STATE OF NEW MEXICO
BEORE THE WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF THE PETITION TO APPROVE PARTIAL ABATEMENT COMPLETETION REPORT FOR FORMER FOX AND ASSOCIATE SITE	)	**WQCC 19- 30**
JVP, a Partnership	)	
Petitioner	)	

FIRST AMENDED PETITION TO APPROVE PARTIAL ABATEMENT COMPLETION REPORT

Comes now JVP, as responsible party for Former Fox and Associate Site, 3412 Bryn Mawr NE, Albuquerque, New Mexico, and through their counsel states as follows:

1. The above referenced site has been open for over 25 years. For more than a decade the site has only had monitoring. This Petition is brought pursuant to 20.6.2.4114 NMAC and 20.1.3 *et seq.* NMAC.
2. The property located at 3412 Bryn Mawr NE includes Lots A and B. Neither Lot can be sold with an abatement in effect. The Abatement Completion Report ("ACR") (20.6.2.4112 NMAC) requesting partial completion was submitted to NMED on September 21, 2018. A copy of that report is attached as Exhibit 1.
3. The ACR indicated the wells specified for partial completion satisfied WQCC standards. The report also establishes that the wells within the requested partial completion area are no longer necessary and provide no purpose with respect to any remaining contamination which is the ground water and has moved off the property. The ACR requests that the specific wells and specific areas be closed with respect to the abatement and the Abatement Plan area eliminate Lots A and B of 3412 Bryn Mawr. The limited offsite

wells continue to adequately identify and define low-level 1.1-dichloroethene (1.1-DCE) concentrations compared to the WQCC standards. The only options for the remaining wells are to continue to monitor them until they naturally attenuate the -1.1-DCE below standards then present for the remainder of the site.

4. NMED regularly approves partial completion for abatements in order to properly represent the abatement site, to have wells plugged and reserved from monitoring and from the Plan area to reflect the active abatement site.

NMED has not responded to the ACR within the timelines set forth in 20.6.2.4109. A. ACR is mandated to be approved within 60 days or a notice of deficiency be provided. Since the ACR has been submitted with neither an approval nor a notice of deficiency has been provided for over 300 days.

The parties had engaged in discussion to attempt to incorporate a partial completion with settlement agreement. A contingent settlement was agreed to in or around December 2018 but no final settlement nor any comments on the settlement agreement has been received in over eight months. No response to the ACR was made before settlement discussions began. Settlement discussions have failed because NMED has not responded in any useful manner to try to complete the contingent agreement. Further no approval or NOD has been provided and there is no indication when or if any response will be provided.

The failure to approve an ACR is a violation of the WQCC rule, violates the rights of the responsible party, harms the responsible party and harms the abatement program. Accordingly, the Petition requests a hearing be set as soon as possible. Because of the delay by NMED in following the mandated deadline the ACR should be approved. Prior WQCC decisions have

ruled that mandatory deadlines in the abatement regulations requiring action by NMED must be followed and if they are not, the action submitted is deemed approved. Accordingly this matter should be able to be disposed by oral argument. In the alternative the Petitioner is prepared to present the ACR and other relevant evidence to establish separate and additional basis for approval of the report. Approval of the ACR is hereby requested.

Respectfully submitted,

DOMENICI LAW FIRM, P.C.

Pete V. Domenici, Jr., Esq.
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EA Engineering, Science, & Technology, Inc., PBC
320 Gold Avenue SW, Suite 1300
Albuquerque, New Mexico 87102
Phone: (505) 224-9013

September 21, 2018

Mr. Justin Ball
New Mexico Environment Department
Ground Water Quality Bureau
Remediation Oversight Section
121 Tijeras Ave. NE, Suite 1000
Albuquerque, New Mexico 87109

RE: ABATEMENT COMPLETION REPORT (20.6.2.4112 NMAC)
FORMER FOX & ASSOCIATES SITE
3412 BRYN MAWR, ALBUQUERQUE, NEW MEXICO

VIA E-MAIL AND HARD COPY

Dear Mr. Ball:

On behalf of JVP, represented in this matter by partner Charles Miller, EA Engineering Science and Technology, Inc. ("EA") is submitting this Abatement Completion Report for the Former Fox and Associates site (Site), 3412 Bryn Mawr, Albuquerque, New Mexico (Figure 1). JVP herein requests:

- Completion of Abatement on shallow contamination addressed by the Stage 2 Abatement Plan (S2AP) implemented by Metric Corporation
- Completion of Abatement on a portion of the regional groundwater solute plume
- Redefining the Abatement Plan Area (APA)to capture remaining regional groundwater contamination supported by institutional control and submission of S2AP for this redefined APA

The basis for requesting a determination of partial completion of abatement (i.e., "closure" of portions of the Site) is that compliance with the standards and requirements set forth in Section 20.6.2.4103 New Mexico Administrative Code ("NMAC") have been achieved in whole and part related to the subject property.

Conceptual Site Model

The Site is in the Albuquerque Basin, and is underlain by sand and gravel to the total explored depths of greater than 200 feet below ground surface (feet bgs). The exception is a clay layer from about 60 to 70 feet bgs. This clay layer provides an aquitard that perched infiltrating water from a formerly unlined storm-water channel that transects the Site. Beneath this clay is sand

and gravel from about 70 feet bgs into the water table. The stratigraphy is provided in the log for VMW-1 (Attachment 1), which was continuously sampled by the sonic drilling method.

The release occurred via discharge of spent 1,1,1-trichloroethane (1,1,1-TCA) into a dry well completed above the clay aquitard. At the time of the discharge, a perched aquifer existed with a water table around 55 feet bgs. This created contaminated soil and groundwater above the perching clay that was addressed via a soil vapor extraction system implemented by Metric Associates. Historical soil gas and groundwater data from above and in the perched zone are provided in Tables 1 and 2 of Attachment 2.

The perched aquifer ceases to exist based on water level gauging conducted in 2018. The unlined storm water channel was replaced with a concrete box culvert which eliminated recharge to the perched zone, and in turn the perched aquifer which has drained down.

The regional water table is located around 200 feet bgs. In the regional aquifer, a solute plume of 1,1,1-TCA and its degradation product via hydrolysis 1,1-dichloroethene (1,1-DCE) exists. The solute plume migrates with the regional groundwater flow direction to the south-southeast, toward the Santa Barbara well field (RG-09301). At present, the regional plume is bound by MW-3 on the upgradient margin, MW-4 near plume center, and MW-7 downgradient. VMW-1 installed at the dry well discharge point is below standards, as is MW-1 further upgradient to the north. As such, the solute plume is "detached," having separated from its source and migrated downgradient.

Like most of the Albuquerque basin, water levels are rising in the regional aquifer: water levels have risen over 15 feet since 2014; however, the direction of groundwater flow continues to be to the south-southeast. Potentiometric surface maps for July 2014 and September 2018 are provided as Figures 2 and 3, respectively.

Soil and vapor samples were collected from the vadose zone at three different intervals below the clay layer. In soil samples, 1,1,1-TCA and 1,1-DCE were non-detect (Table 1, Attachment 1). The vapor concentrations are low and decreased with depth. Analysis of partitioning the deepest vapor concentration into groundwater via Henry's law supports the below standard 1,1-DCE concentration observed in groundwater at VMW-1 (Attachment 2). Based on analysis and direct observation, the low-level soil impacts do not pose a threat to groundwater, and do not require abatement.

Summary of Abatement Actions Completed

The legal description of the Site, abatement actions completed to date, and nature of the requested closure is summarized below:

- The subject property is divided into Lots "A" and "B" as shown on the attached plat map (Attachment 3)

- The unauthorized discharge occurred in a dry well on Lot B, which impacted the perched zone on both lots A and B

- An S2AP to address perched zone contamination was submitted by Metric Corporation (*Metric Corporation, 2007. Former Fox & Associates, Inc. Facility Voluntary Stage 2 Abatement Plan Proposal. August 31)*

- The S2AP was implemented from 2008 to 2012 and resulted in cleanup of soil contamination and soil gas contamination; groundwater contamination and water levels in the perched aquifer declined during this period

- City of Albuquerque lined the unlined drainage channel with a box culvert which bounds the east side of the site in 2017, thereby eliminating recharge to the perched aquifer

- EA attempted to sample the perched groundwater in February 2018 and discovered the perched aquifer is dry, and no longer exists

- EA installed nested vapor wells and a groundwater monitoring well near the former dry well which allowed sampling of soil gas below the confining clay layer and regional groundwater at the point of release; sampling results indicate low-level soil gas impacts and detectable, albeit below standards, groundwater impact

- February 2018 regional groundwater monitoring indicated a well-defined, detached plume with the highest concentration of 32 µg/L at MW-4, and low-level estimated detections (above detection limit but below quantitation limit) at MW-3 and MW-7, providing accurate plume delineation (see Figure 2, Attachment 2)

Demonstration of Compliance with Standards

It has been shown the only exceedance of applicable standards or screening levels in soil, soil gas, and groundwater is 1,1-DCE in MW-4. To summarize:

- Soil samples below the clay layer were non-detect for 1,1,1-TCA and 1,1-DCE,

- Soil vapor concentrations in the shallow vadose zone above the clay layer are below vapor intrusion screening levels (VISL),

- Soil vapor concentrations in the vadose zone below the clay layer were detected, but are shown to not threaten groundwater contamination by partitioning analysis, and

- The perched aquifer no longer exists therefore, the perched aquifer contamination no longer exists. Lining of the storm water drain and eliminating recharge to the former perched aquifer renders the draining down of the perched aquifer permanent.

- Regional groundwater concentrations in Lots A and B are below standards for 1,1,1-TCA and 1,1-DCE

Requested Abatement Completions

Based on these actions and findings, the following closures are requested:

- Lot A has completely achieved cleanup standards. The perched aquifer no longer exists, soil contamination and soil gas concentrations are below soil screening levels and vapor intrusion screening levels, and MW-1 is below standards for regional groundwater. Accordingly, lot A can be **unconditionally closed**.

- In Lot B, perched aquifer and shallow soil contamination and soil vapor concentrations are below applicable standards and screening levels, so the perched zone in Lot B can be **unconditionally closed**.

- In Lot B, deep soil contamination was non-detect for 1,1,1-TCA and 1,1-DCE, soil gas concentrations are acceptable based on partitioning using Henry's Law, and regional groundwater concentrations are below standards. Therefore, soil impacts and regional groundwater contamination in Lot B are below standards, and Lot B regional groundwater can be **unconditionally closed**.

These unconditional closures encompass all of Lots A and B, which are below standards for all constituents and pathways. These closures constitute a "partial" Abatement Completion of the Site. Solute contamination still exists in regional groundwater downgradient of Lots A and B, and it must be addressed as discussed below:

- 1,1,1-TCA is below standard everywhere

- 1,1-DCE regional groundwater contamination is detached, and off site. The plume is defined on its upgradient edge by MW-1, VMW-1, and MW-3 with concentrations of 0.4J, 0.5J and 0.46 J µg/L, respectively

- The 1,1-DCE plume center of mass is at MW-4 with a concentration of 32 µg/L

- The downgradient edge of the 1,1-DCE plume is at MW-7, with a concentration of 0.27 J µg/L.

- It is therefore proposed the APA be redefined as MW-3 on the upgradient edge, MW-7 on the downgradient edge, within an agreed upon corridor the encompasses MW-3, MW-4 and MW-7.

- The GIS coordinates of the redefined APA (i.e., described corridor) will be recorded with the New Mexico Office of State Engineer to prevent drilling any wells in the APA until standards have been achieved.

These actions will disencumber the clean Lots A and B to allow resale and development, while maintaining an accurate and recorded APA with JVP as the responsible party. Once defined and

accepted, EA will prepare a S2AP for regional groundwater to address the low-level contamination that remains in the APA until WQCC standards are achieved.

Summary and Conclusions

Lots A and B have been cleaned up. The perched groundwater and vadose zone contamination above the clay aquitard has been addressed by a soil vapor extraction. Relining the storm water drain which transects the site has eliminated recharge to perched zone. As a result, the perched aquifer has drained down and no longer exists. The vadose zone beneath the clay aquitard has low-level DCE vapor impacts which decline significantly with depth, and based on partitioning analysis, pose little threat to groundwater. The source area monitoring well, VMW-1, contains DCE below the standard of 5 µg/L. The regional solute plume is "detached" from the source area and has moved into a downgradient position.

In summary, active abatement of contamination above the clay layer, and natural attenuation of impacts below the clay layer, have addressed on-site impacts, and these actions complete abatement on Lots A and B. Abatement Completion on Lots A and B is appropriate.

The remaining actionable contamination in the regional aquifer has detached from the source and moved downgradient. It is therefore proposed the APA be redefined to include an area encompassing MW-3, MW-4 and MW-8. The redefined APA will be recorded with Office of State Engineer to prohibit drilling of water wells in this area, thereby preventing exposure to impacted groundwater. An abatement plan for long-term monitoring of MW-3, MW-4 and MW-7 will be prepared and submitted to NMED. Assuming the plume remains bound by these wells, and declines over time, this is an appropriate and protective remedy until standards in MW-4 are achieved. These actions will allow Lots A and B to be free of environmental encumbrance and available for sale or development at full value.

Please do not hesitate to contact me if you need additional information or have any questions. We would like to complete this action in as timely a manner as possible. I can be reached at 505-400-7125 on cell phone, or 505-224-9013 at the office.

Sincerely,

Jay T. Snyder, P.G., C.Hg.
Project Manager

Attachments

Cc: Charlie Miller
Pete Domenici, Jr.

FIGURES

LEGEND

MW-1	MONITORING WELL
SVE-1	PROPOSED SOIL VAPOR EXTRACTION (SVE) WELL
4894.53	GROUNDWATER ELEVATION, FT MSL
	DIRECTION OF GROUNDWATER FLOW
4879.0	POTENTIOMETRIC SURFACE CONTOUR, FT MSL
FT MSL	FEET ABOVE MEAN SEA LEVEL

100 50 0 100

SCALE IN FEET

CHARLIE MILLER JVP SITE
3412 BRYN MAWR, ALBUQUERQUE, NM

FIGURE 1
POTENTIOMETRIC SURFACE ELEVATION
JULY 25, 2014

PROJECT #:	010101	PROJECT PHASE:	01	PROJECT MANAGER:	JS

EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC
320 Gold Avenue, SW Suite 1300
Albuquerque, NM 87102
Phone: (505) 224-9013

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LEGEND

MW-1	MONITORING WELL
SVE-1	PROPOSED SOIL VAPOR EXTRACTION (SVE) WELL
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FT MSL	FEET ABOVE MEAN SEA LEVEL

N

100 50 0 100

SCALE IN FEET

CHARLIE MILLER JVP SITE
3412 BRYN MAWR, ALBUQUERQUE, NM

POTENTIOMETRIC SURFACE ELEVATION SEPTEMBER 18, 2018

PROJECT #:	010101	PROJECT PHASE:	01	PROJECT MANAGER:	JS

EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC
320 Gold Avenue, SW Suite 1300
Albuquerque, NM 87102
Phone: (505) 224-9013

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TABLES

TABLE 1
SUMMARY OF WATER LEVEL GAUGING DATA
FORMER FOX ASSOCIATES SITE
3412 BRYN MAWR, ALBUQUERQUE, NM

Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Water Level
MW-1	1499625.959	1532992.68	5092.44	18-Sep-18	197.14	4895.30
				13-Feb-18	197.05	4895.39
				25-Jul-14	212.11	4880.33
MW-2	1499413.838	1533170.85	5101.28	18-Sep-18	205.88	4895.40
				13-Feb-18	NM	--
				25-Jul-14	221.68	4879.60
MW-3	1499268.98	1533010.61	5097.77	18-Sep-18	203.02	4894.75
				13-Feb-18	203.27	4894.50
				25-Jul-14	218.52	4879.25
MW-4	1499224.959	1533154.79	5099.46	18-Sep-18	204.93	4894.53
				13-Feb-18	205.02	4894.44
				25-Jul-14	220.20	4879.26
MW-4D	1499225.265	1533145.64	5099.10	18-Sep-18	204.43	4894.67
				25-Jul-14	219.24	4879.86
MW-5	1499556.768	1532952.84	5095.72	13-Feb-18	58.40	5037.32
				25-Jul-14	58.39	5037.33
MW-6	1499432.932	1532877.91	5096.93	13-Feb-18	58.40	5038.53
				25-Jul-14	58.47	5038.46
MW-7	1498764.983	1533327.622	5109.66	18-Sep-18	215.92	4893.74
				13-Feb-18	216.32	4893.34
				25-Jul-14	231.30	4878.36

ATTACHMENT 1

EA Engineering, Science, & Technology, Inc., PBC
320 Gold Avenue SW, Suite 1300
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Phone: (505) 224-9013

August 7, 2017

Mr. Justin Ball
New Mexico Environment Department
Ground Water Quality Bureau
Remediation Oversight Section
121 Tijeras Ave. NE, Suite 1000
Albuquerque, New Mexico 87102-3400

RE: INSTALLATION OF VAPOR MONITORING WELLS, JVP BRYN MAWR SITE, ALBUQUERQUE, NEW MEXICO

Dear Mr. Ball:

On behalf of JVP Venture, EA Engineering, Science, and Technology, Inc., PBC is submitting this Letter Report documenting the installation of the vapor monitoring wells (VMW).

Between June 12 and 15, 2017, three nested VMWs were installed at the JVP Bryn Mawr site as shown on Figure 1. The nested wells were installed in an 8-inch diameter rota-sonic borehole with a continuous 7-inch diameter core barrel for soil sample collection. The borehole was logged and soil samples were field screened using the heated headspace method. Three soil samples were collected from the boring at the highest heated headspace measurement (one sample from each screened interval) and submitted to Hall Environmental Laboratory for analysis of volatile organic compounds (VOCs), including chlorinated solvents, by EPA Method 8260B. Attached is the boring log, well completion diagram, and the analytical laboratory report. Laboratory results are presented in Table 1.

On June 28, 2017, vapor samples from each well were collected and submitted to Eurofins AirToxics for analysis of VOCs by EPA Method TO-15. Prior to sample collection, each well was purged 10 casing volumes utilizing a vacuum pump. Attached are field data sheets and the laboratory report. Laboratory results are presented in Table 1.

On June 30, 2017, a groundwater sample was collected from VMW-01-D and submitted to Hall Environmental Laboratory for analysis of VOCs by EPA method 8260B. Prior to sample collection the well was purged of 3 casing volumes. Attached is the field data sheet and the laboratory report. Laboratory results are presented in Table 1.

After you review this report, we request a meeting to discuss appropriate actions for this site. As we discussed earlier, the purpose of this assessment was to evaluate a path to closure. The results of this activity suggest closure is conceptually viable with a reasonable level of effort.

Please let us know if you have any questions regarding the information provided in this report.

Sincerely,

Tyler Curley
Project Manager

Jay Snyder
Senior Hydrogeologist

Attachments

Cc: Charlie Miller, JVP Venture
File

TABLE

TABLE 1. ANALYTICAL RESULTS
JVP BRYN MAWR, ABLUQUERQUE, NEW MEXICO

ID	Date	Lab Analysis	
		$C_{1,1,1\text{-TCA}}$	$C_{1,1\text{-DCE}}$
Groundwater		**(µg/L)**	**(µg/L)**
VMW-01-D	6/30/2017	<1.0	3.6
Soil Vapor		**(µg/m^3)**	**(µg/m^3)**
VMW-01-S	6/28/2017	16,000	92,000
VMW-01-I	6/28/2017	3,800	31,000
VMW-01-D	6/28/2017	2,500	26,000
Soil		**(mg/Kg)**	**(mg/Kg)**
VMW-01-72'-74'	6/13/2017	<0.029	<0.029
VMW-01-156'-158'	6/14/2017	<0.032	<0.032
VMW-01-190'-192'	6/14/2017	<0.033	<0.033

NOTES:
µg/L = Micrograms per liter
µg/m^3 = Micrograms per cubic meter
mg/Kg = Miligram per kilogram
1,1,1-TCA = 1,1,1-Trichloroethane
1,1-DCE = 1,1-Dichloroethane

FIGURE

LEGEND

MW-1 MONITORING WELL

VMW-1 VAPOR MONITORING WELL

50 25 0 50

SCALE IN FEET

CHARLIE MILLER
JVP SITE
3412 BRYN MAWR

FIGURE 1
SITE LAYOUT

PROJECT #:	1521801	PROJECT PHASE:	02	PROJECT MANAGER:	TC

320 Gold Avenue, SW Suite 1300
Albuquerque, NM 87102
Phone: (505) 224-9013
EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC

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BORING LOGS AND WELL COMPLETION DIAGRAMS

BORING/WELL CONSTRUCTION LOG

EA Engineering, Science, and Technology, Inc., PBC

Project:	JVP Bryn Mawr	Project Number:	1521801.02
Drilling Company:	Yellow Jacket Drilling	Start Time/Date:	12:00 6/12/2017
Drilling Rig/Bit:	Sonic 8"/7" core	Completion Time/Date:	18:45 6/15/2017
Driller:	Clifford Hillman	Final Depth:	237
Boring/Well ID:	VMW-01	Logged By:	Tyler Curley Page 1 of 6

Sample Type	Sample Recovery (in)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details
Hand Auger			2.5	SM	1	0-3", asphalt	Grout
			1.1		2	3"-2', silty sand, brown (7.5 YR 5/4), loose-medium dense, non-plastic,	
			1.7		3	slightly moist, very fine grain sand, trace gravel up to 1/4"	
			0.0		4	2'-6', same as above	
			7.6		5		
Continuous Core Barrel			4.0		6		
			1.6	ML	7	6'-11', silt, brown (7.5 YR 5/4), soft, non-plastic, slightly moist, trace	
			1.9		8	very fine grain sand	
			1.4		9		
			1.0		10		
			3.2		11		
			3.1	SP	12	11'-15', poorly graded sand with few silt (5%), brown (7.5 YR 4/4), loose,	
			13.6		13	dry, non-plastic, very fine grain-coarse grain sand, sub-angular to	
			9.5		14	angular	
			9.8		15		
			14.0	ML	16	15'-17', silt with sand, light gray (10 YR 7/2), medium stiff, dry, non-	
			6.3		17	plastic, very fine grain sand	
			1.2	SM	18	15'-17', silty sand, brown (7.5 YR 4/4), loose, non-plastic, dry, very	
			5.5		19	fine grain sand-medium grain sand, trace gravel up to 1/2"	
			11.0	ML	20	19'-20', sandy silt, brown (7.5 YR 4/4) medium stiff, non-plastic, dry,	
			28.0	SM	21	very fine grain sand	
			21.9		22		
			34.9		23	20'-29', same as 15'-17', no gravel	
			21.4		24		
			22.6		25		
			30.8		26		
			3.0		27		
			2.2		28		
			25.6		29		
			12.1	CL	30	29'-30', clay, brown (7.5 YR 4/3), very stiff, plastic, moist	
			0.5	CL/ML	31	30'-32', clay with silt lense at 30.5', same as above	
			0.0		32		
			0.0	SM	33	32'-34', silty sand, very pale brown (10 YR 7/3), loose, non-plastic,	
			11.9		34	slightly moist, very fine grain sand, ~40% silt	
			9.5		35		
			3.5		36	34;-39', same as above, strong brown (7.5 YR 4/6), ~20% silt	
			1.8		37		
			3.0		38		
			7.6		39	39'-40', clay with some silt, brown (7.5 YR 5/4), stiff, medium stiff,	
			8.9	CL	40	moist, ~15% silt	Grout

SS = Split Spoon Cut = Cuttings NA = Not Analyzed

BORING/WELL CONSTRUCTION LOG

EA Engineering, Science, and Technology, Inc.

Project:	JVP Bryn Mawr	Project Number:	1521801.02
Drilling Company:	Yellow Jacket Drilling	Start Time/Date:	12:00 6/12/2017
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Driller:	Clifford Hillman	Final Depth:	237
Boring/Well ID:	VMW-01	Logged By:	Tyler Curley

Sample Type	Sample Recovery (in)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consitency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details
Continuous Core Barrel			16.3	SM	41	40'-43', silty sand with some clay, light yellowish brown (10 YR 6/4),	Grout
					42	loose, non-plastic, moist, very fine grain sand	
			8.3		43		
				SP	44	43'-56', poorly graded san with gravel, brown (7.5 YR 5/4), loose,	
			NM		45	non-plastic, moist, very fine grain-coarse grain sand, rounded to	
					46	angular gravel, trace cobbles up to 4"	
			7.8		47		Bentonite
					48		
			5.8		49		
					50		
			11.6		51		
					52		
			9.1		53		
					54	54.5', wet	
			8.1		55		
					56		
			161	CL	57	56-60, clay with some silt, brown (7.5 YR 5/4), stiff, plastic, wet	
					58		
			169		59		
					60		
			62.8		61	60'-65', same as above, no silt	
					62		
			43.3		63		
					64		
			29.2		65		
				SP	66	65'-74', poorly graded sand, brown (7.5 YR 4/4), loose, non-plastic,	
			16.8		67	wet, fine grain sand, sub angular to round	
					68		
			30.2		69		
					70		10-20 Silica Sand
			16.0		71	70', same as above, only moist	
					72		
		X	42.3		73	73', same as above, with some clay, wet	
					74		
			27.2		75	74'-77', silt with some clay, brown (7.5 YR 5/4), still, non-plastic, moist	
					76		
			23.7		77		
					78	77'-80', same as above, very stiff	
			26.4		79		
					80		

SS = Split Spoon Cut = Cuttings NA = Not Analyzed

BORING/WELL CONSTRUCTION LOG

EA Engineering, Science, and Technology, Inc.

Project:	JVP Bryn Mawr	Project Number:	1521801.02
Drilling Company:	Yellow Jacket Drilling	Start Time/Date:	12:00 6/12/2017
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Driller:	Clifford Hillman	Final Depth:	237
	VMW-01	Logged By:	Tyler Curley

Sample Type	Sample Recovery (in)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consitency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details
Continuous Core Barrel			37.3	SP	81	80'-87', poorly graded sand, brown (10 YR 5/3), loose, non-plastic,	10-20 Silica Sand
					82	moist, fine grain-medium grain sand, rounded to sub-rounded	
			29.5		83		
					84		
			16.6		85		
					86		
			32		87		
				SW	88	87'-88', well graded sand with gravel, brown (10 YR 5/3), loose,	
			23.8		89	non-plastic, moist, fine grain-coarse grain sand, gravel up to 1/2",	
					90	rounded to sub-rounded, trace clay	
			16.8		91	88'-100', same as 80'-87', some gravel up to 1/2"	
					92		
			6.3		93		
					94		
			15.7		95		
					96		
			7.4		97		
					98		
			10.2		99		
					100		
			23.8		101	100'-106', same as above, gravel up to 1/4"	
					102		
			5.6	SP	103		
					104		
			10.8		105		
					106	106'-116', poorly graded sand, brown (10 YR 5/3), loose, non-plastic,	
			3.7		107	moist, fine grain sand, sub-rounded, gravel up to 1/4"	
					108		
			5.1		109		
					110		
			4.4		111		
					112		
			8.1		113		
					114		
			4.8		115		
					116		
			6.8		117		
					118		
			12.1		119	118.5'-120', clay, brown (7.5 YR 4/4), very stiff, plastic, wet	
				CL	120		

SS = Split Spoon Cut = Cuttings NA = Not Analyzed

BORING/WELL CONSTRUCTION LOG

EA Engineering, Science, and Technology, Inc.

Project:	JVP Bryn Mawr	Project Number:	1521801.02
Drilling Company:	Yellow Jacket Drilling	Start Time/Date:	12:00 6/12/2017
Drilling Rig/Bit:	Sonic 8"/7" core	Completion Time/Date:	18:45 6/15/2017
Driller:	Clifford Hillman	Final Depth:	237
Boring/Well ID:	VMW-01	Logged By:	Tyler Curley

Sample Type	Sample Recovery (in)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consitency, plasticity, moisture, grain size, angularity/minerology, other)
Continuous Core Barrel			6.4	SM	121	120'-124', silty sand, brown (10 YR 5/3), loose, non-plastic, moist,
					122	very fine grain sand
			3		123	
					124	
			10.7	SP	125	124'-136', poorly graded sand, brown (10 YR 5/3), loose, non-plastic,
					126	moist, very fine grain-fine grain sand
			6.7		127	
					128	
			8.4		129	
					130	
			8.5		131	
					132	
			3.6		133	
					134	
			9.2		135	
					136	
			21.9		137	136'-140', same as above, trace gravel up to 2", rounded gravel
					138	
			18.2		139	
					140	
			16.6		141	140;-148', same as above, fine grain-coarse grain sand
					142	
			12.9		143	
					144	
			19.3		145	
					146	
			20.1		147	
					148	
			21.4		149	148'-160', poorly graded sand, brown (10 YR 5/3), loose, non-plastic,
					150	moist, fine grain-coarse grain sand, some gravel up to 1"
			69.5		151	
					152	
			42.4		153	
					154	
			67.2		155	
					156	
		X	377.6		157	
					158	
			362.1		159	
					160	

Boring and/or Well Details	
10-20 Silica Sand	
Bentonite	
10-20 Silica Sand	
	10-20 Silica Sand
	Bentonite
	10-20 Silica Sand

SS = Split Spoon Cut = Cuttings NA = Not Analyzed

BORING/WELL CONSTRUCTION LOG

EA Engineering, Science, and Technology, Inc.

Project:	JVP Bryn Mawr	Project Number:	1521801.02
Drilling Company:	Yellow Jacket Drilling	Start Time/Date:	12:00 6/12/2017
Drilling Rig/Bit:	Sonic 8"/7" core	Completion Time/Date:	18:45 6/15/2017
Driller:	Clifford Hillman	Final Depth:	237
Boring/Well ID:	VMW-01	Logged By:	Tyler Curley

Sample Type	Sample Recovery (in)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consitency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details
Continous Core Barrel			10.2		161	160'-164', well graded sand with gravel, brown (10 YR 4/3), loose,	10-20 Silica Sand
					162	non-plastic, moist, very fine grain-coarse grain sand, gravel up to 3/8"	
			14.1		163		
				SW	164		
			250		165	164'-174', poorly graded sand with gravel, brown (10 YR 4/3), loose,	
					166	non-plastic, moist, very fine grain-medium grain, gravel up to 3/4"	
			142		167		
					168		
			13.4		169		
					170		
			11.1		171		
					172		
			47.1	SP	173	173;-174', same as above, brown (7.5 YR 5/4), very fine grain, trace	
					174	gravel	
			229		175	174'-180', Poorly graded sand, brown (7.5 YR 5/4), loose, non-plastic,	
					176	moist, very fine grain sand, with little silt	
			190		177		Bent
					178		
			1317		179		
					180		
			477		181	180'-183.5', silty sand, brown (7.5 YR 5/4), loose , non-plastic, moist,	10-20 Silica Sand
				SM	182	very fine grain sand	
			146		183		
					184	183.5'-185.5', silty clayey sand, brown (7.5 YR 5/4), dense, non-plastic	
			135	SM/SC	185	moist, very fine grain sand	
					186	185.5'-189', same as 180'-183.5'	
			216		187		
				SM	188		
			613		189		
					190	189'-192', poorly graded sand, brown (7.5 YR 5/3), loose, non-plastic,	
		X	2340	SP	191	moist, fine grain sand, trace silt	
					192		
			31.6		193	192'-200', silty sand, brown (7.5 YR 5/4), loose, non-plastic, moist,	
					194	fine grain sand	
			36.2		195		
				SM	196		
			203		197		
					198		
			156		199		
					200		

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BORING/WELL CONSTRUCTION LOG

EA Engineering, Science, and Technology, Inc.

Project:	JVP Bryn Mawr	Project Number:	1521801.02
Drilling Company:	Yellow Jacket Drilling	Start Time/Date:	12:00 6/12/2017
Drilling Rig/Bit:	Sonic 8"/7" core	Completion Time/Date:	18:45 6/15/2017
Driller:	Clifford Hillman	Final Depth:	237
Boring/Well ID:	VMW-01	Logged By:	Tyler Curley

Sample Type	Sample Recovery (in)	Sample Interval	PID Reading	USCS Soil Type	Depth, ft bgs	Soil Description (soil type, color, density/consitency, plasticity, moisture, grain size, angularity/minerology, other)	Boring and/or Well Details
Continuous Core Barrel			86.8		201	200'-204', silty sand, brown (7.5 YR 5/3), loose, non-plastic, moist,	10-20 Silica Sand
					202	very fine grain sand, very silty	
			62.3		203		
				SM	204		
			17.3		205	204'-208', silt with some clay, brown, (7.5 YR 4/4), very stiff, slightly	
				ML	206	plastic, moist, trace very fine grain sand	
			54.6		207		
					208		
			55.7	CL/ML	209	208'-209', clay with silt, reddish brown (5 YR 4/4), very stiff,	
					210	moderately plastic, moist	
			61.7		211		
				SM	212	209'-215', silty sand with trace clay, brown (7.5 YR 4/4), loose to	
			14.7		213	slightly dense, non-plastic, moist, very fine grain-fine grain sand	
					214		
			25.4		215		
					216	215'-224', poorly graded sand, brown (7.5 YR 4/4), loose, non-plastic,	
			19.6		217	wet	
					218		
			28.3		219		
					220		
			122	SP	221		
					222		
			58.2		223		
					224		
			24		225	224'-226', same as above, with some silt	
					226		
			6.6		227	226'-229', silty sand, brown (7.5 YR 4/4), loose, non-plastic, wet,	
				SM	228	fine grain sand, trace gravel to 1/4"	
			5		229		
					230	229'-232', poorly graded sand, brown (7.5 YR 5/4), loose, non-plastic,	
			15.3	SP	231	wet, with little silt	
					232		
			4.5		233	232'-237', same as 226'-229', very fine grain sand with little clay	
					234		
			51.6	SM	235		
					236		
					237		
					238		
					239		
					240		

SS = Split Spoon Cut = Cuttings NA = Not Analyzed

ANALYTICAL LABORATORY REPORT

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 20, 2017

Tyler Curley
EA Engineering
320 Gold Ave SW Suite 1210
Albuquerque, NM 87102
TEL:
FAX

RE: JVP Bryn Mawr OrderNo.: 1706980

Dear Tyler Curley:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/19/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: VMW-01-S-72'-74'
Project: JVP Bryn Mawr
Collection Date: 6/13/2017 2:00:00 PM
Lab ID: 1706980-001 **Matrix:** SOIL **Received Date:** 6/19/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.014		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Toluene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Ethylbenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Methyl tert-butyl ether (MTBE)	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,2,4-Trimethylbenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,3,5-Trimethylbenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,2-Dichloroethane (EDC)	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,2-Dibromoethane (EDB)	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Naphthalene	ND	0.057		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1-Methylnaphthalene	ND	0.11		mg/Kg	1	6/19/2017 7:27:32 PM	32325
2-Methylnaphthalene	ND	0.11		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Acetone	ND	0.43		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Bromobenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Bromodichloromethane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Bromoform	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Bromomethane	ND	0.086		mg/Kg	1	6/19/2017 7:27:32 PM	32325
2-Butanone	ND	0.29		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Carbon disulfide	ND	0.29		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Carbon tetrachloride	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Chlorobenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Chloroethane	ND	0.057		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Chloroform	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Chloromethane	ND	0.086		mg/Kg	1	6/19/2017 7:27:32 PM	32325
2-Chlorotoluene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
4-Chlorotoluene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
cis-1,2-DCE	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
cis-1,3-Dichloropropene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,2-Dibromo-3-chloropropane	ND	0.057		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Dibromochloromethane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Dibromomethane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,2-Dichlorobenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,3-Dichlorobenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,4-Dichlorobenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Dichlorodifluoromethane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,1-Dichloroethane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,1-Dichloroethene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,2-Dichloropropane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,3-Dichloropropane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
2,2-Dichloropropane	ND	0.057		mg/Kg	1	6/19/2017 7:27:32 PM	32325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: VMW-01-S-72'-74'
Project: JVP Bryn Mawr
Collection Date: 6/13/2017 2:00:00 PM
Lab ID: 1706980-001 **Matrix:** SOIL **Received Date:** 6/19/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1-Dichloropropene	ND	0.057		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Hexachlorobutadiene	ND	0.057		mg/Kg	1	6/19/2017 7:27:32 PM	32325
2-Hexanone	ND	0.29		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Isopropylbenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
4-Isopropyltoluene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
4-Methyl-2-pentanone	ND	0.29		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Methylene chloride	ND	0.086		mg/Kg	1	6/19/2017 7:27:32 PM	32325
n-Butylbenzene	ND	0.086		mg/Kg	1	6/19/2017 7:27:32 PM	32325
n-Propylbenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
sec-Butylbenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Styrene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
tert-Butylbenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,1,1,2-Tetrachloroethane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,1,2,2-Tetrachloroethane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Tetrachloroethene (PCE)	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
trans-1,2-DCE	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
trans-1,3-Dichloropropene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,2,3-Trichlorobenzene	ND	0.057		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,2,4-Trichlorobenzene	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,1,1-Trichloroethane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,1,2-Trichloroethane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Trichloroethene (TCE)	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Trichlorofluoromethane	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
1,2,3-Trichloropropane	ND	0.057		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Vinyl chloride	ND	0.029		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Xylenes, Total	ND	0.057		mg/Kg	1	6/19/2017 7:27:32 PM	32325
Surr: Dibromofluoromethane	107	70-130		%Rec	1	6/19/2017 7:27:32 PM	32325
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	6/19/2017 7:27:32 PM	32325
Surr: Toluene-d8	98.4	70-130		%Rec	1	6/19/2017 7:27:32 PM	32325
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	6/19/2017 7:27:32 PM	32325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: VMW-01-I-156'-158'
Project: JVP Bryn Mawr
Collection Date: 6/14/2017 10:45:00 AM
Lab ID: 1706980-002
Matrix: SOIL
Received Date: 6/19/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.016		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Toluene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Ethylbenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Methyl tert-butyl ether (MTBE)	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,2,4-Trimethylbenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,3,5-Trimethylbenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,2-Dichloroethane (EDC)	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,2-Dibromoethane (EDB)	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Naphthalene	ND	0.065		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1-Methylnaphthalene	ND	0.13		mg/Kg	1	6/19/2017 7:56:30 PM	32325
2-Methylnaphthalene	ND	0.13		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Acetone	ND	0.48		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Bromobenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Bromodichloromethane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Bromoform	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Bromomethane	ND	0.097		mg/Kg	1	6/19/2017 7:56:30 PM	32325
2-Butanone	ND	0.32		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Carbon disulfide	ND	0.32		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Carbon tetrachloride	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Chlorobenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Chloroethane	ND	0.065		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Chloroform	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Chloromethane	ND	0.097		mg/Kg	1	6/19/2017 7:56:30 PM	32325
2-Chlorotoluene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
4-Chlorotoluene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
cis-1,2-DCE	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
cis-1,3-Dichloropropene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,2-Dibromo-3-chloropropane	ND	0.065		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Dibromochloromethane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Dibromomethane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,2-Dichlorobenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,3-Dichlorobenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,4-Dichlorobenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Dichlorodifluoromethane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,1-Dichloroethane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,1-Dichloroethene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,2-Dichloropropane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,3-Dichloropropane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
2,2-Dichloropropane	ND	0.065		mg/Kg	1	6/19/2017 7:56:30 PM	32325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: VMW-01-I-156'-158'
Project: JVP Bryn Mawr
Collection Date: 6/14/2017 10:45:00 AM
Lab ID: 1706980-002
Matrix: SOIL
Received Date: 6/19/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1-Dichloropropene	ND	0.065		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Hexachlorobutadiene	ND	0.065		mg/Kg	1	6/19/2017 7:56:30 PM	32325
2-Hexanone	ND	0.32		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Isopropylbenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
4-Isopropyltoluene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
4-Methyl-2-pentanone	ND	0.32		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Methylene chloride	ND	0.097		mg/Kg	1	6/19/2017 7:56:30 PM	32325
n-Butylbenzene	ND	0.097		mg/Kg	1	6/19/2017 7:56:30 PM	32325
n-Propylbenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
sec-Butylbenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Styrene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
tert-Butylbenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,1,1,2-Tetrachloroethane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,1,2,2-Tetrachloroethane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Tetrachloroethene (PCE)	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
trans-1,2-DCE	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
trans-1,3-Dichloropropene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,2,3-Trichlorobenzene	ND	0.065		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,2,4-Trichlorobenzene	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,1,1-Trichloroethane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,1,2-Trichloroethane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Trichloroethene (TCE)	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Trichlorofluoromethane	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
1,2,3-Trichloropropane	ND	0.065		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Vinyl chloride	ND	0.032		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Xylenes, Total	ND	0.065		mg/Kg	1	6/19/2017 7:56:30 PM	32325
Surr: Dibromofluoromethane	110	70-130		%Rec	1	6/19/2017 7:56:30 PM	32325
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	6/19/2017 7:56:30 PM	32325
Surr: Toluene-d8	99.6	70-130		%Rec	1	6/19/2017 7:56:30 PM	32325
Surr: 4-Bromofluorobenzene	93.0	70-130		%Rec	1	6/19/2017 7:56:30 PM	32325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: VMW-01-D-190'-192'
Project: JVP Bryn Mawr
Collection Date: 6/14/2017 2:34:00 PM
Lab ID: 1706980-003
Matrix: SOIL
Received Date: 6/19/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.017		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Toluene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Ethylbenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Methyl tert-butyl ether (MTBE)	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,2,4-Trimethylbenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,3,5-Trimethylbenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,2-Dichloroethane (EDC)	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,2-Dibromoethane (EDB)	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Naphthalene	ND	0.066		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1-Methylnaphthalene	ND	0.13		mg/Kg	1	6/19/2017 8:25:19 PM	32325
2-Methylnaphthalene	ND	0.13		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Acetone	ND	0.50		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Bromobenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Bromodichloromethane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Bromoform	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Bromomethane	ND	0.10		mg/Kg	1	6/19/2017 8:25:19 PM	32325
2-Butanone	ND	0.33		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Carbon disulfide	ND	0.33		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Carbon tetrachloride	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Chlorobenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Chloroethane	ND	0.066		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Chloroform	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Chloromethane	ND	0.10		mg/Kg	1	6/19/2017 8:25:19 PM	32325
2-Chlorotoluene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
4-Chlorotoluene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
cis-1,2-DCE	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
cis-1,3-Dichloropropene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,2-Dibromo-3-chloropropane	ND	0.066		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Dibromochloromethane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Dibromomethane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,2-Dichlorobenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,3-Dichlorobenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,4-Dichlorobenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Dichlorodifluoromethane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,1-Dichloroethane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,1-Dichloroethene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,2-Dichloropropane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,3-Dichloropropane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
2,2-Dichloropropane	ND	0.066		mg/Kg	1	6/19/2017 8:25:19 PM	32325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: VMW-01-D-190'-192'
Project: JVP Bryn Mawr
Collection Date: 6/14/2017 2:34:00 PM
Lab ID: 1706980-003
Matrix: SOIL
Received Date: 6/19/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1-Dichloropropene	ND	0.066		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Hexachlorobutadiene	ND	0.066		mg/Kg	1	6/19/2017 8:25:19 PM	32325
2-Hexanone	ND	0.33		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Isopropylbenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
4-Isopropyltoluene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
4-Methyl-2-pentanone	ND	0.33		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Methylene chloride	ND	0.10		mg/Kg	1	6/19/2017 8:25:19 PM	32325
n-Butylbenzene	ND	0.10		mg/Kg	1	6/19/2017 8:25:19 PM	32325
n-Propylbenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
sec-Butylbenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Styrene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
tert-Butylbenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,1,1,2-Tetrachloroethane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,1,2,2-Tetrachloroethane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Tetrachloroethene (PCE)	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
trans-1,2-DCE	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
trans-1,3-Dichloropropene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,2,3-Trichlorobenzene	ND	0.066		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,2,4-Trichlorobenzene	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,1,1-Trichloroethane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,1,2-Trichloroethane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Trichloroethene (TCE)	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Trichlorofluoromethane	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
1,2,3-Trichloropropane	ND	0.066		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Vinyl chloride	ND	0.033		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Xylenes, Total	ND	0.066		mg/Kg	1	6/19/2017 8:25:19 PM	32325
Surr: Dibromofluoromethane	109	70-130		%Rec	1	6/19/2017 8:25:19 PM	32325
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	6/19/2017 8:25:19 PM	32325
Surr: Toluene-d8	103	70-130		%Rec	1	6/19/2017 8:25:19 PM	32325
Surr: 4-Bromofluorobenzene	97.8	70-130		%Rec	1	6/19/2017 8:25:19 PM	32325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: Methanol Blank
Project: JVP Bryn Mawr
Collection Date:
Lab ID: 1706980-004
Matrix: MEOH (SOIL)
Received Date: 6/19/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Toluene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Ethylbenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Naphthalene	ND	0.10		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1-Methylnaphthalene	ND	0.20		mg/Kg	1	6/19/2017 8:54:11 PM	32325
2-Methylnaphthalene	ND	0.20		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Acetone	ND	0.75		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Bromobenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Bromodichloromethane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Bromoform	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Bromomethane	ND	0.15		mg/Kg	1	6/19/2017 8:54:11 PM	32325
2-Butanone	ND	0.50		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Carbon disulfide	ND	0.50		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Carbon tetrachloride	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Chlorobenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Chloroethane	ND	0.10		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Chloroform	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Chloromethane	ND	0.15		mg/Kg	1	6/19/2017 8:54:11 PM	32325
2-Chlorotoluene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
4-Chlorotoluene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
cis-1,2-DCE	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Dibromochloromethane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Dibromomethane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,1-Dichloroethane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,1-Dichloroethene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,2-Dichloropropane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,3-Dichloropropane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
2,2-Dichloropropane	ND	0.10		mg/Kg	1	6/19/2017 8:54:11 PM	32325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: Methanol Blank
Project: JVP Bryn Mawr
Collection Date:
Lab ID: 1706980-004
Matrix: MEOH (SOIL)
Received Date: 6/19/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1-Dichloropropene	ND	0.10		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Hexachlorobutadiene	ND	0.10		mg/Kg	1	6/19/2017 8:54:11 PM	32325
2-Hexanone	ND	0.50		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Isopropylbenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
4-Isopropyltoluene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Methylene chloride	ND	0.15		mg/Kg	1	6/19/2017 8:54:11 PM	32325
n-Butylbenzene	ND	0.15		mg/Kg	1	6/19/2017 8:54:11 PM	32325
n-Propylbenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
sec-Butylbenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Styrene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
tert-Butylbenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
trans-1,2-DCE	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Trichlorofluoromethane	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Vinyl chloride	ND	0.050		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Xylenes, Total	ND	0.10		mg/Kg	1	6/19/2017 8:54:11 PM	32325
Surr: Dibromofluoromethane	111	70-130		%Rec	1	6/19/2017 8:54:11 PM	32325
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	6/19/2017 8:54:11 PM	32325
Surr: Toluene-d8	97.2	70-130		%Rec	1	6/19/2017 8:54:11 PM	32325
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	6/19/2017 8:54:11 PM	32325

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706980**

20-Jun-17

Client: EA Engineering

Project: JVP Bryn Mawr

Sample ID **mb-32325**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **32325**	RunNo: **43599**
Prep Date: **6/16/2017**	Analysis Date: **6/19/2017**	SeqNo: **1374292** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706980**

20-Jun-17

Client: EA Engineering

Project: JVP Bryn Mawr

Sample ID **mb-32325**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **32325**	RunNo: **43599**
Prep Date: **6/16/2017**	Analysis Date: **6/19/2017**	SeqNo: **1374292** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: 1,2-Dichloroethane-d4	0.56		0.5000		113	70	130			
Surr: Toluene-d8	0.49		0.5000		97.7	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.5	70	130			

Sample ID **lcs-32325**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS**	Batch ID: **32325**	RunNo: **43599**
Prep Date: **6/16/2017**	Analysis Date: **6/19/2017**	SeqNo: **1374293** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	70	130			
Toluene	0.87	0.050	1.000	0	86.7	70	130			
Chlorobenzene	0.97	0.050	1.000	0	96.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706980**

20-Jun-17

Client: EA Engineering

Project: JVP Bryn Mawr

Sample ID	**lcs-32325**	SampType:	**LCS**	TestCode:	**EPA Method 8260B: Volatiles**
Client ID:	**LCSS**	Batch ID:	**32325**	RunNo:	**43599**
Prep Date:	**6/16/2017**	Analysis Date:	**6/19/2017**	SeqNo:	**1374293** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	1.2	0.050	1.000	0	117	68.8	161			
Trichloroethene (TCE)	0.98	0.050	1.000	0	98.0	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: 1,2-Dichloroethane-d4	0.57		0.5000		114	70	130			
Surr: Toluene-d8	0.50		0.5000		99.3	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: EA Engineering Alb Work Order Number: 1706980 RcptNo: 1

Received By: Anne Thorne 6/19/2017 8:15:00 AM Anne Thorne
Completed By: Anne Thorne 6/19/2017 10:18:08 AM Anne Thorne
Reviewed By: JRE 06/19/17

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Not Present			

Chain-of-Custody Record

Client: EA Engineering

Mailing Address: 320 Gold Ave Ste 1300

Phone #: 505-224-9013

email or Fax#: tcurley@eaest.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: JVP Bryn Mawr

Project #: 31516

Project Manager: Tyler Curley

Sampler: T. Curley

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1706980	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
6-13-17	1100	soil	VMW-01-S-72'-74'	2 vials / 1 jar	MeoH/None	001										X		
6-14-17	1045	soil	VMW-01-I-150'-152'			002										X		
6-14-17	1431	soil	VMW-01-D-190'-192'			003										X		
			Method Blank			004										X		

Date	Time	Relinquished by:	Received by:	Date	Time
6-19-17	0815			6/19/17	0815
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 06, 2017

Tyler Curley
EA Engineering
320 Gold Ave SW Suite 1210
Albuquerque, NM 87102
TEL: (505) 224-9013
FAX

RE: JVP Bryn Mawr OrderNo.: 1707038

Dear Tyler Curley:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/30/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: VMW-10
Project: JVP Bryn Mawr
Collection Date: 6/30/2017 3:13:00 PM
Lab ID: 1707038-001
Matrix: AQUEOUS
Received Date: 6/30/2017 4:12:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Toluene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Ethylbenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Naphthalene	ND	2.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
2-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Acetone	ND	10		µg/L	1	7/4/2017 7:20:56 AM	C43978
Bromobenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Bromodichloromethane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Bromoform	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Bromomethane	ND	3.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
2-Butanone	ND	10		µg/L	1	7/4/2017 7:20:56 AM	C43978
Carbon disulfide	ND	10		µg/L	1	7/4/2017 7:20:56 AM	C43978
Carbon Tetrachloride	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Chlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Chloroethane	ND	2.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Chloroform	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Chloromethane	ND	3.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
2-Chlorotoluene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
4-Chlorotoluene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
cis-1,2-DCE	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Dibromochloromethane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Dibromomethane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,1-Dichloroethane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,1-Dichloroethene	3.6	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,2-Dichloropropane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,3-Dichloropropane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
2,2-Dichloropropane	ND	2.0		µg/L	1	7/4/2017 7:20:56 AM	C43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: VMW-10
Project: JVP Bryn Mawr
Collection Date: 6/30/2017 3:13:00 PM
Lab ID: 1707038-001
Matrix: AQUEOUS
Received Date: 6/30/2017 4:12:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1-Dichloropropene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Hexachlorobutadiene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
2-Hexanone	ND	10		µg/L	1	7/4/2017 7:20:56 AM	C43978
Isopropylbenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
4-Isopropyltoluene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
4-Methyl-2-pentanone	ND	10		µg/L	1	7/4/2017 7:20:56 AM	C43978
Methylene Chloride	ND	3.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
n-Butylbenzene	ND	3.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
n-Propylbenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
sec-Butylbenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Styrene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
tert-Butylbenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
trans-1,2-DCE	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Trichlorofluoromethane	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Vinyl chloride	ND	1.0		µg/L	1	7/4/2017 7:20:56 AM	C43978
Xylenes, Total	ND	1.5		µg/L	1	7/4/2017 7:20:56 AM	C43978
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	7/4/2017 7:20:56 AM	C43978
Surr: 4-Bromofluorobenzene	98.0	70-130		%Rec	1	7/4/2017 7:20:56 AM	C43978
Surr: Dibromofluoromethane	107	70-130		%Rec	1	7/4/2017 7:20:56 AM	C43978
Surr: Toluene-d8	102	70-130		%Rec	1	7/4/2017 7:20:56 AM	C43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: IDW-Soil
Project: JVP Bryn Mawr
Collection Date: 6/30/2017 3:30:00 PM
Lab ID: 1707038-002
Matrix: SOIL
Received Date: 6/30/2017 4:12:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.024		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Toluene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Ethylbenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Methyl tert-butyl ether (MTBE)	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,2,4-Trimethylbenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,3,5-Trimethylbenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,2-Dichloroethane (EDC)	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,2-Dibromoethane (EDB)	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Naphthalene	ND	0.096		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1-Methylnaphthalene	ND	0.19		mg/Kg	1	7/6/2017 2:11:09 AM	32616
2-Methylnaphthalene	ND	0.19		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Acetone	ND	0.72		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Bromobenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Bromodichloromethane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Bromoform	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Bromomethane	ND	0.14		mg/Kg	1	7/6/2017 2:11:09 AM	32616
2-Butanone	ND	0.48		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Carbon disulfide	ND	0.48		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Carbon tetrachloride	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Chlorobenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Chloroethane	ND	0.096		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Chloroform	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Chloromethane	ND	0.14		mg/Kg	1	7/6/2017 2:11:09 AM	32616
2-Chlorotoluene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
4-Chlorotoluene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
cis-1,2-DCE	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
cis-1,3-Dichloropropene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,2-Dibromo-3-chloropropane	ND	0.096		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Dibromochloromethane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Dibromomethane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,2-Dichlorobenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,3-Dichlorobenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,4-Dichlorobenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Dichlorodifluoromethane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,1-Dichloroethane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,1-Dichloroethene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,2-Dichloropropane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,3-Dichloropropane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
2,2-Dichloropropane	ND	0.096		mg/Kg	1	7/6/2017 2:11:09 AM	32616

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: IDW-Soil
Project: JVP Bryn Mawr
Collection Date: 6/30/2017 3:30:00 PM
Lab ID: 1707038-002
Matrix: SOIL
Received Date: 6/30/2017 4:12:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1-Dichloropropene	ND	0.096		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Hexachlorobutadiene	ND	0.096		mg/Kg	1	7/6/2017 2:11:09 AM	32616
2-Hexanone	ND	0.48		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Isopropylbenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
4-Isopropyltoluene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
4-Methyl-2-pentanone	ND	0.48		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Methylene chloride	ND	0.14		mg/Kg	1	7/6/2017 2:11:09 AM	32616
n-Butylbenzene	ND	0.14		mg/Kg	1	7/6/2017 2:11:09 AM	32616
n-Propylbenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
sec-Butylbenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Styrene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
tert-Butylbenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,1,1,2-Tetrachloroethane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,1,2,2-Tetrachloroethane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Tetrachloroethene (PCE)	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
trans-1,2-DCE	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
trans-1,3-Dichloropropene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,2,3-Trichlorobenzene	ND	0.096		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,2,4-Trichlorobenzene	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,1,1-Trichloroethane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,1,2-Trichloroethane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Trichloroethene (TCE)	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Trichlorofluoromethane	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
1,2,3-Trichloropropane	ND	0.096		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Vinyl chloride	ND	0.048		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Xylenes, Total	ND	0.096		mg/Kg	1	7/6/2017 2:11:09 AM	32616
Surr: Dibromofluoromethane	106	70-130		%Rec	1	7/6/2017 2:11:09 AM	32616
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%Rec	1	7/6/2017 2:11:09 AM	32616
Surr: Toluene-d8	102	70-130		%Rec	1	7/6/2017 2:11:09 AM	32616
Surr: 4-Bromofluorobenzene	88.5	70-130		%Rec	1	7/6/2017 2:11:09 AM	32616

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: TRIP BLANK
Project: JVP Bryn Mawr
Collection Date:
Lab ID: 1707038-003
Matrix: TRIP BLANK
Received Date: 6/30/2017 4:12:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Toluene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Ethylbenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Naphthalene	ND	2.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
2-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Acetone	ND	10		µg/L	1	7/4/2017 7:49:26 AM	C43978
Bromobenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Bromodichloromethane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Bromoform	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Bromomethane	ND	3.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
2-Butanone	ND	10		µg/L	1	7/4/2017 7:49:26 AM	C43978
Carbon disulfide	ND	10		µg/L	1	7/4/2017 7:49:26 AM	C43978
Carbon Tetrachloride	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Chlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Chloroethane	ND	2.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Chloroform	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Chloromethane	ND	3.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
2-Chlorotoluene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
4-Chlorotoluene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
cis-1,2-DCE	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Dibromochloromethane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Dibromomethane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,1-Dichloroethane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,1-Dichloroethene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,2-Dichloropropane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,3-Dichloropropane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
2,2-Dichloropropane	ND	2.0		µg/L	1	7/4/2017 7:49:26 AM	C43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: TRIP BLANK
Project: JVP Bryn Mawr
Collection Date:
Lab ID: 1707038-003
Matrix: TRIP BLANK
Received Date: 6/30/2017 4:12:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1-Dichloropropene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Hexachlorobutadiene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
2-Hexanone	ND	10		µg/L	1	7/4/2017 7:49:26 AM	C43978
Isopropylbenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
4-Isopropyltoluene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
4-Methyl-2-pentanone	ND	10		µg/L	1	7/4/2017 7:49:26 AM	C43978
Methylene Chloride	ND	3.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
n-Butylbenzene	ND	3.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
n-Propylbenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
sec-Butylbenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Styrene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
tert-Butylbenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
trans-1,2-DCE	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Trichlorofluoromethane	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Vinyl chloride	ND	1.0		µg/L	1	7/4/2017 7:49:26 AM	C43978
Xylenes, Total	ND	1.5		µg/L	1	7/4/2017 7:49:26 AM	C43978
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	7/4/2017 7:49:26 AM	C43978
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	7/4/2017 7:49:26 AM	C43978
Surr: Dibromofluoromethane	102	70-130		%Rec	1	7/4/2017 7:49:26 AM	C43978
Surr: Toluene-d8	102	70-130		%Rec	1	7/4/2017 7:49:26 AM	C43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1707038**

06-Jul-17

Client: EA Engineering

Project: JVP Bryn Mawr

Sample ID **mb-32610**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **32610**	RunNo: **44000**
Prep Date: **7/3/2017**	Analysis Date: **7/5/2017**	SeqNo: **1387595** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: 1,2-Dichloroethane-d4	0.54		0.5000		107	70	130			
Surr: Toluene-d8	0.49		0.5000		97.0	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.5	70	130			

Sample ID **lcs-32610**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS**	Batch ID: **32610**	RunNo: **44000**
Prep Date: **7/3/2017**	Analysis Date: **7/5/2017**	SeqNo: **1387596** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		105	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.2	70	130			

Sample ID **mb-32616**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **32616**	RunNo: **44000**
Prep Date: **7/3/2017**	Analysis Date: **7/5/2017**	SeqNo: **1387599** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1707038**

06-Jul-17

Client: EA Engineering

Project: JVP Bryn Mawr

Sample ID **mb-32616**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **32616**	RunNo: **44000**
Prep Date: **7/3/2017**	Analysis Date: **7/5/2017**	SeqNo: **1387599** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1707038**

06-Jul-17

Client: EA Engineering

Project: JVP Bryn Mawr

Sample ID **mb-32616**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **32616**	RunNo: **44000**
Prep Date: **7/3/2017**	Analysis Date: **7/5/2017**	SeqNo: **1387599** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.6	70	130			

Sample ID **lcs-32616**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS**	Batch ID: **32616**	RunNo: **44000**
Prep Date: **7/3/2017**	Analysis Date: **7/5/2017**	SeqNo: **1387600** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	70	130			
Toluene	0.95	0.050	1.000	0	94.6	70	130			
Chlorobenzene	1.0	0.050	1.000	0	103	70	130			
1,1-Dichloroethene	1.4	0.050	1.000	0	139	68.8	161			
Trichloroethene (TCE)	1.0	0.050	1.000	0	101	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1707038**

06-Jul-17

Client: EA Engineering

Project: JVP Bryn Mawr

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **C43978**	RunNo: **43978**
Prep Date:	Analysis Date: **7/3/2017**	SeqNo: **1386387** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1707038**

06-Jul-17

Client: EA Engineering

Project: JVP Bryn Mawr

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **C43978**	RunNo: **43978**
Prep Date:	Analysis Date: **7/3/2017**	SeqNo: **1386387** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		109	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.7	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **C43978**	RunNo: **43978**
Prep Date:	Analysis Date: **7/3/2017**	SeqNo: **1386389** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	21	1.0	20.00	0	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1707038**

06-Jul-17

Client: EA Engineering

Project: JVP Bryn Mawr

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **C43978**	RunNo: **43978**
Prep Date:	Analysis Date: **7/3/2017**	SeqNo: **1386389** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	25	1.0	20.00	0	126	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		109	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.9	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **EA Engineering Alb** Work Order Number: **1707038** RcptNo: **1**

Received By: **John Caldwell** **6/30/2017 4:12:00 PM** John Caldwell

Completed By: **Ashley Gallegos** **7/3/2017 11:11:49 AM** AG

Reviewed By: ENM 7/3/17

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	6.0	Good	Not Present			

Chain-of-Custody Record

Client: EA Engineering

Mailing Address: 320 Gold Ave Ste 1300 ABQ NM

Phone #: 505-224-9013

email or Fax#: tcurley@eaest.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: JVP Bryn Mawr

Project #: PO# 166058

Project Manager: Tyler Curley

Sampler: Tyler Curley

On Ice: ☒ Yes ☐ No

Sample Temperature: 6.2 C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1707038	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
6-30-17	1513	Aq	VMW-1-D	3xVOA	HgCl2	-001										X		
1	1530	Soil	IDW Soil	1xJar	None	-002										X		
		Aq	Trip blank	2xVOA		-003										X		

Remarks:

Date	Time	Relinquished by	Received by	Date	Time
6-30-17	1612			6.30.17	1612
Date:	Time:	Relinquished by:	Received by:	Date	Time

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7/13/2017
Mr. Tyler Curley
EA Engineering
320 Gold Avenue, SW
Suite 1300
Albuquerque NM 87102

Project Name: JVP Bryn Mawr
Project #:
Workorder #: 1707043

Dear Mr. Tyler Curley

The following report includes the data for the above referenced project for sample(s) received on 7/5/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Brian Whittaker

Project Manager

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WORK ORDER #: 1707043

Work Order Summary

CLIENT:	Mr. Tyler Curley EA Engineering 320 Gold Avenue, SW Suite 1300 Albuquerque, NM 87102	**BILL TO:**	Accounts Payable - Lewisville EA Engineering 405 S. Highway 121 Suite C-100 Lewisville, TX 75067
PHONE:	(505) 224-9013	**P.O. #**	16609
FAX:	(505) 224-9016	**PROJECT #**	JVP Bryn Mawr
DATE RECEIVED:	07/05/2017	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	07/13/2017		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	VMW-1-S	TO-15	13.3 "Hg	14.8 psi
02A	VMW-1-I	TO-15	12.4 "Hg	14.9 psi
03A	VMW-1-D	TO-15	11.4 "Hg	15.1 psi
04A	Lab Blank	TO-15	NA	NA
04B	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
05B	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA
06B	LCS	TO-15	NA	NA
06BB	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 07/13/17

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

LABORATORY NARRATIVE
EPA Method TO-15
EA Engineering
Workorder# 1707043

Three 1 Liter Summa Canister samples were received on July 05, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on samples VMW-1-S, VMW-1-I and VMW-1-D due to the presence of high level target species.

The reported result for Cyclohexane in samples VMW-1-S and VMW-1-D may be biased high due to co-elution with the higher concentration 1,1,1-Trichloroethane peak. Result is flagged as estimated.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: VMW-1-S

Lab ID#: 1707043-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	18	23000	71	92000
1,1-Dichloroethane	18	24	73	99
Tetrahydrofuran	18	48	53	140
1,1,1-Trichloroethane	18	3000	98	16000
Cyclohexane	18	110 J	62	400 J
1,2-Dichloroethane	18	20	73	81

Client Sample ID: VMW-1-I

Lab ID#: 1707043-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	34	7800	140	31000
1,1,1-Trichloroethane	34	690	190	3800
Cumene	34	58	170	280

Client Sample ID: VMW-1-D

Lab ID#: 1707043-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	16	18	36	40
1,1-Dichloroethene	16	6500	65	26000
Hexane	16	34	58	120
Tetrahydrofuran	16	130	48	370
1,1,1-Trichloroethane	16	460	89	2500
Cyclohexane	16	19 J	56	65 J
Benzene	16	23	52	74
Heptane	16	24	67	97
Toluene	16	17	62	63
Cumene	16	63	80	310

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Client Sample ID: VMW-1-S

Lab ID#: 1707043-01A

EPA METHOD TO-15 GC/MS

File Name:	**14070720**	**Date of Collection:**	**6/28/17 2:38:00 PM**
Dil. Factor:	**3.60**	**Date of Analysis:**	**7/7/17 04:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	18	Not Detected	89	Not Detected
Freon 114	18	Not Detected	120	Not Detected
Chloromethane	72	Not Detected	150	Not Detected
Vinyl Chloride	18	Not Detected	46	Not Detected
1,3-Butadiene	18	Not Detected	40	Not Detected
Bromomethane	72	Not Detected	280	Not Detected
Chloroethane	72	Not Detected	190	Not Detected
Freon 11	18	Not Detected	100	Not Detected
Ethanol	72	Not Detected	140	Not Detected
Freon 113	18	Not Detected	140	Not Detected
1,1-Dichloroethene	18	23000	71	92000
Acetone	72	Not Detected	170	Not Detected
2-Propanol	72	Not Detected	180	Not Detected
Carbon Disulfide	72	Not Detected	220	Not Detected
3-Chloropropene	72	Not Detected	220	Not Detected
Methylene Chloride	72	Not Detected	250	Not Detected
Methyl tert-butyl ether	18	Not Detected	65	Not Detected
trans-1,2-Dichloroethene	18	Not Detected	71	Not Detected
Hexane	18	Not Detected	63	Not Detected
1,1-Dichloroethane	18	24	73	99
2-Butanone (Methyl Ethyl Ketone)	72	Not Detected	210	Not Detected
cis-1,2-Dichloroethene	18	Not Detected	71	Not Detected
Tetrahydrofuran	18	48	53	140
Chloroform	18	Not Detected	88	Not Detected
1,1,1-Trichloroethane	18	3000	98	16000
Cyclohexane	18	110 J	62	400 J
Carbon Tetrachloride	18	Not Detected	110	Not Detected
2,2,4-Trimethylpentane	18	Not Detected	84	Not Detected
Benzene	18	Not Detected	58	Not Detected
1,2-Dichloroethane	18	20	73	81
Heptane	18	Not Detected	74	Not Detected
Trichloroethene	18	Not Detected	97	Not Detected
1,2-Dichloropropane	18	Not Detected	83	Not Detected
1,4-Dioxane	72	Not Detected	260	Not Detected
Bromodichloromethane	18	Not Detected	120	Not Detected
cis-1,3-Dichloropropene	18	Not Detected	82	Not Detected
4-Methyl-2-pentanone	18	Not Detected	74	Not Detected
Toluene	18	Not Detected	68	Not Detected
trans-1,3-Dichloropropene	18	Not Detected	82	Not Detected
1,1,2-Trichloroethane	18	Not Detected	98	Not Detected
Tetrachloroethene	18	Not Detected	120	Not Detected
2-Hexanone	72	Not Detected	290	Not Detected

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Client Sample ID: VMW-1-S

Lab ID#: 1707043-01A

EPA METHOD TO-15 GC/MS

File Name:	**14070720**	**Date of Collection:**	**6/28/17 2:38:00 PM**
Dil. Factor:	**3.60**	**Date of Analysis:**	**7/7/17 04:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	18	Not Detected	150	Not Detected
1,2-Dibromoethane (EDB)	18	Not Detected	140	Not Detected
Chlorobenzene	18	Not Detected	83	Not Detected
Ethyl Benzene	18	Not Detected	78	Not Detected
m,p-Xylene	18	Not Detected	78	Not Detected
o-Xylene	18	Not Detected	78	Not Detected
Styrene	18	Not Detected	77	Not Detected
Bromoform	18	Not Detected	190	Not Detected
Cumene	18	Not Detected	88	Not Detected
1,1,2,2-Tetrachloroethane	18	Not Detected	120	Not Detected
Propylbenzene	18	Not Detected	88	Not Detected
4-Ethyltoluene	18	Not Detected	88	Not Detected
1,3,5-Trimethylbenzene	18	Not Detected	88	Not Detected
1,2,4-Trimethylbenzene	18	Not Detected	88	Not Detected
1,3-Dichlorobenzene	18	Not Detected	110	Not Detected
1,4-Dichlorobenzene	18	Not Detected	110	Not Detected
alpha-Chlorotoluene	18	Not Detected	93	Not Detected
1,2-Dichlorobenzene	18	Not Detected	110	Not Detected
1,2,4-Trichlorobenzene	72	Not Detected	530	Not Detected
Hexachlorobutadiene	72	Not Detected	770	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: VMW-1-I

Lab ID#: 1707043-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070627**	**Date of Collection:**	**6/28/17 3:16:00 PM**
Dil. Factor:	**68.6**	**Date of Analysis:**	**7/7/17 01:58 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	34	Not Detected	170	Not Detected
Freon 114	34	Not Detected	240	Not Detected
Chloromethane	340	Not Detected	710	Not Detected
Vinyl Chloride	34	Not Detected	88	Not Detected
1,3-Butadiene	34	Not Detected	76	Not Detected
Bromomethane	340	Not Detected	1300	Not Detected
Chloroethane	140	Not Detected	360	Not Detected
Freon 11	34	Not Detected	190	Not Detected
Ethanol	140	Not Detected	260	Not Detected
Freon 113	34	Not Detected	260	Not Detected
1,1-Dichloroethene	34	7800	140	31000
Acetone	340	Not Detected	810	Not Detected
2-Propanol	140	Not Detected	340	Not Detected
Carbon Disulfide	140	Not Detected	430	Not Detected
3-Chloropropene	140	Not Detected	430	Not Detected
Methylene Chloride	340	Not Detected	1200	Not Detected
Methyl tert-butyl ether	140	Not Detected	490	Not Detected
trans-1,2-Dichloroethene	34	Not Detected	140	Not Detected
Hexane	34	Not Detected	120	Not Detected
1,1-Dichloroethane	34	Not Detected	140	Not Detected
2-Butanone (Methyl Ethyl Ketone)	140	Not Detected	400	Not Detected
cis-1,2-Dichloroethene	34	Not Detected	140	Not Detected
Tetrahydrofuran	34	Not Detected	100	Not Detected
Chloroform	34	Not Detected	170	Not Detected
1,1,1-Trichloroethane	34	690	190	3800
Cyclohexane	34	Not Detected	120	Not Detected
Carbon Tetrachloride	34	Not Detected	220	Not Detected
2,2,4-Trimethylpentane	34	Not Detected	160	Not Detected
Benzene	34	Not Detected	110	Not Detected
1,2-Dichloroethane	34	Not Detected	140	Not Detected
Heptane	34	Not Detected	140	Not Detected
Trichloroethene	34	Not Detected	180	Not Detected
1,2-Dichloropropane	34	Not Detected	160	Not Detected
1,4-Dioxane	140	Not Detected	490	Not Detected
Bromodichloromethane	34	Not Detected	230	Not Detected
cis-1,3-Dichloropropene	34	Not Detected	160	Not Detected
4-Methyl-2-pentanone	34	Not Detected	140	Not Detected
Toluene	34	Not Detected	130	Not Detected
trans-1,3-Dichloropropene	34	Not Detected	160	Not Detected
1,1,2-Trichloroethane	34	Not Detected	190	Not Detected
Tetrachloroethene	34	Not Detected	230	Not Detected
2-Hexanone	140	Not Detected	560	Not Detected

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Client Sample ID: VMW-1-I

Lab ID#: 1707043-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070627**	**Date of Collection: 6/28/17 3:16:00 PM**	
Dil. Factor:	**68.6**	**Date of Analysis: 7/7/17 01:58 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	34	Not Detected	290	Not Detected
1,2-Dibromoethane (EDB)	34	Not Detected	260	Not Detected
Chlorobenzene	34	Not Detected	160	Not Detected
Ethyl Benzene	34	Not Detected	150	Not Detected
m,p-Xylene	34	Not Detected	150	Not Detected
o-Xylene	34	Not Detected	150	Not Detected
Styrene	34	Not Detected	150	Not Detected
Bromoform	34	Not Detected	350	Not Detected
Cumene	34	58	170	280
1,1,2,2-Tetrachloroethane	34	Not Detected	240	Not Detected
Propylbenzene	34	Not Detected	170	Not Detected
4-Ethyltoluene	34	Not Detected	170	Not Detected
1,3,5-Trimethylbenzene	34	Not Detected	170	Not Detected
1,2,4-Trimethylbenzene	34	Not Detected	170	Not Detected
1,3-Dichlorobenzene	34	Not Detected	210	Not Detected
1,4-Dichlorobenzene	34	Not Detected	210	Not Detected
alpha-Chlorotoluene	34	Not Detected	180	Not Detected
1,2-Dichlorobenzene	34	Not Detected	210	Not Detected
1,2,4-Trichlorobenzene	140	Not Detected	1000	Not Detected
Hexachlorobutadiene	140	Not Detected	1500	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: VMW-1-D

Lab ID#: 1707043-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070626**	**Date of Collection:**	**6/28/17 3:56:00 PM**
Dil. Factor:	**32.7**	**Date of Analysis:**	**7/7/17 01:35 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	16	Not Detected	81	Not Detected
Freon 114	16	Not Detected	110	Not Detected
Chloromethane	160	Not Detected	340	Not Detected
Vinyl Chloride	16	Not Detected	42	Not Detected
1,3-Butadiene	16	18	36	40
Bromomethane	160	Not Detected	630	Not Detected
Chloroethane	65	Not Detected	170	Not Detected
Freon 11	16	Not Detected	92	Not Detected
Ethanol	65	Not Detected	120	Not Detected
Freon 113	16	Not Detected	120	Not Detected
1,1-Dichloroethene	16	6500	65	26000
Acetone	160	Not Detected	390	Not Detected
2-Propanol	65	Not Detected	160	Not Detected
Carbon Disulfide	65	Not Detected	200	Not Detected
3-Chloropropene	65	Not Detected	200	Not Detected
Methylene Chloride	160	Not Detected	570	Not Detected
Methyl tert-butyl ether	65	Not Detected	240	Not Detected
trans-1,2-Dichloroethene	16	Not Detected	65	Not Detected
Hexane	16	34	58	120
1,1-Dichloroethane	16	Not Detected	66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	65	Not Detected	190	Not Detected
cis-1,2-Dichloroethene	16	Not Detected	65	Not Detected
Tetrahydrofuran	16	130	48	370
Chloroform	16	Not Detected	80	Not Detected
1,1,1-Trichloroethane	16	460	89	2500
Cyclohexane	16	19 J	56	65 J
Carbon Tetrachloride	16	Not Detected	100	Not Detected
2,2,4-Trimethylpentane	16	Not Detected	76	Not Detected
Benzene	16	23	52	74
1,2-Dichloroethane	16	Not Detected	66	Not Detected
Heptane	16	24	67	97
Trichloroethene	16	Not Detected	88	Not Detected
1,2-Dichloropropane	16	Not Detected	76	Not Detected
1,4-Dioxane	65	Not Detected	240	Not Detected
Bromodichloromethane	16	Not Detected	110	Not Detected
cis-1,3-Dichloropropene	16	Not Detected	74	Not Detected
4-Methyl-2-pentanone	16	Not Detected	67	Not Detected
Toluene	16	17	62	63
trans-1,3-Dichloropropene	16	Not Detected	74	Not Detected
1,1,2-Trichloroethane	16	Not Detected	89	Not Detected
Tetrachloroethene	16	Not Detected	110	Not Detected
2-Hexanone	65	Not Detected	270	Not Detected

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Client Sample ID: VMW-1-D

Lab ID#: 1707043-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070626**	**Date of Collection:**	**6/28/17 3:56:00 PM**
Dil. Factor:	**32.7**	**Date of Analysis:**	**7/7/17 01:35 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	16	Not Detected	140	Not Detected
1,2-Dibromoethane (EDB)	16	Not Detected	120	Not Detected
Chlorobenzene	16	Not Detected	75	Not Detected
Ethyl Benzene	16	Not Detected	71	Not Detected
m,p-Xylene	16	Not Detected	71	Not Detected
o-Xylene	16	Not Detected	71	Not Detected
Styrene	16	Not Detected	70	Not Detected
Bromoform	16	Not Detected	170	Not Detected
Cumene	16	63	80	310
1,1,2,2-Tetrachloroethane	16	Not Detected	110	Not Detected
Propylbenzene	16	Not Detected	80	Not Detected
4-Ethyltoluene	16	Not Detected	80	Not Detected
1,3,5-Trimethylbenzene	16	Not Detected	80	Not Detected
1,2,4-Trimethylbenzene	16	Not Detected	80	Not Detected
1,3-Dichlorobenzene	16	Not Detected	98	Not Detected
1,4-Dichlorobenzene	16	Not Detected	98	Not Detected
alpha-Chlorotoluene	16	Not Detected	85	Not Detected
1,2-Dichlorobenzene	16	Not Detected	98	Not Detected
1,2,4-Trichlorobenzene	65	Not Detected	480	Not Detected
Hexachlorobutadiene	65	Not Detected	700	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1707043-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/17 12:29 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1707043-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/17 12:29 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1707043-04B

EPA METHOD TO-15 GC/MS

File Name:	**14070705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/7/17 08:58 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	20	Not Detected	78	Not Detected
Chloroethane	20	Not Detected	53	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	20	Not Detected	62	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	20	Not Detected	69	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	59	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1707043-04B

EPA METHOD TO-15 GC/MS

File Name:	**14070705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/7/17 08:58 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: CCV

Lab ID#: 1707043-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070602**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/17 09:45 AM**

Compound	%Recovery
Freon 12	96
Freon 114	106
Chloromethane	101
Vinyl Chloride	101
1,3-Butadiene	94
Bromomethane	102
Chloroethane	98
Freon 11	98
Ethanol	91
Freon 113	105
1,1-Dichloroethene	98
Acetone	89
2-Propanol	86
Carbon Disulfide	93
3-Chloropropene	95
Methylene Chloride	92
Methyl tert-butyl ether	89
trans-1,2-Dichloroethene	105
Hexane	94
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	98
Tetrahydrofuran	88
Chloroform	101
1,1,1-Trichloroethane	97
Cyclohexane	96
Carbon Tetrachloride	100
2,2,4-Trimethylpentane	93
Benzene	108
1,2-Dichloroethane	99
Heptane	103
Trichloroethene	107
1,2-Dichloropropane	106
1,4-Dioxane	103
Bromodichloromethane	107
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	90
Toluene	108
trans-1,3-Dichloropropene	97
1,1,2-Trichloroethane	106
Tetrachloroethene	107
2-Hexanone	97

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Client Sample ID: CCV

Lab ID#: 1707043-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/17 09:45 AM**	

Compound	%Recovery
Dibromochloromethane	107
1,2-Dibromoethane (EDB)	106
Chlorobenzene	105
Ethyl Benzene	104
m,p-Xylene	104
o-Xylene	103
Styrene	112
Bromoform	108
Cumene	102
1,1,2,2-Tetrachloroethane	105
Propylbenzene	102
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	109
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	109
Hexachlorobutadiene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: CCV

Lab ID#: 1707043-05B

EPA METHOD TO-15 GC/MS

File Name:	**14070702**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/7/17 07:41 AM**

Compound	%Recovery
Freon 12	103
Freon 114	101
Chloromethane	102
Vinyl Chloride	99
1,3-Butadiene	106
Bromomethane	114
Chloroethane	109
Freon 11	107
Ethanol	113
Freon 113	106
1,1-Dichloroethene	107
Acetone	112
2-Propanol	112
Carbon Disulfide	104
3-Chloropropene	111
Methylene Chloride	107
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	108
Hexane	105
1,1-Dichloroethane	105
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	108
Tetrahydrofuran	107
Chloroform	110
1,1,1-Trichloroethane	107
Cyclohexane	101
Carbon Tetrachloride	105
2,2,4-Trimethylpentane	108
Benzene	100
1,2-Dichloroethane	100
Heptane	103
Trichloroethene	100
1,2-Dichloropropane	98
1,4-Dioxane	104
Bromodichloromethane	106
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	116
Toluene	99
trans-1,3-Dichloropropene	101
1,1,2-Trichloroethane	96
Tetrachloroethene	98
2-Hexanone	104

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Client Sample ID: CCV

Lab ID#: 1707043-05B

EPA METHOD TO-15 GC/MS

File Name:	**14070702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/7/17 07:41 AM**	

Compound	%Recovery
Dibromochloromethane	100
1,2-Dibromoethane (EDB)	100
Chlorobenzene	96
Ethyl Benzene	99
m,p-Xylene	101
o-Xylene	99
Styrene	103
Bromoform	102
Cumene	107
1,1,2,2-Tetrachloroethane	99
Propylbenzene	104
4-Ethyltoluene	108
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	111
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	93
Hexachlorobutadiene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCS

Lab ID#: 1707043-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/17 10:11 AM**	

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	108	70-130
Chloromethane	99	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	93	70-130
Bromomethane	100	70-130
Chloroethane	102	70-130
Freon 11	99	70-130
Ethanol	82	70-130
Freon 113	104	70-130
1,1-Dichloroethene	98	70-130
Acetone	90	70-130
2-Propanol	84	70-130
Carbon Disulfide	96	70-130
3-Chloropropene	98	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	88	70-130
trans-1,2-Dichloroethene	115	70-130
Hexane	97	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
cis-1,2-Dichloroethene	90	70-130
Tetrahydrofuran	88	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	99	70-130
2,2,4-Trimethylpentane	95	70-130
Benzene	106	70-130
1,2-Dichloroethane	96	70-130
Heptane	104	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	105	70-130
1,4-Dioxane	93	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	105	70-130
4-Methyl-2-pentanone	89	70-130
Toluene	106	70-130
trans-1,3-Dichloropropene	97	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	107	70-130
2-Hexanone	93	70-130

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Client Sample ID: LCS

Lab ID#: 1707043-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/17 10:11 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	109	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	105	70-130
Ethyl Benzene	105	70-130
m,p-Xylene	104	70-130
o-Xylene	104	70-130
Styrene	106	70-130
Bromoform	112	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	106	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	107	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	109	70-130
1,4-Dichlorobenzene	112	70-130
alpha-Chlorotoluene	99	70-130
1,2-Dichlorobenzene	109	70-130
1,2,4-Trichlorobenzene	111	70-130
Hexachlorobutadiene	111	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCSD

Lab ID#: 1707043-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/17 10:38 AM**	

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	109	70-130
Chloromethane	99	70-130
Vinyl Chloride	107	70-130
1,3-Butadiene	95	70-130
Bromomethane	102	70-130
Chloroethane	105	70-130
Freon 11	101	70-130
Ethanol	83	70-130
Freon 113	106	70-130
1,1-Dichloroethene	100	70-130
Acetone	93	70-130
2-Propanol	87	70-130
Carbon Disulfide	96	70-130
3-Chloropropene	104	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	117	70-130
Hexane	99	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
cis-1,2-Dichloroethene	93	70-130
Tetrahydrofuran	91	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	101	70-130
Carbon Tetrachloride	101	70-130
2,2,4-Trimethylpentane	97	70-130
Benzene	105	70-130
1,2-Dichloroethane	95	70-130
Heptane	103	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	103	70-130
1,4-Dioxane	92	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	105	70-130
4-Methyl-2-pentanone	88	70-130
Toluene	106	70-130
trans-1,3-Dichloropropene	100	70-130
1,1,2-Trichloroethane	110	70-130
Tetrachloroethene	110	70-130
2-Hexanone	94	70-130

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Client Sample ID: LCSD

Lab ID#: 1707043-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3070604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/17 10:38 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	111	70-130
1,2-Dibromoethane (EDB)	108	70-130
Chlorobenzene	108	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	108	70-130
o-Xylene	106	70-130
Styrene	109	70-130
Bromoform	115	70-130
Cumene	105	70-130
1,1,2,2-Tetrachloroethane	108	70-130
Propylbenzene	106	70-130
4-Ethyltoluene	111	70-130
1,3,5-Trimethylbenzene	111	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	112	70-130
1,4-Dichlorobenzene	114	70-130
alpha-Chlorotoluene	102	70-130
1,2-Dichlorobenzene	113	70-130
1,2,4-Trichlorobenzene	118	70-130
Hexachlorobutadiene	118	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCS

Lab ID#: 1707043-06B

EPA METHOD TO-15 GC/MS

File Name:	**14070703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/7/17 08:13 AM**	

Compound	%Recovery	Method Limits
Freon 12	105	70-130
Freon 114	110	70-130
Chloromethane	102	70-130
Vinyl Chloride	110	70-130
1,3-Butadiene	102	70-130
Bromomethane	118	70-130
Chloroethane	113	70-130
Freon 11	114	70-130
Ethanol	122	70-130
Freon 113	110	70-130
1,1-Dichloroethene	106	70-130
Acetone	112	70-130
2-Propanol	120	70-130
Carbon Disulfide	94	70-130
3-Chloropropene	101	70-130
Methylene Chloride	111	70-130
Methyl tert-butyl ether	108	70-130
trans-1,2-Dichloroethene	94	70-130
Hexane	110	70-130
1,1-Dichloroethane	111	70-130
2-Butanone (Methyl Ethyl Ketone)	107	70-130
cis-1,2-Dichloroethene	120	70-130
Tetrahydrofuran	108	70-130
Chloroform	110	70-130
1,1,1-Trichloroethane	108	70-130
Cyclohexane	105	70-130
Carbon Tetrachloride	108	70-130
2,2,4-Trimethylpentane	113	70-130
Benzene	106	70-130
1,2-Dichloroethane	105	70-130
Heptane	108	70-130
Trichloroethene	102	70-130
1,2-Dichloropropane	98	70-130
1,4-Dioxane	109	70-130
Bromodichloromethane	110	70-130
cis-1,3-Dichloropropene	100	70-130
4-Methyl-2-pentanone	127	70-130
Toluene	103	70-130
trans-1,3-Dichloropropene	101	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	103	70-130
2-Hexanone	104	70-130

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Client Sample ID: LCS

Lab ID#: 1707043-06B

EPA METHOD TO-15 GC/MS

File Name:	**14070703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/7/17 08:13 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	104	70-130
1,2-Dibromoethane (EDB)	99	70-130
Chlorobenzene	96	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	100	70-130
o-Xylene	101	70-130
Styrene	108	70-130
Bromoform	106	70-130
Cumene	110	70-130
1,1,2,2-Tetrachloroethane	103	70-130
Propylbenzene	109	70-130
4-Ethyltoluene	111	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	97	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	114	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	105	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: LCSD

Lab ID#: 1707043-06BB

EPA METHOD TO-15 GC/MS

File Name:	**14070704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/7/17 08:35 AM**	

Compound	%Recovery	Method Limits
Freon 12	107	70-130
Freon 114	106	70-130
Chloromethane	107	70-130
Vinyl Chloride	107	70-130
1,3-Butadiene	104	70-130
Bromomethane	120	70-130
Chloroethane	110	70-130
Freon 11	114	70-130
Ethanol	114	70-130
Freon 113	108	70-130
1,1-Dichloroethene	106	70-130
Acetone	113	70-130
2-Propanol	118	70-130
Carbon Disulfide	94	70-130
3-Chloropropene	106	70-130
Methylene Chloride	111	70-130
Methyl tert-butyl ether	107	70-130
trans-1,2-Dichloroethene	97	70-130
Hexane	112	70-130
1,1-Dichloroethane	111	70-130
2-Butanone (Methyl Ethyl Ketone)	108	70-130
cis-1,2-Dichloroethene	123	70-130
Tetrahydrofuran	107	70-130
Chloroform	108	70-130
1,1,1-Trichloroethane	107	70-130
Cyclohexane	106	70-130
Carbon Tetrachloride	111	70-130
2,2,4-Trimethylpentane	111	70-130
Benzene	101	70-130
1,2-Dichloroethane	99	70-130
Heptane	104	70-130
Trichloroethene	102	70-130
1,2-Dichloropropane	103	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	104	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	132 Q	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	104	70-130
2-Hexanone	108	70-130

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Client Sample ID: LCSD

Lab ID#: 1707043-06BB

EPA METHOD TO-15 GC/MS

File Name:	**14070704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/7/17 08:35 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	105	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	106	70-130
o-Xylene	100	70-130
Styrene	110	70-130
Bromoform	107	70-130
Cumene	113	70-130
1,1,2,2-Tetrachloroethane	102	70-130
Propylbenzene	110	70-130
4-Ethyltoluene	111	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	110	70-130
1,4-Dichlorobenzene	109	70-130
alpha-Chlorotoluene	117	70-130
1,2-Dichlorobenzene	109	70-130
1,2,4-Trichlorobenzene	107	70-130
Hexachlorobutadiene	103	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130

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Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager ~~Ye~~ Tyler Curley

Collected by: (Print and Sign) Tyler Curley

Company EA Engineering Email tcurley@eaest.com

Address 320 Gold Ave Ste 1300 City ABQ State NM Zip 87102

Phone 505-715-4422 Fax

Project Info:
P.O. # 16609
Project #
Project Name JVP Bryn Mawr

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	VMW-1-S	1L3084	6-28-17	1438	TO-15	-25	-8		
02A	VMW-1-I	1L2836	↓	1516	TO-15	-29	-7		
03A	VMW-1-D	1L1824	↓	1556	TO-15	-25	-6		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	6-29-17 0800	[signature]	07/05/17 1100
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	UPS		NA	Good	Yes No None	1707043

Form 1293 rev.11

ATTACHMENT 2

EA Engineering, Science, & Technology, Inc., PBC
320 Gold Avenue SW, Suite 1300
Albuquerque, New Mexico 87102
Phone: (505) 224-9013

March 30, 2018

Mr. Justin Ball
New Mexico Environment Department
Ground Water Quality Bureau
Remediation Oversight Section
121 Tijeras Ave. NE, Suite 1000
Albuquerque, New Mexico 87102-3400

RE: INSTALLATION OF VAPOR MONITORING WELLS, JVP BRYN MAWR (FORMER FOX ASSOCIATES) SITE, ALBUQUERQUE, NEW MEXICO

Dear Mr. Ball:

On behalf of JVP Venture, EA Engineering, Science, and Technology, Inc., PBC is submitting this Letter Report documenting the file review, groundwater monitoring, and soil vaporing monitoring.

Perched Aquifer:

On January 16, 2018, a file review was conducted to collect all existing SVE data from the shallow zone. Sample results between December 2010 and March 2012 show concentrations less than 100 µg/m^3 (0.1 mg/m^3) for both 1,1,1-TCA and 1.1-DCE in well MW-5, below the respective *Indoor Air* NMED VISLs of 5.21 mg/m^3 and 0.209 mg/m^3, and well below the *Soil Gas* VISLs of 174 and 6.95 mg/m^3, respectively. As a result, MW5 and MW-6 were not included in the vapor sampling regimen. The exposure pathway for vapor intrusion is incomplete and the thus no further remedial action is required for the shallow soil. Historical analytical data is presented in Tables 1 and 2. Trend graphs for historical groundwater and vapor concentrations are attached. All documents obtained in the file review are provided via CD.

On February 13, 2018, water levels were gauged in perched aquifer monitoring wells MW-5 and MW-6. Well MW-6 was gauged with 0.08-foot of water and thus had insufficient water for sampling. Well MW-5 was gauged to have approximately 1-foot of water column; however, during the attempt to sample, water would not be bailed from the well. The well was re-gauged with 0.31-foot of water and thus had insufficient water for sampling. The initial water within well MW-5 can be attributed to sump water that was flushed out during bailing.

Regional Aquifer:

On February 13, 2018, groundwater samples were collected from regional aquifer monitoring wells MW-1, MW-3, MW-4, MW-7, and VMW-1D. Samples were submitted to Hall Environmental Laboratory for analysis of VOCs by EPA method 8260B. Prior to sample

collection the well was purged of 3 casing volumes. Attached is the field data sheet and the laboratory report. Analytical results are presented in Table 1.

On February 26, 2018, soil vapor samples from each well were collected and submitted to Eurofins AirToxics for analysis of VOCs by EPA Method TO-15. Prior to sample collection, each well was purged 10 casing volumes utilizing a vacuum pump. Attached are field data sheets and the laboratory report. Analytical results are presented in Table 2.

Although soil gas concentrations increased slightly from the initial sampling, the 1,1-DCE groundwater sample result actually decreased from the initial sampling. EA requested analysis of 1,4-dioxane with estimated values flagged (e.g., J-flagged) for the 8260 analyses. No 1,4-dioxane was detected at even at the estimated level. 1,1-DCE in MW-4 increased to 32 µg/L.

With respect to the 1,1-DCE plume, from the source well downgradient, the concentrations were 0.5 J µg/L in VMW-01D, 0.46 J µg/L in MW-3, 32 µg/L in MW-4, and finally 0.27 J µg/L in the downgradient monitoring well MW-7. The regional plume has the characteristics of a detached plume (i.e., detached from the source area). The plume is below the WQCC standard of 5 µg/L from the source downgradient past MW-3, roughly 220 feet, the center of mass now near MW-4, 270 feet downgradient, and just to MW-7 and estimated at 0.27 J µg/L over 700 feet downgradient.

Recommendations

Based on data presented herein, and performance assessment of the abatement for shallow soil, the following recommendations are provided:

- The shallow zone abatement of soil contamination is complete, as no soil vapor above concern exists;

- The perched groundwater in the shallow zone has drained down, perhaps in response to recharge being cut off by installation of the box culvert along the east side of the site.

- Based on these findings, and the fact the Stage 2 Abatement Plan was for the shallow zone only (roughly surface to 60 feet bgs), abatement is complete. Accordingly, EA should provide an abatement completion report in accordance with 20.6.2.4112.A. for the shallow zone and this abatement should be terminated in accordance with §4112.B.

- It appears that the residual 1,1-DCE vapor concentration in VMW-01-D (36 $\mu g/L_{air}$) is insufficient to result in an actionable groundwater plume. This concentration partitioned to groundwater using the dimensionless Henry's constant for 1,1-DCE (1.07) is 33.6 µg/L, and at DAF 20 for groundwater mixing and seepage velocity, 1.7 µg/L. The two groundwater samples collected from VMS-01-D were 3.6 and 0.5 J µg/L, for an average concentration of 2.1 µg/L.

- Based on the partitioning analyses above, abatement of deep soil impact is not required.

- Partial termination of abatement is appropriate for all of the domain upgradient of MW-3. This will release the real property in this area from environmental encumbrance, and available for sale at full value;

- The proposed abatement plan area following this partial closure is an area extending from MW-3 on the upgradient side, to MW-7 on the down gradient side, and 100 feet on either flank in a transverse transect through MW-4

Please let us know if you have any questions regarding the information provided in this report.

Sincerely,

Tyler Curley
Project Manager

Jay Snyder
Senior Hydrogeologist

Attachments

Cc: Charlie Miller, JVP Venture
File

TABLES

TABLE 1. HISTORICAL GROUNDWATER ANALYTICAL RESULTS
JVP BRYN MAWR, ABLUQUERQUE, NEW MEXICO

ID	Date	Lab Analysis			
		$C_{1,1,1\text{-TCA}}$ (µg/L)	Qualifer	$C_{1,1\text{-DCE}}$ (µg/L)	Qualifer
VMW-01-D	2/13/2018	<1.0		0.5	J
	6/30/2017	<1.0		3.6	
MW-1	2/13/2018	<1.0		0.4	J
	7/11/2013	<1.0		<1.0	
	7/14/2000	<1.0		<1.0	
MW-3	2/13/2018	<1.0		0.46	J
	7/11/2013	<1.0		<1.0	
	7/14/2000	<1.0		<1.0	
	9/15/1997	<1.0		<1.0	
MW-4	2/13/2018	1.3		32	
	6/17/2015	<1.0		15	
	10/3/2014	<1.0		9.1	
	7/11/2013	2.2		14	
	8/3/2005	<1.0		1.7	
	7/14/2000	1.4		1.3	
	9/16/1997	7.1		7	
	2/18/1997	14		13	
MW-5	2/13/2018	Dry			
	3/7/2012	32		8.5	
	2/14/2012	28		8.4	
	12/29/2011	24		6.3	
	11/4/2011	22		6.9	
	10/13/2011	20		6.1	
	9/13/2011	35		7.4	
	7/6/2011	34		8.8	
	6/8/2011	29		8.5	
	5/26/2011	-		-	
	3/4/2011	11		18	
	12/17/2010	14		27	
	11/11/2010	8		3	
	10/11/2010	52		8.1	
	9/14/2010	23		16	
	8/6/2010	23		9.7	
	7/21/2010	29		15	
	6/9/2010	25		6.4	
	5/11/2010	29		9.1	
	4/6/2010	24		19	
	3/11/2010	20		9.5	
	2/4/2010	27		5.4	
	1/7/2010	32		8.7	
	12/2/2009	72		13	
	11/3/2009	40		16	
	10/5/2009	39		8.6	
	9/1/2009	28		16	
	8/4/2009	33		19	
	7/1/2009	57		17	
	6/1/2009	37		11	
	5/5/2009	62		22	
	4/3/2009	130		23	
	1/1/2006	450		82	
MW-6	2/13/2018	Dry			

TABLE 1. HISTORICAL GROUNDWATER ANALYTICAL RESULTS
JVP BRYN MAWR, ABLUQUERQUE, NEW MEXICO

ID	Date	Lab Analysis			
		$C_{1,1,1\text{-TCA}}$ (µg/L)	Qualifer	$C_{1,1\text{-DCE}}$ (µg/L)	Qualifer
MW-7	2/13/2018	<1.0		0.27	J
	7/11/2013	<1.0		<1.0	
	8/3/2005	<1.0		<1.0	
	7/14/2000	<1.0		<1.0	
	9/16/1997	<1.0		<1.0	

NOTES:
µg/L = Micrograms per liter
1,1,1-TCA = 1,1,1-Trichloroethane
1,1-DCE = 1,1-Dichloroethane
J = Alayte detected below quantitation limits

TABLE 2. SOIL VAPOR ANALYTICAL RESULTS
JVP BRYN MAWR, ABLUQUERQUE, NEW MEXICO

ID	DATE	$C_{1,1,1\text{-TCA}}$ ($\mu g/m^3$)	$C_{1,1\text{-DCE}}$ ($\mu g/m^3$)
VMW-01-S	2/26/2018	22,000	120,000
	6/28/2017	16,000	92,000
VMW-01-I	6/28/2017	3,800	31,000
	2/26/2018	5,400	58,000
VMW-01-D	6/28/2017	2,500	26,000
	2/26/2018	5,300	36,000
MW-5	3/1/2007	140,000	25,000
	3/16/2009	70,000	17,000
	3/23/2009	45,000	14,000
	3/30/2009	35,000	12,000
	4/3/2009	30,000	9,600
	5/5/2009	8,700	4,700
	6/1/2009	6,200	3,200
	7/1/2009	9,700	4,500
	8/4/2009	6,900	4,200
	9/1/2009	5,200	3,100
	10/5/2009	5,600	4,400
	11/3/2009	4,500	3,000
	12/2/2009	38,000	5,800
	1/7/2010	3,300	2,300
	2/4/2010	3,300	3,000
	3/11/2010	3,100	3,000
	4/6/2010	3,200	2,800
	5/11/2010	4,600	4,000
	6/9/2010	3,700	2,800
	7/21/2010	100	100
	8/6/2010	4,000	2,600
	9/13/2010	3,500	2,100
	9/19/2010	3,500	2,100
	10/7/2010	3,700	2,300
	11/9/2010	4,700	3,100
	12/14/2010	<100	<100
	5/26/2011	<100	<100
	7/6/2011	<100	<100
	8/2/2011	<100	<100
	9/12/2011	<100	<100
	10/12/2011	<100	<100
	11/13/2011	<100	<100
	12/28/2011	<100	<100
	2/13/2012	<100	<100
	3/6/2012	<100	<100

NOTES:
$\mu g/m^3$ = Micrograms per cubic meter
1,1,1-TCA = 1,1,1-Trichloroethane
1,1-DCE = 1,1-Dichloroethane

FIGURE

LEGEND

MW-1 MONITORING WELL

VMW-01 VAPOR MONITORING WELL

100 50 0 100

SCALE IN FEET

CHARLIE MILLER
JVP SITE
3412 BRYN MAWR

FIGURE 1
SITE MAP

PROJECT #:	1521801	PROJECT PHASE:	03	PROJECT MANAGER:	TC

320 Gold Avenue, SW Suite 1300
Albuquerque, NM 87102
Phone: (505) 224-9013

EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC

\\ABQ\Projects\Active Projects\JVP 3412 Bryn Mawr\SVE\Work Plan and Cost Proposal\Figures

LEGEND

MW-1	MONITORING WELL
VMW-01	VAPOR MONITORING WELL
MW-4 32/1.3	1,1-DCE/1,1,1-TCA CONCENTRATIONS (µg/L)

N

100 50 0 100

SCALE IN FEET

CHARLIE MILLER
JVP SITE
3412 BRYN MAWR

FIGURE 2
1,1-DCE AND 1,1,1-TCA CONCENTRATIONS IN GROUNDWATER

PROJECT #:	1521801	PROJECT PHASE:	03	PROJECT MANAGER:	TC

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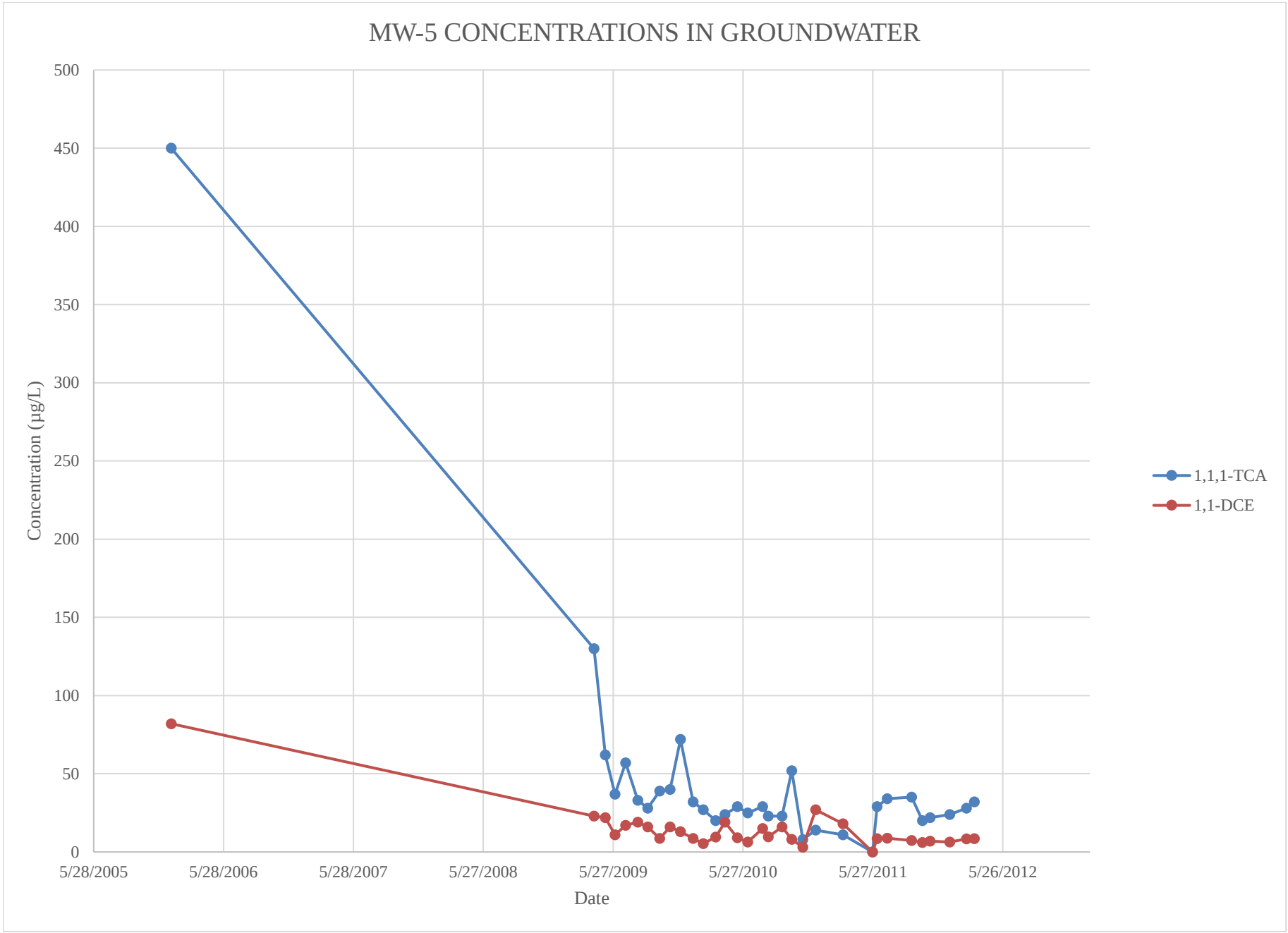
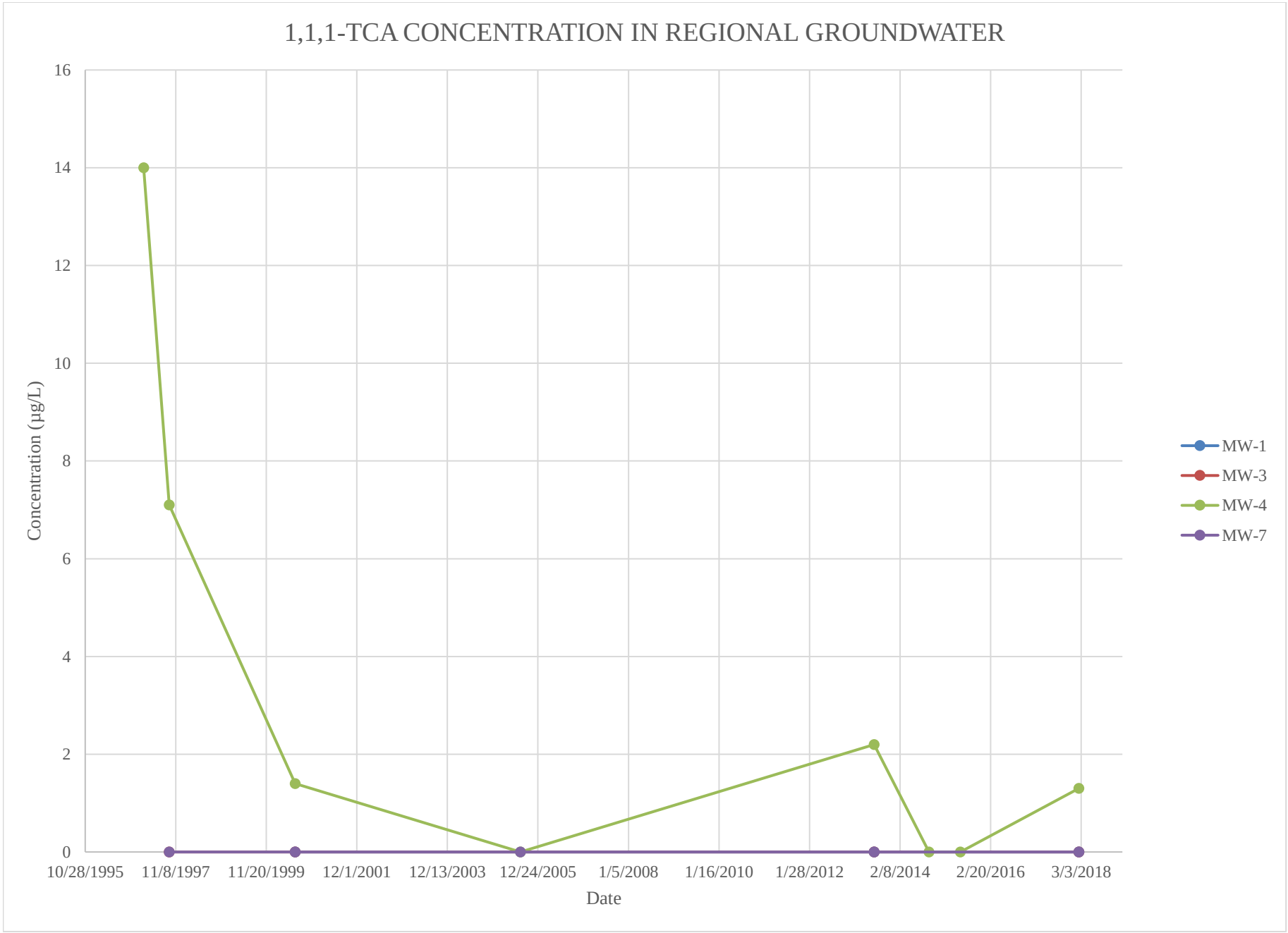
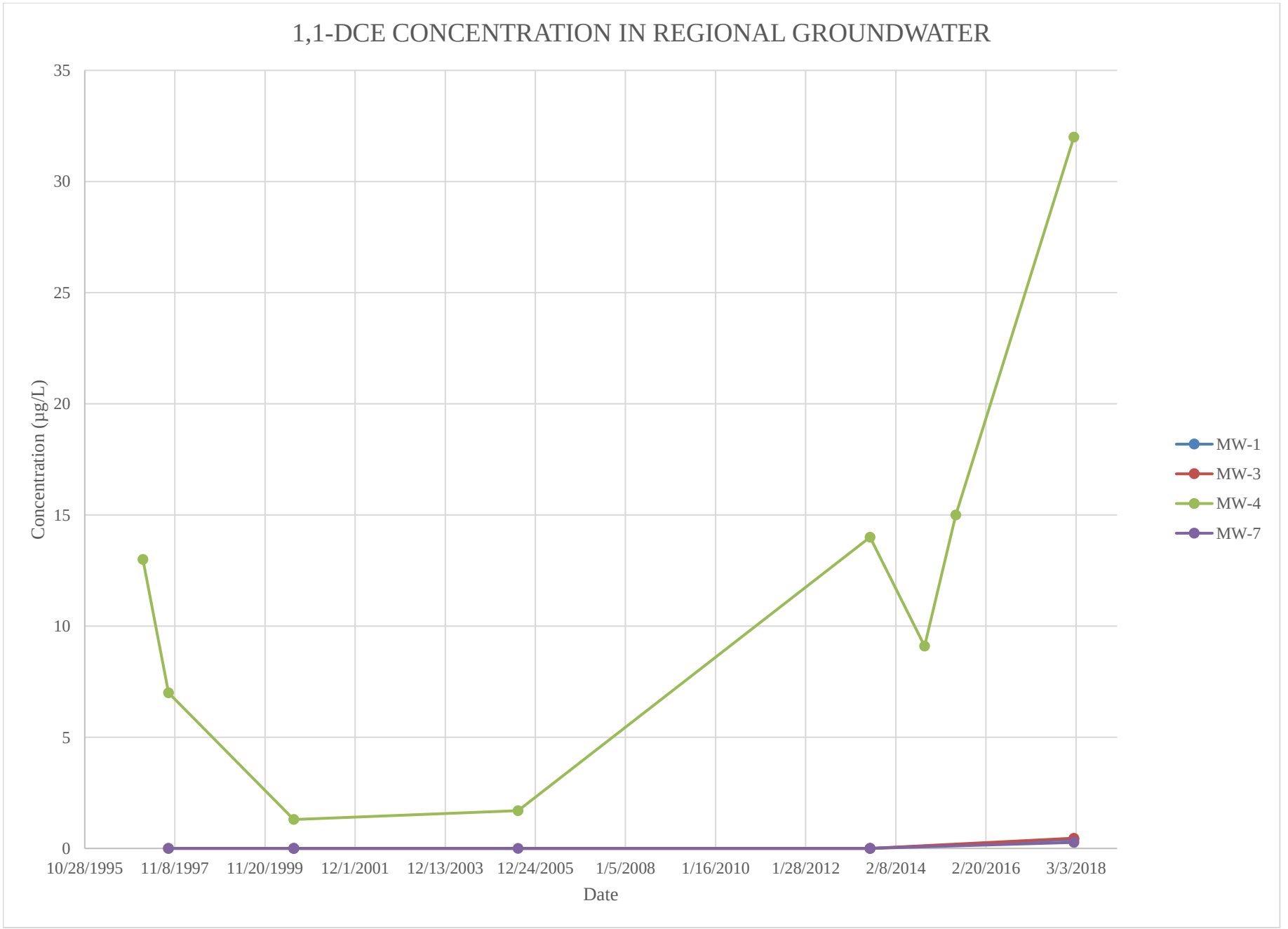
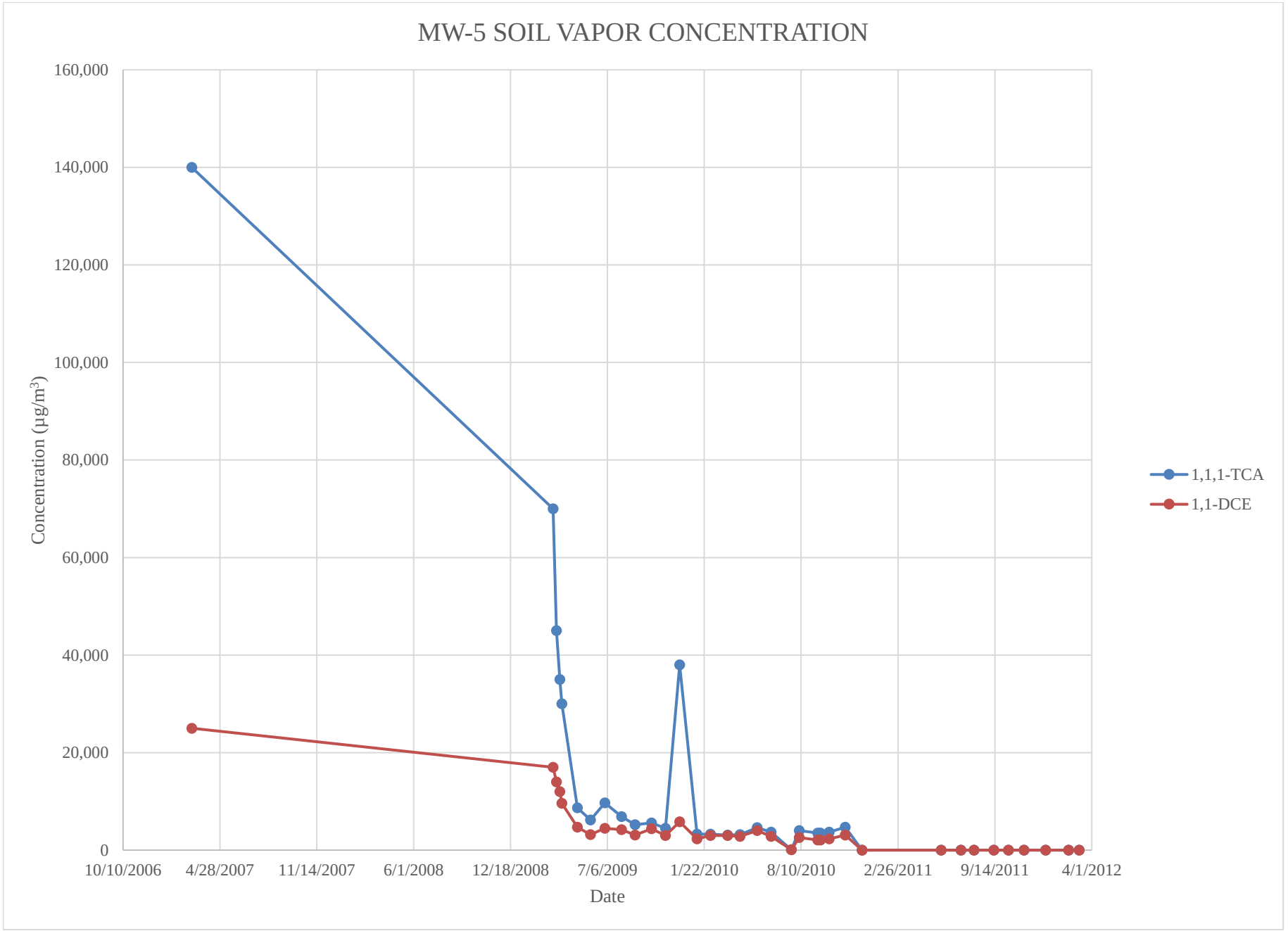
TREND GRAPHS


MW-5 CONCENTRATIONS IN GROUNDWATER
500
450
400
350
300
250
200
150
100
50
0
Concentration (µg/L)
5/28/2005
5/28/2006
5/28/2007
5/27/2008
5/27/2009
5/27/2010
5/27/2011
5/26/2012
Date
1,1,1-TCA
1,1-DCE


1,1,1-TCA CONCENTRATION IN REGIONAL GROUNDWATER
16
14
12
10
8
6
4
2
0
Concentration (µg/L)
10/28/1995
11/8/1997
11/20/1999
12/1/2001
12/13/2003
12/24/2005
1/5/2008
1/16/2010
1/28/2012
2/8/2014
2/20/2016
3/3/2018
Date
MW-1
MW-3
MW-4
MW-7


1,1-DCE CONCENTRATION IN REGIONAL GROUNDWATER
35
30
25
20
15
10
5
0
Concentration (µg/L)
10/28/1995
11/8/1997
11/20/1999
12/1/2001
12/13/2003
12/24/2005
1/5/2008
1/16/2010
1/28/2012
2/8/2014
2/20/2016
3/3/2018
Date
MW-1
MW-3
MW-4
MW-7


MW-5 SOIL VAPOR CONCENTRATION
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
Concentration (µg/m3)
10/10/2006
4/28/2007
11/14/2007
6/1/2008
12/18/2008
7/6/2009
1/22/2010
8/10/2010
2/26/2011
9/14/2011
4/1/2012
Date
1,1,1-TCA
1,1-DCE

FIELD FORMS

Sheet 1 of 1
Date: 7/13/16

Ground Water Sampling Data Sheet

Well ID: MW-1 Sample ID: MW-1 Sample Time: 1409

Casing diameter/type: 2 Well location: Bryn Mawr Weather: Warm, Partly Cloudy

Screened interval(s): Sampling personnel: C. Mateja / S. Bosley

Total depth: 258.40 Sampling method: **Low-flow**

Initial depth to water (w/o pump): 197.05 Water level indicator: Solinst

Final depth to water (w/o pump): ~~258.4~~ Water quality meter: YSI(DO) / Oakton

Measuring point: **top of casing** Pump depth setting: 227.72 Pump type/model: Grundfos

3-5 min	Δ < 10%	Δ < 10%		Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	<--- Parameter Stabilization Limits (see bottom of sheet)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1359	17.9	732		7.91	8.00					5 Gal	Water Col. = 61.35 ft
1346	19.4	724		1.90	8.19					10 Gal	Casing Water Volume = 10.42 Gal
1351	19.5	726		7.71	8.20					15 Gal	x3 = 31.2 Gal
1356	19.5	725		7.73	8.27					20 Gal	
1401	19.4	727		7.62	8.22					25 Gal	Could not get WL probe
1406	19.5	727		7.58	8.19					30 Gal	down casing with pump
1408	19.3	728		7.67	8.31					32 Gal	in hole

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δ's) for percent difference type parameters.
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Wells will not be pruged to dryness prior to sampling to prevent erroneous field parameters and ground water samples.

Recorded By:_____

Sheet 1 of 1
Date: 4/13/18

Ground Water Sampling Data Sheet

Well ID: MW-3 Sample ID: MW-3 Sample Time: 1240

Casing diameter/type: 2" Well location: Byrn Mawr Weather: Partly Cloudy, Warm
Screened interval(s): Sampling personnel: C. Montoya / S. Bobby
Total depth: 234.7 Sampling method: ~~Low-flow~~ Purge Volume
Initial depth to water (w/o pump): 203.27 Water level indicator: Solinst
Final depth to water (w/o pump): Water quality meter: YSI (DO) / Oakton
Measuring point: **top of casing** Pump depth setting: 229.01 Pump type/model: Grundfos

3-5 min	Δ < 10%	Δ < 10%		Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	<--- Parameter Stabilization Limits (see bottom of sheet)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1228	18.7	4620		8.26	4.64		—			5 Gal	Could not get Water Level
1233	19.7	4630		7.98	8.15		—			10 Gal	in Casing While purging
1236	19.8	4720		7.91	8.17		—			15 Gal	
1238 cm	~~1236~~	19.8	4720		8.26	8.05		—			16 Gal	
								—				
								—				

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δ's) for percent difference type parameters.
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Wells will not be pruged to dryness prior to sampling to prevent erroneous field parameters and ground water samples.

Recorded By: C. Montoya

Sheet 1 of 1
Date: 2/13/18

Ground Water Sampling Data Sheet

Well ID: MW-4 Sample ID: MW-4 Sample Time: 1628

Casing diameter/type: Well location: Bryn Mawr Weather: Warm Partly Cloudy

Screened interval(s): Sampling personnel:

Total depth: 235.1 Sampling method: **Low-flow**

Initial depth to water (w/o pump): 205.02 Water level indicator: Solist

Final depth to water (w/o pump): Water quality meter: YSI (DO) / Oakton

Measuring point: **top of casing** Pump depth setting: 220.06 Pump type/model: Grundfos

3-5 min	Δ < 10%	Δ < 10%		Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	<--- Parameter Stabilization Limits (see bottom of sheet)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1615	14.5	1331		8.47	8.02					5 Gal	Water Column: 30.08
1620	12.8	1270	8.72	~~7.45~~	~~7.42~~	7.95				10 Gal	Casing Volume: 5.11
1625	20.0	1251		8.74	~~8.74~~	7.96				15 Gal	X 3 = 15.34
1626	20.0	1221		8.98	7.98					16 Gal	
											Could not put WL Probe
											in Well with pump

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δ's) for percent difference type parameters.
Percent difference formula =
ABS[(first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Wells will not be pruged to dryness prior to sampling to prevent erroneous field parameters and ground water samples.

Recorded By: C. Montoya

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MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

59.04
59.35 TD

Well ID	MW-5	Date gauged	2/13/18
Site	Bryn Mawr	Time gauged	1640
Depth to PSH	_____ Feet	Well diameter	2 Inches
Depth to water	58.40 Feet	Height of fluid column	0.95 Feet
Total depth	59.35 Feet	Volume in well	0.16 Gallons
NAPL thickness	_____ Feet		

(3 well volumes = 0.48 gallons)

After Bailing NAPL

Depth to PSH	_____ Feet
Depth to water	_____ Feet
NAPL thickness	_____ Feet
NAPL Recovered	_____ Gallons

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by _____

Sample method _____

Requested analyses _____

Comments/observations Tried to Bail, ~~one~~ no water in bailer, Gauged well again not enough water to bail or take sample, See new field form for details

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID: MW-5
Site: Bryn Mawr
Depth to PSH: — Feet
Depth to water: 59.04 Feet
Total depth: 59.35 Feet
NAPL thickness: _____ Feet

Date gauged: 2/13/18
Time gauged: 1640
Well diameter: 2 Inches
Height of fluid column: _____ Feet
Volume in well: _____ Gallons

(3 well volumes = _____ gallons)

After Bailing NAPL
Depth to PSH: _____ Feet
Depth to water: _____ Feet
NAPL thickness: _____ Feet
NAPL Recovered: _____ Gallons

GROUNDWATER SAMPLING DATA

Time/date purged: _____ Purge Method: _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Not Enough water to sample

Actual purge volume _____ gal.
Field measurements stabilized within ± 10%? _____

Time/date sampled: _____
Purged/sampled by: C. Montoya

Sample method: _____
Requested analyses: _____
Comments/observations: Not Enough water to sample

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

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MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID: MW-4
Site: Bryn Mawr
Depth to PSH: — Feet
Depth to water: 58.40 Feet
Total depth: 58.48 Feet
NAPL thickness: _____ Feet

Date gauged: 2/13/18
Time gauged: 0902
Well diameter: 2 Inches
Height of fluid column: 0.08 Feet
Volume in well: _____ Gallons

(3 well volumes = _____ gallons)

After Bailing NAPL
Depth to PSH: _____ Feet
Depth to water: _____ Feet
NAPL thickness: _____ Feet
NAPL Recovered: _____ Gallons

GROUNDWATER SAMPLING DATA

Time/date purged: _____ Purge Method: _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Well Dry Could not Sample

Actual purge volume _____ gal.
Field measurements stabilized within ± 10%? _____

Time/date sampled: _____
Purged/sampled by: C. Montoya / S. Busby

Sample method: _____
Requested analyses: _____
Comments/observations: Well Dry, could not sample

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Sheet 1 of 1
Date: ~~2/13/18~~

Ground Water Sampling Data Sheet

Well ID: MW-7 Sample ID: MW-7 Sample Time: 1038

Casing diameter/type: 4 Well location: Bryn Mawr Weather: Cold, Partly Cloudy

Screened interval(s): Sampling personnel: C. Montoya / S. Bussby

Total depth: 260.60 Sampling method: ~~Low-flow~~ Purge Volume

Initial depth to water (w/o pump): 216.32 Water level indicator: Geotech

Final depth to water (w/o pump): ~~260.6~~ Water quality meter: Oakton and YSI (DO)

Measuring point: **top of casing** Pump depth setting: ~~[illegible]~~ 248' Pump type/model: Grundfos

3-5 min	Δ < 10%	Δ < 10%		Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	<--- Parameter Stabilization Limits (see bottom of sheet)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1014	17.4	4240		6.75	7.27		217.42			5 Gal	~~Casing Volume = [illegible]~~
1019	19.9	4160		6.58	7.17		217.42			10 Gal	~~X3 = [illegible]~~
1024	19.8	4150		6.78	7.08		217.42			15 Gal	
1027	20.2	4230		6.84	7.97		217.42			20 Gal	
1032	20.3	4220		7.24	8.00		217.45			25 Gal	
1037	20.1	4270		7.51	8.05		217.46			30 Gal	

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δ's) for percent difference type parameters.
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Wells will not be pruged to dryness prior to sampling to prevent erroneous field parameters and ground water samples.

Recorded By: C. Montoya

Min Bail 30.

Sheet 1 of 1
Date: 2/13/18

Ground Water Sampling Data Sheet

Well ID: VMW-1-D Sample ID: VMW-1-D Sample Time: 1512

Casing diameter/type: 2
Screened interval(s):
Total depth: 239.0
Initial depth to water (w/o pump): 202.22
Final depth to water (w/o pump):
Measuring point: **top of casing**

Well location: Bryn Mawr
Sampling personnel: C. Montoya / S. Bobby
Sampling method: ~~Low-flow~~ Purge Volume
Water level indicator: Solinst
Water quality meter: YSI (DO) / Oakton
Pump depth setting: 220.61

Weather: Warm Partly Cloudy
Pump type/model: Grundfos

3-5 min	Δ < 10%	Δ < 10%		Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	<--- Parameter Stabilization Limits (see bottom of sheet)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1455	19.2	608	~~%~~ cm	5.80	8.13					5 Gal	Water Column: 36.78
1500	19.3	621		6.35	8.08					10 Gal	Casing Volume: 6.25
1505	19.3	634		6.53	8.00					15 Gal	X3 : 18.75
1510	19.3	637		6.69	8.09					20 Gal	
											Could not fit WL Probe
											down hole ~~with~~ with Pump ~~%~~ cm
											down hole cm

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δ's) for percent difference type parameters.
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Wells will not be pruged to dryness prior to sampling to prevent erroneous field parameters and ground water samples.

Recorded By: C. Montoya

Sheet 1 of 1
Date: 7/13/16

Ground Water Sampling Data Sheet

Well ID: MW-1 Sample ID: MW-1 Sample Time: 1409

Casing diameter/type: 2 Well location: Bryn Mawr Weather: Warm, Partly Cloudy

Screened interval(s): Sampling personnel: C. Mateja / S. Bosley

Total depth: 258.40 Sampling method: **Low-flow**

Initial depth to water (w/o pump): 197.05 Water level indicator: Solinst

Final depth to water (w/o pump): ~~258.4~~ Water quality meter: YSI(DO) / Oakton

Measuring point: **top of casing** Pump depth setting: 227.72 Pump type/model: Grundfos

3-5 min	Δ < 10%	Δ < 10%		Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	<--- Parameter Stabilization Limits (see bottom of sheet)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1359	17.9	732		7.91	8.00					5 Gal	Water Col. = 61.35 ft
1346	19.4	724		1.90	8.19					10 Gal	Casing Water Volume = 10.42 Gal
1351	19.5	726		7.71	8.20					15 Gal	x3 = 31.2 Gal
1356	19.5	725		7.73	8.27					20 Gal	
1401	19.4	727		7.62	8.22					25 Gal	Could not get WL probe
1406	19.5	727		7.58	8.19					30 Gal	down casing with pump
1408	19.3	728		7.67	8.31					32 Gal	in hole

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δ's) for percent difference type parameters.
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Wells will not be pruged to dryness prior to sampling to prevent erroneous field parameters and ground water samples.

Recorded By:_____

Sheet 1 of 1
Date: 4/13/18

Ground Water Sampling Data Sheet

Well ID: MW-3 Sample ID: MW-3 Sample Time: 1240

Casing diameter/type: 2" Well location: Byrn Mawr Weather: Partly Cloudy, Warm
Screened interval(s): Sampling personnel: C. Montoya / S. Bobby
Total depth: 234.7 Sampling method: ~~Low-flow~~ Purge Volume
Initial depth to water (w/o pump): 203.27 Water level indicator: Solinst
Final depth to water (w/o pump): Water quality meter: YSI (DO) / Oakton
Measuring point: **top of casing** Pump depth setting: 229.01 Pump type/model: Grundfos

3-5 min	Δ < 10%	Δ < 10%		Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	<--- Parameter Stabilization Limits (see bottom of sheet)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1228	18.7	4620		8.26	4.64		—			5 Gal	Could not get Water Level
1233	19.7	4630		7.98	8.15		—			10 Gal	in Casing While purging
1236	19.8	4720		7.91	8.17		—			15 Gal	
1238 cm	~~1236~~	19.8	4720		8.26	8.05		—			16 Gal	
								—				
								—				

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δ's) for percent difference type parameters.
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Wells will not be pruged to dryness prior to sampling to prevent erroneous field parameters and ground water samples.

Recorded By: C. Montoya

Sheet 1 of 1
Date: 2/13/18

Ground Water Sampling Data Sheet

Well ID: MW-4 Sample ID: MW-4 Sample Time: 1628

Casing diameter/type: Well location: Bryn Mawr Weather: Warm Partly Cloudy

Screened interval(s): Sampling personnel:

Total depth: 235.1 Sampling method: **Low-flow**

Initial depth to water (w/o pump): 205.02 Water level indicator: Solist

Final depth to water (w/o pump): Water quality meter: YSI (DO) / Oakton

Measuring point: **top of casing** Pump depth setting: 220.06 Pump type/model: Grundfos

3-5 min	Δ < 10%	Δ < 10%		Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	<--- Parameter Stabilization Limits (see bottom of sheet)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1615	14.5	1331		8.47	8.02					5 Gal	Water Column: 30.08
1620	12.8	1270	8.72	~~7.45~~	~~7.42~~	7.95				10 Gal	Casing Volume: 5.11
1625	20.0	1251		8.74	~~8.74~~	7.96				15 Gal	X 3 = 15.34
1626	20.0	1221		8.98	7.98					16 Gal	
											Could not put WL Probe
											in Well with pump

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δ's) for percent difference type parameters.
Percent difference formula =
ABS[(first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Wells will not be pruged to dryness prior to sampling to prevent erroneous field parameters and ground water samples.

Recorded By: C. Montoya

EA Engineering, Science, and Technology
320 Gold Avenue SW, Suite 1300
Albuquerque, NM 87102
Phone: (505) 224-9013

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

59.04
59.35 TD

Well ID	MW-5	Date gauged	2/13/18
Site	Bryn Mawr	Time gauged	1640
Depth to PSH	_____ Feet	Well diameter	2 Inches
Depth to water	58.40 Feet	Height of fluid column	0.95 Feet
Total depth	59.35 Feet	Volume in well	0.16 Gallons
NAPL thickness	_____ Feet		

(3 well volumes = 0.48 gallons)

After Bailing NAPL

Depth to PSH	_____ Feet
Depth to water	_____ Feet
NAPL thickness	_____ Feet
NAPL Recovered	_____ Gallons

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by _____

Sample method _____

Requested analyses _____

Comments/observations Tried to Bail, ~~one~~ no water in bailer, Gauged well again not enough water to bail or take sample, See new field form for details

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

EA Engineering, Science, and Technology
320 Gold Avenue SW, Suite 1300
Albuquerque, NM 87102
Phone: (505) 224-9013

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID: MW-5
Site: Bryn Mawr
Depth to PSH: — Feet
Depth to water: 59.04 Feet
Total depth: 59.35 Feet
NAPL thickness: _____ Feet

Date gauged: 2/13/18
Time gauged: 1640
Well diameter: 2 Inches
Height of fluid column: _____ Feet
Volume in well: _____ Gallons

(3 well volumes = _____ gallons)

After Bailing NAPL
Depth to PSH: _____ Feet
Depth to water: _____ Feet
NAPL thickness: _____ Feet
NAPL Recovered: _____ Gallons

GROUNDWATER SAMPLING DATA

Time/date purged: _____ Purge Method: _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Not Enough water to sample

Actual purge volume _____ gal.
Field measurements stabilized within ± 10%? _____

Time/date sampled: _____
Purged/sampled by: C. Montoya

Sample method: _____
Requested analyses: _____
Comments/observations: Not Enough water to sample

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

EA Engineering, Science, and Technology
320 Gold Avenue SW, Suite 1300
Albuquerque, NM 87102
Phone: (505) 224-9013

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID: MW-4
Site: Bryn Mawr
Depth to PSH: — Feet
Depth to water: 58.40 Feet
Total depth: 58.48 Feet
NAPL thickness: _____ Feet

Date gauged: 2/13/18
Time gauged: 0902
Well diameter: 2 Inches
Height of fluid column: 0.08 Feet
Volume in well: _____ Gallons

(3 well volumes = _____ gallons)

After Bailing NAPL
Depth to PSH: _____ Feet
Depth to water: _____ Feet
NAPL thickness: _____ Feet
NAPL Recovered: _____ Gallons

GROUNDWATER SAMPLING DATA

Time/date purged: _____ Purge Method: _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Well Dry Could not Sample

Actual purge volume _____ gal.
Field measurements stabilized within ± 10%? _____

Time/date sampled: _____
Purged/sampled by: C. Montoya / S. Busby

Sample method: _____
Requested analyses: _____
Comments/observations: Well Dry, could not sample

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Sheet 1 of 1
Date: ~~2/13/18~~

Ground Water Sampling Data Sheet

Well ID: MW-7 Sample ID: MW-7 Sample Time: 1038

Casing diameter/type: 4 Well location: Bryn Mawr Weather: Cold, Partly Cloudy

Screened interval(s): Sampling personnel: C. Montoya / S. Bussby

Total depth: 260.60 Sampling method: ~~Low-flow~~ Purge Volume

Initial depth to water (w/o pump): 216.32 Water level indicator: Geotech

Final depth to water (w/o pump): ~~260.6~~ Water quality meter: Oakton and YSI (DO)

Measuring point: **top of casing** Pump depth setting: ~~[illegible]~~ 248' Pump type/model: Grundfos

3-5 min	Δ < 10%	Δ < 10%		Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	<--- Parameter Stabilization Limits (see bottom of sheet)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1014	17.4	4240		6.75	7.27		217.42			5 Gal	~~Casing Volume = [illegible]~~
1019	19.9	4160		6.58	7.17		217.42			10 Gal	~~X3 = [illegible]~~
1024	19.8	4150		6.78	7.08		217.42			15 Gal	
1027	20.2	4230		6.84	7.97		217.42			20 Gal	
1032	20.3	4220		7.24	8.00		217.45			25 Gal	
1037	20.1	4270		7.51	8.05		217.46			30 Gal	

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δ's) for percent difference type parameters.
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Wells will not be pruged to dryness prior to sampling to prevent erroneous field parameters and ground water samples.

Recorded By: C. Montoya

Min Bail 30.

Sheet 1 of 1
Date: 2/13/18

Ground Water Sampling Data Sheet

Well ID: VMW-1-D Sample ID: VMW-1-D Sample Time: 1512

Casing diameter/type: 2
Screened interval(s):
Total depth: 239.0
Initial depth to water (w/o pump): 202.22
Final depth to water (w/o pump):
Measuring point: **top of casing**

Well location: Bryn Mawr
Sampling personnel: C. Montoya / S. Bobby
Sampling method: ~~Low-flow~~ Purge Volume
Water level indicator: Solinst
Water quality meter: YSI (DO) / Oakton
Pump depth setting: 220.61

Weather: Warm Partly Cloudy
Pump type/model: Grundfos

3-5 min	Δ < 10%	Δ < 10%		Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	<--- Parameter Stabilization Limits (see bottom of sheet)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1455	19.2	608	~~%~~ cm	5.80	8.13					5 Gal	Water Column: 36.78
1500	19.3	621		6.35	8.08					10 Gal	Casing Volume: 6.25
1505	19.3	634		6.53	8.00					15 Gal	X3 : 18.75
1510	19.3	637		6.69	8.09					20 Gal	
											Could not fit WL Probe
											down hole ~~with~~ with Pump ~~%~~ cm
											down hole cm

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δ's) for percent difference type parameters.
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Wells will not be pruged to dryness prior to sampling to prevent erroneous field parameters and ground water samples.

Recorded By: C. Montoya

ANALYTICAL LABORATORY REPORT

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 20, 2018

Teri McMillan

EA Engineering
320 Gold Ave SW Suite 1210
Albuquerque, NM 87102
TEL: (505) 224-9013
FAX

RE: Bryn Mawr OrderNo.: 1802856

Dear Teri McMillan:

Hall Environmental Analysis Laboratory received 6 sample(s) on 2/14/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: MW-1
Project: Bryn Mawr
Collection Date: 2/13/2018 2:09:00 PM
Lab ID: 1802856-001
Matrix: AQUEOUS
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Toluene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Ethylbenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Naphthalene	ND	2.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
2-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Acetone	ND	10		µg/L	1	2/19/2018 2:37:07 PM	T49217
Bromobenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Bromodichloromethane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Bromoform	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Bromomethane	ND	3.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
2-Butanone	ND	10		µg/L	1	2/19/2018 2:37:07 PM	T49217
Carbon disulfide	ND	10		µg/L	1	2/19/2018 2:37:07 PM	T49217
Carbon Tetrachloride	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Chlorobenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Chloroethane	ND	2.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Chloroform	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Chloromethane	ND	3.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
2-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
4-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
cis-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Dibromochloromethane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Dibromomethane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,1-Dichloroethane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,1-Dichloroethene	0.40	1.0	J	µg/L	1	2/19/2018 2:37:07 PM	T49217
1,2-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,3-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
2,2-Dichloropropane	ND	2.0		µg/L	1	2/19/2018 2:37:07 PM	T49217

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: MW-1
Project: Bryn Mawr
Collection Date: 2/13/2018 2:09:00 PM
Lab ID: 1802856-001
Matrix: AQUEOUS
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
1,1-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Hexachlorobutadiene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
2-Hexanone	ND	10		µg/L	1	2/19/2018 2:37:07 PM	T49217
Isopropylbenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
4-Isopropyltoluene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
4-Methyl-2-pentanone	ND	10		µg/L	1	2/19/2018 2:37:07 PM	T49217
Methylene Chloride	ND	3.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
n-Butylbenzene	ND	3.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
n-Propylbenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
sec-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Styrene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
tert-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
trans-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Trichlorofluoromethane	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Vinyl chloride	ND	1.0		µg/L	1	2/19/2018 2:37:07 PM	T49217
Xylenes, Total	ND	1.5		µg/L	1	2/19/2018 2:37:07 PM	T49217
1,4-Dioxane	ND	10		µg/L	1	2/19/2018 2:37:07 PM	T49217
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%Rec	1	2/19/2018 2:37:07 PM	T49217
Surr: 4-Bromofluorobenzene	119	70-130		%Rec	1	2/19/2018 2:37:07 PM	T49217
Surr: Dibromofluoromethane	101	70-130		%Rec	1	2/19/2018 2:37:07 PM	T49217
Surr: Toluene-d8	103	70-130		%Rec	1	2/19/2018 2:37:07 PM	T49217

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: MW-3
Project: Bryn Mawr
Collection Date: 2/13/2018 12:40:00 PM
Lab ID: 1802856-002
Matrix: AQUEOUS
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Toluene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Ethylbenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Naphthalene	ND	2.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
2-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Acetone	ND	10		µg/L	1	2/19/2018 3:06:16 PM	T49217
Bromobenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Bromodichloromethane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Bromoform	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Bromomethane	ND	3.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
2-Butanone	ND	10		µg/L	1	2/19/2018 3:06:16 PM	T49217
Carbon disulfide	ND	10		µg/L	1	2/19/2018 3:06:16 PM	T49217
Carbon Tetrachloride	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Chlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Chloroethane	ND	2.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Chloroform	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Chloromethane	ND	3.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
2-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
4-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
cis-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Dibromochloromethane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Dibromomethane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,1-Dichloroethane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,1-Dichloroethene	0.46	1.0	J	µg/L	1	2/19/2018 3:06:16 PM	T49217
1,2-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,3-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
2,2-Dichloropropane	ND	2.0		µg/L	1	2/19/2018 3:06:16 PM	T49217

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: MW-3
Project: Bryn Mawr
Collection Date: 2/13/2018 12:40:00 PM
Lab ID: 1802856-002
Matrix: AQUEOUS
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
1,1-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Hexachlorobutadiene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
2-Hexanone	ND	10		µg/L	1	2/19/2018 3:06:16 PM	T49217
Isopropylbenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
4-Isopropyltoluene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
4-Methyl-2-pentanone	ND	10		µg/L	1	2/19/2018 3:06:16 PM	T49217
Methylene Chloride	ND	3.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
n-Butylbenzene	ND	3.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
n-Propylbenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
sec-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Styrene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
tert-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
trans-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Trichlorofluoromethane	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Vinyl chloride	ND	1.0		µg/L	1	2/19/2018 3:06:16 PM	T49217
Xylenes, Total	ND	1.5		µg/L	1	2/19/2018 3:06:16 PM	T49217
1,4-Dioxane	ND	10		µg/L	1	2/19/2018 3:06:16 PM	T49217
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	2/19/2018 3:06:16 PM	T49217
Surr: 4-Bromofluorobenzene	117	70-130		%Rec	1	2/19/2018 3:06:16 PM	T49217
Surr: Dibromofluoromethane	105	70-130		%Rec	1	2/19/2018 3:06:16 PM	T49217
Surr: Toluene-d8	102	70-130		%Rec	1	2/19/2018 3:06:16 PM	T49217

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: MW-4
Project: Bryn Mawr
Collection Date: 2/13/2018 4:28:00 PM
Lab ID: 1802856-003
Matrix: AQUEOUS
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
Benzene	0.11	1.0	J	µg/L	1	2/19/2018 3:35:59 PM	T49217
Toluene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Ethylbenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Naphthalene	ND	2.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
2-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Acetone	ND	10		µg/L	1	2/19/2018 3:35:59 PM	T49217
Bromobenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Bromodichloromethane	0.23	1.0	J	µg/L	1	2/19/2018 3:35:59 PM	T49217
Bromoform	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Bromomethane	ND	3.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
2-Butanone	ND	10		µg/L	1	2/19/2018 3:35:59 PM	T49217
Carbon disulfide	ND	10		µg/L	1	2/19/2018 3:35:59 PM	T49217
Carbon Tetrachloride	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Chlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Chloroethane	ND	2.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Chloroform	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Chloromethane	ND	3.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
2-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
4-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
cis-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Dibromochloromethane	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Dibromomethane	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,1-Dichloroethane	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,1-Dichloroethene	32	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,2-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,3-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
2,2-Dichloropropane	ND	2.0		µg/L	1	2/19/2018 3:35:59 PM	T49217

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: MW-4
Project: Bryn Mawr
Collection Date: 2/13/2018 4:28:00 PM
Lab ID: 1802856-003
Matrix: AQUEOUS
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
1,1-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Hexachlorobutadiene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
2-Hexanone	ND	10		µg/L	1	2/19/2018 3:35:59 PM	T49217
Isopropylbenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
4-Isopropyltoluene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
4-Methyl-2-pentanone	ND	10		µg/L	1	2/19/2018 3:35:59 PM	T49217
Methylene Chloride	ND	3.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
n-Butylbenzene	ND	3.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
n-Propylbenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
sec-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Styrene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
tert-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
trans-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,1,1-Trichloroethane	1.3	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Trichlorofluoromethane	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Vinyl chloride	ND	1.0		µg/L	1	2/19/2018 3:35:59 PM	T49217
Xylenes, Total	ND	1.5		µg/L	1	2/19/2018 3:35:59 PM	T49217
1,4-Dioxane	ND	10		µg/L	1	2/19/2018 3:35:59 PM	T49217
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	2/19/2018 3:35:59 PM	T49217
Surr: 4-Bromofluorobenzene	120	70-130		%Rec	1	2/19/2018 3:35:59 PM	T49217
Surr: Dibromofluoromethane	105	70-130		%Rec	1	2/19/2018 3:35:59 PM	T49217
Surr: Toluene-d8	101	70-130		%Rec	1	2/19/2018 3:35:59 PM	T49217

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: MW-7
Project: Bryn Mawr
Collection Date: 2/13/2018 10:38:00 AM
Lab ID: 1802856-004
Matrix: AQUEOUS
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Toluene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Ethylbenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Naphthalene	ND	2.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
2-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Acetone	ND	10		µg/L	1	2/19/2018 4:05:21 PM	T49217
Bromobenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Bromodichloromethane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Bromoform	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Bromomethane	ND	3.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
2-Butanone	ND	10		µg/L	1	2/19/2018 4:05:21 PM	T49217
Carbon disulfide	ND	10		µg/L	1	2/19/2018 4:05:21 PM	T49217
Carbon Tetrachloride	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Chlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Chloroethane	ND	2.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Chloroform	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Chloromethane	ND	3.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
2-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
4-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
cis-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Dibromochloromethane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Dibromomethane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,1-Dichloroethane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,1-Dichloroethene	0.27	1.0	J	µg/L	1	2/19/2018 4:05:21 PM	T49217
1,2-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,3-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
2,2-Dichloropropane	ND	2.0		µg/L	1	2/19/2018 4:05:21 PM	T49217

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: MW-7
Project: Bryn Mawr
Collection Date: 2/13/2018 10:38:00 AM
Lab ID: 1802856-004
Matrix: AQUEOUS
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
1,1-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Hexachlorobutadiene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
2-Hexanone	ND	10		µg/L	1	2/19/2018 4:05:21 PM	T49217
Isopropylbenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
4-Isopropyltoluene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
4-Methyl-2-pentanone	ND	10		µg/L	1	2/19/2018 4:05:21 PM	T49217
Methylene Chloride	ND	3.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
n-Butylbenzene	ND	3.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
n-Propylbenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
sec-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Styrene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
tert-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
trans-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Trichlorofluoromethane	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Vinyl chloride	ND	1.0		µg/L	1	2/19/2018 4:05:21 PM	T49217
Xylenes, Total	ND	1.5		µg/L	1	2/19/2018 4:05:21 PM	T49217
1,4-Dioxane	ND	10		µg/L	1	2/19/2018 4:05:21 PM	T49217
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%Rec	1	2/19/2018 4:05:21 PM	T49217
Surr: 4-Bromofluorobenzene	118	70-130		%Rec	1	2/19/2018 4:05:21 PM	T49217
Surr: Dibromofluoromethane	105	70-130		%Rec	1	2/19/2018 4:05:21 PM	T49217
Surr: Toluene-d8	102	70-130		%Rec	1	2/19/2018 4:05:21 PM	T49217

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: VMW-1-D
Project: Bryn Mawr
Collection Date: 2/13/2018 3:12:00 PM
Lab ID: 1802856-005
Matrix: AQUEOUS
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Toluene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Ethylbenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Naphthalene	ND	2.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
2-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Acetone	ND	10		µg/L	1	2/19/2018 4:34:28 PM	T49217
Bromobenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Bromodichloromethane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Bromoform	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Bromomethane	ND	3.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
2-Butanone	ND	10		µg/L	1	2/19/2018 4:34:28 PM	T49217
Carbon disulfide	ND	10		µg/L	1	2/19/2018 4:34:28 PM	T49217
Carbon Tetrachloride	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Chlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Chloroethane	ND	2.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Chloroform	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Chloromethane	ND	3.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
2-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
4-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
cis-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Dibromochloromethane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Dibromomethane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,1-Dichloroethane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,1-Dichloroethene	0.50	1.0	J	µg/L	1	2/19/2018 4:34:28 PM	T49217
1,2-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,3-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
2,2-Dichloropropane	ND	2.0		µg/L	1	2/19/2018 4:34:28 PM	T49217

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: VMW-1-D
Project: Bryn Mawr
Collection Date: 2/13/2018 3:12:00 PM
Lab ID: 1802856-005
Matrix: AQUEOUS
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
1,1-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Hexachlorobutadiene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
2-Hexanone	ND	10		µg/L	1	2/19/2018 4:34:28 PM	T49217
Isopropylbenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
4-Isopropyltoluene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
4-Methyl-2-pentanone	ND	10		µg/L	1	2/19/2018 4:34:28 PM	T49217
Methylene Chloride	ND	3.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
n-Butylbenzene	ND	3.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
n-Propylbenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
sec-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Styrene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
tert-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
trans-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Trichlorofluoromethane	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Vinyl chloride	ND	1.0		µg/L	1	2/19/2018 4:34:28 PM	T49217
Xylenes, Total	ND	1.5		µg/L	1	2/19/2018 4:34:28 PM	T49217
1,4-Dioxane	ND	10		µg/L	1	2/19/2018 4:34:28 PM	T49217
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	2/19/2018 4:34:28 PM	T49217
Surr: 4-Bromofluorobenzene	115	70-130		%Rec	1	2/19/2018 4:34:28 PM	T49217
Surr: Dibromofluoromethane	106	70-130		%Rec	1	2/19/2018 4:34:28 PM	T49217
Surr: Toluene-d8	103	70-130		%Rec	1	2/19/2018 4:34:28 PM	T49217

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: Trip Blank
Project: Bryn Mawr
Collection Date:
Lab ID: 1802856-006
Matrix: TRIP BLANK
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Toluene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Ethylbenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Naphthalene	ND	2.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
2-Methylnaphthalene	ND	4.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Acetone	ND	10		µg/L	1	2/19/2018 5:03:55 PM	T49217
Bromobenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Bromodichloromethane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Bromoform	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Bromomethane	ND	3.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
2-Butanone	ND	10		µg/L	1	2/19/2018 5:03:55 PM	T49217
Carbon disulfide	ND	10		µg/L	1	2/19/2018 5:03:55 PM	T49217
Carbon Tetrachloride	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Chlorobenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Chloroethane	ND	2.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Chloroform	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Chloromethane	ND	3.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
2-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
4-Chlorotoluene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
cis-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Dibromochloromethane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Dibromomethane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,1-Dichloroethane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,1-Dichloroethene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,2-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,3-Dichloropropane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
2,2-Dichloropropane	ND	2.0		µg/L	1	2/19/2018 5:03:55 PM	T49217

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering
Client Sample ID: Trip Blank
Project: Bryn Mawr
Collection Date:
Lab ID: 1802856-006
Matrix: TRIP BLANK
Received Date: 2/14/2018 4:20:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
8260B TARGET COMPOUND LIST						Analyst: **DJF**	
1,1-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Hexachlorobutadiene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
2-Hexanone	ND	10		µg/L	1	2/19/2018 5:03:55 PM	T49217
Isopropylbenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
4-Isopropyltoluene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
4-Methyl-2-pentanone	ND	10		µg/L	1	2/19/2018 5:03:55 PM	T49217
Methylene Chloride	ND	3.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
n-Butylbenzene	ND	3.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
n-Propylbenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
sec-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Styrene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
tert-Butylbenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
trans-1,2-DCE	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Trichlorofluoromethane	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Vinyl chloride	ND	1.0		µg/L	1	2/19/2018 5:03:55 PM	T49217
Xylenes, Total	ND	1.5		µg/L	1	2/19/2018 5:03:55 PM	T49217
1,4-Dioxane	ND	10		µg/L	1	2/19/2018 5:03:55 PM	T49217
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%Rec	1	2/19/2018 5:03:55 PM	T49217
Surr: 4-Bromofluorobenzene	117	70-130		%Rec	1	2/19/2018 5:03:55 PM	T49217
Surr: Dibromofluoromethane	103	70-130		%Rec	1	2/19/2018 5:03:55 PM	T49217
Surr: Toluene-d8	102	70-130		%Rec	1	2/19/2018 5:03:55 PM	T49217

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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1802856**
20-Feb-18

Client: EA Engineering
Project: Bryn Mawr

Sample ID **rb**	SampType: **MBLK**	TestCode: **8260B Target Compound List**
Client ID: **PBW**	Batch ID: **T49217**	RunNo: **49217**
Prep Date:	Analysis Date: **2/19/2018**	SeqNo: **1588238** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
Styrene	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802856**

20-Feb-18

Client: EA Engineering

Project: Bryn Mawr

Sample ID **rb**	SampType: **MBLK**	TestCode: **8260B Target Compound List**
Client ID: **PBW**	Batch ID: **T49217**	RunNo: **49217**
Prep Date:	Analysis Date: **2/19/2018**	SeqNo: **1588238** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Bromochloromethane	ND	1.0								
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.0								
1,4-Dioxane	ND	10								
Cyclohexane	ND	5.0								
Methyl acetate	ND	5.0								
Methylcyclohexane	ND	5.0								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.5	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **8260B Target Compound List**
Client ID: **LCSW**	Batch ID: **T49217**	RunNo: **49217**
Prep Date:	Analysis Date: **2/19/2018**	SeqNo: **1588257** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	88.3	70	130			
Toluene	20	1.0	20.00	0	98.3	70	130			
Chlorobenzene	20	1.0	20.00	0	99.6	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.4	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	82.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.4	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.8	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID **1802856-001a ms**	SampType: **MS**	TestCode: **8260B Target Compound List**
Client ID: **MW-1**	Batch ID: **T49217**	RunNo: **49217**
Prep Date:	Analysis Date: **2/19/2018**	SeqNo: **1588288** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	60.5	137			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	21	1.0	20.00	0	106	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802856**

20-Feb-18

Client: EA Engineering

Project: Bryn Mawr

Sample ID **1802856-001a ms**	SampType: **MS**	TestCode: **8260B Target Compound List**
Client ID: **MW-1**	Batch ID: **T49217**	RunNo: **49217**
Prep Date:	Analysis Date: **2/19/2018**	SeqNo: **1588288** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	25	1.0	20.00	0.4020	121	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	95.9	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		120	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **1802856-001a msd**	SampType: **MSD**	TestCode: **8260B Target Compound List**
Client ID: **MW-1**	Batch ID: **T49217**	RunNo: **49217**
Prep Date:	Analysis Date: **2/19/2018**	SeqNo: **1588289** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	60.5	137	2.79	20	
Toluene	21	1.0	20.00	0	103	70	130	2.38	20	
Chlorobenzene	21	1.0	20.00	0	107	70	130	0.689	20	
1,1-Dichloroethene	24	1.0	20.00	0.4020	117	70	130	2.79	20	
Trichloroethene (TCE)	19	1.0	20.00	0	94.7	70	130	1.32	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		114	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		106	70	130	0	0	
Surr: Toluene-d8	10		10.00		105	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: EA Engineering Alb Work Order Number: 1802856 RcptNo: 1

Received By: **Erin Melendrez** 2/14/2018 4:20:00 PM

Completed By: **Erin Melendrez** 2/14/2018 4:34:12 PM

Reviewed By: DDS 2/16/18

MW 2/16/18

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐ # of preserved bottles checked for pH: ____ (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐ Adjusted?
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐ Checked by:

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			

Chain-of-Custody Record

Client: EA Engineering

Mailing Address: 320 Gold Ave

Phone #: (505) 224-9013

email or Fax#: Tcurley@EAEST.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: Bryn Mawr

Project #: 17537

Project Manager: T. Curley

Sampler: C. Montoya

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1802856	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
2/13/18	1409	GW	MW-1	VOAx3		-001										X		
"	1240	"	MW-3	"		-002										"		
"	1628	"	MW-4	"		-003										"		
"	1038	"	MW-7	"		-004										"		
"		"	~~DUP~~	"		~~-0~~										"		
"	1512	"	VMW-1-D	"		-005										"		
"		"	Trip Blank	"		-006										"		

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/14/18	1620			2/14/18	1620
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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3/15/2018
Mr. Tyler Curley
EA Engineering
320 Gold Avenue, SW
Suite 1300
Albuquerque NM 87102

Project Name: Bryn Mawr
Project #: 1521801.03
Workorder #: 1803052

Dear Mr. Tyler Curley

The following report includes the data for the above referenced project for sample(s) received on 3/2/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Brian Whittaker

Project Manager

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WORK ORDER #: 1803052

Work Order Summary

CLIENT:	Mr. Tyler Curley EA Engineering 320 Gold Avenue, SW Suite 1300 Albuquerque, NM 87102	**BILL TO:**	Accounts Payable - Lewisville EA Engineering 405 S. Highway 121 Suite C-100 Lewisville, TX 75067
PHONE:	(505) 224-9013	**P.O. #**	17538
FAX:	(505) 224-9016	**PROJECT #**	1521801.03 Bryn Mawr
DATE RECEIVED:	03/02/2018	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	03/15/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	VMW-1-S	TO-15	10 "Hg	15.2 psi
02A	VMW-1-I	TO-15	9.8 "Hg	14.8 psi
03A	VMW-1-D	TO-15	10 "Hg	14.7 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 03/15/18

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

LABORATORY NARRATIVE
EPA Method TO-15
EA Engineering
Workorder# 1803052

Three 1 Liter Summa Canister samples were received on March 02, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Dilution was performed on samples VMW-1-S, VMW-1-I and VMW-1-D due to the presence of high level target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: VMW-1-S

Lab ID#: 1803052-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	30	31000	120	120000
1,1-Dichloroethane	30	31	120	130
1,1,1-Trichloroethane	30	4000	170	22000
1,2-Dichloroethane	30	32	120	130

Client Sample ID: VMW-1-I

Lab ID#: 1803052-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	15	15000	59	58000
1,1-Dichloroethane	15	16	60	63
1,1,1-Trichloroethane	15	980	81	5400
Benzene	15	18	48	58
Cumene	15	16	73	79

Client Sample ID: VMW-1-D

Lab ID#: 1803052-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	15	9200	59	36000
Acetone	60	64	140	150
1,1,1-Trichloroethane	15	980	82	5300
Benzene	15	31	48	99
Cumene	15	34	74	170

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Client Sample ID: VMW-1-S

Lab ID#: 1803052-01A

EPA METHOD TO-15 GC/MS

File Name:	**14030813**	**Date of Collection:**	**2/26/18 12:10:00 PM**
Dil. Factor:	**6.10**	**Date of Analysis:**	**3/8/18 06:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	30	Not Detected	150	Not Detected
Freon 114	30	Not Detected	210	Not Detected
Chloromethane	120	Not Detected	250	Not Detected
Vinyl Chloride	30	Not Detected	78	Not Detected
1,3-Butadiene	30	Not Detected	67	Not Detected
Bromomethane	120	Not Detected	470	Not Detected
Chloroethane	120	Not Detected	320	Not Detected
Freon 11	30	Not Detected	170	Not Detected
Ethanol	120	Not Detected	230	Not Detected
Freon 113	30	Not Detected	230	Not Detected
1,1-Dichloroethene	30	31000	120	120000
Acetone	120	Not Detected	290	Not Detected
2-Propanol	120	Not Detected	300	Not Detected
Carbon Disulfide	120	Not Detected	380	Not Detected
3-Chloropropene	120	Not Detected	380	Not Detected
Methylene Chloride	120	Not Detected	420	Not Detected
Methyl tert-butyl ether	30	Not Detected	110	Not Detected
trans-1,2-Dichloroethene	30	Not Detected	120	Not Detected
Hexane	30	Not Detected	110	Not Detected
1,1-Dichloroethane	30	31	120	130
2-Butanone (Methyl Ethyl Ketone)	120	Not Detected	360	Not Detected
cis-1,2-Dichloroethene	30	Not Detected	120	Not Detected
Tetrahydrofuran	30	Not Detected	90	Not Detected
Chloroform	30	Not Detected	150	Not Detected
1,1,1-Trichloroethane	30	4000	170	22000
Cyclohexane	30	Not Detected	100	Not Detected
Carbon Tetrachloride	30	Not Detected	190	Not Detected
2,2,4-Trimethylpentane	30	Not Detected	140	Not Detected
Benzene	30	Not Detected	97	Not Detected
1,2-Dichloroethane	30	32	120	130
Heptane	30	Not Detected	120	Not Detected
Trichloroethene	30	Not Detected	160	Not Detected
1,2-Dichloropropane	30	Not Detected	140	Not Detected
1,4-Dioxane	120	Not Detected	440	Not Detected
Bromodichloromethane	30	Not Detected	200	Not Detected
cis-1,3-Dichloropropene	30	Not Detected	140	Not Detected
4-Methyl-2-pentanone	30	Not Detected	120	Not Detected
Toluene	30	Not Detected	110	Not Detected
trans-1,3-Dichloropropene	30	Not Detected	140	Not Detected
1,1,2-Trichloroethane	30	Not Detected	170	Not Detected
Tetrachloroethene	30	Not Detected	210	Not Detected
2-Hexanone	120	Not Detected	500	Not Detected

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Client Sample ID: VMW-1-S

Lab ID#: 1803052-01A

EPA METHOD TO-15 GC/MS

File Name:	**14030813**	**Date of Collection:**	**2/26/18 12:10:00 PM**
Dil. Factor:	**6.10**	**Date of Analysis:**	**3/8/18 06:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	30	Not Detected	260	Not Detected
1,2-Dibromoethane (EDB)	30	Not Detected	230	Not Detected
Chlorobenzene	30	Not Detected	140	Not Detected
Ethyl Benzene	30	Not Detected	130	Not Detected
m,p-Xylene	30	Not Detected	130	Not Detected
o-Xylene	30	Not Detected	130	Not Detected
Styrene	30	Not Detected	130	Not Detected
Bromoform	30	Not Detected	320	Not Detected
Cumene	30	Not Detected	150	Not Detected
1,1,2,2-Tetrachloroethane	30	Not Detected	210	Not Detected
Propylbenzene	30	Not Detected	150	Not Detected
4-Ethyltoluene	30	Not Detected	150	Not Detected
1,3,5-Trimethylbenzene	30	Not Detected	150	Not Detected
1,2,4-Trimethylbenzene	30	Not Detected	150	Not Detected
1,3-Dichlorobenzene	30	Not Detected	180	Not Detected
1,4-Dichlorobenzene	30	Not Detected	180	Not Detected
alpha-Chlorotoluene	30	Not Detected	160	Not Detected
1,2-Dichlorobenzene	30	Not Detected	180	Not Detected
1,2,4-Trichlorobenzene	120	Not Detected	900	Not Detected
Hexachlorobutadiene	120	Not Detected	1300	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	82	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: VMW-1-I

Lab ID#: 1803052-02A

EPA METHOD TO-15 GC/MS

File Name:	**14030814**	**Date of Collection:**	**2/26/18 11:35:00 AM**
Dil. Factor:	**2.98**	**Date of Analysis:**	**3/8/18 07:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	15	Not Detected	74	Not Detected
Freon 114	15	Not Detected	100	Not Detected
Chloromethane	60	Not Detected	120	Not Detected
Vinyl Chloride	15	Not Detected	38	Not Detected
1,3-Butadiene	15	Not Detected	33	Not Detected
Bromomethane	60	Not Detected	230	Not Detected
Chloroethane	60	Not Detected	160	Not Detected
Freon 11	15	Not Detected	84	Not Detected
Ethanol	60	Not Detected	110	Not Detected
Freon 113	15	Not Detected	110	Not Detected
1,1-Dichloroethene	15	15000	59	58000
Acetone	60	Not Detected	140	Not Detected
2-Propanol	60	Not Detected	150	Not Detected
Carbon Disulfide	60	Not Detected	180	Not Detected
3-Chloropropene	60	Not Detected	190	Not Detected
Methylene Chloride	60	Not Detected	210	Not Detected
Methyl tert-butyl ether	15	Not Detected	54	Not Detected
trans-1,2-Dichloroethene	15	Not Detected	59	Not Detected
Hexane	15	Not Detected	52	Not Detected
1,1-Dichloroethane	15	16	60	63
2-Butanone (Methyl Ethyl Ketone)	60	Not Detected	180	Not Detected
cis-1,2-Dichloroethene	15	Not Detected	59	Not Detected
Tetrahydrofuran	15	Not Detected	44	Not Detected
Chloroform	15	Not Detected	73	Not Detected
1,1,1-Trichloroethane	15	980	81	5400
Cyclohexane	15	Not Detected	51	Not Detected
Carbon Tetrachloride	15	Not Detected	94	Not Detected
2,2,4-Trimethylpentane	15	Not Detected	70	Not Detected
Benzene	15	18	48	58
1,2-Dichloroethane	15	Not Detected	60	Not Detected
Heptane	15	Not Detected	61	Not Detected
Trichloroethene	15	Not Detected	80	Not Detected
1,2-Dichloropropane	15	Not Detected	69	Not Detected
1,4-Dioxane	60	Not Detected	210	Not Detected
Bromodichloromethane	15	Not Detected	100	Not Detected
cis-1,3-Dichloropropene	15	Not Detected	68	Not Detected
4-Methyl-2-pentanone	15	Not Detected	61	Not Detected
Toluene	15	Not Detected	56	Not Detected
trans-1,3-Dichloropropene	15	Not Detected	68	Not Detected
1,1,2-Trichloroethane	15	Not Detected	81	Not Detected
Tetrachloroethene	15	Not Detected	100	Not Detected
2-Hexanone	60	Not Detected	240	Not Detected

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Client Sample ID: VMW-1-I

Lab ID#: 1803052-02A

EPA METHOD TO-15 GC/MS

File Name:	**14030814**	**Date of Collection:**	**2/26/18 11:35:00 AM**
Dil. Factor:	**2.98**	**Date of Analysis:**	**3/8/18 07:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	15	Not Detected	130	Not Detected
1,2-Dibromoethane (EDB)	15	Not Detected	110	Not Detected
Chlorobenzene	15	Not Detected	68	Not Detected
Ethyl Benzene	15	Not Detected	65	Not Detected
m,p-Xylene	15	Not Detected	65	Not Detected
o-Xylene	15	Not Detected	65	Not Detected
Styrene	15	Not Detected	63	Not Detected
Bromoform	15	Not Detected	150	Not Detected
Cumene	15	16	73	79
1,1,2,2-Tetrachloroethane	15	Not Detected	100	Not Detected
Propylbenzene	15	Not Detected	73	Not Detected
4-Ethyltoluene	15	Not Detected	73	Not Detected
1,3,5-Trimethylbenzene	15	Not Detected	73	Not Detected
1,2,4-Trimethylbenzene	15	Not Detected	73	Not Detected
1,3-Dichlorobenzene	15	Not Detected	90	Not Detected
1,4-Dichlorobenzene	15	Not Detected	90	Not Detected
alpha-Chlorotoluene	15	Not Detected	77	Not Detected
1,2-Dichlorobenzene	15	Not Detected	90	Not Detected
1,2,4-Trichlorobenzene	60	Not Detected	440	Not Detected
Hexachlorobutadiene	60	Not Detected	640	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: VMW-1-D

Lab ID#: 1803052-03A

EPA METHOD TO-15 GC/MS

File Name:	**14030815**	**Date of Collection:**	**2/26/18 10:50:00 AM**
Dil. Factor:	**3.00**	**Date of Analysis:**	**3/8/18 07:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	15	Not Detected	74	Not Detected
Freon 114	15	Not Detected	100	Not Detected
Chloromethane	60	Not Detected	120	Not Detected
Vinyl Chloride	15	Not Detected	38	Not Detected
1,3-Butadiene	15	Not Detected	33	Not Detected
Bromomethane	60	Not Detected	230	Not Detected
Chloroethane	60	Not Detected	160	Not Detected
Freon 11	15	Not Detected	84	Not Detected
Ethanol	60	Not Detected	110	Not Detected
Freon 113	15	Not Detected	110	Not Detected
1,1-Dichloroethene	15	9200	59	36000
Acetone	60	64	140	150
2-Propanol	60	Not Detected	150	Not Detected
Carbon Disulfide	60	Not Detected	190	Not Detected
3-Chloropropene	60	Not Detected	190	Not Detected
Methylene Chloride	60	Not Detected	210	Not Detected
Methyl tert-butyl ether	15	Not Detected	54	Not Detected
trans-1,2-Dichloroethene	15	Not Detected	59	Not Detected
Hexane	15	Not Detected	53	Not Detected
1,1-Dichloroethane	15	Not Detected	61	Not Detected
2-Butanone (Methyl Ethyl Ketone)	60	Not Detected	180	Not Detected
cis-1,2-Dichloroethene	15	Not Detected	59	Not Detected
Tetrahydrofuran	15	Not Detected	44	Not Detected
Chloroform	15	Not Detected	73	Not Detected
1,1,1-Trichloroethane	15	980	82	5300
Cyclohexane	15	Not Detected	52	Not Detected
Carbon Tetrachloride	15	Not Detected	94	Not Detected
2,2,4-Trimethylpentane	15	Not Detected	70	Not Detected
Benzene	15	31	48	99
1,2-Dichloroethane	15	Not Detected	61	Not Detected
Heptane	15	Not Detected	61	Not Detected
Trichloroethene	15	Not Detected	81	Not Detected
1,2-Dichloropropane	15	Not Detected	69	Not Detected
1,4-Dioxane	60	Not Detected	220	Not Detected
Bromodichloromethane	15	Not Detected	100	Not Detected
cis-1,3-Dichloropropene	15	Not Detected	68	Not Detected
4-Methyl-2-pentanone	15	Not Detected	61	Not Detected
Toluene	15	Not Detected	56	Not Detected
trans-1,3-Dichloropropene	15	Not Detected	68	Not Detected
1,1,2-Trichloroethane	15	Not Detected	82	Not Detected
Tetrachloroethene	15	Not Detected	100	Not Detected
2-Hexanone	60	Not Detected	240	Not Detected

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Client Sample ID: VMW-1-D

Lab ID#: 1803052-03A

EPA METHOD TO-15 GC/MS

File Name:	**14030815**	**Date of Collection:**	**2/26/18 10:50:00 AM**
Dil. Factor:	**3.00**	**Date of Analysis:**	**3/8/18 07:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	15	Not Detected	130	Not Detected
1,2-Dibromoethane (EDB)	15	Not Detected	120	Not Detected
Chlorobenzene	15	Not Detected	69	Not Detected
Ethyl Benzene	15	Not Detected	65	Not Detected
m,p-Xylene	15	Not Detected	65	Not Detected
o-Xylene	15	Not Detected	65	Not Detected
Styrene	15	Not Detected	64	Not Detected
Bromoform	15	Not Detected	160	Not Detected
Cumene	15	34	74	170
1,1,2,2-Tetrachloroethane	15	Not Detected	100	Not Detected
Propylbenzene	15	Not Detected	74	Not Detected
4-Ethyltoluene	15	Not Detected	74	Not Detected
1,3,5-Trimethylbenzene	15	Not Detected	74	Not Detected
1,2,4-Trimethylbenzene	15	Not Detected	74	Not Detected
1,3-Dichlorobenzene	15	Not Detected	90	Not Detected
1,4-Dichlorobenzene	15	Not Detected	90	Not Detected
alpha-Chlorotoluene	15	Not Detected	78	Not Detected
1,2-Dichlorobenzene	15	Not Detected	90	Not Detected
1,2,4-Trichlorobenzene	60	Not Detected	440	Not Detected
Hexachlorobutadiene	60	Not Detected	640	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1803052-04A

EPA METHOD TO-15 GC/MS

File Name:	**14030807**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/8/18 02:05 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	20	Not Detected	78	Not Detected
Chloroethane	20	Not Detected	53	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	20	Not Detected	62	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	20	Not Detected	69	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	59	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1803052-04A

EPA METHOD TO-15 GC/MS

File Name:	**14030807**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/8/18 02:05 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	80	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: CCV

Lab ID#: 1803052-05A

EPA METHOD TO-15 GC/MS

File Name:	**14030805**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/8/18 01:05 PM**	

Compound	%Recovery
Freon 12	109
Freon 114	114
Chloromethane	105
Vinyl Chloride	105
1,3-Butadiene	102
Bromomethane	104
Chloroethane	102
Freon 11	112
Ethanol	106
Freon 113	120
1,1-Dichloroethene	108
Acetone	112
2-Propanol	109
Carbon Disulfide	102
3-Chloropropene	100
Methylene Chloride	108
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	101
Hexane	108
1,1-Dichloroethane	107
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	111
Tetrahydrofuran	101
Chloroform	110
1,1,1-Trichloroethane	107
Cyclohexane	106
Carbon Tetrachloride	107
2,2,4-Trimethylpentane	108
Benzene	123
1,2-Dichloroethane	114
Heptane	107
Trichloroethene	119
1,2-Dichloropropane	111
1,4-Dioxane	121
Bromodichloromethane	110
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	103
Toluene	123
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	110
Tetrachloroethene	120
2-Hexanone	100

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Client Sample ID: CCV

Lab ID#: 1803052-05A

EPA METHOD TO-15 GC/MS

File Name:	**14030805**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/8/18 01:05 PM**	

Compound	%Recovery
Dibromochloromethane	108
1,2-Dibromoethane (EDB)	112
Chlorobenzene	115
Ethyl Benzene	114
m,p-Xylene	114
o-Xylene	108
Styrene	105
Bromoform	99
Cumene	112
1,1,2,2-Tetrachloroethane	106
Propylbenzene	111
4-Ethyltoluene	115
1,3,5-Trimethylbenzene	119
1,2,4-Trimethylbenzene	118
1,3-Dichlorobenzene	114
1,4-Dichlorobenzene	117
alpha-Chlorotoluene	90
1,2-Dichlorobenzene	112
1,2,4-Trichlorobenzene	120
Hexachlorobutadiene	103

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	82	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: LCS

Lab ID#: 1803052-06A

EPA METHOD TO-15 GC/MS

File Name:	**14030803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/8/18 11:51 AM**	

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	118	70-130
Chloromethane	101	70-130
Vinyl Chloride	106	70-130
1,3-Butadiene	95	70-130
Bromomethane	112	70-130
Chloroethane	101	70-130
Freon 11	116	70-130
Ethanol	117	70-130
Freon 113	116	70-130
1,1-Dichloroethene	107	70-130
Acetone	112	70-130
2-Propanol	114	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	96	70-130
Methylene Chloride	106	70-130
Methyl tert-butyl ether	102	70-130
trans-1,2-Dichloroethene	87	70-130
Hexane	108	70-130
1,1-Dichloroethane	107	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
cis-1,2-Dichloroethene	118	70-130
Tetrahydrofuran	102	70-130
Chloroform	109	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	106	70-130
Carbon Tetrachloride	108	70-130
2,2,4-Trimethylpentane	108	70-130
Benzene	122	70-130
1,2-Dichloroethane	114	70-130
Heptane	106	70-130
Trichloroethene	119	70-130
1,2-Dichloropropane	113	70-130
1,4-Dioxane	122	70-130
Bromodichloromethane	115	70-130
cis-1,3-Dichloropropene	101	70-130
4-Methyl-2-pentanone	108	70-130
Toluene	120	70-130
trans-1,3-Dichloropropene	99	70-130
1,1,2-Trichloroethane	110	70-130
Tetrachloroethene	118	70-130
2-Hexanone	109	70-130

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Client Sample ID: LCS

Lab ID#: 1803052-06A

EPA METHOD TO-15 GC/MS

File Name:	**14030803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/8/18 11:51 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	114	70-130
1,2-Dibromoethane (EDB)	114	70-130
Chlorobenzene	113	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	113	70-130
o-Xylene	116	70-130
Styrene	116	70-130
Bromoform	109	70-130
Cumene	116	70-130
1,1,2,2-Tetrachloroethane	111	70-130
Propylbenzene	117	70-130
4-Ethyltoluene	122	70-130
1,3,5-Trimethylbenzene	123	70-130
1,2,4-Trimethylbenzene	127	70-130
1,3-Dichlorobenzene	121	70-130
1,4-Dichlorobenzene	122	70-130
alpha-Chlorotoluene	118	70-130
1,2-Dichlorobenzene	121	70-130
1,2,4-Trichlorobenzene	153 Q	70-130
Hexachlorobutadiene	129	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	82	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCSD

Lab ID#: 1803052-06AA

EPA METHOD TO-15 GC/MS

File Name:	**14030804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/8/18 12:12 PM**	

Compound	%Recovery	Method Limits
Freon 12	107	70-130
Freon 114	118	70-130
Chloromethane	101	70-130
Vinyl Chloride	103	70-130
1,3-Butadiene	93	70-130
Bromomethane	110	70-130
Chloroethane	103	70-130
Freon 11	114	70-130
Ethanol	116	70-130
Freon 113	115	70-130
1,1-Dichloroethene	106	70-130
Acetone	106	70-130
2-Propanol	112	70-130
Carbon Disulfide	85	70-130
3-Chloropropene	94	70-130
Methylene Chloride	103	70-130
Methyl tert-butyl ether	100	70-130
trans-1,2-Dichloroethene	85	70-130
Hexane	105	70-130
1,1-Dichloroethane	105	70-130
2-Butanone (Methyl Ethyl Ketone)	97	70-130
cis-1,2-Dichloroethene	115	70-130
Tetrahydrofuran	103	70-130
Chloroform	105	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	104	70-130
Carbon Tetrachloride	105	70-130
2,2,4-Trimethylpentane	107	70-130
Benzene	120	70-130
1,2-Dichloroethane	114	70-130
Heptane	106	70-130
Trichloroethene	117	70-130
1,2-Dichloropropane	110	70-130
1,4-Dioxane	124	70-130
Bromodichloromethane	114	70-130
cis-1,3-Dichloropropene	100	70-130
4-Methyl-2-pentanone	110	70-130
Toluene	120	70-130
trans-1,3-Dichloropropene	100	70-130
1,1,2-Trichloroethane	109	70-130
Tetrachloroethene	118	70-130
2-Hexanone	112	70-130

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Client Sample ID: LCSD

Lab ID#: 1803052-06AA

EPA METHOD TO-15 GC/MS

File Name:	**14030804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/8/18 12:12 PM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	113	70-130
1,2-Dibromoethane (EDB)	114	70-130
Chlorobenzene	114	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	116	70-130
o-Xylene	117	70-130
Styrene	119	70-130
Bromoform	110	70-130
Cumene	117	70-130
1,1,2,2-Tetrachloroethane	111	70-130
Propylbenzene	118	70-130
4-Ethyltoluene	121	70-130
1,3,5-Trimethylbenzene	124	70-130
1,2,4-Trimethylbenzene	127	70-130
1,3-Dichlorobenzene	123	70-130
1,4-Dichlorobenzene	125	70-130
alpha-Chlorotoluene	117	70-130
1,2-Dichlorobenzene	125	70-130
1,2,4-Trichlorobenzene	152 Q	70-130
Hexachlorobutadiene	132 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	82	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

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Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager T. Curley
Collected by: (Print and Sign) C. Montoya
Company EA Engineering Email TCurley@EAEST.com
Address 320 Gold SW Suite 1300 City Albuquerque State NM Zip 87102
Phone (505) 224-9013 Fax —

Project Info:
P.O. # 17538
Project # ~~Bryn Mawr~~ 152180.03
Project Name Bryn Mawr

Turn Around Time:
☑ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	VMW-1-S	8024	2/26/18	1210	TO-15 (VOC)	-25.0	-6.5		
02A	VMW-1-I	IL2696	2/26/18	1135	TO-15 (VOC)	-25.5	-6.5		
03A	VMW-1-D	15755	2/26/18	1050	TO-15 (VOC)	-26.0	-6.5		

Relinquished by: (signature) Date/Time 2/26/18/1430
Received by: (signature) Date/Time 3/2/18 1115 EATL
Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time
Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time

Notes:

Lab Use Only

Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
UPS		NA	Good	Yes No (None)	1803052

Form 1293 rev.11

FILE REVIEW
(Files are Electronic Format via CD)

ATTACHMENT 3

APPROVAL AND CONDITIONAL ACCEPTANCE as specified by Subsection 22-A.20 of the Albuquerque Subdivision Ordinance.

TURNBULL'S REDIVISION

of LOTS 3A, 5A, 6A and LOT 7, BLOCK NO. 1

INDIAN REST ADDITION

ALBUQUERQUE, NEW MEXICO

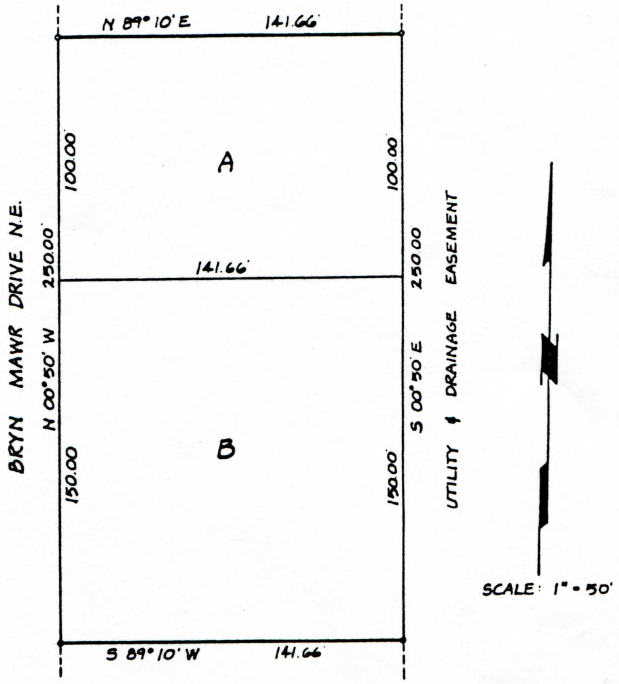
Plat No. _____

Approved _____

_____
Planning Director
Albuquerque, New Mexico

I, Frank G. Benavidez, New Mexico Registered Land Surveyor No. 4252, do hereby certify that this plat was made by me or under my direct supervision and that the same is true and correct to the best of my belief and knowledge.

_____
Frank G. Benavidez/N.M.L.S. No. 4252



The foregoing Redivision of a certain parcel of land being identified as Lots numbered Three-A (3-A), Five-A (5-A), Six-A (6-A), in Block numbered One (1) of TURNBULL'S REPLAT of Indian Rest Addition, Albuquerque, New Mexico, as the same is shown and designated on said Replat filed in the office of the County Clerk of Bernalillo, New Mexico, on August 20, 1976; together with Lot numbered Seven (7) in Block numbered One (1) of the Subdivision of Tract 2 & West Half of Tract 1 Block B, of INDIAN ACRES SUBDIVISION and Replat of Tracts 1 & 2 of INDIAN REST, Albuquerque, New Mexico, as the same is shown and designated on the plat thereof filed in the office of the County Clerk of Bernalillo County, New Mexico, on February 21, 1962; and also together with the vacated westerly Fifteen (15) feet of the Drainage Easement immediately East of and adjacent to said Lot Seven (7) Block one (1).

Surveyed, and Redivided as shown hereon and now comprising Lots A & B of TURNBULLS REDIVISION of Lots 3A, 5A, 6A, and Lot 7, Block No. 1, Indian Rest Addition, Albuquerque, New Mexico, is with the free consent of and in accordance with the wishes and desires of the undersigned owners and proprietors thereof.

_____
Owner

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) SS

On This _____ day of _____, 19___. The foregoing instrument was

Acknowledged before me by _____

My Commission Expires _____ _____
Notary Public

Frank G. Benavidez, Surveyor
2109 Candelaria Road N.E.
Albuquerque, New Mexico
March 17th, 1978