

STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION



IN THE MATTER OF THE PETITION)
TO APPROVE PARTIAL ABATEMENT)
COMPLETION REPORT FOR FORMER)
FOX AND ASSOCIATE SITE)
)
JVP, a Partnership)
)
Petitioner)
_____)

WQCC 19- 30

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.
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 NMCA) 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.

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 to 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.

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EA Engineering, Science, & Technology, Inc., PBC
320 Gold Avenue SW, Suite 1300
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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 $\mu\text{g/L}$, respectively
- The 1,1-DCE plume center of mass is at MW-4 with a concentration of 32 $\mu\text{g/L}$
- The downgradient edge of the 1,1-DCE plume is at MW-7, with a concentration of 0.27 J $\mu\text{g/L}$.
- 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

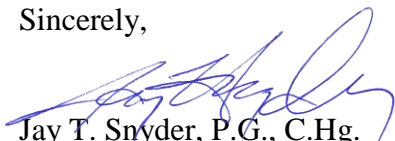
Lots A and B have been cleaned up. The perched groundwater and vadose zone contamination above the clay aquitard has been addressed by a soil vapor extraction. Relining the storm water drain which transects the site has eliminated recharge to perched zone. As a result, the perched aquifer has drained 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,

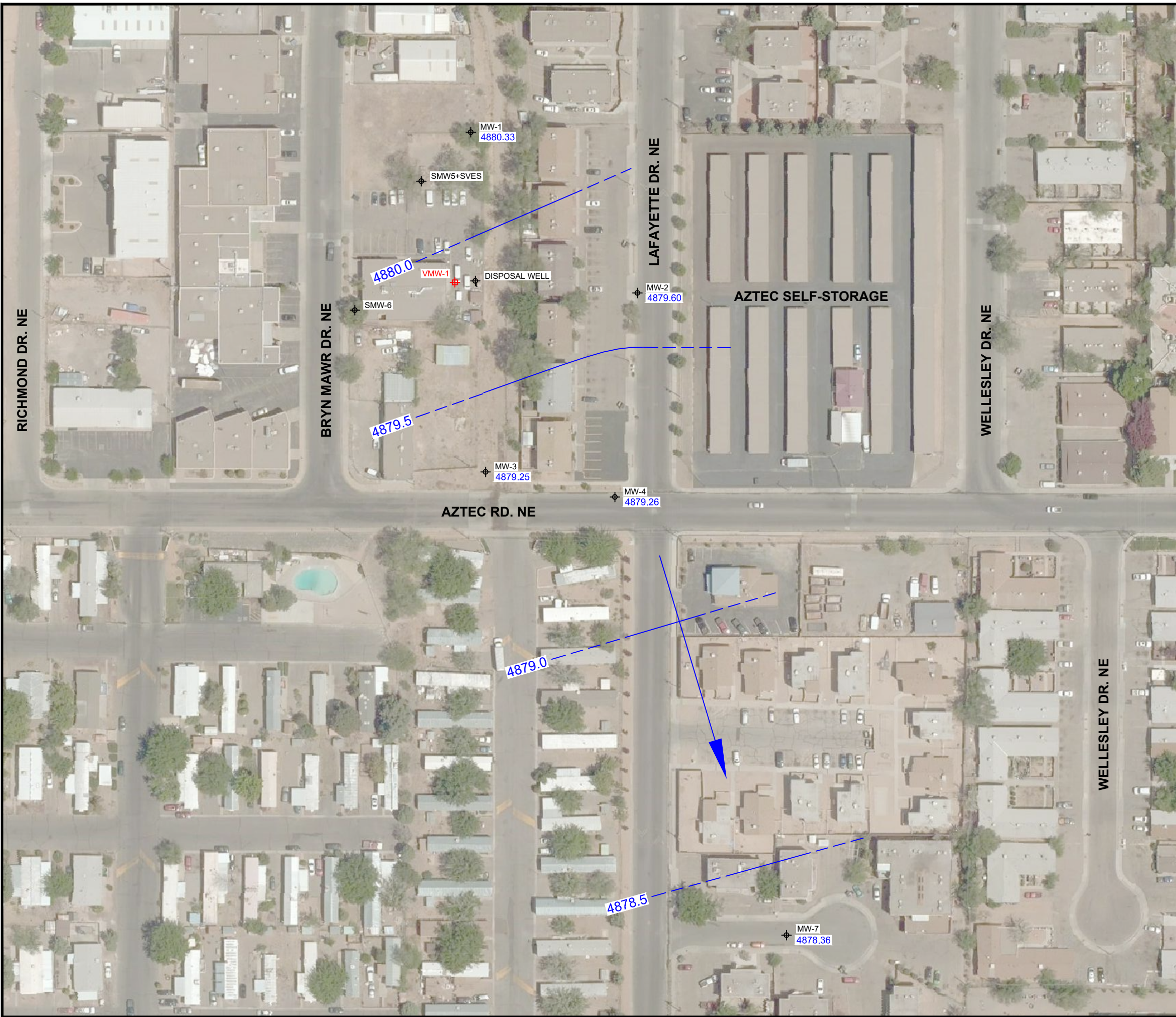


Jay T. Snyder, P.G., C.Hg.
Project Manager





Attachments

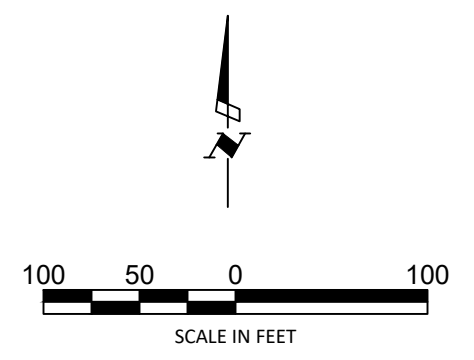
Cc: Charlie Miller
Pete Domenici, Jr.

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



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	







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

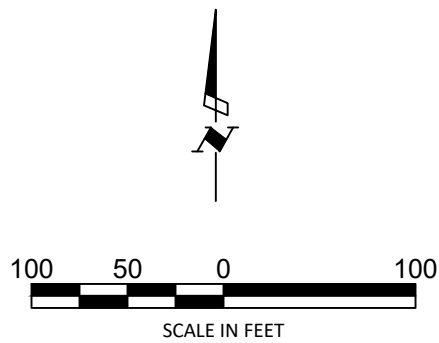
EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC

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LEGEND

-  MW-1 MONITORING WELL
-  SVE-1 PROPOSED SOIL VAPOR EXTRACTION (SVE) WELL
- 4894.53 GROUNDWATER ELEVATION, FT MSL
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- FT MSL FEET ABOVE MEAN SEA LEVEL



CHARLIE MILLER JVP SITE
 3412 BRYN MAWR, ALBUQUERQUE, NM

**POTENTIOMETRIC SURFACE
 ELEVATION**

SEPTEMBER 18, 2018

PROJECT #:	010101	PROJECT PHASE:	01	PROJECT MANAGER:	JS
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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
Albuquerque, New Mexico 87102
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.

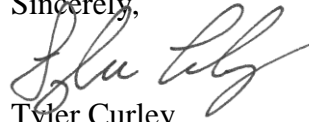
On June 28, 2017, vapor samples from each well were collected and submitted to Eurofins AirToxics for analysis of VOCs by EPA Method TO-15. Prior to sample collection, each well was purged 10 casing volumes utilizing a vacuum pump. Attached are field data sheets and the laboratory report. Laboratory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

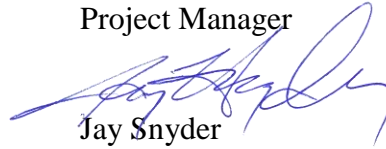
After you review this report, we request a meeting to discuss appropriate actions for this site. As we discussed earlier, the purpose of this assessment was to evaluate a path to closure. The results of this activity suggest closure is conceptually viable with a reasonable level of effort.

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**

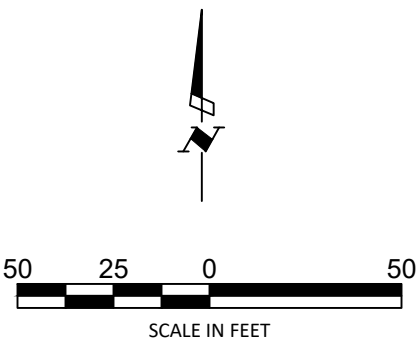
ID	Date	Lab Analysis	
		C _{1,1,1-TCA}	C _{1,1-DCE}
Groundwater		(µg/L)	(µg/L)
VMW-01-D	6/30/2017	<1.0	3.6
Soil Vapor		(µg/m³)	(µg/m³)
VMW-01-S	6/28/2017	16,000	92,000
VMW-01-I	6/28/2017	3,800	31,000
VMW-01-D	6/28/2017	2,500	26,000
Soil		(mg/Kg)	(mg/Kg)
VMW-01-72'-74'	6/13/2017	<0.029	<0.029
VMW-01-156'-158'	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



CHARLIE MILLER
JVP SITE
3412 BRYN MAWR

FIGURE 1 SITE LAYOUT

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

**BORING LOGS AND
WELL COMPLETION DIAGRAMS**



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

BORING/WELL CONSTRUCTION LOG

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	Grout	Grout	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					
			4.0		6					
Continuous Core Barrel			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	SM	17	plastic, very fine grain sand				
			1.2		18	15'-17', silty sand, brown (7.5 YR 4/4), loose, non-plastic, dry, very				
			5.5	ML	19	fine grain sand-medium grain sand, trace gravel up to 1/2"				
			11.0		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	CL	39	39'-40', clay with some silt, brown (7.5 YR 5/4), stiff, medium stiff,				
			8.9		40	moist, ~15% silt				

SS = Split Spoon Cut = Cuttings NA = Not Analyzed



EA Engineering, Science, and Technology, Inc.

BORING/WELL CONSTRUCTION LOG

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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Boring/Well ID: VMW-01	Logged By: Tyler Curley 2 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
Continuous Core Barrel			16.3	SM	41	40'-43', silty sand with some clay, light yellowish brown (10 YR 6/4), loose, non-plastic, moist, very fine grain sand	Grout
			8.3		42		
				NM	43	43'-56', poorly graded sand with gravel, brown (7.5 YR 5/4), loose, non-plastic, moist, very fine grain-coarse grain sand, rounded to angular gravel, trace cobbles up to 4"	Grout
					44		
			7.8		45		
			5.8	SP	46	54.5', wet	Bentonite
					47		
					48		
			11.6		49		
			9.1		50		
			8.1	CL	51	56-60, clay with some silt, brown (7.5 YR 5/4), stiff, plastic, wet	Bentonite
			161		52		
			169		53		
			62.8		54		
			43.3		55		
			29.2		56		
				SP	57	60'-65', same as above, no silt	Bentonite
			16.8		58		
			30.2		59		
			16.0		60		
		X	42.3	SP	61	65'-74', poorly graded sand, brown (7.5 YR 4/4), loose, non-plastic, wet, fine grain sand, sub angular to round	Bentonite
					62		
			27.2	SP	63	70', same as above, only moist	10-20 Silica Sand
			64				
		23.7	65				
		26.4	66				
			67				
			SP	68	73', same as above, with some clay, wet	10-20 Silica Sand	
				69			
				70			
			SP	71	74'-77', silt with some clay, brown (7.5 YR 5/4), still, non-plastic, moist	10-20 Silica Sand	
				72			
			SP	73	77'-80', same as above, very stiff	10-20 Silica Sand	
				74			
			SP	75		10-20 Silica Sand	
				76			
			SP	77		10-20 Silica Sand	
				78			
			SP	79		10-20 Silica Sand	
				80			

SS = Split Spoon Cut = Cuttings NA = Not Analyzed



EA Engineering, Science, and Technology, Inc.

BORING/WELL CONSTRUCTION LOG

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
VMW-01	Logged By: Tyler Curley 3 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/mineralogy, 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, moist, fine grain-medium grain sand, rounded to sub-rounded	10-20 Silica Sand
			29.5		82		
			16.6		83		
			32		84		
			23.8		85		
			16.8	SW	86	87'-88', well graded sand with gravel, brown (10 YR 5/3), loose, non-plastic, moist, fine grain-coarse grain sand, gravel up to 1/2", rounded to sub-rounded, trace clay	
			6.3		87		
			15.7		88		
			7.4		89		
			10.2		90		
			23.8	SP	91	88'-100', same as 80'-87', some gravel up to 1/2"	
			5.6		92		
			10.8		93		
			3.7		94		
			5.1		95		
			4.4	CL	96	100'-106', same as above, gravel up to 1/4"	
			8.1		97		
			4.8		98		
			6.8		99		
			12.1		100		
				101	106'-116', poorly graded sand, brown (10 YR 5/3), loose, non-plastic, moist, fine grain sand, sub-rounded, gravel up to 1/4"		
				102			
				103			
				104			
				105			
				106			
				107			
				108			
				109			
				110			
				111	118.5'-120', clay, brown (7.5 YR 4/4), very stiff, plastic, wet		
				112			
				113			
				114			
				115			
				116			
				117			
				118			
				119			
				120			

SS = Split Spoon Cut = Cuttings NA = Not Analyzed



EA Engineering, Science, and Technology, Inc.

BORING/WELL CONSTRUCTION LOG

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 5 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	
Continuous Core Barrel			10.2	SW	161	160'-164', well graded sand with gravel, brown (10 YR 4/3), loose, non-plastic, moist, very fine grain-coarse grain sand, gravel up to 3/8"	10-20 Silica Sand	
			14.1		162	163		
			250		164	165		164'-174', poorly graded sand with gravel, brown (10 YR 4/3), loose, non-plastic, moist, very fine grain-medium grain, gravel up to 3/4"
			142		166	167		
			13.4	SP	168			
			11.1		169			
			47.1		170			
			229		171			
			190		172	173'-174', same as above, brown (7.5 YR 5/4), very fine grain, trace gravel		
			1317		173	174'-180', Poorly graded sand, brown (7.5 YR 5/4), loose, non-plastic, moist, very fine grain sand, with little silt		
			477		174			
			146		175			
			135	176	180'-183.5', silty sand, brown (7.5 YR 5/4), loose, non-plastic, moist, very fine grain sand			
			216	177	182			
			613	178	183	183.5'-185.5', silty clayey sand, brown (7.5 YR 5/4), dense, non-plastic moist, very fine grain sand		
		X	2340	179	184	185.5'-189', same as 180'-183.5'		
			31.6	180	185			
			36.2	181	186	189'-192', poorly graded sand, brown (7.5 YR 5/3), loose, non-plastic, moist, fine grain sand, trace silt		
			203	182	187			
			156	183	188	192'-200', silty sand, brown (7.5 YR 5/4), loose, non-plastic, moist, fine grain sand		
			184	189				
			185	190				
			186	191				
			187	192				
			188	193				
			189	194				
			190	195				
			191	196				
			192	197				
			193	198				
			194	199				
			195	200				

SS = Split Spoon Cut = Cuttings NA = Not Analyzed



EA Engineering, Science, and Technology, Inc.

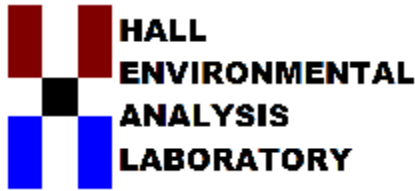
BORING/WELL CONSTRUCTION LOG

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 6 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/mineralogy, other)	Boring and/or Well Details
Continuous Core Barrel			86.8	SM	201	200'-204', silty sand, brown (7.5 YR 5/3), loose, non-plastic, moist, very fine grain sand, very silty	10-20 Silica Sand
			62.3		202		
					203		
					204		
			17.3	ML	205	204'-208', silt with some clay, brown, (7.5 YR 4/4), very stiff, slightly plastic, moist, trace very fine grain sand	
					206		
			54.6		207		
					208		
			55.7	CL/ML	209	208'-209', clay with silt, reddish brown (5 YR 4/4), very stiff, moderately plastic, moist	
				210			
			61.7	SM	211	209'-215', silty sand with trace clay, brown (7.5 YR 4/4), loose to slightly dense, non-plastic, moist, very fine grain-fine grain sand	
					212		
			14.7		213		
					214		
			25.4		215		
			19.6	SP	216	215'-224', poorly graded sand, brown (7.5 YR 4/4), loose, non-plastic, wet	
					217		
			28.3		218		
					219		
					220		
			122		221		
			58.2		222		
				223			
				224			
		24		225	224'-226', same as above, with some silt		
				226			
		6.6	SM	227	226'-229', silty sand, brown (7.5 YR 4/4), loose, non-plastic, wet, fine grain sand, trace gravel to 1/4"		
				228			
		5		229			
		15.3	SP	230	229'-232', poorly graded sand, brown (7.5 YR 5/4), loose, non-plastic, wet, with little silt		
			231				
			232				
		4.5	SM	233	232'-237', same as 226'-229', very fine grain sand with little clay		
				234			
		51.6		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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706980

Date Reported: 6/20/2017

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 Quantitative 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.

Analytical Report

Lab Order 1706980

Date Reported: 6/20/2017

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 Quantitative 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.

Analytical Report

Lab Order 1706980

Date Reported: 6/20/2017

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 Quantitative 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.

Analytical Report

Lab Order 1706980

Date Reported: 6/20/2017

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 Quantitative 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.

Analytical Report

Lab Order 1706980

Date Reported: 6/20/2017

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 Quantitative 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.

Analytical Report

Lab Order 1706980

Date Reported: 6/20/2017

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 Quantitative 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.

Analytical Report

Lab Order 1706980

Date Reported: 6/20/2017

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 Quantitative 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.

Analytical Report

Lab Order 1706980

Date Reported: 6/20/2017

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 Quantitative 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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- 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	ics-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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- 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	ics-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 Quantitative 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
 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: *SRE 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? 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? Yes No Checked by: _____
(If no, notify customer for authorization.)

Special Handling (if applicable)

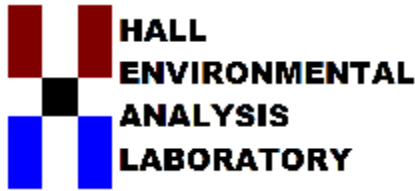
- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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			



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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1707038

Date Reported: 7/6/2017

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 Quantitative 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.

Analytical Report

Lab Order 1707038

Date Reported: 7/6/2017

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 Quantitative 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.

Analytical Report

Lab Order 1707038

Date Reported: 7/6/2017

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 Quantitative 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.

Analytical Report

Lab Order 1707038

Date Reported: 7/6/2017

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 Quantitative 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.

Analytical Report

Lab Order 1707038

Date Reported: 7/6/2017

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 Quantitative 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.

Analytical Report

Lab Order 1707038

Date Reported: 7/6/2017

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 Quantitative 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	ics-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 Quantitative 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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- 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	ics-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 Quantitative 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 Quantitative 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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- 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 Quantitative 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 |

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? Yes No
- (Note discrepancies on chain of custody)
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? Yes No
- (If no, notify customer for authorization.)

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			

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

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		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
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: 

 Technical Director

DATE: 07/13/17

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

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

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

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



Air Toxics

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

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



Air Toxics

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



Air Toxics

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



Air Toxics

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



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



Air Toxics

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



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



Air Toxics

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

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



Air Toxics

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

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

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

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



Air Toxics

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

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

Client Sample ID: LCS D

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

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

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

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

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

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



Air Toxics

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Page ___ of ___

Project Manager ve Tyler Curley
Collected by: (Print and Sign) Tyler Curley
Company EA Engineering Email tcurley@east.com
Address 220 Gadd Ave Ste 1300 City ABC State NY Zip 8702
Phone 505-715-4422 Fax

Project Info: P.O. # 16609, Project #, Project Name JVP BVA Mawr
Turn Around Time: Normal (checked), Rush
Lab Use Only: Pressurized by, Date, Pressurization Gas: N2, He

Table with columns: 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)).

Relinquished by: (signature) Date/Time, Received by: (signature) Date/Time, Notes:

Lab Use Only: Shipper Name (UPS), Air Bill #, Temp (°C) (NA), Condition (Good), Custody Seals Intact? (None), Work Order # (1707043)

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 vapor 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 $100 \mu\text{g}/\text{m}^3$ ($0.1 \text{ mg}/\text{m}^3$) for both 1,1,1-TCA and 1,1-DCE in well MW-5, below the respective *Indoor Air* NMED VISLs of $5.21 \text{ mg}/\text{m}^3$ and $0.209 \text{ mg}/\text{m}^3$, and well below the *Soil Gas* VISLs of 174 and $6.95 \text{ mg}/\text{m}^3$, 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 $\mu\text{g/L}$.

With respect to the 1,1-DCE plume, from the source well downgradient, the concentrations were 0.5 J $\mu\text{g/L}$ in VMW-01D, 0.46 J $\mu\text{g/L}$ in MW-3, 32 $\mu\text{g/L}$ in MW-4, and finally 0.27 J $\mu\text{g/L}$ 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 $\mu\text{g/L}$ 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 $\mu\text{g/L}$ over 700 feet downgradient.

Recommendations

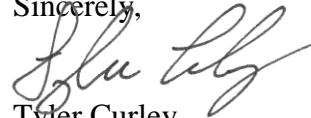
Based on data presented herein, and performance assessment of the abatement for shallow soil, the following recommendations are provided:

- 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 $\mu\text{g/L}_{\text{air}}$) 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 $\mu\text{g/L}$, and at DAF 20 for groundwater mixing and seepage velocity, 1.7 $\mu\text{g/L}$. The two groundwater samples collected from VMS-01-D were 3.6 and 0.5 J $\mu\text{g/L}$, for an average concentration of 2.1 $\mu\text{g/L}$.
- 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;

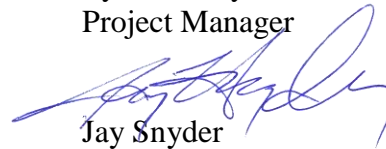
- The proposed abatement plan area following this partial closure is an area extending from MW-3 on the upgradient side, to MW-7 on the down gradient side, and 100 feet on either flank in a transverse transect through MW-4

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} -TCA	Qualifer	C _{1,1} -DCE	Qualifer
		(µg/L)		(µg/L)	
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	
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-TCA}	Qualifer	C _{1,1-DCE}	Qualifer
		(µg/L)		(µg/L)	
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 = Analyte detected below quantitation limits

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

ID	DATE	C _{1,1,1-TCA}	C _{1,1-DCE}
		($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)
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:
 $\mu\text{g}/\text{m}^3$ = Micrograms per cubic meter
1,1,1-TCA = 1,1,1-Trichloroethane
1,1-DCE = 1,1-Dichloroethane

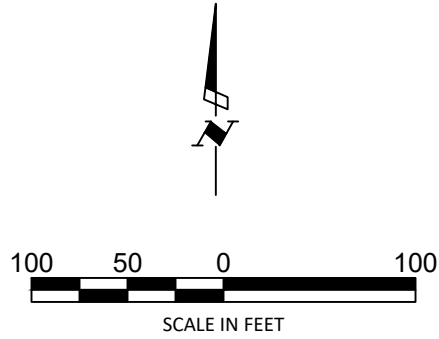
FIGURE

\\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



CHARLIE MILLER
JVP SITE
3412 BRYN MAWR

FIGURE 1 SITE MAP

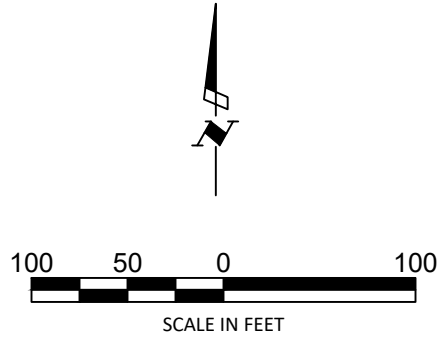
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LEGEND

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



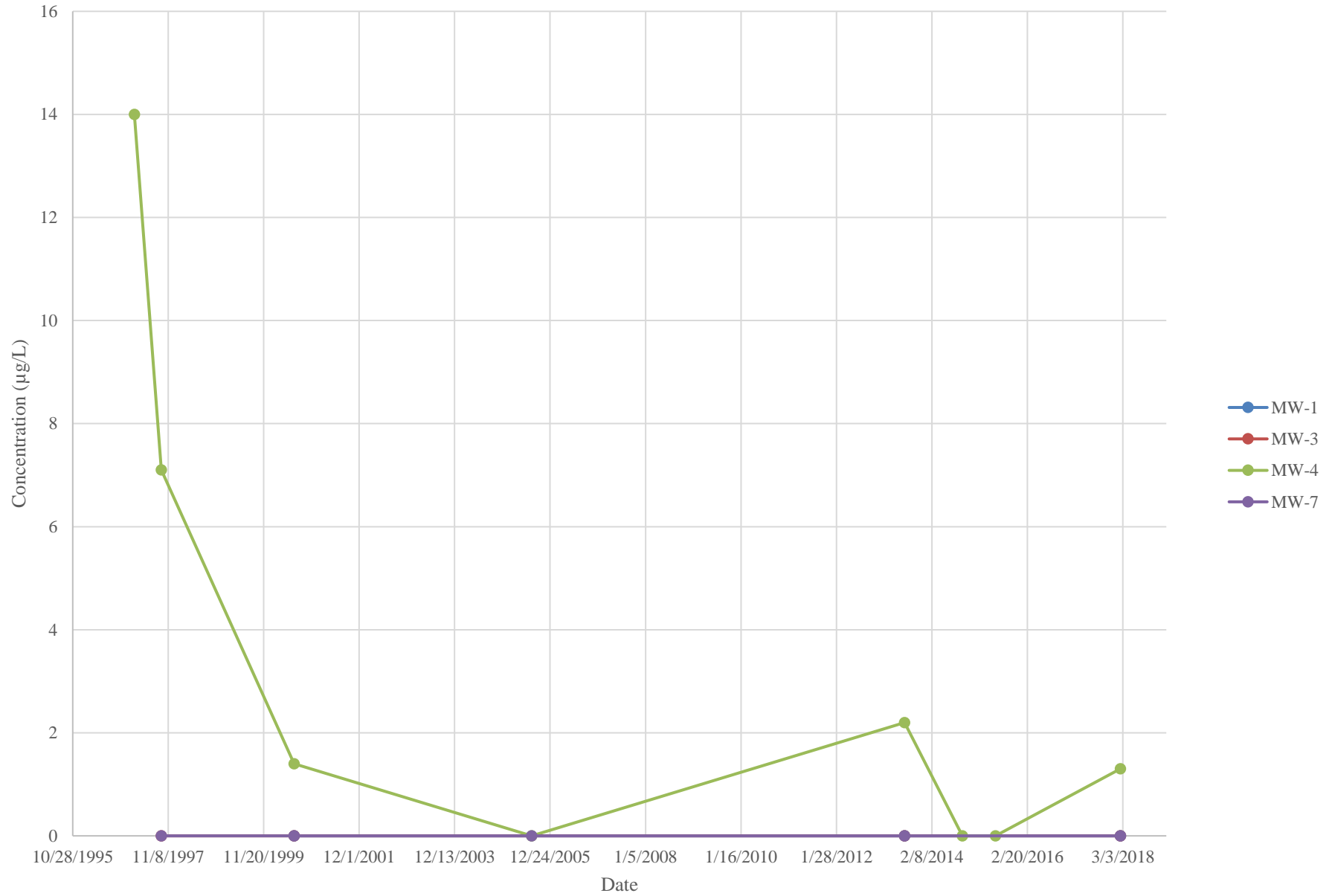
CHARLIE MILLER
JVP SITE
3412 BRYN MAWR

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

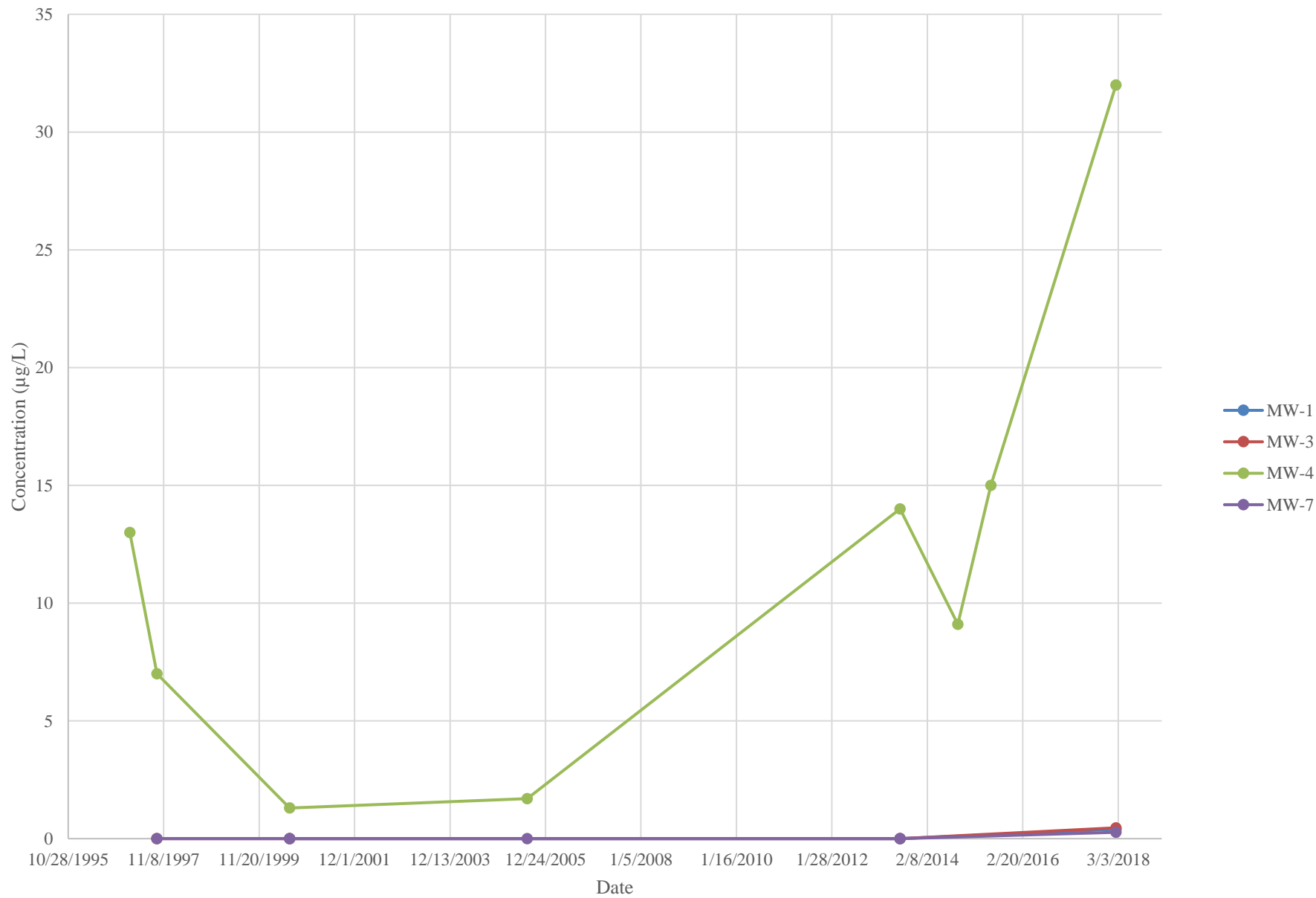
PROJECT #: 1521801 PROJECT PHASE: 03 PROJECT MANAGER: TC

TREND GRAPHS

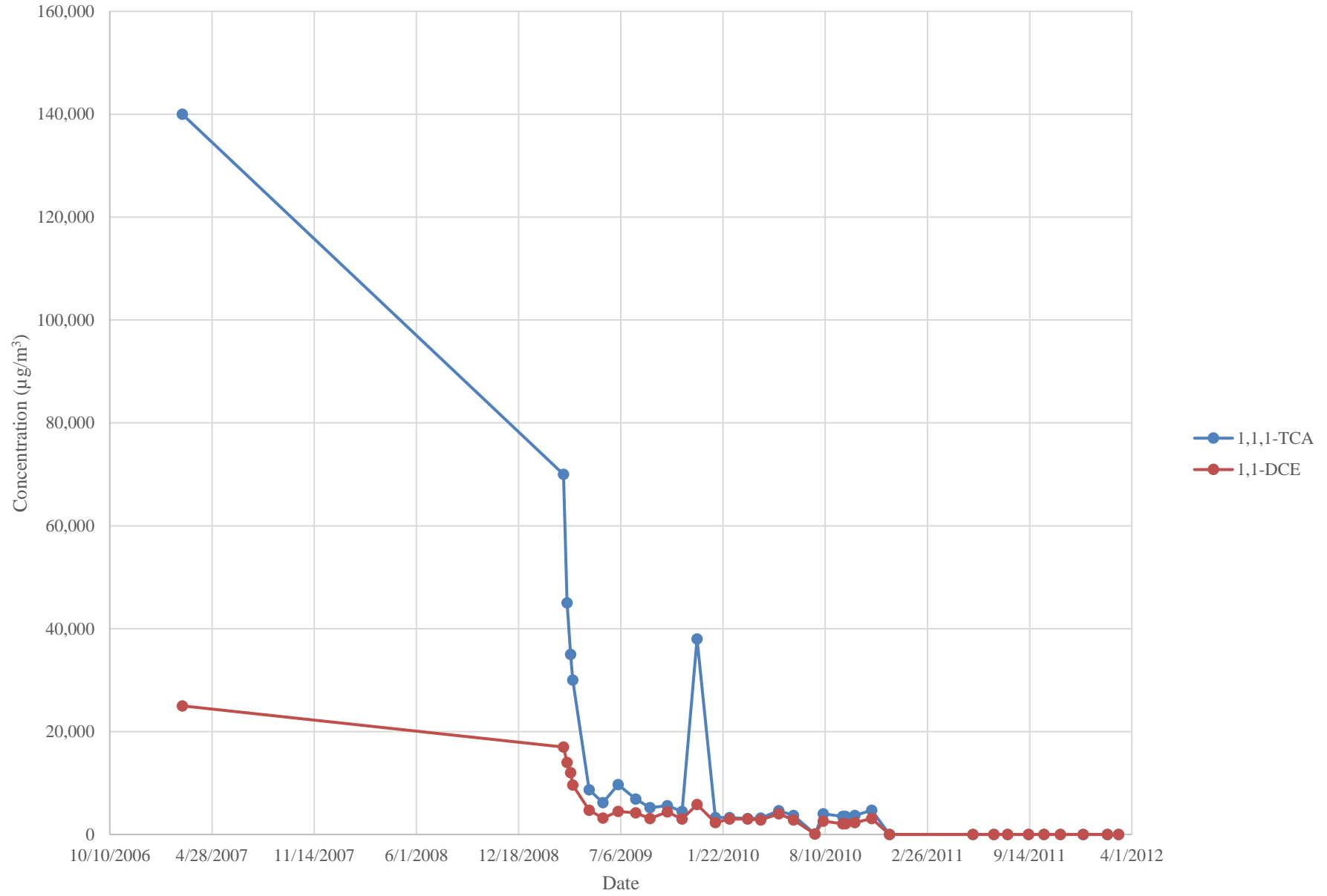
1,1,1-TCA CONCENTRATION IN REGIONAL GROUNDWATER



1,1-DCE CONCENTRATION IN REGIONAL GROUNDWATER



MW-5 SOIL VAPOR CONCENTRATION



FIELD FORMS

Ground Water Sampling Data Sheet

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

Casing diameter/type: 2 Well location: Bay Meadows Weather: hazy, partly cloudy

Screened interval(s): _____ Sampling personnel: C. Anderson / S. Baskin

Total depth: 158.40 Sampling method: Low-flow Water level indicator: Solinst

Initial depth to water (w/o pump): 147.05 Water quality meter: YSI 600 / Dakota

Final depth to water (w/o pump): 158.4 Pump depth setting: 22.12

3-5 min	Δ < 10%	Δ < 10%	Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	Purge Volume (L) or (mL)	Parameter Stabilization Limits (see bottom of sheet)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	Water Level (feet bloc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)		
1359	17.9	732		7.91	8.20				592L	Water col. = 61.35 L
1346	19.4	724		7.90	8.14				1262L	Water Volume = 1042 Gal
1351	18.5	726		7.71	8.20				1562L	X3 = 31.2 Gal
1356	17.5	725		7.73	8.22				2062L	
1401	19.4	722		7.62	8.22				2562L	Could not get DL probe
1406	19.5	722		7.58	8.19				3062L	down casing with pump
1408	19.3	728		7.62	8.31				3262L	in hole

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive A's) for percent difference type parameters.
Percent difference formula = $ABS((first\ reading - second\ reading) / first\ reading) \times 100$
Ex: Readings 12, 16, 15, 13
 $((12-16)/12) \times 100 = 33\%$ $((16-15)/16) \times 100 = 6\%$
 $((15-13)/15) \times 100 = 13\%$ 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: _____



MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

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 59.04 Feet Height of fluid column Feet
 Total depth 59.35 Feet Volume in well Gallons
 NAPL thickness Feet
 (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



MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID MW-6 Date gauged 2/13/18
 Site Bryn Mawr Time gauged 0902
 Depth to PSH Feet Well diameter 2 Inches
 Depth to water 58.40 Feet Height of fluid column 0.08 Feet
 Total depth 58.48 Feet Volume in well Gallons
 NAPL thickness Feet
 (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

Ground Water Sampling Data Sheet

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

Casing diameter/type: 2 Well location: Byva Marsh Weather: Warm Partly Cloudy

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

Total depth: 2390 Sampling method: Tow-flow Pig Volume: _____

Initial depth to water (w/o pump): 202.22 Water level indicator: Solist

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

Measuring point: top of casing Pump depth setting: 210.61 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 bloc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1455	19.2	608	5cm	5.80	8.13					5 Gal	Water column: 3.6.78
1500	19.3	621		6.35	8.08					10 Gal	Acum 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 get 10 Probe down hole with pump screen down hole CW

Parameter Stabilization Limits (4 consecutive readings; 3 consecutive Δs) for percent difference type parameters:
Percent difference formula = $\frac{ABS((first\ reading - second\ reading)/first\ reading) \times 100}{}$
Ex: Readings 12, 16, 15, 13
 $\frac{((12-16)/12) \times 100}{100} = 33\%$ $\frac{((16-15)/16) \times 100}{100} = 6\%$
 $\frac{((15-13)/15) \times 100}{100} = 13\%$ In ex, stabilization has not occurred.

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

Recorded By: C. Montoya

Ground Water Sampling Data Sheet

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

Casing diameter/type: 2 Well location: Bay Meadows Weather: hazy, partly cloudy
 Screened interval(s): _____ Sampling personnel: C. Anderson / S. Baskin
 Total depth: 158.40 Sampling method: Low-flow Water level indicator: Solinst

Initial depth to water (w/o pump): 147.05 Water quality meter: YSI 600 / Dakota
 Final depth to water (w/o pump): 158.4 Pump depth setting: 22.42

3-5 min	Δ < 10%	Δ < 10%	Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	Purge Volume (L) or (mL)	Parameter Stabilization Limits (see bottom of sheet)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	Water Level (feet bloc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)		
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1346	19.4	724		7.90	8.14				1262L	Water Volume = 1042 Gal
1351	18.5	726		7.71	8.20				1562L	X3 = 31.2 Gal
1356	17.5	725		7.73	8.22				2062L	
1401	19.4	722		7.62	8.22				2562L	Could not get DL probe
1406	19.5	722		7.58	8.19				3062L	down casing with pump
1408	19.3	728		7.62	8.31				3262L	in hole

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

Recorded By: _____

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



MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID MW 5

Date gauged 2/13/18 59.04
59.35 TO

Site Bryn Marw

Time gauged 1640

Depth to PSH _____ Feet

Well diameter 2 Inches

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

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)

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, ~~see~~ 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



MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID MW-6 Date gauged 2/13/18
 Site Bryn Mawr Time gauged 0902

Depth to PSH — Feet Well diameter 2 Inches
 Depth to water 58.40 Feet Height of fluid column 0.08 Feet
 Total depth 58.48 Feet Volume in well _____ Gallons
 NAPL thickness _____ Feet

(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

Ground Water Sampling Data Sheet

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

Casing diameter/type: 2 Well location: Byva Marsh Weather: Warm Partly Cloudy

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

Total depth: 2390 Sampling method: Tow-flow Byva Volume 1

Initial depth to water (w/o pump): 202.22 Water level indicator: Solist

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

Measuring point: top of casing Pump depth setting: 210.61 Pump type/model: Grundfos

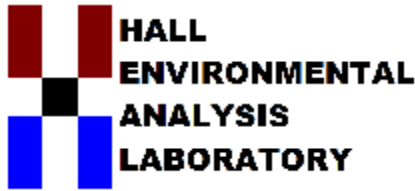
3-5 min	Δ < 10%	Δ < 10%	Δ < 10%	Δ < 10%	Δ < 10%	Δ < 0.3 ft	< 0.5 L/min	< 10 NTU	cumulative	Parameter Stabilization Limits (see bottom of sheet)	
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet bloc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
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											Could not get 10 Probe down hole with pump screen down hole

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 $\frac{((15-13)/15) \times 100}{100} = 13\%$ In ex, stabilization has not occurred.

Wells will not be purged 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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

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 Quantitative 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.

Analytical Report

Lab Order 1802856

Date Reported: 2/20/2018

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

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



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

EM

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

EM

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
 # of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 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? Yes No Checked by: _____
 (If no, notify customer for authorization.)

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) 724-9013
 email or Fax#: T.Curley@EAEST.com
 QA/QC Package:
 Standard Level 4 (Full Validation)
 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: 10

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
2/15/18	1409	GW	MW-1	VOGX3		1802856
	1240		MW-3			-001
	1628		MW-4			-002
	1028		MW-7			-003
			555			-004
	1512		VMW-1-D			-005
			Trip Blank			-006

Date: 2/14/18 Time: 1620
 Relinquished by: [Signature]
 Date: 2/14/18 Time: 1620
 Relinquished by: [Signature]



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request	
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)	X
8270 (Semi-VOA)	
Air Bubbles (Y or N)	

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.

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

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		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
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: 

 Technical Director

DATE: 03/15/18

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

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



Air Toxics

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

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



Air Toxics

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

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



Air Toxics

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



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



Air Toxics

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



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



Air Toxics

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

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



Air Toxics

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

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

Client Sample ID: LCS D

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

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

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

Plat No. _____

INDIAN REST ADDITION

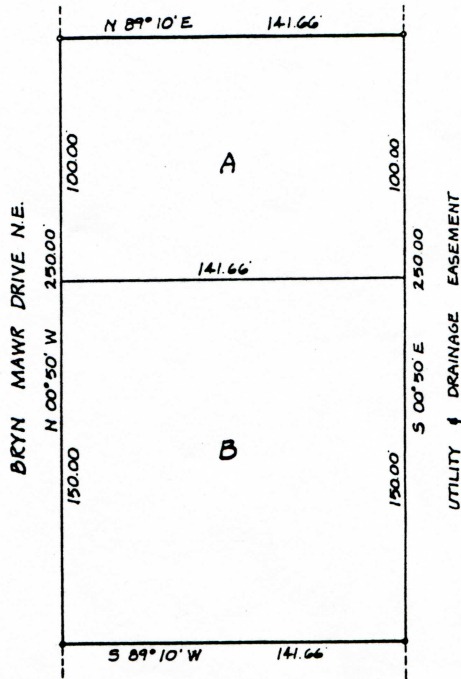
Approved _____

ALBUQUERQUE, NEW MEXICO

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 Gandelaria Road N.E.
Albuquerque, New Mexico
March 17th, 1978

JAC-0113