	9.17	17.7	
Trichloroethene	0.05075	0.005	50.00		102	70	136	53.47	5.22	20	
Surr: 4-Bromofluorobenzene	0.04718	0	50.00		94.4	70.7	125	46.13	0	0	
Surr: Dibromofluoromethane	0.05176	0	50.00		104	82.2	120	53.06	0	0	
Surr: Toluene-d8	0.04765	0	50.00		95.3	81.8	120	47.23	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: 1603L51

ANALYTICAL QC SUMMARY REPORT

BatchID: 221675

Sample ID: **MB-221675**	Client ID:					Units: **mg/L**		Prep Date: **03/25/2016**		Run No: **313406**	
SampleType: **MBLK**	TestCode: **Sulfide by SW9030B/9034**					BatchID: **221675**		Analysis Date: **03/25/2016**		Seq No: **6741342**	
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-221675**	Client ID:					Units: **mg/L**		Prep Date: **03/25/2016**		Run No: **313406**	
SampleType: **LCS**	TestCode: **Sulfide by SW9030B/9034**					BatchID: **221675**		Analysis Date: **03/25/2016**		Seq No: **6741343**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	256.0	2.00	256.0		100	40	120				

Sample ID: **1603M60-001FMS**	Client ID:					Units: **mg/L**		Prep Date: **03/25/2016**		Run No: **313406**	
SampleType: **MS**	TestCode: **Sulfide by SW9030B/9034**					BatchID: **221675**		Analysis Date: **03/25/2016**		Seq No: **6741373**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	12.00	2.00	12.80		93.8	61.2	120				

Sample ID: **1603M60-001FMSD**	Client ID:					Units: **mg/L**		Prep Date: **03/25/2016**		Run No: **313406**	
SampleType: **MSD**	TestCode: **Sulfide by SW9030B/9034**					BatchID: **221675**		Analysis Date: **03/25/2016**		Seq No: **6741380**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	11.80	2.00	12.80		92.2	61.2	120	12.00	1.68	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: 1603L51

ANALYTICAL QC SUMMARY REPORT

BatchID: 221790

Sample ID: **MB-221790** Client ID: Units: **mg/L** Prep Date: **03/25/2016** Run No: **313409**
SampleType: **MBLK** TestCode: **Sulfide by SW9030B/9034** BatchID: **221790** Analysis Date: **03/25/2016** Seq No: **6741415**

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-221790** Client ID: Units: **mg/L** Prep Date: **03/25/2016** Run No: **313409**
SampleType: **LCS** TestCode: **Sulfide by SW9030B/9034** BatchID: **221790** Analysis Date: **03/25/2016** Seq No: **6741416**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	256.0	2.00	256.0		100	40	120				

Sample ID: **1603L41-015CMS** Client ID: Units: **mg/L** Prep Date: **03/25/2016** Run No: **313409**
SampleType: **MS** TestCode: **Sulfide by SW9030B/9034** BatchID: **221790** Analysis Date: **03/25/2016** Seq No: **6741427**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	12.20	2.00	12.80		95.3	61.2	120				

Sample ID: **1603L41-015CMSD** Client ID: Units: **mg/L** Prep Date: **03/25/2016** Run No: **313409**
SampleType: **MSD** TestCode: **Sulfide by SW9030B/9034** BatchID: **221790** Analysis Date: **03/25/2016** Seq No: **6741428**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	12.00	2.00	12.80		93.8	61.2	120	12.20	1.65	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: 1603L51

ANALYTICAL QC SUMMARY REPORT

BatchID: R313300

Sample ID: **MB-R313300** Client ID: Units: **mg/L** Prep Date: Run No: **313300**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R313300** Analysis Date: **03/22/2016** Seq No: **6738510**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	0.1886	1.0									J

Sample ID: **LCS-R313300** Client ID: Units: **mg/L** Prep Date: Run No: **313300**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R313300** Analysis Date: **03/22/2016** Seq No: **6738509**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	5.005	1.0	5.000		100	90	110				
Nitrate	5.293	0.25	5.000		106	90	110				
Sulfate	24.62	1.0	25.00	0.1886	97.7	90	110				

Sample ID: **1603L26-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **313300**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R313300** Analysis Date: **03/22/2016** Seq No: **6738523**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	82.64	10	50.00	35.61	94.1	90	110				
Nitrate	58.76	2.5	50.00	6.627	104	90	110				
Sulfate	270.6	10	250.0	31.03	95.8	90	110				

Sample ID: **1603L27-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **313300**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R313300** Analysis Date: **03/22/2016** Seq No: **6738527**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	92.80	10	50.00	46.49	92.6	90	110				
Nitrate	58.68	2.5	50.00	7.444	102	90	110				
Sulfate	269.5	10	250.0	28.97	96.2	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		

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1603L51

ANALYTICAL QC SUMMARY REPORT

BatchID: R313300

Sample ID: **1603L26-002BMSD** Client ID:
SampleType: **MSD** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **313300**
BatchID: **R313300** Analysis Date: **03/22/2016** Seq No: **6738524**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	82.84	10	50.00	35.61	94.5	90	110	82.64	0.248	20	
Nitrate	58.81	2.5	50.00	6.627	104	90	110	58.76	0.092	20	
Sulfate	270.9	10	250.0	31.03	95.9	90	110	270.6	0.108	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: 1603L51

ANALYTICAL QC SUMMARY REPORT

BatchID: R313342

Sample ID: **MB-R313342**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313342**
SampleType: **MBLK**	TestCode: **Total Organic Carbon (TOC) SW9060A**				BatchID: **R313342**		Analysis Date: **03/25/2016**		Seq No: **6740315**

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-R313342**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313342**
SampleType: **LCS**	TestCode: **Total Organic Carbon (TOC) SW9060A**				BatchID: **R313342**		Analysis Date: **03/25/2016**		Seq No: **6740314**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.70	1.00	25.00		103	90	110				

Sample ID: **1603L41-015IMS**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313342**
SampleType: **MS**	TestCode: **Total Organic Carbon (TOC) SW9060A**				BatchID: **R313342**		Analysis Date: **03/26/2016**		Seq No: **6740334**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	24.37	1.00	25.00	3.230	84.6	80	120				

Sample ID: **1603L41-015IMSD**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313342**
SampleType: **MSD**	TestCode: **Total Organic Carbon (TOC) SW9060A**				BatchID: **R313342**		Analysis Date: **03/26/2016**		Seq No: **6740335**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.44	1.00	25.00	3.230	80.8	80	120	24.37	3.89	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: 1603L51

ANALYTICAL QC SUMMARY REPORT

BatchID: R313468

Sample ID: **MB-R313468**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313468**
SampleType: **MBLK**	TestCode: **Alkalinity by SM2320B**			BatchID: **R313468**	Analysis Date: **03/28/2016**	Seq No: **6742704**

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-R313468**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313468**
SampleType: **LCS**	TestCode: **Alkalinity by SM2320B**			BatchID: **R313468**	Analysis Date: **03/28/2016**	Seq No: **6742705**

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)	124.0	3.00	125.0		99.2	75	125				

Sample ID: **1603M58-001DDUP**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313468**
SampleType: **DUP**	TestCode: **Alkalinity by SM2320B**			BatchID: **R313468**	Analysis Date: **03/28/2016**	Seq No: **6742706**

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)	52.00	3.00						52.00	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.

March 31, 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: 1603L52

Analytical Environmental Services, Inc. received 1 samples on March 22, 2016 3:16 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 07/01/15-06/30/16.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
-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, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

CRKanhai

Chantelle Kanhai
Project Manager

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: 1603157

Date: 3/21/2016 Page 1 of 1

COMPANY: EarthCon Consultants, Inc

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

PHONE: 770-973-2100

FAX: 770-973-7395

SAMPLED BY: Keaton Henry

SIGNATURE: [signature]

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

#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	VOCs	GC Analysis	TOC	Ion Scan	Sulfide - Zn+NaOH	Alkalinity	REMARKS	No # of Containers
						PRESERVATION (See codes)	H+I	H+I	S+I	I	O	I		
1	MW-6R	3/21/2016	13:50	✓		GW	2	2	1	1	1	1		8
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	3/21/2016 1840	1: TJ March-22-16	1007
2: TJ March-22-16	3:16	2: [signature]	3/22/16 3:16PM
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Apollo Smyrna

PROJECT #: 02.20140341.16

SITE ADDRESS:

SEND REPORT TO: Samantha Woolf / Kristen Rivera

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 8

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

SPECIAL INSTRUCTIONS/COMMENTS: 48 hr Hold time (nitrates)

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL (COURIER — circled)
GREYHOUND OTHER ______

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:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-6R
Project Name:	Apollo Smyrna	**Collection Date:**	3/21/2016 1:50:00 PM
Lab ID:	1603L52-001	**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	R313342	1	03/26/2016 01:22	YS
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221579	1	03/24/2016 03:14	CH
1,1-Dichloroethane	0.004	J	0.00025	0.005	mg/L	221579	1	03/24/2016 03:14	CH
1,1-Dichloroethene	0.18		0.00036	0.005	mg/L	221579	1	03/24/2016 03:14	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221579	1	03/24/2016 03:14	CH
Acetone	BRL		0.0053	0.050	mg/L	221579	1	03/24/2016 03:14	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221579	1	03/24/2016 03:14	CH
cis-1,2-Dichloroethene	0.002	J	0.00027	0.005	mg/L	221579	1	03/24/2016 03:14	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221579	1	03/24/2016 03:14	CH
Methylene chloride	BRL		0.00031	0.005	mg/L	221579	1	03/24/2016 03:14	CH
Tetrachloroethene	0.022		0.00029	0.005	mg/L	221579	1	03/24/2016 03:14	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221579	1	03/24/2016 03:14	CH
Trichloroethene	0.002	J	0.00035	0.005	mg/L	221579	1	03/24/2016 03:14	CH
Vinyl chloride	BRL		0.00042	0.002	mg/L	221579	1	03/24/2016 03:14	CH
Surr: 4-Bromofluorobenzene	73.5		0	70.7-125	%REC	221579	1	03/24/2016 03:14	CH
Surr: Dibromofluoromethane	98.2		0	82.2-120	%REC	221579	1	03/24/2016 03:14	CH
Surr: Toluene-d8	86.5		0	81.8-120	%REC	221579	1	03/24/2016 03:14	CH
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	4.2		0.11	1.0	mg/L	R313300	1	03/22/2016 22:48	JW
Nitrate	0.94		0.024	0.25	mg/L	R313300	1	03/22/2016 22:48	JW
Sulfate	0.81	J	0.10	1.0	mg/L	R313300	1	03/22/2016 22:48	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		0.0019	0.0090	mg/L	221509	1	03/23/2016 13:56	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221509	1	03/23/2016 13:56	MD
Methane	0.0056		0.0012	0.0040	mg/L	221509	1	03/23/2016 13:56	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	30.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client EARTHCON CONSULTANTS Work Order Number 1603L52

Checklist completed by [signature] 3/22/16
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 2.2°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

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Lab Order: 1603L52

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1603L52-001A	MW-6R	3/21/2016 1:50:00PM	Groundwater	TCL VOLATILE ORGANICS		3/23/2016 8:49:00AM	03/24/2016
1603L52-001B	MW-6R	3/21/2016 1:50:00PM	Groundwater	GC Analysis of Gaseous Samples		3/23/2016 9:49:21AM	03/23/2016
1603L52-001C	MW-6R	3/21/2016 1:50:00PM	Groundwater	Total Organic Carbon (TOC)			03/26/2016
1603L52-001D	MW-6R	3/21/2016 1:50:00PM	Groundwater	ION SCAN			03/22/2016
1603L52-001E	MW-6R	3/21/2016 1:50:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603L52-001F	MW-6R	3/21/2016 1:50:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1603L52

ANALYTICAL QC SUMMARY REPORT

BatchID: 221509

Sample ID: **MB-221509** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313095**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221509** Analysis Date: **03/23/2016** Seq No: **6733942**

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-221509** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313095**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221509** Analysis Date: **03/23/2016** Seq No: **6733943**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1394	0.0090	200.0		69.7	40.9	115				
Ethylene	0.09310	0.0070	200.0		46.5	26.8	115				
Methane	0.1558	0.0040	200.0		77.9	45.9	115				

Sample ID: **LCSD-221509** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313095**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221509** Analysis Date: **03/23/2016** Seq No: **6733944**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1316	0.0090	200.0		65.8	40.9	115	139.4	5.71	20	
Ethylene	0.09041	0.0070	200.0		45.2	26.8	115	93.10	2.93	20	
Methane	0.1482	0.0040	200.0		74.1	45.9	115	155.8	4.99	20	

Sample ID: **1603K80-010BMS** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313095**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221509** Analysis Date: **03/23/2016** Seq No: **6733955**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1275	0.0090	200.0		63.8	40.5	115				
Ethylene	0.08686	0.0070	200.0		43.4	23	115				
Methane	0.1469	0.0040	200.0	4.942	71.0	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: 1603L52

ANALYTICAL QC SUMMARY REPORT

BatchID: 221509

Sample ID: **1603K80-010BMSD** Client ID:
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**
Units: **mg/L** Prep Date: **03/23/2016** Run No: **313095**
BatchID: **221509** Analysis Date: **03/23/2016** Seq No: **6733956**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1277	0.0090	200.0		63.8	40.5	115	127.5	0.111	20	
Ethylene	0.08831	0.0070	200.0		44.2	23	115	86.86	1.65	20	
Methane	0.1479	0.0040	200.0	4.942	71.5	40	115	146.9	0.684	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: 1603L52

ANALYTICAL QC SUMMARY REPORT

BatchID: 221579

Sample ID: **MB-221579** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313024**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221579** Analysis Date: **03/23/2016** Seq No: **6735341**

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	0.03685	0	50.00		73.7	70.7	125				
Surr: Dibromofluoromethane	0.05170	0	50.00		103	82.2	120				
Surr: Toluene-d8	0.04516	0	50.00		90.3	81.8	120				

Sample ID: **LCS-221579** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313024**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221579** Analysis Date: **03/23/2016** Seq No: **6735340**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.05356	0.005	50.00		107	65.3	137				
Trichloroethene	0.05422	0.005	50.00		108	73.1	128				
Surr: 4-Bromofluorobenzene	0.03700	0	50.00		74.0	70.7	125				
Surr: Dibromofluoromethane	0.04801	0	50.00		96.0	82.2	120				
Surr: Toluene-d8	0.04264	0	50.00		85.3	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: 1603L52

ANALYTICAL QC SUMMARY REPORT

BatchID: 221579

Sample ID: **1603J72-004AMS** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313103**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221579** Analysis Date: **03/24/2016** Seq No: **6735319**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.06894	0.005	50.00		138	60	150				
Trichloroethene	0.06555	0.005	50.00		131	70	136				
Surr: 4-Bromofluorobenzene	0.04100	0	50.00		82.0	70.7	125				
Surr: Dibromofluoromethane	0.04770	0	50.00		95.4	82.2	120				
Surr: Toluene-d8	0.04540	0	50.00		90.8	81.8	120				

Sample ID: **1603J72-004AMSD** Client ID: Units: **mg/L** Prep Date: **03/23/2016** Run No: **313103**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221579** Analysis Date: **03/24/2016** Seq No: **6735321**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.06905	0.005	50.00		138	60	150	68.94	0.159	17.7	
Trichloroethene	0.06716	0.005	50.00		134	70	136	65.55	2.43	20	
Surr: 4-Bromofluorobenzene	0.03922	0	50.00		78.4	70.7	125	41.00	0	0	
Surr: Dibromofluoromethane	0.04864	0	50.00		97.3	82.2	120	47.70	0	0	
Surr: Toluene-d8	0.04588	0	50.00		91.8	81.8	120	45.40	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: 1603L52

ANALYTICAL QC SUMMARY REPORT

BatchID: 221675

Sample ID: **MB-221675**	Client ID:				Units: **mg/L**		Prep Date: **03/25/2016**		Run No: **313406**
SampleType: **MBLK**	TestCode: **Sulfide by SW9030B/9034**				BatchID: **221675**		Analysis Date: **03/25/2016**		Seq No: **6741342**
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-221675**	Client ID:				Units: **mg/L**		Prep Date: **03/25/2016**		Run No: **313406**
SampleType: **LCS**	TestCode: **Sulfide by SW9030B/9034**				BatchID: **221675**		Analysis Date: **03/25/2016**		Seq No: **6741343**
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	256.0	2.00	256.0		100	40	120				

Sample ID: **1603M60-001FMS**	Client ID:				Units: **mg/L**		Prep Date: **03/25/2016**		Run No: **313406**
SampleType: **MS**	TestCode: **Sulfide by SW9030B/9034**				BatchID: **221675**		Analysis Date: **03/25/2016**		Seq No: **6741373**
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	12.00	2.00	12.80		93.8	61.2	120				

Sample ID: **1603M60-001FMSD**	Client ID:				Units: **mg/L**		Prep Date: **03/25/2016**		Run No: **313406**
SampleType: **MSD**	TestCode: **Sulfide by SW9030B/9034**				BatchID: **221675**		Analysis Date: **03/25/2016**		Seq No: **6741380**
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	11.80	2.00	12.80		92.2	61.2	120	12.00	1.68	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: 1603L52

ANALYTICAL QC SUMMARY REPORT

BatchID: R313300

Sample ID: **MB-R313300** Client ID: Units: **mg/L** Prep Date: Run No: **313300**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R313300** Analysis Date: **03/22/2016** Seq No: **6738510**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	0.1886	1.0									J

Sample ID: **LCS-R313300** Client ID: Units: **mg/L** Prep Date: Run No: **313300**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R313300** Analysis Date: **03/22/2016** Seq No: **6738509**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	5.005	1.0	5.000		100	90	110				
Nitrate	5.293	0.25	5.000		106	90	110				
Sulfate	24.62	1.0	25.00	0.1886	97.7	90	110				

Sample ID: **1603L26-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **313300**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R313300** Analysis Date: **03/22/2016** Seq No: **6738523**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	82.64	10	50.00	35.61	94.1	90	110				
Nitrate	58.76	2.5	50.00	6.627	104	90	110				
Sulfate	270.6	10	250.0	31.03	95.8	90	110				

Sample ID: **1603L27-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **313300**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R313300** Analysis Date: **03/22/2016** Seq No: **6738527**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	92.80	10	50.00	46.49	92.6	90	110				
Nitrate	58.68	2.5	50.00	7.444	102	90	110				
Sulfate	269.5	10	250.0	28.97	96.2	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		

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1603L52

ANALYTICAL QC SUMMARY REPORT

BatchID: R313300

Sample ID: **1603L26-002BMSD** Client ID:
SampleType: **MSD** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **313300**
BatchID: **R313300** Analysis Date: **03/22/2016** Seq No: **6738524**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	82.84	10	50.00	35.61	94.5	90	110	82.64	0.248	20	
Nitrate	58.81	2.5	50.00	6.627	104	90	110	58.76	0.092	20	
Sulfate	270.9	10	250.0	31.03	95.9	90	110	270.6	0.108	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: 1603L52

ANALYTICAL QC SUMMARY REPORT

BatchID: R313342

Sample ID: **MB-R313342** Client ID: Units: **mg/L** Prep Date: Run No: **313342**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R313342** Analysis Date: **03/25/2016** Seq No: **6740315**

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-R313342** Client ID: Units: **mg/L** Prep Date: Run No: **313342**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R313342** Analysis Date: **03/25/2016** Seq No: **6740314**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.70	1.00	25.00		103	90	110				

Sample ID: **1603L41-015IMS** Client ID: Units: **mg/L** Prep Date: Run No: **313342**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R313342** Analysis Date: **03/26/2016** Seq No: **6740334**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	24.37	1.00	25.00	3.230	84.6	80	120				

Sample ID: **1603L41-015IMSD** Client ID: Units: **mg/L** Prep Date: Run No: **313342**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R313342** Analysis Date: **03/26/2016** Seq No: **6740335**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.44	1.00	25.00	3.230	80.8	80	120	24.37	3.89	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: 1603L52

ANALYTICAL QC SUMMARY REPORT

BatchID: R313468

Sample ID: **MB-R313468**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313468**
SampleType: **MBLK**	TestCode: **Alkalinity by SM2320B**			BatchID: **R313468**	Analysis Date: **03/28/2016**	Seq No: **6742704**

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-R313468**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313468**
SampleType: **LCS**	TestCode: **Alkalinity by SM2320B**			BatchID: **R313468**	Analysis Date: **03/28/2016**	Seq No: **6742705**

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)	124.0	3.00	125.0		99.2	75	125				

Sample ID: **1603M58-001DDUP**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313468**
SampleType: **DUP**	TestCode: **Alkalinity by SM2320B**			BatchID: **R313468**	Analysis Date: **03/28/2016**	Seq No: **6742706**

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)	52.00	3.00						52.00	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.

March 31, 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: 1603M60

Analytical Environmental Services, Inc. received 9 samples on March 23, 2016 1:37 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 07/01/15-06/30/16.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
-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, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

CRKanhai

Chantelle Kanhai
Project Manager

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: 1603M60

Date: 3/22/2016 Page 1 of 1

COMPANY: EarthCon Consultants, Inc.

ADDRESS: 1880 West Oak Parkway Building 100, Suite 106 Marietta, GA 30062

PHONE: 770-973-2100

FAX: 770-973-7395

SAMPLED BY: Samantha Woolf / Keaton Henry

SIGNATURE: Samantha Woolf / KH

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs	GC Analysis	TOC	Ion Scan	Alkalinity	Sulfide	No # of Containers
	PRESERVATION (See codes)						H+I	H+I	S+I	NA	NA	NaOH	
1	MW-11	3/22/16	0905	✓		GW	2	2	1	1	1	1	8
2	MW-12	3/22/16	1100	✓		GW	2	2	1	1	1	1	8
3	MW-7	3/22/16	1410	✓		GW	2	2	1	1	1	1	8
4	DW-1	3/22/16	1600	✓		GW	2	2	1	1	1	1	8
5	MW-10	3/22/16	1015	✓		GW	2	2	1	1	1	1	8
6	MW-8	3/22/16	1220	✓		GW	2	2	1	1	1	1	8
7	MW-17	3/22/16	1430	✓		GW	2	2	1	1	1	1	8
8	MW-4	3/22/16	1650	✓		GW	2	2	1	1	1	1	8
9	Trip Blanks	3/22/16	—				2						2
10													
11													
12													
13													
14													

REMARKS

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

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Samantha Woolf	3/22/16 18:15	1: Ty March-23-16	10:11AM
2: Ty March-23-16	1:37	2:	3/23/16 1:37
3:		3:	

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: 1860 S. Cobb Industrial Blvd SE Smyrna, GA 30082
SEND REPORT TO: Kristen Rivera / Samantha Woolf
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers: 66

Turnaround Time Request
(X) 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:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-11
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016 9:05:00 AM
Lab ID:	1603M60-001	**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	R313546	1	03/29/2016 11:14	YS
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221624	1	03/24/2016 19:05	NH
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221624	1	03/24/2016 19:05	NH
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221624	1	03/24/2016 19:05	NH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221624	1	03/24/2016 19:05	NH
Acetone	BRL		0.0053	0.050	mg/L	221624	1	03/24/2016 19:05	NH
Chloroethane	BRL		0.00039	0.010	mg/L	221624	1	03/24/2016 19:05	NH
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221624	1	03/24/2016 19:05	NH
Cyclohexane	BRL		0.0016	0.005	mg/L	221624	1	03/24/2016 19:05	NH
Methylene chloride	BRL		0.00031	0.005	mg/L	221624	1	03/24/2016 19:05	NH
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221624	1	03/24/2016 19:05	NH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221624	1	03/24/2016 19:05	NH
Trichloroethene	BRL		0.00035	0.005	mg/L	221624	1	03/24/2016 19:05	NH
Vinyl chloride	BRL		0.00042	0.002	mg/L	221624	1	03/24/2016 19:05	NH
Surr: 4-Bromofluorobenzene	90.2		0	70.7-125	%REC	221624	1	03/24/2016 19:05	NH
Surr: Dibromofluoromethane	110		0	82.2-120	%REC	221624	1	03/24/2016 19:05	NH
Surr: Toluene-d8	97		0	81.8-120	%REC	221624	1	03/24/2016 19:05	NH
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	8.0		0.11	1.0	mg/L	R313472	1	03/23/2016 21:17	JW
Nitrate	0.047	J	0.024	0.25	mg/L	R313472	1	03/23/2016 21:17	JW
Sulfate	7.1		0.10	1.0	mg/L	R313472	1	03/23/2016 21:17	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		0.0019	0.0090	mg/L	221700	1	03/28/2016 10:49	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221700	1	03/28/2016 10:49	MD
Methane	1.7		0.024	0.080	mg/L	221700	20	03/28/2016 11:43	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	70.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-12
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016 11:00:00 AM
Lab ID:	1603M60-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.09		0.337	1.00	mg/L	R313546	1	03/29/2016 11:42	YS
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221624	1	03/28/2016 21:17	CH
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221624	1	03/28/2016 21:17	CH
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221624	1	03/28/2016 21:17	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221624	1	03/28/2016 21:17	CH
Acetone	BRL		0.0053	0.050	mg/L	221624	1	03/28/2016 21:17	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221624	1	03/28/2016 21:17	CH
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221624	1	03/28/2016 21:17	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221624	1	03/28/2016 21:17	CH
Methylene chloride	BRL		0.00031	0.005	mg/L	221624	1	03/28/2016 21:17	CH
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221624	1	03/28/2016 21:17	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221624	1	03/28/2016 21:17	CH
Trichloroethene	BRL		0.00035	0.005	mg/L	221624	1	03/28/2016 21:17	CH
Vinyl chloride	BRL		0.00042	0.002	mg/L	221624	1	03/28/2016 21:17	CH
Surr: 4-Bromofluorobenzene	89.1		0	70.7-125	%REC	221624	1	03/28/2016 21:17	CH
Surr: Dibromofluoromethane	104		0	82.2-120	%REC	221624	1	03/28/2016 21:17	CH
Surr: Toluene-d8	101		0	81.8-120	%REC	221624	1	03/28/2016 21:17	CH
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	6.6		0.11	1.0	mg/L	R313472	1	03/23/2016 21:32	JW
Nitrate	0.47		0.024	0.25	mg/L	R313472	1	03/23/2016 21:32	JW
Sulfate	0.18	J	0.10	1.0	mg/L	R313472	1	03/23/2016 21:32	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		0.0019	0.0090	mg/L	221700	1	03/28/2016 10:54	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221700	1	03/28/2016 10:54	MD
Methane	0.0070		0.0012	0.0040	mg/L	221700	1	03/28/2016 10:54	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	19.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-7
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016 2:10:00 PM
Lab ID:	1603M60-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.21		0.337	1.00	mg/L	R313546	1	03/29/2016 12:10	YS
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221624	1	03/28/2016 15:07	CH
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221624	1	03/28/2016 15:07	CH
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221624	1	03/28/2016 15:07	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221624	1	03/28/2016 15:07	CH
Acetone	BRL		0.0053	0.050	mg/L	221624	1	03/28/2016 15:07	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221624	1	03/28/2016 15:07	CH
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221624	1	03/28/2016 15:07	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221624	1	03/28/2016 15:07	CH
Methylene chloride	BRL		0.00031	0.005	mg/L	221624	1	03/28/2016 15:07	CH
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221624	1	03/28/2016 15:07	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221624	1	03/28/2016 15:07	CH
Trichloroethene	BRL		0.00035	0.005	mg/L	221624	1	03/28/2016 15:07	CH
Vinyl chloride	0.005		0.00042	0.002	mg/L	221624	1	03/28/2016 15:07	CH
Surr: 4-Bromofluorobenzene	88.2		0	70.7-125	%REC	221624	1	03/28/2016 15:07	CH
Surr: Dibromofluoromethane	100		0	82.2-120	%REC	221624	1	03/28/2016 15:07	CH
Surr: Toluene-d8	95.5		0	81.8-120	%REC	221624	1	03/28/2016 15:07	CH
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	4.4		0.11	1.0	mg/L	R313472	1	03/23/2016 21:47	JW
Nitrate	BRL		0.024	0.25	mg/L	R313472	1	03/23/2016 21:47	JW
Sulfate	1.2		0.10	1.0	mg/L	R313472	1	03/23/2016 21:47	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.026		0.0019	0.0090	mg/L	221700	1	03/28/2016 10:59	MD
Ethylene	0.0084		0.0035	0.0070	mg/L	221700	1	03/28/2016 10:59	MD
Methane	1.5		0.012	0.040	mg/L	221700	10	03/28/2016 11:47	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	87.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	DW-1
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016 4:00:00 PM
Lab ID:	1603M60-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	3.25		0.337	1.00	mg/L	R313546	1	03/29/2016 12:38	YS
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.038		0.00025	0.005	mg/L	221624	1	03/28/2016 14:15	CH
1,1-Dichloroethane	0.18		0.00025	0.005	mg/L	221624	1	03/28/2016 14:15	CH
1,1-Dichloroethene	0.28		0.0036	0.050	mg/L	221624	10	03/28/2016 13:49	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221624	1	03/28/2016 14:15	CH
Acetone	BRL		0.0053	0.050	mg/L	221624	1	03/28/2016 14:15	CH
Chloroethane	0.25		0.0039	0.10	mg/L	221624	10	03/28/2016 13:49	CH
cis-1,2-Dichloroethene	0.073		0.00027	0.005	mg/L	221624	1	03/28/2016 14:15	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221624	1	03/28/2016 14:15	CH
Methylene chloride	0.005	J	0.00031	0.005	mg/L	221624	1	03/28/2016 14:15	CH
Tetrachloroethene	0.20		0.0029	0.050	mg/L	221624	10	03/28/2016 13:49	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221624	1	03/28/2016 14:15	CH
Trichloroethene	0.042		0.00035	0.005	mg/L	221624	1	03/28/2016 14:15	CH
Vinyl chloride	0.050		0.00042	0.002	mg/L	221624	1	03/28/2016 14:15	CH
Surr: 4-Bromofluorobenzene	93		0	70.7-125	%REC	221624	1	03/28/2016 14:15	CH
Surr: 4-Bromofluorobenzene	88.7		0	70.7-125	%REC	221624	10	03/28/2016 13:49	CH
Surr: Dibromofluoromethane	102		0	82.2-120	%REC	221624	1	03/28/2016 14:15	CH
Surr: Dibromofluoromethane	95.9		0	82.2-120	%REC	221624	10	03/28/2016 13:49	CH
Surr: Toluene-d8	96.9		0	81.8-120	%REC	221624	1	03/28/2016 14:15	CH
Surr: Toluene-d8	93.7		0	81.8-120	%REC	221624	10	03/28/2016 13:49	CH
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	37		0.56	5.0	mg/L	R313472	5	03/24/2016 11:00	JW
Nitrate	0.19	J	0.024	0.25	mg/L	R313472	1	03/23/2016 22:02	JW
Sulfate	0.43	J	0.10	1.0	mg/L	R313472	1	03/23/2016 22:02	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.0090	J	0.0019	0.0090	mg/L	221700	1	03/28/2016 11:03	MD
Ethylene	0.15		0.0035	0.0070	mg/L	221700	1	03/28/2016 11:03	MD
Methane	0.76		0.0059	0.020	mg/L	221700	5	03/28/2016 12:06	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	103		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-10
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016 10:15:00 AM
Lab ID:	1603M60-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.51		0.337	1.00	mg/L	R313546	1	03/29/2016 13:03	YS
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221624	1	03/28/2016 20:46	CH
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221624	1	03/28/2016 20:46	CH
1,1-Dichloroethene	0.002	J	0.00036	0.005	mg/L	221624	1	03/28/2016 20:46	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221624	1	03/28/2016 20:46	CH
Acetone	BRL		0.0053	0.050	mg/L	221624	1	03/28/2016 20:46	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221624	1	03/28/2016 20:46	CH
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221624	1	03/28/2016 20:46	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221624	1	03/28/2016 20:46	CH
Methylene chloride	BRL		0.00031	0.005	mg/L	221624	1	03/28/2016 20:46	CH
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221624	1	03/28/2016 20:46	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221624	1	03/28/2016 20:46	CH
Trichloroethene	BRL		0.00035	0.005	mg/L	221624	1	03/28/2016 20:46	CH
Vinyl chloride	BRL		0.00042	0.002	mg/L	221624	1	03/28/2016 20:46	CH
Surr: 4-Bromofluorobenzene	90.3		0	70.7-125	%REC	221624	1	03/28/2016 20:46	CH
Surr: Dibromofluoromethane	102		0	82.2-120	%REC	221624	1	03/28/2016 20:46	CH
Surr: Toluene-d8	104		0	81.8-120	%REC	221624	1	03/28/2016 20:46	CH
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	7.1		0.11	1.0	mg/L	R313472	1	03/23/2016 22:17	JW
Nitrate	BRL		0.024	0.25	mg/L	R313472	1	03/23/2016 22:17	JW
Sulfate	0.76	J	0.10	1.0	mg/L	R313472	1	03/23/2016 22:17	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		0.0019	0.0090	mg/L	221700	1	03/28/2016 11:08	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221700	1	03/28/2016 11:08	MD
Methane	2.2		0.024	0.080	mg/L	221700	20	03/28/2016 12:13	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	65.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-8
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016 12:20:00 PM
Lab ID:	1603M60-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.01		0.337	1.00	mg/L	R313546	1	03/29/2016 13:25	YS
TCL VOLATILE ORGANICS SW8260B						**(SW5030B)**			
1,1,1-Trichloroethane	BRL		0.00025	0.005	mg/L	221624	1	03/28/2016 15:32	CH
1,1-Dichloroethane	0.004	J	0.00025	0.005	mg/L	221624	1	03/28/2016 15:32	CH
1,1-Dichloroethene	0.033		0.00036	0.005	mg/L	221624	1	03/28/2016 15:32	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221624	1	03/28/2016 15:32	CH
Acetone	BRL		0.0053	0.050	mg/L	221624	1	03/28/2016 15:32	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221624	1	03/28/2016 15:32	CH
cis-1,2-Dichloroethene	0.051		0.00027	0.005	mg/L	221624	1	03/28/2016 15:32	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221624	1	03/28/2016 15:32	CH
Methylene chloride	BRL		0.00031	0.005	mg/L	221624	1	03/28/2016 15:32	CH
Tetrachloroethene	0.35		0.0029	0.050	mg/L	221624	10	03/29/2016 02:37	CH
trans-1,2-Dichloroethene	0.002	J	0.00022	0.005	mg/L	221624	1	03/28/2016 15:32	CH
Trichloroethene	0.70		0.0035	0.050	mg/L	221624	10	03/29/2016 02:37	CH
Vinyl chloride	0.002	J	0.00042	0.002	mg/L	221624	1	03/28/2016 15:32	CH
Surr: 4-Bromofluorobenzene	87		0	70.7-125	%REC	221624	1	03/28/2016 15:32	CH
Surr: 4-Bromofluorobenzene	84.2		0	70.7-125	%REC	221624	10	03/29/2016 02:37	CH
Surr: Dibromofluoromethane	101		0	82.2-120	%REC	221624	1	03/28/2016 15:32	CH
Surr: Dibromofluoromethane	96.9		0	82.2-120	%REC	221624	10	03/29/2016 02:37	CH
Surr: Toluene-d8	99.2		0	81.8-120	%REC	221624	1	03/28/2016 15:32	CH
Surr: Toluene-d8	96.5		0	81.8-120	%REC	221624	10	03/29/2016 02:37	CH
Sulfide by SW9030B/9034						**(SW9030B)**			
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	4.7		0.11	1.0	mg/L	R313472	1	03/23/2016 22:32	JW
Nitrate	0.079	J	0.024	0.25	mg/L	R313472	1	03/23/2016 22:32	JW
Sulfate	0.42	J	0.10	1.0	mg/L	R313472	1	03/23/2016 22:32	JW
GC Analysis of Gaseous Samples SOP-RSK 175						**(RSK175)**			
Ethane	BRL		0.0019	0.0090	mg/L	221700	1	03/28/2016 11:13	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221700	1	03/28/2016 11:13	MD
Methane	0.81		0.0059	0.020	mg/L	221700	5	03/28/2016 12:19	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	29.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-17
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016 2:30:00 PM
Lab ID:	1603M60-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	3.29		0.337	1.00	mg/L	R313546	1	03/29/2016 13:50	YS
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.015		0.00025	0.005	mg/L	221624	1	03/28/2016 22:09	CH
1,1-Dichloroethane	0.11		0.00025	0.005	mg/L	221624	1	03/28/2016 22:09	CH
1,1-Dichloroethene	0.67		0.0036	0.050	mg/L	221624	10	03/28/2016 22:35	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221624	1	03/28/2016 22:09	CH
Acetone	BRL		0.0053	0.050	mg/L	221624	1	03/28/2016 22:09	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221624	1	03/28/2016 22:09	CH
cis-1,2-Dichloroethene	0.23		0.0027	0.050	mg/L	221624	10	03/28/2016 22:35	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221624	1	03/28/2016 22:09	CH
Methylene chloride	BRL		0.00031	0.005	mg/L	221624	1	03/28/2016 22:09	CH
Tetrachloroethene	0.079		0.00029	0.005	mg/L	221624	1	03/28/2016 22:09	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221624	1	03/28/2016 22:09	CH
Trichloroethene	0.041		0.00035	0.005	mg/L	221624	1	03/28/2016 22:09	CH
Vinyl chloride	0.073		0.00042	0.002	mg/L	221624	1	03/28/2016 22:09	CH
Surr: 4-Bromofluorobenzene	88.1		0	70.7-125	%REC	221624	1	03/28/2016 22:09	CH
Surr: 4-Bromofluorobenzene	91.4		0	70.7-125	%REC	221624	10	03/28/2016 22:35	CH
Surr: Dibromofluoromethane	104		0	82.2-120	%REC	221624	1	03/28/2016 22:09	CH
Surr: Dibromofluoromethane	106		0	82.2-120	%REC	221624	10	03/28/2016 22:35	CH
Surr: Toluene-d8	100		0	81.8-120	%REC	221624	1	03/28/2016 22:09	CH
Surr: Toluene-d8	103		0	81.8-120	%REC	221624	10	03/28/2016 22:35	CH
Sulfide by SW9030B/9034					**(SW9030B)**				
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	22		0.22	2.0	mg/L	R313472	2	03/24/2016 11:15	JW
Nitrate	0.031	J	0.024	0.25	mg/L	R313472	1	03/23/2016 22:47	JW
Sulfate	14		0.10	1.0	mg/L	R313472	1	03/23/2016 22:47	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	0.019		0.0019	0.0090	mg/L	221700	1	03/28/2016 12:32	MD
Ethylene	0.010		0.0035	0.0070	mg/L	221700	1	03/28/2016 12:32	MD
Methane	0.76		0.0059	0.020	mg/L	221700	5	03/28/2016 12:42	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	220		16.8	30.0	mg/L	R313468	10	03/28/2016 17:00	PF

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:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-4
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016 4:50:00 PM
Lab ID:	1603M60-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	2.66		0.337	1.00	mg/L	R313546	1	03/29/2016 14:15	YS
TCL VOLATILE ORGANICS SW8260B						**(SW5030B)**			
1,1,1-Trichloroethane	1.2		0.012	0.25	mg/L	221624	50	03/28/2016 21:43	CH
1,1-Dichloroethane	0.063		0.00025	0.005	mg/L	221624	1	03/28/2016 16:24	CH
1,1-Dichloroethene	15		0.036	0.50	mg/L	221624	100	03/29/2016 16:46	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221624	1	03/28/2016 16:24	CH
Acetone	BRL		0.0053	0.050	mg/L	221624	1	03/28/2016 16:24	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221624	1	03/28/2016 16:24	CH
cis-1,2-Dichloroethene	0.014		0.00027	0.005	mg/L	221624	1	03/28/2016 16:24	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221624	1	03/28/2016 16:24	CH
Methylene chloride	BRL		0.00031	0.005	mg/L	221624	1	03/28/2016 16:24	CH
Tetrachloroethene	1.9		0.015	0.25	mg/L	221624	50	03/28/2016 21:43	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221624	1	03/28/2016 16:24	CH
Trichloroethene	0.079		0.00035	0.005	mg/L	221624	1	03/28/2016 16:24	CH
Vinyl chloride	0.006		0.00042	0.002	mg/L	221624	1	03/28/2016 16:24	CH
Surr: 4-Bromofluorobenzene	87.4		0	70.7-125	%REC	221624	1	03/28/2016 16:24	CH
Surr: 4-Bromofluorobenzene	89.9		0	70.7-125	%REC	221624	50	03/28/2016 21:43	CH
Surr: 4-Bromofluorobenzene	82.3		0	70.7-125	%REC	221624	100	03/29/2016 16:46	CH
Surr: Dibromofluoromethane	99.3		0	82.2-120	%REC	221624	1	03/28/2016 16:24	CH
Surr: Dibromofluoromethane	103		0	82.2-120	%REC	221624	50	03/28/2016 21:43	CH
Surr: Dibromofluoromethane	104		0	82.2-120	%REC	221624	100	03/29/2016 16:46	CH
Surr: Toluene-d8	92.4		0	81.8-120	%REC	221624	1	03/28/2016 16:24	CH
Surr: Toluene-d8	99.8		0	81.8-120	%REC	221624	50	03/28/2016 21:43	CH
Surr: Toluene-d8	98.2		0	81.8-120	%REC	221624	100	03/29/2016 16:46	CH
Sulfide by SW9030B/9034						**(SW9030B)**			
Sulfide	BRL		0.764	2.00	mg/L	221675	1	03/25/2016 08:30	PF
ION SCAN SW9056A									
Chloride	58		0.56	5.0	mg/L	R313472	5	03/24/2016 11:30	JW
Nitrate	0.037	J	0.024	0.25	mg/L	R313472	1	03/23/2016 23:02	JW
Sulfate	0.55	J	0.10	1.0	mg/L	R313472	1	03/23/2016 23:02	JW
GC Analysis of Gaseous Samples SOP-RSK 175						**(RSK175)**			
Ethane	BRL		0.0019	0.0090	mg/L	221700	1	03/28/2016 12:38	MD
Ethylene	BRL		0.0035	0.0070	mg/L	221700	1	03/28/2016 12:38	MD
Methane	0.0046		0.0012	0.0040	mg/L	221700	1	03/28/2016 12:38	MD
Alkalinity by SM2320B									

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-4
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016 4:50:00 PM
Lab ID:	1603M60-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	52.0		1.68	3.00	mg/L	R313468	1	03/28/2016 17:00	PF

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:** 31-Mar-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	TRIP BLANKS
Project Name:	Apollo Smyrna	**Collection Date:**	3/22/2016
Lab ID:	1603M60-009	**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	221624	1	03/28/2016 12:57	CH
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221624	1	03/28/2016 12:57	CH
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221624	1	03/28/2016 12:57	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221624	1	03/28/2016 12:57	CH
Acetone	BRL		0.0053	0.050	mg/L	221624	1	03/28/2016 12:57	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221624	1	03/28/2016 12:57	CH
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221624	1	03/28/2016 12:57	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221624	1	03/28/2016 12:57	CH
Methylene chloride	0.001	J	0.00031	0.005	mg/L	221624	1	03/28/2016 12:57	CH
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221624	1	03/28/2016 12:57	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221624	1	03/28/2016 12:57	CH
Trichloroethene	BRL		0.00035	0.005	mg/L	221624	1	03/28/2016 12:57	CH
Vinyl chloride	BRL		0.00042	0.002	mg/L	221624	1	03/28/2016 12:57	CH
Surr: 4-Bromofluorobenzene	88.5		0	70.7-125	%REC	221624	1	03/28/2016 12:57	CH
Surr: Dibromofluoromethane	96.9		0	82.2-120	%REC	221624	1	03/28/2016 12:57	CH
Surr: Toluene-d8	96.1		0	81.8-120	%REC	221624	1	03/28/2016 12:57	CH

Qualifiers:

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

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client EARTHCON Work Order Number 1603M60

Checklist completed by [signature] 3/23/2016
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 3.1°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 CJT

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
Lab Order: 1603M60

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1603M60-001A	MW-11	3/22/2016 9:05:00AM	Groundwater	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/24/2016
1603M60-001B	MW-11	3/22/2016 9:05:00AM	Groundwater	GC Analysis of Gaseous Samples		3/28/2016 9:27:48AM	03/28/2016
1603M60-001C	MW-11	3/22/2016 9:05:00AM	Groundwater	Total Organic Carbon (TOC)			03/29/2016
1603M60-001D	MW-11	3/22/2016 9:05:00AM	Groundwater	ION SCAN			03/23/2016
1603M60-001E	MW-11	3/22/2016 9:05:00AM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603M60-001F	MW-11	3/22/2016 9:05:00AM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603M60-002A	MW-12	3/22/2016 11:00:00AM	Groundwater	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/28/2016
1603M60-002B	MW-12	3/22/2016 11:00:00AM	Groundwater	GC Analysis of Gaseous Samples		3/28/2016 9:27:48AM	03/28/2016
1603M60-002C	MW-12	3/22/2016 11:00:00AM	Groundwater	Total Organic Carbon (TOC)			03/29/2016
1603M60-002D	MW-12	3/22/2016 11:00:00AM	Groundwater	ION SCAN			03/23/2016
1603M60-002E	MW-12	3/22/2016 11:00:00AM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603M60-002F	MW-12	3/22/2016 11:00:00AM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603M60-003A	MW-7	3/22/2016 2:10:00PM	Groundwater	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/28/2016
1603M60-003B	MW-7	3/22/2016 2:10:00PM	Groundwater	GC Analysis of Gaseous Samples		3/28/2016 9:27:48AM	03/28/2016
1603M60-003C	MW-7	3/22/2016 2:10:00PM	Groundwater	Total Organic Carbon (TOC)			03/29/2016
1603M60-003D	MW-7	3/22/2016 2:10:00PM	Groundwater	ION SCAN			03/23/2016
1603M60-003E	MW-7	3/22/2016 2:10:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603M60-003F	MW-7	3/22/2016 2:10:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603M60-004A	DW-1	3/22/2016 4:00:00PM	Groundwater	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/28/2016
1603M60-004B	DW-1	3/22/2016 4:00:00PM	Groundwater	GC Analysis of Gaseous Samples		3/28/2016 9:27:48AM	03/28/2016
1603M60-004C	DW-1	3/22/2016 4:00:00PM	Groundwater	Total Organic Carbon (TOC)			03/29/2016
1603M60-004D	DW-1	3/22/2016 4:00:00PM	Groundwater	ION SCAN			03/23/2016
1603M60-004D	DW-1	3/22/2016 4:00:00PM	Groundwater	ION SCAN			03/24/2016
1603M60-004E	DW-1	3/22/2016 4:00:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603M60-004F	DW-1	3/22/2016 4:00:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603M60-005A	MW-10	3/22/2016 10:15:00AM	Groundwater	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/28/2016
1603M60-005B	MW-10	3/22/2016 10:15:00AM	Groundwater	GC Analysis of Gaseous Samples		3/28/2016 9:27:48AM	03/28/2016
1603M60-005C	MW-10	3/22/2016 10:15:00AM	Groundwater	Total Organic Carbon (TOC)			03/29/2016
1603M60-005D	MW-10	3/22/2016 10:15:00AM	Groundwater	ION SCAN			03/23/2016

Analytical Environmental Services, Inc

Date: 31-Mar-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Lab Order: 1603M60

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1603M60-005E	MW-10	3/22/2016 10:15:00AM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603M60-005F	MW-10	3/22/2016 10:15:00AM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603M60-006A	MW-8	3/22/2016 12:20:00PM	Groundwater	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/28/2016
1603M60-006A	MW-8	3/22/2016 12:20:00PM	Groundwater	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/29/2016
1603M60-006B	MW-8	3/22/2016 12:20:00PM	Groundwater	GC Analysis of Gaseous Samples		3/28/2016 9:27:48AM	03/28/2016
1603M60-006C	MW-8	3/22/2016 12:20:00PM	Groundwater	Total Organic Carbon (TOC)			03/29/2016
1603M60-006D	MW-8	3/22/2016 12:20:00PM	Groundwater	ION SCAN			03/23/2016
1603M60-006E	MW-8	3/22/2016 12:20:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603M60-006F	MW-8	3/22/2016 12:20:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603M60-007A	MW-17	3/22/2016 2:30:00PM	Groundwater	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/28/2016
1603M60-007B	MW-17	3/22/2016 2:30:00PM	Groundwater	GC Analysis of Gaseous Samples		3/28/2016 9:27:48AM	03/28/2016
1603M60-007C	MW-17	3/22/2016 2:30:00PM	Groundwater	Total Organic Carbon (TOC)			03/29/2016
1603M60-007D	MW-17	3/22/2016 2:30:00PM	Groundwater	ION SCAN			03/23/2016
1603M60-007D	MW-17	3/22/2016 2:30:00PM	Groundwater	ION SCAN			03/24/2016
1603M60-007E	MW-17	3/22/2016 2:30:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603M60-007F	MW-17	3/22/2016 2:30:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603M60-008A	MW-4	3/22/2016 4:50:00PM	Groundwater	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/28/2016
1603M60-008A	MW-4	3/22/2016 4:50:00PM	Groundwater	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/29/2016
1603M60-008B	MW-4	3/22/2016 4:50:00PM	Groundwater	GC Analysis of Gaseous Samples		3/28/2016 9:27:48AM	03/28/2016
1603M60-008C	MW-4	3/22/2016 4:50:00PM	Groundwater	Total Organic Carbon (TOC)			03/29/2016
1603M60-008D	MW-4	3/22/2016 4:50:00PM	Groundwater	ION SCAN			03/23/2016
1603M60-008D	MW-4	3/22/2016 4:50:00PM	Groundwater	ION SCAN			03/24/2016
1603M60-008E	MW-4	3/22/2016 4:50:00PM	Groundwater	Alkalinity by SM2320B			03/28/2016
1603M60-008F	MW-4	3/22/2016 4:50:00PM	Groundwater	Sulfide by SW9030/9034		3/25/2016 8:30:00AM	03/25/2016
1603M60-009A	TRIP BLANKS	3/22/2016 12:00:00AM	Aqueous	TCL VOLATILE ORGANICS		3/24/2016 4:03:00PM	03/28/2016

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1603M60

ANALYTICAL QC SUMMARY REPORT

BatchID: 221624

Sample ID: **MB-221624** Client ID: Units: **mg/L** Prep Date: **03/24/2016** Run No: **313173**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221624** Analysis Date: **03/24/2016** Seq No: **6737417**

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	0.001720	0.005									J
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	0.04590	0	50.00		91.8	70.7	125				
Surr: Dibromofluoromethane	0.05433	0	50.00		109	82.2	120				
Surr: Toluene-d8	0.04868	0	50.00		97.4	81.8	120				

Sample ID: **LCS-221624** Client ID: Units: **mg/L** Prep Date: **03/24/2016** Run No: **313173**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221624** Analysis Date: **03/24/2016** Seq No: **6737422**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.06268	0.005	50.00		125	65.3	137				
Trichloroethene	0.05538	0.005	50.00		111	73.1	128				
Surr: 4-Bromofluorobenzene	0.04551	0	50.00		91.0	70.7	125				
Surr: Dibromofluoromethane	0.05321	0	50.00		106	82.2	120				
Surr: Toluene-d8	0.04778	0	50.00		95.6	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: 1603M60

ANALYTICAL QC SUMMARY REPORT

BatchID: 221624

Sample ID: **1603N54-002AMS**	Client ID:		Units: **mg/L**	Prep Date: **03/24/2016**	Run No: **313173**
SampleType: **MS**	TestCode: **TCL VOLATILE ORGANICS SW8260B**		BatchID: **221624**	Analysis Date: **03/24/2016**	Seq No: **6737420**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.06863	0.005	50.00		137	60	150				
Trichloroethene	0.05866	0.005	50.00		117	70	136				
Surr: 4-Bromofluorobenzene	0.04654	0	50.00		93.1	70.7	125				
Surr: Dibromofluoromethane	0.05256	0	50.00		105	82.2	120				
Surr: Toluene-d8	0.04725	0	50.00		94.5	81.8	120				

Sample ID: **1603N54-002AMSD**	Client ID:		Units: **mg/L**	Prep Date: **03/24/2016**	Run No: **313173**
SampleType: **MSD**	TestCode: **TCL VOLATILE ORGANICS SW8260B**		BatchID: **221624**	Analysis Date: **03/24/2016**	Seq No: **6737421**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.06676	0.005	50.00		134	60	150	68.63	2.76	17.7	
Trichloroethene	0.05851	0.005	50.00		117	70	136	58.66	0.256	20	
Surr: 4-Bromofluorobenzene	0.04615	0	50.00		92.3	70.7	125	46.54	0	0	
Surr: Dibromofluoromethane	0.05166	0	50.00		103	82.2	120	52.56	0	0	
Surr: Toluene-d8	0.04716	0	50.00		94.3	81.8	120	47.25	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: 1603M60

ANALYTICAL QC SUMMARY REPORT

BatchID: 221675

Sample ID: **MB-221675** Client ID: Units: **mg/L** Prep Date: **03/25/2016** Run No: **313406**
SampleType: **MBLK** TestCode: **Sulfide by SW9030B/9034** BatchID: **221675** Analysis Date: **03/25/2016** Seq No: **6741342**

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-221675** Client ID: Units: **mg/L** Prep Date: **03/25/2016** Run No: **313406**
SampleType: **LCS** TestCode: **Sulfide by SW9030B/9034** BatchID: **221675** Analysis Date: **03/25/2016** Seq No: **6741343**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	256.0	2.00	256.0		100	40	120				

Sample ID: **1603M60-001FMS** Client ID: **MW-11** Units: **mg/L** Prep Date: **03/25/2016** Run No: **313406**
SampleType: **MS** TestCode: **Sulfide by SW9030B/9034** BatchID: **221675** Analysis Date: **03/25/2016** Seq No: **6741373**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	12.00	2.00	12.80		93.8	61.2	120				

Sample ID: **1603M60-001FMSD** Client ID: **MW-11** Units: **mg/L** Prep Date: **03/25/2016** Run No: **313406**
SampleType: **MSD** TestCode: **Sulfide by SW9030B/9034** BatchID: **221675** Analysis Date: **03/25/2016** Seq No: **6741380**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	11.80	2.00	12.80		92.2	61.2	120	12.00	1.68	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: 1603M60

ANALYTICAL QC SUMMARY REPORT

BatchID: 221700

Sample ID: **MB-221700** Client ID: Units: **mg/L** Prep Date: **03/28/2016** Run No: **313343**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221700** Analysis Date: **03/28/2016** Seq No: **6741033**

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-221700** Client ID: Units: **mg/L** Prep Date: **03/28/2016** Run No: **313343**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221700** Analysis Date: **03/28/2016** Seq No: **6741034**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1140	0.0090	200.0		57.0	40.9	115				
Ethylene	0.07477	0.0070	200.0		37.4	26.8	115				
Methane	0.1289	0.0040	200.0		64.4	45.9	115				

Sample ID: **LCSD-221700** Client ID: Units: **mg/L** Prep Date: **03/28/2016** Run No: **313343**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221700** Analysis Date: **03/28/2016** Seq No: **6741035**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1061	0.0090	200.0		53.1	40.9	115	114.0	7.14	20	
Ethylene	0.07195	0.0070	200.0		36.0	26.8	115	74.77	3.85	20	
Methane	0.1193	0.0040	200.0		59.6	45.9	115	128.9	7.74	20	

Sample ID: **1603M60-002BMS** Client ID: **MW-12** Units: **mg/L** Prep Date: **03/28/2016** Run No: **313343**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221700** Analysis Date: **03/28/2016** Seq No: **6741043**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1087	0.0090	200.0		54.3	40.5	115				
Ethylene	0.07294	0.0070	200.0		36.5	23	115				
Methane	0.1309	0.0040	200.0	6.963	62.0	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: 1603M60

ANALYTICAL QC SUMMARY REPORT

BatchID: 221700

Sample ID: **1603M60-002BMSD** Client ID: **MW-12** Units: **mg/L** Prep Date: **03/28/2016** Run No: **313343**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **221700** Analysis Date: **03/28/2016** Seq No: **6741044**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1088	0.0090	200.0		54.4	40.5	115	108.7	0.105	20	
Ethylene	0.07492	0.0070	200.0		37.5	23	115	72.94	2.68	20	
Methane	0.1312	0.0040	200.0	6.963	62.1	40	115	130.9	0.197	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: 1603M60

ANALYTICAL QC SUMMARY REPORT

BatchID: R313468

Sample ID: **MB-R313468**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313468**
SampleType: **MBLK**	TestCode: **Alkalinity by SM2320B**			BatchID: **R313468**	Analysis Date: **03/28/2016**	Seq No: **6742704**

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-R313468**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313468**
SampleType: **LCS**	TestCode: **Alkalinity by SM2320B**			BatchID: **R313468**	Analysis Date: **03/28/2016**	Seq No: **6742705**

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)	124.0	3.00	125.0		99.2	75	125				

Sample ID: **1603M58-001DDUP**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313468**
SampleType: **DUP**	TestCode: **Alkalinity by SM2320B**			BatchID: **R313468**	Analysis Date: **03/28/2016**	Seq No: **6742706**

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)	52.00	3.00						52.00	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: 1603M60

ANALYTICAL QC SUMMARY REPORT

BatchID: R313472

Sample ID: **MB-R313472** Client ID: Units: **mg/L** Prep Date: Run No: **313472**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R313472** Analysis Date: **03/23/2016** Seq No: **6742719**

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

Sample ID: **LCS-R313472** Client ID: Units: **mg/L** Prep Date: Run No: **313472**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R313472** Analysis Date: **03/23/2016** Seq No: **6742718**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	5.145	1.0	5.000		103	90	110				
Nitrate	5.365	0.25	5.000		107	90	110				
Sulfate	24.96	1.0	25.00		99.8	90	110				

Sample ID: **1603M27-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **313472**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R313472** Analysis Date: **03/23/2016** Seq No: **6742725**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	82.53	10	50.00	39.70	85.7	90	110				S
Nitrate	58.42	2.5	50.00	6.438	104	90	110				
Sulfate	267.8	10	250.0	30.60	94.9	90	110				

Sample ID: **1603M28-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **313472**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R313472** Analysis Date: **03/23/2016** Seq No: **6742738**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	91.07	10	50.00	47.53	87.1	90	110				S
Nitrate	61.36	2.5	50.00	9.006	105	90	110				
Sulfate	269.1	10	250.0	28.38	96.3	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		

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1603M60

ANALYTICAL QC SUMMARY REPORT

BatchID: R313472

Sample ID: **1603M27-002BMSD** Client ID:
SampleType: **MSD** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **313472**
BatchID: **R313472** Analysis Date: **03/23/2016** Seq No: **6742726**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	82.59	10	50.00	39.70	85.8	90	110	82.53	0.070	20	S
Nitrate	58.23	2.5	50.00	6.438	104	90	110	58.42	0.328	20	
Sulfate	266.1	10	250.0	30.60	94.2	90	110	267.8	0.652	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: 1603M60

ANALYTICAL QC SUMMARY REPORT

BatchID: R313546

Sample ID: **MB-R313546**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313546**
SampleType: **MBLK**	TestCode: **Total Organic Carbon (TOC) SW9060A**			BatchID: **R313546**	Analysis Date: **03/29/2016**	Seq No: **6744290**

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-R313546**	Client ID:			Units: **mg/L**	Prep Date:	Run No: **313546**
SampleType: **LCS**	TestCode: **Total Organic Carbon (TOC) SW9060A**			BatchID: **R313546**	Analysis Date: **03/29/2016**	Seq No: **6744289**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.25	1.00	25.00		101	90	110				

Sample ID: **1603M60-002CMS**	Client ID: **MW-12**			Units: **mg/L**	Prep Date:	Run No: **313546**
SampleType: **MS**	TestCode: **Total Organic Carbon (TOC) SW9060A**			BatchID: **R313546**	Analysis Date: **03/29/2016**	Seq No: **6744331**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.07	1.00	25.00	1.091	95.9	80	120				

Sample ID: **1603M60-002CMSD**	Client ID: **MW-12**			Units: **mg/L**	Prep Date:	Run No: **313546**
SampleType: **MSD**	TestCode: **Total Organic Carbon (TOC) SW9060A**			BatchID: **R313546**	Analysis Date: **03/29/2016**	Seq No: **6744332**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.48	1.00	25.00	1.091	97.6	80	120	25.07	1.62	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		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 05, 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: 1603N83

Analytical Environmental Services, Inc. received 4 samples on 3/24/2016 2:22:00 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 07/01/15-06/30/16.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
-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, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

CRKanhai

Chantelle Kanhai
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: 1603N83

Date: 3/23/2016 Page 1 of 1

COMPANY: EarthCon Consultants, Inc.

ADDRESS: 1880 West Oak Parkway Building 100, Suite 106 Marietta, GA 30062

PHONE: 770-973-2100

FAX: 770-973-7395

SAMPLED BY: Samantha Woolf / Keaton Henry

SIGNATURE: [signature]

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

ANALYSIS REQUESTED / PRESERVATION (See codes)

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs (H+I)	GC Analysis (H+I)	TOC (S+I)	Ion Scan (NA)	Sulfide (NaOH)	Alkalinity (NA)							REMARKS	No # of Containers
1	MW-1	3/23/2016	0940	✓		GW	2	2	1	1	1	1								8
2	MW-3	3/23/2016	1050	✓		GW	2	2	1	1	1	1								8
3	DUP-1	3/23/2016	—	✓		GW	2													2
4	Trip Blank	3/23/2016	—				2													2
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Samantha Woolf [signature]	3/23/2016 1320	1: [signature] March-24-16	10:12 Am
2: [signature] March-24-16	2:22 pm	2: [signature]	3-24-16 14:22
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS: ** nitrates - 48-hr hold time

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL (COURIER circled)
GREYHOUND OTHER____

PROJECT INFORMATION
PROJECT NAME: Apollo Smyrna
PROJECT #: 02.20140391.16
SITE ADDRESS: 1850 South Cobb Industrial Blvd Smyrna, GA 30082
SEND REPORT TO: Kristen Rivera / Samantha Woolf
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers

Turnaround Time Request
- [X] 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:** 5-Apr-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-1
Project Name:	Apollo Smyrna	**Collection Date:**	3/23/2016 9:40:00 AM
Lab ID:	1603N83-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	9.73		0.337	1.00	mg/L	R313546	1	03/29/2016 14:38	YS
TCL VOLATILE ORGANICS SW8260B						**(SW5030B)**			
1,1,1-Trichloroethane	0.004	J	0.00025	0.005	mg/L	221889	1	03/29/2016 18:56	CH
1,1-Dichloroethane	0.008		0.00025	0.005	mg/L	221889	1	03/29/2016 18:56	CH
1,1-Dichloroethene	0.002	J	0.00036	0.005	mg/L	221889	1	03/29/2016 18:56	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221889	1	03/29/2016 18:56	CH
Acetone	BRL		0.0053	0.050	mg/L	221889	1	03/29/2016 18:56	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221889	1	03/29/2016 18:56	CH
cis-1,2-Dichloroethene	0.022		0.00027	0.005	mg/L	221889	1	03/29/2016 18:56	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221889	1	03/29/2016 18:56	CH
Methylene chloride	0.004	J	0.00031	0.005	mg/L	221889	1	03/29/2016 18:56	CH
Tetrachloroethene	0.010		0.00029	0.005	mg/L	221889	1	03/29/2016 18:56	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221889	1	03/29/2016 18:56	CH
Trichloroethene	BRL		0.00035	0.005	mg/L	221889	1	03/29/2016 18:56	CH
Vinyl chloride	0.008		0.00042	0.002	mg/L	221889	1	03/29/2016 18:56	CH
Surr: 4-Bromofluorobenzene	82.1		0	70.7-125	%REC	221889	1	03/29/2016 18:56	CH
Surr: Dibromofluoromethane	110		0	82.2-120	%REC	221889	1	03/29/2016 18:56	CH
Surr: Toluene-d8	103		0	81.8-120	%REC	221889	1	03/29/2016 18:56	CH
Sulfide by SW9030B/9034						**(SW9030B)**			
Sulfide	BRL		0.764	2.00	mg/L	221887	1	03/29/2016 08:30	PF
ION SCAN SW9056A									
Chloride	6.4		0.11	1.0	mg/L	R313571	1	03/24/2016 17:47	JW
Nitrate	1.5		0.024	0.25	mg/L	R313571	1	03/24/2016 17:47	JW
Sulfate	59		1.0	10	mg/L	R313571	10	03/24/2016 19:46	JW
GC Analysis of Gaseous Samples SOP-RSK 175						**(RSK175)**			
Ethane	BRL		0.0019	0.0090	mg/L	221700	1	03/28/2016 12:54	MD
Ethylene	0.0035	J	0.0035	0.0070	mg/L	221700	1	03/28/2016 12:54	MD
Methane	0.0098		0.0012	0.0040	mg/L	221700	1	03/28/2016 12:54	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	54.0		1.68	3.00	mg/L	R313580	1	03/30/2016 11:40	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 5-Apr-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	MW-3
Project Name:	Apollo Smyrna	**Collection Date:**	3/23/2016 10:50:00 AM
Lab ID:	1603N83-002	**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	R313546	1	03/29/2016 16:13	YS
TCL VOLATILE ORGANICS SW8260B						**(SW5030B)**			
1,1,1-Trichloroethane	0.022		0.00025	0.005	mg/L	221889	1	03/29/2016 19:21	CH
1,1-Dichloroethane	0.18		0.0025	0.050	mg/L	221889	10	03/31/2016 00:22	CH
1,1-Dichloroethene	0.023		0.00036	0.005	mg/L	221889	1	03/29/2016 19:21	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221889	1	03/29/2016 19:21	CH
Acetone	0.33		0.0053	0.050	mg/L	221889	1	03/29/2016 19:21	CH
Chloroethane	0.32		0.0039	0.10	mg/L	221889	10	03/31/2016 00:22	CH
cis-1,2-Dichloroethene	0.17		0.00027	0.005	mg/L	221889	1	03/29/2016 19:21	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221889	1	03/29/2016 19:21	CH
Methylene chloride	0.009		0.00031	0.005	mg/L	221889	1	03/29/2016 19:21	CH
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221889	1	03/29/2016 19:21	CH
trans-1,2-Dichloroethene	0.002	J	0.00022	0.005	mg/L	221889	1	03/29/2016 19:21	CH
Trichloroethene	BRL		0.00035	0.005	mg/L	221889	1	03/29/2016 19:21	CH
Vinyl chloride	0.17		0.00042	0.002	mg/L	221889	1	03/29/2016 19:21	CH
Surr: 4-Bromofluorobenzene	88.1		0	70.7-125	%REC	221889	1	03/29/2016 19:21	CH
Surr: 4-Bromofluorobenzene	86		0	70.7-125	%REC	221889	10	03/31/2016 00:22	CH
Surr: Dibromofluoromethane	112		0	82.2-120	%REC	221889	1	03/29/2016 19:21	CH
Surr: Dibromofluoromethane	94.1		0	82.2-120	%REC	221889	10	03/31/2016 00:22	CH
Surr: Toluene-d8	104		0	81.8-120	%REC	221889	1	03/29/2016 19:21	CH
Surr: Toluene-d8	90.2		0	81.8-120	%REC	221889	10	03/31/2016 00:22	CH
Sulfide by SW9030B/9034						**(SW9030B)**			
Sulfide	BRL		0.764	2.00	mg/L	221887	1	03/29/2016 08:30	PF
ION SCAN SW9056A									
Chloride	48		1.1	10	mg/L	R313571	10	03/24/2016 20:01	JW
Nitrate	0.040	J	0.024	0.25	mg/L	R313571	1	03/24/2016 18:02	JW
Sulfate	7.7		0.10	1.0	mg/L	R313571	1	03/24/2016 18:02	JW
GC Analysis of Gaseous Samples SOP-RSK 175						**(RSK175)**			
Ethane	0.25		0.0019	0.0090	mg/L	221700	1	03/28/2016 12:59	MD
Ethylene	0.057		0.0035	0.0070	mg/L	221700	1	03/28/2016 12:59	MD
Methane	3.3		0.047	0.16	mg/L	221700	40	03/28/2016 13:27	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	200		16.8	30.0	mg/L	R313580	10	03/30/2016 11:40	PF

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 5-Apr-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	DUP-1
Project Name:	Apollo Smyrna	**Collection Date:**	3/23/2016
Lab ID:	1603N83-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
1,1,1-Trichloroethane	0.004	J	0.00025	0.005	mg/L	221889	1	03/29/2016 19:47	CH
1,1-Dichloroethane	0.008		0.00025	0.005	mg/L	221889	1	03/29/2016 19:47	CH
1,1-Dichloroethene	0.002	J	0.00036	0.005	mg/L	221889	1	03/29/2016 19:47	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221889	1	03/29/2016 19:47	CH
Acetone	BRL		0.0053	0.050	mg/L	221889	1	03/29/2016 19:47	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221889	1	03/29/2016 19:47	CH
cis-1,2-Dichloroethene	0.021		0.00027	0.005	mg/L	221889	1	03/29/2016 19:47	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221889	1	03/29/2016 19:47	CH
Methylene chloride	0.004	J	0.00031	0.005	mg/L	221889	1	03/29/2016 19:47	CH
Tetrachloroethene	0.012		0.00029	0.005	mg/L	221889	1	03/29/2016 19:47	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221889	1	03/29/2016 19:47	CH
Trichloroethene	0.002	J	0.00035	0.005	mg/L	221889	1	03/29/2016 19:47	CH
Vinyl chloride	0.009		0.00042	0.002	mg/L	221889	1	03/29/2016 19:47	CH
Surr: 4-Bromofluorobenzene	80.9		0	70.7-125	%REC	221889	1	03/29/2016 19:47	CH
Surr: Dibromofluoromethane	107		0	82.2-120	%REC	221889	1	03/29/2016 19:47	CH
Surr: Toluene-d8	105		0	81.8-120	%REC	221889	1	03/29/2016 19:47	CH

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 5-Apr-16

Client:	EarthCon Consultants, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Apollo Smyrna	**Collection Date:**	3/23/2016
Lab ID:	1603N83-004	**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	221889	1	03/29/2016 13:19	CH
1,1-Dichloroethane	BRL		0.00025	0.005	mg/L	221889	1	03/29/2016 13:19	CH
1,1-Dichloroethene	BRL		0.00036	0.005	mg/L	221889	1	03/29/2016 13:19	CH
1,2-Dichloroethane	BRL		0.00024	0.005	mg/L	221889	1	03/29/2016 13:19	CH
Acetone	BRL		0.0053	0.050	mg/L	221889	1	03/29/2016 13:19	CH
Chloroethane	BRL		0.00039	0.010	mg/L	221889	1	03/29/2016 13:19	CH
cis-1,2-Dichloroethene	BRL		0.00027	0.005	mg/L	221889	1	03/29/2016 13:19	CH
Cyclohexane	BRL		0.0016	0.005	mg/L	221889	1	03/29/2016 13:19	CH
Methylene chloride	0.001	J	0.00031	0.005	mg/L	221889	1	03/29/2016 13:19	CH
Tetrachloroethene	BRL		0.00029	0.005	mg/L	221889	1	03/29/2016 13:19	CH
trans-1,2-Dichloroethene	BRL		0.00022	0.005	mg/L	221889	1	03/29/2016 13:19	CH
Trichloroethene	BRL		0.00035	0.005	mg/L	221889	1	03/29/2016 13:19	CH
Vinyl chloride	BRL		0.00042	0.002	mg/L	221889	1	03/29/2016 13:19	CH
Surr: 4-Bromofluorobenzene	83.6		0	70.7-125	%REC	221889	1	03/29/2016 13:19	CH
Surr: Dibromofluoromethane	105		0	82.2-120	%REC	221889	1	03/29/2016 13:19	CH
Surr: Toluene-d8	98.5		0	81.8-120	%REC	221889	1	03/29/2016 13:19	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
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Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Earthcon Work Order Number 1603N83

Checklist completed by Christa Glest 3-24-16
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 4.3°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: 1-Apr-16

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Lab Order: 1603N83

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1603N83-001A	MW-1	3/23/2016 9:40:00AM	Groundwater	TCL VOLATILE ORGANICS		3/29/2016 12:00:00PM	03/29/2016
1603N83-001B	MW-1	3/23/2016 9:40:00AM	Groundwater	GC Analysis of Gaseous Samples		3/28/2016 9:27:48AM	03/28/2016
1603N83-001C	MW-1	3/23/2016 9:40:00AM	Groundwater	Total Organic Carbon (TOC)			03/29/2016
1603N83-001D	MW-1	3/23/2016 9:40:00AM	Groundwater	ION SCAN			03/24/2016
1603N83-001E	MW-1	3/23/2016 9:40:00AM	Groundwater	Sulfide by SW9030/9034		3/29/2016 8:30:00AM	03/29/2016
1603N83-001F	MW-1	3/23/2016 9:40:00AM	Groundwater	Alkalinity by SM2320B			03/30/2016
1603N83-002A	MW-3	3/23/2016 10:50:00AM	Groundwater	TCL VOLATILE ORGANICS		3/29/2016 12:00:00PM	03/29/2016
1603N83-002A	MW-3	3/23/2016 10:50:00AM	Groundwater	TCL VOLATILE ORGANICS		3/29/2016 12:00:00PM	03/31/2016
1603N83-002B	MW-3	3/23/2016 10:50:00AM	Groundwater	GC Analysis of Gaseous Samples		3/28/2016 9:27:48AM	03/28/2016
1603N83-002C	MW-3	3/23/2016 10:50:00AM	Groundwater	Total Organic Carbon (TOC)			03/29/2016
1603N83-002D	MW-3	3/23/2016 10:50:00AM	Groundwater	ION SCAN			03/24/2016
1603N83-002E	MW-3	3/23/2016 10:50:00AM	Groundwater	Sulfide by SW9030/9034		3/29/2016 8:30:00AM	03/29/2016
1603N83-002F	MW-3	3/23/2016 10:50:00AM	Groundwater	Alkalinity by SM2320B			03/30/2016
1603N83-003A	DUP-1	3/23/2016 12:00:00AM	Groundwater	TCL VOLATILE ORGANICS		3/29/2016 12:00:00PM	03/29/2016
1603N83-004A	TRIP BLANK	3/23/2016 12:00:00AM	Aqueous	TCL VOLATILE ORGANICS		3/29/2016 12:00:00PM	03/29/2016

Client: EarthCon Consultants, Inc.
Project Name: Apollo Smyrna
Workorder: 1603N83

ANALYTICAL QC SUMMARY REPORT

BatchID: 221700

Sample ID: **MB-221700**	Client ID:			Units: **mg/L**	Prep Date: **03/28/2016**	Run No: **313343**
SampleType: **MBLK**	TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**			BatchID: **221700**	Analysis Date: **03/28/2016**	Seq No: **6741033**

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-221700**	Client ID:			Units: **mg/L**	Prep Date: **03/28/2016**	Run No: **313343**
SampleType: **LCS**	TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**			BatchID: **221700**	Analysis Date: **03/28/2016**	Seq No: **6741034**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1140	0.0090	200.0		57.0	40.9	115				
Ethylene	0.07477	0.0070	200.0		37.4	26.8	115				
Methane	0.1289	0.0040	200.0		64.4	45.9	115				

Sample ID: **LCSD-221700**	Client ID:			Units: **mg/L**	Prep Date: **03/28/2016**	Run No: **313343**
SampleType: **LCSD**	TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**			BatchID: **221700**	Analysis Date: **03/28/2016**	Seq No: **6741035**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1061	0.0090	200.0		53.1	40.9	115	114.0	7.14	20	
Ethylene	0.07195	0.0070	200.0		36.0	26.8	115	74.77	3.85	20	
Methane	0.1193	0.0040	200.0		59.6	45.9	115	128.9	7.74	20	

Sample ID: **1603M60-002BMS**	Client ID:			Units: **mg/L**	Prep Date: **03/28/2016**	Run No: **313343**
SampleType: **MS**	TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**			BatchID: **221700**	Analysis Date: **03/28/2016**	Seq No: **6741043**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1087	0.0090	200.0		54.3	40.5	115				
Ethylene	0.07294	0.0070	200.0		36.5	23	115				
Methane	0.1309	0.0040	200.0	6.963	62.0	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: 1603N83

ANALYTICAL QC SUMMARY REPORT

BatchID: 221700

Sample ID: **1603M60-002BMSD** Client ID:
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**
Units: **mg/L** Prep Date: **03/28/2016** Run No: **313343**
BatchID: **221700** Analysis Date: **03/28/2016** Seq No: **6741044**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	0.1088	0.0090	200.0		54.4	40.5	115	108.7	0.105	20	
Ethylene	0.07492	0.0070	200.0		37.5	23	115	72.94	2.68	20	
Methane	0.1312	0.0040	200.0	6.963	62.1	40	115	130.9	0.197	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: 1603N83

ANALYTICAL QC SUMMARY REPORT

BatchID: 221887

Sample ID: **MB-221887**	Client ID:			Units: **mg/L**	Prep Date: **03/29/2016**	Run No: **313516**
SampleType: **MBLK**	TestCode: **Sulfide by SW9030B/9034**			BatchID: **221887**	Analysis Date: **03/29/2016**	Seq No: **6743737**

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-221887**	Client ID:			Units: **mg/L**	Prep Date: **03/29/2016**	Run No: **313516**
SampleType: **LCS**	TestCode: **Sulfide by SW9030B/9034**			BatchID: **221887**	Analysis Date: **03/29/2016**	Seq No: **6743738**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	192.0	2.00	192.0		100	40	120				

Sample ID: **1603N83-001EMS**	Client ID: **MW-1**			Units: **mg/L**	Prep Date: **03/29/2016**	Run No: **313516**
SampleType: **MS**	TestCode: **Sulfide by SW9030B/9034**			BatchID: **221887**	Analysis Date: **03/29/2016**	Seq No: **6743768**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	8.400	2.00	9.600		87.5	61.2	120				

Sample ID: **1603N83-001EMSD**	Client ID: **MW-1**			Units: **mg/L**	Prep Date: **03/29/2016**	Run No: **313516**
SampleType: **MSD**	TestCode: **Sulfide by SW9030B/9034**			BatchID: **221887**	Analysis Date: **03/29/2016**	Seq No: **6743769**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfide	8.200	2.00	9.600		85.4	61.2	120	8.400	2.41	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: 1603N83

ANALYTICAL QC SUMMARY REPORT

BatchID: 221889

Sample ID: **MB-221889** Client ID: Units: **mg/L** Prep Date: **03/29/2016** Run No: **313517**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221889** Analysis Date: **03/29/2016** Seq No: **6743852**

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	0.04184	0	50.00		83.7	70.7	125				
Surr: Dibromofluoromethane	0.04961	0	50.00		99.2	82.2	120				
Surr: Toluene-d8	0.04606	0	50.00		92.1	81.8	120				

Sample ID: **LCS-221889** Client ID: Units: **mg/L** Prep Date: **03/29/2016** Run No: **313517**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221889** Analysis Date: **03/29/2016** Seq No: **6743850**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	0.06311	0.005	50.00		126	65.3	137				
Trichloroethene	0.05645	0.005	50.00		113	73.1	128				
Surr: 4-Bromofluorobenzene	0.04221	0	50.00		84.4	70.7	125				
Surr: Dibromofluoromethane	0.05075	0	50.00		102	82.2	120				
Surr: Toluene-d8	0.04946	0	50.00		98.9	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: 1603N83

ANALYTICAL QC SUMMARY REPORT

BatchID: 221889

Sample ID: **1603O18-001AMS** Client ID: Units: **mg/L** Prep Date: **03/29/2016** Run No: **313517**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221889** Analysis Date: **03/29/2016** Seq No: **6743859**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	6.354	0.50	5000		127	60	150				
Trichloroethene	13.50	0.50	5000	8189	106	70	136				
Surr: 4-Bromofluorobenzene	4.217	0	5000		84.3	70.7	125				
Surr: Dibromofluoromethane	5.122	0	5000		102	82.2	120				
Surr: Toluene-d8	4.818	0	5000		96.4	81.8	120				

Sample ID: **1603O18-001AMSD** Client ID: Units: **mg/L** Prep Date: **03/29/2016** Run No: **313517**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **221889** Analysis Date: **03/29/2016** Seq No: **6743860**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	6.174	0.50	5000		123	60	150	6354	2.87	17.7	
Trichloroethene	13.54	0.50	5000	8189	107	70	136	13510	0.274	20	
Surr: 4-Bromofluorobenzene	4.102	0	5000		82.0	70.7	125	4217	0	0	
Surr: Dibromofluoromethane	5.092	0	5000		102	82.2	120	5122	0	0	
Surr: Toluene-d8	5.060	0	5000		101	81.8	120	4818	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: 1603N83

ANALYTICAL QC SUMMARY REPORT

BatchID: R313546

Sample ID: **MB-R313546**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313546**
SampleType: **MBLK**	TestCode: **Total Organic Carbon (TOC) SW9060A**				BatchID: **R313546**		Analysis Date: **03/29/2016**		Seq No: **6744290**

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-R313546**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313546**
SampleType: **LCS**	TestCode: **Total Organic Carbon (TOC) SW9060A**				BatchID: **R313546**		Analysis Date: **03/29/2016**		Seq No: **6744289**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.25	1.00	25.00		101	90	110				

Sample ID: **1603M60-002CMS**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313546**
SampleType: **MS**	TestCode: **Total Organic Carbon (TOC) SW9060A**				BatchID: **R313546**		Analysis Date: **03/29/2016**		Seq No: **6744331**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.07	1.00	25.00	1.091	95.9	80	120				

Sample ID: **1603M60-002CMSD**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313546**
SampleType: **MSD**	TestCode: **Total Organic Carbon (TOC) SW9060A**				BatchID: **R313546**		Analysis Date: **03/29/2016**		Seq No: **6744332**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.48	1.00	25.00	1.091	97.6	80	120	25.07	1.62	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: 1603N83

ANALYTICAL QC SUMMARY REPORT

BatchID: R313571

Sample ID: **MB-R313571** Client ID: Units: **mg/L** Prep Date: Run No: **313571**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R313571** Analysis Date: **03/24/2016** Seq No: **6745060**

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

Sample ID: **LCS-R313571** Client ID: Units: **mg/L** Prep Date: Run No: **313571**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R313571** Analysis Date: **03/24/2016** Seq No: **6745059**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	5.205	1.0	5.000		104	90	110				
Nitrate	5.369	0.25	5.000		107	90	110				
Sulfate	25.17	1.0	25.00		101	90	110				

Sample ID: **1603N35-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **313571**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R313571** Analysis Date: **03/24/2016** Seq No: **6745063**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	83.47	10	50.00	39.92	87.1	90	110				S
Nitrate	57.57	2.5	50.00	7.290	101	90	110				
Sulfate	272.0	10	250.0	31.82	96.1	90	110				

Sample ID: **1603N35-002BMSD** Client ID: Units: **mg/L** Prep Date: Run No: **313571**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R313571** Analysis Date: **03/24/2016** Seq No: **6745064**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	85.12	10	50.00	39.92	90.4	90	110	83.47	1.96	20	
Nitrate	61.01	2.5	50.00	7.290	107	90	110	57.57	5.80	20	
Sulfate	281.6	10	250.0	31.82	99.9	90	110	272.0	3.47	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: 1603N83

ANALYTICAL QC SUMMARY REPORT

BatchID: R313580

Sample ID: **MB-R313580**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313580**
SampleType: **MBLK**	TestCode: **Alkalinity by SM2320B**				BatchID: **R313580**		Analysis Date: **03/30/2016**		Seq No: **6745280**

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-R313580**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313580**
SampleType: **LCS**	TestCode: **Alkalinity by SM2320B**				BatchID: **R313580**		Analysis Date: **03/30/2016**		Seq No: **6745281**

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)	123.0	3.00	125.0		98.4	75	125				

Sample ID: **1603O83-001ADUP**	Client ID:				Units: **mg/L**		Prep Date:		Run No: **313580**
SampleType: **DUP**	TestCode: **Alkalinity by SM2320B**				BatchID: **R313580**		Analysis Date: **03/30/2016**		Seq No: **6745293**

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)	140.0	3.00						140.0	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		

APPENDIX D

GROUNDWATER TREND GRAPHS AND HISTORICAL DATA SUMMARY

Figure D1A. Apollo Plume Area Monitoring Wells - Tetrachloroethene

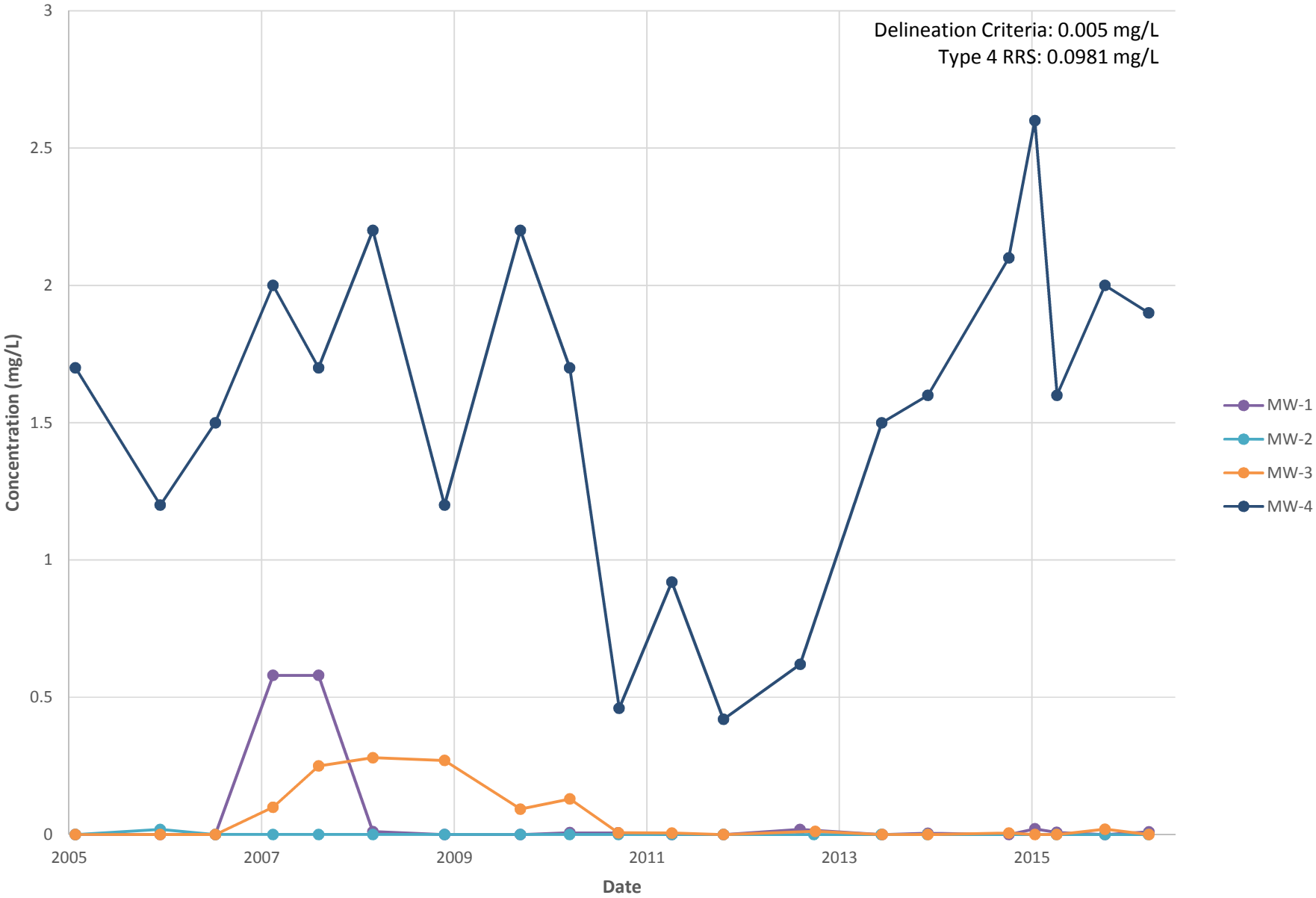

Figure D2A. Apollo Plume Area Monitoring Wells - Trichloroethene

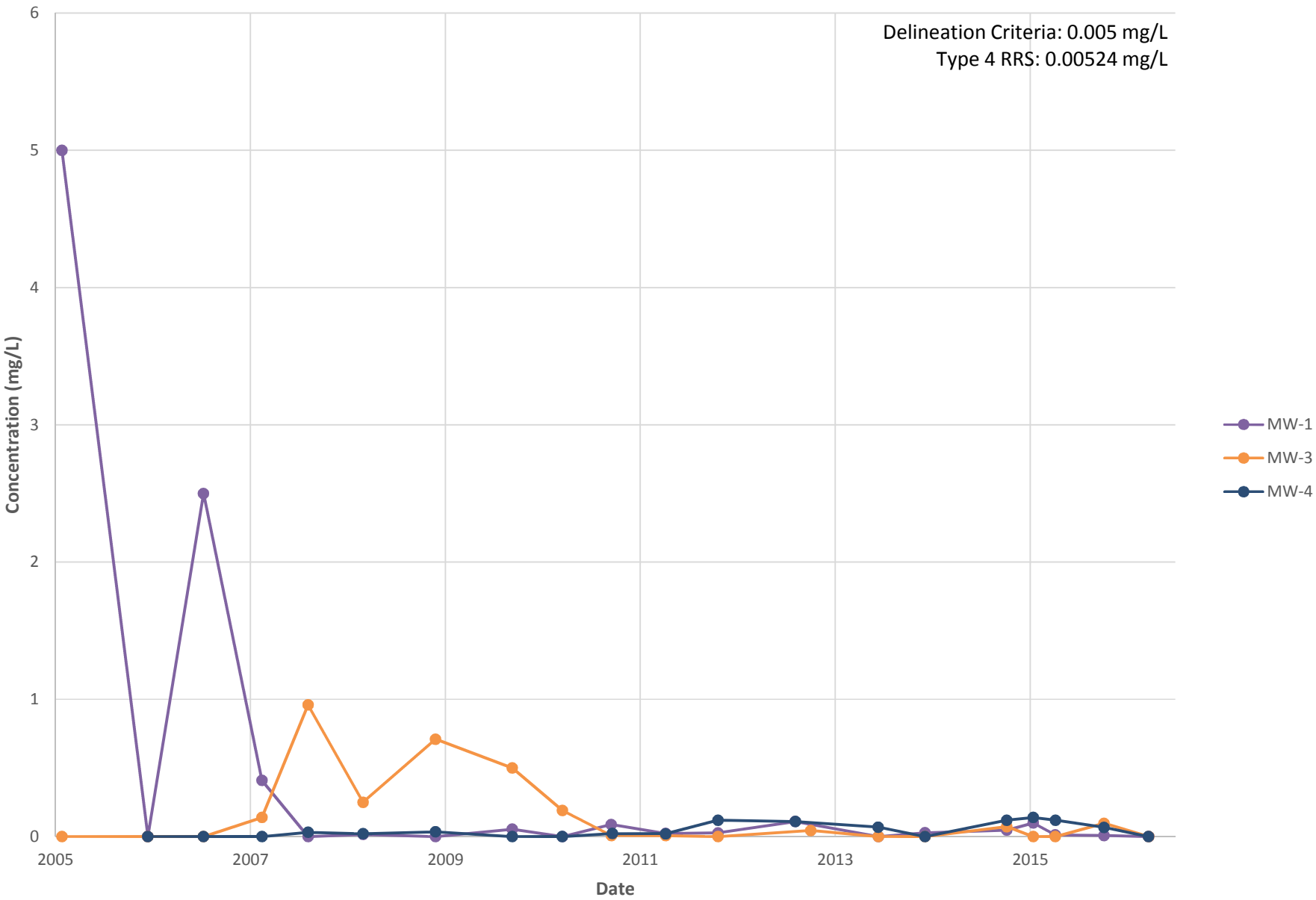

Figure D3A. Apollo Plume Area Monitoring Wells - 1,1-Dichloroethene

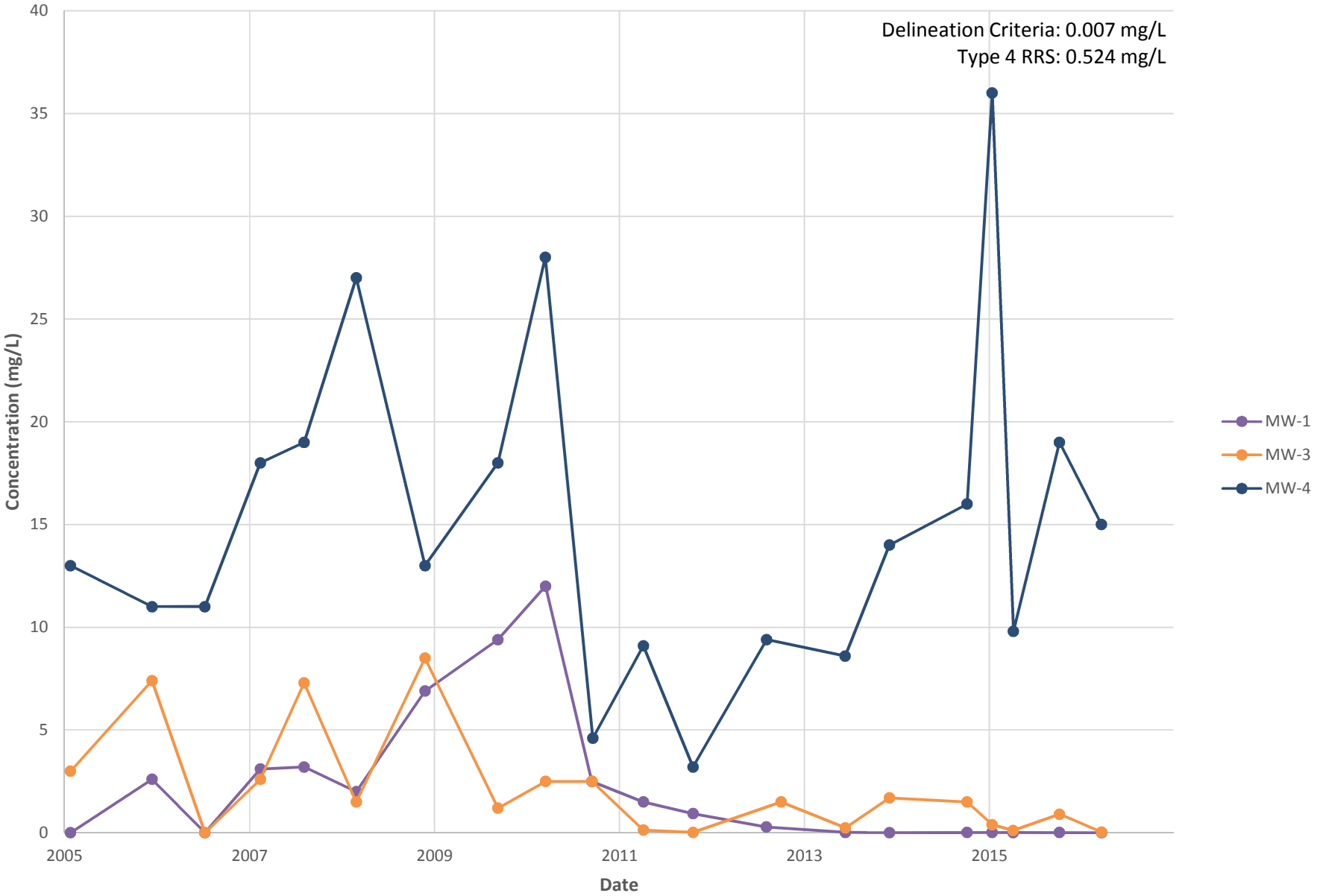

Figure D4A. Apollo Plume Area Monitoring Wells - cis-1,2-Dichloroethene

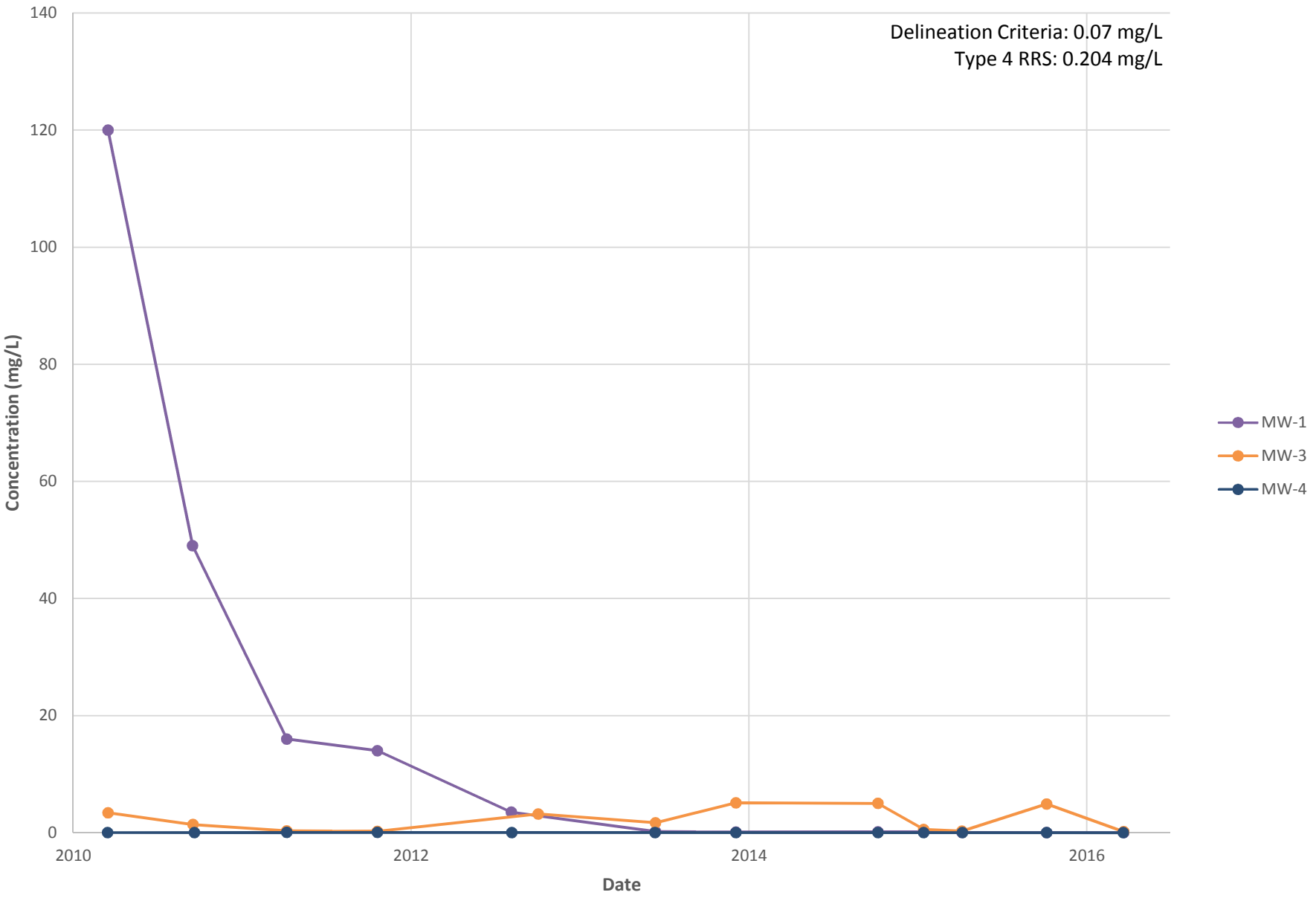

Figure D5A. Apollo Plume Area Monitoring Wells - Vinyl Chloride

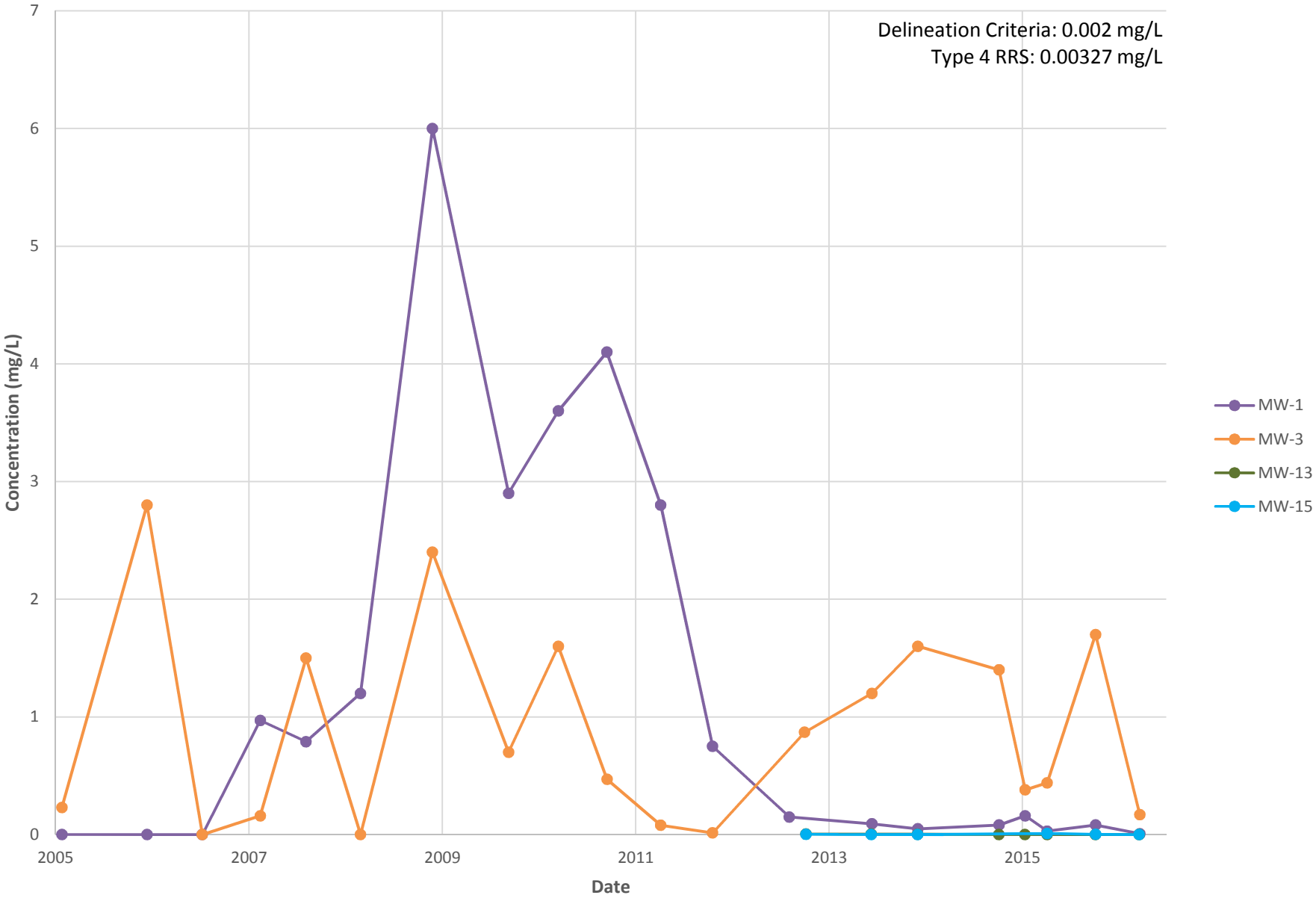

Figure D6A. Apollo Plume Area Monitoring Wells - 1,1,1-Trichloroethane

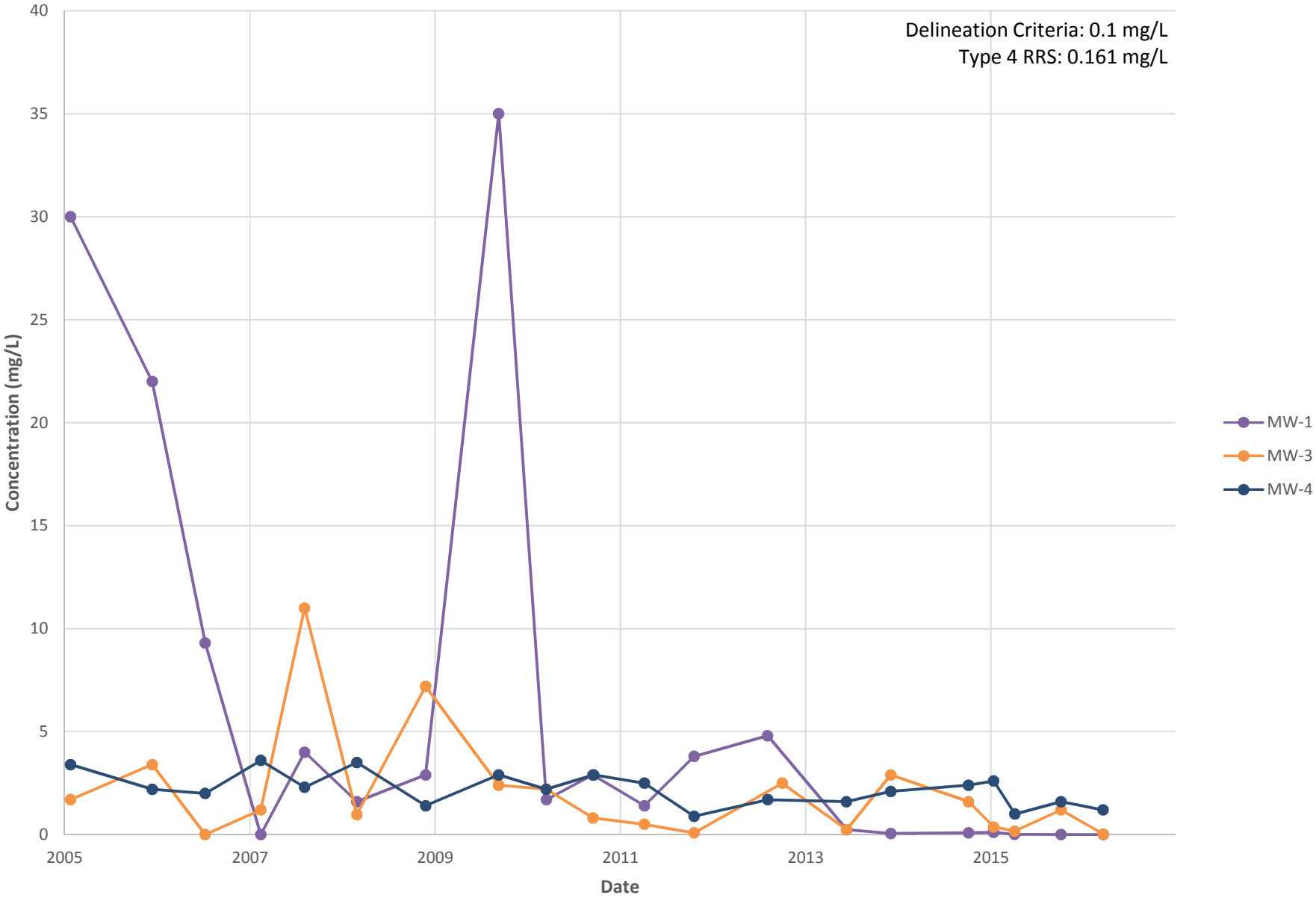

Figure D1B. Offsite/Upgradient Source Area Monitoring Wells - Tetrachloroethene

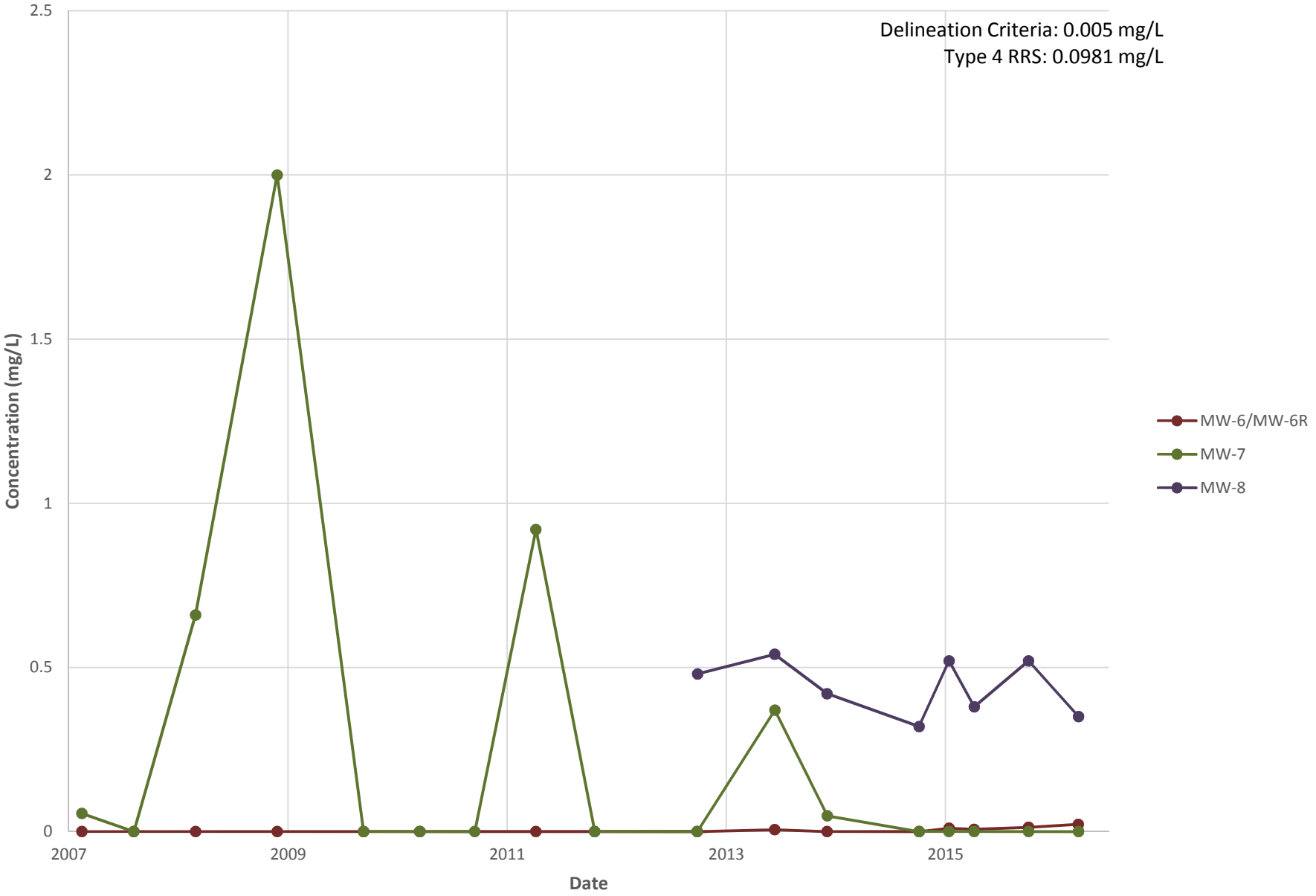

Figure D2B. Offsite/Upgradient Source Area Monitoring Wells - Trichloroethene

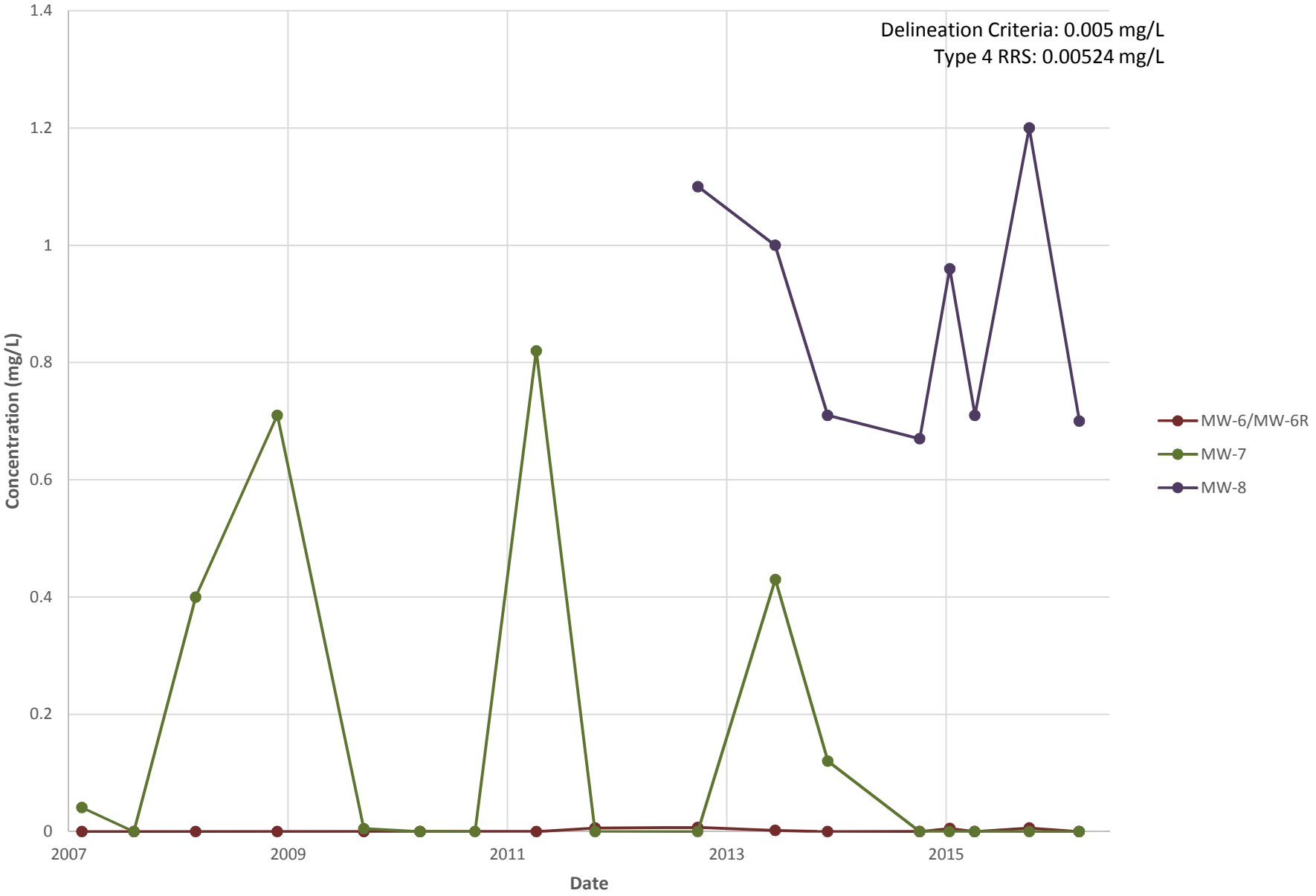

Figure D3B. Offsite/Upgradient Source Area Monitoring Wells - 1,1-Dichloroethene

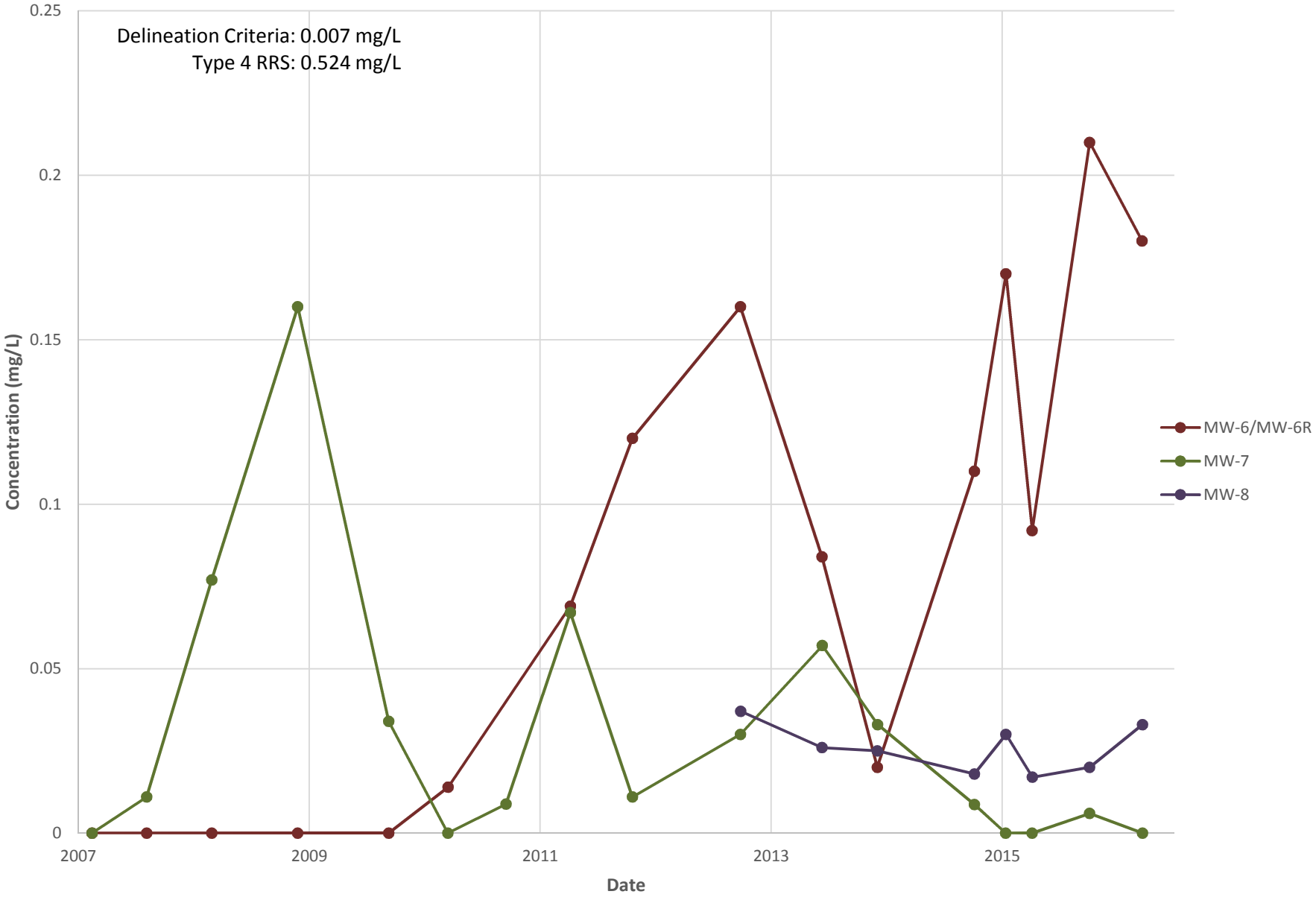

Figure D4B. Offsite/Upgradient Source Area Monitoring Wells - cis-1,2-Dichloroethene

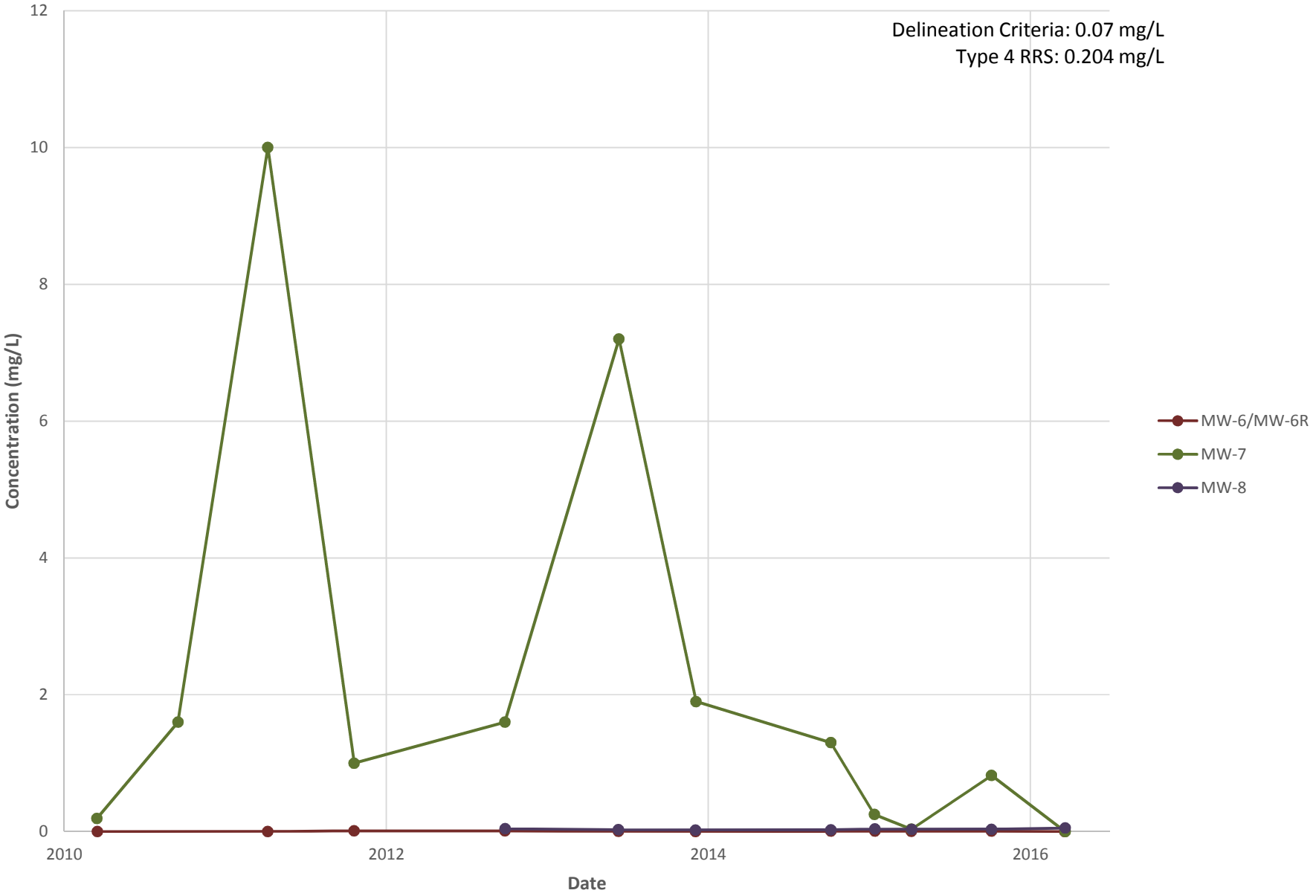

Figure D5B. Offsite/Upgradient Source Area Monitoring Wells - Vinyl Chloride

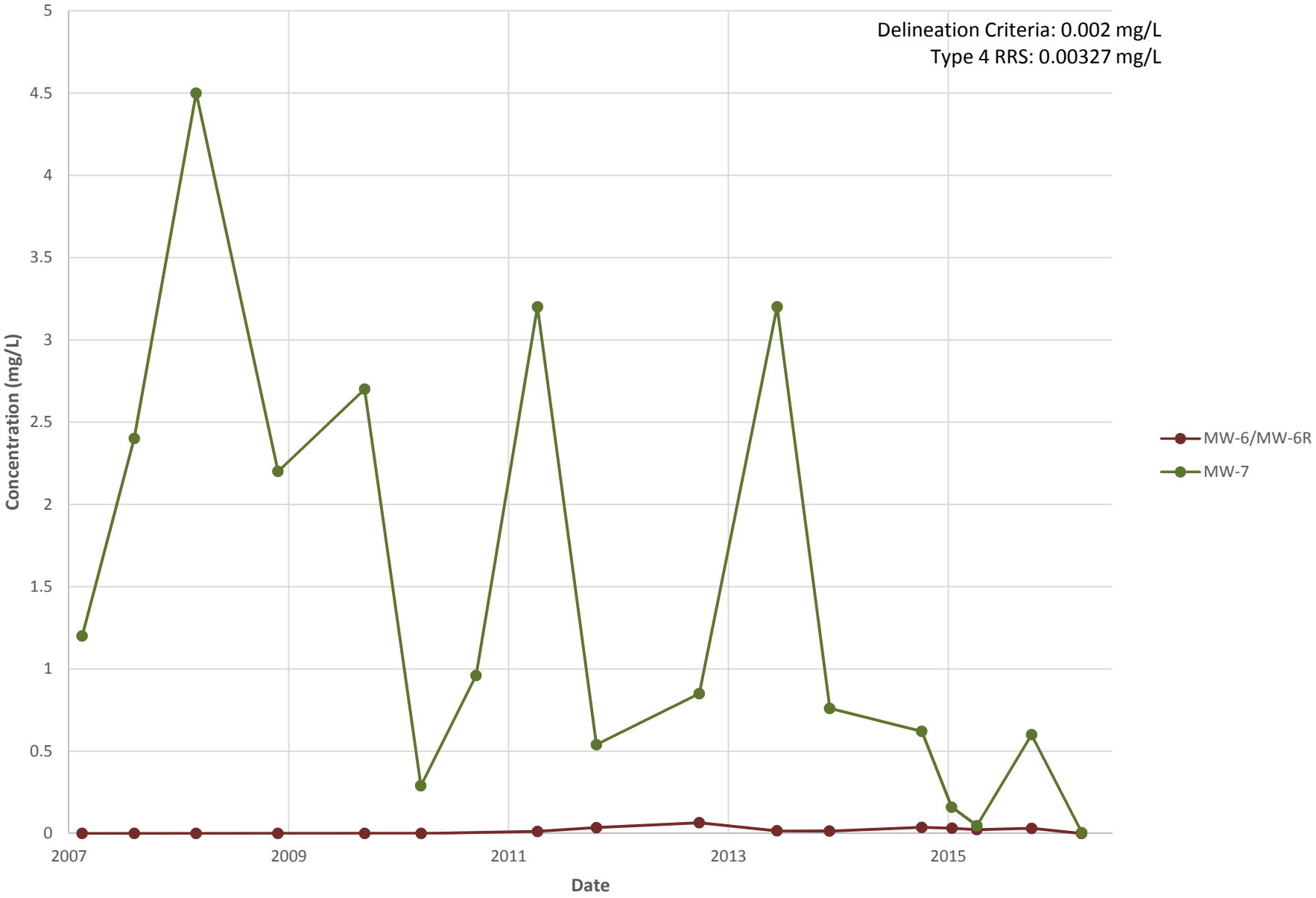

Figure D6B. Offsite/Upgradient Source Area Monitoring Wells - 1,1,1-Trichloroethane

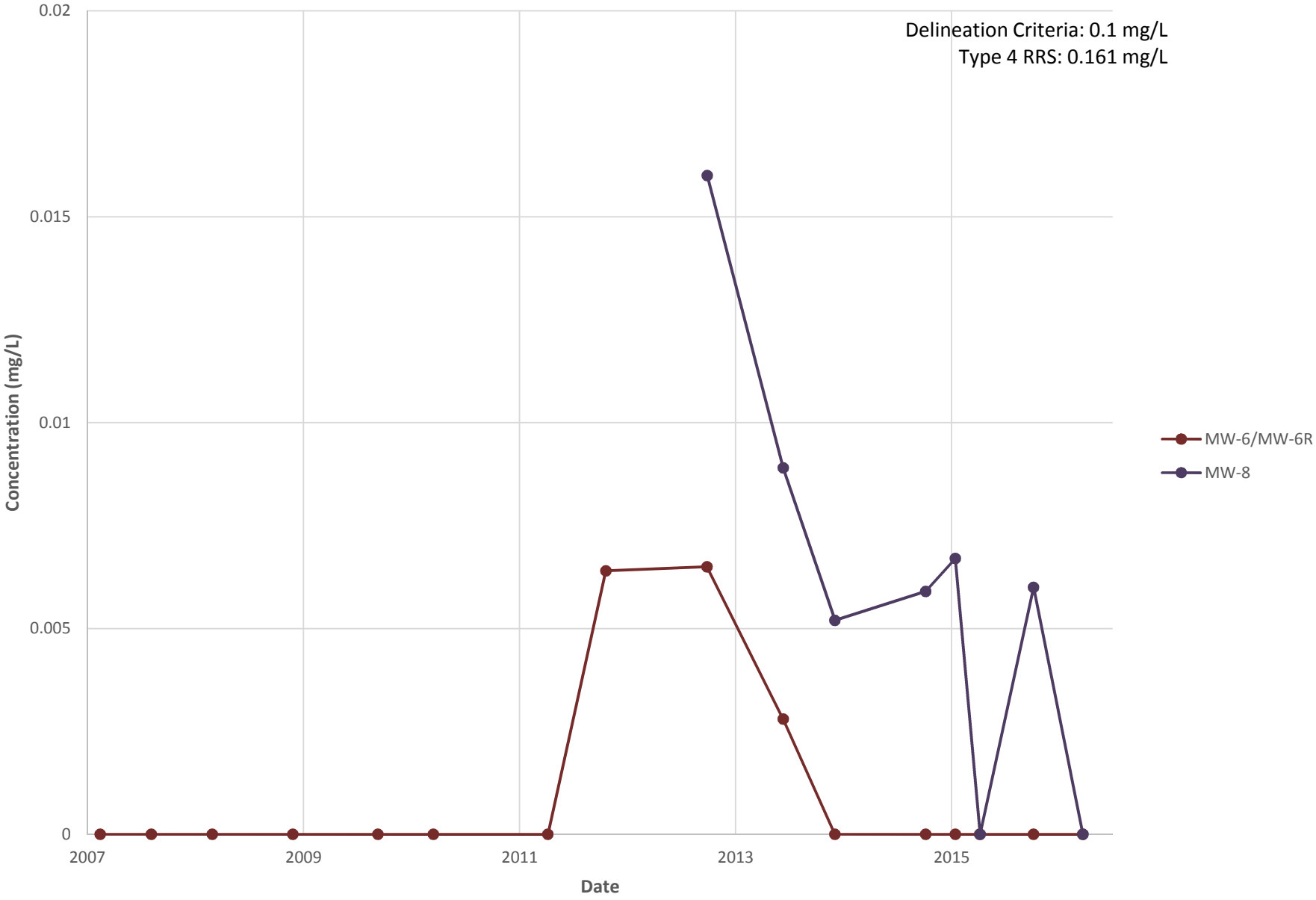

TABLE D1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane mg/L	1,1-Dichloroethane mg/L	1,1-Dichloroethene mg/L	1,2-Dichloroethane mg/L	Acetone mg/L	Chloroethane mg/L	cis-1,2-Dichloroethene mg/L	Cyclohexane mg/L	Methylene chloride mg/L	Tetrachloroethene mg/L	trans-1,2-Dichloroethene mg/L	Trichloroethene mg/L	Vinyl Chloride 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	--

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

Prepared by: KAH 4/8/2016
Checked by: KRR 5/3/2016

TABLE D1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane mg/L	1,1-Dichloroethane mg/L	1,1-Dichloroethene mg/L	1,2-Dichloroethane mg/L	Acetone mg/L	Chloroethane mg/L	cis-1,2-Dichloroethene mg/L	Cyclohexane mg/L	Methylene chloride mg/L	Tetrachloroethene mg/L	trans-1,2-Dichloroethene mg/L	Trichloroethene mg/L	Vinyl Chloride mg/L
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

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

Prepared by: KAH 4/8/2016
Checked by: KRR 5/3/2016

TABLE D1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane mg/L	1,1-Dichloroethane mg/L	1,1-Dichloroethene mg/L	1,2-Dichloroethane mg/L	Acetone mg/L	Chloroethane mg/L	cis-1,2-Dichloroethene mg/L	Cyclohexane mg/L	Methylene chloride mg/L	Tetrachloroethene mg/L	trans-1,2-Dichloroethene mg/L	Trichloroethene mg/L	Vinyl Chloride mg/L
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
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

Notes
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Prepared by: KAH 4/8/2016
Checked by: KRR 5/3/2016

TABLE D1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane mg/L	1,1-Dichloroethane mg/L	1,1-Dichloroethene mg/L	1,2-Dichloroethane mg/L	Acetone mg/L	Chloroethane mg/L	cis-1,2-Dichloroethene mg/L	Cyclohexane mg/L	Methylene chloride mg/L	Tetrachloroethene mg/L	trans-1,2-Dichloroethene mg/L	Trichloroethene mg/L	Vinyl Chloride mg/L
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-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

Notes
mg/L - milligrams per liter
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-- no data

Prepared by: KAH 4/8/2016
Checked by: KRR 5/3/2016

TABLE D1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane mg/L	1,1-Dichloroethane mg/L	1,1-Dichloroethene mg/L	1,2-Dichloroethane mg/L	Acetone mg/L	Chloroethane mg/L	cis-1,2-Dichloroethene mg/L	Cyclohexane mg/L	Methylene chloride mg/L	Tetrachloroethene mg/L	trans-1,2-Dichloroethene mg/L	Trichloroethene mg/L	Vinyl Chloride mg/L
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

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

Prepared by: KAH 4/8/2016
Checked by: KRR 5/3/2016

TABLE D1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane mg/L	1,1-Dichloroethane mg/L	1,1-Dichloroethene mg/L	1,2-Dichloroethane mg/L	Acetone mg/L	Chloroethane mg/L	cis-1,2-Dichloroethene mg/L	Cyclohexane mg/L	Methylene chloride mg/L	Tetrachloroethene mg/L	trans-1,2-Dichloroethene mg/L	Trichloroethene mg/L	Vinyl Chloride mg/L
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
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-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

Notes
mg/L - milligrams per liter
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-- no data

Prepared by: KAH 4/8/2016
Checked by: KRR 5/3/2016

TABLE D1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane mg/L	1,1-Dichloroethane mg/L	1,1-Dichloroethene mg/L	1,2-Dichloroethane mg/L	Acetone mg/L	Chloroethane mg/L	cis-1,2-Dichloroethene mg/L	Cyclohexane mg/L	Methylene chloride mg/L	Tetrachloroethene mg/L	trans-1,2-Dichloroethene mg/L	Trichloroethene mg/L	Vinyl Chloride mg/L
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-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-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

Notes
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-- no data

Prepared by: KAH 4/8/2016
Checked by: KRR 5/3/2016

TABLE D1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane mg/L	1,1-Dichloroethane mg/L	1,1-Dichloroethene mg/L	1,2-Dichloroethane mg/L	Acetone mg/L	Chloroethane mg/L	cis-1,2-Dichloroethene mg/L	Cyclohexane mg/L	Methylene chloride mg/L	Tetrachloroethene mg/L	trans-1,2-Dichloroethene mg/L	Trichloroethene mg/L	Vinyl Chloride mg/L
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-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-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
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

Notes
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-- no data

Prepared by: KAH 4/8/2016
Checked by: KRR 5/3/2016

TABLE D1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane mg/L	1,1-Dichloroethane mg/L	1,1-Dichloroethene mg/L	1,2-Dichloroethane mg/L	Acetone mg/L	Chloroethane mg/L	cis-1,2-Dichloroethene mg/L	Cyclohexane mg/L	Methylene chloride mg/L	Tetrachloroethene mg/L	trans-1,2-Dichloroethene mg/L	Trichloroethene mg/L	Vinyl Chloride mg/L
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-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-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-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-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

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

Prepared by: KAH 4/8/2016
Checked by: KRR 5/3/2016

TABLE D1. HISTORICAL GROUNDWATER DATA

Monitoring Well	Date	1,1,1-Trichloroethane mg/L	1,1-Dichloroethane mg/L	1,1-Dichloroethene mg/L	1,2-Dichloroethane mg/L	Acetone mg/L	Chloroethane mg/L	cis-1,2-Dichloroethene mg/L	Cyclohexane mg/L	Methylene chloride mg/L	Tetrachloroethene mg/L	trans-1,2-Dichloroethene mg/L	Trichloroethene mg/L	Vinyl Chloride mg/L
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-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-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

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

Prepared by: KAH 4/8/2016
Checked by: KRR 5/3/2016