ADEQ Arizona Department of Environmental Quality Memorandum

Date: May 9, 2018

To: West Central Phoenix East Grand Avenue WQARF Registry Site Public Record
Site Code: 250000-03
RIMS Number: 33968

Through: Scott Green, Manager, Remedial Projects Unit

From: Tom Titus, Project Manager, Remedial Projects Unit

Subject: 2018 Final Remedial Investigation Report Addendum

The purpose of this memorandum is to document for the public record file of the West Central Phoenix (WCP) East Grand Avenue (EGA) Water Quality Assurance Revolving Fund (WQARF) Registry Site (Site) that additional investigation was conducted by Arizona Department of Environmental Quality (ADEQ) in response to information provided by Univar, U.S.A. Inc. (Univar) regarding two potential sources of groundwater contamination.

Univar indicated to ADEQ in a letter dated December 17, 2012, the potential of additional sources of Compounds of Concern (COCs) up-gradient and downgradient of their former facility. The COCs for the Site include tetrachloroethene (PCE), trichloroethene (TCE), and 1,1-dichloroethene (1,1-DCE). A records review by ADEQ eliminated the potential downgradient source (ADEQ, 2015) but additional investigation was warranted for the potential up-gradient source(s). Thus, ADEQ conducted a soil gas survey and installed a monitoring well (EGA-02) to the east and southeast of the former Univar facility. The sample locations are presented on Figure 1. A summary of the field mobilizations is presented on Table 1. A summary of the COCs detected in the soil gas and groundwater samples collected during the investigation is presented in Table 2 through Table 4. The field investigation reports are presented in Attachments 1 through 3.

The soil gas and groundwater data collected from the investigation did not identify any additional sources that have impacted groundwater above Aquifer Water Quality Standards (AWQS) east and southeast (up-gradient) of the former Univar facility.

Table 1 – Summary of Field Mobilizations		
Mobilization Name	***Date Range***	***Description of Field Activities***
Phase 1 Shallow Soil Gas Survey	9/19/16 to 10/31/16	9/19/16 to 9/20/16 = Collected soil gas samples from 50 temporary soil borings (SG-01 to SG-50) completed to a depth of approximately 10 feet. 10/31/16 = Collected soil gas samples from 3 temporary soil borings (SG-S1 to SG-S3) completed to a depth of approximately 10 feet.
Phase 2 Quantitative Passive Shallow Soil Gas Survey	4/12/17 to 5/1/17	4/12/17 to 4/14/17 = Deployed passive soil gas samplers (Waterloo Membrane Sampler [WMS]) in temporary soil borings (WM-01 to WM-41) completed to a depth of approximately 3.5 feet. 5/1/16 = Retrieved passive soil gas samplers from temporary soil borings (WM-01 to WM-41)
Phase 3 Quantitative Passive Shallow Soil Gas Survey	6/13/17 to 6/29/17	6/13/17 = Deployed passive soil gas samplers (WMS) in temporary soil borings (WM-42 to WM-66) completed to depths ranging from 0.5 to 3.5 feet. 6/29/17 = Retrieved passive soil gas samplers (WMS) from temporary soil borings (WM-42 to WM-51, WM-53, and WM-55 to WM-64). The remaining samplers were not able to be retrieved.
Monitoring Well (EGA-02) Drilling Soil Gas and Grab Groundwater Sampling	11/27/17 to 11/28/17	11/27/17 to 11/28/17 = Collected seven depth-discrete soil gas samples during drilling from the following depth intervals: 40, 70, 100, 110, 111, 130, and 140 feet. 11/28/17 = Collected three depth discrete grab groundwater samples during drilling from the following depth intervals: 160, 180, and 200 feet.
Groundwater Sampling Event 1	12/21/17	Collected a groundwater sample from EGA-02 utilizing a Passive Diffusion Sampler (PDB) set at a depth of 170 feet.
Groundwater Sampling Event 2	01/19/18	Collected a groundwater sample from EGA-02 utilizing a PDB set at a depth of 170 feet.

Table 2 – Summary of Compounds of Concern Detected in Shallow Soil Gas Samples

Compound	*Maximum Soil Gas Result (ug/L)*	*Calculated Soil Result (mg/kg)**	*Minimum GPL (mg/kg)*	*Minimum GPL Exceeded*
1,1-Dichloroethene	6.0	0.0019	0.81	No
Tetrachloroethene	1.932	0.0013	1.3	No
Trichloroethene	45.0	0.0487	0.61	No

Notes:
GPL = Groundwater Protection Level
ug/L = micrograms per liter
mg/kg = milligrams per kilogram
*Calculated per the Soil Rule
The Calculated Soil Results for each compound are below the Soil Remediation Levels (RSLs)

Table 3 – Summary of Compounds of Concern Detected in Soil Gas at EGA-02

Compound	*Maximum Soil Gas Result (ug/L)*	*Calculated Soil Result (mg/kg)**	*Minimum GPL (mg/kg)*	*Minimum GPL Exceeded*
1,1-Dichloroethene	51.61	0.0166	0.81	No
Trichloroethene	70.35	0.0762	0.61	No

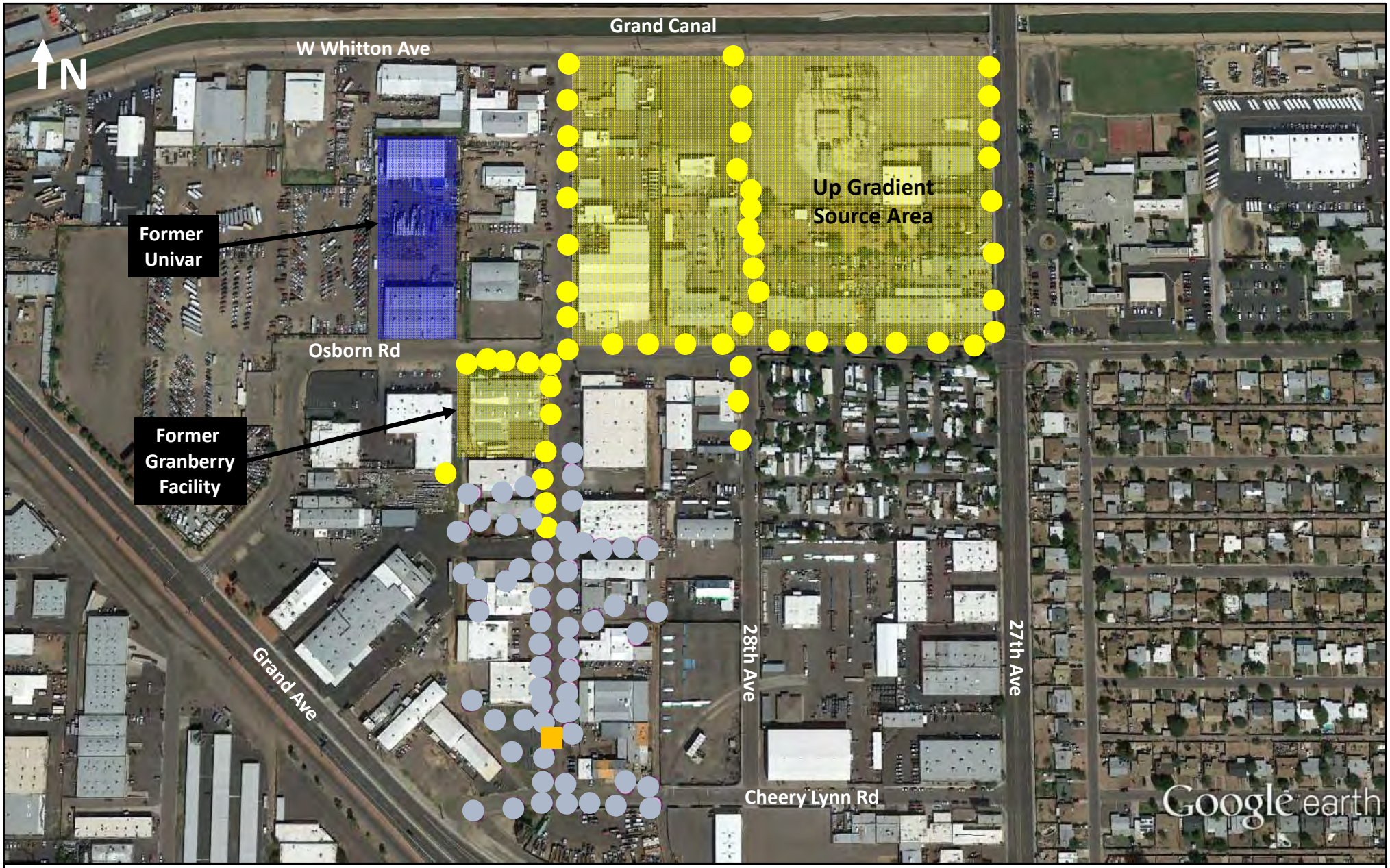
Notes:
GPL = Groundwater Protection Level
ug/L = micrograms per liter
mg/kg = milligrams per kilogram
*Calculated per the Soil Rule
The Calculated Soil Results for each compound are below the Soil Remediation Levels (RSLs)

Table 4 – Summary of Compounds of Concern Detected in Groundwater at EGA-02

Compound	*Sample Date*	*Sample Depth (feet)*	*Groundwater Result (ug/L)*	*AWQS (ug/L)*	*AWQS Exceeded*
1,1-Dichloroethene	11/28/17	160*	<0.200	7	No
	11/28/17	180*	<0.200		
	11/28/17	200*	<0.200		
	12/21/17	170	<0.200		
	01/19/18	170	0.790		
Trichloroethene	11/28/17	160*	1.42	5	No
	11/28/17	180*	1.71		
	11/28/17	200*	1.79		
	12/21/17	170	1.91		
	01/19/18	170	1.78		

Notes:
AWQS = Aquifer Water Quality Standard
ug/L = micrograms per liter
*Grab groundwater sample collected during drilling
Well screen interval is 165 to 175 feet below ground surface. Sample collected at mid-point of well screen.

Figure



Legend

- Soil Gas Boring Sample Location
- Quantitative Passive Soil Gas Sample Location
- New Groundwater Monitoring Well (EGA-02)

SCALE: 1 inch = 300 feet

Figure 1
Site and Sample Location Map
West Central Phoenix – East Grand Avenue WQARF Site

Attachment 1 – Phase 1 Shallow Soil Gas Survey Investigation Report

HYDRO GEO CHEM, INC.
Environmental Science & Technology

February 3, 2017

Kevin Snyder, R.G. Project Manager
Arizona Department of Environmental Quality
Remedial Projects Unit
1110 W. Washington St., 4415B-1
Phoenix, Arizona 85007

Re: Data Report: Task Order ADEQ14-077537
WCP - East Grand Avenue (EGA) Passive Soil Gas Survey

Dear Kevin,

This letter provides the methods and results of the active soil gas survey that Hydro Geo Chem, Inc. (HGC) conducted on behalf of the Arizona Department of Environmental Quality (ADEQ) pursuant to the referenced task order. The purpose of the investigation was to identify potential sources of chlorinated volatile organic compounds (CVOCs) contributing to groundwater contamination in the area of the West Central Phoenix East Grand Avenue site (Figure 1). HGC and ADEQ jointly identified the number and locations of the borings.

Field Work

HGC completed 53 soil gas sample borings at locations within the EGA site as shown on Figure 2. Fifty soil gas borings were completed in the initial mobilization from September 19 through 21, 2016. Resilient Drilling was the contractor for the first fifty borings (SG-1 through SG-50). At the request of ADEQ, an additional three soil gas borings were completed on October 31, 2016, to refine the results in an area of concern. Johnson Environmental Technologies completed the three additional borings as part of a mobilization for similar work at a nearby site. All samples were collected within the public right of way (ROW), except for SG-47 which was drilled based on an access agreement between the land owner and the ADEQ.

All vapor sampling was conducted in accordance with ADEQ's soil vapor sampling guidance dated July 2008.

Samples were collected in summa canisters provided by Airtech Environmental laboratories in Tempe, Arizona, and analyzed for the TO-15 list of parameters. Underground utilities were cleared prior to drilling, and a locate ticket was obtained through Arizona 811. Locations SG-32 through SG-37 were relocated from the west side of North 28th Avenue to the east side due to utilities along the west side of the street.

At each location, the direct-push probe was advanced to ten feet below grade. The sampling probe and 0.125-inch tubing was installed and sealed with granular bentonite that was then hydrated. The borehole was allowed to stabilize for a minimum of 20 minutes prior to sampling. The tubing was purged at approximately 200 ml/minute and readings were taken with a photoionization detector (PID). Samples were collected directly into the provided summa canisters using a 5-minute fill procedure. Boreholes were sealed with bentonite upon completion of sampling and the surface was restored with soil, concrete or asphalt, consistent with existing conditions. No investigation-derived waste was generated.

The field sampling notes are included in Attachment 1. The laboratory analytical reports, chain-of-custody documentation and laboratory quality control data are in Attachment 2.

Results

Table 1 presents the analytical results of the sampling. Petroleum related compounds were detected at low concentrations at nearly all of the borings. This is consistent with the industrial land use in the area.

HGC understands the ADEQ's concern at the EGA site is CVOCs, primarily trichloroethene (TCE) and tetrachloroethene (PCE). Table 2 presents the data for the detected CVOCs. Results of note are the detection of PCE up to 1.9 mg/m^3 at SG-S1, SG-S2 and SG-S3 at the south end of North 29th Avenue. These three borings were added to investigate the possibility of a PCE source in this area, based on the results from SG-39. These were the highest detections of CVOCs found in the study. Figure 3 shows the PCE results at each boring. These data suggest the possibility of a source of PCE in the shallow soil near the location of borings SG-S1, SG-S2, SG-S3 and SG-39. Further investigation of the source area and chemical use in the area is needed to determine if this source contributed to groundwater contamination in the area.

Sincerely,
HYDRO GEO CHEM, INC.

Daniel Sola, R.G.
Project Manager

Attachments: Tables (2)
Figures (3)
Attachments (2)

TABLES

TABLE 1
2016 Soil Gas Investigation
Analytical Results
ADEQ West Central Phoenix East Grande Avenue WQARF Site

Sample ID	Date Sampled	Volatile Organic Compound Concentration (mg/m^3)																																						
		1,1,1-Trichloro ethane	1,1-DCA	1,1-DCE	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	1,3-Dichloro benzene	2,2,4-Trimethyl pentane	2-Butanone (MEK)	2-Hexanone	2-Propanol (IPA)	4-Ethyl toluene	4-Methyl-2-Pentanone (MIK)	Acetone	Benzene	Bromo dichloro methane	Carbon Disulfide	Chloro form	*cis*-1,2-DCE	Cyclo hexane	Ethanol	Ethyl acetate	Ethyl benzene	Heptane	Hexane	m & p Xylene	Methyl Tert-Butyl Ether	Methyl cyclo hexane	Nonane	Octane	o-Xylene	Propene	Propyl benzene	Styrene	PCE	Toluene	*trans*-1,2-DCE	TCE	Trichloro fluoro methane	Trichloro trifluoro ethane
SG-1-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	<0.0738	<0.103	<0.0613	<0.0246	<0.103	0.408	0.0287	<0.0168	<0.0311	<0.0122	<0.00990	0.0184	0.169	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	0.0352	<0.00990	<0.0134	<0.0141	<0.0192
SG-2-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	<0.0738	<0.103	<0.0613	<0.0246	<0.103	0.575	0.0223	<0.0168	<0.0311	<0.0122	<0.00990	0.0182	0.467	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	0.0266	<0.0339	0.0315	<0.00990	<0.0134	<0.0141	<0.0192
SG-3-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	<0.0738	<0.103	<0.0613	<0.0246	<0.103	0.583	0.0134	<0.0168	<0.0311	<0.0122	<0.00990	0.0258	0.321	<0.00900	<0.0109	<0.0103	0.0231	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	0.0200	<0.00990	<0.0134	<0.0141	<0.0192
SG-4-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	<0.0738	<0.103	<0.0613	<0.0246	<0.103	0.439	0.0212	<0.0168	<0.0311	<0.0122	<0.00990	0.0291	0.130	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	0.0147	<0.0339	0.0254	<0.00990	<0.0134	<0.0141	<0.0192
SG-5-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	<0.0738	<0.103	<0.0613	<0.0246	<0.103	0.233	0.00845	<0.0168	<0.0311	<0.0122	<0.00990	0.0483	0.124	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	0.0124	<0.00990	<0.0134	<0.0141	<0.0192
SG-6-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	<0.0738	<0.103	<0.0613	<0.0246	<0.103	0.428	<0.00798	<0.0168	<0.0311	0.0124	<0.00990	<0.00860	<0.050	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	0.0198	<0.00990	<0.0134	<0.0141	<0.0192
SG-7-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	0.301	<0.103	<0.0613	<0.0246	<0.103	0.510	0.0187	<0.0168	<0.0311	<0.0122	<0.00990	0.0404	<0.050	<0.00900	<0.0109	<0.0103	0.0216	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	0.0320	<0.00990	<0.0134	<0.0141	<0.0192
SG-8-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	0.301	<0.103	<0.0613	<0.0246	<0.103	0.516	0.0343	<0.0168	<0.0311	<0.0122	<0.00990	0.0654	<0.050	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	0.0452	<0.00990	<0.0134	<0.0141	<0.0192
SG-9-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	0.301	<0.103	<0.0613	<0.0246	<0.103	0.710	0.0332	<0.0168	0.0586	<0.0122	<0.00990	0.164	<0.050	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	0.0569	<0.00990	<0.0134	<0.0141	<0.0192
SG-10-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.00492	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.291	0.0263	<0.00670	<0.0124	0.00625	<0.00396	0.120	0.112	<0.00360	0.00990	0.0233	0.0448	0.0119	<0.0144	<0.00804	<0.0105	<0.00934	0.00521	<0.00344	<0.00984	<0.00426	<0.0136	0.0379	<0.00396	<0.00537	<0.00562	<0.00766
SG-11-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.00492	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.143	0.0142	<0.00670	<0.0124	<0.00488	<0.00396	0.133	0.094	<0.00360	<0.00434	<0.00410	0.0277	0.0094	<0.0144	<0.00804	<0.0105	<0.00934	0.00486	<0.00344	<0.00984	<0.00426	<0.0136	0.0310	<0.00396	<0.00537	<0.00562	<0.00766
SG-12-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.00492	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.269	0.0256	<0.00670	<0.0124	0.0217	<0.00396	0.109	0.089	<0.00360	0.00746	<0.00410	<0.00704	0.0131	<0.0144	<0.00804	<0.0105	<0.00934	0.00668	<0.00344	<0.00984	<0.00426	<0.0136	0.0423	<0.00396	<0.00537	<0.00562	<0.00766
SG-13-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	<0.0738	<0.103	<0.0613	<0.0246	<0.103	0.514	0.0107	<0.0168	<0.0311	0.0320	<0.00990	0.110	0.349	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	0.0241	<0.00990	<0.0134	<0.0141	<0.0192
SG-14-10	9/21/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	<0.0738	<0.103	<0.0613	<0.0246	<0.103	0.427	0.0124	<0.0168	<0.0311	<0.0122	<0.00990	<0.00860	0.179	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	0.0226	<0.00990	<0.0134	<0.0141	<0.0192
SG-15-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.00807	<0.00492	0.00805	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.417	0.00919	<0.00670	<0.0124	<0.00488	<0.00396	0.0239	0.170	<0.00360	0.00825	<0.00410	<0.00704	0.0119	<0.0144	<0.00804	<0.0105	<0.00934	0.00833	<0.00344	<0.00984	0.00571	<0.0136	0.0347	<0.00396	<0.00537	<0.00562	<0.00766
SG-16-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.00876	<0.00492	0.00613	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.265	0.00625	<0.00670	0.0127	<0.00488	<0.00396	0.0186	0.160	<0.00360	<0.00434	<0.00410	<0.00704	<0.00868	<0.0144	<0.00804	<0.0105	<0.00934	0.00608	<0.00344	<0.00984	<0.00426	<0.0136	0.0329	<0.00396	<0.00537	<0.00562	<0.00766
SG-17-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.0152	<0.00492	0.00865	0.00932	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.277	0.0123	0.00710	<0.0124	0.0271	<0.00396	0.0420	0.250	<0.00360	0.0102	<0.00410	<0.00704	0.0275	<0.0144	<0.00804	<0.0105	<0.00934	0.0120	<0.00344	<0.00984	<0.00426	<0.0136	0.0598	<0.00396	<0.00537	<0.00562	<0.00766
SG-18-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.0134	<0.00492	<0.00601	<0.00466	<0.0295	0.0713	<0.0245	<0.00984	0.0419	0.550	0.0498	<0.00670	0.0392	<0.00488	<0.00396	0.0750	0.340	<0.00360	0.0179	0.0574	<0.00704	0.0366	<0.0144	0.0156	<0.0105	0.0860	0.0169	<0.00344	<0.00984	0.0141	<0.0136	0.0995	<0.00396	<0.00537	0.00618	<0.00766
SG-19-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.0134	<0.00492	0.00914	0.0140	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.294	0.0275	<0.00670	0.0262	<0.00488	<0.00396	0.0572	0.340	<0.00360	0.0112	0.0278	0.0605	0.0309	<0.0144	0.0136	<0.0105	0.0667	0.0135	<0.00344	<0.00984	<0.00426	<0.0136	0.0789	<0.00396	<0.00537	<0.00562	<0.00766
SG-20-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.0151	<0.00492	0.0101	0.0113	<0.0295	<0.0410	0.0267	<0.00984	<0.0410	0.301	0.0279	<0.00670	0.0272	<0.00488	<0.00396	0.0775	0.270	<0.00360	0.0157	0.0242	0.0522	0.0369	<0.0144	0.0141	<0.0105	0.127	0.0155	<0.00344	<0.00984	0.00443	<0.0136	0.0811	<0.00396	<0.00537	<0.00562	<0.00766
SG-21-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.00669	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.394	0.0191	<0.00670	0.0630	<0.00488	<0.00396	0.0537	0.170	<0.00360	0.00773	<0.00410	<0.00704	0.0205	<0.0144	<0.00804	<0.0105	0.0616	0.00885	<0.00344	<0.00984	<0.00426	<0.0136	0.0474	<0.00396	<0.00537	<0.00562	<0.00766
SG-22-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.00827	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.465	0.0168	<0.00670	0.0210	<0.00488	<0.00396	0.140	0.130	<0.00360	0.00859	<0.00410	<0.00704	0.0231	<0.0144	<0.00804	<0.0105	0.166	0.00894	<0.00344	<0.00984	<0.00426	<0.0136	0.0745	<0.00396	<0.00537	<0.00562	<0.00766
SG-23-10	9/19/2016	<0.00546	<0.00405	<0.00397	<0.00492	<0.00492	<0.00601	<0.00466	<0.0295	0.0477	0.0276	<0.00984	<0.0410	0.513	0.0476	<0.00670	0.0212	<0.00488	<0.00396	0.0611	0.430	<0.00360	0.0102	<0.00410	<0.00704	0.0175	<0.0144	0.0134	<0.0105	<0.00934	0.00573	<0.00344	<0.00984	<0.00426	<0.0136	0.0699	<0.00396	<0.00537	<0.00562	<0.00766
SG-24-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0194	0.00610	0.00926	0.0117	<0.0295	<0.0410	0.0401	<0.00984	0.0416	0.475	0.0429	<0.00670	0.0674	0.00878	<0.00396	0.0555	0.580	<0.00360	0.0166	0.0377	<0.00704	0.0457	<0.0144	0.0121	<0.0105	<0.00934	0.0187	<0.00344	<0.00984	0.00878	0.0161	0.0854	<0.00396	<0.00537	<0.00562	<0.00766
SG-25-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0312	0.00964	0.0171	<0.00466	<0.0295	<0.0410	0.0405	<0.00984	<0.0410	0.497	0.0223	0.0291	0.0266	0.0943	<0.00396	0.0774	0.750	<0.00360	0.0193	0.0288	<0.00704	0.0570	<0.0144	0.0192	<0.0105	0.0328	0.0236	<0.00344	<0.00984	<0.00426	<0.0136	0.0921	<0.00396	<0.00537	<0.00562	<0.00766
SG-26-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0372	0.0106	0.0159	0.0197	<0.0295	0.0650	0.0409	0.0108	0.0426	<0.0238	<0.0239	<0.00670	<0.0124	<0.00488	<0.00396	0.0682	0.530	<0.00360	0.0253	0.0257	<0.00704	0.0719	<0.0144	0.0176	<0.0105	<0.00934	0.0300	<0.00344	<0.00984	0.00656	<0.0136	0.147	<0.00396	<0.00537	<0.00562	<0.00766
SG-26-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0108	<0.00492	<0.00601	<0.00466	<0.0295	0.0672	0.0248	<0.00984	0.0507	0.591	0.0306	<0.00670	0.0137	<0.00488	<0.00396	0.0696	0.400	<0.00360	0.0188	0.0358	<0.00704	0.0515	<0.0144	0.0164	<0.0105	<0.00934	0.0189	<0.00344	<0.00984	0.00699	<0.0136	0.161	<0.00396	<0.00537	<0.00562	<0.00766
SG-27-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0331	0.00945	0.0198	0.0315	<0.0295	<0.0410	0.0424	0.0104	<0.0410	0.374	0.0170	<0.00670	<0.0124	<0.00488	<0.00396	0.0867	1.200	<0.00360	0.0283	0.0298	0.0444	0.0812	<0.0144	0.0266	<0.0105	0.0300	0.0313	<0.00344	<0.00984	<0.00426	<0.0136	0.131	<0.00396	<0.00537	<0.00562	<0.00766
SG-28-10	9/20/2016	<0.00546	<0.00405	<0.00397	<0.00492	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.243	<0.00798	<0.00670	<0.0124	<0.00488	<0.00396	<0.00860	0.078	<0.00900	<0.0109	<0.00410	<0.00704	<0.0217	<0.0144	<0.00804	<0.0105	<0.00934	<0.0109	<0.00344	<0.00984	<0.0107	<0.0136	0.0126	<0.00396	<0.00537	<0.00562	<0.00766
SG-29-10	9/20/2016	<0.00546	<0.00405	<0.00397	<0.00492	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.260	<0.00798	<0.00670	<0.0124	<0.00488	<0.00396	<0.00860	0.140	<0.00900	<0.0109	<0.00410	<0.00704	<0.0217	<0.0144	<0.00804	<0.0105	<0.00934	<0.0109	<0.00344	<0.00984	<0.0107	<0.0136	<0.00943	<0.00396	<0.00537	<0.00562	<0.00766
SG-30-10	9/20/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	<0.0738	<0.103	<0.0613	<0.0246	<0.103	0.295	<0.00798	<0.0168	<0.0311	<0.0122	<0.00990	<0.00860	0.084	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	<0.00943	<0.00990	<0.0134	<0.0141	<0.0192
SG-31-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.00768	<0.00492	0.0112	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.310	0.00919	<0.00670	0.0200	<0.00488	<0.00396	0.0138	0.220	<0.00360	0.00668	<0.00410	<0.00704	0.00990	<0.0144	<0.00804	<0.0105	<0.00934	0.00677	<0.00344	<0.00984	0.00435	<0.0136	0.0245	<0.00396	<0.00537	<0.00562	<0.00766
SG-32-10	9/20/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	<0.0738	<0.103	<0.0613	<0.0246	<0.103	0.578	0.0185	<0.0168	<0.0311	<0.0122	<0.00990	<0.00860	0.120	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	0.0277	<0.00990	<0.0134	<0.0141	<0.0192
SG-33-10	9/20/2016	<0.00546	<0.00405	<0.00397	<0.00492	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.509	0.0145	<0.00670	0.0261	<0.00488	<0.00396	0.0508	0.190	<0.00360	<0.00434	<0.00410	<0.00704	<0.00868	<0.0144	<0.00804	<0.0105	<0.00934	<0.00434	<0.00344	<0.00984	<0.00426	<0.0136	0.0231	<0.00396	<0.00537	<0.00562	<0.00766
SG-34-10	9/20/2016	<0.00546	<0.00405	<0.00397	<0.00492	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.415	0.0126	<0.00670	<0.0124	<0.00488	<0.00396	0.0125	0.150	<0.00360	<0.00434	<0.00410	<0.00704	<0.00868	<0.0144	<0.00804	<0.0105	<0.00934	<0.00434	<0.00344	<0.00984	<0.00426	<0.0136	0.0192	<0.00396	<0.00537	<0.00562	<0.00766
SG-35-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.00797	<0.00492	0.00938	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	0.338	0.0111	<0.00670	0.0138	<0.00488	<0.00396	0.0233	0.170	<0.00360	<0.00434	<0.00410	<0.00704	0.00955	<0.0144	<0.00804	<0.0105	<0.00934	0.00616	<0.00344	<0.00984	<0.00426	<0.0136	0.0228	<0.00396	<0.00537	<0.00562	<0.00766
SG-36-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.00531	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	0.0470	<0.00984	<0.0410	0.472	0.0186	<0.00670	<0.0124	0.0196	<0.00396	0.0553	0.200	<0.00360	0.00686	<0.00410	<0.00704	0.0173	<0.0144	<0.00804	<0.0105	<0.00934	0.00660	<0.00344	<0.00984	0.00443	<0.0136	0.0363	<0.00396	<0.00537	<0.00562	<0.00766
SG-37-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.0113	<0.00492	0.00914	<0.00466	<0.0295	<0.0410	0.0258	<0.00984	<0.0410	0.485	0.0218	<0.00670	0.0150	0.0109	<0.00396	0.101	0.260	<0.00360	0.0101	<0.00410	0.0415	0.0221	<0.0144	<0.00804	<0.0105	<0.00934	0.0117	<0.00344	<0.00984	<0.00426	<0.0136	0.0467	<0.00396	<0.00537	<0.00562	<0.00766
SG-38-10	9/20/2016	<0.00546	<0.00405	<0.00397	0.00856	<0.00492	<0.00601	<0.00466	<0.0295	0.0903	<0.0245	<0.00984	0.0453	0.443	0.0353	<0.00670	<0.0124	<0.00488	<0.00396	0.0326	0.130	<0.00360	0.0112	<0.00410	<0.00704	0.0220	<0.0144	<0.00804	<0.0105	<0.00934	0.00955	<0.00344	<0.00984	0.00571	0.0138	0.0544	<0.00396	<0.00537	<0.00562	<0.00766
SG-39-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0307	0.00905	0.0159	0.0284	<0.0295	<0.0410	0.0492	<0.00984	<0.0410	0.330	0.00957	<0.00670	<0.0124	<0.00488	<0.00396	0.0683	1.400	<0.00360	0.0185	0.0189	<0.00704	0.0590	<0.0144	0.0210	<0.0105	<0.00934	0.0240	<0.00344	<0.00984	<0.00426	0.0495	0.0940	<0.00396	<0.00537	0.0226	0.349
SG-40-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0260	0.00856	0.0126	0.0237	<0.0295	0.0900	0.0424	<0.00984	0.113	0.744	0.0326	<0.00670	<0.0124	<0.00488	<0.00396	0.0989	1.100	<0.00360	0.0281	0.0344	<0.00704	0.0852	0.0280	0.0235	<0.0105	0.241	0.0283	<0.00344	<0.00984	0.00886	<0.0136	0.157	<0.00396	<0.00537	0.0142	0.112
SG-41-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0323	0.0104	0.0144	0.0240	<0.0295	0.0674	0.0322	0.0104	0.0639	0.382	0.0286	<0.00670	<0.0124	<0.00488	<0.00396	0.116	0.620	<0.00360	0.0293	0.0424	<0.00704	0.0818	0.0208	0.0229	<0.0105	0.197	0.0288	<0.00344	0.0106	0.00613	<0.0136	0.148	<0.00396	<0.00537	0.00753	0.0228
SG-42-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0286	0.00817	0.0142	0.0293	<0.0295	0.0870	0.0299	<0.00984	0.144	0.443	0.0221	<0.00670	<0.0124	<0.00488	<0.00396	0.108	0.420	<0.00360	0.0229	0.0363	<0.00704	0.0786	0.0247	0.0219	0.0150	0.249	0.0279	<0.00344	<0.00984	0.00571	<0.0136	0.147	<0.00396	<0.00537	<0.00562	0.00965
SG-43-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0435	0.0130	0.0286	0.0321	<0.0295	0.0517	0.0437	0.0139	0.0643	0.640	0.0389	<0.00670	<0.0124	<0.00488	<0.00396	0.158	1.200	<0.00360	0.0362	0.0672	<0.00704	0.123	0.0300	0.0343	<0.0105	0.225	0.0415	<0.00344	0.0112	<0.00426	<0.0136	0.235	<0.00396	<0.00537	<0.00562	0.0141
SG-44-10	9/19/2016	<0.00546	<0.00405	<0.00397	0.0356	0.0109	0.0118	<0.00466	<0.0295	0.0668	<0.0245	0.0118	0.0614	0.512	0.0203	<0.00670	<0.0124	<0.00488	<0.00396	0.201	0.460	<0.00360	0.0268	0.0320	<0.00704	0.0858	0.0255	0.0134	<0.0105	0.229	0.0286	<0.00344	0.0102	0.00545	<0.0136	0.147	<0.00396	<0.00537	<0.00562	0.0195

TABLE 1
2016 Soil Gas Investigation
Analytical Results
ADEQ West Central Phoenix East Grande Avenue WQARF Site

Sample ID	Date Sampled	Volatile Organic Compound Concentration (mg/m^3)																																						
		1,1,1-Trichloro ethane	1,1-DCA	1,1-DCE	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	1,3-Dichloro benzene	2,2,4-Trimethyl pentane	2-Butanone (MEK)	2-Hexanone	2-Propanol (IPA)	4-Ethyl toluene	4-Methyl-2-Pentanone (MIK)	Acetone	Benzene	Bromo dichloro methane	Carbon Disulfide	Chloro form	*cis*-1,2-DCE	Cyclo hexane	Ethanol	Ethyl acetate	Ethyl benzene	Heptane	Hexane	m & p Xylene	Methyl Tert-Butyl Ether	Methyl cyclo hexane	Nonane	Octane	o-Xylene	Propene	Propyl benzene	Styrene	PCE	Toluene	*trans*-1,2-DCE	TCE	Trichloro fluoro methane	Trichloro trifluoro ethane
SG-45-10	9/19/2016	<0.00546	<0.00405	<0.00397	**0.0244**	**0.00718**	**0.0102**	<0.00466	<0.0295	**0.0553**	<0.0245	<0.00984	**0.0436**	**0.471**	**0.0223**	<0.00670	<0.0124	<0.00488	<0.00396	**0.739**	**0.420**	<0.00360	**0.0309**	**0.0367**	**0.124**	**0.0884**	**0.0209**	**0.0218**	<0.0105	**0.281**	**0.0310**	<0.00344	<0.00984	<0.00426	<0.0136	**0.188**	<0.00396	<0.00537	<0.00562	**0.0133**
SG-46-5	9/19/2016	<0.0546	<0.0405	<0.0397	<0.0492	<0.0492	<0.0601	<0.0466	<0.295	<0.410	<0.245	<0.0984	<0.410	**0.767**	**0.0472**	<0.0670	<0.124	<0.0488	<0.0396	**3.122**	**0.240**	<0.0360	<0.0434	<0.0410	**0.588**	<0.0868	<0.144	<0.0804	<0.105	**0.265**	<0.0434	<0.0344	<0.0984	<0.0426	<0.136	**0.133**	<0.0396	<0.0537	<0.0562	<0.0766
SG-47-10	9/20/2016	<0.0546	<0.0405	**0.00540**	**0.00699**	<0.0492	**0.00673**	<0.00466	<0.0295	<0.0410	<0.245	<0.00984	<0.0410	**0.201**	**0.00970**	<0.00670	<0.0124	<0.00488	<0.00396	**0.0312**	**0.170**	<0.00360	<0.00434	<0.00410	<0.00704	**0.0101**	<0.0144	<0.00804	<0.0105	<0.00934	**0.00651**	<0.00344	<0.00984	<0.00426	<0.0136	**0.0253**	<0.00396	**0.00763**	<0.00562	**0.0139**
SG-48-10	9/20/2016	<0.0546	<0.0405	<0.00397	**0.00531**	<0.00492	**0.00902**	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	**0.504**	**0.01070**	<0.00670	**0.0137**	<0.00488	<0.00396	**0.0122**	**0.150**	**0.0438**	<0.00434	<0.00410	<0.00704	<0.00868	<0.0144	<0.00804	<0.0105	<0.00934	<0.00434	<0.00344	<0.00984	<0.00426	<0.0136	**0.0210**	<0.00396	<0.00537	<0.00562	<0.00766
SG-49-10	9/20/2016	<0.0546	<0.0405	<0.00397	<0.0123	<0.0123	<0.0150	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	**0.367**	**0.00941**	<0.00670	<0.0311	<0.00488	<0.00396	<0.00860	<0.050	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	<0.00860	<0.0246	<0.0107	<0.0339	<0.00943	<0.00990	<0.0134	<0.0141	<0.0192
SG-50-10	9/20/2016	<0.0546	<0.0405	<0.0397	<0.00492	<0.00492	<0.00601	<0.00466	<0.0295	<0.0410	<0.0245	<0.00984	<0.0410	**0.249**	**0.0141**	<0.00670	<0.0124	**0.00820**	<0.00396	**0.0171**	**0.120**	<0.00360	<0.00434	<0.00410	<0.00704	<0.00868	<0.0144	<0.00804	<0.0105	<0.00934	<0.00434	<0.00344	<0.00984	<0.00426	<0.0136	**0.0175**	<0.00396	<0.00537	<0.00562	<0.00766
SG-S1-10	10/31/2016	<0.00546	<0.00405	<0.00397	<0.0123	<0.0123	<0.0150	<0.0117	**0.0979**	<0.103	<0.0613	<0.0246	<0.103	**0.231**	<0.00798	<0.0168	<0.0311	<0.0122	<0.00990	<0.00860	**0.221**	<0.00900	<0.0109	<0.0103	<0.0176	<0.0217	<0.0361	<0.0201	<0.0262	<0.0234	<0.0109	**0.0781**	<0.0246	<0.0107	**0.658**	**0.0126**	<0.00990	<0.0134	<0.0141	**0.362**
SG-S2-10	10/31/2016	<0.0546	<0.0405	<0.0397	<0.00492	<0.00492	<0.00601	<0.00466	<0.295	<0.410	<0.245	<0.0984	<0.410	<0.238	<0.0319	<0.0670	<0.124	<0.0488	<0.0396	<0.0344	**0.206**	<0.0360	<0.0434	<0.0410	<0.0704	<0.0868	<0.144	<0.0804	<0.105	<0.0934	<0.0434	**0.0396**	<0.0984	<0.0426	**1.001**	<0.0377	<0.0396	<0.0537	<0.0562	<0.0766
SG-S3-10	10/31/2016	<0.0546	<0.0405	**0.908**	<0.00492	<0.00492	<0.00601	<0.00466	<0.295	<0.410	<0.245	<0.0984	<0.410	<0.238	<0.0319	<0.0670	<0.124	<0.0488	<0.0396	<0.0344	<0.188	<0.0360	**0.0790**	<0.0410	<0.0704	**0.323**	<0.144	<0.0804	<0.105	<0.0934	**0.123**	<0.0344	<0.0984	<0.0426	**1.932**	<0.0377	<0.0396	**0.814**	<0.0562	**1.671**

Notes:

mg/m^3 = milligrams per cubic meter
1,1-DCA = 1,1-dichloroethane
1,1-DCE = 1,1-dichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
trans-1,2-DCE = trans-1,2-dichloroethene
PCE = Tetrachloroethene
TCE = Trichloroethene
Results in bold indicate concentrations above the laboratory detection limit.

VOC analysis was conducted using EPA Method TO-15.

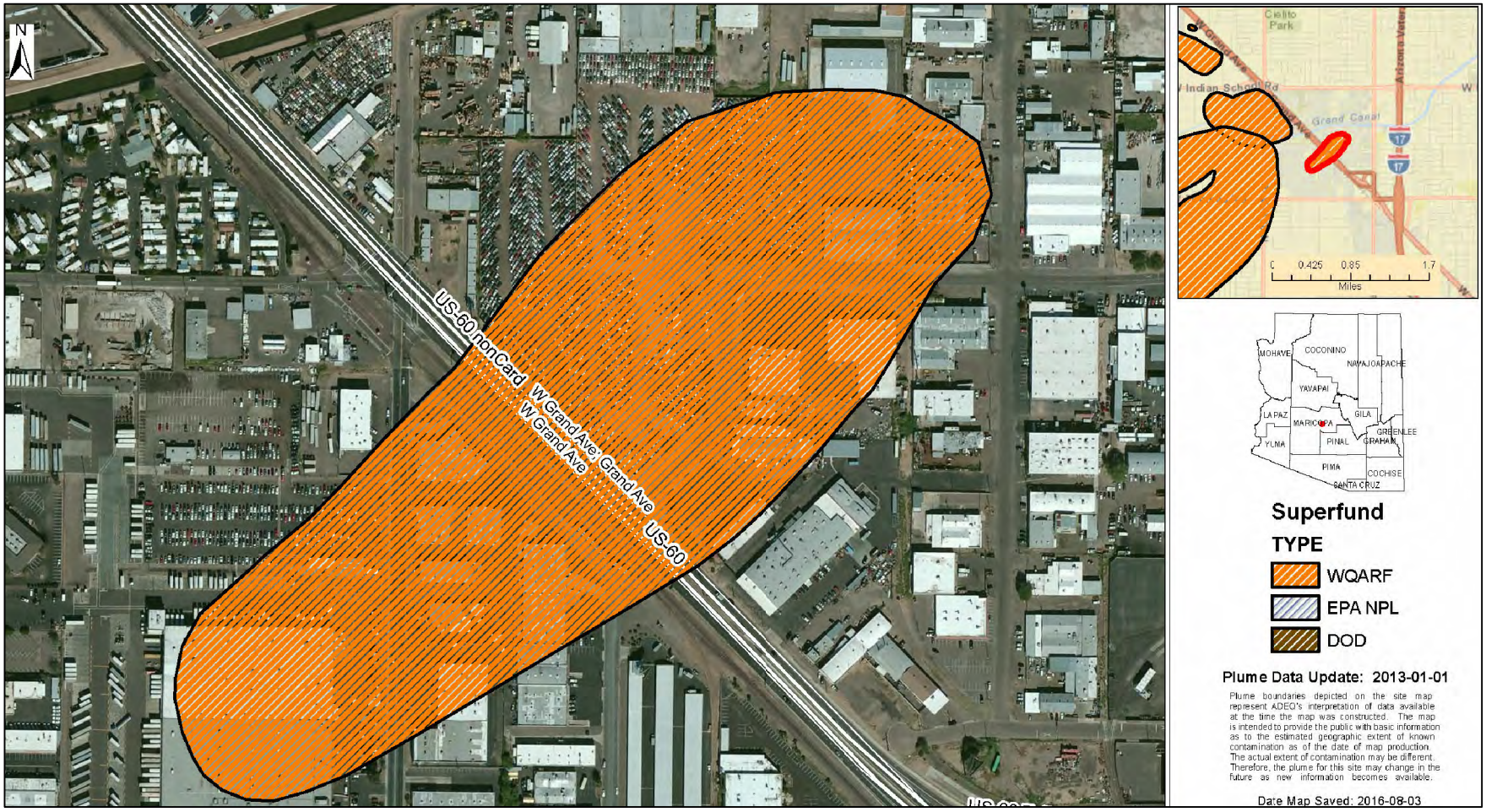
TABLE 2
2016 Soil Gas Investigation
Detected CVOCs
ADEQ West Central Phoenix East Grande Avenue WQARF Site

Sample ID	Date Sampled	1,1-DCE	1,3-Dichloro benzene	Bromo dichloro methane	Chloro form	PCE	TCE	Trichloro fluoro methane	Trichloro trifluoro ethane
SG-1-10	9/21/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-2-10	9/21/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-3-10	9/21/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-4-10	9/21/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-5-10	9/21/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-6-10	9/21/2016	<0.00397	<0.0150	<0.0168	**0.0124**	<0.0339	<0.0134	<0.0141	<0.0192
SG-7-10	9/21/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-8-10	9/21/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-9-10	9/21/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-10-10	9/21/2016	<0.00397	<0.00601	<0.00670	**0.00625**	<0.0136	<0.00537	<0.00562	<0.00766
SG-11-10	9/21/2016	<0.00397	<0.00601	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-12-10	9/21/2016	<0.00397	<0.00601	<0.00670	**0.0217**	<0.0136	<0.00537	<0.00562	<0.00766
SG-13-10	9/21/2016	<0.00397	<0.0150	<0.0168	**0.0320**	<0.0339	<0.0134	<0.0141	<0.0192
SG-14-10	9/21/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-15-10	9/20/2016	<0.00397	**0.00805**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-16-10	9/20/2016	<0.00397	**0.00613**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-17-10	9/20/2016	<0.00397	**0.00865**	**0.00710**	**0.0271**	<0.0136	<0.00537	<0.00562	<0.00766
SG-18-10	9/20/2016	<0.00397	<0.00601	<0.00670	<0.00488	<0.0136	<0.00537	**0.00618**	<0.00766
SG-19-10	9/20/2016	<0.00397	**0.00914**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-20-10	9/20/2016	<0.00397	**0.0101**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-21-10	9/20/2016	<0.00397	<0.00601	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-22-10	9/20/2016	<0.00397	<0.00601	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-23-10	9/19/2016	<0.00397	<0.00601	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-24-10	9/19/2016	<0.00397	**0.00926**	<0.00670	**0.00878**	**0.0161**	<0.00537	<0.00562	<0.00766
SG-25-10	9/19/2016	<0.00397	**0.0171**	**0.0291**	**0.0943**	<0.0136	<0.00537	<0.00562	<0.00766
SG-26-10	9/19/2016	<0.00397	**0.0159**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-26-10	9/19/2016	<0.00397	<0.00601	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-27-10	9/19/2016	<0.00397	**0.0198**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-28-10	9/20/2016	<0.00397	<0.00601	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-29-10	9/20/2016	<0.00397	<0.00601	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-30-10	9/20/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-31-10	9/20/2016	<0.00397	**0.0112**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-32-10	9/20/2016	<0.00397	<0.0150	<0.0168	<0.0122	<0.0339	<0.0134	<0.0141	<0.0192
SG-33-10	9/20/2016	<0.00397	<0.00601	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-34-10	9/20/2016	<0.00397	<0.00601	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-35-10	9/20/2016	<0.00397	**0.00938**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-36-10	9/20/2016	<0.00397	<0.00601	<0.00670	**0.0196**	<0.0136	<0.00537	<0.00562	<0.00766
SG-37-10	9/20/2016	<0.00397	**0.00914**	<0.00670	**0.0109**	<0.0136	<0.00537	<0.00562	<0.00766
SG-38-10	9/20/2016	<0.00397	<0.00601	<0.00670	<0.00488	**0.0138**	<0.00537	<0.00562	<0.00766
SG-39-10	9/19/2016	<0.00397	**0.0159**	<0.00670	<0.00488	**0.0495**	<0.00537	**0.0226**	**0.349**
SG-40-10	9/19/2016	<0.00397	**0.0126**	<0.00670	<0.00488	<0.0136	<0.00537	**0.0142**	**0.112**
SG-41-10	9/19/2016	<0.00397	**0.0144**	<0.00670	<0.00488	<0.0136	<0.00537	**0.00753**	**0.0228**
SG-42-10	9/19/2016	<0.00397	**0.0142**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	**0.00965**
SG-43-10	9/19/2016	<0.00397	**0.0286**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	**0.0141**
SG-44-10	9/19/2016	<0.00397	**0.0118**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	**0.0195**
SG-45-10	9/19/2016	<0.00397	**0.0102**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	**0.0133**
SG-46-5	9/19/2016	<0.0397	<0.0601	<0.0670	<0.0488	<0.136	<0.0537	<0.0562	<0.0766
SG-47-10	9/20/2016	**0.00540**	**0.00673**	<0.00670	<0.00488	<0.0136	**0.00763**	<0.00562	**0.0139**
SG-48-10	9/20/2016	<0.00397	**0.00902**	<0.00670	<0.00488	<0.0136	<0.00537	<0.00562	<0.00766
SG-49-10	9/20/2016	<0.00397	<0.0150	<0.00670	<0.00488	<0.0339	<0.0134	<0.0141	<0.0192
SG-50-10	9/20/2016	<0.0397	<0.00601	<0.00670	**0.00820**	<0.0136	<0.00537	<0.00562	<0.00766
SG-S1-10	10/31/2016	<0.00397	<0.0150	<0.0168	<0.0122	**0.658**	<0.0134	<0.0141	**0.362**
SG-S2-10	10/31/2016	<0.0397	<0.00601	<0.0670	<0.0488	**1.001**	<0.0537	<0.0562	<0.0766
SG-S3-10	10/31/2016	**0.908**	<0.00601	<0.0670	<0.0488	**1.932**	**0.814**	<0.0562	**1.671**

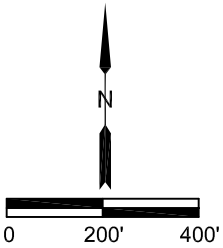
Notes:
mg/m^3 = milligrams per cubic meter
1,1-DCE = 1,1-dichloroethene
PCE = Tetrachloroethene
TCE = Trichloroethene
CVOCs = Chlorinated Volatile Organic Compounds
Results in bold indicate concentrations above the laboratory detection limit.

VOC analyses were conducted using EPA Method TO-15.

FIGURES



SOURCE: ADEQ WEST CENTRAL PHOENIX, EAST GRANDE AVENUE WQARF SITE, JANUARY 2013



APPROXIMATE SCALE IN FEET

HYDRO GEO CHEM, INC.

SITE VICINITY MAP
WEST CENTRAL PHOENIX, EAST GRANDE AVENUE WQARF SITE

Approved	Date	Author	Date	File Name	Figure
DVS	1/25/17	JAA	1/25/17	2016031004A	1

Legend

Location of Soil Gas Boring

Note: All sampling locations and work completed in City of Phoenix right-of-way.

0 100 200
APPROXIMATE SCALE IN FEET

HYDRO GEO CHEM, INC.

SOIL GAS SURVEY SAMPLING LOCATIONS
WEST CENTRAL PHOENIX, EAST GRANDE AVENUE WQARF SITE

Approved	Date	Author	Date	File Name	Figure
DVS	12/06/16	JAA	12/06/16	2016031003A	2

Legend

SG-47 Location of Soil Gas Boring
<0.0136 PCE Analytical Result (in mg/m³)

Note: All sampling locations and work completed in City of Phoenix right-of-way.

0 100 200
APPROXIMATE SCALE IN FEET

HYDRO GEO CHEM, INC.

SOIL GAS SURVEY PCE SAMPLING RESULTS
WEST CENTRAL PHOENIX, EAST GRANDE AVENUE WQARF SITE

Approved	Date	Author	Date	File Name	Figure
DVS	1/25/17	JAA	1/25/17	2016031005A	3

ATTACHMENT 1

FIELD SAMPLING NOTES

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 1

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 11:13 Finish 11:25

Time Started: 11:58 Time Completed: 12:01

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
11:58	0.1	
11:59	0.3	
12:00	0.2	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 12:01 Time Completed: 1206 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Rcy # Notes
SG-1-10	12:01	Summa	1L	E2101	TO-15	29		172
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 2

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

2.5" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 10:54 Finish 11:08

Time Started: 11:39 Time Completed: 11:42

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
11:39	0.5	
11:40	0.2	
11:41	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 11:42 Time Completed: 11:47 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Key # / Notes
SG-2-10	11:42	Summa	1L	1795	TO-15	29		060
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 3

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 10:36 Finish 10:50

Time Started: 11:21 Time Completed: 11:24

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
11:21	0.8	
11:22	0.1	
11:23	0.1	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 11:24 Time Completed: 11:29 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Key # Notes
SG-3-10	11:24	Summa	1L	E2366	TO-15	29		178
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 4

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2"Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 10:23 Flush 10:34

Time Started: 11:09 Time Completed: 11:12

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
11:09	0.7	
11:10	0.1	
11:11	0.1	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 11:12 Time Completed: 11:17 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-4-10	11:12	Summa	1L	E2367	TO-15	29		127
		↓	↓		TIC	↓		
Ambient-3	10:50	↓	↓	E2396	↓	↓		176

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 5

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: 0.0022 ft^3

Purge Volume (b • 3) = c: 0.006 ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

170 ml ~150 ml/min

2" Hg

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 9:44 Finish 10:00

Time Started: 10:33 Time Completed: 10:36

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
10:33	0.8	
10:34	0.1	
10:35	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 10:36 Time Completed: 10:41 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Notes
SG-5-10	10:36	Summa	1L	F2347	TO-15	29		096
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 6

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2" Hdg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 9:34 Finish 9:45

Time Started: 10:16 Time Completed: 10:19

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
10:16	0.6	
10:17	0.1	
10:18	0.1	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 10:19 Time Completed: 10:24 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Req # Notes
SG-6-10	10:19	Summa	1L	1829	TO-15	29		180
	false time	↓	↓		TIC	↓		
Dup-5	6:00	↓	↓	1813	↓	↓		174

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 7

Project Name/Number: 201603| Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 9:12 Finish 9:30

Time Started: 10:00 Time Completed: 10:03

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
10:00	0.8	
10:01	1.3	
10:02	1.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 10:03 Time Completed: 10:08 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Req # Notes
SG-7-10	10:03	Summa	1L	1888	TO-15	29		156
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 8

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 8:50 Finish 9:10

Time Started: 9:50 Time Completed: 9:53

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	~~PID~~/FID Reading (ppmV)	Notes
9:50	1.0	
9:51	0.6	
9:52	0.5	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 9:53 Time Completed: 9:58 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-8-10	9:53	Summa	1 L	E2400	TO-15	29		214
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 9

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

PURGE INFORMATION AND FIELD MEASUREMENTS

Start Install 8:23

Time Started: 9:12 Finish 8:40 Time Completed: 9:15

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
9:12	0.7	
9:13	0.8	
9:14	0.5	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 9:15 Time Completed: 9:20 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Log # Notes
SG-9-10	9:15	Summa	1L	E2408	TO-15	29		205
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 1D

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.) 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

2" Hg ~ 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 7:50 Finish 8:03

Time Started: 8:35 Time Completed: 8:38

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
8:35	0.8	
8:36	0.2	
8:37		

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 8:38 Time Completed: 8:43 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	req # Notes
SG-10-10	8:38	Summa	1L	E2094	TO-15	29		057
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 11

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.) 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

PURGE INFORMATION AND FIELD MEASUREMENTS

Start install 8:11 Finish 8:25

Time Started: 8:57 Time Completed: ~~8:~~ 9:00

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
8:57	0.2	
8:58	0.4	
8:59	0.2	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 9:00 Time Completed: 9:05 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-11-10	9:00	Summa	1L	1869	TO-15	29		080
	false	↓	↓		TIC	↓		
Dup-4	18:00	↓	↓	E2360	↓	↓		217

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 12

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~ 2" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 7:29 Finish 7:41

Time Started: 8:18 Time Completed: 8:21

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
8:18	0.3	
8:19	0.0	
8:20	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 8:21 Time Completed: 8:26 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-12-10	821	Summa	1L	E2372	TO-15	29		196
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 13

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 7:00 Finish 7:13

Time Started: 8:02 Time Completed: 8:05

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
8:02	0.7	
8:03	0.0	
8:04	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 8:05 Time Completed: 8:10 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Req # Notes
SG-13-10	8:05	Summa	1L	1803	TO-15	29		175
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 14

Project Name/Number: 2016031 Date: 9-21-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 16 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Start Install 6:40 Finish 7:01

Time Started: 7:37 Time Completed: 7:40

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
7:37	0.4	
7:38	0.0	
7:39	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 7:40 Time Completed: 7:45 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Req # Notes
SG-14-16	7:40	Summa	1L	E2103	TO-15	29		145
					TIL			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 15

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 8:41 Finish 8:58

Time Started: 10:42 Time Completed: 10:45

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
10:42	0.8	
10:43	0.0	
10:44	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 10:45 Time Completed: 10:50 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-15-10	10:45	Summa	1L	E2349	TO-15	29		183
	False time	↓	↓		↓	↓		
Dup-2	8:00			1872				036

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 16

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 16 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.0" Hg ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 8:14 Finish 8:32

Time Started: 10:29 Time Completed: 10:32

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
10:29	1.4	
10:30	0.0	
10:31	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 10:32 Time Completed: 10:37 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-16-10	10:32	Summa	1L	E2283	TO-15	29		050
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 17

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 8:01 Finish 8:15

Time Started: 10:16 Time Completed: 10:19

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
10:16	1.9	
10:17	0.1	
10:18	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 10:19 Time Completed: 10:24 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-17-10	10:19	Summa	1 L	E2289	TO-15	29		219

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 18

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 7:43 Finish 8:03

Time Started: 9:10 Time Completed: 9:13

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
9:10	2.3	
9:11	0.5	
9:12	0.2	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 9:13 Time Completed: 9:18 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-18-10	9:13	Summa	1L	1839	TO-15	29		040

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 19

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5"Hg ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 7:25 Finish 7:44

Time Started: 8:45 Time Completed: 8:48

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
8:~~46~~ 45	1.5	
8:~~47~~ 46	0.2	
8:47	0.1	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 8:48 Time Completed: 8:53 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-19-16	8:48	Summa	1L	E2295	TO-15	29		032

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 20

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.0" Hg ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 7:03 Finish 7:~~34~~15

Time Started: 8:01 Time Completed: 8:04

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
8:01	0.7	
8:02	0.3	
8:03	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 8:04 Time Completed: 8:09 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-20-10	8:04	Summa	1L	1841	TO-15	29		113

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 21

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 6:44 Finish 7:04

Time Started: 7:49 Time Completed: 7:52

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
7:49	0.1	
7:50	0.0	
7:51	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 7:52 Time Completed: 7:57 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-21-10	7:52	Summa	1L	E2388	TO-15	29		006

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 22

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg ~130 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 6:30 Finish 6:50

Time Started: 7:38 Time Completed: 7:41

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
7:38	0.1	
7:39	0.8	
7:40	0.3	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 7:41 Time Completed: 7:46 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-22-10	7:41	Summa	1L	1867	TO-15	29		131

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 23

Project Name/Number: 2016031 Date: 9-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.) 0.167 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~3" Hg ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Initial Start 15:57 Finish 18:15

Time Started: 16:49 Time Completed: 16:52

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
16:49	1.3	
16:50	1.0	
16:51	0.7	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 16:52 Time Completed: 16:52 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Notes
SG-23-10	16:52	Summa	1L	0743	TO-15	29		Req # 069
Ambient-1	16:53	"	"	E2412	"	29		213

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 24

Project Name/Number: 2016031 Date: 5-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 15:34 Finish 15:52

Time Started: 16:~~46~~ 36 Time Completed: 16:~~49~~ 39

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
16:~~46~~ 36	1.3	
16:~~47~~ 37	0.5	
16:~~48~~ 38	0.4	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 16:~~49~~ 39 Time Completed: 16:~~54~~ 44 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-24-10	16:~~49~~ 39	Summa	1L	1816	TO-15	29		039

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 25

Project Name/Number: 2016031 Date: 9-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~3" Hg ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 15:11 Finish 15:29

Time Started: 16:17 Time Completed: 16:20

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
16:17	2.4	
16:18	0.7	
16:19	0.3	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 16:20 Time Completed: 16:25 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-25-10	16:20	Summa	1L	1819	TO-15	29		155

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 26

Project Name/Number: 2016031 Date: 9-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): ____ Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~3" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 14:50 Finish 15:10

Time Started: 16:01 Time Completed: 16:04

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
16:01	3.1	
16:02	0.7	
16:03	0.2	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 16:04 Time Completed: 16:09 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-26-10	16:04	Summa	1L	E2086	TO-15	29		157
	false							
Dup-1	8:00	Summa	1L	1836	TO-15	29		082

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 27

Project Name/Number: 2016031 Date: 9-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~3" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 14:38 Finish 14:52

Time Started: 15:47 Time Completed: 15:50

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
15:47	2.6	
15:48	0.1	
15:49	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 15:50 Time Completed: 15:55 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg Notes
SG-27-10	15:50	Summa	1L	1854	~~29~~	29		154
					TO-15			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 28

Project Name/Number: 2016031 Date: 9-20-15 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.167 Length of Air Column ("a", ft): ____ Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5"Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 13:54 Finish 14:04

Time Started: 15:23 Time Completed: 15:26

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
15:23	0.5	
15:24	0.0	
15:25	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 15:26 Time Completed: 15:31 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Req # Notes
SG-28-10	15:26	Summa	1L	E2294	TO-15	29		186
	false time		↓		TIC	↓		
Dup-3	18:00	~~18:00~~ Summa	✓	E2390	"	↓		055

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 29

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.167 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 13:25 Finish 13:52

Time Started: 15:12 Time Completed: 15:15

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	~~PID~~/FID Reading (ppmV)	Notes
15:12	0.3	
15:13	0.0	
15:14	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 15:15 Time Completed: 15:20 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-29-10	15:15	Summa	1L	1792	TO-15	29		203
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 30

Project Name/Number: 2016031 Date: 9-30-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg ~150ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 13:05 Finish 13:20

Time Started: 14:35 Time Completed: 14:35

Total Purge Time: ~~14:35~~ 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
14:35	0.1	
14:36	0.0	
14:37	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 14:38 Time Completed: 14:43 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-30-10	14:38	Summa	1L	1807	TO-15	29		005
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 31

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.) 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

I shall Start 12:25 Finish 12:45

Time Started: 14:00 Time Completed: 14:03

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
14:00	0.0	
14:01	0.0	
14:02	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 14:03 Time Completed: 14:08 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-31-10	14:03	Summa	1L	1814	TO-15	29		076
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 32

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.) 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) X d^2 X 0.0055 = b: _____ ft^3

Purge Volume (b X 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 16:00 Finish 16:15

Time Started: 16:54 Time Completed: 16:57

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
16:54	0.7	
16:55	0.0	
16:56	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 16:57 Time Completed: ~~16:~~ 17:02 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG32-10	16:57	Summa	1L	E2098	TO-15	29		179
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 33

Project Name/Number: 2016031 Date: 9-20-16 Sampler: DDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.167 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 11:55 Finish 12:20

Time Started: 13:02 Time Completed: 13:05

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
13:02	0.5	
13:03	0.0	
13:04	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 13:05 Time Completed: 13:10 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-33-10	13:05	Somma	1L	1845	TO-15	29		108
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 34

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.) 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg – 150ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 11:45 Finish 12:00

Time Started: 12:42 Time Completed: 12:45

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
12:42	0.5	
12:43	0.1	
12:44	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 12:45 Time Completed: 12:50 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-34-10	12:45	Summa	1L	E2376	TO-15	29		059
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 35

Project Name/Number: 201603 | Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.167 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.0" Hg ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 11:50 Finish 11:51

Time Started: 12:28 Time Completed: 12:31

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
12:28	0.3	
12:29	0.1	
12:30	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 12:31 Time Completed: 12:36 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-35-10	12:31	Summa	1L	E22488	TO-15	29		184
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 36

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDN

PURGE CALCULATION

Casing Diameter ("d", in.): 0.167 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Est Install Start 10:42 Finish 10:50

Time Started: 12:09 Time Completed: 12:12

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
1209	0.2	
12:10	0.1	
12:11	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 12:12 Time Completed: 12:17 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Req # Notes
SG-36-10	12:12	Summa	1L	1835	TO-15	29		208
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 37

Project Name/Number: 2016091 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Trishll Start 10:5~~0~~2 Finish 11:12

Time Started: ~~11:55~~ Time Completed: 11:58

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
11:55	0.3	
11:56	0.2	
11:57		

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 11:58 Time Completed: 12:03 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Req # Notes
SG-37-10	11:58	Summa	1L	E2096	TO-15	29		173
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 38

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Inshall Shut 10:21 Finish 10:35

Time Started: 11:19 Time Completed: 11:22

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
11:19	1.0	
11:20	0.4	
11:21	0.1	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 11:22 Time Completed: 11:27 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-38-10	11:22	Summa	1L	1850	TO-15	29		220
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 39

Project Name/Number: 2016031 Date: 9-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~3 Hg" ~150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 14:07 Finish 14:33

Time Started: 15:21 Time Completed: 15:24

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
15:21	0.4	
15:22	0.0	
15:23	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 15:24 Time Completed: 15:29 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-39-10	15:24	Summa	1L	E2375	~~TE~~	29.0		052
					TO-15			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 40

Project Name/Number: 2016031 Date: 9-19-16 Sampler: TSOV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.167 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

n3 Hg" 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 13:50 Finish 14:12

Time Started: 15:10 Time Completed: 15:13

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
15:10	1.0	
15:11	1.1	
15:12	0.8	
ts		

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 15:13 Time Completed: 15:18 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Bag Notes
SG-40-10	15:13	Summa	1L	E2354	TO-15	29.0		020

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 41

Project Name/Number: 2016031 Date: 9-19-16 Sampler: JBV

PURGE CALCULATION

Casing Diameter ("d", in.) 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

2.5 Hg" 200 ml/mm

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 13:24 Finish 13:45

Time Started: 14:57 Time Completed: 15:00

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
14:57	1.3	
14:58	0.5	
14:59	0.5	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 15:00 Time Completed: 15:03 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-41-10	15:00	Summa	1L	E2361	TO-15	29		218

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 42

Project Name/Number: 2016031 Date: 9-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~3 Hg" 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install start 12:45 Finish 13:02

Time Started: 14:45 Time Completed: 14:48

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
14:45	1.5	
14:46	0.8	
14:47	0.5	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 14:48 Time Completed: 14:53 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg Notes
SG-42-10	14:48	Summa	1L	E2410	TO-15	29.0		110

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 43

Project Name/Number: 201603/ Date: 9-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.167 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~3 Hg" 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install 12:12 Finish: 12:30

Time Started: 13:00 Time Completed: 13:03

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
13:00	1.7	
13:01	0.7	
13:02	0.4	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 13:03 Time Completed: 13:08 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	~~Notes~~ rag
SG-43-~~8~~10	13:03	Summa	1L	E2374	TO-15	29		~~G~~ 211

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 44

Project Name/Number: 2016031 Date: 9-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

3 Hg" 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install start 11:47 Finish 12:10

Time Started: 12:43 Time Completed: 12:46

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
12:43	0.7	
12:44	0.2	
12:45	0.1	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 12:46 Time Completed: 12:51 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	rcg Notes
SG-44-10	12:46	Summa	1L	E2287	TO-15	29		132

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 45

Project Name/Number: 2016031 Date: 9-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.) 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: 0.007 ft^3

Purge Volume (b • 3) = c: 0.006 ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~3 Hg" 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install start 11:21 Finish: 11:41

Time Started: 12:35 Time Completed: 12:38

Total Purge Time: 3 min. Total Purge Volume: _____ ~~ft^3~~

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
12:35	0.0	
12:36	0.1	
12:37	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 12:38 Time Completed: 12:43 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Notes
SG-45-10	12:38	Summa	1 L	E2355	TO-15	29		058

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 46

Project Name/Number: 2016031 Date: 9-19-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 5 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

3 Hg"

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start: 11:05 Finish 11:19

Time Started: 12:18 Time Completed: 12:21

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
12:18	0	
12:19	0.9	
12:20	0.9	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 12:21 Time Completed: 12:26 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Rig Notes
SG-46-5	12:24	Summa	1L	E2391	TO-15	29		1607-07

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 47

Project Name/Number: 2016031 Date: 9-20-16 Sampler: DDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

1.5" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 9:52 Finish 10:07

Time Started: 11:25 Time Completed: 11:28

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
11:25	0.2	
11:26	0.0	
11:27	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 11:28 Time Completed: 11:33 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Kag # Notes
SG-47-10	11:28	Summa	1L	1873	TO-15	29		166
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 48

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install start 15:01 Finish 15:20

Time Started: 15:54 Time Completed: 15:57

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	~~PID~~/FID Reading (ppmV)	Notes
15:55 4	0.0	
15:56 5	0.0	
15:57 6	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 15:57' Time Completed: 16:02 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Req # Notes
SG-48-10	15:57	Summa	1L	E2406	TO-15	29		204
					TIC	↓		
Ambient-2	15:48	Summa	1L	E2359	TO-15	↓		025
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 49

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) • d^2 • 0.0055 = b: _____ ft^3

Purge Volume (b • 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.0" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start 15:18 Finish 15:43

Time Started: 16:17 Time Completed: 16:20

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
16:17	0.2	
16:18	0.0	
16:19	0.0	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 16:20 Time Completed: 16:25 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Req # Notes
SG-49-10	16:20	Summa	1L	F2100	TO-15	29		126
					TIC			

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: 50

Project Name/Number: 2016031 Date: 9-20-16 Sampler: BDV

PURGE CALCULATION

Casing Diameter ("d", in.): 0.187 Length of Air Column ("a", ft): 10 Casing Volume: (a) X d^2 X 0.0055 = b: _____ ft^3

Purge Volume (b X 3) = c: _____ ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

~2.5" Hg 150 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Start Install 15:33 Finish 15:51

Time Started: 16:32 Time Completed: 16:35

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Elapsed Time (Min)	PID/FID Reading (ppmV)	Notes
16:32	0.5	
16:33	0.3	
16:34	0.3	

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 16:35 Time Completed: 16:40 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Req # Notes
SG-50-10	16:35	Summa	1L	18:47	TO-15	29		128
					TIC			

not a time

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HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: SG-51

Project Name/Number: ADEQ WCP NCP 2014042.20 Date: 10/31/16

Sampler: L. Wills

PURGE CALCULATION

Casing Diameter ("d", in.): .125 Length of Air Column ("a", ft): 12 Casing Volume: (a) X d^2 X 0.0055 = b: .001 ft^3

Purge Volume (b X 3) = c: .003 ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

200 mL/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start: 1526 Install Finish: 1530

Time Started: 1600 Time Completed: ~~1530~~ 1603

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Time	PID Reading (ppm)	Notes
1601	0.0	
1602	0.0	
1603	0.0	MAX = 1.7

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 1603 Time Completed: 1608 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	Reg # Notes
SG-51-10	1603	Summa	1 L	1858	TO-15	29		175

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: SG-52

Project Name/Number: ADEQ WCP NCP 2014042.20 Date: 10/31/16

Sampler: L. Wills

PURGE CALCULATION

Casing Diameter ("d", in.): .125 Length of Air Column ("a", ft): 12 Casing Volume: (a) X d^2 X 0.0055 = b: .001 ft^3

Purge Volume (b X 3) = c: .003 ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

200 mL/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start: 1533 Install Finish: 1538

Time Started: 1611 Time Completed: 1614

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Time	PID Reading (ppm)	Notes
1612	0.0	
1613	0.3	
1614	0.2	MAX = 2.1

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 1615 Time Completed: 1620 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	~~Notes~~ Pg #
SG-52-10	1615	Summa	1L	1796	TO-15	29		057

HYDRO GEO CHEM, INC.

Soil Vapor Sampling Form

Well ID: SG-~~B~~53 5

Project Name/Number: ADEQ WCP NCP 2014042.20 Date: 10/31/16

Sampler: L. Wills

PURGE CALCULATION

Casing Diameter ("d", in.): .125 Length of Air Column ("a", ft): 12 Casing Volume: (a) X d^2 X 0.0055 = b: .001 ft^3

Purge Volume (b X 3) = c: .003 ft^3 Purge Rate ("e"): _____ ft^3/min Purge Time (c/e) = _____ min.

200 ml/min

PURGE INFORMATION AND FIELD MEASUREMENTS

Install Start: 1540 Install Finish: 1545

Time Started: 1622 Time Completed: 1625

Total Purge Time: 3 min. Total Purge Volume: _____ ft^3

Time	PID Reading (ppm)	Notes
1623	3.0	
1624	2.4	
1625	1.6	Max = 3.6

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started: 1625 Time Completed: 1630 Sampling Method: Grab

Sample No.	Time	Container Type	Volume	Serial Number	Analysis Method	Start Pressure	End Pressure	~~Notes~~ Reg #
SG-53-10	1625	Summa	1L	E2296	TO15	29		018

W Osborn Rd
N 29th Ave
Depth
SG-51-10
51
52
53
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Goog

ATTACHMENT 2

ANALYTICAL LABORATORY REPORTS AND CHAIN OF CUSTODY

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 3, 2016

Client:	Dan Sola	Work Order #:	16I030
Company:	Hydro Geo Chem	Project Name:	27th Ave & Osborn
Address:	6370 E Thomas #200	Project Number:	2016031
	Scottsdale, AZ 85251	Received Date:	9/20/2016

Dear Client:

Airtech Environmental Laboratories received twenty (20) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 3, 2016

Client:	Dan Sola	Work Order #:	16I030
Company:	Hydro Geo Chem	Project Name:	27th Ave & Osborn
Address:	6370 E Thomas #200	Project Number:	2016031
	Scottsdale, AZ 85251	Received Date:	9/20/2016

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
16I030-01	SG-26-10	TO-15	9/19/2016	8:00
16I030-02	SG-46-5	TO-15	9/19/2016	12:21
16I030-03	SG-45-10	TO-15	9/19/2016	12:38
16I030-04	SG-44-10	TO-15	9/19/2016	12:46
16I030-05	SG-43-10	TO-15	9/19/2016	13:03
16I030-06	SG-42-10	TO-15	9/19/2016	14:48
16I030-07	SG-41-10	TO-15	9/19/2016	15:00
16I030-08	SG-40-10	TO-15	9/19/2016	15:13
16I030-09	SG-39-10	TO-15	9/19/2016	15:24
16I030-10	SG-27-10	TO-15	9/19/2016	15:50
16I030-11	SG-26-10	TO-15	9/19/2016	16:04
16I030-12	SG-25-10	TO-15	9/19/2016	16:20
16I030-13	SG-24-10	TO-15	9/19/2016	16:39
16I030-14	SG-23-10	TO-15	9/19/2016	16:52
16I030-15	Ambient-1	TO-15	9/19/2016	16:53
16I030-16	SG-22-10	TO-15	9/20/2016	7:41
16I030-17	SG-21-10	TO-15	9/20/2016	7:52
16I030-18	SG-20-10	TO-15	9/20/2016	8:04
16I030-19	SG-19-10	TO-15	9/20/2016	8:48
16I030-20	SG-18-10	TO-15	9/20/2016	9:13

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 3, 2016

Client:	Dan Sola	Work Order #:	16I030
Company:	Hydro Geo Chem	Project Name:	27th Ave & Osborn
Address:	6370 E Thomas #200	Project Number:	2016031
	Scottsdale, AZ 85251	Received Date:	09/20/16

Case Narrative

All samples and QC associated with your samples met the quality control objectives. Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

L5: The associated blank spike recovery was above the laboratory/method acceptance limits. The analyte was not detected in the sample.

T4: Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Vacuum	Type	
	Client	1.0 liter		before sampled	after sampled	5 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
16I030-01	SG-26-10	1836	1609-06	29.0	12.93	082	1607-06
16I030-02	SG-46-5	E2391	1608-06	29.0	10.01	215	1607-07
16I030-03	SG-45-10	E2355	1609-03	29.0	12.81	058	1608-02
16I030-04	SG-44-10	E2287	1609-03	29.0	12.72	132	1607-07
16I030-05	SG-43-10	E2374	1609-03	29.0	11.15	211	1607-07
16I030-06	SG-42-10	E2410	1609-03	29.0	12.90	110	1607-07
16I030-07	SG-41-10	E2361	1609-03	29.0	12.45	218	1607-07
16I030-08	SG-40-10	E2354	1609-02	29.0	12.86	020	1608-02
16I030-09	SG-39-10	E2375	1609-02	29.0	10.06	052	1607-07
16I030-10	SG-27-10	1854	1609-03	29.0	9.33	154	1607-07
16I030-11	SG-26-10	E2086	1609-06	29.0	12.66	157	1607-06
16I030-12	SG-25-10	1819	1609-06	29.0	11.42	155	1607-06
16I030-13	SG-24-10	1816	1609-06	29.0	13.39	039	1607-06
16I030-14	SG-23-10	0743	1609-06	29.0	13.06	069	1607-06
16I030-15	Ambient-1	E2412	1609-06	29.0	12.99	213	1607-06
16I030-16	SG-22-10	1867	1609-02	29.0	12.96	131	1608-02
16I030-17	SG-21-10	E2388	1609-06	29.0	13.43	006	1607-06
16I030-18	SG-20-10	1841	1609-06	29.0	13.29	113	1607-07
16I030-19	SG-19-10	E2295	1609-02	29.0	12.94	032	1607-07
16I030-20	SG-18-10	1839	1609-02	29.0	13.91	040	1607-07

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-26-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	01	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**7.6**	**1.0**	**37.2**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**2.2**	**1.0**	**10.6**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**2.6**	**1.0**	**15.9**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	**4.2**	**1.0**	**19.7**	**4.66**		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	**16**	**10**	**65.0**	**41.0**		2	9/23/2016	591-78-6
2-Propanol (IPA)	**17**	**10**	**40.9**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	**2.2**	**2.0**	**10.8**	**9.84**		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**10**	**10**	**42.6**	**41.0**		2	9/23/2016	108-10-1
Acetone	< 10	10	< 23.8	23.8		2	9/23/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**7.5**	**1.0**	**23.9**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**20**	**1.0**	**68.2**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**5.8**	**1.0**	**25.3**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-26-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	01	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**6.3**	**1.0**	**25.7**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**17**	**2.0**	**71.9**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	1634-04-4
Methylcyclohexane	**4.4**	**2.0**	**17.6**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/23/2016	111-65-9
o-Xylene	**6.9**	**1.0**	**30.0**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	**1.5**	**1.0**	**6.56**	**4.26**		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**39**	**1.0**	**147**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	96.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	530	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-46-5
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	02	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 10	10	< 54.6	54.6		20	9/28/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 10	10	< 68.7	68.7		20	9/28/2016	79-34-5
1,1,2-Trichloroethane	< 10	10	< 54.6	54.6		20	9/28/2016	79-00-5
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	9/28/2016	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	9/28/2016	75-35-4
1,2,4-Trichlorobenzene	< 40	40	< 297	297		20	9/28/2016	120-82-1
1,2,4-Trimethylbenzene	< 10	10	< 49.2	49.2		20	9/28/2016	95-63-6
1,2-Dibromoethane	< 10	10	< 76.8	76.8		20	9/28/2016	106-93-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/28/2016	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/28/2016	107-06-2
1,2-Dichloropropane	< 10	10	< 46.2	46.2		20	9/28/2016	78-87-5
1,3,5-Trimethylbenzene	< 10	10	< 49.2	49.2		20	9/28/2016	108-67-8
1,3-Butadiene	< 10	10	< 22.1	22.1		20	9/28/2016	106-99-0
1,3-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/28/2016	541-73-1
1,4-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/28/2016	106-46-7
1,4-Dioxane	< 40	40	< 144	144		20	9/28/2016	123-91-1
2,2,4-Trimethylpentane	< 10	10	< 46.6	46.6		20	9/28/2016	540-84-1
2-Butanone (MEK)	< 100	100	< 295	295		20	9/28/2016	78-93-3
2-Hexanone	< 100	100	< 410	410		20	9/28/2016	591-78-6
2-Propanol (IPA)	< 100	100	< 245	245		20	9/28/2016	67-63-0
4-Ethyltoluene	< 20	20	< 98.4	98.4		20	9/28/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 100	100	< 410	410		20	9/28/2016	108-10-1
Acetone	**322**	**100**	**767**	**238**		20	9/23/2016	67-64-1
Allyl chloride	< 20	20	< 62.6	62.6		20	9/28/2016	107-05-1
Benzene	**15**	**10**	**47.2**	**31.9**		20	9/28/2016	71-43-2
Benzyl chloride	< 40	40	< 207	207		20	9/28/2016	100-44-7
Bromodichloromethane	< 10	10	< 67.0	67.0		20	9/28/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 10	10	< 43.7	43.7		20	9/28/2016	593-60-2
Bromoform	< 10	10	< 103	103		20	9/28/2016	75-25-2
Bromomethane	< 10	10	< 38.8	38.8		20	9/28/2016	74-83-9
Butyl benzene	< 20	20	< 110	110		20	9/28/2016	104-51-8
Carbon disulfide	< 40	40	< 124	124		20	9/28/2016	75-15-0
Carbon tetrachloride	< 10	10	< 62.9	62.9		20	9/28/2016	56-23-5
Chlorobenzene	< 10	10	< 46.0	46.0		20	9/28/2016	108-90-7
Chloroethane	< 10	10	< 26.4	26.4		20	9/28/2016	75-00-3
Chloroform	< 10	10	< 48.8	48.8		20	9/28/2016	67-66-3
Chloromethane	< 20	20	< 41.4	41.4		20	9/28/2016	74-87-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/28/2016	156-59-2
cis-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	9/28/2016	542-75-6
Cyclohexane	**908**	**10**	**3,122**	**34.4**		20	9/28/2016	110-82-7
Dibromochloromethane	< 10	10	< 85.2	85.2		20	9/28/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	9/28/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 10	10	< 69.9	69.9		20	9/28/2016	76-14-2
Ethyl Acetate	< 10	10	< 36.0	36.0		20	9/28/2016	141-78-6
Ethylbenzene	< 10	10	< 43.4	43.4		20	9/28/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-46-5
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	02	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 10	10	< 41.0	41.0		20	9/28/2016	142-82-5
Hexachlorobutadiene	< 20	20	< 213	213		20	9/28/2016	87-68-3
Hexane	**167**	**20**	**588**	**70.4**		20	9/28/2016	110-54-3
Isopropylbenzene	< 20	20	< 98.4	98.4		20	9/28/2016	98-82-8
m&p-Xylene	< 20	20	< 86.8	86.8		20	9/28/2016	179601-23-1
Methyl tert-butyl ether	< 40	40	< 144	144		20	9/28/2016	1634-04-4
Methylcyclohexane	< 20	20	< 80.4	80.4		20	9/28/2016	108-87-2
Methylene chloride	< 40	40	< 139	139		20	9/28/2016	75-09-2
Naphthalene	< 100	100	< 524	524		20	9/28/2016	91-20-3
Nonane	< 20	20	< 105	105		20	9/28/2016	111-84-2
Octane	**57**	**20**	**265**	**93.4**		20	9/28/2016	111-65-9
o-Xylene	< 10	10	< 43.4	43.4		20	9/28/2016	95-47-6
Propene (Propylene)	< 20	20	< 34.4	34.4		20	9/28/2016	115-07-1
Propylbenzene	< 20	20	< 98.4	98.4		20	9/28/2016	103-65-1
Sec-Butyl benzene	< 20	20	< 110	110		20	9/28/2016	135-98-8
Styrene	< 10	10	< 42.6	42.6		20	9/28/2016	100-42-5
Tert-Butyl benzene	< 20	20	< 110	110		20	9/28/2016	98-06-6
Tetrachloroethene	< 20	20	< 136	136		20	9/28/2016	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/28/2016	109-99-9
Toluene	**35**	**10**	**133**	**37.7**		20	9/28/2016	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/28/2016	156-60-5
trans-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	9/28/2016	542-75-6
Trichloroethene	< 10	10	< 53.7	53.7		20	9/28/2016	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	9/28/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	9/28/2016	76-13-1
Vinyl acetate	< 10	10	< 35.2	35.2		20	9/28/2016	108-05-4
Vinyl chloride	< 10	10	< 25.6	25.6		20	9/28/2016	75-01-4
Surr: 4-Bromofluorobenzene	99.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	240	200	ppbv		T4	20	9/28/2016
Difluoroethane	< 200	200	ppbv		T4	20	9/28/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-45-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	03	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**5.0**	**1.0**	**24.4**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**1.5**	**1.0**	**7.18**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**1.7**	**1.0**	**10.2**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	**13**	**10**	**55.3**	**41.0**		2	9/23/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/23/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**11**	**10**	**43.6**	**41.0**		2	9/23/2016	108-10-1
Acetone	**198**	**50**	**471**	**119**		10	9/28/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**7.0**	**1.0**	**22.3**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**215**	**5.0**	**739**	**17.2**		10	9/28/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**7.1**	**1.0**	**30.9**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-45-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	03	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**9.0**	**1.0**	**36.7**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	**35**	**2.0**	**124**	**7.04**		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**20**	**2.0**	**88.4**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	**5.8**	**4.0**	**20.9**	**14.4**		2	9/23/2016	1634-04-4
Methylcyclohexane	**5.4**	**2.0**	**21.8**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	**60**	**2.0**	**281**	**9.34**		2	9/23/2016	111-65-9
o-Xylene	**7.1**	**1.0**	**31.0**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**50**	**1.0**	**188**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	**1.7**	**1.0**	**13.3**	**7.66**		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	97.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	420	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-44-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	04	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**7.2**	**1.0**	**35.6**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**2.2**	**1.0**	**10.9**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**2.0**	**1.0**	**11.8**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	**16**	**10**	**66.8**	**41.0**		2	9/23/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/23/2016	67-63-0
4-Ethyltoluene	**2.4**	**2.0**	**11.8**	**9.84**		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**15**	**10**	**61.4**	**41.0**		2	9/23/2016	108-10-1
Acetone	**215**	**100**	**512**	**238**		20	9/24/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**6.4**	**1.0**	**20.3**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**58**	**1.0**	**201**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**6.2**	**1.0**	**26.8**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-44-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	04	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**7.8**	**1.0**	**32.0**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**20**	**2.0**	**85.8**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	**7.1**	**4.0**	**25.5**	**14.4**		2	9/23/2016	1634-04-4
Methylcyclohexane	**3.3**	**2.0**	**13.4**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	**49**	**2.0**	**229**	**9.34**		2	9/23/2016	111-65-9
o-Xylene	**6.6**	**1.0**	**28.6**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	**2.1**	**2.0**	**10.2**	**9.84**		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	**1.3**	**1.0**	**5.45**	**4.26**		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**39**	**1.0**	**147**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	**2.5**	**1.0**	**19.5**	**7.66**		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	97.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	460	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-43-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	05	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**8.8**	**1.0**	**43.5**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**2.6**	**1.0**	**13.0**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**4.8**	**1.0**	**28.6**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	**6.9**	**1.0**	**32.1**	**4.66**		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	**13**	**10**	**51.7**	**41.0**		2	9/23/2016	591-78-6
2-Propanol (IPA)	**18**	**10**	**43.7**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	**2.8**	**2.0**	**13.9**	**9.84**		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**16**	**10**	**64.3**	**41.0**		2	9/23/2016	108-10-1
Acetone	**269**	**100**	**640**	**238**		20	9/24/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**12**	**1.0**	**38.9**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**46**	**1.0**	**158**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**8.3**	**1.0**	**36.2**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-43-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	05	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	**16**	**1.0**	**67.2**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**28**	**2.0**	**123**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	**8.3**	**4.0**	**30.0**	**14.4**		2	9/23/2016	1634-04-4
Methylcyclohexane	**8.5**	**2.0**	**34.3**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	**48**	**2.0**	**225**	**9.34**		2	9/23/2016	111-65-9
o-Xylene	**9.6**	**1.0**	**41.5**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	**2.3**	**2.0**	**11.2**	**9.84**		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	**< 1.0**	**1.0**	**< 4.26**	**4.26**		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**62**	**1.0**	**235**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	**1.8**	**1.0**	**14.1**	**7.66**		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	93.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	1,200	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-42-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	06	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**5.8**	**1.0**	**28.6**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**1.7**	**1.0**	**8.17**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**2.4**	**1.0**	**14.2**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	**6.3**	**1.0**	**29.3**	**4.66**		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	**21**	**10**	**87.0**	**41.0**		2	9/23/2016	591-78-6
2-Propanol (IPA)	**12**	**10**	**29.9**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**35**	**10**	**144**	**41.0**		2	9/23/2016	108-10-1
Acetone	**186**	**100**	**443**	**238**		20	9/24/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**6.9**	**1.0**	**22.1**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**32**	**1.0**	**108**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**5.3**	**1.0**	**22.9**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-42-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	06	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**8.9**	**1.0**	**36.3**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**18**	**2.0**	**78.6**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	**6.8**	**4.0**	**24.7**	**14.4**		2	9/23/2016	1634-04-4
Methylcyclohexane	**5.4**	**2.0**	**21.9**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	**2.9**	**2.0**	**15.0**	**10.5**		2	9/23/2016	111-84-2
Octane	**53**	**2.0**	**249**	**9.34**		2	9/23/2016	111-65-9
o-Xylene	**6.4**	**1.0**	**27.9**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	**1.3**	**1.0**	**5.71**	**4.26**		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**39**	**1.0**	**147**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	**1.3**	**1.0**	**9.65**	**7.66**		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	104	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	420	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-41-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	07	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**6.6**	**1.0**	**32.3**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**2.1**	**1.0**	**10.4**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**2.4**	**1.0**	**14.4**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	**5.1**	**1.0**	**24.0**	**4.66**		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	**16**	**10**	**67.4**	**41.0**		2	9/23/2016	591-78-6
2-Propanol (IPA)	**13**	**10**	**32.2**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	**2.1**	**2.0**	**10.4**	**9.84**		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**16**	**10**	**63.9**	**41.0**		2	9/23/2016	108-10-1
Acetone	**160**	**100**	**382**	**238**		20	9/24/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**9.0**	**1.0**	**28.6**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**34**	**1.0**	**116**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**6.8**	**1.0**	**29.3**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-41-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	07	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**10**	**1.0**	**42.4**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**19**	**2.0**	**81.8**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	**5.8**	**4.0**	**20.8**	**14.4**		2	9/23/2016	1634-04-4
Methylcyclohexane	**5.7**	**2.0**	**22.9**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	**42**	**2.0**	**197**	**9.34**		2	9/23/2016	111-65-9
o-Xylene	**6.6**	**1.0**	**28.8**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	**2.2**	**2.0**	**10.6**	**9.84**		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	**1.4**	**1.0**	**6.13**	**4.26**		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**39**	**1.0**	**148**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	**1.3**	**1.0**	**7.53**	**5.62**		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	**3.0**	**1.0**	**22.8**	**7.66**		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	99.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	620	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-40-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	08	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**5.3**	**1.0**	**26.0**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**1.7**	**1.0**	**8.56**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**2.1**	**1.0**	**12.6**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	**5.1**	**1.0**	**23.7**	**4.66**		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	**22**	**10**	**90.0**	**41.0**		2	9/23/2016	591-78-6
2-Propanol (IPA)	**17**	**10**	**42.4**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**28**	**10**	**113**	**41.0**		2	9/23/2016	108-10-1
Acetone	**313**	**100**	**744**	**238**		20	9/28/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**10**	**1.0**	**32.6**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**29**	**1.0**	**98.9**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**6.5**	**1.0**	**28.1**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-40-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	08	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**8.4**	**1.0**	**34.4**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**20**	**2.0**	**85.2**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	**7.8**	**4.0**	**28.0**	**14.4**		2	9/23/2016	1634-04-4
Methylcyclohexane	**5.8**	**2.0**	**23.5**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	**52**	**2.0**	**241**	**9.34**		2	9/23/2016	111-65-9
o-Xylene	**6.5**	**1.0**	**28.3**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	**2.1**	**1.0**	**8.86**	**4.26**		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**42**	**1.0**	**157**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	**2.5**	**1.0**	**14.2**	**5.62**		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	**15**	**1.0**	**112**	**7.66**		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	90.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	1,100	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-39-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	09	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**6.2**	**1.0**	**30.7**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**1.8**	**1.0**	**9.05**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**2.6**	**1.0**	**15.9**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	**6.1**	**1.0**	**28.4**	**4.66**		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/23/2016	591-78-6
2-Propanol (IPA)	**20**	**10**	**49.2**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/23/2016	108-10-1
Acetone	**139**	**25**	**330**	**59.5**		5	9/28/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**3.0**	**1.0**	**9.57**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**20**	**1.0**	**68.3**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**4.3**	**1.0**	**18.5**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-39-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	09	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	**4.6**	**1.0**	**18.9**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**14**	**2.0**	**59.0**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	1634-04-4
Methylcyclohexane	**5.2**	**2.0**	**21.0**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/23/2016	111-65-9
o-Xylene	**5.5**	**1.0**	**24.0**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	**7.3**	**2.0**	**49.5**	**13.6**		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**25**	**1.0**	**94.0**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	**4.0**	**1.0**	**22.6**	**5.62**		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	**46**	**1.0**	**349**	**7.66**		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	96.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	1,400	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-27-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	10	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**6.7**	**1.0**	**33.1**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**1.9**	**1.0**	**9.45**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**3.3**	**1.0**	**19.8**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	**6.8**	**1.0**	**31.5**	**4.66**		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/23/2016	591-78-6
2-Propanol (IPA)	**17**	**10**	**42.4**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	**2.1**	**2.0**	**10.4**	**9.84**		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/23/2016	108-10-1
Acetone	**157**	**25**	**374**	**59.5**		5	9/28/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**5.3**	**1.0**	**17.0**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**25**	**1.0**	**86.7**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**6.5**	**1.0**	**28.3**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-27-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	10	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	**7.3**	**1.0**	**29.8**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	**13**	**2.0**	**44.4**	**7.04**		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**19**	**2.0**	**81.2**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	1634-04-4
Methylcyclohexane	**6.6**	**2.0**	**26.6**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	**6.4**	**2.0**	**30.0**	**9.34**		2	9/23/2016	111-65-9
o-Xylene	**7.2**	**1.0**	**31.3**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**35**	**1.0**	**131**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	96.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	1,200	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-26-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	11	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**2.2**	**1.0**	**10.8**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	**16**	**10**	**67.2**	**41.0**		2	9/23/2016	591-78-6
2-Propanol (IPA)	**10**	**10**	**24.8**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**12**	**10**	**50.7**	**41.0**		2	9/23/2016	108-10-1
Acetone	**248**	**25**	**591**	**59.5**		5	9/28/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**9.6**	**1.0**	**30.6**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	**4.4**	**4.0**	**13.7**	**12.4**		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**20**	**1.0**	**69.6**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**4.3**	**1.0**	**18.8**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-26-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	11	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**8.7**	**1.0**	**35.8**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**12**	**2.0**	**51.5**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	1634-04-4
Methylcyclohexane	**4.1**	**2.0**	**16.4**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/23/2016	111-65-9
o-Xylene	**4.4**	**1.0**	**18.9**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	**1.6**	**1.0**	**6.99**	**4.26**		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**43**	**1.0**	**161**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	84.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	400	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-25-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	12	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**6.3**	**1.0**	**31.2**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**2.0**	**1.0**	**9.64**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**2.8**	**1.0**	**17.1**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/23/2016	591-78-6
2-Propanol (IPA)	**17**	**10**	**40.5**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/23/2016	108-10-1
Acetone	**209**	**25**	**497**	**59.5**		5	9/28/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**7.0**	**1.0**	**22.3**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	**4.3**	**1.0**	**29.1**	**6.70**		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	**8.5**	**4.0**	**26.6**	**12.4**		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	**19**	**1.0**	**94.3**	**4.88**		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**23**	**1.0**	**77.4**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**4.4**	**1.0**	**19.3**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-25-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	12	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**7.0**	**1.0**	**28.8**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**13**	**2.0**	**57.0**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	1634-04-4
Methylcyclohexane	**4.8**	**2.0**	**19.2**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	**7.0**	**2.0**	**32.8**	**9.34**		2	9/23/2016	111-65-9
o-Xylene	**5.4**	**1.0**	**23.6**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**24**	**1.0**	**92.1**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	94.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	750	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-24-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	13	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	**3.9**	**1.0**	**19.4**	**4.92**		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	**1.2**	**1.0**	**6.10**	**4.92**		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	**1.5**	**1.0**	**9.26**	**6.01**		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	**2.5**	**1.0**	**11.7**	**4.66**		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/23/2016	591-78-6
2-Propanol (IPA)	**16**	**10**	**40.1**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**10**	**10**	**41.6**	**41.0**		2	9/23/2016	108-10-1
Acetone	**200**	**25**	**475**	**59.5**		5	9/28/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**13**	**1.0**	**42.9**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	**22**	**4.0**	**67.4**	**12.4**		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	**1.8**	**1.0**	**8.78**	**4.88**		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**16**	**1.0**	**55.5**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**3.8**	**1.0**	**16.6**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-24-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	13	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**9.2**	**1.0**	**37.7**	**4.10**		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**11**	**2.0**	**45.7**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	1634-04-4
Methylcyclohexane	**3.0**	**2.0**	**12.1**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/23/2016	111-65-9
o-Xylene	**4.3**	**1.0**	**18.7**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	**2.1**	**1.0**	**8.78**	**4.26**		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	**2.4**	**2.0**	**16.1**	**13.6**		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**23**	**1.0**	**85.4**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	91.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	580	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-23-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	14	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	**12**	**10**	**47.7**	**41.0**		2	9/23/2016	591-78-6
2-Propanol (IPA)	**11**	**10**	**27.6**	**24.5**		2	9/23/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/23/2016	108-10-1
Acetone	**216**	**50**	**513**	**119**		10	9/28/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	**15**	**1.0**	**47.6**	**3.19**		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	**6.8**	**4.0**	**21.2**	**12.4**		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	**18**	**1.0**	**61.1**	**3.44**		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	**2.3**	**1.0**	**10.2**	**4.34**		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-23-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	14	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	**4.0**	**2.0**	**17.5**	**8.68**		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	1634-04-4
Methylcyclohexane	**3.3**	**2.0**	**13.4**	**8.04**		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/23/2016	111-65-9
o-Xylene	**1.3**	**1.0**	**5.73**	**4.34**		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	**19**	**1.0**	**69.9**	**3.77**		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	90.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	430	20	ppbv		T4	2	9/23/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/23/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Ambient-1
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	15	**Matrix:**	Ambient air

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/23/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/23/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/23/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/23/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/23/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/23/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/23/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/23/2016	108-10-1
Acetone	< 10	10	< 23.8	23.8		2	9/23/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/23/2016	107-05-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	9/23/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/23/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/23/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/23/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/23/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/23/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/23/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/23/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Cyclohexane	< 1.0	1.0	< 3.44	3.44		2	9/23/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/23/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/23/2016	141-78-6
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Ambient-1
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/19/2016
Lab ID:	15	**Matrix:**	Ambient air

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/23/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/23/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/23/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	98-82-8
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	9/23/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/23/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/23/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/23/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/23/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/23/2016	111-65-9
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	9/23/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/23/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/23/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/23/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/23/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2016	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/23/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/23/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/23/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	98.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	< 20	20	ppbv	T4	2	9/23/2016	
Difluoroethane	< 20	20	ppbv	T4	2	9/23/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-22-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/20/2016
Lab ID:	16	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**1.7**	**1.0**	**8.27**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**195**	**50**	**465**	**119**		10	9/28/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**5.3**	**1.0**	**16.8**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	**6.7**	**4.0**	**21.0**	**12.4**		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**41**	**1.0**	**140**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**2.0**	**1.0**	**8.59**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-22-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/20/2016
Lab ID:	16	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**5.3**	**2.0**	**23.1**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	**36**	**2.0**	**166**	**9.34**		2	9/24/2016	111-65-9
o-Xylene	**2.1**	**1.0**	**8.94**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**20**	**1.0**	**74.5**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	97.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	130	20	ppbv	T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv	T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-21-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/20/2016
Lab ID:	17	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**1.4**	**1.0**	**6.69**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**166**	**25**	**394**	**59.5**		5	9/28/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**6.0**	**1.0**	**19.1**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	**20**	**4.0**	**63.0**	**12.4**		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**16**	**1.0**	**53.7**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**1.8**	**1.0**	**7.73**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-21-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/20/2016
Lab ID:	17	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**4.7**	**2.0**	**20.5**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	**13**	**2.0**	**61.6**	**9.34**		2	9/24/2016	111-65-9
o-Xylene	**2.0**	**1.0**	**8.85**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**13**	**1.0**	**47.4**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	91.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	170	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-20-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/20/2016
Lab ID:	18	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**3.1**	**1.0**	**15.1**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	**1.7**	**1.0**	**10.1**	**6.01**		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	**2.4**	**1.0**	**11.3**	**4.66**		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	**11**	**10**	**26.7**	**24.5**		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**127**	**50**	**301**	**119**		10	9/29/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**8.8**	**1.0**	**27.9**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	**8.8**	**4.0**	**27.2**	**12.4**		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**23**	**1.0**	**77.5**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**3.6**	**1.0**	**15.7**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-20-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/20/2016
Lab ID:	18	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**5.9**	**1.0**	**24.2**	**4.10**		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	**15**	**2.0**	**52.2**	**7.04**		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**8.5**	**2.0**	**36.9**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	**3.5**	**2.0**	**14.1**	**8.04**		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	**27**	**2.0**	**127**	**9.34**		2	9/24/2016	111-65-9
o-Xylene	**3.6**	**1.0**	**15.5**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	**1.0**	**1.0**	**4.43**	**4.26**		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**22**	**1.0**	**81.1**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	91.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	270	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-19-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/20/2016
Lab ID:	19	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**2.7**	**1.0**	**13.4**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	**1.5**	**1.0**	**9.14**	**6.01**		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	**3.0**	**1.0**	**14.0**	**4.66**		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**124**	**50**	**294**	**119**		10	9/29/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**8.6**	**1.0**	**27.5**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	**8.4**	**4.0**	**26.2**	**12.4**		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**17**	**1.0**	**57.2**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**2.6**	**1.0**	**11.2**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-19-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/20/2016
Lab ID:	19	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**6.8**	**1.0**	**27.8**	**4.10**		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	**17**	**2.0**	**60.5**	**7.04**		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**7.1**	**2.0**	**30.9**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	**3.4**	**2.0**	**13.6**	**8.04**		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	**14**	**2.0**	**66.7**	**9.34**		2	9/24/2016	111-65-9
o-Xylene	**3.1**	**1.0**	**13.5**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**21**	**1.0**	**78.9**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	94.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	340	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-18-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/20/2016
Lab ID:	20	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**2.7**	**1.0**	**13.4**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	**17**	**10**	**71.3**	**41.0**		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**10**	**10**	**41.9**	**41.0**		2	9/24/2016	108-10-1
Acetone	**231**	**100**	**550**	**238**		20	9/29/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**16**	**1.0**	**49.8**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	**13**	**4.0**	**39.2**	**12.4**		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**22**	**1.0**	**75.0**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**4.1**	**1.0**	**17.9**	**4.34**		2	9/24/2016	100-41-4

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-18-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	9/20/2016
Lab ID:	20	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	**14**	**1.0**	**57.4**	**4.10**		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**8.4**	**2.0**	**36.6**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	**3.9**	**2.0**	**15.6**	**8.04**		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	**18**	**2.0**	**86.0**	**9.34**		2	9/24/2016	111-65-9
o-Xylene	**3.9**	**1.0**	**16.9**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	**3.3**	**1.0**	**14.1**	**4.26**		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**26**	**1.0**	**99.5**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	**1.1**	**1.0**	**6.18**	**5.62**		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	98.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	340	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010923 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	9/23/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	9/23/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	9/23/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/23/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	9/23/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	9/23/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	9/23/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	9/23/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/23/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/23/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	9/23/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	9/23/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	9/23/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/23/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/23/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	9/23/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	9/23/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	9/23/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	9/23/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	9/23/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	9/23/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	9/23/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	9/23/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	9/23/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	9/23/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	9/23/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	9/23/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	9/23/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	9/23/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	9/23/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/23/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	9/23/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	9/23/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	9/23/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	9/23/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	9/23/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	9/23/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/23/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	9/23/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	9/23/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	9/23/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	9/23/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	9/23/2016	76-14-2
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	9/23/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	9/23/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010923 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	9/23/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	9/23/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	9/23/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	9/23/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	9/23/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	9/23/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	9/23/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	9/23/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	9/23/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	9/23/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	9/23/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	9/23/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	9/23/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	9/23/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/23/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	9/23/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/23/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	9/23/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	9/23/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	9/23/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/23/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	9/23/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	9/23/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	9/23/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	9/23/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	9/23/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	9/23/2016	75-01-4
Surr: 4-Bromofluorobenzene	108	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/23/2016 Batch: MS010923 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	8.8	87.8	8.8	88.0	10.0	0.2	ppbv			
Dichlorodifluoromethane(F-12)	10.8	108	10.7	107	10.0	1.4	ppbv			
Chloromethane	10.3	103	9.7	96.9	10.0	6.0	ppbv			
Dichlorotetrafluoroethane(F-114)	11.2	112	11.1	111	10.0	0.6	ppbv			
Vinyl Chloride	10.9	109	9.6	96.1	10.0	12.3	ppbv			
1,3-Butadiene	8.0	80.3	8.1	81.2	10.0	1.1	ppbv			
Bromomethane	11.0	110	10.1	101	10.0	8.7	ppbv			
Chloroethane	9.7	96.8	9.5	94.6	10.0	2.3	ppbv			
Ethanol	10.7	107	8.4	84.0	10.0	24.5	ppbv			
Bromoethene(Vinyl Bromide)	10.0	100	10.0	100	10.0	0.1	ppbv			
Trichlorofluoromethane (F-11)	10.7	107	10.7	107	10.0	0.6	ppbv			
Acetone	10.7	107	10.3	103	10.0	3.8	ppbv			
Isopropyl Alcohol (2-Propanol)	8.6	86.4	9.7	96.5	10.0	11.0	ppbv			
1,1-Dichloroethene	9.7	96.6	10.2	102	10.0	5.8	ppbv			
Trichlorotrifluoroethane (F-113)	10.3	103	10.4	104	10.0	1.8	ppbv			
Methylene Chloride	9.0	89.5	9.5	94.8	10.0	5.8	ppbv			
Allyl Chloride	9.3	93.2	8.6	85.6	10.0	8.5	ppbv			
Carbon disulfide	9.4	94.0	9.8	98.0	10.0	4.2	ppbv			
trans-1,2-Dichloroethene	9.3	93.4	10.2	102	10.0	8.7	ppbv			
Methyl tert-butyl ether	9.7	96.8	10.8	108	10.0	11.3	ppbv			
1,1-Dichloroethane	9.2	92.3	9.6	95.6	10.0	3.5	ppbv			
Vinyl acetate	10.1	101	10.2	102	10.0	0.5	ppbv			
2-Butanone (MEK)	9.6	95.5	11.0	110	10.0	13.9	ppbv			
Hexane	10.2	102	10.5	105	10.0	3.0	ppbv			
cis-1,2-Dichloroethene	9.4	94.2	10.2	102	10.0	8.1	ppbv			
Ethyl Acetate	10.4	104	11.0	110	10.0	6.2	ppbv			
Chloroform	10.3	103	10.4	104	10.0	0.9	ppbv			
Tetrahydrofuran	11.6	116	10.7	107	10.0	8.1	ppbv			
1,1,1-Trichloroethane	10.4	104	10.7	107	10.0	2.3	ppbv			
1,2-Dichloroethane	10.2	102	10.7	107	10.0	4.3	ppbv			
Benzene	9.4	94.4	9.6	96.0	10.0	1.7	ppbv			
Carbon tetrachloride	10.9	109	10.8	108	10.0	1.5	ppbv			
Cyclohexane	10.9	109	11.0	110	10.0	1.1	ppbv			
2,2,4-Trimethylpentane	10.2	102	9.8	98.0	10.0	4.3	ppbv			
Heptane	10.0	100	9.3	92.7	10.0	7.2	ppbv			
1,2-Dichloropropane	9.5	94.8	9.7	97.1	10.0	2.4	ppbv			
Trichloroethene	9.7	97.4	10.0	99.8	10.0	2.4	ppbv			
Bromodichloromethane	11.1	111	10.4	104	10.0	6.4	ppbv			
1,4-Dioxane	8.3	83.0	8.3	83.2	10.0	0.2	ppbv			
Methylcyclohexane	9.8	98.2	9.6	95.8	10.0	2.5	ppbv			
cis-1,3-Dichloropropene	10.9	109	10.0	100	10.0	8.6	ppbv			
4-methyl-2-pentanone	9.5	95.2	10.6	106	10.0	11.0	ppbv			
trans-1,3-Dichloropropene	11.2	112	10.3	103	10.0	8.5	ppbv			
Toluene	10.4	104	10.0	100	10.0	3.9	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/23/2016 Batch: MS010923 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	10.6	106	9.9	98.5	10.0	7.4	ppbv			
2-Hexanone	10.9	109	11.4	114	10.0	5.2	ppbv			
n-Octane	9.2	92.0	9.0	90.4	10.0	1.8	ppbv			
Dibromochloromethane	11.5	115	10.6	106	10.0	8.3	ppbv			
1,2-Dibromoethane	10.9	109	10.1	101	10.0	7.7	ppbv			
Tetrachloroethene	10.9	109	10.1	101	10.0	7.5	ppbv			
Chlorobenzene	9.8	98.2	9.7	97.2	10.0	1.0	ppbv			
Ethylbenzene	10.2	102	9.6	95.8	10.0	6.2	ppbv			
m&p-Xylene	19.7	98.3	19.1	95.4	20.0	3.0	ppbv			
Bromoform	11.5	115	10.7	107	10.0	7.3	ppbv			
Styrene	10.4	104	10.4	104	10.0	0.3	ppbv			
Nonane	9.9	98.9	9.2	91.9	10.0	7.3	ppbv			
o-Xylene	10.0	100	9.6	95.7	10.0	4.6	ppbv			
1,1,2,2-Tetrachloroethane	10.4	104	10.0	99.5	10.0	4.2	ppbv			
Isopropylbenzene	11.4	114	10.7	107	10.0	6.4	ppbv			
n-Propylbenzene	10.9	109	10.5	105	10.0	3.1	ppbv			
4-Ethyltoluene	11.2	112	10.9	109	10.0	2.3	ppbv			
1,3,5-Trimethylbenzene	11.2	112	10.6	106	10.0	5.5	ppbv			
Tert-Butyl Benzene	11.0	110	10.0	99.6	10.0	10.0	ppbv			
1,2,4-Trimethylbenzene	11.3	113	10.5	105	10.0	7.1	ppbv			
Sec-Butyl Benzene	11.5	115	10.8	108	10.0	5.8	ppbv			
1,3-Dichlorobenzene	11.1	111	10.3	103	10.0	7.0	ppbv			
Benzyl chloride	11.6	116	11.1	111	10.0	5.2	ppbv			
1,4-Dichlorobenzene	11.4	114	10.5	105	10.0	8.7	ppbv			
1,2-Dichlorobenzene	11.3	113	10.3	103	10.0	9.4	ppbv			
n-Butyl Benzene	11.3	113	10.7	107	10.0	5.2	ppbv			
1,2,4-Trichlorobenzene	10.8	108	10.5	105	10.0	2.7	ppbv			
Naphthalene	10.7	107	9.9	98.7	10.0	8.3	ppbv			
Hexachlorobutadiene	11.0	110	10.3	103	10.0	6.8	ppbv			
Surr: 4-Bromofluorobenzene	11.3	113	10.5	105			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010928 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	9/28/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	9/28/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	9/28/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/28/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	9/28/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	9/28/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	9/28/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	9/28/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/28/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/28/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	9/28/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	9/28/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	9/28/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/28/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/28/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	9/28/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	9/28/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	9/28/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	9/28/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	9/28/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	9/28/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	9/28/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	9/28/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	9/28/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	9/28/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	9/28/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	9/28/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	9/28/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	9/28/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	9/28/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/28/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	9/28/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	9/28/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	9/28/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	9/28/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	9/28/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	9/28/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/28/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	9/28/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	9/28/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	9/28/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	9/28/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	9/28/2016	76-14-2
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	9/28/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	9/28/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010928 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	9/28/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	9/28/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	9/28/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	9/28/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	9/28/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	9/28/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	9/28/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	9/28/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	9/28/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	9/28/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	9/28/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	9/28/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	9/28/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	9/28/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/28/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	9/28/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/28/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	9/28/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	9/28/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	9/28/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/28/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	9/28/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	9/28/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	9/28/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	9/28/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	9/28/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	9/28/2016	75-01-4
Surr: 4-Bromofluorobenzene	103	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/28/2016 Batch: MS010928 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	9.3	93.0	9.2	91.8	10.0	1.3	ppbv			
Dichlorodifluoromethane(F-12)	12.4	124	11.6	116	10.0	7.0	ppbv			
Chloromethane	13.2	132	12.3	123	10.0	7.3	ppbv	L5		
Dichlorotetrafluoroethane(F-114)	12.5	125	12.2	122	10.0	2.5	ppbv			
Vinyl Chloride	11.4	114	9.7	97.1	10.0	16.4	ppbv			
1,3-Butadiene	9.2	91.5	7.9	79.2	10.0	14.4	ppbv			
Bromomethane	11.8	118	10.8	108	10.0	8.6	ppbv			
Chloroethane	10.4	104	10.8	108	10.0	3.3	ppbv			
Ethanol	11.2	112	10.7	107	10.0	4.3	ppbv			
Bromoethene(Vinyl Bromide)	11.7	117	10.8	108	10.0	7.4	ppbv			
Trichlorofluoromethane (F-11)	12.1	121	11.7	117	10.0	3.8	ppbv			
Acetone	11.9	119	12.1	121	10.0	1.3	ppbv			
Isopropyl Alcohol (2-Propanol)	11.6	116	10.5	105	10.0	9.7	ppbv			
1,1-Dichloroethene	12.4	124	11.4	114	10.0	8.8	ppbv			
Trichlorotrifluoroethane (F-113)	11.9	119	11.6	116	10.0	2.7	ppbv			
Methylene Chloride	10.6	106	9.9	98.9	10.0	6.5	ppbv			
Allyl Chloride	10.6	106	11.2	112	10.0	5.7	ppbv			
Carbon disulfide	11.2	112	10.9	109	10.0	2.4	ppbv			
trans-1,2-Dichloroethene	11.6	116	12.1	121	10.0	3.5	ppbv			
Methyl tert-butyl ether	12.7	127	12.6	126	10.0	0.3	ppbv			
1,1-Dichloroethane	10.7	107	10.5	105	10.0	2.5	ppbv			
Vinyl acetate	11.0	110	11.3	113	10.0	2.2	ppbv			
2-Butanone (MEK)	11.0	110	12.1	121	10.0	9.6	ppbv			
Hexane	11.7	117	12.3	123	10.0	4.9	ppbv			
cis-1,2-Dichloroethene	11.5	115	11.7	117	10.0	1.6	ppbv			
Ethyl Acetate	11.3	113	11.7	117	10.0	4.0	ppbv			
Chloroform	11.5	115	11.6	116	10.0	1.4	ppbv			
Tetrahydrofuran	11.6	116	11.7	117	10.0	0.8	ppbv			
1,1,1-Trichloroethane	11.9	119	12.2	122	10.0	1.8	ppbv			
1,2-Dichloroethane	11.6	116	11.5	115	10.0	1.5	ppbv			
Benzene	10.9	109	11.1	111	10.0	1.4	ppbv			
Carbon tetrachloride	12.3	123	12.2	122	10.0	0.3	ppbv			
Cyclohexane	11.8	118	12.3	123	10.0	4.2	ppbv			
2,2,4-Trimethylpentane	11.2	112	11.4	114	10.0	2.1	ppbv			
Heptane	10.8	108	11.2	112	10.0	4.2	ppbv			
1,2-Dichloropropane	9.8	97.6	10.0	99.5	10.0	1.9	ppbv			
Trichloroethene	11.5	115	11.6	116	10.0	1.0	ppbv			
Bromodichloromethane	11.5	115	12.2	122	10.0	5.6	ppbv			
1,4-Dioxane	7.6	75.6	8.0	79.6	10.0	5.2	ppbv			
Methylcyclohexane	11.3	113	11.2	112	10.0	1.6	ppbv			
cis-1,3-Dichloropropene	10.9	109	12.0	120	10.0	9.6	ppbv			
4-methyl-2-pentanone	8.6	85.7	10.2	102	10.0	17.2	ppbv			
trans-1,3-Dichloropropene	11.4	114	12.6	126	10.0	9.9	ppbv			
Toluene	10.9	109	11.5	115	10.0	5.8	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/28/2016 Batch: MS010928 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	10.8	108	11.5	115	10.0	6.0	ppbv			
2-Hexanone	9.7	96.5	9.7	96.5	10.0	0.0	ppbv			
n-Octane	9.7	97.0	10.8	108	10.0	11.1	ppbv			
Dibromochloromethane	11.7	117	12.8	128	10.0	8.4	ppbv			
1,2-Dibromoethane	11.1	111	11.7	117	10.0	5.2	ppbv			
Tetrachloroethene	11.3	113	12.1	121	10.0	7.3	ppbv			
Chlorobenzene	10.9	109	10.8	108	10.0	0.6	ppbv			
Ethylbenzene	11.3	113	11.9	119	10.0	5.6	ppbv			
m&p-Xylene	22.3	111	24.4	122	20.0	9.2	ppbv			
Bromoform	12.0	120	12.5	125	10.0	3.8	ppbv			
Styrene	11.4	114	11.8	118	10.0	3.8	ppbv			
Nonane	10.4	104	10.2	102	10.0	2.3	ppbv			
o-Xylene	10.3	103	11.5	115	10.0	10.9	ppbv			
1,1,2,2-Tetrachloroethane	11.0	110	11.9	119	10.0	7.9	ppbv			
Isopropylbenzene	12.1	121	12.9	129	10.0	6.6	ppbv			
n-Propylbenzene	11.7	117	12.4	124	10.0	6.1	ppbv			
4-Ethyltoluene	12.2	122	12.9	129	10.0	5.9	ppbv			
1,3,5-Trimethylbenzene	11.8	118	12.5	125	10.0	5.5	ppbv			
Tert-Butyl Benzene	11.2	112	11.9	119	10.0	6.8	ppbv			
1,2,4-Trimethylbenzene	11.6	116	12.4	124	10.0	6.5	ppbv			
Sec-Butyl Benzene	11.6	116	12.5	125	10.0	7.2	ppbv			
1,3-Dichlorobenzene	11.0	110	11.8	118	10.0	6.9	ppbv			
Benzyl chloride	12.6	126	13.4	134	10.0	6.3	ppbv		L5	
1,4-Dichlorobenzene	11.5	115	11.9	119	10.0	3.5	ppbv			
1,2-Dichlorobenzene	11.4	114	12.1	121	10.0	5.4	ppbv			
n-Butyl Benzene	11.7	117	12.5	125	10.0	7.0	ppbv			
1,2,4-Trichlorobenzene	10.3	103	10.9	109	10.0	5.7	ppbv			
Naphthalene	9.0	90.4	10.0	100	10.0	10.3	ppbv			
Hexachlorobutadiene	10.7	107	11.4	114	10.0	6.6	ppbv			
Surr: 4-Bromofluorobenzene	10.5	105	10.4	104			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	NA
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I030	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-160802-01	Stock	Spectra Gases	113123527	TO-14 39 Analytes	1.0 ppmv	± 5%	7/25/2017
S-160802-02	Stock	Spectra Gases	113123527	TO-15 25 Analytes	1.0 ppmv	± 5%	7/12/2017
S-160802-03	Stock	Spectra Gases	113123527	15 Additional Compounds	1.0 ppmv	± 5%	7/19/2017
S-151113-01	Stock	Spectra Gases	TB500009-110	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	11/13/2016
A-160914-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	12/14/2016
A-160914-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	11/13/2016

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Hydro Geo Chem	Page 1 of 2		AEL Lab #
Address: 6370 E Thomas #200	Sampler: Ben Vernon	Phone:	16I0283O
	Project Name:	Project Number: 2016031	
City, State, Zip: Scottsdale AZ 85251	Project location: 27th Ave. + Osborn		
Contact: Dan Solan	P.O. Number:		
Phone: 480 424-1501 Fax:	Fax Results: Y (N)		
E-Mail Address: DanS@HGCmc.com	E-Mail Results: (Y) N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

____ 24 Hours ____ 48 Hours
____ 72 Hours
____ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water	TTC		DFA tracer cmpd. as TIC
01	1836	082	6 (1) bag	1 2 (5)	SG-26-10	9-19	8:00	S	1	X							X		
02	E2391	1607	6 (1) bag	1 2 (5)	SG-46-5	9-19	12:21	S	1										
03	E2355	058	6 (1) bag	1 2 (5)	SG-45-10		12:38												
04	E2287	132	6 (1) bag	1 2 (5)	SG-44-10		12:46												
05	E2374	211	6 (1) bag	1 2 (5)	SG-43-10		13:03												
06	E2410	110	6 (1) bag	1 2 (5)	SG-42-10		14:48												
07	E2361	218	6 (1) bag	1 2 (5)	SG-41-10		15:00												
08	E2354	020	6 (1) bag	1 2 (5)	SG-40-10		15:13												
09	E2375	052	6 (1) bag	1 2 (5)	SG-39-10		15:24												
10	1854	154	6 (1) bag	1 2 (5)	SG-27-10		15:50												

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9-20	9:27		

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Hydro Geo Chem	Page 2 of 2		AEL Lab #
Address: 6370 E Thomas #200	Sampler: Ben Vernon	Phone: 520 403 2721	16I0283
	Project Name:	Project Number:	
City, State, Zip: Scottsdale AZ 85251	Project location: 27th Ave + Osborn		
Contact: Dan Sola	P.O. Number: 201603		
Phone: 480 421 1501 Fax:	Fax Results: Y (N)		
E-Mail Address: DanS@HGCinc.com	E-Mail Results: (Y) N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours
_____ 72 Hours
_____ 5 working Day
_____ Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water	TIC		OFA tracer cmpd. as TIC
11	E2086	157	6 (1) bag	1 2 (5)	SG-26-10	9-19	16:04	S	1	X							X		
12	1819	155	6 (1) bag	1 2 (5)	SG-25-10	↓	16:20	↓	↓	↓							↓		
13	1816	039	6 (1) bag	1 2 (5)	SG-24-10	↓	16:39	↓	↓	↓							↓		
14	0743	069	6 (1) bag	1 2 (5)	SG-23-10	↓	16:52	↓	↓	↓							↓		
15	E2412	213	6 (1) bag	1 2 (5)	Ambient-1	↓	16:53	↓	↓	↓							↓		
16	1867	131	6 (1) bag	1 2 (5)	SG-22-10	9-20	7:41	↓	↓	↓							↓		
17	E2388	006	6 (1) bag	1 2 (5)	SG-21-10	↓	7:52	↓	↓	↓							↓		
18	1841	113	6 (1) bag	1 2 (5)	SG-20-10	↓	8:04	↓	↓	↓							↓		
19	E2295	032	6 (1) bag	1 2 (5)	SG-19-10	↓	8:18	↓	↓	↓							↓		
20	1839	040	6 (1) bag	1 2 (5)	SG-18-10	↓	9:13	↓	↓	↓							↓		

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9-20	9:27	[signature]	[signature]

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 6, 2016

Client:	Dan Sola	Work Order #:	16I032
Company:	Hydro Geo Chem	Project Name:	27th Ave & Osborn
Address:	6370 E Thomas #200	Project Number:	2016031
	Scottsdale, AZ 85251	Received Date:	9/20/2016

Dear Client:

Airtech Environmental Laboratories received twenty-one (21) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 6, 2016

Client:	Dan Sola	Work Order #:	16I032
Company:	Hydro Geo Chem	Project Name:	27th Ave & Osborn
Address:	6370 E Thomas #200	Project Number:	2016031
	Scottsdale, AZ 85251	Received Date:	9/20/2016

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
16I032-01	Dup-2	TO-15	9/20/2016	8:00
16I032-02	SG-17-10	TO-15	9/20/2016	10:19
16I032-03	SG-16-10	TO-15	9/20/2016	10:32
16I032-04	SG-15-10	TO-15	9/20/2016	10:45
16I032-05	SG-38-10	TO-15	9/20/2016	11:22
16I032-06	SG-47-10	TO-15	9/20/2016	11:28
16I032-07	SG-37-10	TO-15	9/20/2016	11:58
16I032-08	SG-36-10	TO-15	9/20/2016	12:12
16I032-09	SG-35-10	TO-15	9/20/2016	12:31
16I032-10	SG-34-10	TO-15	9/20/2016	12:45
16I032-11	SG-33-10	TO-15	9/20/2016	13:05
16I032-12	SG-31-10	TO-15	9/20/2016	14:03
16I032-13	SG-29-10	TO-15	9/20/2016	15:15
16I032-14	SG-28-10	TO-15	9/20/2016	15:26
16I032-15	Ambient-2	TO-15	9/20/2016	15:48
16I032-16	SG-48-10	TO-15	9/20/2016	15:57
16I032-17	SG-49-10	TO-15	9/20/2016	16:20
16I032-18	SG-50-10	TO-15	9/20/2016	16:57
16I032-19	Dup-3	TO-15	9/20/2016	18:00
16I032-20	SG-32-10	TO-15	9/20/2016	16:57
16I032-21	SG-30-10	TO-15	9/20/2016	14:38

Airtech Environmental Laboratories (AEL)
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Date: October 6, 2016

Client:	Dan Sola	Work Order #:	16I032
Company:	Hydro Geo Chem	Project Name:	27th Ave & Osborn
Address:	6370 E Thomas #200	Project Number:	2016031
	Scottsdale, AZ 85251	Received Date:	09/20/16

Case Narrative

All samples and QC associated with your samples met the quality control objectives. Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

L5: The associated blank spike recovery was above the laboratory/method acceptance limits. Analyte not detected in sample.

R6: BS/BSD RPD exceeded the method acceptance limit. Recovery met acceptance criteria.

T4: Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	5 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
16I032-01	Dup-2	1872	1609-02	29.0	13.75	036	1607-07
16I032-02	SG-17-10	E2289	1609-02	29.0	12.31	219	1608-02
16I032-03	SG-16-10	E2283	1609-02	29.0	12.78	050	1607-07
16I032-04	SG-15-10	E2349	1609-02	29.0	13.58	183	1607-07
16I032-05	SG-38-10	1850	1609-03	29.0	13.70	220	1607-07
16I032-06	SG-47-10	1873	1609-03	29.0	13.53	166	1607-07
16I032-07	SG-37-10	E2096	1609-02	29.0	13.09	173	1607-07
16I032-08	SG-36-10	1835	1609-10	29.0	12.91	208	1608-06
16I032-09	SG-35-10	E2288	1609-11	29.0	13.66	184	1609-04
16I032-10	SG-34-10	E2376	1609-11	29.0	13.63	059	1609-04
16I032-11	SG-33-10	1845	1609-11	29.0	13.01	108	1609-04
16I032-12	SG-31-10	1814	1609-10	29.0	13.21	076	1609-04
16I032-13	SG-29-10	1792	1609-10	29.0	12.41	203	1609-04
16I032-14	SG-28-10	E2294	1609-10	29.0	12.95	186	1609-06
16I032-15	Ambient-2	E2359	1609-11	29.0	12.00	025	1607-06
16I032-16	SG-48-10	E2406	1609-11	29.0	13.50	204	1608-08
16I032-17	SG-49-10	E2100	1609-11	29.0	12.47	126	1608-08
16I032-18	SG-50-10	1847	1609-11	29.0	10.85	128	1608-08
16I032-19	Dup-3	E2390	1609-10	29.0	12.48	055	1609-04
16I032-20	SG-32-10	E2098	1609-11	29.0	12.00	179	1608-08
16I032-21	SG-30-10	1807	1609-10	29.0	12.81	005	1609-04

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	Dup-2
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	01	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**2.0**	**1.0**	**10.0**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	**1.0**	**1.0**	**6.01**	**6.01**		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**126**	**25**	**299**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**2.6**	**1.0**	**8.17**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**6.8**	**1.0**	**23.5**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**1.9**	**1.0**	**8.07**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	Dup-2
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	01	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**2.6**	**2.0**	**11.1**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	**1.9**	**1.0**	**8.33**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	**1.7**	**1.0**	**7.24**	**4.26**		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**7.6**	**1.0**	**28.7**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	98.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	110	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-17-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	02	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**3.1**	**1.0**	**15.2**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	**1.4**	**1.0**	**8.65**	**6.01**		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	**2.0**	**1.0**	**9.32**	**4.66**		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**116**	**25**	**277**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**3.9**	**1.0**	**12.3**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	**1.1**	**1.0**	**7.10**	**6.70**		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	**5.6**	**1.0**	**27.1**	**4.88**		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**12**	**1.0**	**42.0**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**2.4**	**1.0**	**10.2**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-17-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	02	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**6.3**	**2.0**	**27.5**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	**2.8**	**1.0**	**12.0**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**16**	**1.0**	**59.8**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	96.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	250	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-16-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	03	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**1.8**	**1.0**	**8.76**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	**1.0**	**1.0**	**6.13**	**6.01**		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**111**	**25**	**265**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**2.0**	**1.0**	**6.25**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	**4.1**	**4.0**	**12.7**	**12.4**		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**5.4**	**1.0**	**18.6**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-16-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	03	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	**1.4**	**1.0**	**6.08**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**8.7**	**1.0**	**32.9**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	92.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	160	20	ppbv	T4	2	9/24/2016	
Difluoroethane	< 20	20	ppbv	T4	2	9/24/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-15-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	04	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**1.6**	**1.0**	**8.07**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	**1.3**	**1.0**	**8.05**	**6.01**		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**175**	**25**	**417**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**2.9**	**1.0**	**9.19**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**7.0**	**1.0**	**23.9**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**1.9**	**1.0**	**8.25**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-15-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	04	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**2.7**	**2.0**	**11.9**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	**1.9**	**1.0**	**8.33**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	**1.3**	**1.0**	**5.71**	**4.26**		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**9.2**	**1.0**	**34.7**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	96.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	170	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-38-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	05	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**1.7**	**1.0**	**8.56**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	**22**	**10**	**90.3**	**41.0**		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	**11**	**10**	**45.3**	**41.0**		2	9/24/2016	108-10-1
Acetone	**186**	**25**	**443**	**59.5**		5	10/5/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**11**	**1.0**	**35.3**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**9.5**	**1.0**	**32.6**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**2.6**	**1.0**	**11.2**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-38-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	05	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**5.1**	**2.0**	**22.0**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	**2.2**	**1.0**	**9.55**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	**1.3**	**1.0**	**5.71**	**4.26**		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	**2.0**	**2.0**	**13.8**	**13.6**		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**14**	**1.0**	**54.4**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	95.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	130	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-47-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	06	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	**1.4**	**1.0**	**5.40**	**3.97**		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**1.4**	**1.0**	**6.99**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	**1.1**	**1.0**	**6.73**	**6.01**		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**84**	**25**	**201**	**59.5**		5	10/5/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**3.0**	**1.0**	**9.70**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**9.1**	**1.0**	**31.2**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-47-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	06	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**2.3**	**2.0**	**10.1**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	**1.5**	**1.0**	**6.51**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**6.7**	**1.0**	**25.3**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	**1.4**	**1.0**	**7.63**	**5.37**		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	**1.8**	**1.0**	**13.9**	**7.66**		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	94.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	170	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-37-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	07	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**2.3**	**1.0**	**11.3**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	**1.5**	**1.0**	**9.14**	**6.01**		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	**11**	**10**	**25.8**	**24.5**		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**204**	**25**	**485**	**59.5**		5	10/4/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**6.8**	**1.0**	**21.8**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	**4.8**	**4.0**	**15.0**	**12.4**		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	**2.2**	**1.0**	**10.9**	**4.88**		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**29**	**1.0**	**101**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**2.3**	**1.0**	**10.1**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-37-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	07	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	**12**	**2.0**	**41.5**	**7.04**		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**5.1**	**2.0**	**22.1**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	**2.7**	**1.0**	**11.7**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**12**	**1.0**	**46.7**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	92.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	260	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-36-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	08	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**1.1**	**1.0**	**5.31**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	**19**	**10**	**47.0**	**24.5**		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**198**	**25**	**472**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**5.8**	**1.0**	**18.6**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	**4.0**	**1.0**	**19.6**	**4.88**		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**16**	**1.0**	**55.3**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**1.6**	**1.0**	**6.86**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-36-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	08	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**4.0**	**2.0**	**17.3**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	**1.5**	**1.0**	**6.60**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	**1.0**	**1.0**	**4.43**	**4.26**		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**9.6**	**1.0**	**36.3**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	97.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	200	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-35-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	09	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**1.6**	**1.0**	**7.97**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	**1.6**	**1.0**	**9.38**	**6.01**		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**142**	**25**	**338**	**59.5**		5	10/4/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**3.5**	**1.0**	**11.1**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	**4.4**	**4.0**	**13.8**	**12.4**		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**6.8**	**1.0**	**23.3**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-35-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	09	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**2.2**	**2.0**	**9.55**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	**1.4**	**1.0**	**6.16**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**6.0**	**1.0**	**22.8**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	89.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	170	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-34-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	10	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**174**	**25**	**415**	**59.5**		5	10/4/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**4.0**	**1.0**	**12.6**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**3.6**	**1.0**	**12.5**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-34-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	10	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**5.1**	**1.0**	**19.2**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	95.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	150	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-33-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	11	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**214**	**25**	**509**	**59.5**		5	10/2/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**4.6**	**1.0**	**14.5**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	**8.4**	**4.0**	**26.1**	**12.4**		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**15**	**1.0**	**50.8**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-33-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	11	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**6.1**	**1.0**	**23.1**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	91.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	190	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-31-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	12	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/24/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	**1.6**	**1.0**	**7.68**	**4.92**		2	9/24/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/24/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/24/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/24/2016	106-99-0
1,3-Dichlorobenzene	**1.9**	**1.0**	**11.2**	**6.01**		2	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/24/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/24/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/24/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/24/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/24/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/24/2016	108-10-1
Acetone	**130**	**25**	**310**	**59.5**		5	10/2/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/24/2016	107-05-1
Benzene	**2.9**	**1.0**	**9.19**	**3.19**		2	9/24/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/24/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/24/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/24/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/24/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	104-51-8
Carbon disulfide	**6.4**	**4.0**	**20.0**	**12.4**		2	9/24/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/24/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/24/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/24/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/24/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Cyclohexane	**4.0**	**1.0**	**13.8**	**3.44**		2	9/24/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/24/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/24/2016	141-78-6
Ethylbenzene	**1.5**	**1.0**	**6.68**	**4.34**		2	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-31-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	12	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/24/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/24/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/24/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	98-82-8
m&p-Xylene	**2.3**	**2.0**	**9.90**	**8.68**		2	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/24/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/24/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/24/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/24/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/24/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/24/2016	111-65-9
o-Xylene	**1.6**	**1.0**	**6.77**	**4.34**		2	9/24/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/24/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/24/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	135-98-8
Styrene	**1.0**	**1.0**	**4.35**	**4.26**		2	9/24/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/24/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/24/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/24/2016	109-99-9
Toluene	**6.5**	**1.0**	**24.5**	**3.77**		2	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/24/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/24/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/24/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	93.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	220	20	ppbv		T4	2	9/24/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/24/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-29-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	13	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/2/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/2/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/2/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/2/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/2/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/2/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/2/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/2/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/2/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/2/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/2/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/2/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/2/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/2/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/2/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/2/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/2/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/2/2016	108-10-1
Acetone	**109**	**25**	**260**	**59.5**		5	10/2/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/2/2016	107-05-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	10/2/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/2/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/2/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/2/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/2/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/2/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/2/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/2/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/2/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/2/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/2/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/2/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/2/2016	542-75-6
Cyclohexane	< 2.5	2.5	< 8.60	8.60		5	10/2/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/2/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/2/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/2/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/2/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-29-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	13	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/2/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/2/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/2/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/2/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/2/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/2/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/2/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/2/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/2/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/2/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/2/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/2/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/2/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/2/2016	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	10/2/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/2/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/2/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/2/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/2/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/2/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/2/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/2/2016	75-01-4
Surr: 4-Bromofluorobenzene	105	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	140	50	ppbv		T4	5	10/2/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/2/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-28-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	14	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/2/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/2/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/2/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/2/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/2/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/2/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/2/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/2/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/2/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/2/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/2/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/2/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/2/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/2/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/2/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/2/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/2/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/2/2016	108-10-1
Acetone	**102**	**25**	**243**	**59.5**		5	10/2/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/2/2016	107-05-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	10/2/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/2/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/2/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/2/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/2/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/2/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/2/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/2/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/2/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/2/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/2/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/2/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/2/2016	542-75-6
Cyclohexane	< 2.5	2.5	< 8.60	8.60		5	10/2/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/2/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/2/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/2/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/2/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-28-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	14	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/2/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/2/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/2/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/2/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/2/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/2/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/2/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/2/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/2/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/2/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/2/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/2/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/2/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/2/2016	109-99-9
Toluene	**3.4**	**2.5**	**12.6**	**9.43**		5	10/2/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/2/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/2/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/2/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/2/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/2/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/2/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/2/2016	75-01-4
Surr: 4-Bromofluorobenzene	116	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	78	50	ppbv		T4	5	10/2/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/2/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Ambient-2
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	15	**Matrix:**	Ambient air

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/4/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/4/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/4/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/4/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/4/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/4/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/4/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/4/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/4/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/4/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/4/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/4/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/4/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/4/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/4/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/4/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/4/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/4/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/4/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/4/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/4/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/4/2016	108-10-1
Acetone	< 10	10	< 23.8	23.8		2	10/1/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7	R6	5	10/4/2016	107-05-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	10/4/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8		5	10/4/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/4/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/4/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/4/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/4/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/4/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/4/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/4/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/4/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/4/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/4/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/4/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/4/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/4/2016	542-75-6
Cyclohexane	< 2.5	2.5	< 8.60	8.60		5	10/4/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/4/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/4/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5		5	10/4/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/4/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/4/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Ambient-2
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	15	**Matrix:**	Ambient air

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/4/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/4/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/4/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/4/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/4/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/4/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/4/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/4/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/4/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/4/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/4/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/4/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/4/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/4/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/4/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/4/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/4/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/4/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/4/2016	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	10/4/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/4/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/4/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/4/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/4/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/4/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/4/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/4/2016	75-01-4
Surr: 4-Bromofluorobenzene	124	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	< 50	50	ppbv	T4	5	10/4/2016	
Difluoroethane	< 50	50	ppbv	T4	5	10/4/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-48-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	16	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/25/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/25/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/25/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/25/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/25/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/25/2016	120-82-1
1,2,4-Trimethylbenzene	**1.1**	**1.0**	**5.31**	**4.92**		2	9/25/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/25/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/25/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/25/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/25/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/25/2016	106-99-0
1,3-Dichlorobenzene	**1.5**	**1.0**	**9.02**	**6.01**		2	9/25/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/25/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/25/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/25/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/25/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/25/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/25/2016	108-10-1
Acetone	**212**	**50**	**504**	**119**		10	10/4/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/25/2016	107-05-1
Benzene	**3.3**	**1.0**	**10.7**	**3.19**		2	9/25/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/25/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/25/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/25/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/25/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/25/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	104-51-8
Carbon disulfide	**4.4**	**4.0**	**13.7**	**12.4**		2	9/25/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/25/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/25/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/25/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/25/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/25/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/25/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/25/2016	542-75-6
Cyclohexane	**3.5**	**1.0**	**12.2**	**3.44**		2	9/25/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/25/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/25/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/25/2016	76-14-2
Ethyl Acetate	**12**	**1.0**	**43.8**	**3.60**		2	9/25/2016	141-78-6
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/25/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-48-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	16	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/25/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/25/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/25/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	98-82-8
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	9/25/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/25/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/25/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/25/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/25/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/25/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/25/2016	111-65-9
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	9/25/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/25/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/25/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/25/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/25/2016	109-99-9
Toluene	**5.6**	**1.0**	**21.0**	**3.77**		2	9/25/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/25/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/25/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/25/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/25/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/25/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/25/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/25/2016	75-01-4
Surr: 4-Bromofluorobenzene	101	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	150	20	ppbv	T4	2	9/25/2016	
Difluoroethane	< 20	20	ppbv	T4	2	9/25/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-49-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	17	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/2/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/2/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/2/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/2/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/2/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/2/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/2/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/2/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/2/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/2/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/2/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/2/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/2/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/2/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/2/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/2/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/2/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/2/2016	108-10-1
Acetone	**154**	**25**	**367**	**59.5**		5	10/2/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/2/2016	107-05-1
Benzene	**3.0**	**2.5**	**9.41**	**7.98**		5	10/2/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/2/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/2/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/2/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/2/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/2/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/2/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/2/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/2/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/2/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/2/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/2/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/2/2016	542-75-6
Cyclohexane	< 2.5	2.5	< 8.60	8.60		5	10/2/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/2/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/2/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/2/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/2/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-49-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	17	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/2/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/2/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/2/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/2/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/2/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/2/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/2/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/2/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/2/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/2/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/2/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/2/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/2/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/2/2016	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	10/2/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/2/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/2/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/2/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/2/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/2/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/2/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/2/2016	75-01-4
Surr: 4-Bromofluorobenzene	104	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	< 50	50	ppbv	T4	5	10/2/2016	
Difluoroethane	< 50	50	ppbv	T4	5	10/2/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-50-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	18	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/25/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/25/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/25/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/25/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/25/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/25/2016	120-82-1
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/25/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/25/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/25/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/25/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/25/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/25/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/25/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/25/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/25/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/25/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/25/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/25/2016	108-10-1
Acetone	**105**	**25**	**249**	**59.5**		5	10/5/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/25/2016	107-05-1
Benzene	**4.4**	**1.0**	**14.1**	**3.19**		2	9/25/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/25/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/25/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/25/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/25/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/25/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/25/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/25/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/25/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/25/2016	75-00-3
Chloroform	**1.7**	**1.0**	**8.20**	**4.88**		2	9/25/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/25/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/25/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/25/2016	542-75-6
Cyclohexane	**5.0**	**1.0**	**17.1**	**3.44**		2	9/25/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/25/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/25/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/25/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/25/2016	141-78-6
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/25/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-50-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	18	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/25/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/25/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/25/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	98-82-8
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	9/25/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/25/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/25/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/25/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/25/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/25/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/25/2016	111-65-9
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	9/25/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/25/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/25/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/25/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/25/2016	109-99-9
Toluene	**4.6**	**1.0**	**17.5**	**3.77**		2	9/25/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/25/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/25/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/25/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/25/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/25/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/25/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/25/2016	75-01-4
Surr: 4-Bromofluorobenzene	96.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	120	20	ppbv		T4	2	9/25/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/25/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Dup-3
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	19	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/2/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/2/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/2/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/2/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/2/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/2/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/2/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/2/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/2/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/2/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/2/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/2/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/2/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/2/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/2/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/2/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/2/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/2/2016	108-10-1
Acetone	**94**	**25**	**225**	**59.5**		5	10/2/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/2/2016	107-05-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	10/2/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/2/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/2/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/2/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/2/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/2/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/2/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/2/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/2/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/2/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/2/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/2/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/2/2016	542-75-6
Cyclohexane	**3.1**	**2.5**	**10.5**	**8.60**		5	10/2/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/2/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/2/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/2/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/2/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Dup-3
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	19	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/2/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/2/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/2/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/2/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/2/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/2/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/2/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/2/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/2/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/2/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/2/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/2/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/2/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/2/2016	109-99-9
Toluene	**6.1**	**2.5**	**22.8**	**9.43**		5	10/2/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/2/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/2/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/2/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/2/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/2/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/2/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/2/2016	75-01-4
Surr: 4-Bromofluorobenzene	110	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	86	50	ppbv	T4	5	10/2/2016	
Difluoroethane	< 50	50	ppbv	T4	5	10/2/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-32-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	20	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/2/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/2/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/2/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/2/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/2/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/2/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/2/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/2/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/2/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/2/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/2/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/2/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/2/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/2/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/2/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/2/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/2/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/2/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/2/2016	108-10-1
Acetone	**243**	**25**	**578**	**59.5**		5	10/2/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/2/2016	107-05-1
Benzene	**5.8**	**2.5**	**18.5**	**7.98**		5	10/2/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/2/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/2/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/2/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/2/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/2/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/2/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/2/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/2/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/2/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/2/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/2/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/2/2016	542-75-6
Cyclohexane	< 2.5	2.5	< 8.60	8.60		5	10/2/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/2/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/2/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/2/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/2/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-32-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	20	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/2/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/2/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/2/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/2/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/2/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/2/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/2/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/2/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/2/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/2/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/2/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/2/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/2/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/2/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/2/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/2/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/2/2016	109-99-9
Toluene	**7.4**	**2.5**	**27.7**	**9.43**		5	10/2/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/2/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/2/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/2/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/2/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/2/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/2/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/2/2016	75-01-4
Surr: 4-Bromofluorobenzene	112	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	120	50	ppbv		T4	5	10/2/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/2/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-30-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	21	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/4/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/4/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/4/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/4/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/4/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/4/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/4/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/4/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/4/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/4/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/4/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/4/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/4/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/4/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/4/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/4/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/4/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/4/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/4/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/4/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/4/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/4/2016	108-10-1
Acetone	**124**	**25**	**295**	**59.5**		5	10/4/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7	R6	5	10/4/2016	107-05-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	10/4/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8		5	10/4/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/4/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/4/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/4/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/4/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/4/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/4/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/4/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/4/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/4/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/4/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/4/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/4/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/4/2016	542-75-6
Cyclohexane	< 2.5	2.5	< 8.60	8.60		5	10/4/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/4/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/4/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5		5	10/4/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/4/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/4/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-30-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	9/20/2016
Lab ID:	21	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/4/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/4/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/4/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/4/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/4/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/4/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/4/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/4/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/4/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/4/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/4/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/4/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/4/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/4/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/4/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/4/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/4/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/4/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/4/2016	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	10/4/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/4/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/4/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/4/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/4/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/4/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/4/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/4/2016	75-01-4
Surr: 4-Bromofluorobenzene	106	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	84	50	ppbv		T4	5	10/4/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/4/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010924 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	9/24/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/24/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	9/24/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/24/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/24/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	9/24/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	9/24/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/24/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	9/24/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	9/24/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	9/24/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	9/24/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	9/24/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	9/24/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	9/24/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	9/24/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	9/24/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	9/24/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	9/24/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	9/24/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/24/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	9/24/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	9/24/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	9/24/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	9/24/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	9/24/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	9/24/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	9/24/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	9/24/2016	76-14-2
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	9/24/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010924 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	9/24/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	9/24/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	9/24/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	9/24/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	9/24/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	9/24/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	9/24/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	9/24/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	9/24/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	9/24/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	9/24/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	9/24/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	9/24/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/24/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	9/24/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/24/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	9/24/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	9/24/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	9/24/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	9/24/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	9/24/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	94.1	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/24/2016 Batch: MS010924 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	7.0	70.0	8.4	84.3	10.0	18.5	ppbv			
Dichlorodifluoromethane(F-12)	10.2	102	10.3	103	10.0	1.8	ppbv			
Chloromethane	10.8	108	11.0	110	10.0	1.6	ppbv			
Dichlorotetrafluoroethane(F-114)	11.5	115	11.1	111	10.0	3.3	ppbv			
Vinyl Chloride	10.2	102	9.8	97.6	10.0	4.2	ppbv			
1,3-Butadiene	10.1	101	9.7	97.0	10.0	4.2	ppbv			
Bromomethane	9.3	92.7	10.0	100	10.0	7.7	ppbv			
Chloroethane	8.7	86.6	9.8	97.6	10.0	11.9	ppbv			
Bromoethene(Vinyl Bromide)	9.6	96.1	10.7	107	10.0	11.0	ppbv			
Trichlorofluoromethane (F-11)	10.9	109	10.4	104	10.0	4.1	ppbv			
Acetone	13.5	135	9.2	91.9	10.0	38.3	ppbv	L5		R6
Isopropyl Alcohol (2-Propanol)	7.5	75.2	7.4	74.4	10.0	1.1	ppbv			
1,1-Dichloroethene	10.4	104	10.0	100	10.0	3.6	ppbv			
Trichlorotrifluoroethane (F-113)	10.6	106	10.4	104	10.0	1.7	ppbv			
Methylene Chloride	9.8	98.4	9.3	92.5	10.0	6.2	ppbv			
Allyl Chloride	8.7	86.6	9.4	94.0	10.0	8.2	ppbv			
Carbon disulfide	9.5	94.6	9.7	97.2	10.0	2.7	ppbv			
trans-1,2-Dichloroethene	9.9	98.9	10.2	102	10.0	3.3	ppbv			
Methyl tert-butyl ether	10.0	99.8	10.8	108	10.0	7.5	ppbv			
1,1-Dichloroethane	9.1	90.6	9.3	92.9	10.0	2.5	ppbv			
Vinyl acetate	9.5	94.9	9.1	91.3	10.0	3.9	ppbv			
2-Butanone (MEK)	9.5	95.4	11.3	113	10.0	17.0	ppbv			
Hexane	9.7	97.3	10.0	100	10.0	2.5	ppbv			
cis-1,2-Dichloroethene	9.6	96.3	9.9	98.5	10.0	2.3	ppbv			
Ethyl Acetate	10.9	109	10.0	100	10.0	7.9	ppbv			
Chloroform	10.0	100	9.7	97.4	10.0	2.9	ppbv			
Tetrahydrofuran	8.1	80.6	9.9	98.8	10.0	20.3	ppbv			
1,1,1-Trichloroethane	10.7	107	10.5	105	10.0	1.0	ppbv			
1,2-Dichloroethane	10.1	101	10.0	100	10.0	0.9	ppbv			
Benzene	9.3	92.9	9.7	97.0	10.0	4.3	ppbv			
Carbon tetrachloride	11.3	113	10.9	109	10.0	3.2	ppbv			
Cyclohexane	10.5	105	10.8	108	10.0	2.3	ppbv			
2,2,4-Trimethylpentane	10.8	108	10.1	101	10.0	7.3	ppbv			
Heptane	11.4	114	10.9	109	10.0	3.9	ppbv			
1,2-Dichloropropane	10.4	104	10.3	103	10.0	0.3	ppbv			
Trichloroethene	11.6	116	11.5	115	10.0	1.0	ppbv			
Bromodichloromethane	12.1	121	10.9	109	10.0	10.3	ppbv			
1,4-Dioxane	7.8	78.2	8.6	85.7	10.0	9.2	ppbv			
Methylcyclohexane	10.7	107	10.4	104	10.0	2.8	ppbv			
cis-1,3-Dichloropropene	11.7	117	10.5	105	10.0	10.5	ppbv			
4-methyl-2-pentanone	11.2	112	10.7	107	10.0	4.0	ppbv			
trans-1,3-Dichloropropene	12.0	120	11.1	111	10.0	7.7	ppbv			
Toluene	11.3	113	11.0	110	10.0	3.0	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/24/2016 Batch: MS010924 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	11.2	112	10.6	106	10.0	4.9	ppbv			
2-Hexanone	10.7	107	10.7	107	10.0	0.4	ppbv			
n-Octane	9.1	91.1	9.1	90.6	10.0	0.6	ppbv			
Dibromochloromethane	13.2	132	11.9	119	10.0	10.6	ppbv	L5		
1,2-Dibromoethane	12.1	121	10.9	109	10.0	10.5	ppbv			
Tetrachloroethene	12.8	128	11.7	117	10.0	8.7	ppbv			
Chlorobenzene	10.9	109	10.2	102	10.0	7.4	ppbv			
Ethylbenzene	11.1	111	10.6	106	10.0	4.4	ppbv			
m&p-Xylene	22.9	114	20.6	103	20.0	10.2	ppbv			
Bromoform	12.8	128	11.5	115	10.0	10.2	ppbv			
Styrene	11.9	119	10.7	107	10.0	10.5	ppbv			
Nonane	10.4	104	9.4	93.6	10.0	10.9	ppbv			
o-Xylene	11.1	111	10.0	99.5	10.0	10.7	ppbv			
1,1,2,2-Tetrachloroethane	11.0	110	10.3	103	10.0	7.2	ppbv			
Isopropylbenzene	12.3	123	11.4	114	10.0	7.6	ppbv			
n-Propylbenzene	11.7	117	10.4	104	10.0	11.4	ppbv			
4-Ethyltoluene	12.2	122	11.0	110	10.0	10.8	ppbv			
1,3,5-Trimethylbenzene	12.2	122	11.0	110	10.0	10.8	ppbv			
Tert-Butyl Benzene	12.2	122	10.5	105	10.0	14.8	ppbv			
1,2,4-Trimethylbenzene	12.2	122	10.9	109	10.0	11.2	ppbv			
Sec-Butyl Benzene	12.2	122	10.8	108	10.0	11.6	ppbv			
1,3-Dichlorobenzene	12.1	121	10.8	108	10.0	11.8	ppbv			
Benzyl chloride	11.9	119	10.6	106	10.0	11.9	ppbv			
1,4-Dichlorobenzene	11.9	119	10.9	109	10.0	8.7	ppbv			
1,2-Dichlorobenzene	12.4	124	10.8	108	10.0	13.4	ppbv			
n-Butyl Benzene	12.1	121	10.6	106	10.0	13.9	ppbv			
1,2,4-Trichlorobenzene	12.0	120	10.8	108	10.0	9.8	ppbv			
Naphthalene	11.7	117	10.3	103	10.0	12.7	ppbv			
Hexachlorobutadiene	12.6	126	10.6	106	10.0	17.7	ppbv			
Surr: 4-Bromofluorobenzene	11.1	111	9.9	99.0			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011001 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/1/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/1/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/1/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/1/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/1/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/1/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/1/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	10/1/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	10/1/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	10/1/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	10/1/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	10/1/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	10/1/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	10/1/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	10/1/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	10/1/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	10/1/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	10/1/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	10/1/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/1/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	10/1/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	10/1/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	10/1/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	10/1/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	10/1/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/1/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	10/1/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	10/1/2016	76-14-2
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	10/1/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011001 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	10/1/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	10/1/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	10/1/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/1/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	10/1/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	10/1/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	10/1/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	10/1/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	10/1/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	10/1/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	10/1/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	10/1/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/1/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/1/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	10/1/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/1/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	10/1/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	10/1/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/1/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	10/1/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	10/1/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	99.5	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/1/2016 Batch: MS011001 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	8.7	87.4	9.3	92.6	10.0	5.8	ppbv			
Dichlorodifluoromethane(F-12)	12.2	122	11.2	112	10.0	8.5	ppbv			
Chloromethane	11.8	118	11.9	119	10.0	0.8	ppbv			
Dichlorotetrafluoroethane(F-114)	13.3	133	12.8	128	10.0	3.5	ppbv	L5		
Vinyl Chloride	12.4	124	12.2	122	10.0	1.3	ppbv			
1,3-Butadiene	11.8	118	10.6	106	10.0	11.2	ppbv			
Bromomethane	10.0	100	10.4	104	10.0	4.1	ppbv			
Chloroethane	10.0	100	9.9	99.2	10.0	0.8	ppbv			
Bromoethene(Vinyl Bromide)	10.2	102	11.2	112	10.0	9.6	ppbv			
Trichlorofluoromethane (F-11)	11.6	116	11.8	118	10.0	2.2	ppbv			
Acetone	10.8	108	9.2	91.9	10.0	16.1	ppbv			
Isopropyl Alcohol (2-Propanol)	8.5	84.8	9.1	91.3	10.0	7.4	ppbv			
1,1-Dichloroethene	10.4	104	11.0	110	10.0	5.8	ppbv			
Trichlorotrifluoroethane (F-113)	10.4	104	11.2	112	10.0	7.5	ppbv			
Methylene Chloride	9.0	90.3	10.1	101	10.0	11.0	ppbv			
Allyl Chloride	9.2	92.0	10.8	108	10.0	15.8	ppbv			
Carbon disulfide	9.9	98.6	10.1	101	10.0	2.8	ppbv			
trans-1,2-Dichloroethene	9.5	94.8	10.2	102	10.0	7.3	ppbv			
Methyl tert-butyl ether	10.8	108	12.1	121	10.0	10.7	ppbv			
1,1-Dichloroethane	9.8	97.7	10.2	102	10.0	4.3	ppbv			
Vinyl acetate	9.0	89.5	11.1	111	10.0	21.8	ppbv			
2-Butanone (MEK)	10.3	103	10.0	100	10.0	2.3	ppbv			
Hexane	9.8	98.2	11.7	117	10.0	17.5	ppbv			
cis-1,2-Dichloroethene	9.7	96.7	10.2	102	10.0	5.7	ppbv			
Ethyl Acetate	10.8	108	10.8	108	10.0	0.1	ppbv			
Chloroform	10.5	105	11.2	112	10.0	6.6	ppbv			
Tetrahydrofuran	10.6	106	9.9	99.4	10.0	6.7	ppbv			
1,1,1-Trichloroethane	10.6	106	11.9	119	10.0	11.7	ppbv			
1,2-Dichloroethane	11.4	114	10.9	109	10.0	4.7	ppbv			
Benzene	9.8	97.6	9.7	97.4	10.0	0.2	ppbv			
Carbon tetrachloride	10.8	108	11.9	119	10.0	9.7	ppbv			
Cyclohexane	10.3	103	11.0	110	10.0	6.7	ppbv			
2,2,4-Trimethylpentane	9.9	99.0	11.5	115	10.0	14.6	ppbv			
Heptane	9.4	94.3	11.0	110	10.0	15.6	ppbv			
1,2-Dichloropropane	8.9	88.8	10.2	102	10.0	14.2	ppbv			
Trichloroethene	9.5	94.7	11.0	110	10.0	14.7	ppbv			
Bromodichloromethane	11.5	115	12.4	124	10.0	7.6	ppbv			
1,4-Dioxane	8.3	83.2	9.5	95.2	10.0	13.5	ppbv			
Methylcyclohexane	9.6	95.9	11.0	110	10.0	13.6	ppbv			
cis-1,3-Dichloropropene	10.4	104	11.2	112	10.0	7.8	ppbv			
4-methyl-2-pentanone	10.0	100	10.9	109	10.0	9.0	ppbv			
trans-1,3-Dichloropropene	11.2	112	12.3	123	10.0	9.5	ppbv			
Toluene	11.3	113	10.7	107	10.0	4.7	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/1/2016 Batch: MS011001 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	9.9	99.2	10.8	108	10.0	8.3	ppbv			
2-Hexanone	10.9	109	10.9	109	10.0	0.2	ppbv			
n-Octane	9.1	90.5	9.9	99.4	10.0	9.4	ppbv			
Dibromochloromethane	11.9	119	12.4	124	10.0	4.1	ppbv			
1,2-Dibromoethane	9.7	96.8	11.2	112	10.0	14.5	ppbv			
Tetrachloroethene	10.3	103	11.7	117	10.0	13.1	ppbv			
Chlorobenzene	8.6	86.3	10.5	105	10.0	19.7	ppbv			
Ethylbenzene	9.2	92.3	11.1	111	10.0	18.2	ppbv			
m&p-Xylene	19.7	98.4	22.5	112	20.0	13.2	ppbv			
Bromoform	10.8	108	12.9	129	10.0	17.2	ppbv			
Styrene	9.3	93.1	11.7	117	10.0	22.8	ppbv			
Nonane	9.2	92.0	9.9	98.6	10.0	6.9	ppbv			
o-Xylene	9.0	89.6	10.6	106	10.0	16.9	ppbv			
1,1,2,2-Tetrachloroethane	9.6	96.1	11.5	115	10.0	17.7	ppbv			
Isopropylbenzene	10.3	103	12.1	121	10.0	16.6	ppbv			
n-Propylbenzene	9.8	97.8	11.9	119	10.0	19.7	ppbv			
4-Ethyltoluene	10.3	103	12.3	123	10.0	16.9	ppbv			
1,3,5-Trimethylbenzene	10.2	102	12.3	123	10.0	19.3	ppbv			
Tert-Butyl Benzene	9.7	97.3	11.5	115	10.0	16.8	ppbv			
1,2,4-Trimethylbenzene	10.2	102	12.0	120	10.0	16.5	ppbv			
Sec-Butyl Benzene	10.0	100	12.0	120	10.0	18.1	ppbv			
1,3-Dichlorobenzene	9.8	97.7	11.9	119	10.0	19.2	ppbv			
Benzyl chloride	11.2	112	13.5	135	10.0	18.7	ppbv		L5	
1,4-Dichlorobenzene	9.6	96.2	11.9	119	10.0	21.2	ppbv			
1,2-Dichlorobenzene	10.1	101	11.7	117	10.0	14.4	ppbv			
n-Butyl Benzene	10.2	102	12.0	120	10.0	16.1	ppbv			
1,2,4-Trichlorobenzene	9.7	96.5	11.2	112	10.0	14.8	ppbv			
Naphthalene	9.5	94.5	11.4	114	10.0	18.9	ppbv			
Hexachlorobutadiene	10.0	100	11.8	118	10.0	15.7	ppbv			
Surr: 4-Bromofluorobenzene	10.6	106	11.3	113			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011004 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/5/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	10/5/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/5/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/5/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	10/5/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	10/5/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/5/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	10/5/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/5/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/5/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	10/5/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/5/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	10/5/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/5/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/5/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	10/5/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	10/5/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	10/5/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	10/5/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	10/5/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	10/5/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	10/5/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	10/5/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	10/5/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	10/5/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	10/5/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	10/5/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	10/5/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	10/5/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	10/5/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/5/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	10/5/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	10/5/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	10/5/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	10/5/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	10/5/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	10/5/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/5/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/5/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	10/5/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	10/5/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	10/5/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	10/5/2016	76-14-2
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	10/5/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	10/5/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011004 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	10/5/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	10/5/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	10/5/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/5/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	10/5/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	10/5/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	10/5/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	10/5/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	10/5/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	10/5/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	10/5/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	10/5/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	10/5/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/5/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/5/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	10/5/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/5/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	10/5/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	10/5/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	10/5/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/5/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/5/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	10/5/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	10/5/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	10/5/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	10/5/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	10/5/2016	75-01-4
Surr: 4-Bromofluorobenzene	115	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/4/2016 Batch: MS011004 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	9.5	94.6	9.7	96.6	10.0	2.1	ppbv			
Dichlorodifluoromethane(F-12)	11.1	111	11.7	117	10.0	5.3	ppbv			
Chloromethane	9.9	99.2	11.2	112	10.0	11.9	ppbv			
Dichlorotetrafluoroethane(F-114)	11.9	119	12.2	122	10.0	2.7	ppbv			
Vinyl Chloride	10.2	102	11.6	116	10.0	12.8	ppbv			
1,3-Butadiene	8.2	82.1	9.1	90.8	10.0	10.1	ppbv			
Bromomethane	10.0	100	10.8	108	10.0	7.5	ppbv			
Chloroethane	9.9	98.7	10.2	102	10.0	3.4	ppbv			
Bromoethene(Vinyl Bromide)	9.3	93.2	10.7	107	10.0	13.3	ppbv			
Trichlorofluoromethane (F-11)	10.7	107	11.5	115	10.0	7.4	ppbv			
Acetone	11.3	113	11.5	115	10.0	1.6	ppbv			
Isopropyl Alcohol (2-Propanol)	8.9	88.9	9.6	96.0	10.0	7.7	ppbv			
1,1-Dichloroethene	10.3	103	11.4	114	10.0	10.4	ppbv			
Trichlorotrifluoroethane (F-113)	10.1	101	11.1	111	10.0	9.3	ppbv			
Methylene Chloride	8.8	88.4	9.4	94.3	10.0	6.5	ppbv			
Allyl Chloride	8.8	87.9	11.6	116	10.0	27.4	ppbv			R6
Carbon disulfide	9.7	96.5	10.0	100	10.0	3.1	ppbv			
trans-1,2-Dichloroethene	9.3	92.7	10.5	105	10.0	12.1	ppbv			
Methyl tert-butyl ether	10.8	108	11.5	115	10.0	6.2	ppbv			
1,1-Dichloroethane	9.6	95.6	9.8	97.9	10.0	2.4	ppbv			
Vinyl acetate	10.3	103	10.0	100	10.0	2.4	ppbv			
2-Butanone (MEK)	9.9	99	9.5	94.9	10.0	3.7	ppbv			
Hexane	10.3	103	11.2	112	10.0	8.6	ppbv			
cis-1,2-Dichloroethene	9.1	90.7	10.5	105	10.0	14.5	ppbv			
Ethyl Acetate	10.9	109	11.4	114	10.0	4.6	ppbv			
Chloroform	10.3	103	10.9	109	10.0	5.5	ppbv			
Tetrahydrofuran	9.8	98.3	10.9	109	10.0	10.1	ppbv			
1,1,1-Trichloroethane	10.8	108	11.3	113	10.0	4.3	ppbv			
1,2-Dichloroethane	9.8	97.6	10.4	104	10.0	6.2	ppbv			
Benzene	8.8	87.6	9.7	96.9	10.0	10.1	ppbv			
Carbon tetrachloride	10.6	106	11.4	114	10.0	7.1	ppbv			
Cyclohexane	10.1	101	11.8	118	10.0	15.2	ppbv			
2,2,4-Trimethylpentane	10.1	101	9.6	96.3	10.0	4.8	ppbv			
Heptane	10.2	102	9.9	99.3	10.0	3.0	ppbv			
1,2-Dichloropropane	8.9	89.3	8.7	87.2	10.0	2.4	ppbv			
Trichloroethene	9.5	95.0	9.5	94.6	10.0	0.4	ppbv			
Bromodichloromethane	11.4	114	10.6	106	10.0	6.9	ppbv			
1,4-Dioxane	8.1	81.1	7.8	78.3	10.0	3.5	ppbv			
Methylcyclohexane	9.6	95.9	9.5	94.8	10.0	1.2	ppbv			
cis-1,3-Dichloropropene	10.3	103	9.6	96.3	10.0	6.7	ppbv			
4-methyl-2-pentanone	10.9	109	8.6	85.5	10.0	23.9	ppbv			
trans-1,3-Dichloropropene	11.1	111	10.4	104	10.0	6.8	ppbv			
Toluene	9.7	97.1	9.3	92.5	10.0	4.9	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/4/2016 Batch: MS011004 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	9.6	96.3	9.7	97.4	10.0	1.1	ppbv			
2-Hexanone	10.1	101	8.6	85.9	10.0	16.2	ppbv			
n-Octane	9.4	93.5	8.4	84.2	10.0	10.5	ppbv			
Dibromochloromethane	11.2	112	10.2	102	10.0	9.6	ppbv			
1,2-Dibromoethane	10.0	100	9.6	96.4	10.0	4.0	ppbv			
Tetrachloroethene	10.0	100	9.8	98.4	10.0	1.4	ppbv			
Chlorobenzene	9.6	95.5	8.9	89.1	10.0	6.9	ppbv			
Ethylbenzene	9.9	98.7	10.2	102	10.0	3.2	ppbv			
m&p-Xylene	20.2	101	19.7	98.3	20.0	2.8	ppbv			
Bromoform	11.4	114	10.8	108	10.0	6.2	ppbv			
Styrene	10.5	105	9.8	98.4	10.0	6.9	ppbv			
Nonane	9.8	97.6	9.9	98.7	10.0	1.1	ppbv			
o-Xylene	10.0	100	9.4	93.6	10.0	7.0	ppbv			
1,1,2,2-Tetrachloroethane	10.7	107	10.1	101	10.0	6.3	ppbv			
Isopropylbenzene	11.3	113	10.5	105	10.0	7.3	ppbv			
n-Propylbenzene	10.9	109	10.5	105	10.0	4.2	ppbv			
4-Ethyltoluene	11.5	115	10.7	107	10.0	6.5	ppbv			
1,3,5-Trimethylbenzene	11.2	112	10.2	102	10.0	8.8	ppbv			
Tert-Butyl Benzene	10.7	107	9.9	99.3	10.0	7.7	ppbv			
1,2,4-Trimethylbenzene	11.1	111	10.1	101	10.0	9.7	ppbv			
Sec-Butyl Benzene	11.3	113	10.4	104	10.0	8.2	ppbv			
1,3-Dichlorobenzene	10.4	104	9.6	95.6	10.0	8.3	ppbv			
Benzyl chloride	12.4	124	11.7	117	10.0	5.6	ppbv			
1,4-Dichlorobenzene	10.6	106	9.9	99.0	10.0	6.8	ppbv			
1,2-Dichlorobenzene	10.5	105	9.8	97.9	10.0	7.2	ppbv			
n-Butyl Benzene	11.2	112	10.5	105	10.0	6.9	ppbv			
1,2,4-Trichlorobenzene	10.0	100	9.4	93.6	10.0	6.9	ppbv			
Naphthalene	10.2	102	9.4	93.8	10.0	8.6	ppbv			
Hexachlorobutadiene	10.1	101	9.3	92.8	10.0	8.7	ppbv			
Surr: 4-Bromofluorobenzene	11.7	117	10.5	105			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	NA
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I032	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-160802-01	Stock	Spectra Gases	113123527	TO-14 39 Analytes	1.0 ppmv	± 5%	7/25/2017
S-160802-02	Stock	Spectra Gases	113123527	TO-15 25 Analytes	1.0 ppmv	± 5%	7/12/2017
S-160802-03	Stock	Spectra Gases	113123527	15 Additional Compounds	1.0 ppmv	± 5%	7/19/2017
S-151113-01	Stock	Spectra Gases	TB500009-110	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	11/13/2016
A-160914-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	12/14/2016
A-160924-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	11/13/2016

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Hydro Geo Chem	Page 1 of 3	AEL Lab #
Address:	Sampler: B. Vernon Phone: 520 403 2724	16I032
	Project Name: Project Number:	
City, State, Zip: Scottsdale AZ	Project location: 27th Ave + Osborn	
Contact: Dan Sola	P.O. Number: 2016031	
Phone: 480 421 1501 Fax:	Fax Results: Y (N)	
E-Mail Address: DanS@HGCinc.com	E-Mail Results: (Y) N	

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours
_____ 72 Hours
_____ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water	TIC		DFA tracer cmpd. as TIC
-01	1872	036	6 (1) bag	1 2 (5)	Dup-2	9-20	8:00	S	1	X							X		
02	E2269	219	6 (1) bag	1 2 (5)	SG-17-10		10:19												
03	E2283	050	6 (1) bag	1 2 (5)	SG-16-10		10:32												
04	E2349	183	6 (1) bag	1 2 (5)	SG-15-10		10:45												
05	1850	220	6 (1) bag	1 2 (5)	SG-38-10		11:22												
06	1873	166	6 (1) bag	1 2 (5)	SG-47-10		11:28												
07	E2096	173	6 (1) bag	1 2 (5)	SG-37-10		11:58												
08	1835	208	6 (1) bag	1 2 (5)	SG-36-10		12:12												
09	E2288	184	6 (1) bag	1 2 (5)	SG-35-10		12:31												
10	E2376	059	6 (1) bag	1 2 (5)	SG-34-10		12:45												

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9-20	17:35	[signature]	James Jones-Airtech

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Hydro Geo Chem	Page 2 of 3		AEL Lab #
Address:	Sampler: B. Vernon	Phone: 520 403 2721	16I032
	Project Name:	Project Number:	
City, State, Zip: Scottsdale AZ	Project location: Osborn & 27th Ave		
Contact: Dan Sola	P.O. Number: 2016031		
Phone: 480-421-1501 Fax:	Fax Results: Y (N)		
E-Mail Address: DanS@HGCinc.com	E-Mail Results: (Y) N		

Sample Receipt	Turn Around Request	Sample Type
Temperature _____ °C	____ 24 Hours ____ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes____ No____	____ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes____ No____	____ 5 working Day	I: indoor air
Total # of Containers: _____	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water	TIC		DFA tracer cmpd. as TIC
11	1845	108	6 (1) bag	1 2 (5)	SG-33-10	9-20	13:05	S	1	X							X		
12	1814	076	6 (1) bag	1 2 (5)	SG-31-10		14:03												
13	1792	203	6 (1) bag	1 2 (5)	SG-29-10		15:15												
14	E2294	186	6 (1) bag	1 2 (5)	SG-28-10		15:26												
15	E2359	025	6 (1) bag	1 2 (5)	Ambient-2		15:48												
16	E2406	204	6 (1) bag	1 2 (5)	SG-48-10		15:57												
17	E2100	126	6 (1) bag	1 2 (5)	SG-49-10		16:20												
18	1847	128	6 (1) bag	1 2 (5)	SG-~~50~~-10 50-10		16:57												
19	E2390	055	6 (1) bag	1 2 (5)	Dup-3		18:00												
20	E2098	179	6 1 bag	1 2 5	SG-32-10		16:57												

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9-20	17:35	[signature]	Jamie Jones - Airtech

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Hydro Geo Chem	Page 3 of 3	AEL Lab #
Address:	Sampler: B. Vernon Phone: 520 403 2721	161032
	Project Name: Project Number:	
City, State, Zip: Scottsdale AZ	Project location: Osborn & 27th AVE.	
Contact: Dan Sola	P.O. Number: 2016031	
Phone: 480-421-1501 Fax:	Fax Results: Y (N)	
E-Mail Address: DanS@HGCinc.com	E-Mail Results: (Y) N	

Sample Receipt	Turn Around Request	Sample Type
Temperature_____ °C	____ 24 Hours ____ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes_____ No_____	____ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes_____ No_____	____ 5 working Day	I: indoor air
Total # of Containers:_____	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water	TIC		DFA tracer cmpd. as TIC
21	1807	005	6 1 bag	1 2 5	SG-30-10	9-20	14:38	S	1	X							X		
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9-20	17:35	[signature]	Jim Jones - Airtech

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 8, 2016

Client:	Dan Sola	Work Order #:	16I034
Company:	Hydro Geo Chem	Project Name:	27th Ave & Osborn
Address:	6370 E Thomas #200	Project Number:	2016031
	Scottsdale, AZ 85251	Received Date:	9/21/2016

Dear Client:

Airtech Environmental Laboratories received Seventeen (17) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 8, 2016

Client:	Dan Sola	Work Order #:	16I034
Company:	Hydro Geo Chem	Project Name:	27th Ave & Osborn
Address:	6370 E Thomas #200	Project Number:	2016031
	Scottsdale, AZ 85251	Received Date:	9/21/2016

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
16I034-01	SG-14-10	TO-15	9/21/2016	7:40
16I034-02	SG-13-10	TO-15	9/21/2016	8:05
16I034-03	SG-12-10	TO-15	9/21/2016	8:21
16I034-04	SG-10-10	TO-15	9/21/2016	8:38
16I034-05	SG-11-10	TO-15	9/21/2016	9:00
16I034-06	SG-9-10	TO-15	9/21/2016	9:15
16I034-07	SG-8-10	TO-15	9/21/2016	9:52
16I034-08	SG-7-10	TO-15	9/21/2016	10:03
16I034-09	SG-6-10	TO-15	9/21/2016	10:19
16I034-10	Dup-4	TO-15	9/21/2016	18:00
16I034-11	Dup-5	TO-15	9/21/2016	6:00
16I034-12	SG-5-10	TO-15	9/21/2016	10:36
16I034-13	Ambient-3	TO-15	9/21/2016	10:50
16I034-14	SG-4-10	TO-15	9/21/2016	11:12
16I034-15	SG-3-10	TO-15	9/21/2016	11:24
16I034-16	SG-2-10	TO-15	9/21/2016	11:42
16I034-17	SG-1-10	TO-15	9/21/2016	12:01

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 8, 2016

Client:	Dan Sola	Work Order #:	16I034
Company:	Hydro Geo Chem	Project Name:	27th Ave & Osborn
Address:	6370 E Thomas #200	Project Number:	2016031
	Scottsdale, AZ 85251	Received Date:	09/21/16

Case Narrative

All samples and QC associated with your samples met the quality control objectives. Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

L5: The associated blank spike recovery was above the laboratory/method acceptance limits. Analyte not detected in sample.

R6: BS/BSD RPD exceeded the method acceptance limit. Recovery met acceptance criteria.

T4: Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Vacuum	Type	
	Client	1.0 liter		before sampled	after sampled	5 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
16I034-01	SG-14-10	E2103	1609-10	29.0	12.46	145	1608-08
16I034-02	SG-13-10	1803	1609-10	29.0	13.65	175	1608-08
16I034-03	SG-12-10	E2372	1609-10	29.0	12.41	106	1608-08
16I034-04	SG-10-10	E2094	1609-12	29.0	13.48	057	1608-08
16I034-05	SG-11-10	1869	1609-12	29.0	12.22	080	1608-08
16I034-06	SG-9-10	E2408	1609-12	29.0	11.92	205	1608-08
16I034-07	SG-8-10	E2400	1609-12	29.0	13.16	214	1608-08
16I034-08	SG-7-10	1888	1609-12	29.0	11.25	156	1608-08
16I034-09	SG-6-10	1829	1609-12	29.0	11.88	180	1608-08
16I034-10	Dup-4	E2360	1609-12	29.0	12.48	217	1608-08
16I034-11	Dup-5	1813	1609-12	29.0	11.76	174	1608-08
16I034-12	SG-5-10	E2347	1609-12	29.0	11.39	096	1608-08
16I034-13	Ambient-3	E2396	1609-13	29.0	13.13	176	1608-08
16I034-14	SG-4-10	E2367	1609-12	29.0	12.15	127	1608-08
16I034-15	SG-3-10	E2366	1609-15	29.0	12.13	178	1609-06
16I034-16	SG-2-10	1795	1609-15	29.0	11.68	060	1609-06
16I034-17	SG-1-10	E2101	1609-13	29.0	12.08	172	1608-08

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-14-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	01	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**179**	**25**	**427**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**3.9**	**2.5**	**12.4**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	< 2.5	2.5	< 8.60	8.60		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-14-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	01	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**6.0**	**2.5**	**22.6**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	99.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	179	50	ppbv		T4	5	10/1/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/1/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-13-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	02	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**216**	**25**	**514**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**3.4**	**2.5**	**10.7**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	**6.6**	**2.5**	**32.0**	**12.2**		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**32**	**2.5**	**110**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-13-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	02	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**6.4**	**2.5**	**24.1**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	103	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	349	50	ppbv		T4	5	10/1/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/1/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-12-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	03	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/25/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/25/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/25/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/25/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/25/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/25/2016	120-82-1
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/25/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/25/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/25/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/25/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/25/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/25/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/25/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/25/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/25/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/25/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/25/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/25/2016	108-10-1
Acetone	**113**	**25**	**269**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/25/2016	107-05-1
Benzene	**8.0**	**1.0**	**25.6**	**3.19**		2	9/25/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/25/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/25/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/25/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/25/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/25/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/25/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/25/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/25/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/25/2016	75-00-3
Chloroform	**4.4**	**1.0**	**21.7**	**4.88**		2	9/25/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/25/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/25/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/25/2016	542-75-6
Cyclohexane	**32**	**1.0**	**109**	**3.44**		2	9/25/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/25/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/25/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/25/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/25/2016	141-78-6
Ethylbenzene	**1.7**	**1.0**	**7.46**	**4.34**		2	9/25/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-12-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	03	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/25/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/25/2016	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	9/25/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	98-82-8
m&p-Xylene	**3.0**	**2.0**	**13.1**	**8.68**		2	9/25/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/25/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/25/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/25/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/25/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/25/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/25/2016	111-65-9
o-Xylene	**1.5**	**1.0**	**6.68**	**4.34**		2	9/25/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/25/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/25/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/25/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/25/2016	109-99-9
Toluene	**11**	**1.0**	**42.3**	**3.77**		2	9/25/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/25/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/25/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/25/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/25/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/25/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/25/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/25/2016	75-01-4
Surr: 4-Bromofluorobenzene	93.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	89	20	ppbv		T4	2	9/25/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/25/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-10-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	04	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/25/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/25/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/25/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/25/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/25/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/25/2016	120-82-1
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/25/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/25/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/25/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/25/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/25/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/25/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/25/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/25/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/25/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/25/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/25/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/25/2016	108-10-1
Acetone	**122**	**25**	**291**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/25/2016	107-05-1
Benzene	**8.3**	**1.0**	**26.3**	**3.19**		2	9/25/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/25/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/25/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/25/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/25/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/25/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/25/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/25/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/25/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/25/2016	75-00-3
Chloroform	**1.3**	**1.0**	**6.25**	**4.88**		2	9/25/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/25/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/25/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/25/2016	542-75-6
Cyclohexane	**35**	**1.0**	**120**	**3.44**		2	9/25/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/25/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/25/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/25/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/25/2016	141-78-6
Ethylbenzene	**2.3**	**1.0**	**9.90**	**4.34**		2	9/25/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-10-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	04	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	**5.7**	**1.0**	**23.3**	**4.10**		2	9/25/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/25/2016	87-68-3
Hexane	**13**	**2.0**	**44.8**	**7.04**		2	9/25/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	98-82-8
m&p-Xylene	**2.7**	**2.0**	**11.9**	**8.68**		2	9/25/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/25/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/25/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/25/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/25/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/25/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/25/2016	111-65-9
o-Xylene	**1.2**	**1.0**	**5.21**	**4.34**		2	9/25/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/25/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/25/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/25/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/25/2016	109-99-9
Toluene	**10**	**1.0**	**37.9**	**3.77**		2	9/25/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/25/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/25/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/25/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/25/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/25/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/25/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/25/2016	75-01-4
Surr: 4-Bromofluorobenzene	96.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	112	50	ppbv	T4	5	10/1/2016	
Difluoroethane	< 20	20	ppbv	T4	2	9/24/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-11-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	05	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/25/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87		2	9/25/2016	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	9/25/2016	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/25/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/25/2016	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	9/25/2016	120-82-1
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/25/2016	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	9/25/2016	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/25/2016	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	9/25/2016	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	9/25/2016	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21		2	9/25/2016	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/25/2016	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	9/25/2016	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	9/25/2016	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/25/2016	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	9/25/2016	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	9/25/2016	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	9/25/2016	108-10-1
Acetone	**60**	**25**	**143**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	9/25/2016	107-05-1
Benzene	**4.4**	**1.0**	**14.2**	**3.19**		2	9/25/2016	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	9/25/2016	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	9/25/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	9/25/2016	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	9/25/2016	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	9/25/2016	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	9/25/2016	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	9/25/2016	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/25/2016	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	9/25/2016	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/25/2016	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	9/25/2016	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/25/2016	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/25/2016	542-75-6
Cyclohexane	**39**	**1.0**	**133**	**3.44**		2	9/25/2016	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52	L5	2	9/25/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/25/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	9/25/2016	76-14-2
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	9/25/2016	141-78-6
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/25/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-11-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	05	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	9/25/2016	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	9/25/2016	87-68-3
Hexane	**7.9**	**2.0**	**27.7**	**7.04**		2	9/25/2016	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	98-82-8
m&p-Xylene	**2.2**	**2.0**	**9.4**	**8.68**		2	9/25/2016	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	9/25/2016	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	9/25/2016	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/25/2016	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	9/25/2016	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	9/25/2016	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	9/25/2016	111-65-9
o-Xylene	**1.1**	**1.0**	**4.86**	**4.34**		2	9/25/2016	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44		2	9/25/2016	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	9/25/2016	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	9/25/2016	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	9/25/2016	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/25/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/25/2016	109-99-9
Toluene	**8.2**	**1.0**	**31.0**	**3.77**		2	9/25/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/25/2016	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	9/25/2016	542-75-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/25/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/25/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/25/2016	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	9/25/2016	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/25/2016	75-01-4
Surr: 4-Bromofluorobenzene	95.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	94	20	ppbv		T4	2	9/25/2016
Difluoroethane	< 20	20	ppbv		T4	2	9/25/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-9-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	06	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	**102**	**25**	**301**	**73.8**		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**298**	**50**	**710**	**119**		10	10/7/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**10**	**2.5**	**33.2**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	**19**	**10**	**58.6**	**31.1**		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**48**	**2.5**	**164**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-9-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	06	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**15**	**2.5**	**56.9**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	**189**	**2.5**	**484**	**6.40**		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	105	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	< 50	50	ppbv	T4	5	10/1/2016	
Difluoroethane	< 50	50	ppbv	T4	5	10/1/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-8-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	07	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**217**	**25**	**516**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**11**	**2.5**	**34.3**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**19**	**2.5**	**65.4**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-8-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	07	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**12**	**2.5**	**45.2**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	104	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	< 50	50	ppbv	T4	5	10/1/2016	
Difluoroethane	< 50	50	ppbv	T4	5	10/1/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-7-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	08	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**214**	**25**	**510**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**5.9**	**2.5**	**18.7**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**12**	**2.5**	**40.4**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-7-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	08	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	**6.2**	**5.0**	**21.6**	**17.6**		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**8.5**	**2.5**	**32.0**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	102	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	< 50	50	ppbv	T4	5	10/1/2016	
Difluoroethane	< 50	50	ppbv	T4	5	10/1/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-6-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	09	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**180**	**50**	**428**	**119**		10	10/7/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	**2.6**	**2.5**	**12.4**	**12.2**		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	< 2.5	2.5	< 8.60	8.60		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-6-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	09	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**5.3**	**2.5**	**19.8**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	100	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	< 50	50	ppbv	T4	5	10/1/2016	
Difluoroethane	< 50	50	ppbv	T4	5	10/1/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Dup-4
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	10	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**116**	**25**	**276**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**4.3**	**2.5**	**13.7**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9	L5	5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**40**	**2.5**	**138**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Dup-4
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	10	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**12**	**2.5**	**46.2**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	95.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	307	50	ppbv		T4	5	10/1/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/1/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Dup-5
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	11	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	**64**	**25**	**189**	**73.8**		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**431**	**50**	**1,026**	**119**		10	10/7/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**4.1**	**2.5**	**12.9**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9	L5	5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	**3.0**	**2.5**	**14.6**	**12.2**		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**8.6**	**2.5**	**29.6**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Dup-5
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	11	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**5.7**	**2.5**	**21.5**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	101	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	162	50	ppbv		T4	5	10/1/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/1/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-5-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	12	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**98**	**25**	**233**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**2.7**	**2.5**	**8.45**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9	L5	5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**14**	**2.5**	**48.3**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-5-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	12	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**3.3**	**2.5**	**12.4**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	103	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	124	50	ppbv		T4	5	10/1/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/1/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Ambient-3
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	13	**Matrix:**	Ambient air

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/7/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	10/7/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/7/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/7/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	10/7/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	10/7/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/7/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	10/7/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/7/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/7/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	10/7/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/7/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	10/7/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/7/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/7/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	10/7/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	10/7/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	10/7/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	10/7/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	10/7/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	10/7/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	10/7/2016	108-10-1
Acetone	**13**	**5.0**	**30.0**	**11.9**		1	10/7/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	10/7/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	10/7/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	10/7/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	10/7/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	10/7/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	10/7/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	10/7/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/7/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	10/7/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	10/7/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	10/7/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	10/7/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	10/7/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	10/7/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/7/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/7/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	10/7/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	10/7/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	10/7/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	10/7/2016	76-14-2
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	10/7/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	10/7/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	Ambient-3
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	13	**Matrix:**	Ambient air

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	10/7/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	10/7/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	10/7/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/7/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	10/7/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	10/7/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	10/7/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	10/7/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	10/7/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	10/7/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	10/7/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	10/7/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	10/7/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/7/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/7/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	10/7/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/7/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	10/7/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90	R6	1	10/7/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	10/7/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/7/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/7/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	10/7/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	10/7/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	10/7/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	10/7/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	10/7/2016	75-01-4
Surr: 4-Bromofluorobenzene	100	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	< 10	10	ppbv	T4	1	10/7/2016	
Difluoroethane	< 10	10	ppbv	T4	1	10/7/2016	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-4-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	14	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**184**	**25**	**439**	**59.5**		5	10/1/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**6.7**	**2.5**	**21.2**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9	L5	5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**8.5**	**2.5**	**29.1**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-4-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	14	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	**3.5**	**2.5**	**14.7**	**10.7**		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**6.8**	**2.5**	**25.4**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	101	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	130	50	ppbv		T4	5	10/1/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/1/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-3-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	15	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**245**	**50**	**583**	**119**		10	10/8/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**4.2**	**2.5**	**13.4**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9	L5	5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**7.5**	**2.5**	**25.8**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-3-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	15	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	**6.6**	**5.0**	**23.1**	**17.6**		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**5.3**	**2.5**	**20.0**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	103	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	321	50	ppbv		T4	5	10/1/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/1/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-2-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	16	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**242**	**25**	**575**	**59.5**		5	9/30/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**7.0**	**2.5**	**22.3**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9	L5	5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**5.3**	**2.5**	**18.2**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-2-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	16	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	**6.3**	**2.5**	**26.6**	**10.7**		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**8.4**	**2.5**	**31.5**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	107	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	467	50	ppbv		T4	5	10/1/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/1/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-1-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	17	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	10/1/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/1/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	10/1/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.53	5.53		5	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/1/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	10/1/2016	540-84-1
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/1/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	10/1/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	10/1/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	10/1/2016	108-10-1
Acetone	**172**	**25**	**408**	**59.5**		5	9/30/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	10/1/2016	107-05-1
Benzene	**9.0**	**2.5**	**28.7**	**7.98**		5	10/1/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8	L5	5	10/1/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9	L5	5	10/1/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	10/1/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	10/1/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	10/1/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/1/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	10/1/2016	75-00-3
Chloroform	**2.9**	**2.5**	**14.2**	**12.2**		5	10/1/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Cyclohexane	**5.4**	**2.5**	**18.4**	**8.60**		5	10/1/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5	L5	5	10/1/2016	76-14-2
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	10/1/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-1-10
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	9/21/2016
Lab ID:	17	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	10/1/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	10/1/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	10/1/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	10/1/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	10/1/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	10/1/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	10/1/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	10/1/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	10/1/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/1/2016	95-47-6
Propene (Propylene)	< 5.0	5.0	< 8.60	8.60		5	10/1/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	10/1/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	10/1/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	10/1/2016	98-06-6
Tetrachloroethene	< 5.0	5.0	< 33.9	33.9		5	10/1/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/1/2016	109-99-9
Toluene	**9.4**	**2.5**	**35.2**	**9.43**		5	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	10/1/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	10/1/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	10/1/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	104	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Ethanol	169	50	ppbv		T4	5	10/1/2016
Difluoroethane	< 50	50	ppbv		T4	5	10/1/2016

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010924 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	9/24/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	9/24/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	9/24/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/24/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	9/24/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	9/24/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	9/24/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	9/24/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/24/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/24/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	9/24/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	9/24/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	9/24/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/24/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/24/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	9/24/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	9/24/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	9/24/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	9/24/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	9/24/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	9/24/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	9/24/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	9/24/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	9/24/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	9/24/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	9/24/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	9/24/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	9/24/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	9/24/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	9/24/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/24/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	9/24/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	9/24/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	9/24/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	9/24/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	9/24/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	9/24/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/24/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	9/24/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	9/24/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	9/24/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	9/24/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	9/24/2016	76-14-2
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	9/24/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	9/24/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010924 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	9/24/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	9/24/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	9/24/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	9/24/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	9/24/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	9/24/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	9/24/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	9/24/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	9/24/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	9/24/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	9/24/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	9/24/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	9/24/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	9/24/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/24/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	9/24/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/24/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	9/24/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	9/24/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	9/24/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/24/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	9/24/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	9/24/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	9/24/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	9/24/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	9/24/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	9/24/2016	75-01-4
Surr: 4-Bromofluorobenzene	94.1	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/24/2016 Batch: MS010924 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	7.0	70.0	8.4	84.3	10.0	18.5	ppbv			
Dichlorodifluoromethane(F-12)	10.2	102	10.3	103	10.0	1.8	ppbv			
Chloromethane	10.8	108	11.0	110	10.0	1.6	ppbv			
Dichlorotetrafluoroethane(F-114)	11.5	115	11.1	111	10.0	3.3	ppbv			
Vinyl Chloride	10.2	102	9.8	97.6	10.0	4.2	ppbv			
1,3-Butadiene	10.1	101	9.7	97.0	10.0	4.2	ppbv			
Bromomethane	9.3	92.7	10.0	100	10.0	7.7	ppbv			
Chloroethane	8.7	86.6	9.8	97.6	10.0	11.9	ppbv			
Bromoethene(Vinyl Bromide)	9.6	96.1	10.7	107	10.0	11.0	ppbv			
Trichlorofluoromethane (F-11)	10.9	109	10.4	104	10.0	4.1	ppbv			
Acetone	13.5	135	9.2	91.9	10.0	38.3	ppbv	L5		R6
Isopropyl Alcohol (2-Propanol)	7.5	75.2	7.4	74.4	10.0	1.1	ppbv			
1,1-Dichloroethene	10.4	104	10.0	100	10.0	3.6	ppbv			
Trichlorotrifluoroethane (F-113)	10.6	106	10.4	104	10.0	1.7	ppbv			
Methylene Chloride	9.8	98.4	9.3	92.5	10.0	6.2	ppbv			
Allyl Chloride	8.7	86.6	9.4	94.0	10.0	8.2	ppbv			
Carbon disulfide	9.5	94.6	9.7	97.2	10.0	2.7	ppbv			
trans-1,2-Dichloroethene	9.9	98.9	10.2	102	10.0	3.3	ppbv			
Methyl tert-butyl ether	10.0	99.8	10.8	108	10.0	7.5	ppbv			
1,1-Dichloroethane	9.1	90.6	9.3	92.9	10.0	2.5	ppbv			
Vinyl acetate	9.5	94.9	9.1	91.3	10.0	3.9	ppbv			
2-Butanone (MEK)	9.5	95.4	11.3	113	10.0	17.0	ppbv			
Hexane	9.7	97.3	10.0	100	10.0	2.5	ppbv			
cis-1,2-Dichloroethene	9.6	96.3	9.9	98.5	10.0	2.3	ppbv			
Ethyl Acetate	10.9	109	10.0	100	10.0	7.9	ppbv			
Chloroform	10.0	100	9.7	97.4	10.0	2.9	ppbv			
Tetrahydrofuran	8.1	80.6	9.9	98.8	10.0	20.3	ppbv			
1,1,1-Trichloroethane	10.7	107	10.5	105	10.0	1.0	ppbv			
1,2-Dichloroethane	10.1	101	10.0	100	10.0	0.9	ppbv			
Benzene	9.3	92.9	9.7	97.0	10.0	4.3	ppbv			
Carbon tetrachloride	11.3	113	10.9	109	10.0	3.2	ppbv			
Cyclohexane	10.5	105	10.8	108	10.0	2.3	ppbv			
2,2,4-Trimethylpentane	10.8	108	10.1	101	10.0	7.3	ppbv			
Heptane	11.4	114	10.9	109	10.0	3.9	ppbv			
1,2-Dichloropropane	10.4	104	10.3	103	10.0	0.3	ppbv			
Trichloroethene	11.6	116	11.5	115	10.0	1.0	ppbv			
Bromodichloromethane	12.1	121	10.9	109	10.0	10.3	ppbv			
1,4-Dioxane	7.8	78.2	8.6	85.7	10.0	9.2	ppbv			
Methylcyclohexane	10.7	107	10.4	104	10.0	2.8	ppbv			
cis-1,3-Dichloropropene	11.7	117	10.5	105	10.0	10.5	ppbv			
4-methyl-2-pentanone	11.2	112	10.7	107	10.0	4.0	ppbv			
trans-1,3-Dichloropropene	12.0	120	11.1	111	10.0	7.7	ppbv			
Toluene	11.3	113	11.0	110	10.0	3.0	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/24/2016 Batch: MS010924 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	11.2	112	10.6	106	10.0	4.9	ppbv			
2-Hexanone	10.7	107	10.7	107	10.0	0.4	ppbv			
n-Octane	9.1	91.1	9.1	90.6	10.0	0.6	ppbv			
Dibromochloromethane	13.2	132	11.9	119	10.0	10.6	ppbv	L5		
1,2-Dibromoethane	12.1	121	10.9	109	10.0	10.5	ppbv			
Tetrachloroethene	12.8	128	11.7	117	10.0	8.7	ppbv			
Chlorobenzene	10.9	109	10.2	102	10.0	7.4	ppbv			
Ethylbenzene	11.1	111	10.6	106	10.0	4.4	ppbv			
m&p-Xylene	22.9	114	20.6	103	20.0	10.2	ppbv			
Bromoform	12.8	128	11.5	115	10.0	10.2	ppbv			
Styrene	11.9	119	10.7	107	10.0	10.5	ppbv			
Nonane	10.4	104	9.4	93.6	10.0	10.9	ppbv			
o-Xylene	11.1	111	10.0	99.5	10.0	10.7	ppbv			
1,1,2,2-Tetrachloroethane	11.0	110	10.3	103	10.0	7.2	ppbv			
Isopropylbenzene	12.3	123	11.4	114	10.0	7.6	ppbv			
n-Propylbenzene	11.7	117	10.4	104	10.0	11.4	ppbv			
4-Ethyltoluene	12.2	122	11.0	110	10.0	10.8	ppbv			
1,3,5-Trimethylbenzene	12.2	122	11.0	110	10.0	10.8	ppbv			
Tert-Butyl Benzene	12.2	122	10.5	105	10.0	14.8	ppbv			
1,2,4-Trimethylbenzene	12.2	122	10.9	109	10.0	11.2	ppbv			
Sec-Butyl Benzene	12.2	122	10.8	108	10.0	11.6	ppbv			
1,3-Dichlorobenzene	12.1	121	10.8	108	10.0	11.8	ppbv			
Benzyl chloride	11.9	119	10.6	106	10.0	11.9	ppbv			
1,4-Dichlorobenzene	11.9	119	10.9	109	10.0	8.7	ppbv			
1,2-Dichlorobenzene	12.4	124	10.8	108	10.0	13.4	ppbv			
n-Butyl Benzene	12.1	121	10.6	106	10.0	13.9	ppbv			
1,2,4-Trichlorobenzene	12.0	120	10.8	108	10.0	9.8	ppbv			
Naphthalene	11.7	117	10.3	103	10.0	12.7	ppbv			
Hexachlorobutadiene	12.6	126	10.6	106	10.0	17.7	ppbv			
Surr: 4-Bromofluorobenzene	11.1	111	9.9	99.0			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010930 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	9/30/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	9/30/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	9/30/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/30/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	9/30/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	9/30/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	9/30/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	9/30/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/30/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/30/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	9/30/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	9/30/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	9/30/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/30/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/30/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	9/30/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	9/30/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	9/30/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	9/30/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	9/30/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	9/30/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	9/30/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	9/30/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	9/30/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	9/30/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	9/30/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	9/30/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	9/30/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	9/30/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	9/30/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/30/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	9/30/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	9/30/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	9/30/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	9/30/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	9/30/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	9/30/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/30/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	9/30/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	9/30/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	9/30/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	9/30/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	9/30/2016	76-14-2
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	9/30/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	9/30/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010930 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	9/30/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	9/30/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	9/30/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	9/30/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	9/30/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	9/30/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	9/30/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	9/30/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	9/30/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	9/30/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	9/30/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	9/30/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	9/30/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	9/30/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/30/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	9/30/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	9/30/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	9/30/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	9/30/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	9/30/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/30/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	9/30/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	9/30/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	9/30/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	9/30/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	9/30/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	9/30/2016	75-01-4
Surr: 4-Bromofluorobenzene	104	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/30/2016 Batch: MS010930 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	9.6	95.9	9.4	94.4	10.0	1.6	ppbv			
Dichlorodifluoromethane(F-12)	12.8	128	12.5	125	10.0	2.1	ppbv			
Chloromethane	12.0	120	11.5	115	10.0	4.1	ppbv			
Dichlorotetrafluoroethane(F-114)	13.7	137	12.9	129	10.0	5.7	ppbv	L5		
Vinyl Chloride	12.4	124	12.3	123	10.0	1.2	ppbv			
1,3-Butadiene	11.0	110	10.3	103	10.0	7.3	ppbv			
Bromomethane	11.5	115	11.2	112	10.0	2.4	ppbv			
Chloroethane	10.5	105	10.1	101	10.0	4.1	ppbv			
Bromoethene(Vinyl Bromide)	10.9	109	11.3	113	10.0	3.6	ppbv			
Trichlorofluoromethane (F-11)	12.0	120	12.6	126	10.0	4.8	ppbv			
Acetone	11.4	114	10.5	105	10.0	8.2	ppbv			
Isopropyl Alcohol (2-Propanol)	10.7	107	10.3	103	10.0	4.5	ppbv			
1,1-Dichloroethene	11.4	114	11.7	117	10.0	3.1	ppbv			
Trichlorotrifluoroethane (F-113)	11.3	113	11.7	117	10.0	3.7	ppbv			
Methylene Chloride	10.7	107	10.8	108	10.0	0.3	ppbv			
Allyl Chloride	10.1	101	9.9	98.5	10.0	2.1	ppbv			
Carbon disulfide	10.7	107	11.0	110	10.0	2.9	ppbv			
trans-1,2-Dichloroethene	10.9	109	10.8	108	10.0	0.6	ppbv			
Methyl tert-butyl ether	11.0	110	11.6	116	10.0	4.8	ppbv			
1,1-Dichloroethane	10.3	103	10.4	104	10.0	0.9	ppbv			
Vinyl acetate	10.7	107	10.3	103	10.0	3.8	ppbv			
2-Butanone (MEK)	10.2	102	10.2	102	10.0	0.5	ppbv			
Hexane	11.2	112	11.5	115	10.0	2.6	ppbv			
cis-1,2-Dichloroethene	10.6	106	10.6	106	10.0	0.0	ppbv			
Ethyl Acetate	10.8	108	11.6	116	10.0	7.5	ppbv			
Chloroform	11.6	116	11.8	118	10.0	1.9	ppbv			
Tetrahydrofuran	11.2	112	10.0	99.8	10.0	11.9	ppbv			
1,1,1-Trichloroethane	12.0	120	12.0	120	10.0	0.3	ppbv			
1,2-Dichloroethane	10.9	109	11.0	110	10.0	0.9	ppbv			
Benzene	9.5	95.4	9.8	98.4	10.0	3.1	ppbv			
Carbon tetrachloride	11.8	118	12.0	120	10.0	1.6	ppbv			
Cyclohexane	12.2	122	12.2	122	10.0	0.1	ppbv			
2,2,4-Trimethylpentane	11.7	117	11.8	118	10.0	0.8	ppbv			
Heptane	11.2	112	12.6	126	10.0	11.4	ppbv			
1,2-Dichloropropane	10.8	108	10.6	106	10.0	2.6	ppbv			
Trichloroethene	11.9	119	11.6	116	10.0	2.0	ppbv			
Bromodichloromethane	12.4	124	12.6	126	10.0	1.6	ppbv			
1,4-Dioxane	7.5	75.0	8.7	87.2	10.0	15.0	ppbv			
Methylcyclohexane	11.5	115	11.6	116	10.0	1.1	ppbv			
cis-1,3-Dichloropropene	11.8	118	11.5	115	10.0	2.6	ppbv			
4-methyl-2-pentanone	11.1	111	10.7	107	10.0	3.3	ppbv			
trans-1,3-Dichloropropene	12.0	120	12.1	121	10.0	0.3	ppbv			
Toluene	11.2	112	11.3	113	10.0	1.5	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/30/2016 Batch: MS010930 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	11.3	113	11.4	114	10.0	0.5	ppbv			
2-Hexanone	10.4	104	11.4	114	10.0	9.4	ppbv			
n-Octane	10.6	106	10.1	101	10.0	5.0	ppbv			
Dibromochloromethane	12.6	126	12.5	125	10.0	1.0	ppbv			
1,2-Dibromoethane	11.2	112	11.7	117	10.0	3.8	ppbv			
Tetrachloroethene	12.1	121	11.5	115	10.0	4.8	ppbv			
Chlorobenzene	10.7	107	10.4	104	10.0	2.7	ppbv			
Ethylbenzene	11.5	115	11.1	111	10.0	3.7	ppbv			
m&p-Xylene	22.5	113	23.1	115	20.0	2.4	ppbv			
Bromoform	13.0	130	12.7	127	10.0	2.6	ppbv	L5		
Styrene	11.5	115	11.6	116	10.0	0.9	ppbv			
Nonane	11.4	114	10.9	109	10.0	4.6	ppbv			
o-Xylene	10.9	109	10.9	109	10.0	0.3	ppbv			
1,1,2,2-Tetrachloroethane	12.1	121	11.5	115	10.0	5.2	ppbv			
Isopropylbenzene	12.5	125	12.3	123	10.0	1.5	ppbv			
n-Propylbenzene	12.4	124	12.3	123	10.0	1.4	ppbv			
4-Ethyltoluene	12.8	128	12.3	123	10.0	3.4	ppbv			
1,3,5-Trimethylbenzene	12.8	128	12.2	122	10.0	4.4	ppbv			
Tert-Butyl Benzene	12.0	120	11.5	115	10.0	4.4	ppbv			
1,2,4-Trimethylbenzene	12.4	124	11.9	119	10.0	3.9	ppbv			
Sec-Butyl Benzene	12.6	126	12.2	122	10.0	3.2	ppbv			
1,3-Dichlorobenzene	11.9	119	11.3	113	10.0	4.9	ppbv			
Benzyl chloride	13.7	137	13.3	133	10.0	3.0	ppbv	L5	L5	
1,4-Dichlorobenzene	12.1	121	11.7	117	10.0	3.8	ppbv			
1,2-Dichlorobenzene	12.1	121	11.5	115	10.0	5.3	ppbv			
n-Butyl Benzene	12.8	128	12.2	122	10.0	5.0	ppbv			
1,2,4-Trichlorobenzene	11.4	114	11.1	111	10.0	2.0	ppbv			
Naphthalene	11.2	112	10.9	109	10.0	2.5	ppbv			
Hexachlorobutadiene	11.8	118	11.3	113	10.0	4.8	ppbv			
Surr: 4-Bromofluorobenzene	11.5	115	11.2	112		3.1	%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011001 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/1/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	10/1/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/1/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/1/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	10/1/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	10/1/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/1/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	10/1/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/1/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/1/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	10/1/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/1/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	10/1/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/1/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/1/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	10/1/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	10/1/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	10/1/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	10/1/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	10/1/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	10/1/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	10/1/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	10/1/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	10/1/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	10/1/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	10/1/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	10/1/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	10/1/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	10/1/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	10/1/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/1/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	10/1/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	10/1/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	10/1/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	10/1/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	10/1/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	10/1/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/1/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/1/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	10/1/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	10/1/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	10/1/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	10/1/2016	76-14-2
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	10/1/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	10/1/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011001 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	10/1/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	10/1/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	10/1/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/1/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	10/1/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	10/1/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	10/1/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	10/1/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	10/1/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	10/1/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	10/1/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	10/1/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	10/1/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/1/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/1/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	10/1/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/1/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	10/1/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	10/1/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	10/1/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/1/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/1/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	10/1/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	10/1/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	10/1/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	10/1/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	10/1/2016	75-01-4
Surr: 4-Bromofluorobenzene	99.5	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/1/2016 Batch: MS011001 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	8.7	87.4	9.3	92.6	10.0	5.8	ppbv			
Dichlorodifluoromethane(F-12)	12.2	122	11.2	112	10.0	8.5	ppbv			
Chloromethane	11.8	118	11.9	119	10.0	0.8	ppbv			
Dichlorotetrafluoroethane(F-114)	13.3	133	12.8	128	10.0	3.5	ppbv	L5		
Vinyl Chloride	12.4	124	12.2	122	10.0	1.3	ppbv			
1,3-Butadiene	11.8	118	10.6	106	10.0	11.2	ppbv			
Bromomethane	10.0	100	10.4	104	10.0	4.1	ppbv			
Chloroethane	10.0	100	9.9	99.2	10.0	0.8	ppbv			
Bromoethene(Vinyl Bromide)	10.2	102	11.2	112	10.0	9.6	ppbv			
Trichlorofluoromethane (F-11)	11.6	116	11.8	118	10.0	2.2	ppbv			
Acetone	10.8	108	9.2	91.9	10.0	16.1	ppbv			
Isopropyl Alcohol (2-Propanol)	8.5	84.8	9.1	91.3	10.0	7.4	ppbv			
1,1-Dichloroethene	10.4	104	11.0	110	10.0	5.8	ppbv			
Trichlorotrifluoroethane (F-113)	10.4	104	11.2	112	10.0	7.5	ppbv			
Methylene Chloride	9.0	90.3	10.1	101	10.0	11.0	ppbv			
Allyl Chloride	9.2	92.0	10.8	108	10.0	15.8	ppbv			
Carbon disulfide	9.9	98.6	10.1	101	10.0	2.8	ppbv			
trans-1,2-Dichloroethene	9.5	94.8	10.2	102	10.0	7.3	ppbv			
Methyl tert-butyl ether	10.8	108	12.1	121	10.0	10.7	ppbv			
1,1-Dichloroethane	9.8	97.7	10.2	102	10.0	4.3	ppbv			
Vinyl acetate	9.0	89.5	11.1	111	10.0	21.8	ppbv			
2-Butanone (MEK)	10.3	103	10.0	100	10.0	2.3	ppbv			
Hexane	9.8	98.2	11.7	117	10.0	17.5	ppbv			
cis-1,2-Dichloroethene	9.7	96.7	10.2	102	10.0	5.7	ppbv			
Ethyl Acetate	10.8	108	10.8	108	10.0	0.1	ppbv			
Chloroform	10.5	105	11.2	112	10.0	6.6	ppbv			
Tetrahydrofuran	10.6	106	9.9	99.4	10.0	6.7	ppbv			
1,1,1-Trichloroethane	10.6	106	11.9	119	10.0	11.7	ppbv			
1,2-Dichloroethane	11.4	114	10.9	109	10.0	4.7	ppbv			
Benzene	9.8	97.6	9.7	97.4	10.0	0.2	ppbv			
Carbon tetrachloride	10.8	108	11.9	119	10.0	9.7	ppbv			
Cyclohexane	10.3	103	11.0	110	10.0	6.7	ppbv			
2,2,4-Trimethylpentane	9.9	99.0	11.5	115	10.0	14.6	ppbv			
Heptane	9.4	94.3	11.0	110	10.0	15.6	ppbv			
1,2-Dichloropropane	8.9	88.8	10.2	102	10.0	14.2	ppbv			
Trichloroethene	9.5	94.7	11.0	110	10.0	14.7	ppbv			
Bromodichloromethane	11.5	115	12.4	124	10.0	7.6	ppbv			
1,4-Dioxane	8.3	83.2	9.5	95.2	10.0	13.5	ppbv			
Methylcyclohexane	9.6	95.9	11.0	110	10.0	13.6	ppbv			
cis-1,3-Dichloropropene	10.4	104	11.2	112	10.0	7.8	ppbv			
4-methyl-2-pentanone	10.0	100	10.9	109	10.0	9.0	ppbv			
trans-1,3-Dichloropropene	11.2	112	12.3	123	10.0	9.5	ppbv			
Toluene	11.3	113	10.7	107	10.0	4.7	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/1/2016 Batch: MS011001 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	9.9	99.2	10.8	108	10.0	8.3	ppbv			
2-Hexanone	10.9	109	10.9	109	10.0	0.2	ppbv			
n-Octane	9.1	90.5	9.9	99.4	10.0	9.4	ppbv			
Dibromochloromethane	11.9	119	12.4	124	10.0	4.1	ppbv			
1,2-Dibromoethane	9.7	96.8	11.2	112	10.0	14.5	ppbv			
Tetrachloroethene	10.3	103	11.7	117	10.0	13.1	ppbv			
Chlorobenzene	8.6	86.3	10.5	105	10.0	19.7	ppbv			
Ethylbenzene	9.2	92.3	11.1	111	10.0	18.2	ppbv			
m&p-Xylene	19.7	98.4	22.5	112	20.0	13.2	ppbv			
Bromoform	10.8	108	12.9	129	10.0	17.2	ppbv			
Styrene	9.3	93.1	11.7	117	10.0	22.8	ppbv			
Nonane	9.2	92.0	9.9	98.6	10.0	6.9	ppbv			
o-Xylene	9.0	89.6	10.6	106	10.0	16.9	ppbv			
1,1,2,2-Tetrachloroethane	9.6	96.1	11.5	115	10.0	17.7	ppbv			
Isopropylbenzene	10.3	103	12.1	121	10.0	16.6	ppbv			
n-Propylbenzene	9.8	97.8	11.9	119	10.0	19.7	ppbv			
4-Ethyltoluene	10.3	103	12.3	123	10.0	16.9	ppbv			
1,3,5-Trimethylbenzene	10.2	102	12.3	123	10.0	19.3	ppbv			
Tert-Butyl Benzene	9.7	97.3	11.5	115	10.0	16.8	ppbv			
1,2,4-Trimethylbenzene	10.2	102	12.0	120	10.0	16.5	ppbv			
Sec-Butyl Benzene	10.0	100	12.0	120	10.0	18.1	ppbv			
1,3-Dichlorobenzene	9.8	97.7	11.9	119	10.0	19.2	ppbv			
Benzyl chloride	11.2	112	13.5	135	10.0	18.7	ppbv		L5	
1,4-Dichlorobenzene	9.6	96.2	11.9	119	10.0	21.2	ppbv			
1,2-Dichlorobenzene	10.1	101	11.7	117	10.0	14.4	ppbv			
n-Butyl Benzene	10.2	102	12.0	120	10.0	16.1	ppbv			
1,2,4-Trichlorobenzene	9.7	96.5	11.2	112	10.0	14.8	ppbv			
Naphthalene	9.5	94.5	11.4	114	10.0	18.9	ppbv			
Hexachlorobutadiene	10.0	100	11.8	118	10.0	15.7	ppbv			
Surr: 4-Bromofluorobenzene	10.6	106	11.3	113			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011006 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/6/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	10/6/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/6/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/6/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	10/6/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	10/6/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/6/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	10/6/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/6/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/6/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	10/6/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/6/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	10/6/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/6/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/6/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	10/6/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	10/6/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	10/6/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	10/6/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	10/6/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	10/6/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	10/6/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	10/6/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	10/6/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	10/6/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	10/6/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	10/6/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	10/6/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	10/6/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	10/6/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/6/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	10/6/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	10/6/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	10/6/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	10/6/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	10/6/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	10/6/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/6/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/6/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	10/6/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	10/6/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	10/6/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	10/6/2016	76-14-2
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	10/6/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	10/6/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011006 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	10/6/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	10/6/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	10/6/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/6/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	10/6/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	10/6/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	10/6/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	10/6/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	10/6/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	10/6/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	10/6/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	10/6/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	10/6/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/6/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/6/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	10/6/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/6/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	10/6/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	10/6/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	10/6/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/6/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/6/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	10/6/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	10/6/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	10/6/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	10/6/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	10/6/2016	75-01-4
Surr: 4-Bromofluorobenzene	110	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/6/2016 Batch: MS011006 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	9.7	96.6	9.0	89.6	10.0	7.5	ppbv			
Dichlorodifluoromethane(F-12)	11.4	114	11.2	112	10.0	1.6	ppbv			
Chloromethane	11.2	112	11.8	118	10.0	5.3	ppbv			
Dichlorotetrafluoroethane(F-114)	12.1	121	12.4	124	10.0	2.5	ppbv			
Vinyl Chloride	11.6	116	10.8	108	10.0	7.2	ppbv			
1,3-Butadiene	8.9	89.0	10.3	103	10.0	14.5	ppbv			
Bromomethane	9.9	99.1	10.4	104	10.0	4.6	ppbv			
Chloroethane	9.7	96.9	10.9	109	10.0	11.8	ppbv			
Bromoethene(Vinyl Bromide)	9.6	95.5	10.0	99.7	10.0	4.3	ppbv			
Trichlorofluoromethane (F-11)	11.1	111	11.3	113	10.0	1.5	ppbv			
Acetone	10.8	108	11.3	113	10.0	4.3	ppbv			
Isopropyl Alcohol (2-Propanol)	9.4	94.0	9.7	97.3	10.0	3.5	ppbv			
1,1-Dichloroethene	10.1	101	10.7	107	10.0	6.0	ppbv			
Trichlorotrifluoroethane (F-113)	10.2	102	11.2	112	10.0	9.0	ppbv			
Methylene Chloride	9.1	90.9	9.9	99.4	10.0	8.9	ppbv			
Allyl Chloride	9.6	95.9	9.3	92.5	10.0	3.6	ppbv			
Carbon disulfide	9.3	93.1	10.2	102	10.0	8.8	ppbv			
trans-1,2-Dichloroethene	9.6	96.3	10.2	102	10.0	5.3	ppbv			
Methyl tert-butyl ether	11.0	110	11.8	118	10.0	7.3	ppbv			
1,1-Dichloroethane	9.5	95.2	10.2	102	10.0	6.5	ppbv			
Vinyl acetate	9.7	96.7	11.8	118	10.0	19.8	ppbv			
2-Butanone (MEK)	10.1	101	10.6	106	10.0	4.4	ppbv			
Hexane	10.6	106	10.8	108	10.0	1.2	ppbv			
cis-1,2-Dichloroethene	9.2	92.1	10.0	100	10.0	8.6	ppbv			
Ethyl Acetate	10.1	101	10.7	107	10.0	6.0	ppbv			
Chloroform	10.2	102	11.2	112	10.0	9.7	ppbv			
Tetrahydrofuran	9.5	95.3	12.8	128	10.0	29.4	ppbv			R6
1,1,1-Trichloroethane	11.0	110	11.7	117	10.0	5.9	ppbv			
1,2-Dichloroethane	10.0	99.5	12.0	120	10.0	18.4	ppbv			
Benzene	8.6	85.9	9.7	97.3	10.0	12.4	ppbv			
Carbon tetrachloride	10.7	107	11.7	117	10.0	8.9	ppbv			
Cyclohexane	10.3	103	11.1	111	10.0	7.5	ppbv			
2,2,4-Trimethylpentane	9.6	96.1	11.0	110	10.0	13.5	ppbv			
Heptane	9.8	98.4	10.5	105	10.0	6.5	ppbv			
1,2-Dichloropropane	9.2	92.1	11.0	110	10.0	17.7	ppbv			
Trichloroethene	9.2	91.8	10.3	103	10.0	11.3	ppbv			
Bromodichloromethane	10.3	103	12.2	122	10.0	16.5	ppbv			
1,4-Dioxane	7.7	77.0	8.7	87.4	10.0	12.7	ppbv			
Methylcyclohexane	9.3	92.8	10.8	108	10.0	14.8	ppbv			
cis-1,3-Dichloropropene	10.0	100	11.3	113	10.0	12.2	ppbv			
4-methyl-2-pentanone	9.6	95.8	11.4	114	10.0	17.6	ppbv			
trans-1,3-Dichloropropene	10.2	102	12.7	127	10.0	22.0	ppbv			
Toluene	9.3	92.9	10.9	109	10.0	15.6	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/6/2016 Batch: MS011006 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	9.4	94.4	10.8	108	10.0	13.6	ppbv			
2-Hexanone	9.8	98.2	12.3	123	10.0	22.3	ppbv			
n-Octane	9.6	95.8	10.3	103	10.0	6.8	ppbv			
Dibromochloromethane	10.5	105	11.8	118	10.0	11.6	ppbv			
1,2-Dibromoethane	9.5	94.5	11.1	111	10.0	15.8	ppbv			
Tetrachloroethene	9.6	95.6	10.7	107	10.0	11.2	ppbv			
Chlorobenzene	8.8	87.7	10.1	101	10.0	14.2	ppbv			
Ethylbenzene	9.5	95.3	10.4	104	10.0	9.0	ppbv			
m&p-Xylene	18.2	90.9	21.9	109	20.0	18.5	ppbv			
Bromoform	10.1	101	12.0	120	10.0	16.4	ppbv			
Styrene	9.5	95.1	11.0	110	10.0	14.3	ppbv			
Nonane	9.3	92.6	10.1	101	10.0	8.5	ppbv			
o-Xylene	8.8	88.4	10.2	102	10.0	14.3	ppbv			
1,1,2,2-Tetrachloroethane	9.6	95.7	11.0	110	10.0	13.5	ppbv			
Isopropylbenzene	10.4	104	11.9	119	10.0	13.3	ppbv			
n-Propylbenzene	10.2	102	11.6	116	10.0	12.7	ppbv			
4-Ethyltoluene	10.3	103	12.0	120	10.0	14.7	ppbv			
1,3,5-Trimethylbenzene	10.1	101	11.8	118	10.0	15.1	ppbv			
Tert-Butyl Benzene	9.8	98.3	11.1	111	10.0	12.3	ppbv			
1,2,4-Trimethylbenzene	10.1	101	11.2	112	10.0	11.1	ppbv			
Sec-Butyl Benzene	10.3	103	11.8	118	10.0	13.9	ppbv			
1,3-Dichlorobenzene	9.1	90.9	10.5	105	10.0	14.3	ppbv			
Benzyl chloride	11.2	112	12.9	129	10.0	14.1	ppbv			
1,4-Dichlorobenzene	9.7	96.9	11.1	111	10.0	13.5	ppbv			
1,2-Dichlorobenzene	9.8	98.3	10.9	109	10.0	10.4	ppbv			
n-Butyl Benzene	10.6	106.4	12.0	120	10.0	12.3	ppbv			
1,2,4-Trichlorobenzene	9.1	90.9	10.4	104	10.0	13.6	ppbv			
Naphthalene	9.4	94.0	10.9	109	10.0	14.9	ppbv			
Hexachlorobutadiene	9.3	93.3	10.6	106	10.0	12.3	ppbv			
Surr: 4-Bromofluorobenzene	11.3	113	11.1	111		2.2	%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011008 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Acetone	< 5.0	5.0	< 11.9	11.9		1	10/8/2016	67-64-1
Surr: 4-Bromofluorobenzene	103	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/8/2016 Batch: MS011008 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Acetone	11.6	116	10.2	102	10.0	13.0	ppbv			
Surr: 4-Bromofluorobenzene	11.4	114	10.8	108			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	NA
Project:	27th Ave & Osborn	**Project Number:**	2016031
Lab Order:	16I034	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-160802-01	Stock	Spectra Gases	113123527	TO-14 39 Analytes	1.0 ppmv	± 5%	7/25/2017
S-160802-02	Stock	Spectra Gases	113123527	TO-15 25 Analytes	1.0 ppmv	± 5%	7/12/2017
S-160802-03	Stock	Spectra Gases	113123527	15 Additional Compounds	1.0 ppmv	± 5%	7/19/2017
S-151113-01	Stock	Spectra Gases	TB500009-110	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	11/13/2016
A-160914-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	12/14/2016
A-160924-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	11/13/2016

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Hydro Geo Chem	Page 1 of ____		AEL Lab #
Address: 6370 E Thomas	Sampler: B. Virmas	Phone: 5204032721	16I034
	Project Name:	Project Number:	
City, State, Zip: Scottsdale AZ 85251	Project location: Osborn & 27th Ave		
Contact: Dan Sola	P.O. Number: 20160031		
Phone: 480 421 1501 Fax:	Fax Results: Y (N)		
E-Mail Address: DanS@HGC inc.com	E-Mail Results: (Y) N		

Sample Receipt	Turn Around Request	Sample Type
Temperature ____ °C	____ 24 Hours ____ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes ____ No ____	____ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes ____ No ____	____ 5 working Day	I: indoor air
Total # of Containers: ____	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water	TIC		DFA tracer cmpd. as TIC
01	E2103	145	6 (1) bag	1 2 (5)	SG-14-10	9-21	7:40	S	1	X							X		
02	1803	175	6 (1) bag	1 2 (5)	SG-13-10	↓	8:05	↓	↓	↓							↓		
03	E2372	106	6 (1) bag	1 2 (5)	SG-12-10		8:21												
04	E2094	057	6 (1) bag	1 2 (5)	SG-10-10		8:38												
05	1869	080	6 (1) bag	1 2 (5)	SG-11-10		9:00												
06	E2408	205	6 (1) bag	1 2 (5)	SG-9-10		9:15												
07	E2400	214	6 (1) bag	1 2 (5)	SG-8-10		9:53												
08	E1888	156	6 (1) bag	1 2 (5)	SG-7-10		10:03												
09	1829	180	6 (1) bag	1 2 (5)	SG-6-10		10:19												
10	E2360	217	6 (1) bag	1 2 (5)	Dup-4	↓	18:00	↓	↓	↓							↓		

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
09-21-16	12:40pm		

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Hydro Geo Chem	Page 2 of ___	AEL Lab #
Address:	Sampler: B. Vernon Phone: 520 403 2771	16I034
	Project Name: Project Number:	
City, State, Zip: Scottsdale AZ	Project location: Osborn + 27th Ave	
Contact: Dan Sola	P.O. Number: 2016031	
Phone: 480 421 1501 Fax:	Fax Results: Y (N)	
E-Mail Address: DanS@HGCinc.com	E-Mail Results: (Y) N	

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

___ 24 Hours ___ 48 Hours
___ 72 Hours
___ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water	FIC		DFA tracer cmpd. as TIC
11	1813	174	6 (1) bag	1 2 (5)	Dup-5	9-21	6:00	S	1	X							X		
12	E2347	096	6 (1) bag	1 2 (5)	SG-5-10	↓	10:36	↓	↓	↓							↓		
13	E2396	176	6 (1) bag	1 2 (5)	Ambient-3	↓	10:50	↓	↓	↓							↓		
14	E2367	127	6 (1) bag	1 2 (5)	SG-4-10	↓	11:12	↓	↓	↓							↓		
15	E2366	178	6 (1) bag	1 2 (5)	SG-3-10	↓	11:24	↓	↓	↓							↓		
16	1795	060	6 (1) bag	1 2 (5)	SG-2-10	↓	11:42	↓	↓	↓							↓		
17	E2101	172	6 (1) bag	1 2 (5)	SG-1-10	↓	12:01	↓	↓	↓							↓		
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9-21-16	12:40pm	[signature]	[signature]

Chain of Custody QA-Form SR-Rev.04-0614

Airtech Environmental Laboratories (AEL)
4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: November 16, 2016

Client:	Dan Sola	Work Order #:	16K002
Company:	Hydro Geo Chem	Project Name:	ADEQ WCP NCP
Address:	6340 E Thomas, Suite 205	Project Number:	2014042.20
	Scottsdale, AZ 85251	Received Date:	11/2/2016

Dear Client:

Airtech Environmental Laboratories received twenty-two (22) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Only
SG-S1
SG-S2
SG-S3
part of EGA study

Airtech Environmental Laboratories (AEL)

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: November 16, 2016

Client:	Dan Sola	Work Order #:	16K002
Company:	Hydro Geo Chem	Project Name:	ADEQ WCP NCP
Address:	6340 E Thomas, Suite 205	Project Number:	2014042.20
	Scottsdale, AZ 85251	Received Date:	11/2/2016

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
16K002-01	NCP-1-10	TO-15	10/31/2016	0832
16K002-02	NCP-2-10	TO-15	10/31/2016	0851
16K002-03	NCP-3-10	TO-15	10/31/2016	1011
16K002-04	NCP-4-10	TO-15	10/31/2016	1023
16K002-05	NCP-5-10	TO-15	10/31/2016	1249
16K002-06	NCP-6-10	TO-15	10/31/2016	1259
16K002-07	NCP-7-10	TO-15	10/31/2016	1307
16K002-08	NCP-8-10	TO-15	10/31/2016	1413
16K002-09	NCP-9-10	TO-15	10/31/2016	1427
16K002-10	NCP-10-10	TO-15	11/1/2016	0830
16K002-11	SG-S1-10	TO-15	10/31/2016	1603
16K002-12	SG-S2-10	TO-15	10/31/2016	1615
16K002-13	SG-S3-10	TO-15	10/31/2016	1625
16K002-14	NCP-11-10	TO-15	11/1/2016	0843
16K002-15	NCP-12-10	TO-15	11/1/2016	1015
16K002-16	NCP-13-10	TO-15	11/1/2016	1029
16K002-17	NCP-14-10	TO-15	11/1/2016	1300
16K002-18	NCP-15-10	TO-15	11/1/2016	1316
16K002-19	NCP-16-10	TO-15	11/1/2016	1425
16K002-20	NCP-17-10	TO-15	11/1/2016	1439
16K002-21	NCP-18-10	TO-15	11/2/2016	0819
16K002-22	NCP-19-10	TO-15	11/2/2016	0829

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: November 16, 2016

Client:	Dan Sola	Work Order #:	16K002
Company:	Hydro Geo Chem	Project Name:	ADEQ WCP NCP
Address:	6340 E Thomas, Suite 205	Project Number:	2014042.20
	Scottsdale, AZ 85251	Received Date:	11/02/16

Case Narrative

All samples and QC associated with your samples met the quality control objectives. Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

L5: The associated blank spike recovery was above the laboratory/method acceptance limits. Analyte not detected in sample.

R6: BS/BSD RPD exceeded the method acceptance limit. Recovery met acceptance criteria.

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Vacuum	Type	
	Client	1.0 liter		before sampled	after sampled	5 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
16K002-01	NCP-1-10	E2100	1610-10	29.0	13.88	184	1609-10
16K002-02	NCP-2-10	E2347	1610-08	29.0	12.59	076	1609-10
16K002-03	NCP-3-10	E2359	1610-10	29.0	12.21	213	1609-10
16K002-04	NCP-4-10	1795	1610-08	29.0	12.44	219	1609-10
16K002-05	NCP-5-10	E2367	1610-08	29.0	11.12	106	1609-11
16K002-06	NCP-6-10	1813	1610-08	29.0	12.75	218	1609-10
16K002-07	NCP-7-10	1807	1610-11	29.0	11.36	181	1609-11
16K002-08	NCP-8-10	E2293	1610-11	29.0	13.41	130	1609-10
16K002-09	NCP-9-10	E2092	1610-11	29.0	12.53	070	1609-11
16K002-10	NCP-10-10	1842	1610-11	29.0	12.83	126	1609-10
16K002-11	SG-S1-10	1858	1610-10	29.0	12.22	175	1609-10
16K002-12	SG-S2-10	1796	1610-11	29.0	12.63	057	1609-10
16K002-13	SG-S3-10	E2296	1610-11	29.0	13.02	018	1609-12
16K002-14	NCP-11-10	E2406	1610-10	29.0	13.42	089	1609-10
16K002-15	NCP-12-10	E2098	1610-10	29.0	11.63	116	1609-10
16K002-16	NCP-13-10	1847	1610-10	29.0	12.55	003	1609-10
16K002-17	NCP-14-10	E2403	1610-11	29.0	11.36	178	1609-10
16K002-18	NCP-15-10	E2297	1610-11	29.0	12.60	101	1609-10
16K002-19	NCP-16-10	E2085	1610-11	29.0	13.50	059	1609-11
16K002-20	NCP-17-10	E2390	1610-10	29.0	11.47	183	1609-10
16K002-21	NCP-18-10	E2294	1610-10	29.0	13.55	020	1610-02
16K002-22	NCP-19-10	1832	1610-11	29.0	12.12	206	1609-02

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-S1-10
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	10/31/2016
Lab ID:	11	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	11/12/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17.2	17.2		5	11/12/2016	79-34-5
1,1,2-Trichloroethane	< 2.5	2.5	< 13.7	13.7		5	11/12/2016	79-00-5
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	11/12/2016	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	11/12/2016	75-35-4
1,2,4-Trichlorobenzene	< 10	10	< 74.2	74.2		5	11/12/2016	120-82-1
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	11/12/2016	95-63-6
1,2-Dibromoethane	< 2.5	2.5	< 19.2	19.2		5	11/12/2016	106-93-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	11/12/2016	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	11/12/2016	107-06-2
1,2-Dichloropropane	< 2.5	2.5	< 11.6	11.6		5	11/12/2016	78-87-5
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12.3	12.3		5	11/12/2016	108-67-8
1,3-Butadiene	< 2.5	2.5	< 5.5	5.5		5	11/12/2016	106-99-0
1,3-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	11/12/2016	541-73-1
1,4-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	11/12/2016	106-46-7
1,4-Dioxane	< 10	10	< 36.0	36.0		5	11/12/2016	123-91-1
2,2,4-Trimethylpentane	< 2.5	2.5	< 11.7	11.7		5	11/12/2016	540-84-1
2-Butanone (MEK)	**33**	**25**	**97.9**	**73.8**		5	11/12/2016	78-93-3
2-Hexanone	< 25	25	< 103	103		5	11/12/2016	591-78-6
2-Propanol (IPA)	< 25	25	< 61.3	61.3		5	11/12/2016	67-63-0
4-Ethyltoluene	< 5.0	5.0	< 24.6	24.6		5	11/12/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 25	25	< 103	103		5	11/12/2016	108-10-1
Acetone	**97**	**25**	**231**	**59.5**		5	11/12/2016	67-64-1
Allyl chloride	< 5.0	5.0	< 15.7	15.7		5	11/12/2016	107-05-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	11/12/2016	71-43-2
Benzyl chloride	< 10	10	< 51.8	51.8		5	11/12/2016	100-44-7
Bromodichloromethane	< 2.5	2.5	< 16.8	16.8		5	11/12/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 10.9	10.9		5	11/12/2016	593-60-2
Bromoform	< 2.5	2.5	< 25.9	25.9		5	11/12/2016	75-25-2
Bromomethane	< 2.5	2.5	< 9.70	9.70		5	11/12/2016	74-83-9
Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	11/12/2016	104-51-8
Carbon disulfide	< 10	10	< 31.1	31.1		5	11/12/2016	75-15-0
Carbon tetrachloride	< 2.5	2.5	< 15.7	15.7		5	11/12/2016	56-23-5
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	11/12/2016	108-90-7
Chloroethane	< 2.5	2.5	< 6.60	6.60		5	11/12/2016	75-00-3
Chloroform	< 2.5	2.5	< 12.2	12.2		5	11/12/2016	67-66-3
Chloromethane	< 5.0	5.0	< 10.4	10.4		5	11/12/2016	74-87-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	11/12/2016	156-59-2
cis-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	11/12/2016	542-75-6
Cyclohexane	< 2.5	2.5	< 8.60	8.60		5	11/12/2016	110-82-7
Dibromochloromethane	< 2.5	2.5	< 21.3	21.3		5	11/12/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	11/12/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 17.5	17.5		5	11/12/2016	76-14-2
Ethanol	**118**	**25**	**221**	**47.0**		5	11/12/2016	64-17-5
Ethyl Acetate	< 2.5	2.5	< 9.00	9.00		5	11/12/2016	141-78-6
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	11/12/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-S1-10
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	10/31/2016
Lab ID:	11	**Matrix:**	Soil Vapor

	ppbv		ug/M³				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 2.5	2.5	< 10.3	10.3		5	11/12/2016	142-82-5
Hexachlorobutadiene	< 5.0	5.0	< 53.4	53.4		5	11/12/2016	87-68-3
Hexane	< 5.0	5.0	< 17.6	17.6		5	11/12/2016	110-54-3
Isopropylbenzene	< 5.0	5.0	< 24.6	24.6		5	11/12/2016	98-82-8
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	11/12/2016	179601-23-1
Methyl tert-butyl ether	< 10	10	< 36.1	36.1		5	11/12/2016	1634-04-4
Methylcyclohexane	< 5.0	5.0	< 20.1	20.1		5	11/12/2016	108-87-2
Methylene chloride	< 10	10	< 34.7	34.7		5	11/12/2016	75-09-2
Naphthalene	< 25	25	< 131	131		5	11/12/2016	91-20-3
Nonane	< 5.0	5.0	< 26.2	26.2		5	11/12/2016	111-84-2
Octane	< 5.0	5.0	< 23.4	23.4		5	11/12/2016	111-65-9
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	11/12/2016	95-47-6
Propene (Propylene)	**45**	**5.0**	**78.1**	**8.60**		5	11/12/2016	115-07-1
Propylbenzene	< 5.0	5.0	< 24.6	24.6		5	11/12/2016	103-65-1
Sec-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	11/12/2016	135-98-8
Styrene	< 2.5	2.5	< 10.7	10.7		5	11/12/2016	100-42-5
Tert-Butyl benzene	< 5.0	5.0	< 27.5	27.5		5	11/12/2016	98-06-6
Tetrachloroethene	**97**	**5.0**	**658**	**33.9**		5	11/12/2016	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	11/12/2016	109-99-9
Toluene	**3.4**	**2.5**	**12.6**	**9.43**		5	11/12/2016	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	11/12/2016	156-60-5
trans-1,3-Dichloropropene	< 2.5	2.5	< 11.4	11.4		5	11/12/2016	542-75-6
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	11/12/2016	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	11/12/2016	75-69-4
Trichlorotrifluoroethane(F-113)	**47**	**2.5**	**362**	**19.2**		5	11/12/2016	76-13-1
Vinyl acetate	< 2.5	2.5	< 8.80	8.80		5	11/12/2016	108-05-4
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	11/12/2016	75-01-4
Surr: 4-Bromofluorobenzene	92.8	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-S2-10
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	10/31/2016
Lab ID:	12	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 10	10	< 54.6	54.6		20	11/11/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 10	10	< 68.7	68.7		20	11/11/2016	79-34-5
1,1,2-Trichloroethane	< 10	10	< 54.6	54.6		20	11/11/2016	79-00-5
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	11/11/2016	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	11/11/2016	75-35-4
1,2,4-Trichlorobenzene	< 40	40	< 297	297		20	11/11/2016	120-82-1
1,2,4-Trimethylbenzene	< 10	10	< 49.2	49.2		20	11/11/2016	95-63-6
1,2-Dibromoethane	< 10	10	< 76.8	76.8		20	11/11/2016	106-93-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	11/11/2016	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	11/11/2016	107-06-2
1,2-Dichloropropane	< 10	10	< 46.2	46.2		20	11/11/2016	78-87-5
1,3,5-Trimethylbenzene	< 10	10	< 49.2	49.2		20	11/11/2016	108-67-8
1,3-Butadiene	< 10	10	< 22.1	22.1		20	11/11/2016	106-99-0
1,3-Dichlorobenzene	< 10	10	< 60.1	60.1		20	11/11/2016	541-73-1
1,4-Dichlorobenzene	< 10	10	< 60.1	60.1		20	11/11/2016	106-46-7
1,4-Dioxane	< 40	40	< 144	144		20	11/11/2016	123-91-1
2,2,4-Trimethylpentane	< 10	10	< 46.6	46.6		20	11/11/2016	540-84-1
2-Butanone (MEK)	< 100	100	< 295	295		20	11/11/2016	78-93-3
2-Hexanone	< 100	100	< 410	410		20	11/11/2016	591-78-6
2-Propanol (IPA)	< 100	100	< 245	245		20	11/11/2016	67-63-0
4-Ethyltoluene	< 20	20	< 98.4	98.4		20	11/11/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 100	100	< 410	410		20	11/11/2016	108-10-1
Acetone	< 100	100	< 238	238		20	11/11/2016	67-64-1
Allyl chloride	< 20	20	< 62.6	62.6		20	11/11/2016	107-05-1
Benzene	< 10	10	< 31.9	31.9		20	11/11/2016	71-43-2
Benzyl chloride	< 40	40	< 207	207		20	11/11/2016	100-44-7
Bromodichloromethane	< 10	10	< 67.0	67.0		20	11/11/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 10	10	< 43.7	43.7		20	11/11/2016	593-60-2
Bromoform	< 10	10	< 103	103		20	11/11/2016	75-25-2
Bromomethane	< 10	10	< 38.8	38.8		20	11/11/2016	74-83-9
Butyl benzene	< 20	20	< 110	110		20	11/11/2016	104-51-8
Carbon disulfide	< 40	40	< 124	124		20	11/11/2016	75-15-0
Carbon tetrachloride	< 10	10	< 62.9	62.9		20	11/11/2016	56-23-5
Chlorobenzene	< 10	10	< 46.0	46.0		20	11/11/2016	108-90-7
Chloroethane	< 10	10	< 26.4	26.4		20	11/11/2016	75-00-3
Chloroform	< 10	10	< 48.8	48.8		20	11/11/2016	67-66-3
Chloromethane	< 20	20	< 41.4	41.4		20	11/11/2016	74-87-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	11/11/2016	156-59-2
cis-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	11/11/2016	542-75-6
Cyclohexane	< 10	10	< 34.4	34.4		20	11/11/2016	110-82-7
Dibromochloromethane	< 10	10	< 85.2	85.2		20	11/11/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	11/11/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 10	10	< 69.9	69.9		20	11/11/2016	76-14-2
Ethanol	**110**	**100**	**206**	**188**		20	11/11/2016	64-17-5
Ethyl Acetate	< 10	10	< 36.0	36.0		20	11/11/2016	141-78-6
Ethylbenzene	< 10	10	< 43.4	43.4		20	11/11/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-S2-10
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	10/31/2016
Lab ID:	12	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 10	10	< 41.0	41.0		20	11/11/2016	142-82-5
Hexachlorobutadiene	< 20	20	< 213	213		20	11/11/2016	87-68-3
Hexane	< 20	20	< 70.4	70.4		20	11/11/2016	110-54-3
Isopropylbenzene	< 20	20	< 98.4	98.4		20	11/11/2016	98-82-8
m&p-Xylene	< 20	20	< 86.8	86.8		20	11/11/2016	179601-23-1
Methyl tert-butyl ether	< 40	40	< 144	144		20	11/11/2016	1634-04-4
Methylcyclohexane	< 20	20	< 80.4	80.4		20	11/11/2016	108-87-2
Methylene chloride	< 40	40	< 139	139		20	11/11/2016	75-09-2
Naphthalene	< 100	100	< 524	524		20	11/11/2016	91-20-3
Nonane	< 20	20	< 105	105		20	11/11/2016	111-84-2
Octane	< 20	20	< 93.4	93.4		20	11/11/2016	111-65-9
o-Xylene	< 10	10	< 43.4	43.4		20	11/11/2016	95-47-6
Propene (Propylene)	**23**	**20**	**39.6**	**34.4**		20	11/11/2016	115-07-1
Propylbenzene	< 20	20	< 98.4	98.4		20	11/11/2016	103-65-1
Sec-Butyl benzene	< 20	20	< 110	110		20	11/11/2016	135-98-8
Styrene	< 10	10	< 42.6	42.6		20	11/11/2016	100-42-5
Tert-Butyl benzene	< 20	20	< 110	110		20	11/11/2016	98-06-6
Tetrachloroethene	**148**	**20**	**1,001**	**136**		20	11/11/2016	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	11/11/2016	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	11/11/2016	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	11/11/2016	156-60-5
trans-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	11/11/2016	542-75-6
Trichloroethene	< 10	10	< 53.7	53.7		20	11/11/2016	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	11/11/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	11/11/2016	76-13-1
Vinyl acetate	< 10	10	< 35.2	35.2		20	11/11/2016	108-05-4
Vinyl chloride	< 10	10	< 25.6	25.6		20	11/11/2016	75-01-4
Surr: 4-Bromofluorobenzene	94.0	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

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Client:	Hydro Geo Chem	**Client Sample ID:**	SG-S3-10
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	10/31/2016
Lab ID:	13	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 10	10	< 54.6	54.6		20	11/12/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 10	10	< 68.7	68.7		20	11/12/2016	79-34-5
1,1,2-Trichloroethane	< 10	10	< 54.6	54.6		20	11/12/2016	79-00-5
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	11/12/2016	75-34-3
1,1-Dichloroethene	**229**	**10**	**908**	**39.7**		20	11/12/2016	75-35-4
1,2,4-Trichlorobenzene	< 40	40	< 297	297		20	11/12/2016	120-82-1
1,2,4-Trimethylbenzene	< 10	10	< 49.2	49.2		20	11/12/2016	95-63-6
1,2-Dibromoethane	< 10	10	< 76.8	76.8		20	11/12/2016	106-93-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	11/12/2016	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	11/12/2016	107-06-2
1,2-Dichloropropane	< 10	10	< 46.2	46.2		20	11/12/2016	78-87-5
1,3,5-Trimethylbenzene	< 10	10	< 49.2	49.2		20	11/12/2016	108-67-8
1,3-Butadiene	< 10	10	< 22.1	22.1		20	11/12/2016	106-99-0
1,3-Dichlorobenzene	< 10	10	< 60.1	60.1		20	11/12/2016	541-73-1
1,4-Dichlorobenzene	< 10	10	< 60.1	60.1		20	11/12/2016	106-46-7
1,4-Dioxane	< 40	40	< 144	144		20	11/12/2016	123-91-1
2,2,4-Trimethylpentane	< 10	10	< 46.6	46.6		20	11/12/2016	540-84-1
2-Butanone (MEK)	< 100	100	< 295	295		20	11/12/2016	78-93-3
2-Hexanone	< 100	100	< 410	410		20	11/12/2016	591-78-6
2-Propanol (IPA)	< 100	100	< 245	245		20	11/12/2016	67-63-0
4-Ethyltoluene	< 20	20	< 98.4	98.4		20	11/12/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 100	100	< 410	410		20	11/12/2016	108-10-1
Acetone	< 100	100	< 238	238		20	11/12/2016	67-64-1
Allyl chloride	< 20	20	< 62.6	62.6		20	11/12/2016	107-05-1
Benzene	< 10	10	< 31.9	31.9		20	11/12/2016	71-43-2
Benzyl chloride	< 40	40	< 207	207		20	11/12/2016	100-44-7
Bromodichloromethane	< 10	10	< 67.0	67.0		20	11/12/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 10	10	< 43.7	43.7		20	11/12/2016	593-60-2
Bromoform	< 10	10	< 103	103		20	11/12/2016	75-25-2
Bromomethane	< 10	10	< 38.8	38.8		20	11/12/2016	74-83-9
Butyl benzene	< 20	20	< 110	110		20	11/12/2016	104-51-8
Carbon disulfide	< 40	40	< 124	124		20	11/12/2016	75-15-0
Carbon tetrachloride	< 10	10	< 62.9	62.9		20	11/12/2016	56-23-5
Chlorobenzene	< 10	10	< 46.0	46.0		20	11/12/2016	108-90-7
Chloroethane	< 10	10	< 26.4	26.4		20	11/12/2016	75-00-3
Chloroform	< 10	10	< 48.8	48.8		20	11/12/2016	67-66-3
Chloromethane	< 20	20	< 41.4	41.4		20	11/12/2016	74-87-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	11/12/2016	156-59-2
cis-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	11/12/2016	542-75-6
Cyclohexane	< 10	10	< 34.4	34.4		20	11/12/2016	110-82-7
Dibromochloromethane	< 10	10	< 85.2	85.2		20	11/12/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	11/12/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 10	10	< 69.9	69.9		20	11/12/2016	76-14-2
Ethanol	< 100	100	< 188	188		20	11/12/2016	64-17-5
Ethyl Acetate	< 10	10	< 36.0	36.0		20	11/12/2016	141-78-6
Ethylbenzene	**18**	**10**	**79.0**	**43.4**		20	11/12/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1866

Client:	Hydro Geo Chem	**Client Sample ID:**	SG-S3-10
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	10/31/2016
Lab ID:	13	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 10	10	< 41.0	41.0		20	11/12/2016	142-82-5
Hexachlorobutadiene	< 20	20	< 213	213		20	11/12/2016	87-68-3
Hexane	< 20	20	< 70.4	70.4		20	11/12/2016	110-54-3
Isopropylbenzene	< 20	20	< 98.4	98.4		20	11/12/2016	98-82-8
m&p-Xylene	**74**	**20**	**323**	**86.8**		20	11/12/2016	179601-23-1
Methyl tert-butyl ether	< 40	40	< 144	144		20	11/12/2016	1634-04-4
Methylcyclohexane	< 20	20	< 80.4	80.4		20	11/12/2016	108-87-2
Methylene chloride	< 40	40	< 139	139		20	11/12/2016	75-09-2
Naphthalene	< 100	100	< 524	524		20	11/12/2016	91-20-3
Nonane	< 20	20	< 105	105		20	11/12/2016	111-84-2
Octane	< 20	20	< 93.4	93.4		20	11/12/2016	111-65-9
o-Xylene	**28**	**10**	**123**	**43.4**		20	11/12/2016	95-47-6
Propene (Propylene)	< 20	20	< 34.4	34.4		20	11/12/2016	115-07-1
Propylbenzene	< 20	20	< 98.4	98.4		20	11/12/2016	103-65-1
Sec-Butyl benzene	< 20	20	< 110	110		20	11/12/2016	135-98-8
Styrene	< 10	10	< 42.6	42.6		20	11/12/2016	100-42-5
Tert-Butyl benzene	< 20	20	< 110	110		20	11/12/2016	98-06-6
Tetrachloroethene	**285**	**20**	**1,932**	**136**		20	11/12/2016	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	11/12/2016	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	11/12/2016	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	11/12/2016	156-60-5
trans-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	11/12/2016	542-75-6
Trichloroethene	**152**	**10**	**814**	**53.7**		20	11/12/2016	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	11/12/2016	75-69-4
Trichlorotrifluoroethane(F-113)	**218**	**10**	**1,671**	**76.6**		20	11/12/2016	76-13-1
Vinyl acetate	< 10	10	< 35.2	35.2		20	11/12/2016	108-05-4
Vinyl chloride	< 10	10	< 25.6	25.6		20	11/12/2016	75-01-4
Surr: 4-Bromofluorobenzene	91.7	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011109 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		TO-15					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	11/9/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	11/9/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	11/9/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	11/9/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	11/9/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	11/9/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	11/9/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	11/9/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	11/9/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	11/9/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	11/9/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	11/9/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	11/9/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	11/9/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	11/9/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	11/9/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	11/9/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	11/9/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	11/9/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	11/9/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	11/9/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	11/9/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	11/9/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	11/9/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	11/9/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	11/9/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	11/9/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	11/9/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	11/9/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	11/9/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	11/9/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	11/9/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	11/9/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	11/9/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	11/9/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	11/9/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	11/9/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	11/9/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	11/9/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	11/9/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	11/9/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	11/9/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	11/9/2016	76-14-2
Ethanol	< 5.0	5.0	< 9.40	9.40		1	11/9/2016	64-17-5
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	11/9/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	11/9/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1886

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011109 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	11/9/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	11/9/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	11/9/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	11/9/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	11/9/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	11/9/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	11/9/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	11/9/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	11/9/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	11/9/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	11/9/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	11/9/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	11/9/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	11/9/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	11/9/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	11/9/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	11/9/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	11/9/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	11/9/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	11/9/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	11/9/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	11/9/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	11/9/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	11/9/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	11/9/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	11/9/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	11/9/2016	75-01-4
Surr: 4-Bromofluorobenzene	93.5	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 11/9/2016 Batch: MS011109 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	12.5	125	11.1	111	10.0	12.0	ppbv			
Dichlorodifluoromethane(F-12)	11.5	115	10.4	104	10.0	9.7	ppbv			
Chloromethane	12.0	120	11.0	110	10.0	9.0	ppbv			
Dichlorotetrafluoroethane(F-114)	8.0	79.7	7.2	72.1	10.0	10.0	ppbv			
Vinyl Chloride	7.4	73.6	7.0	70.4	10.0	4.4	ppbv			
1,3-Butadiene	8.2	82.2	8.0	79.7	10.0	3.1	ppbv			
Bromomethane	9.2	92.0	8.9	89.4	10.0	2.9	ppbv			
Chloroethane	9.7	96.7	9.1	90.5	10.0	6.6	ppbv			
Ethanol	10.6	106	9.7	97.3	10.0	8.8	ppbv			
Bromoethene(Vinyl Bromide)	9.1	91.2	8.7	86.5	10.0	5.3	ppbv			
Trichlorofluoromethane (F-11)	9.5	94.7	8.8	88.4	10.0	6.9	ppbv			
Acetone	10.1	101	9.2	91.6	10.0	10.1	ppbv			
Isopropyl Alcohol (2-Propanol)	9.9	99.2	9.6	95.6	10.0	3.7	ppbv			
1,1-Dichloroethene	9.7	96.7	9.0	89.5	10.0	7.7	ppbv			
Trichlorotrifluoroethane (F-113)	9.3	92.8	8.5	85.3	10.0	8.4	ppbv			
Methylene Chloride	10.1	101	9.1	91.1	10.0	10.7	ppbv			
Allyl Chloride	9.3	93.1	8.6	85.5	10.0	8.5	ppbv			
Carbon disulfide	9.6	95.7	8.9	89.2	10.0	7.0	ppbv			
trans-1,2-Dichloroethene	9.2	91.7	8.5	84.8	10.0	7.8	ppbv			
Methyl tert-butyl ether	9.0	90.4	8.0	80.4	10.0	11.7	ppbv			
1,1-Dichloroethane	10.0	100	9.1	91.1	10.0	9.1	ppbv			
Vinyl acetate	9.7	96.6	9.0	89.8	10.0	7.3	ppbv			
2-Butanone (MEK)	9.2	91.5	8.7	86.7	10.0	5.4	ppbv			
Hexane	10.0	100	9.4	93.6	10.0	6.2	ppbv			
cis-1,2-Dichloroethene	9.1	91.3	8.5	84.5	10.0	7.7	ppbv			
Ethyl Acetate	10.3	103	9.2	92.3	10.0	10.8	ppbv			
Chloroform	9.2	91.7	8.4	83.6	10.0	9.2	ppbv			
Tetrahydrofuran	11.0	110	9.9	98.9	10.0	10.5	ppbv			
1,1,1-Trichloroethane	9.2	92.0	8.6	85.7	10.0	7.1	ppbv			
1,2-Dichloroethane	9.6	96.3	9.1	90.7	10.0	6.0	ppbv			
Benzene	8.8	88.4	8.1	80.6	10.0	9.2	ppbv			
Carbon tetrachloride	9.1	91.1	8.6	85.9	10.0	5.9	ppbv			
Cyclohexane	9.8	98.2	9.3	92.6	10.0	5.9	ppbv			
2,2,4-Trimethylpentane	9.6	95.7	9.6	95.9	10.0	0.2	ppbv			
Heptane	9.8	97.5	9.5	94.6	10.0	3.0	ppbv			
1,2-Dichloropropane	9.2	92.1	8.6	86.1	10.0	6.7	ppbv			
Trichloroethene	8.6	85.7	8.6	86.4	10.0	0.8	ppbv			
Bromodichloromethane	9.5	95.2	9.4	94.1	10.0	1.2	ppbv			
1,4-Dioxane	8.0	80.1	7.8	78.3	10.0	2.3	ppbv			
Methylcyclohexane	9.0	89.9	8.7	86.7	10.0	3.6	ppbv			
cis-1,3-Dichloropropene	9.1	90.8	9.0	90.2	10.0	0.7	ppbv			
4-methyl-2-pentanone	9.4	94.2	10.1	101	10.0	7.4	ppbv			
trans-1,3-Dichloropropene	9.3	92.6	9.1	90.9	10.0	1.9	ppbv			
Toluene	8.5	84.6	8.2	82.2	10.0	2.9	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 11/9/2016 Batch: MS011109 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	8.7	87.4	8.3	83.2	10.0	4.9	ppbv			
2-Hexanone	9.4	93.6	10.7	107	10.0	13.7	ppbv			
n-Octane	11.0	110	10.6	106	10.0	3.6	ppbv			
Dibromochloromethane	9.6	95.9	9.2	92.2	10.0	3.9	ppbv			
1,2-Dibromoethane	9.0	89.7	8.7	87.1	10.0	2.9	ppbv			
Tetrachloroethene	8.8	88.1	9.3	92.6	10.0	5.0	ppbv			
Chlorobenzene	8.4	83.8	8.3	82.6	10.0	1.4	ppbv			
Ethylbenzene	8.3	82.5	7.9	79.4	10.0	3.8	ppbv			
m&p-Xylene	16.7	83.7	15.9	79.6	20.0	5.1	ppbv			
Bromoform	9.7	96.6	9.4	94.1	10.0	2.6	ppbv			
Styrene	8.1	80.5	8.0	79.5	10.0	1.3	ppbv			
Nonane	10.3	103	10.0	100	10.0	3.2	ppbv			
o-Xylene	8.6	85.7	8.3	82.6	10.0	3.7	ppbv			
1,1,2,2-Tetrachloroethane	9.1	90.6	8.5	85.4	10.0	5.9	ppbv			
Isopropylbenzene	8.6	85.6	8.1	81.1	10.0	5.4	ppbv			
n-Propylbenzene	8.9	86.5	8.7	87.0	10.0	1.7	ppbv			
4-Ethyltoluene	9.0	90.0	8.9	88.7	10.0	1.5	ppbv			
1,3,5-Trimethylbenzene	9.0	89.5	8.7	86.5	10.0	3.4	ppbv			
Tert-Butyl Benzene	9.0	90.1	8.8	87.7	10.0	2.7	ppbv			
1,2,4-Trimethylbenzene	9.2	92.1	8.9	89.1	10.0	3.3	ppbv			
Sec-Butyl Benzene	9.2	91.9	8.9	89.1	10.0	3.1	ppbv			
1,3-Dichlorobenzene	9.4	93.8	9.1	91.1	10.0	2.9	ppbv			
Benzyl chloride	10.0	100	9.8	97.5	10.0	2.5	ppbv			
1,4-Dichlorobenzene	9.6	96.3	9.3	93.2	10.0	3.3	ppbv			
1,2-Dichlorobenzene	9.8	97.5	9.6	95.5	10.0	2.1	ppbv			
n-Butyl Benzene	10.1	101	9.6	96.0	10.0	5.0	ppbv			
1,2,4-Trichlorobenzene	10.6	106	10.4	104	10.0	1.8	ppbv			
Naphthalene	10.1	101	9.9	98.7	10.0	2.5	ppbv			
Hexachlorobutadiene	10.3	103	10.1	101	10.0	2.0	ppbv			
Surr: 4-Bromofluorobenzene	10.6	106	10.5	105			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011111 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	11/11/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	11/11/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	11/11/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	11/11/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	11/11/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	11/11/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	11/11/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	11/11/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	11/11/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	11/11/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	11/11/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	11/11/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	11/11/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	11/11/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	11/11/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	11/11/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	11/11/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	11/11/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	11/11/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	11/11/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	11/11/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	11/11/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	11/11/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	11/11/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	11/11/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	11/11/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	11/11/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	11/11/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	11/11/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	11/11/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	11/11/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	11/11/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	11/11/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	11/11/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	11/11/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	11/11/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	11/11/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	11/11/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	11/11/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	11/11/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	11/11/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	11/11/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	11/11/2016	76-14-2
Ethanol	< 5.0	5.0	< 9.40	9.40		1	11/11/2016	64-17-5
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	11/11/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	11/11/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-966-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011111 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	11/11/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	11/11/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	11/11/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	11/11/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	11/11/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	11/11/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	11/11/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	11/11/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	11/11/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	11/11/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	11/11/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	11/11/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	11/11/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	11/11/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	11/11/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	11/11/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	11/11/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	11/11/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	11/11/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	11/11/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	11/11/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	11/11/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	11/11/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	11/11/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	11/11/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	11/11/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	11/11/2016	75-01-4
Surr: 4-Bromofluorobenzene	89.9	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 11/11/2016 Batch: MS011111 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	8.6	85.7	8.4	84.1	10.0	1.9	ppbv			
Dichlorodifluoromethane(F-12)	8.8	87.8	8.6	86.3	10.0	1.7	ppbv			
Chloromethane	8.7	86.6	8.2	82.1	10.0	5.3	ppbv			
Dichlorotetrafluoroethane(F-114)	7.9	78.7	7.7	76.7	10.0	2.5	ppbv			
Vinyl Chloride	7.5	74.8	7.3	73.2	10.0	2.2	ppbv			
1,3-Butadiene	7.7	77.4	7.4	73.6	10.0	5.0	ppbv			
Bromomethane	8.7	87.3	8.5	85.4	10.0	2.2	ppbv			
Chloroethane	8.3	83.0	7.9	78.8	10.0	5.2	ppbv			
Ethanol	8.4	84.2	8.6	85.6	10.0	1.6	ppbv			
Bromoethene(Vinyl Bromide)	9.0	90.1	8.9	88.9	10.0	1.3	ppbv			
Trichlorofluoromethane (F-11)	8.3	83.3	8.3	82.6	10.0	0.8	ppbv			
Acetone	8.8	87.6	8.2	82.1	10.0	6.5	ppbv			
Isopropyl Alcohol (2-Propanol)	8.9	89.2	8.6	86.2	10.0	3.4	ppbv			
1,1-Dichloroethene	8.2	81.6	7.9	79.3	10.0	2.9	ppbv			
Trichlorotrifluoroethane (F-113)	8.2	81.5	8.0	79.6	10.0	2.4	ppbv			
Methylene Chloride	7.7	76.9	7.5	74.9	10.0	2.6	ppbv			
Allyl Chloride	9.1	90.9	8.6	86.2	10.0	5.3	ppbv			
Carbon disulfide	8.3	83.4	8.3	83.0	10.0	0.5	ppbv			
trans-1,2-Dichloroethene	8.8	87.6	8.7	86.8	10.0	0.9	ppbv			
Methyl tert-butyl ether	8.8	87.9	8.8	87.7	10.0	0.2	ppbv			
1,1-Dichloroethane	8.1	81.1	7.9	78.6	10.0	3.1	ppbv			
Vinyl acetate	8.9	89.2	8.9	89.4	10.0	0.2	ppbv			
2-Butanone (MEK)	8.6	86.1	8.4	83.9	10.0	2.6	ppbv			
Hexane	8.8	87.6	8.5	84.9	10.0	3.1	ppbv			
cis-1,2-Dichloroethene	8.3	83.2	8.2	81.7	10.0	1.8	ppbv			
Ethyl Acetate	8.6	85.6	8.5	85.0	10.0	0.7	ppbv			
Chloroform	8.3	82.8	8.1	80.7	10.0	2.6	ppbv			
Tetrahydrofuran	8.7	87.1	8.7	86.7	10.0	0.5	ppbv			
1,1,1-Trichloroethane	8.5	84.5	8.1	81.3	10.0	3.9	ppbv			
1,2-Dichloroethane	8.2	81.5	7.8	77.8	10.0	4.6	ppbv			
Benzene	8.4	83.6	8.1	81.4	10.0	2.7	ppbv			
Carbon tetrachloride	8.5	84.6	8.3	82.5	10.0	2.5	ppbv			
Cyclohexane	8.6	86.2	8.5	85.0	10.0	1.4	ppbv			
2,2,4-Trimethylpentane	8.3	82.8	8.2	82.3	10.0	0.6	ppbv			
Heptane	8.0	79.5	7.9	78.9	10.0	0.8	ppbv			
1,2-Dichloropropane	7.9	79.0	7.8	77.7	10.0	1.7	ppbv			
Trichloroethene	8.2	82.3	8.3	82.6	10.0	0.4	ppbv			
Bromodichloromethane	8.0	80.2	8.2	81.5	10.0	1.6	ppbv			
1,4-Dioxane	9.4	94.1	8.7	86.6	10.0	8.3	ppbv			
Methylcyclohexane	8.7	87.3	8.5	85.1	10.0	2.6	ppbv			
cis-1,3-Dichloropropene	9.0	89.7	8.6	85.9	10.0	4.3	ppbv			
4-methyl-2-pentanone	8.7	87.2	8.1	81.0	10.0	7.4	ppbv			
trans-1,3-Dichloropropene	9.1	91.1	9.1	91.0	10.0	0.1	ppbv			
Toluene	8.7	86.5	8.6	85.6	10.0	1.0	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 11/11/2016 Batch: MS011111 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	8.1	81.4	8.1	80.9	10.0	0.6	ppbv			
2-Hexanone	9.3	93.0	8.1	81.0	10.0	13.8	ppbv			
n-Octane	8.5	84.5	8.4	83.8	10.0	0.8	ppbv			
Dibromochloromethane	8.6	85.8	8.6	86.1	10.0	0.3	ppbv			
1,2-Dibromoethane	8.5	84.9	8.3	83.2	10.0	2.0	ppbv			
Tetrachloroethene	8.5	84.7	8.6	85.5	10.0	0.9	ppbv			
Chlorobenzene	8.3	83.4	8.2	81.7	10.0	2.1	ppbv			
Ethylbenzene	8.7	86.7	8.5	85.0	10.0	2.0	ppbv			
m&p-Xylene	17.3	86.7	16.9	84.7	20.0	2.3	ppbv			
Bromoform	9.4	94.2	9.3	92.7	10.0	1.6	ppbv			
Styrene	8.6	86.2	8.5	85.3	10.0	1.0	ppbv			
Nonane	8.2	82.4	8.0	80.0	10.0	3.0	ppbv			
o-Xylene	8.3	83.1	8.1	81.2	10.0	2.3	ppbv			
1,1,2,2-Tetrachloroethane	8.2	82.0	7.9	78.8	10.0	4.0	ppbv			
Isopropylbenzene	9.3	93.2	9.1	90.5	10.0	2.9	ppbv			
n-Propylbenzene	9.1	90.9	8.9	88.7	10.0	2.4	ppbv			
4-Ethyltoluene	9.3	92.9	9.2	91.7	10.0	1.3	ppbv			
1,3,5-Trimethylbenzene	8.8	87.9	8.5	84.5	10.0	3.9	ppbv			
Tert-Butyl Benzene	8.8	87.9	8.5	84.8	10.0	3.6	ppbv			
1,2,4-Trimethylbenzene	8.7	86.6	8.4	83.6	10.0	3.5	ppbv			
Sec-Butyl Benzene	9.0	89.8	8.8	87.5	10.0	2.6	ppbv			
1,3-Dichlorobenzene	8.5	85.1	8.4	83.8	10.0	1.5	ppbv			
Benzyl chloride	9.8	97.6	9.5	95.0	10.0	2.7	ppbv			
1,4-Dichlorobenzene	8.7	86.5	8.5	84.5	10.0	2.3	ppbv			
1,2-Dichlorobenzene	8.7	86.5	8.3	83.4	10.0	3.8	ppbv			
n-Butyl Benzene	9.0	90.1	8.9	88.5	10.0	1.8	ppbv			
1,2,4-Trichlorobenzene	8.6	85.5	8.4	83.8	10.0	2.0	ppbv			
Naphthalene	8.4	84.0	8.4	83.6	10.0	0.5	ppbv			
Hexachlorobutadiene	8.3	82.6	8.2	82.4	10.0	0.2	ppbv			
Surr: 4-Bromofluorobenzene	9.9	98.5	10.0	99.6			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011114 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		TO-15					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	11/14/2016	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	11/14/2016	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	11/14/2016	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	11/14/2016	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	11/14/2016	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	11/14/2016	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	11/14/2016	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	11/14/2016	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	11/14/2016	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	11/14/2016	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	11/14/2016	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	11/14/2016	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	11/14/2016	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	11/14/2016	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	11/14/2016	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	11/14/2016	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	11/14/2016	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	11/14/2016	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	11/14/2016	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	11/14/2016	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	11/14/2016	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	11/14/2016	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	11/14/2016	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	11/14/2016	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	11/14/2016	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	11/14/2016	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	11/14/2016	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	11/14/2016	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	11/14/2016	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	11/14/2016	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	11/14/2016	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	11/14/2016	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	11/14/2016	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	11/14/2016	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	11/14/2016	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	11/14/2016	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	11/14/2016	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	11/14/2016	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	11/14/2016	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	11/14/2016	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	11/14/2016	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	11/14/2016	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	11/14/2016	76-14-2
Ethanol	< 5.0	5.0	< 9.40	9.40		1	11/14/2016	64-17-5
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	11/14/2016	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	11/14/2016	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011114 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M³ Result	ug/M³ Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	11/14/2016	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	11/14/2016	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	11/14/2016	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	11/14/2016	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	11/14/2016	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	11/14/2016	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	11/14/2016	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	11/14/2016	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	11/14/2016	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	11/14/2016	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	11/14/2016	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	11/14/2016	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	11/14/2016	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	11/14/2016	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	11/14/2016	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	11/14/2016	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	11/14/2016	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	11/14/2016	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	11/14/2016	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	11/14/2016	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	11/14/2016	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	11/14/2016	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	11/14/2016	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	11/14/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	11/14/2016	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	11/14/2016	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	11/14/2016	75-01-4
Surr: 4-Bromofluorobenzene	87.2	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 11/14/2016 Batch: MS011114 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	9.5	95.1	9.5	95.0	10.0	0.1	ppbv			
Dichlorodifluoromethane(F-12)	9.9	99.2	9.7	96.5	10.0	2.8	ppbv			
Chloromethane	10.3	103	9.4	93.8	10.0	9.3	ppbv			
Dichlorotetrafluoroethane(F-114)	10.3	103	8.9	89.0	10.0	14.2	ppbv			
Vinyl Chloride	9.6	95.7	8.2	82.0	10.0	15.4	ppbv			
1,3-Butadiene	9.5	94.7	9.0	90.0	10.0	5.1	ppbv			
Bromomethane	10.3	103	9.0	89.7	10.0	13.6	ppbv			
Chloroethane	10.1	101	8.3	82.9	10.0	19.8	ppbv			
Ethanol	10.8	108	8.8	87.9	10.0	20.5	ppbv			
Bromoethene(Vinyl Bromide)	10.7	107	9.1	90.9	10.0	15.9	ppbv			
Trichlorofluoromethane (F-11)	10.0	100	8.9	89.2	10.0	11.6	ppbv			
Acetone	11.4	114	9.3	93.3	10.0	19.5	ppbv			
Isopropyl Alcohol (2-Propanol)	10.8	108	9.3	92.8	10.0	14.7	ppbv			
1,1-Dichloroethene	10.0	100	8.7	87.4	10.0	13.7	ppbv			
Trichlorotrifluoroethane (F-113)	10.1	101	8.8	87.7	10.0	13.6	ppbv			
Methylene Chloride	10.3	103	8.5	85.0	10.0	19.1	ppbv			
Allyl Chloride	10.5	105	9.3	92.8	10.0	12.6	ppbv			
Carbon disulfide	10.5	105	8.8	87.6	10.0	18.4	ppbv			
trans-1,2-Dichloroethene	10.9	109	9.1	91.1	10.0	17.6	ppbv			
Methyl tert-butyl ether	10.8	108	9.0	89.6	10.0	19.0	ppbv			
1,1-Dichloroethane	10.6	106	8.6	86.3	10.0	20.1	ppbv			
Vinyl acetate	12.2	122	10.0	100	10.0	19.8	ppbv			
2-Butanone (MEK)	11.5	115	9.5	94.7	10.0	18.9	ppbv			
Hexane	11.3	113	9.1	90.8	10.0	21.3	ppbv			
cis-1,2-Dichloroethene	10.6	106	8.6	85.8	10.0	21.3	ppbv			
Ethyl Acetate	12.1	121	9.4	94.3	10.0	25.0	ppbv			R6
Chloroform	10.6	106	8.8	87.9	10.0	18.8	ppbv			
Tetrahydrofuran	12.1	121	10.1	101	10.0	18.0	ppbv			
1,1,1-Trichloroethane	10.4	104	8.8	88.4	10.0	16.6	ppbv			
1,2-Dichloroethane	10.8	108	9.0	89.5	10.0	18.8	ppbv			
Benzene	11.2	112	8.8	88.3	10.0	23.4	ppbv			
Carbon tetrachloride	10.8	108	9.0	89.5	10.0	18.3	ppbv			
Cyclohexane	11.6	116	8.9	89.1	10.0	25.9	ppbv			R6
2,2,4-Trimethylpentane	10.7	107	8.7	86.6	10.0	21.4	ppbv			
Heptane	11.0	110	8.8	87.6	10.0	22.9	ppbv			
1,2-Dichloropropane	10.7	107	8.5	85.4	10.0	22.5	ppbv			
Trichloroethene	10.5	105	8.5	84.6	10.0	21.7	ppbv			
Bromodichloromethane	10.8	108	8.7	87.1	10.0	21.4	ppbv			
1,4-Dioxane	9.3	92.8	10.9	109	10.0	15.9	ppbv			
Methylcyclohexane	11.1	111	8.8	88.2	10.0	22.5	ppbv			
cis-1,3-Dichloropropene	11.7	117	9.4	93.5	10.0	22.6	ppbv			
4-methyl-2-pentanone	11.5	115	9.5	94.8	10.0	18.9	ppbv			
trans-1,3-Dichloropropene	12.1	121	9.7	97.1	10.0	22.1	ppbv			
Toluene	11.2	112	9.0	89.5	10.0	22.5	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5868 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 11/14/2016 Batch: MS011114 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	10.5	105	8.6	86.3	10.0	19.7	ppbv			
2-Hexanone	11.3	113	10.1	101	10.0	11.9	ppbv			
n-Octane	11.1	111	9.0	90.1	10.0	21.0	ppbv			
Dibromochloromethane	11.5	115	9.2	91.8	10.0	22.8	ppbv			
1,2-Dibromoethane	10.9	109	8.9	88.7	10.0	20.2	ppbv			
Tetrachloroethene	10.6	106	8.8	88.1	10.0	18.1	ppbv			
Chlorobenzene	10.5	105	8.7	86.9	10.0	18.7	ppbv			
Ethylbenzene	11.1	111	9.3	93.0	10.0	17.6	ppbv			
m&p-Xylene	22.3	111	18.3	91.5	20.0	19.7	ppbv			
Bromoform	12.5	125	10.2	102	10.0	19.6	ppbv			
Styrene	11.3	113	9.5	94.7	10.0	17.5	ppbv			
Nonane	11.3	113	9.3	92.6	10.0	20.2	ppbv			
o-Xylene	11.0	110	8.8	88.0	10.0	22.5	ppbv			
1,1,2,2-Tetrachloroethane	10.7	107	8.8	88.0	10.0	19.9	ppbv			
Isopropylbenzene	12.0	120	10.0	100	10.0	18.6	ppbv			
n-Propylbenzene	12.0	120	10.0	100	10.0	18.4	ppbv			
4-Ethyltoluene	12.4	124	10.3	103	10.0	18.0	ppbv			
1,3,5-Trimethylbenzene	11.6	116	9.5	95.4	10.0	19.5	ppbv			
Tert-Butyl Benzene	11.9	119	9.7	97.4	10.0	19.9	ppbv			
1,2,4-Trimethylbenzene	11.7	117	9.6	96.3	10.0	19.4	ppbv			
Sec-Butyl Benzene	12.3	123	10.1	101	10.0	19.7	ppbv			
1,3-Dichlorobenzene	11.6	116	9.7	97.0	10.0	18.2	ppbv			
Benzyl chloride	13.3	133	10.8	108	10.0	21.1	ppbv	L5		
1,4-Dichlorobenzene	12.0	120	9.6	96.2	10.0	22.3	ppbv			
1,2-Dichlorobenzene	11.8	118	9.6	96.3	10.0	20.6	ppbv			
n-Butyl Benzene	12.8	128	10.2	102	10.0	22.5	ppbv			
1,2,4-Trichlorobenzene	12.4	124	9.8	97.7	10.0	23.7	ppbv			
Naphthalene	12.2	122	9.7	96.7	10.0	23.1	ppbv			
Hexachlorobutadiene	12.3	123	9.3	93.3	10.0	27.1	ppbv			R6
Surr: 4-Bromofluorobenzene	10.3	103	10.2	102			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	NA
Project:	ADEQ WCP NCP	**Project Number:**	2014042.20
Lab Order:	16K002	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-160802-01	Stock	Spectra Gases	113123527	TO-14 39 Analytes	1.0 ppmv	± 5%	7/25/2017
S-160802-02	Stock	Spectra Gases	113123527	TO-15 25 Analytes	1.0 ppmv	± 5%	7/12/2017
S-160802-03	Stock	Spectra Gases	113123527	15 Additional Compounds	1.0 ppmv	± 5%	7/19/2017
S-151113-01	Stock	Spectra Gases	TB500009-110	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	11/13/2016
S-161101-01	Stock	Spectra Gases	TB500009-110	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	11/1/2017
A-161018-01	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	1/18/2017
A-161110-01	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	2/10/2017
A-161014-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	11/13/2016
A-161114-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	2/14/2017

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Hydro GeoChem	Page 2 of 3	AEL Lab #
Address: 6240 E Thomas Suite 205	Sampler: Leah Wills Phone: 480-438-7165	16K002
	Project Name: ADEQ WCP NCP Project Number: 2014042.20	
City, State, Zip: Scottsdale, AZ 85251	Project location: Phx, AZ	
Contact: Dan Sola	P.O. Number:	
Phone: 480-421-1501 x139 Fax:	Fax Results: Y N	
E-Mail Address: dans@hgcinc.com	E-Mail Results: (Y) N	

Sample Receipt

Temperature_____ °C
Custody Seals Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

____ 24 Hours ____ 48 Hours
____ 72 Hours
____ 5 working Day
____ Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selot List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
11	1458	175	6 bag	1 2 5	SG-51-10	10/31/16	1603	SVE	1	X									
12	1796	057	6 1 bag	1 2 5	SG-52-10	10/31/16	1615			X									
13	E2296	018	6 1 bag	1 2 5	SG-53-10	10/31/16	1625			X									
14	E2406	089	6 1 bag	1 2 5	NCP-11-10	11/1/16	0943			X									
15	E2098	116	6 1 bag	1 2 5	NCP-12-10		1015			X									
16	1847	003	6 1 bag	1 2 5	NCP-13-10		1029			X									
17	E2403	178	6 1 bag	1 2 5	NCP-14-10		1300			X									
18	E2297	101	6 1 bag	1 2 5	NCP-15-10		1316			X									
19	E2085	059	6 1 bag	1 2 5	NCP-16-10		1425			X									
20	E2390	183	6 1 bag	1 2 5	NCP-17-10		1439			X									

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
11/2/16	1055	[signature]	James Jones Airtech

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Hydro Geo Chem	Page 1 of 3	AEL Lab #
Address: 6240 E Thomas Suite 205	Sampler: Leah Wills Phone: 480-438-7165	16K002
	Project Name: ADEQ WCP NCP Project Number: 204042.20	
City, State, Zip: Scottsdale, AZ 85251	Project location: Phoenix, AZ	
Contact: Dan Sola	P.O. Number:	
Phone: 480-421-1501 x139 Fax: 480-425-8794	Fax Results: Y N	
E-Mail Address: dans@hgcinc.com	E-Mail Results: (Y) N	

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours
_____ 72 Hours
_____ 5 working Day
_____ Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
01	E2100	184	6 bag	1 2 5	NCP-1-10	10/31/16	0832	SVE	1	X									
02	E2347	076	6 bag	1 2 5	NCP-2-10		0851			X									
03	E2359	213	6 bag	1 2 5	NCP-3-10		1011			X									
04	1795	219	6 bag	1 2 5	NCP-4-10		1023			X									
05	E2367	106	6 bag	1 2 5	NCP-5-10		1249			X									
06	1813	218	6 bag	1 2 5	NCP-6-10		1259			X									
07	1807	181	6 bag	1 2 5	NCP-7-10		1307			X									
08	E2293	130	6 bag	1 2 5	NCP-8-10		1413			X									
09	E2092	070	6 bag	1 2 5	NCP-9-10		1427			X									
10	1842	126	6 bag	1 2 5	NCP-10-10	11/1/16	0830			X									

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
11/2/16	1055	[signature]	Tom Tom Airtech

Attachment 2 – Phase 2 and Phase 3 Quantitative Passive Shallow Soil Gas Survey Investigation Report

ADEQ Arizona Department of Environmental Quality Memorandum

Date: May 9, 2018

To: West Central Phoenix – East Grand Avenue WQARF Registry Site Public Record

Through: Scott Green, Manager, Remedial Projects Unit

From: Tom Titus, Project Manager, Remedial Projects Unit

Subject: Phase 2 Soil Gas Investigation Report

This memorandum presents the methods and results of the passive soil gas survey conducted by Hydro Geo Chem (HGC) on behalf the Arizona Department of Environmental Quality (ADEQ) at the West Central Phoenix East Grand Avenue Water Quality Revolving Fund (WQARF) Site (Site). The purpose of the investigation was to identify potential sources of chlorinated volatile organic compounds (VOCs) that could be contributing to the groundwater contamination at the Site.

Methodology

On April 12 through April 14, 2017, HGC completed a total of 41 soil gas sample borings (WM-01 through WM-41) to depths between 39 and 41 inches. On June 13, HGC completed a total of 25 soil gas sample borings (WM-42 through WM-66) to depths between six and 42 inches. A total of 66 passive soil gas samplers were installed at the Site. A total of 62 soil gas samplers were retrieved and analyzed by the laboratory. The sample locations are presented in Attachment 1 on Figure 1. The sample details are presented in Attachment 2 on Table 1. The field notes are presented in Attachment 3.

Each location was advanced to total depth utilizing a hand drill equipped with 1.125-inch diameter drill bit. Upon reaching total depth, a Waterloo Membrane Sampler (WMS) provided by SirREM Laboratories was placed in the soil gas boring. Each sampler was placed in a metal spring and suspended in the boring using fishing line. Each boring was generally sealed to a depth of approximately 24 inches using a combination of plastic and foam. Each boring was sealed at the surface with a rubber stopper. The samplers were left in the ground for a period of approximately 16 to 19 days. Upon retrieval, each boring was abandoned with hydrated bentonite and capped with cold patch or soil depending on the pre-boring conditions.

The samplers were placed on ice and submitted to Eurofins Air Toxics, Inc. (Air Toxics) of Folsom, California for analysis by EPA Modified Method TO-17. The laboratory reports are presented in Attachment 4.

Results

A summary of the compounds detected in the passive soil gas samples is presented in Attachment 2 on Table 2. Compounds detected in the passive soil gas samples included tetrachloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), and chloroform. These compounds were detected at the following concentrations:

- PCE at concentrations between non-detect and 1,600 micrograms per cubic meter (ug/m3);

- TCE at concentrations between non-detect and 45,000 ug/m3;
- 1,1-DCE at concentrations between non-detect and 6,000 ug/m3;
- cis-1,2-DCE at concentrations between non-detect and 14 ug/m3; and
- Chloroform at concentrations between non-detect and 380 ug/m3.

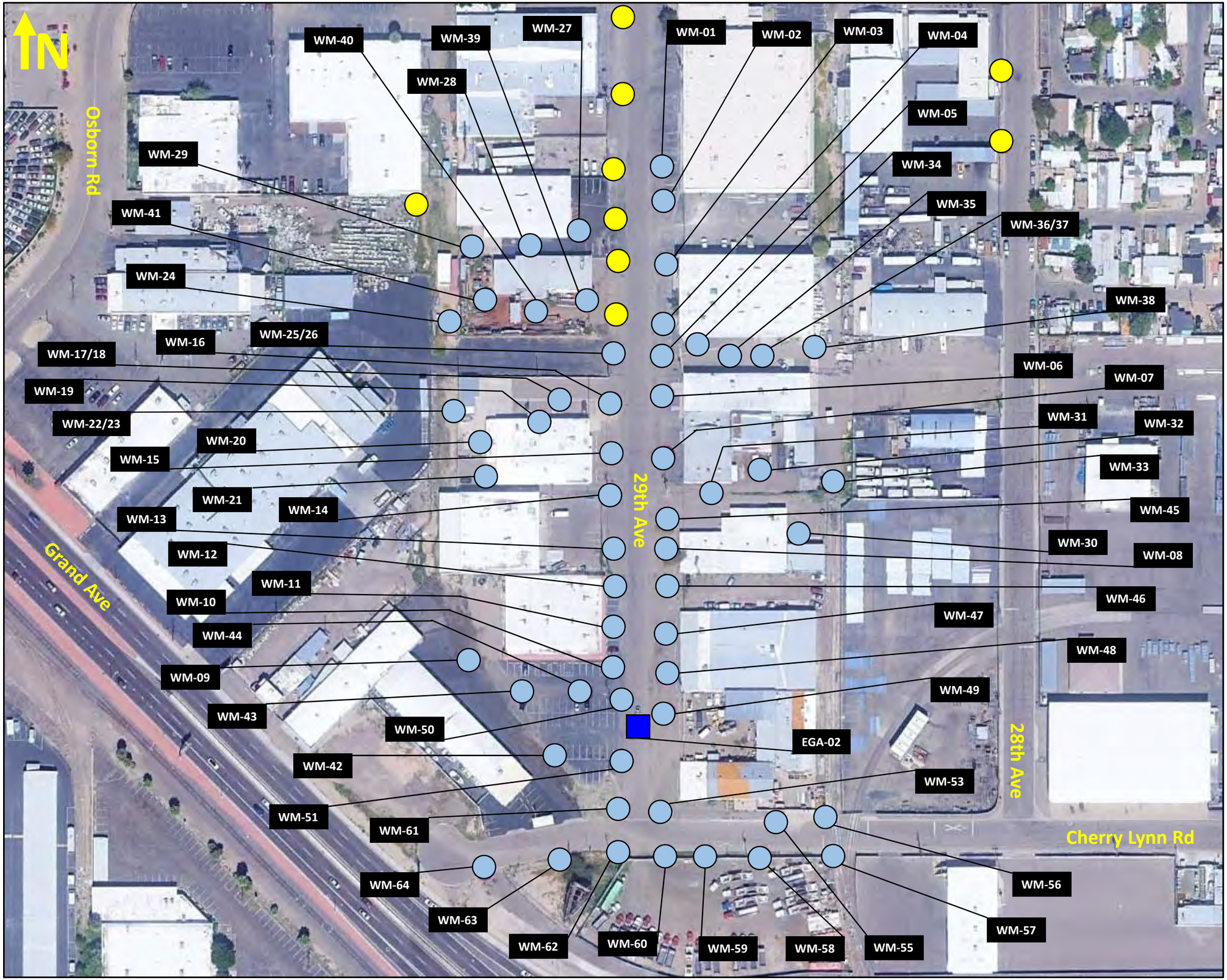
Compounds detected above the United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for industrial soil included PCE, TCE, and chloroform. Compounds detected above the Soil Vapor Screening Levels (SVSLs [calculated by from the product of the RSL and an attenuation factor of 0.03]) included PCE, TCE, and chloroform. The results were not compared to the RSLs or SVSLs for residential soil because the investigation area is located within an industrial and commercial area.

The soil gas results for the compounds detected in the soil gas samples were converted to soil concentrations in accordance with the Soil Rule (Arizona Administrative Code R18-7-203(C)). The soil results calculated from the soil gas results are presented in Attachment 2 on Table 3. All of the soil concentrations are below the Soil Remediation Levels (SRLs) for non-residential soils and below the minimum Groundwater Protection Levels (GPLs) for the compounds detected in the soil gas samples. The results were not compared to the SRLs for residential soils because the investigation area is located within an industrial and commercial area.

Conclusions

The purpose of the investigation was to identify any properties which could be contributing to the VOC groundwater contamination at the Site. A total of 66 passive soil gas samplers were installed during the investigation at the Site of which 62 samples were retrieved and analyzed for VOCs. The soil concentrations calculated from the soil gas results are all below the minimum GPLs for groundwater. Thus, the results of the investigation did not identify any additional sources or properties which could be contributing to the VOC groundwater contamination at the Site.

Attachment 1 – Figures



Legend

- Existing Soil Gas Boring Location
- Passive Soil Gas Sample Location
- New Groundwater Monitoring Well Location (EGA-02)

Sample locations WM-52, WM-54, WM-65, and WM-66 not shown because they were not retrieved and analyzed.

Source: Aerial Photograph from Google Earth (2018)

Scale: 1 inch = 125 feet

Figure 1
Passive Soil Gas Sample Location Map
West Central Phoenix – East Grand Avenue WQARF Site

Attachment 2 – Tables

Table 1
Sample Details
West Central Phoenix - East Grand Avenue WQARF Site

Sample Name	Deployment Date & Time	Retrieval Date & Time	Total Elapsed Time (Days)	Hole Depth (Inches bgs)	Depth of Seal (Inches bgs)	Open Invterval (Inches)	Hole Diameter (Inches)
WM-01	4/12/17 13:14	5/1/17 13:40	19	41.5	24	17.5	1.125
WM-02	4/12/17 13:40	5/1/17 13:36	19	41	24	17	1.125
WM-03	4/12/17 14:00	5/1/17 13:32	19	41	24	17	1.125
WM-04	4/12/17 14:15	5/1/17 13:28	19	41	24	17	1.125
WM-05	4/12/17 14:30	5/1/17 13:25	19	41	24	17	1.125
WM-06	4/12/17 14:51	5/1/17 13:21	19	41	24	17	1.125
WM-07	4/12/17 15:08	5/1/17 13:16	19	41	24	17	1.125
WM-08	4/12/17 15:24	5/1/17 10:14	19	41	24	17	1.125
WM-09	4/12/17 15:43	5/1/17 9:20	19	41	24	17	1.125
WM-10	4/12/17 16:02	5/1/17 9:03	19	41	24	17	1.125
WM-11	4/12/17 16:19	5/1/17 9:32	19	41	24	17	1.125
WM-12	4/13/17 8:56	5/1/17 9:42	18	41	24	17	1.125
WM-13	4/13/17 9:16	5/1/17 9:56	18	41	24	17	1.125
WM-14	4/13/17 9:41	5/1/17 10:05	18	41	24	17	1.125
WM-15	4/13/17 10:04	5/1/17 12:43	18	41	24	17	1.125
WM-16	4/13/17 10:24	5/1/17 12:47	18	41	24	17	1.125
WM-17	4/13/17 10:55	5/1/17 12:20	18	41	24	17	1.125
WM-18	4/13/17 10:56	5/1/17 12:23	18	41	24	17	1.125
WM-19	4/13/17 11:18	5/1/17 12:26	18	41	24	17	1.125
WM-20	4/13/17 11:39	5/1/17 12:29	18	41	24	17	1.125
WM-21	4/13/17 13:11	5/1/17 12:33	18	41	24	17	1.125
WM-22	4/13/17 13:47	5/1/17 13:01	18	39	24	15	1.125
WM-23	4/13/17 13:49	5/1/17 13:04	18	39	24	15	1.125
WM-24	4/13/17 14:16	5/1/17 13:08	18	39	24	15	1.125
WM-25	4/13/17 14:48	5/1/17 12:52	18	41	24	17	1.125
WM-26	4/13/17 14:51	5/1/17 12:54	18	41	24	17	1.125
WM-27	4/13/17 15:13	5/1/17 11:36	18	41	24	17	1.125
WM-28	4/13/17 15:30	5/1/17 11:42	18	41	24	17	1.125

Table 1
Sample Details
West Central Phoenix - East Grand Avenue WQARF Site

Sample Name	Deployment Date & Time	Retrieval Date & Time	Total Elapsed Time (Days)	Hole Depth (Inches bgs)	Depth of Seal (Inches bgs)	Open Invterval (Inches)	Hole Diameter (Inches)
WM-29	4/13/17 15:45	5/1/17 11:52	18	41	24	17	1.125
WM-30	4/14/17 7:48	5/1/17 10:29	17	41	24	17	1.125
WM-31	4/14/17 8:10	5/1/17 10:42	17	41	24	17	1.125
WM-32	4/14/17 8:34	5/1/17 10:46	17	41	24	17	1.125
WM-33	4/14/17 8:50	5/1/17 10:55	17	41	24	17	1.125
WM-34	4/14/17 9:14	5/1/17 11:04	17	41	24	17	1.125
WM-35	4/14/17 9:33	5/1/17 11:11	17	41	24	17	1.125
WM-36	4/14/17 9:57	5/1/17 11:16	17	41	24	17	1.125
WM-37	4/14/17 10:01	5/1/17 11:18	17	41	24	17	1.125
WM-38	4/14/17 10:25	5/1/17 11:25	17	41	24	17	1.125
WM-39	4/14/17 10:54	5/1/17 12:00	17	41	24	17	1.125
WM-40	4/14/17 11:18	5/1/17 12:06	17	41	24	17	1.125
WM-41	4/14/17 11:41	5/1/17 12:13	17	41	24	17	1.125
WM-42	6/13/17 8:04	6/29/17 10:18	16	42	18	24	1.125
WM-43	6/13/17 8:20	6/29/17 10:07	16	42	24	18	1.125
WM-44	6/13/17 8:40	6/29/17 9:58	16	42	24	18	1.125
WM-45	6/13/17 8:59	6/29/17 8:30	16	42	24	18	1.125
WM-46	6/13/17 9:13	6/29/17 8:45	16	42	24	18	1.125
WM-47	6/13/17 9:25	6/29/17 10:07	16	42	18	24	1.125
WM-48	6/13/17 9:34	6/29/17 9:00	16	42	15	27	1.125
WM-49	6/13/17 9:50	6/29/17 9:23	16	42	24	18	1.125
WM-50	6/13/17 10:01	6/29/17 9:49	16	42	24	18	1.125
WM-51	6/13/17 10:15	6/29/17 9:35	16	42	12	30	1.125
WM-52	6/13/17 10:28	Sampler Not Retrievable		42	24	18	1.125
WM-53	6/13/17 10:40	6/29/17 12:43	16	42	24	18	1.125
WM-54	6/13/17 10:54	Sampler Not Retrievable		24	12	12	1.125
WM-55	6/13/17 11:05	6/29/17 12:26	16	42	18	24	1.125
WM-56	6/13/17 11:20	6/29/17 12:16	16	42	24	18	1.125

Table 1
Sample Details
West Central Phoenix - East Grand Avenue WQARF Site

Sample Name	Deployment Date & Time	Retrieval Date & Time	Total Elapsed Time (Days)	Hole Depth (Inches bgs)	Depth of Seal (Inches bgs)	Open Invterval (Inches)	Hole Diameter (Inches)
WM-57	6/13/17 11:34	6/29/17 12:07	16	42	24	18	1.125
WM-58*	6/13/17 12:55	6/29/17 11:54	16	6	2	4	1.125
WM-59*	6/13/17 12:55	6/29/17 11:42	16	12	6	6	1.125
WM-60*	6/13/17 13:05	6/29/17 11:32	16	6	2	4	1.125
WM-61	6/13/17 13:35	6/29/17 12:57	16	42	24	18	1.125
WM-62*	6/13/17 14:34	6/29/17 11:23	16	16	3	13	1.125
WM-63*	6/13/17 14:48	6/29/17 11:12	16	18	2	16	1.125
WM-64*	6/13/17 14:59	6/29/17 10:27	16	30	8	22	1.125
WM-65	6/13/17 15:12	Sampler Not Retrievable		40	24	16	1.125
WM-66	6/13/17 15:28	Sampler Not Retrievable		40	24	16	1.125

Notes:

*Borehole could not be advanced due to dry soil cave in.

bgs = Below ground surface

Table 2
Compounds Detected in the Passive Soil Gas Samples
West Central Phoenix - East Grand Avenue WQARF Site

Sample	Date	1,1-DCE (ug/m3)	Chloroform (ug/m3)	cis-1,2-DCE (ug/m3)	PCE (ug/m3)	TCE (ug/m3)
EPA RSL (Industrial)		***880***	***0.53***	***--***	***47***	***3.0***
SVSL (Industrial)		***29,333***	***18***	***--***	***1,567***	***100***
WM-01	05/04/2017	89	<13	<13	25	<9.5
WM-02	05/04/2017	<70	21	<13	13	<9.5
WM-03	05/04/2017	<70	<13	<13	14	17
WM-04	05/04/2017	190	65	<13	96	570
WM-05	05/04/2017	310	62	<13	160	1,200
WM-06	05/04/2017	790	23	<13	550	3,600
WM-07	05/04/2017	2,000	70	<13	1,400	12,000
WM-08	05/04/2017	2,600	170	<13	1,100	17,000
WM-09	05/04/2017	560	62	14	160	4,700
WM-10	05/04/2017	5,200	160	<13	1,500	39,000
WM-11	05/04/2017	3,500	200	<13	750	22,000
WM-12	05/04/2017	1,400	140	<14	290	9,700
WM-13	05/04/2017	3,000	180	<14	1,100	20,000
WM-14	05/04/2017	1,800	110	<14	550	12,000
WM-15	05/04/2017	850	79	<14	270	6,300
WM-16	05/04/2017	740	30	<14	250	4,100
WM-17	05/04/2017	270	14	<14	46	1,600
WM-18	05/04/2017	440	18	<14	81	2,300
WM-19	05/04/2017	210	21	<14	26	1,500
WM-20	05/04/2017	91	<14	<14	12	730
WM-21	05/11/2017	<74	<14	<14	8.3	360
WM-22	05/11/2017	190	18	<14	38	1,600
WM-23	05/11/2017	190	18	<14	43	1,800
WM-24	05/11/2017	130	<14	<14	24	870
WM-25	05/11/2017	760	22	<14	170	2,400
WM-26	05/11/2017	680	23	<14	160	2,200

Table 2
Compounds Detected in the Passive Soil Gas Samples
West Central Phoenix - East Grand Avenue WQARF Site

Sample	Date	1,1-DCE (ug/m3)	Chloroform (ug/m3)	cis-1,2-DCE (ug/m3)	PCE (ug/m3)	TCE (ug/m3)
EPA RSL (Industrial)		***880***	***0.53***	***--***	***47***	***3.0***
SVSL (Industrial)		***29,333***	***18***	***--***	***1,567***	***100***
WM-27	05/11/2017	<75	<14	<14	16	<10
WM-28	05/11/2017	<75	<14	<14	12	<10
WM-29	05/11/2017	<75	<14	<14	<6.7	<10
WM-30	05/11/2017	<78	<14	<14	100	<10
WM-31	05/11/2017	130	<14	<14	160	780
WM-32	05/11/2017	<78	<14	<14	280	51
WM-33	05/11/2017	<78	<14	<14	20	<10
WM-34	05/11/2017	<78	<14	<14	35	71
WM-35	05/11/2017	<78	<14	<14	22	<10
WM-36	05/03/2017	<78	<14	<14	23	<10
WM-37	05/03/2017	<78	<14	<14	20	<10
WM-38	05/03/2017	<78	<14	<14	22	<10
WM-39	05/03/2017	110	<14	<14	33	400
WM-40	05/03/2017	110	<14	<14	24	720
WM-41	05/03/2017	<79	<14	<14	8.9	400
WM-42	07/12/2017	3,900	160	<15	530	28,000
WM-43	07/12/2017	3,600	330	<15	1,400	36,000
WM-44	07/12/2017	2,600	380	<15	570	36,000
WM-45	07/12/2017	340	89	<15	230	4,300
WM-46	07/12/2017	1,400	98	<15	930	12,000
WM-47	07/12/2017	2,300	120	<15	1,500	22,000
WM-48	07/12/2017	3,400	140	<15	1,400	28,000
WM-49	07/12/2017	1,100	51	<15	290	9,400
WM-50	07/12/2017	6,000	210	<15	1,600	45,000
WM-51	07/12/2017	2,700	100	<15	410	15,000
WM-53	07/12/2017	280	17	<15	120	1,500

Table 2
Compounds Detected in the Passive Soil Gas Samples
West Central Phoenix - East Grand Avenue WQARF Site

Sample	Date	1,1-DCE (ug/m3)	Chloroform (ug/m3)	cis-1,2-DCE (ug/m3)	PCE (ug/m3)	TCE (ug/m3)
EPA RSL (Industrial)		***880***	***0.53***	***--***	***47***	***3.0***
SVSL (Industrial)		***29,333***	***18***	***--***	***1,567***	***100***
WM-55	07/12/2017	<83	<15	<15	56	<11
WM-56	07/12/2017	<84	<15	<15	250	33
WM-57	07/12/2017	<84	<15	<15	280	100
WM-58	07/12/2017	<84	<15	<15	20	<11
WM-59	07/12/2017	<84	<15	<15	23	59
WM-60	07/12/2017	<84	<15	<15	16	68
WM-61	07/12/2017	240	51	<15	56	1,300
WM-62	07/12/2017	<84	<16	<16	24	160
WM-63	07/12/2017	<84	<16	<16	22	360
WM-64	07/12/2017	<85	<16	<16	12	95

Notes:

1,1-DCE = 1,1-Dichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
PCE = Tetrachloroethene
TCE = Trichloroethene
EPA RSL = Enviromental Protection Agency Regional Screening Level
SVSL = Soil Vapor Screening Level (SVSL = RSL/AF [Attenuation Factor of 0.03])
ug/m3 = Micrograms per cubic meter
<4 = Not detected at indicated reporting limit
-- = No Screening Level
Concentration is equal to or exceeds RSL (Industrial)
Concentration is equal to or exceeds RSL and SVSL (Industrial)

Table 3
Calculated Soil Results
West Central Phoenix - East Grand Avenue WQARF Site

Sample	Date	1,1-DCE (ug/kg)	Chloroform (ug/kg)	cis-1,2-DCE (ug/kg)	PCE (ug/kg)	TCE (ug/kg)
SRL (Non-Residential)		***410,000***	***20,000***	***150,000***	***13,000***	***65,000***
Minimum GPL		***810***	***--***	***4,900***	***1,300***	***610***
WM-01	05/04/2017	0.03	--	--	0.02	--
WM-02	05/04/2017	--	0.02	--	0.01	--
WM-03	05/04/2017	--	--	--	0.01	0.02
WM-04	05/04/2017	0.06	0.07	--	0.06	0.62
WM-05	05/04/2017	0.1	0.06	--	0.1	1.3
WM-06	05/04/2017	0.25	0.02	--	0.36	3.9
WM-07	05/04/2017	0.64	0.07	--	0.91	12.99
WM-08	05/04/2017	0.84	0.18	--	0.71	18.41
WM-09	05/04/2017	0.18	0.06	0.01	0.1	5.09
WM-10	05/04/2017	1.67	0.17	--	0.97	42.23
WM-11	05/04/2017	1.13	0.21	--	0.49	23.82
WM-12	05/04/2017	0.45	0.14	--	0.19	10.5
WM-13	05/04/2017	0.97	0.19	--	0.71	21.66
WM-14	05/04/2017	0.58	0.11	--	0.36	12.99
WM-15	05/04/2017	0.27	0.08	--	0.18	6.82
WM-16	05/04/2017	0.24	0.03	--	0.16	4.44
WM-17	05/04/2017	0.09	0.01	--	0.03	1.73
WM-18	05/04/2017	0.14	0.02	--	0.05	2.49
WM-19	05/04/2017	0.07	0.02	--	0.02	1.62
WM-20	05/04/2017	0.03	--	--	0.01	0.79
WM-21	05/11/2017	--	--	--	0.01	0.39
WM-22	05/11/2017	0.06	0.02	--	0.02	1.73
WM-23	05/11/2017	0.06	0.02	--	0.03	1.95
WM-24	05/11/2017	0.04	--	--	0.02	0.94
WM-25	05/11/2017	0.24	0.02	--	0.11	2.6
WM-26	05/11/2017	0.22	0.02	--	0.1	2.38

Table 3
Calculated Soil Results
West Central Phoenix - East Grand Avenue WQARF Site

Sample	Date	1,1-DCE (ug/kg)	Chloroform (ug/kg)	cis-1,2-DCE (ug/kg)	PCE (ug/kg)	TCE (ug/kg)
SRL (Non-Residential)		***410,000***	***20,000***	***150,000***	***13,000***	***65,000***
Minimum GPL		***810***	***--***	***4,900***	***1,300***	***610***
WM-27	05/11/2017	--	--	--	0.01	--
WM-28	05/11/2017	--	--	--	0.01	--
WM-29	05/11/2017	--	--	--	--	--
WM-30	05/11/2017	--	--	--	0.06	--
WM-31	05/11/2017	0.04	--	--	0.1	0.84
WM-32	05/11/2017	--	--	--	0.18	0.06
WM-33	05/11/2017	--	--	--	0.01	--
WM-34	05/11/2017	--	--	--	0.02	0.08
WM-35	05/11/2017	--	--	--	0.01	--
WM-36	05/03/2017	--	--	--	0.01	--
WM-37	05/03/2017	--	--	--	0.01	--
WM-38	05/03/2017	--	--	--	0.01	--
WM-39	05/03/2017	0.04	--	--	0.02	0.43
WM-40	05/03/2017	0.04	--	--	0.02	0.78
WM-41	05/03/2017	--	--	--	0.01	0.43
WM-42	07/12/2017	1.26	0.17	--	0.34	30.32
WM-43	07/12/2017	1.16	0.34	--	0.91	38.98
WM-44	07/12/2017	0.84	0.39	--	0.37	38.98
WM-45	07/12/2017	0.11	0.09	--	0.15	4.66
WM-46	07/12/2017	0.45	0.1	--	0.6	12.99
WM-47	07/12/2017	0.74	0.12	--	0.97	23.82
WM-48	07/12/2017	1.1	0.14	--	0.91	30.32
WM-49	07/12/2017	0.35	0.05	--	0.19	10.18
WM-50	07/12/2017	1.93	0.22	--	1.04	48.73
WM-51	07/12/2017	0.87	0.1	--	0.27	16.24
WM-53	07/12/2017	0.09	0.02	--	0.08	1.62

Table 3
Calculated Soil Results
West Central Phoenix - East Grand Avenue WQARF Site

Sample	Date	1,1-DCE (ug/kg)	Chloroform (ug/kg)	cis-1,2-DCE (ug/kg)	PCE (ug/kg)	TCE (ug/kg)
SRL (Non-Residential)		***410,000***	***20,000***	***150,000***	***13,000***	***65,000***
Minimum GPL		***810***	***--***	***4,900***	***1,300***	***610***
WM-55	07/12/2017	--	--	--	0.04	--
WM-56	07/12/2017	--	--	--	0.16	0.04
WM-57	07/12/2017	--	--	--	0.18	0.11
WM-58	07/12/2017	--	--	--	0.01	--
WM-59	07/12/2017	--	--	--	0.01	0.06
WM-60	07/12/2017	--	--	--	0.01	0.07
WM-61	07/12/2017	0.08	0.05	--	0.04	1.41
WM-62	07/12/2017	--	--	--	0.02	0.17
WM-63	07/12/2017	--	--	--	0.01	0.39
WM-64	07/12/2017	--	--	--	0.01	0.1

Notes:

Soil concentrations calculated from soil gas concentrations in accordance with the Soil Rule

SRL = Soil Remediation Level

GPL = Groundwater Protection Level

1,1-DCE = 1,1-Dichloroethene

cis-1,2-DCE = cis-1,2-Dichloroethene

PCE = Tetrachloroethene

TCE = Trichloroethene

ug/kg = Micrograms per kilogram

-- = Concentration not calculated because soil gas concentration was non-detect

Attachment 3 – Field Data Sheets

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Environmental Science & Technology

DAILY FIELD NOTES

PROJECT NAME:	**ADEQ- WCP EGA**	PROJECT# 2016031	
LOCATION:	**29th Ave and Osborn Rd Area**	PAGE: 1	OF 1
TYPE OF NOTES:	**Field Notes**	DATE: 4/12/17	
SUBJECT:	**Passive Soil Gas Sampler Deploy**	BY: L. Wills	

1230 L. Wills & D. Solis onsite at first location, begin setting up
1256 Drilled to 41.5 in @ WM-1
1314 Deployed WM-1, Sampler @ 36" bgs, Foam to 2ft bgs
1320 Set up at WM-2, deconing auger bit w/alconox + water after each hole
1340 Deployed WM-2, Sampler @ 36" bgs, foam to 2ft bgs
1344 Set up at WM-3
1400 Deployed WM-3, sampler @ 36" bgs, hole to 41" bgs, foam to 1ft bgs
1405 Set up at WM-4
1415 Deployed WM-4, hole to 41", Sampler @ 36", foam to 2ft bgs
1420 Set up at WM-5
1430 Deployed WM-5 as above
1439 Set up at WM-6
1451 Deployed WM-6 as above
1500 Set up at WM-7
1508 Deployed WM-7 as above
1512 Set up at WM-8
1524 Deployed WM-8 as above
1527 Set up at WM-9
1543 Deployed WM9 as above
1548 Set up at WM-10
1602 Deployed WM10 as above
1605 Set up at WM-11
1619 Deployed WM-11 as above
1640 LW + DS offsite

HYDRO GEO CHEM, INC.
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DAILY FIELD NOTES

PROJECT NAME:	**ADEQ- WCP EGA**	PROJECT# 2016031	
LOCATION:	**29th Ave and Osborn Rd Area**	PAGE: 1	OF 2
TYPE OF NOTES:	**Field Notes**	DATE: 4/13/17	
SUBJECT:	**Passive Soil Gas Sampler Deploy**	BY: L. Wills	

0815 L. Wills + M. O'Boyle onsite, H+S meeting
0825 K. Snyder (ADEQ) onsite
0835 Set up at WM-12
0856 Deployed WM-12, hole to 41", Sampler @ 36", foam to 2ft bgs
0901 Set up at WM-13
0916 Deployed WM-13, as above w/foam to 1ft 3" bgs, KS offsite
0922 Set up at WM-14
0941 Deployed WM-14 as above w/foam to 1ft bgs
0946 Set up at WM-15
1004 Deployed WM-15 as above w/foam to 1ft 3" bgs
1009 Set up at WM-16
1024 Deployed WM-16 as above w/foam to 2ft
1032 Set up at WM-17, Checked in w/James, business owner
1055 Deployed WM-17, as above w/foam to 1ft 4in bgs
1056 Deployed WM-18, dup of 17, foam to 2ft
1102 Set up at WM-19
1118 Deployed WM-19, foam to 1ft 5in
1122 Set up at WM-20
1139 Deployed WM-20
1150 Lunch break
1251 Set up at WM-21
1311 Deployed WM-21 as above, foam to 2ft
1320 Set up at WM-22
1347 Deployed WM-22, hole to 39" (refusal), foam to 2"
1349 Deployed WM-23, foam to 2ft, dup of WM-22
1358 Set up at WM-24
1416 Deployed WM-24, foam to 2ft

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DAILY FIELD NOTES

PROJECT NAME:	**ADEQ- WCP EGA**	PROJECT# 2016031	
LOCATION:	**29th Ave and Osborn Rd Area**	PAGE: 2	OF 2
TYPE OF NOTES:	**Field Notes**	DATE: 4/13/17	
SUBJECT:	**Passive Soil Gas Sampler Deploy**	BY: L. Wills	

1424 Set up at WM-25
1448 Deployed WM-25, 41" hole, sampler at 36", foam to 24"
1451 Deployed WM-26, as above, dup of WM-25
1500 Set up at WM-27, checked in w/ Wececon business
1513 Deployed WM-27, as above
1520 Set up on WM-28
1530 Deployed WM-28 as above
1534 Set up on WM-29
1545 Deployed WM-29 as above
1605 LW + MO offsite

HYDRO GEO CHEM, INC.
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DAILY FIELD NOTES

PROJECT NAME:	**ADEQ- WCP EGA**	PROJECT# 2016031	
LOCATION:	**29th Ave and Osborn Rd Area**	PAGE: 1	OF 1
TYPE OF NOTES:	**Field Notes**	DATE: 4/14/17	
SUBJECT:	**Passive Soil Gas Sampler Deploy**	BY: L. Wills	

0710 L. Wills + M. O'Boyle onsite, H+S meeting
0733 ~~the~~ Set up at WM-30, checked in w/business owner
0748 Deployed WM-30, hole to 41", sampler at 36", foam to 20" bgs
0752 Set up at WM-31, checked in w/business
0810 Deployed WM-31 as above w/12" of foam
0817 Set up at WM-32
0834 Deployed WM-32 as above w/17" of foam
0839 Set up on WM-33
0850 Deployed WM-33 as above w/16" of foam
0900 Set up on WM-34, checked in w/MacDaniel Signs
0914 Deployed WM-34, w/24" of foam
0918 Set up on WM-35
0933 Deployed WM-35 w/16" of foam
0937 Set up on WM-36
0957 Deployed WM-36 w/20" of foam
1001 Deployed WM-37, dup of WM-36, w/15" of foam
1007 Set up on WM-38
1025 Deploy WM-38, w/24" of foam
1035 Set up at WM-39, check in w/business
1054 Deployed WM-39 w/24" of foam
1102 Set up at WM-40
1118 Deployed WM-40 w/24" of foam
1125 Set up at WM-41
1141 Deployed WM-41 w/24" of foam
1202 Cleanup
1220 LW + MO Offsite

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DAILY FIELD NOTES

PROJECT NAME:	**ADEQ- WCP EGA**	PROJECT# 2016031	
LOCATION:	**29th Ave and Osborn Area**	PAGE: 1	OF 2
TYPE OF NOTES:	**Field Notes**	DATE: 5/1/17	
SUBJECT:	**WMS Sampler Retrieval**	BY: L. Wills	

0845 L. Wills & D. Sola onsite. Conduct H&S meeting
0903 Collected WM-10, placed sample via in glass container, sealed w/Teflon tape & put on ice in cooler. Hole backfilled w/ bensoil & hydrated. Asphalt patched
0910 Set up at WM-9
0920 Collected WM-9
0928 Set up at WM-11
0932 Collected WM-11
0937 Set up at WM-12
0942 Collected WM-12
0953 Set up at WM-13
0956 Collect WM-13
1000 Set up at WM-14
1005 Collect WM-14
1012 Set up at WM-8, Calibration check PID w/100 ppm span Gas, reads 100.8=OK
1014 Collect WM-8
1023 Set up at WM-30 PID = 0
1029 Collect WM-30 PID NA
1035 Set up at WM-31 P - NA
1042 Collect WM-31 PID = 0
1046 Collect WM-32 PID = 0
1055 Collect WM-33 PID=0.
1104 Collect WM-34
1111 Collect WM-35 PID=0
1116 Collect WM-36 PID=0
1118 Collect WM-37 PID=0
1125 Collect WM-38 PID=0

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DAILY FIELD NOTES

PROJECT NAME:	**ADEQ- WCP EGA**	PROJECT# 2016031	
LOCATION:	**29th Ave and Osborn Area**	PAGE: 2	OF 2
TYPE OF NOTES:	**Field Notes**	DATE: 5/1/17	
SUBJECT:	**WMS Sampler Retrieval**	BY: L. Wills	

1136 Collect WM-27, PID=0
1142 Collect WM-28, PID=0
1152 Collect WM-29 PID=0
1200 Collect WM-39 PID=0
1206 Collect WM-40 PID=0
1213 Collect WM-41 PID=0
1220 Collect WM-17 PID=0
1223 Collect WM-18 PID=0
1226 Collect WM-19 PID=0
1229 Collect WM-20 PID=0
1233 Collect WM-21 PID=0
1243 Collect WM-15 PID=0
1247 Collect WM-16 PID=0
1252 Collect WM-25 PID=0.0
1254 Collect WM-26 PID=0.2
1301 Collect WM-22 PID=0.
1304 Collect WM-23 PID=0
1308 Collect WM-24 PID=0
1316 Collect WM-7 PID=5.2
1321 Collect WM-6 PID=0.0
1325 Collect WM-5 PID=0
1328 Collect WM-4 PID=4.4
1332 Collect WM-3 PID= 4.5
1336 Collect WM-2 PID=2.0
1340 Collect WM-1 PID=2.1
1400 LW + DS offsite

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DAILY FIELD NOTES

PROJECT NAME:	**ADEQ- WCP EGA**	PROJECT# 2016031	
LOCATION:	**29th Ave and W Cheery Lynn Rd Area**	PAGE: 1	OF 3
TYPE OF NOTES:	**Field Notes**	DATE: 6/18/17	
SUBJECT:	**Passive Soil Gas Sampler Deploy**	BY:	

7:30 Onsite Jessica - WVS, D Sola, K Snyder

8:04 drilled to 42" installed WM-42 36" 1½ ft foam

8:20 drilled to 42" installed WM-43 66" 2' foam

8:40 42" installed WM-44

8:59 42" installed ~~WM-44~~ WM-45

9:13 42" Installed WM-46 2' Foam

9:25 42" installed WM-47 1.5' foam

9:34 42" installed WM-48 1.25' foam

9:50 42 inst. WM-49 2' foam

10:01 42 install WM-50
↳ not on white dot

10:15 42 install MW 51 1' foam

10:26 42" install MW-52

10:40 42 install MW 53 2' foam

Check lot

change

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DAILY FIELD NOTES

PROJECT NAME:	**ADEQ- WCP EGA**	PROJECT# 2016031	
LOCATION:	**29th Ave and W Cheery Lynn Rd Area**	PAGE: 2	OF 3
TYPE OF NOTES:	**Field Notes**	DATE:	
SUBJECT:	**Passive Soil Gas Sampler Deploy**	BY:	

10:54 24" Set @ WM 54 24" 1' foam
Sand - cave in @ 24"

1105 42" installed WM55 1½' foam

1120 42" inst WM56 2' foam - near RR gate

1134 42' Inst WM57 2' foam RR So.

Lunch

12:55 10" collapse / cobbles hole won't clear
Area paved, set probe @ 6"
Set WM 58 @ 6" 2" foam thru pavement

1305 12" Refusal Set WM59 6" 2" foam @ pavement

1321 12" refusal Set WM60 6" 2" foam, pavement
note class V seems to be caving in, soil very dry

1335 42" Set WM-61 2' foam - in Landscape

1434 16" cave in dry gravel Set WM62 @ 8"
3" foam pavement

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DAILY FIELD NOTES

PROJECT NAME:	**ADEQ- WCP EGA**	PROJECT# 2016031	
LOCATION:	**29th Ave and W Cheery Lynn Rd Area**	PAGE: 3	OF 3
TYPE OF NOTES:	**Field Notes**	DATE:	
SUBJECT:	**Passive Soil Gas Sampler Deploy**	BY:	

14:48 18" cave in; dry gravel
Set WM63 @ 8", 2' foam in pavement

1459 30" cave in dry gravel Set WM64 at 15"

15:12 40" Set WM65 at 24", 2' foam

1528 40" Set WM66 at 24"

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DAILY FIELD NOTES

PROJECT NAME:	**ADEQ- WCP EGA**	PROJECT# 2016031	
LOCATION:	**29th Ave and W Cheery Lynn Rd Area**	PAGE: 1	OF 1
TYPE OF NOTES:	**Field Notes**	DATE: 6/29/17	
SUBJECT:	**Passive Soil Gas Sampler Retrieval**	BY: L. Wills	

0800 LW onsite at WM-45 set up
0830 Collected WM-45
0845 Collected WM-46
0900 Collected WM-47
0911 Collected WM-48
0923 Collected WM-49
0935 Collected WM-51
0949 Collected WM-50
0958 Collected WM-44
1007 Collected WM-43
1018 Collected WM-42
1027 Collected WM-64
1032 WM-65 was disconnected from line. will attempt to retrieve
1050 Unable to retrieve WM-65
1059 Unable to retrieve WM-66, hole caved
1112 Collected WM-63
1123 Collected WM-62
1132 Collected WM-60
1142 Collected WM-59
1154 Collected WM-58
1207 Collected WM-57
1216 Collected WM-56
1226 Collected WM-55
1231 Unable to retrieve WM-54
1243 Collected WM-53
1257 Collected WM-61
1308 Unable to locate WM-52
1320 LW offsite

Attachment 4 – Laboratory Reports

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5/15/2017
Mr. Daniel Sola
Hydro Geo Chem, Inc.
3038 East Cactus Road
Suite 3
Phoenix AZ 85032

Project Name: WCP EGA
Project #: 2016031
Workorder #: 1705036

Dear Mr. Daniel Sola

The following report includes the data for the above referenced project for sample(s) received on 5/2/2017 at Air Toxics Ltd.

The data and associated QC analyzed by Passive S.E. WMS 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: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Rachel Selenis

Project Manager

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WORK ORDER #: 1705036

Work Order Summary

CLIENT:	Mr. Daniel Sola Hydro Geo Chem, Inc. 3038 East Cactus Road Suite 3 Phoenix, AZ 85032	**BILL TO:**	Ms. Tanya Bentley Hydro Geo Chem, Inc. 51 W. Wetmore Road Suite 101 Tucson, AZ 85705-1678
PHONE:	480-421-1501 x 139	**P.O. #**	2016031
FAX:		**PROJECT #**	2016031 WCP EGA
DATE RECEIVED:	05/02/2017	**CONTACT:**	Rachel Selenis
DATE COMPLETED:	05/15/2017		

FRACTION #	NAME	TEST
01A	WM-1	Passive S.E. WMS
02A	WM-2	Passive S.E. WMS
03A	WM-3	Passive S.E. WMS
04A	WM-4	Passive S.E. WMS
05A	WM-5	Passive S.E. WMS
06A	WM-6	Passive S.E. WMS
07A	WM-7	Passive S.E. WMS
08A	WM-8	Passive S.E. WMS
09A	WM-9	Passive S.E. WMS
10A	WM-10	Passive S.E. WMS
11A	WM-11	Passive S.E. WMS
12A	WM-12	Passive S.E. WMS
13A	WM-13	Passive S.E. WMS
14A	WM-14	Passive S.E. WMS
15A	WM-15	Passive S.E. WMS
16A	WM-16	Passive S.E. WMS
17A	WM-17	Passive S.E. WMS
18A	WM-18	Passive S.E. WMS
19A	WM-19	Passive S.E. WMS
20A	WM-20	Passive S.E. WMS
21A	Lab Blank	Passive S.E. WMS
22A	LCS	Passive S.E. WMS
22AA	LCSD	Passive S.E. WMS

CERTIFIED BY: Heidi Hayes DATE: 05/15/17

Technical Director

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
WMS Passive SE by Mod EPA TO-17
Hydro Geo Chem, Inc.
Workorder# 1705036

Twenty WMS-TM samples were received on May 02, 2017. The laboratory analyzed the charcoal sorbent bed of the passive sampler following modified method EPA TO-17. The VOCs were chemically extracted using carbon disulfide and an aliquot of the extract was injected into a GC/MS for identification and quantification of volatile organic compounds (VOCs).

The mass of each target compound adsorbed by the sampler was converted to units of concentration using the sample deployment time and the sampling rate for each VOC. If sampling rates were calculated by the lab or the manufacturer, the concentration result has been flagged as an estimated value. Results are not corrected for desorption efficiency.

Please note that 1,1,2,2-Tetrachloroethane (1,1,2,2-PCA) can degrade into Trichloroethene (TCE) during storage on the charcoal-based sorbent used in the WMS device. Samples containing 1,1,2,2-PCA may yield reduced concentrations of 1,1,2,2-PCA and elevated concentrations of TCE.

The reference method used for this procedure is EPA TO-17, which describes the collection of VOCs in ambient air using sorbents and analysis by GC/MS. Because TO-17 describes active sample collection using a pump and thermal desorption as the preparation step, several modifications are required. Modifications to TO-17 are listed in the table below:

Requirement	***TO-17***	***ATL Modifications***
Sample Collection	Pump pulls measured air volume through sorbent tube	VOCs in air adsorbed onto sorbent bed passively through diffusion

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

To calculate ug/m3 concentrations in the Lab Blank, a sampling duration of 27386 minutes was applied. The assumed temperature used for the uptake rate is listed on the data page. If the field temperatures were provided, the rate was adjusted in the same manner as the field samples.

Per project specification and client communication, the WMS samplers were configured with a membrane 13.5 times thicker than the standard WMS devices resulting in an uptake rate reduced proportionally by a factor of 13.5. The lowered uptake rate factor was accounted for in the final concentration calculation by applying a dilution factor of 13.5 to the measured mass in the data processing software.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicate 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.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
C - Estimated concentration due to calculated sampling rate
CN - See case narrative explanation.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-1

Lab ID#: 1705036-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	70	3.4	89
Tetrachloroethene	0.68	6.3	2.7	25

Client Sample ID: WM-2

Lab ID#: 1705036-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Chloroform	0.68	13	1.1	21
Tetrachloroethene	0.68	6.3	1.4	13

Client Sample ID: WM-3

Lab ID#: 1705036-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	9.5	1.2	17
Tetrachloroethene	0.68	6.3	1.4	14

Client Sample ID: WM-4

Lab ID#: 1705036-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	7.3	190
Chloroform	0.68	13	3.4	65
Trichloroethene	0.68	9.5	40	570
Tetrachloroethene	0.68	6.3	10	96

Client Sample ID: WM-5

Lab ID#: 1705036-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	12	310
Chloroform	0.68	13	3.2	62

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-5

Lab ID#: 1705036-05A

Trichloroethene	0.68	9.5	84	1200
Tetrachloroethene	0.68	6.3	17	160

Client Sample ID: WM-6

Lab ID#: 1705036-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	30	790
Chloroform	0.68	13	1.2	23
Trichloroethene	0.68	9.5	260	3600
Tetrachloroethene	0.68	6.3	58	550

Client Sample ID: WM-7

Lab ID#: 1705036-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	76	2000
Chloroform	0.68	13	3.6	70
Trichloroethene	0.68	9.5	870	12000
Tetrachloroethene	0.68	6.4	140	1400

Client Sample ID: WM-8

Lab ID#: 1705036-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	97	2600
Chloroform	0.68	13	8.9	170
Trichloroethene	0.68	9.6	1200	17000
Tetrachloroethene	0.68	6.4	120	1100

Client Sample ID: WM-9

Lab ID#: 1705036-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-9

Lab ID#: 1705036-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	21	560
cis-1,2-Dichloroethene	0.68	13	0.74	14
Chloroform	0.68	13	3.2	62
Trichloroethene	0.68	9.6	330	4700
Tetrachloroethene	0.68	6.4	17	160

Client Sample ID: WM-10

Lab ID#: 1705036-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	72	200	5200
Chloroform	0.68	13	8.0	160
Trichloroethene	0.68	9.6	2700	39000
Tetrachloroethene	0.68	6.4	160	1500

Client Sample ID: WM-11

Lab ID#: 1705036-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	72	130	3500
Chloroform	0.68	13	10	200
Trichloroethene	0.68	9.6	1600	22000
Tetrachloroethene	0.68	6.4	79	750

Client Sample ID: WM-12

Lab ID#: 1705036-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	49	1400
Chloroform	0.68	14	6.9	140
Trichloroethene	0.68	10	660	9700
Tetrachloroethene	0.68	6.7	29	290

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-13

Lab ID#: 1705036-13A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	110	3000
Chloroform	0.68	14	9.2	180
Trichloroethene	0.68	10	1400	20000
Tetrachloroethene	0.68	6.7	110	1100

Client Sample ID: WM-14

Lab ID#: 1705036-14A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	64	1800
Chloroform	0.68	14	5.3	110
Trichloroethene	0.68	10	800	12000
Tetrachloroethene	0.68	6.7	56	550

Client Sample ID: WM-15

Lab ID#: 1705036-15A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	31	850
Chloroform	0.68	14	3.9	79
Trichloroethene	0.68	10	430	6300
Tetrachloroethene	0.68	6.6	28	270

Client Sample ID: WM-16

Lab ID#: 1705036-16A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	27	740
Chloroform	0.68	14	1.5	30
Trichloroethene	0.68	10	280	4100
Tetrachloroethene	0.68	6.6	26	250

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-17

Lab ID#: 1705036-17A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	9.7	270
Chloroform	0.68	14	0.71	14
Trichloroethene	0.68	10	110	1600
Tetrachloroethene	0.68	6.6	4.7	46

Client Sample ID: WM-18

Lab ID#: 1705036-18A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	16	440
Chloroform	0.68	14	0.86	18
Trichloroethene	0.68	10	160	2300
Tetrachloroethene	0.68	6.6	8.2	81

Client Sample ID: WM-19

Lab ID#: 1705036-19A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	7.6	210
Chloroform	0.68	14	1.0	21
Trichloroethene	0.68	10	100	1500
Tetrachloroethene	0.68	6.6	2.7	26

Client Sample ID: WM-20

Lab ID#: 1705036-20A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	3.3	91
Trichloroethene	0.68	10	49	730
Tetrachloroethene	0.68	6.7	1.2	12

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Client Sample ID: WM-1

Lab ID#: 1705036-01A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050419sim**	**Date of Collection: 5/1/17 1:40:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 03:28 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	70	3.4	89
cis-1,2-Dichloroethene	0.68	13	Not Detected	Not Detected
Chloroform	0.68	13	Not Detected	Not Detected
Trichloroethene	0.68	9.5	Not Detected	Not Detected
Tetrachloroethene	0.68	6.3	2.7	25
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 27386 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130

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Client Sample ID: WM-2

Lab ID#: 1705036-02A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050420sim**	**Date of Collection: 5/1/17 1:36:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 03:53 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	70	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	13	Not Detected	Not Detected
Chloroform	0.68	13	1.1	21
Trichloroethene	0.68	9.5	Not Detected	Not Detected
Tetrachloroethene	0.68	6.3	1.4	13
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 27356 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130

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Client Sample ID: WM-3

Lab ID#: 1705036-03A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050421sim**	**Date of Collection: 5/1/17 1:32:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 04:19 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	70	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	13	Not Detected	Not Detected
Chloroform	0.68	13	Not Detected	Not Detected
Trichloroethene	0.68	9.5	1.2	17
Tetrachloroethene	0.68	6.3	1.4	14
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 27332 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-4

Lab ID#: 1705036-04A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050422sim**	**Date of Collection: 5/1/17 1:28:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 04:44 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	7.3	190
cis-1,2-Dichloroethene	0.68	13	Not Detected	Not Detected
Chloroform	0.68	13	3.4	65
Trichloroethene	0.68	9.5	40	570
Tetrachloroethene	0.68	6.3	10	96
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 27313 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130

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Client Sample ID: WM-5

Lab ID#: 1705036-05A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050423sim**	**Date of Collection: 5/1/17 1:25:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 05:09 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	12	310
cis-1,2-Dichloroethene	0.68	13	Not Detected	Not Detected
Chloroform	0.68	13	3.2	62
Trichloroethene	0.68	9.5	84	1200
Tetrachloroethene	0.68	6.3	17	160
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 27295 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-6

Lab ID#: 1705036-06A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050424sim**	**Date of Collection: 5/1/17 1:21:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 05:34 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	30	790
cis-1,2-Dichloroethene	0.68	13	Not Detected	Not Detected
Chloroform	0.68	13	1.2	23
Trichloroethene	0.68	9.5	260	3600
Tetrachloroethene	0.68	6.3	58	550
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 27270 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130

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Client Sample ID: WM-7

Lab ID#: 1705036-07A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050425sim**	**Date of Collection: 5/1/17 1:16:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 06:00 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	76	2000
cis-1,2-Dichloroethene	0.68	13	Not Detected	Not Detected
Chloroform	0.68	13	3.6	70
Trichloroethene	0.68	9.5	870	12000
Tetrachloroethene	0.68	6.4	140	1400
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 27248 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-8

Lab ID#: 1705036-08A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050426sim**	**Date of Collection: 5/1/17 10:14:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 06:25 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	97	2600
cis-1,2-Dichloroethene	0.68	13	Not Detected	Not Detected
Chloroform	0.68	13	8.9	170
Trichloroethene	0.68	9.6	1200	17000
Tetrachloroethene	0.68	6.4	120	1100
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 27050 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-9

Lab ID#: 1705036-09A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050427sim**	**Date of Collection: 5/1/17 9:20:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 06:49 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	71	21	560
cis-1,2-Dichloroethene	0.68	13	0.74	14
Chloroform	0.68	13	3.2	62
Trichloroethene	0.68	9.6	330	4700
Tetrachloroethene	0.68	6.4	17	160
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 26977 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-10

Lab ID#: 1705036-10A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050428sim**	**Date of Collection: 5/1/17 9:03:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 07:15 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	72	200	5200
cis-1,2-Dichloroethene	0.68	13	Not Detected	Not Detected
Chloroform	0.68	13	8.0	160
Trichloroethene	0.68	9.6	2700	39000
Tetrachloroethene	0.68	6.4	160	1500
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 26941 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-11

Lab ID#: 1705036-11A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050429sim**	**Date of Collection: 5/1/17 9:32:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 07:39 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	72	130	3500
cis-1,2-Dichloroethene	0.68	13	Not Detected	Not Detected
Chloroform	0.68	13	10	200
Trichloroethene	0.68	9.6	1600	22000
Tetrachloroethene	0.68	6.4	79	750
1,3-Dichlorobenzene	0.68	3.4	Not Detected	Not Detected

Temperature = 77.0F , duration time = 26953 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-12

Lab ID#: 1705036-12A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050430sim**	**Date of Collection: 5/1/17 9:42:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 08:04 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	49	1400
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	6.9	140
Trichloroethene	0.68	10	660	9700
Tetrachloroethene	0.68	6.7	29	290
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25966 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-13

Lab ID#: 1705036-13A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050431sim**	**Date of Collection: 5/1/17 9:56:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 08:29 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	110	3000
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	9.2	180
Trichloroethene	0.68	10	1400	20000
Tetrachloroethene	0.68	6.7	110	1100
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25960 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-14

Lab ID#: 1705036-14A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050432sim**	**Date of Collection: 5/1/17 10:05:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 08:54 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	64	1800
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	5.3	110
Trichloroethene	0.68	10	800	12000
Tetrachloroethene	0.68	6.7	56	550
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25944 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-15

Lab ID#: 1705036-15A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050433sim**	**Date of Collection: 5/1/17 12:43:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 09:19 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	31	850
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	3.9	79
Trichloroethene	0.68	10	430	6300
Tetrachloroethene	0.68	6.6	28	270
1,3-Dichlorobenzene	0.68	3.5	Not Detected	Not Detected

Temperature = 77.0F , duration time = 26079 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-16

Lab ID#: 1705036-16A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050434sim**	**Date of Collection: 5/1/17 12:47:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 09:44 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	27	740
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	1.5	30
Trichloroethene	0.68	10	280	4100
Tetrachloroethene	0.68	6.6	26	250
1,3-Dichlorobenzene	0.68	3.5	Not Detected	Not Detected

Temperature = 77.0F , duration time = 26063 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130

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Client Sample ID: WM-17

Lab ID#: 1705036-17A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050435sim**	**Date of Collection: 5/1/17 12:20:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 10:08 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	9.7	270
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	0.71	14
Trichloroethene	0.68	10	110	1600
Tetrachloroethene	0.68	6.6	4.7	46
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 26005 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

eurofins | Air Toxics

Client Sample ID: WM-18

Lab ID#: 1705036-18A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050436sim**	**Date of Collection: 5/1/17 12:23:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 10:33 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	16	440
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	0.86	18
Trichloroethene	0.68	10	160	2300
Tetrachloroethene	0.68	6.6	8.2	81
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 26007 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-19

Lab ID#: 1705036-19A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050437sim**	**Date of Collection: 5/1/17 12:26:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 10:58 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	7.6	210
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	1.0	21
Trichloroethene	0.68	10	100	1500
Tetrachloroethene	0.68	6.6	2.7	26
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25988 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-20

Lab ID#: 1705036-20A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050438sim**	**Date of Collection: 5/1/17 12:29:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/4/17 11:23 PM**
		Date of Extraction: 5/4/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	3.3	91
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	49	730
Tetrachloroethene	0.68	6.7	1.2	12
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25970 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1705036-21A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050418sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/4/17 03:03 PM**	
		Date of Extraction: 5/4/17	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	0.20	5.2	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	0.96	Not Detected	Not Detected
Chloroform	0.050	0.96	Not Detected	Not Detected
Trichloroethene	0.050	0.70	Not Detected	Not Detected
Tetrachloroethene	0.050	0.47	Not Detected	Not Detected
1,3-Dichlorobenzene	0.050	0.25	Not Detected	Not Detected

Temperature = 77.0F , duration time = 27386 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1705036-22A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050416sim**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/4/17 02:12 PM**
		Date of Extraction: 5/4/17

Compound	%Recovery	Method Limits
1,1-Dichloroethene	96	70-130
cis-1,2-Dichloroethene	97	70-130
Chloroform	88	70-130
Trichloroethene	109	70-130
Tetrachloroethene	96	70-130
1,3-Dichlorobenzene	75	60-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130

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Client Sample ID: LCSD

Lab ID#: 1705036-22AA

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050417sim**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/4/17 02:38 PM**
		Date of Extraction: 5/4/17

Compound	%Recovery	Method Limits
1,1-Dichloroethene	98	70-130
cis-1,2-Dichloroethene	97	70-130
Chloroform	86	70-130
Trichloroethene	109	70-130
Tetrachloroethene	96	70-130
1,3-Dichlorobenzene	74	60-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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5/15/2017
Mr. Daniel Sola
Hydro Geo Chem, Inc.
3038 East Cactus Road
Suite 3
Phoenix AZ 85032

Project Name: WCP EGA
Project #: 2016031
Workorder #: 1705040

Dear Mr. Daniel Sola

The following report includes the data for the above referenced project for sample(s) received on 5/2/2017 at Air Toxics Ltd.

The data and associated QC analyzed by Passive S.E. WMS 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: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Rachel Selenis

Project Manager

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WORK ORDER #: 1705040

Work Order Summary

CLIENT:	Mr. Daniel Sola Hydro Geo Chem, Inc. 3038 East Cactus Road Suite 3 Phoenix, AZ 85032	**BILL TO:**	Ms. Tanya Bentley Hydro Geo Chem, Inc. 51 W. Wetmore Road Suite 101 Tucson, AZ 85705-1678
PHONE:	480-421-1501 x 139	**P.O. #**	2016031
FAX:		**PROJECT #**	2016031 WCP EGA
DATE RECEIVED:	05/02/2017	**CONTACT:**	Rachel Selenis
DATE COMPLETED:	05/15/2017		

FRACTION #	NAME	TEST
01A	WM-21	Passive S.E. WMS
02A	WM-22	Passive S.E. WMS
03A	WM-23	Passive S.E. WMS
04A	WM-24	Passive S.E. WMS
05A	WM-25	Passive S.E. WMS
06A	WM-26	Passive S.E. WMS
07A	WM-27	Passive S.E. WMS
08A	WM-28	Passive S.E. WMS
09A	WM-29	Passive S.E. WMS
10A	WM-30	Passive S.E. WMS
11A	WM-31	Passive S.E. WMS
12A	WM-32	Passive S.E. WMS
13A	WM-33	Passive S.E. WMS
14A	WM-34	Passive S.E. WMS
15A	WM-35	Passive S.E. WMS
16A	WM-36	Passive S.E. WMS
17A	WM-37	Passive S.E. WMS
18A	WM-38	Passive S.E. WMS
19A	WM-39	Passive S.E. WMS
20A	WM-40	Passive S.E. WMS
21A	WM-41	Passive S.E. WMS
22A	Lab Blank	Passive S.E. WMS
22B	Lab Blank	Passive S.E. WMS

Continued on next page

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WORK ORDER #: 1705040

Work Order Summary

CLIENT:	Mr. Daniel Sola Hydro Geo Chem, Inc. 3038 East Cactus Road Suite 3 Phoenix, AZ 85032	**BILL TO:**	Ms. Tanya Bentley Hydro Geo Chem, Inc. 51 W. Wetmore Road Suite 101 Tucson, AZ 85705-1678
PHONE:	480-421-1501 x 139	**P.O. #**	2016031
FAX:		**PROJECT #**	2016031 WCP EGA
DATE RECEIVED:	05/02/2017	**CONTACT:**	Rachel Selenis
DATE COMPLETED:	05/15/2017		

FRACTION #	NAME	TEST
23A	LCS	Passive S.E. WMS
23AA	LCSD	Passive S.E. WMS
23B	LCS	Passive S.E. WMS
23BB	LCSD	Passive S.E. WMS

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 05/15/17

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

LABORATORY NARRATIVE
WMS Passive SE by Mod EPA TO-17
Hydro Geo Chem, Inc.
Workorder# 1705040

Twenty-one WMS-TM samples were received on May 02, 2017. The laboratory analyzed the charcoal sorbent bed of the passive sampler following modified method EPA TO-17. The VOCs were chemically extracted using carbon disulfide and an aliquot of the extract was injected into a GC/MS for identification and quantification of volatile organic compounds (VOCs).

The mass of each target compound adsorbed by the sampler was converted to units of concentration using the sample deployment time and the sampling rate for each VOC. If sampling rates were calculated by the lab or the manufacturer, the concentration result has been flagged as an estimated value. Results are not corrected for desorption efficiency.

Please note that 1,1,2,2-Tetrachloroethane (1,1,2,2-PCA) can degrade into Trichloroethene (TCE) during storage on the charcoal-based sorbent used in the WMS device. Samples containing 1,1,2,2-PCA may yield reduced concentrations of 1,1,2,2-PCA and elevated concentrations of TCE.

The reference method used for this procedure is EPA TO-17, which describes the collection of VOCs in ambient air using sorbents and analysis by GC/MS. Because TO-17 describes active sample collection using a pump and thermal desorption as the preparation step, several modifications are required. Modifications to TO-17 are listed in the table below:

Requirement	***TO-17***	***ATL Modifications***
Sample Collection	Pump pulls measured air volume through sorbent tube	VOCs in air adsorbed onto sorbent bed passively through diffusion

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

To calculate ug/m3 concentrations in the Lab Blank, a sampling duration of 25882 minutes was applied. The assumed temperature used for the uptake rate is listed on the data page. If the field temperatures were provided, the rate was adjusted in the same manner as the field samples.

Per project specification and client communication, the WMS samplers were configured with a membrane 13.5 times thicker than the standard WMS devices resulting in an uptake rate reduced proportionally by a factor of 13.5. The lowered uptake rate factor was accounted for in the final concentration calculation by applying a dilution factor of 13.5 to the measured mass in the data processing software.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicate 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.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
C - Estimated concentration due to calculated sampling rate
CN - See case narrative explanation.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-21

Lab ID#: 1705040-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	10	24	360
Tetrachloroethene	0.68	6.7	0.84	8.3

Client Sample ID: WM-22

Lab ID#: 1705040-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	6.7	190
Chloroform	0.68	14	0.88	18
Trichloroethene	0.68	10	110	1600
Tetrachloroethene	0.68	6.7	3.8	38

Client Sample ID: WM-23

Lab ID#: 1705040-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	6.9	190
Chloroform	0.68	14	0.89	18
Trichloroethene	0.68	10	120	1800
Tetrachloroethene	0.68	6.7	4.3	43

Client Sample ID: WM-24

Lab ID#: 1705040-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	75	4.7	130
Trichloroethene	0.68	10	58	870
Tetrachloroethene	0.68	6.7	2.4	24

Client Sample ID: WM-25

Lab ID#: 1705040-05A

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-25

Lab ID#: 1705040-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	75	28	760
Chloroform	0.68	14	1.0	22
Trichloroethene	0.68	10	160	2400
Tetrachloroethene	0.68	6.7	17	170

Client Sample ID: WM-26

Lab ID#: 1705040-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	75	24	680
Chloroform	0.68	14	1.1	23
Trichloroethene	0.68	10	150	2200
Tetrachloroethene	0.68	6.7	16	160

Client Sample ID: WM-27

Lab ID#: 1705040-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.68	6.7	1.6	16

Client Sample ID: WM-28

Lab ID#: 1705040-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.68	6.7	1.2	12

Client Sample ID: WM-29

Lab ID#: 1705040-09A

No Detections Were Found.

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-30

Lab ID#: 1705040-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.68	7.0	10	100

Client Sample ID: WM-31

Lab ID#: 1705040-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	4.6	130
Trichloroethene	0.68	10	50	780
Tetrachloroethene	0.68	7.0	16	160

Client Sample ID: WM-32

Lab ID#: 1705040-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	10	3.3	51
Tetrachloroethene	0.68	7.0	27	280

Client Sample ID: WM-33

Lab ID#: 1705040-13A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.68	7.0	1.9	20

Client Sample ID: WM-34

Lab ID#: 1705040-14A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	10	4.6	71
Tetrachloroethene	0.68	7.0	3.4	35

Client Sample ID: WM-35

Lab ID#: 1705040-15A

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-35

Lab ID#: 1705040-15A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.68	7.0	2.1	22

Client Sample ID: WM-36

Lab ID#: 1705040-16A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.68	7.0	2.2	23

Client Sample ID: WM-37

Lab ID#: 1705040-17A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.68	7.0	1.9	20

Client Sample ID: WM-38

Lab ID#: 1705040-18A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.68	7.0	2.2	22

Client Sample ID: WM-39

Lab ID#: 1705040-19A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	3.7	110
Trichloroethene	0.68	10	26	400
Tetrachloroethene	0.68	7.0	3.1	33

Client Sample ID: WM-40

Lab ID#: 1705040-20A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-40

Lab ID#: 1705040-20A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	79	3.9	110
Trichloroethene	0.68	10	46	720
Tetrachloroethene	0.68	7.0	2.3	24

Client Sample ID: WM-41

Lab ID#: 1705040-21A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	10	26	400
Tetrachloroethene	0.68	7.1	0.85	8.9

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Client Sample ID: WM-21

Lab ID#: 1705040-01A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051111sim**	**Date of Collection: 5/1/17 12:33:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 01:33 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	24	360
Tetrachloroethene	0.68	6.7	0.84	8.3
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25882 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

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Client Sample ID: WM-22

Lab ID#: 1705040-02A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051112sim**	**Date of Collection: 5/1/17 1:01:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 01:59 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	6.7	190
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	0.88	18
Trichloroethene	0.68	10	110	1600
Tetrachloroethene	0.68	6.7	3.8	38
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25874 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-23

Lab ID#: 1705040-03A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051113sim**	**Date of Collection: 5/1/17 1:04:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 02:24 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	74	6.9	190
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	0.89	18
Trichloroethene	0.68	10	120	1800
Tetrachloroethene	0.68	6.7	4.3	43
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25875 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-24

Lab ID#: 1705040-04A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051114sim**	**Date of Collection: 5/1/17 1:08:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 02:49 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	75	4.7	130
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	58	870
Tetrachloroethene	0.68	6.7	2.4	24
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25852 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-25

Lab ID#: 1705040-05A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051115sim**	**Date of Collection: 5/1/17 12:52:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 03:15 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	75	28	760
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	1.0	22
Trichloroethene	0.68	10	160	2400
Tetrachloroethene	0.68	6.7	17	170
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25804 minutes.
Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-26

Lab ID#: 1705040-06A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051116sim**	**Date of Collection: 5/1/17 12:54:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 03:40 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	75	24	680
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	1.1	23
Trichloroethene	0.68	10	150	2200
Tetrachloroethene	0.68	6.7	16	160
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25803 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-27

Lab ID#: 1705040-07A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051117sim**	**Date of Collection: 5/1/17 11:36:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 04:05 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	75	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	Not Detected	Not Detected
Tetrachloroethene	0.68	6.7	1.6	16
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25703 minutes.
Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-28

Lab ID#: 1705040-08A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051118sim**	**Date of Collection: 5/1/17 11:42:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 04:30 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	75	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	Not Detected	Not Detected
Tetrachloroethene	0.68	6.7	1.2	12
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25692 minutes.
Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-29

Lab ID#: 1705040-09A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051119sim**	**Date of Collection: 5/1/17 11:52:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 04:56 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	75	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	Not Detected	Not Detected
Tetrachloroethene	0.68	6.7	Not Detected	Not Detected
1,3-Dichlorobenzene	0.68	3.6	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25687 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-30

Lab ID#: 1705040-10A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051120sim**	**Date of Collection: 5/1/17 10:29:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 05:21 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	Not Detected	Not Detected
Tetrachloroethene	0.68	7.0	10	100
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24641 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

eurofins | Air Toxics

Client Sample ID: WM-31

Lab ID#: 1705040-11A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051121sim**	**Date of Collection: 5/1/17 10:42:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 05:46 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	4.6	130
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	50	780
Tetrachloroethene	0.68	7.0	16	160
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24632 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-32

Lab ID#: 1705040-12A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051122sim**	**Date of Collection: 5/1/17 10:46:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 06:11 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	3.3	51
Tetrachloroethene	0.68	7.0	27	280
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24612 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-33

Lab ID#: 1705040-13A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051123sim**	**Date of Collection: 5/1/17 10:55:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 06:36 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	Not Detected	Not Detected
Tetrachloroethene	0.68	7.0	1.9	20
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24605 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-34

Lab ID#: 1705040-14A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051124sim**	**Date of Collection: 5/1/17 11:04:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 07:01 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	4.6	71
Tetrachloroethene	0.68	7.0	3.4	35
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24590 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-35

Lab ID#: 1705040-15A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051125sim**	**Date of Collection: 5/1/17 11:11:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/11/17 07:26 PM**
		Date of Extraction: 5/11/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	Not Detected	Not Detected
Tetrachloroethene	0.68	7.0	2.1	22
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24578 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-36

Lab ID#: 1705040-16A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050328sim**	**Date of Collection: 5/1/17 11:16:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/3/17 07:19 PM**
		Date of Extraction: 5/3/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	Not Detected	Not Detected
Tetrachloroethene	0.68	7.0	2.2	23
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24559 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-37

Lab ID#: 1705040-17A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050329sim**	**Date of Collection: 5/1/17 11:18:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/3/17 07:44 PM**
		Date of Extraction: 5/3/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	Not Detected	Not Detected
Tetrachloroethene	0.68	7.0	1.9	20
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24557 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130

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Client Sample ID: WM-38

Lab ID#: 1705040-18A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050330sim**	**Date of Collection: 5/1/17 11:25:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/3/17 08:10 PM**
		Date of Extraction: 5/3/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	Not Detected	Not Detected
Tetrachloroethene	0.68	7.0	2.2	22
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24540 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130

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Client Sample ID: WM-39

Lab ID#: 1705040-19A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050331sim**	**Date of Collection: 5/1/17 12:00:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/3/17 08:35 PM**
		Date of Extraction: 5/3/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	78	3.7	110
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	26	400
Tetrachloroethene	0.68	7.0	3.1	33
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24546 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-40

Lab ID#: 1705040-20A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050332sim**	**Date of Collection: 5/1/17 12:06:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/3/17 08:59 PM**
		Date of Extraction: 5/3/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	79	3.9	110
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	46	720
Tetrachloroethene	0.68	7.0	2.3	24
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24528 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-41

Lab ID#: 1705040-21A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050333sim**	**Date of Collection: 5/1/17 12:13:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 5/3/17 09:24 PM**
		Date of Extraction: 5/3/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	79	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	14	Not Detected	Not Detected
Chloroform	0.68	14	Not Detected	Not Detected
Trichloroethene	0.68	10	26	400
Tetrachloroethene	0.68	7.1	0.85	8.9
1,3-Dichlorobenzene	0.68	3.8	Not Detected	Not Detected

Temperature = 77.0F , duration time = 24512 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1705040-22A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050320sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/3/17 03:58 PM**	
		Date of Extraction: 5/3/17	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	0.20	5.5	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.0	Not Detected	Not Detected
Chloroform	0.050	1.0	Not Detected	Not Detected
Trichloroethene	0.050	0.74	Not Detected	Not Detected
Tetrachloroethene	0.050	0.50	Not Detected	Not Detected
1,3-Dichlorobenzene	0.050	0.26	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25882 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	0-130

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Client Sample ID: Lab Blank

Lab ID#: 1705040-22B

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051105sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/11/17 11:00 AM**	
		Date of Extraction: 5/11/17	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	0.20	5.5	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.0	Not Detected	Not Detected
Chloroform	0.050	1.0	Not Detected	Not Detected
Trichloroethene	0.050	0.74	Not Detected	Not Detected
Tetrachloroethene	0.050	0.50	Not Detected	Not Detected
1,3-Dichlorobenzene	0.050	0.26	Not Detected	Not Detected

Temperature = 77.0F , duration time = 25882 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: LCS

Lab ID#: 1705040-23A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050318sim**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/3/17 03:08 PM**
		Date of Extraction: 5/3/17

Compound	%Recovery	Method Limits
1,1-Dichloroethene	88	70-130
cis-1,2-Dichloroethene	89	70-130
Chloroform	94	70-130
Trichloroethene	105	70-130
Tetrachloroethene	97	70-130
1,3-Dichlorobenzene	78	60-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: LCSD

Lab ID#: 1705040-23AA

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c050319sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/3/17 03:33 PM**	
		Date of Extraction: 5/3/17	

Compound	**%Recovery**	**Method Limits**
1,1-Dichloroethene	97	70-130
cis-1,2-Dichloroethene	98	70-130
Chloroform	91	70-130
Trichloroethene	107	70-130
Tetrachloroethene	96	70-130
1,3-Dichlorobenzene	79	60-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	105	70-130

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Client Sample ID: LCS

Lab ID#: 1705040-23B

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051103sim**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/11/17 10:10 AM**
		Date of Extraction: 5/11/17

Compound	%Recovery	Method Limits
1,1-Dichloroethene	92	70-130
cis-1,2-Dichloroethene	94	70-130
Chloroform	94	70-130
Trichloroethene	109	70-130
Tetrachloroethene	97	70-130
1,3-Dichlorobenzene	77	60-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

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Client Sample ID: LCSD

Lab ID#: 1705040-23BB

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**10051104sim**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/11/17 10:35 AM**
		Date of Extraction: 5/11/17

Compound	%Recovery	Method Limits
1,1-Dichloroethene	99	70-130
cis-1,2-Dichloroethene	99	70-130
Chloroform	101	70-130
Trichloroethene	108	70-130
Tetrachloroethene	96	70-130
1,3-Dichlorobenzene	77	60-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

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7/13/2017
Mr. Daniel Sola
Hydro Geo Chem, Inc.
3038 East Cactus Road
Suite 3
Phoenix AZ 85032

Project Name: WCP EGA
Project #: 2016031
Workorder #: 1706580

Dear Mr. Daniel Sola

The following report includes the data for the above referenced project for sample(s) received on 6/30/2017 at Air Toxics Ltd.

The data and associated QC analyzed by Passive S.E. WMS 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: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Rachel Selenis

Project Manager

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WORK ORDER #: 1706580

Work Order Summary

CLIENT:	Mr. Daniel Sola Hydro Geo Chem, Inc. 3038 East Cactus Road Suite 3 Phoenix, AZ 85032	**BILL TO:**	Ms. Tanya Bentley Hydro Geo Chem, Inc. 51 W. Wetmore Road Suite 101 Tucson, AZ 85705-1678
PHONE:	480-421-1501 x 139	**P.O. #**	2016031
FAX:		**PROJECT #**	2016031 WCP EGA
DATE RECEIVED:	06/30/2017	**CONTACT:**	Rachel Selenis
DATE COMPLETED:	07/13/2017		

FRACTION #	NAME	TEST
01A	WM-42	Passive S.E. WMS
02A	WM-43	Passive S.E. WMS
03A	WM-44	Passive S.E. WMS
04A	WM-45	Passive S.E. WMS
05A	WM-46	Passive S.E. WMS
06A	WM-47	Passive S.E. WMS
07A	WM-48	Passive S.E. WMS
08A	WM-49	Passive S.E. WMS
09A	WM-50	Passive S.E. WMS
10A	WM-51	Passive S.E. WMS
11A	WM-53	Passive S.E. WMS
12A	WM-55	Passive S.E. WMS
13A	WM-56	Passive S.E. WMS
14A	WM-57	Passive S.E. WMS
15A	WM-58	Passive S.E. WMS
16A	WM-59	Passive S.E. WMS
17A	WM-60	Passive S.E. WMS
18A	WM-61	Passive S.E. WMS
19A	WM-62	Passive S.E. WMS
20A	WM-63	Passive S.E. WMS
21A	WM-64	Passive S.E. WMS
22A	Lab Blank	Passive S.E. WMS
22B	Lab Blank	Passive S.E. WMS

Continued on next page

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WORK ORDER #: 1706580

Work Order Summary

CLIENT:	Mr. Daniel Sola Hydro Geo Chem, Inc. 3038 East Cactus Road Suite 3 Phoenix, AZ 85032	**BILL TO:**	Ms. Tanya Bentley Hydro Geo Chem, Inc. 51 W. Wetmore Road Suite 101 Tucson, AZ 85705-1678
PHONE:	480-421-1501 x 139	**P.O. #**	2016031
FAX:		**PROJECT #**	2016031 WCP EGA
DATE RECEIVED:	06/30/2017	**CONTACT:**	Rachel Selenis
DATE COMPLETED:	07/13/2017		

FRACTION #	NAME	TEST
23A	LCS	Passive S.E. WMS
23AA	LCSD	Passive S.E. WMS
23B	LCS	Passive S.E. WMS
23BB	LCSD	Passive S.E. WMS

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 07/13/17

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

LABORATORY NARRATIVE
WMS Passive SE by Mod EPA TO-17
Hydro Geo Chem, Inc.
Workorder# 1706580

Twenty-one WMS-TM samples were received on June 30, 2017. The laboratory analyzed the charcoal sorbent bed of the passive sampler following modified method EPA TO-17. The VOCs were chemically extracted using carbon disulfide and an aliquot of the extract was injected into a GC/MS for identification and quantification of volatile organic compounds (VOCs).

The mass of each target compound adsorbed by the sampler was converted to units of concentration using the sample deployment time and the sampling rate for each VOC. If sampling rates were calculated by the lab or the manufacturer, the concentration result has been flagged as an estimated value. Results are not corrected for desorption efficiency.

Please note that 1,1,2,2-Tetrachloroethane (1,1,2,2-PCA) can degrade into Trichloroethene (TCE) during storage on the charcoal-based sorbent used in the WMS device. Samples containing 1,1,2,2-PCA may yield reduced concentrations of 1,1,2,2-PCA and elevated concentrations of TCE.

The reference method used for this procedure is EPA TO-17, which describes the collection of VOCs in ambient air using sorbents and analysis by GC/MS. Because TO-17 describes active sample collection using a pump and thermal desorption as the preparation step, several modifications are required. Modifications to TO-17 are listed in the table below:

Requirement	***TO-17***	***ATL Modifications***
Sample Collection	Pump pulls measured air volume through sorbent tube	VOCs in air adsorbed onto sorbent bed passively through diffusion

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

To calculate ug/m3 concentrations in the Lab Blank, a sampling duration of 23174 minutes was applied. The assumed temperature used for the uptake rate is listed on the data page. If the field temperatures were provided, the rate was adjusted in the same manner as the field samples.

Per project specification and client communication, the WMS samplers were configured with a membrane 13.5 times thicker than the standard WMS devices resulting in an uptake rate reduced proportionally by a factor of 13.5. The lowered uptake rate factor was accounted for in the final concentration calculation by applying a dilution factor of 13.5 to the measured mass in the data processing software.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicate 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.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
C - Estimated concentration due to calculated sampling rate
CN - See case narrative explanation.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-42

Lab ID#: 1706580-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	130	3900
Chloroform	0.68	15	6.8	160
Trichloroethene	0.68	11	1700	28000
Tetrachloroethene	0.68	7.5	48	530

Client Sample ID: WM-43

Lab ID#: 1706580-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	120	3600
Chloroform	0.68	15	14	330
Trichloroethene	0.68	11	2200	36000
Tetrachloroethene	0.68	7.5	130	1400

Client Sample ID: WM-44

Lab ID#: 1706580-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	86	2600
Chloroform	0.68	15	17	380
Trichloroethene	0.68	11	2200	36000
Tetrachloroethene	0.68	7.5	52	570

Client Sample ID: WM-45

Lab ID#: 1706580-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	11	340
Chloroform	0.68	15	3.9	89
Trichloroethene	0.68	11	260	4300
Tetrachloroethene	0.68	7.5	21	230

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-46

Lab ID#: 1706580-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	45	1400
Chloroform	0.68	15	4.3	98
Trichloroethene	0.68	11	720	12000
Tetrachloroethene	0.68	7.5	83	930

Client Sample ID: WM-47

Lab ID#: 1706580-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	73	2300
Chloroform	0.68	15	5.1	120
Trichloroethene	0.68	11	1300	22000
Tetrachloroethene	0.68	7.5	130	1500

Client Sample ID: WM-48

Lab ID#: 1706580-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	110	3400
Chloroform	0.68	15	6.0	140
Trichloroethene	0.68	11	1600	28000
Tetrachloroethene	0.68	7.5	130	1400

Client Sample ID: WM-49

Lab ID#: 1706580-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	37	1100
Chloroform	0.68	15	2.2	51
Trichloroethene	0.68	11	560	9400
Tetrachloroethene	0.68	7.5	26	290

Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-50

Lab ID#: 1706580-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	190	6000
Chloroform	0.68	15	9.3	210
Trichloroethene	0.68	11	2700	45000
Tetrachloroethene	0.68	7.5	150	1600

Client Sample ID: WM-51

Lab ID#: 1706580-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	86	2700
Chloroform	0.68	15	4.4	100
Trichloroethene	0.68	11	910	15000
Tetrachloroethene	0.68	7.5	37	410

Client Sample ID: WM-53

Lab ID#: 1706580-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	9.2	280
Chloroform	0.68	15	0.74	17
Trichloroethene	0.68	11	91	1500
Tetrachloroethene	0.68	7.5	10	120

Client Sample ID: WM-55

Lab ID#: 1706580-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.68	7.5	5.1	56

Client Sample ID: WM-56

Lab ID#: 1706580-13A

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-56

Lab ID#: 1706580-13A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	11	2.0	33
Tetrachloroethene	0.68	7.5	22	250

Client Sample ID: WM-57

Lab ID#: 1706580-14A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	11	6.1	100
Tetrachloroethene	0.68	7.5	25	280

Client Sample ID: WM-58

Lab ID#: 1706580-15A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.68	7.5	1.8	20

Client Sample ID: WM-59

Lab ID#: 1706580-16A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	11	3.5	59
Tetrachloroethene	0.68	7.5	2.0	23

Client Sample ID: WM-60

Lab ID#: 1706580-17A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	11	4.0	68
Tetrachloroethene	0.68	7.5	1.4	16

Client Sample ID: WM-61

Lab ID#: 1706580-18A

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Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS

Client Sample ID: WM-61

Lab ID#: 1706580-18A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	7.6	240
Chloroform	0.68	15	2.2	51
Trichloroethene	0.68	11	80	1300
Tetrachloroethene	0.68	7.5	5.0	56

Client Sample ID: WM-62

Lab ID#: 1706580-19A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	11	9.6	160
Tetrachloroethene	0.68	7.6	2.1	24

Client Sample ID: WM-63

Lab ID#: 1706580-20A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	11	21	360
Tetrachloroethene	0.68	7.6	1.9	22

Client Sample ID: WM-64

Lab ID#: 1706580-21A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.68	11	5.6	95
Tetrachloroethene	0.68	7.6	1.1	12

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Client Sample ID: WM-42

Lab ID#: 1706580-01A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071217sim**	**Date of Collection: 6/29/17 10:18:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 02:08 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	130	3900
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	6.8	160
Trichloroethene	0.68	11	1700	28000
Tetrachloroethene	0.68	7.5	48	530
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature =77.0F , duration time = 23174 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-43

Lab ID#: 1706580-02A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071218sim**	**Date of Collection: 6/29/17 10:07:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 02:33 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	120	3600
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	14	330
Trichloroethene	0.68	11	2200	36000
Tetrachloroethene	0.68	7.5	130	1400
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23147 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-44

Lab ID#: 1706580-03A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071219sim**	**Date of Collection: 6/29/17 9:58:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 02:59 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	86	2600
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	17	380
Trichloroethene	0.68	11	2200	36000
Tetrachloroethene	0.68	7.5	52	570
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23118 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-45

Lab ID#: 1706580-04A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071220sim**	**Date of Collection: 6/29/17 8:30:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 03:24 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	11	340
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	3.9	89
Trichloroethene	0.68	11	260	4300
Tetrachloroethene	0.68	7.5	21	230
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23011 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-46

Lab ID#: 1706580-05A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071221sim**	**Date of Collection: 6/29/17 8:45:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 03:50 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	45	1400
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	4.3	98
Trichloroethene	0.68	11	720	12000
Tetrachloroethene	0.68	7.5	83	930
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23012 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-47

Lab ID#: 1706580-06A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071222sim**	**Date of Collection: 6/29/17 9:00:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 04:15 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	73	2300
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	5.1	120
Trichloroethene	0.68	11	1300	22000
Tetrachloroethene	0.68	7.5	130	1500
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23015 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-48

Lab ID#: 1706580-07A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071223sim**	**Date of Collection: 6/29/17 9:11:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 04:41 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	110	3400
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	6.0	140
Trichloroethene	0.68	11	1600	28000
Tetrachloroethene	0.68	7.5	130	1400
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23016 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-49

Lab ID#: 1706580-08A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071224sim**	**Date of Collection: 6/29/17 9:23:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 05:07 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	37	1100
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	2.2	51
Trichloroethene	0.68	11	560	9400
Tetrachloroethene	0.68	7.5	26	290
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23013 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-50

Lab ID#: 1706580-09A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071225sim**	**Date of Collection: 6/29/17 9:49:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 05:32 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	190	6000
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	9.3	210
Trichloroethene	0.68	11	2700	45000
Tetrachloroethene	0.68	7.5	150	1600
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23028 minutes.
Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

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Client Sample ID: WM-51

Lab ID#: 1706580-10A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071226sim**	**Date of Collection: 6/29/17 9:35:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 05:58 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	86	2700
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	4.4	100
Trichloroethene	0.68	11	910	15000
Tetrachloroethene	0.68	7.5	37	410
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23000 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

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Client Sample ID: WM-53

Lab ID#: 1706580-11A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071227sim**	**Date of Collection: 6/29/17 12:43:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 06:24 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	9.2	280
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	0.74	17
Trichloroethene	0.68	11	91	1500
Tetrachloroethene	0.68	7.5	10	120
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23163 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130

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Client Sample ID: WM-55

Lab ID#: 1706580-12A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071228sim**	**Date of Collection: 6/29/17 12:26:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 06:50 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	Not Detected	Not Detected
Trichloroethene	0.68	11	Not Detected	Not Detected
Tetrachloroethene	0.68	7.5	5.1	56
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23121 minutes.
Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130

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Client Sample ID: WM-56

Lab ID#: 1706580-13A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071229sim**	**Date of Collection: 6/29/17 12:16:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 07:15 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	Not Detected	Not Detected
Trichloroethene	0.68	11	2.0	33
Tetrachloroethene	0.68	7.5	22	250
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23096 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

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Client Sample ID: WM-57

Lab ID#: 1706580-14A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071230sim**	**Date of Collection: 6/29/17 12:07:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 07:41 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	Not Detected	Not Detected
Trichloroethene	0.68	11	6.1	100
Tetrachloroethene	0.68	7.5	25	280
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23073 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-58

Lab ID#: 1706580-15A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071231sim**	**Date of Collection: 6/29/17 11:54:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 08:07 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	Not Detected	Not Detected
Trichloroethene	0.68	11	Not Detected	Not Detected
Tetrachloroethene	0.68	7.5	1.8	20
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 22979 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-59

Lab ID#: 1706580-16A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071232sim**	**Date of Collection: 6/29/17 11:42:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 08:32 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	Not Detected	Not Detected
Trichloroethene	0.68	11	3.5	59
Tetrachloroethene	0.68	7.5	2.0	23
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 22957 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: WM-60

Lab ID#: 1706580-17A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071233sim**	**Date of Collection: 6/29/17 11:32:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 08:57 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	Not Detected	Not Detected
Trichloroethene	0.68	11	4.0	68
Tetrachloroethene	0.68	7.5	1.4	16
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 22932 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: WM-61

Lab ID#: 1706580-18A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071234sim**	**Date of Collection: 6/29/17 12:57:00 PM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 09:23 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	7.6	240
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	2.2	51
Trichloroethene	0.68	11	80	1300
Tetrachloroethene	0.68	7.5	5.0	56
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23002 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

eurofins | Air Toxics

Client Sample ID: WM-62

Lab ID#: 1706580-19A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071235sim**	**Date of Collection: 6/29/17 11:23:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 09:48 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	16	Not Detected	Not Detected
Chloroform	0.68	16	Not Detected	Not Detected
Trichloroethene	0.68	11	9.6	160
Tetrachloroethene	0.68	7.6	2.1	24
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 22849 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

eurofins | Air Toxics

Client Sample ID: WM-63

Lab ID#: 1706580-20A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071236sim**	**Date of Collection: 6/29/17 11:12:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 10:13 PM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	84	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	16	Not Detected	Not Detected
Chloroform	0.68	16	Not Detected	Not Detected
Trichloroethene	0.68	11	21	360
Tetrachloroethene	0.68	7.6	1.9	22
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 22824 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

eurofins | Air Toxics

Client Sample ID: WM-64

Lab ID#: 1706580-21A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071211sim**	**Date of Collection: 6/29/17 10:27:00 AM**
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 11:45 AM**
		Date of Extraction: 7/12/17

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	85	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	16	Not Detected	Not Detected
Chloroform	0.68	16	Not Detected	Not Detected
Trichloroethene	0.68	11	5.6	95
Tetrachloroethene	0.68	7.6	1.1	12
1,3-Dichlorobenzene	0.68	4.1	Not Detected	Not Detected

Temperature = 77.0F , duration time = 22768 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1706580-22A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071206sima**	**Date of Collection: NA**	
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 09:40 AM**	
		Date of Extraction: 7/12/17	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	Not Detected	Not Detected
Trichloroethene	0.68	11	Not Detected	Not Detected
Tetrachloroethene	0.68	7.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23174 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1706580-22B

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071216sim**	**Date of Collection: NA**	
Dil. Factor:	**13.5**	**Date of Analysis: 7/12/17 01:42 PM**	
		Date of Extraction: 7/12/17	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
1,1-Dichloroethene	2.7	83	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.68	15	Not Detected	Not Detected
Chloroform	0.68	15	Not Detected	Not Detected
Trichloroethene	0.68	11	Not Detected	Not Detected
Tetrachloroethene	0.68	7.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.68	4.0	Not Detected	Not Detected

Temperature = 77.0F , duration time = 23174 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1706580-23A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071204sim**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/12/17 08:50 AM**
		Date of Extraction: 7/12/17

Compound	%Recovery	Method Limits
1,1-Dichloroethene	98	70-130
cis-1,2-Dichloroethene	96	70-130
Chloroform	96	70-130
Trichloroethene	105	70-130
Tetrachloroethene	104	70-130
1,3-Dichlorobenzene	90	60-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1706580-23AA

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071205sim**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/12/17 09:15 AM**
		Date of Extraction: 7/12/17

Compound	**%Recovery**	**Method Limits**
1,1-Dichloroethene	108	70-130
cis-1,2-Dichloroethene	103	70-130
Chloroform	104	70-130
Trichloroethene	103	70-130
Tetrachloroethene	102	70-130
1,3-Dichlorobenzene	89	60-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	105	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1706580-23B

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071214sim**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/12/17 12:51 PM**
		Date of Extraction: 7/12/17

Compound	%Recovery	Method Limits
1,1-Dichloroethene	100	70-130
cis-1,2-Dichloroethene	94	70-130
Chloroform	93	70-130
Trichloroethene	106	70-130
Tetrachloroethene	96	70-130
1,3-Dichlorobenzene	81	60-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1706580-23BB

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	**c071215sim**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/12/17 01:17 PM**
		Date of Extraction: 7/12/17

Compound	%Recovery	Method Limits
1,1-Dichloroethene	112	70-130
cis-1,2-Dichloroethene	102	70-130
Chloroform	99	70-130
Trichloroethene	107	70-130
Tetrachloroethene	94	70-130
1,3-Dichlorobenzene	80	60-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

Attachment 3 – Groundwater Monitoring Well and Groundwater Sampling Investigation Report

HYDRO GEO CHEM, INC.
Environmental Science & Technology

April 6, 2018

Thomas Titus, Project Manager
Arizona Department of Environmental Quality
Remedial Projects Unit
1110 W. Washington St, 4415B-1
Phoenix, AZ 85007

Re: Data Report: Task Order ADEQ14-077537
WCP - East Grand Avenue (EGA) Soil Boring and Monitoring Well Installation

Dear Thomas,

This letter provides the methods and results of the soil boring and monitoring well installation conducted by Hydro Geo Chem, Inc. (HGC) on behalf of the Arizona Department of Environmental Quality (ADEQ) pursuant to the referenced task order. The purpose of the investigation was to characterize a potential source of chlorinated volatile organic compounds (CVOCs) identified through previous soil vapor study and determine the groundwater quality below the impacted soil. Shallow soil gas sampling previously reported under this task order identified CVOCs, in particular trichloroethene (TCE) and tetrachloroethene (PCE), in the soil gas, suggestive of a potential source area. Figure 1 shows the location of monitoring well EGA-2.

Field Work

City of Phoenix Permitting

HGC submitted the civil submittal application, monitoring well in right of way checklist, processing fees and monitoring well plan and obtained a Right-of-Way (ROW) construction permit from the City of Phoenix (COP). Of note, HGC negotiated with the City of Phoenix and it was determined that the City requirement for sealing pavement following construction in the ROW does not apply to a single borehole having a surface area of less than two square feet. Attachment 1 includes the site layout submitted to the City.

Soil Boring EGA-2

Drilling was conducted using 6 1/4” Inside Diameter (I.D.) (10” Outside Diameter [O.D.]) Hollow Stem Auger techniques. The boring log is included in Attachment 1. The soil boring was competed on November 28, 2017. Photoionization readings were collected from split-spoon samples as drilling proceeded. Soil vapor samples were collected using a VAP2 soil vapor sampling device and a 1 liter summa canister (5 minute fill time) as drilling proceeded. Vapor samples were collected at intervals from 40 feet to 140 feet. Table 1 presents the soil vapor sampling results.

Water was encountered at approximately 160 feet. Upon reaching water, a grab sample was collected with a bailer. Grab samples were also collected at 180 feet, and 200 feet to help determine the depth of the screen setting. Results were analyzed on an expedited basis and verbal results received from the lab the next day. There were minor low-level detections of non-chlorinated VOCs. The only CVOC detected was TCE at less than 2 micrograms per liter (ug/L) which is below the Arizona Water Quality Standards (AWQS) of 5 ug/L. ADEQ and HGC discussed the results and decided to set the well screen from 165 to 175 feet.

The lab reports for soil vapor and grab samples are included in Attachment 2. The results of soil vapor sampling are summarized in Table 1 and results of groundwater grab sampling are summarized in Table 2. Note at the time of drilling the boring was called EGA-1. Since then we learned there is an existing EGA-1 and the well name was changed to EGA-2.

Monitor Well Installation

The well was completed from November 30 through December 12, 2017. The well casing and screen are 4” diameter, Schedule 40 PVC. The screen has 0.010-inch slots and is 110 feet long. The screen was sand-packed with a 2-foot bentonite seal. The borehole was grouted to the surface with a Portland cement grout with approximately 4% bentonite. Surface protection is a flush mounted, traffic rated cover, set in concrete. Water was at 148.5 feet below the top of the casing (btoc) upon completion.

The well was developed with swabbing and bailing, at which time approximately 200 gallons of water was removed.

On December 3, 2017 a passive diffusion bag (PDB) sampler was set at 170 feet, the center of the well screen. The PDB was recovered on December 21, 2017 and a water sample submitted to the laboratory for analysis.

Attachment 3 includes the laboratory reports and Chains of Custody (COCs) for groundwater sampling conducted in December 2017 and January 2018. Table 3 presents the sampling results from these two sampling events. Trichloroethene was detected below 2 ug/L, similar to the grab samples collected during drilling.

Conclusions

The elevated soil vapor concentrations of CVOCs extended to the depth of sampling of 140 feet. Trichloroethene, 1,1 dichloroethane, 1,1 dichloroethene, and chloroform were detected above the regional soil vapor screening levels (SVSLs) calculated with an attenuation factor of 0.03.

The groundwater samples were below the AWQS for trichloroethene. The other constituents detected do not have established AWQSs.

Please feel free to contact me at (480) 421-1501 Ext. 139 or via email at dans@hgcinc.com if you have any questions or would like to discuss this data report.

Sincerely,
HYDRO GEO CHEM, INC.

Daniel Sola, R.G.
Project Manager

Attachments:

Table 1 - VOC Concentrations in Soil Vapor Samples

Table 2 - Groundwater Grab Sample Analytical Results

Table 3 - Groundwater Analytical Results

Figure 1 - Monitoring Well Location Plan

Attachment 1 - Site Layout and Lithologic Log and Well Construction Details of WCP EGA-2

Attachment 2 - Analytical Laboratory Reports for Soil Vapor and Groundwater Grab Sampling Analyses

Attachment 3 - Analytical Laboratory Reports for Groundwater Sampling Analyses

TABLES

TABLE 1
VOC Concentrations in Soil Vapor Samples
West Central Phoenix, East Grande Avenue WQARF Site
Phoenix, Arizona

Analyte		1,1-Dichloroethane	1,1-Dichloroethene	Acetone	Chloroform	Hexane	Toluene	Trichloroethene (TCE)	Trichlorofluoromethane (F-11)	Trichlorotrifluoroethane (F-113)	Difluoroethane (TIC)
Sample Description	**Date**	**µg/m^3**									**ppbv**
WCP EGA-1-40	11/27/17	<40.5	**237**	<238	<48.8	<70.4	<37.7	**850**	<56.2	**417**	<200
WCP EGA-1-70	11/27/17	<2,025	**42,100**	<11,900	<2,440	<3,520	<1,885	**68,200**	<2,810	**70,500**	<10,000
WCP EGA-1-100	11/27/17	**2,207**	**51,610**	<5,950	<1,220	<1,760	<943	**70,350**	<1,405	**73,380**	<5,000
WCP EGA-1-110	11/27/17	**1,357**	**34,660**	<5,950	<1,220	<1,760	<943	**42,320**	<1,405	**49,330**	<5,000
WCP EGA-1-111	11/27/17	**1,802**	**43,270**	<5,950	<1,220	<1,760	<943	**55,310**	<1,405	**59,900**	<5,000
WCP EGA-1-130	11/27/17	<40.5	**104**	**1,456**	**83.0**	<70.4	<37.7	**475**	<56.2	**123**	**210**
WCP EGA-1-140	11/27/17	**573**	**17,940**	<238	**196**	**86.6**	<37.7	**24,380**	**124**	**19,300**	<200
A1 (Ambient)	11/27/17	<4.05	<3.97	**64.5**	<4.88	<7.04	**28.2**	<5.37	<5.62	<7.66	NA
RSL - Residential Air		1.8	210	32,000	0.12	730	5,200	0.48	NE	5,200	42,000
RSL - Non-residential Air		7.7	880	140,000	0.53	3,100	22,000	3	NE	22,000	180,000
SVSL - Residential		60	7,000	1,000,000	4	24,000	170,000	16	NE	173,333	NE
SVSL - Non-residential		257	29,333	4,600,000	18	100,000	730,000	100	NE	733,333	NE

Notes:

This table presents an abridged list of EPA Method TO-15 compounds. EPA Method TO-15 compounds not included in this table were below reporting limits in all probes.
µg/m^3 = micrograms per cubic meter
TIC = tentatively identified compound (leak tracer)
RSL = Regional Screening Level, May 2016 (based on target cancer risk of 1e-6 or target hazard quotient of 1)
SVSL = Soil Vapor Screening Level (based on attenuation factor of 0.03) calculated as SVSL = RSL/0.03
*Values in **bold** are concentrations above the reporting limit.*
Shaded values exceed the SVSL for residential exposure
NA = Sample not analyzed for this constituent
NE = Not established

TABLE 2
Groundwater Grab Sample Analytical Results
EGA-2 Well Installation
West Central Phoenix, East Grande Avenue WQARF Site
Phoenix, Arizona

Sample Name and Depth (ft.)	Sample Date	2-Butanone	4-Methyl 2-Pentanone	Acetone	Toluene	TCE
		VOCs by EPA Method 8260B (in ug/L)				
EGA-1-160 (renamed EGA-2)	11/28/2017	<0.300	<0.200	**14.4**	<0.0700	**1.42**
EGA-1-180 (renamed EGA-2)	11/28/2017	<0.300	<0.200	**45.9**	<0.0700	**1.71**
EGA-1-200 (renamed EGA-2)	11/28/2017	**6.11**	**1.20**	**65.3**	**0.820**	**1.79**
Trip Blank	11/28/2017	<0.300	<0.200	**89.7**	<0.0700	<0.200
AWQS		NE	NE	NE	1,000	5

Notes:

AWQS = Aquifer Water Quality Standards (A.A.C. R18-11 Article 4)
This table presents an abridged list of EPA Method 8260B. Compounds not included in this table were below reporting limits for all samples.
Xenco performed laboratory analysis.
Bold values indicate detection above the reporting limit.
NE = Not Established
VOC = Volatile Organic Compound
ug/L = micrograms per Liter
TCE = trichloroethene

TABLE 3
Groundwater Analytical Results
West Central Phoenix, East Grande Avenue WQARF Site
Phoenix, Arizona

Sample Name	Sample Date	1,1-DCE	Acetone	Chloroform	TCE
		VOCs by EPA Method 8260B (in ug/L)			
EGA-2	12/21/2017	<0.200	**30.1**	<0.0700	**1.91**
EGA-2 Duplicate		<0.200	**2.06**	<0.0700	**2.33**
Trip Blank		<0.200	**3.84**	**0.700**	<0.200
EGA-2	1/19/2018	**0.790**	<20.0	**0.190**	**1.78**
AWQS		NE	NE	NE	5

Notes:

AWQS = Aquifer Water Quality Standards (A.A.C. R18-11 Article 4)
This table presents an abridged list of EPA Method 8260B.
Compounds not included in this table were below reporting limits for all samples.
Xenco performed laboratory analysis.
Bold values indicate detection above the reporting limit.
NE = Not Established
VOC = Volatile Organic Compound
ug/L = micrograms per Liter
TCE = trichloroethene; 1,1-DCE = 1,1-dichloroethene

FIGURE

N

0' 75' 150'
APPROXIMATE
SCALE IN FEET

Legend

WCP
EGA-2 Monitoring Well Location and Identification

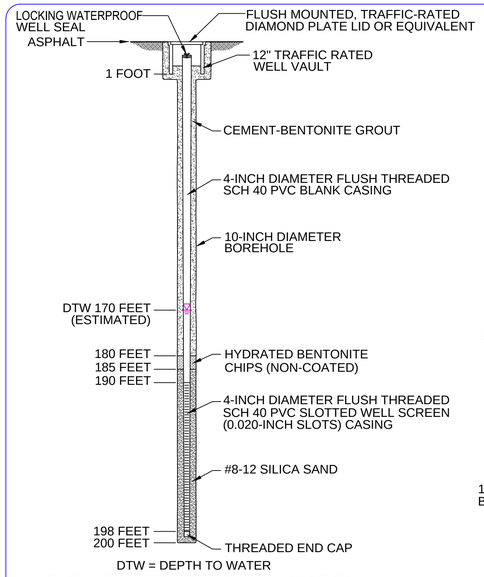
HYDRO GEO CHEM, INC.

MONITORING WELL LOCATION PLAN
WEST CENTRAL PHOENIX
EAST GRANDE AVENUE WQARF SITE

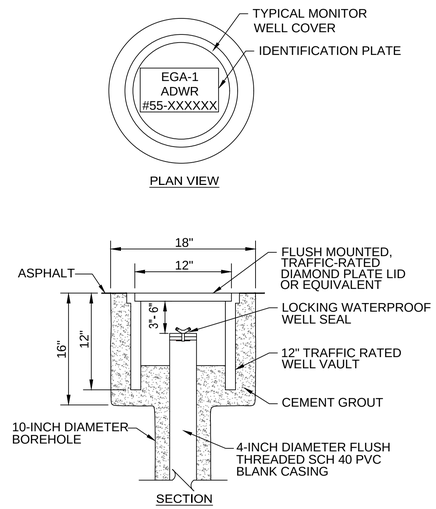
Approved	Date	Author	Date	File Name	Figure
DVS	4/05/18	JAA	4/05/18	2016031014A	1

ATTACHMENT 1

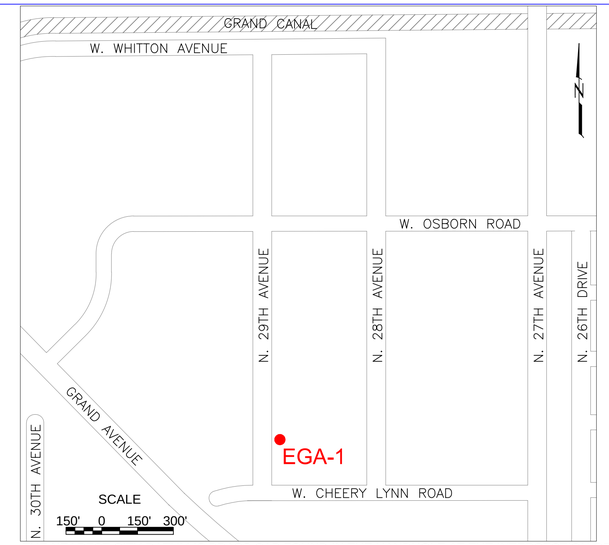
SITE LAYOUT AND LITHOLOGIC LOG AND WELL CONSTRUCTION DETAILS OF WCP EGA-2



GROUNDWATER MONITOR WELL SECTION
EGA-1
SCALE: N.T.S.

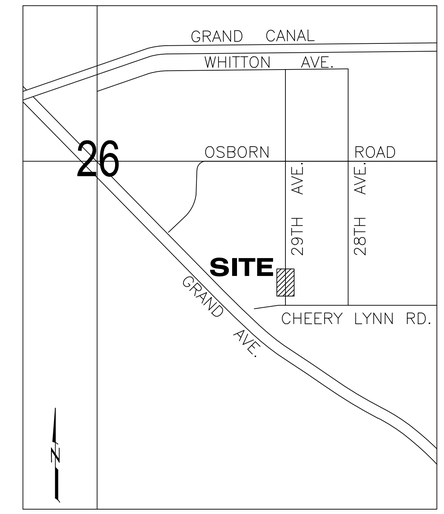


WELL HEAD DETAIL
SCALE: N.T.S.



THE NEAREST CITY DATUM IS BRASS CAP FOUND IN THE HANDHOLE AT THE INTERSECTION OF N. 27th AVENUE AND W. OSBORN ROAD [ELEVATION = 1106.35 FEET ABOVE MEAN SEA LEVEL (CITY OF PHOENIX DATUM '29 N.G.V.D.)

STREET MAP
SCALE: 1" = 300'



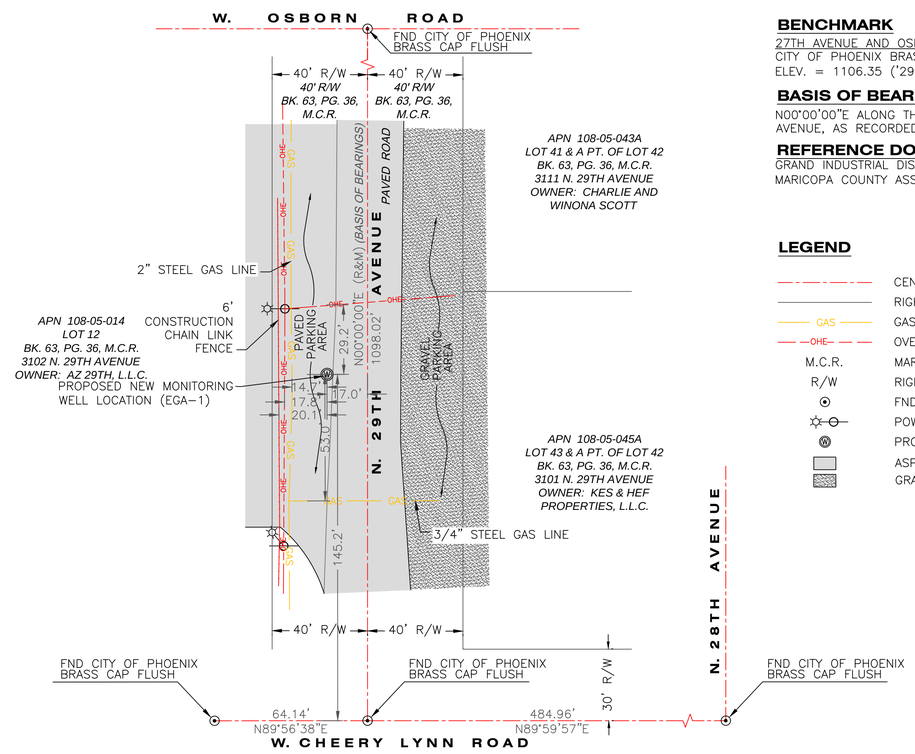
VICINITY MAP
SCALE: NTS

GENERAL NOTES:

1. CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE LATEST APPLICABLE MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS AND THE LATEST CITY OF PHOENIX SUPPLEMENT TO THE M.A.G. UNIFORM STANDARD SPECIFICATIONS AND DETAILS.
2. PAVEMENT REPLACEMENT THICKNESS AND TYPE ARE TO BE PER M.A.G. AND CITY OF PHOENIX SUPPLEMENT SECTION 336 AND CITY OF PHOENIX DETAIL P1200-TYPE B. CURB AND GUTTER REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL SECTION, PER M.A.G. STANDARD DETAIL 220. SIDEWALK REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL PANEL PER CITY OF PHOENIX DETAIL P1230. AT THE DISCRETION OF THE CITY OF PHOENIX PLANNING AND DEVELOPMENT CIVIL/SITE INSPECTOR, TUNNELING UNDER EXISTING CURB AND GUTTER, IN CITY OF PHOENIX R.O.W. WILL BE ALLOWED. TUNNELING UNDER EXISTING SIDEWALK WILL NOT BE ALLOWED IN THE CITY OF PHOENIX R.O.W.
3. THE CITY OF PHOENIX PLANNING AND DEVELOPMENT CIVIL/SITE INSPECTION GROUP, 602-262-7811 VOICE OR 602-534-5500 TTY, SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY CONSTRUCTION WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
4. OBSTRUCTIONS TO PROPOSED IMPROVEMENTS IN THE RIGHT-OF-WAY SHALL BE REMOVED OR RELOCATED BEFORE BEGINNING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
5. THE DEVELOPER OR PERMIT HOLDER SHALL ARRANGE FOR THE RELOCATION AND RELOCATION COSTS OF ALL UTILITIES INCLUDING ANY STREET LIGHTS, WATER METERS, ETC. AND SUBMIT A UTILITY RELOCATION SCHEDULE PRIOR TO THE ISSUANCE OF A CONSTRUCTION PERMIT.
6. EXISTING OR NEWLY DAMAGED AND/OR DISPLACED CONCRETE CURB, GUTTER, SIDEWALK, OR DRIVEWAY SLAB THAT IS WITHIN THE RIGHT-OF-WAY SHALL BE REPAIRED OR REPLACED, AS NOTED BY CITY INSPECTORS, BEFORE FINAL ACCEPTANCE OF THE WORK.
7. TOP OF WELL HEAD SHALL BE FINISHED OFF FLUSH WITH THE GROUND SURFACE. RAISED OR DEPRESSED FINISH GRADE WILL NOT BE APPROVED.
8. ADJACENT PROPERTY OWNERS SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF DRILLING WELL.
9. TRAFFIC CONTROL SHALL BE OPERATED IN ACCORDANCE WITH CITY OF PHOENIX BARRICADE MANUAL, LATEST EDITION.
10. A PAVEMENT CUT SURCHARGE SHALL BE ASSESSED ON THIS PROJECT FOR ANY TRENCHING OR POTHOLING IN NEW ASPHALT PAVEMENT THAT IS LESS THAN 30 MONTHS OLD. SURCHARGE FEES ASSESSED ARE IN ADDITION TO THE REGULAR PERMIT FEES AND ARE OVER AND ABOVE ANY SPECIAL BACKFILL, COMPACTION, AND PAVEMENT REPLACEMENT STIPULATIONS THAT MAY BE IMPOSED AS A CONDITION OF PERMITTING. PAVEMENT CUT SURCHARGE FEES ARE ASSESSED IN ACCORDANCE WITH SECTION 31-38 OF THE PHOENIX CITY CODE.
11. PLAN APPROVAL IS VALID FOR 180 DAYS. PRIOR TO PLAN APPROVAL EXPIRATION, ALL ASSOCIATED PERMITS SHALL BE PURCHASED OR THE PLANS SHALL BE RESUBMITTED FOR EXTENSION OF PLAN APPROVAL. THE EXPIRATION, EXTENSION, AND REINSTATEMENT OF CIVIL ENGINEERING PLANS AND PERMITS SHALL FOLLOW THE SAME GUIDELINES AS THOSE INDICATED IN THE PHOENIX BUILDING CONSTRUCTION CODE ADMINISTRATIVE PROVISIONS SECTION 105.3 FOR BUILDING PERMITS.
12. ENGINEER/CONTRACTOR TO NOTIFY STREET TRANSPORTATION DEPARTMENT SEVEN (7) DAYS IN ADVANCE OF CONSTRUCTION AND SUPPLY BARRICADING PLAN TO BE APPROVED BY STREET TRANSPORTATION DEPARTMENT, TRAFFIC DIVISION, PRIOR TO ANY WORK BEING STARTED.
13. PERFORMANCE BOND IS REQUIRED IN THE AMOUNT OF POTENTIAL REPLACEMENT COST OF EXISTING IMPROVEMENTS.
14. THE ENGINEERING DESIGN ON THE PLANS ARE ONLY APPROVED BY THE CITY OF PHOENIX IN SCOPE AND NOT IN DETAIL. CONSTRUCTION QUANTITIES ON THESE PLANS ARE NOT VERIFIED BY THE CITY. APPROVAL OF THESE PLANS ARE FOR PERMIT PURPOSES ONLY AND SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTION OF ERRORS IN THE PLANS WHERE SUCH ERRORS ARE SUBSEQUENTLY FOUND TO BE IN VIOLATION OF ANY LAW, ORDINANCE, HEALTH, SAFETY OR OTHER DESIGN ISSUES.
15. DISCUSSION OF REDLINE COMMENTS ON PLANS OR IN THIS CHECKLIST SHOULD BE DIRECTED TO THE PLAN REVIEWER.
16. WORK TO BE PERFORMED BY: RESILIENT DRILLING SERVICES, LLC, ADWR LICENSE #855, ROC CATEGORY A-04.

CONSULTANT: HYDRO GEO CHEM, INC.
3038 E. CACTUS ROAD, SUITE 3
PHOENIX, ARIZONA 85032
PHONE: (480) 421-1501, EXT. 139
FAX: (480) 425-8794
CONTACT PERSON: DANIEL V. SOLA, R.G.

CONTRACTING AGENCY: REPORTING TO SELF
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
1110 W. WASHINGTON STREET
PHOENIX, ARIZONA 85007
PHONE: (602) 771-4186
FAX: (602) 771-4272
CONTACT PERSON: KEVIN SNYDER



MONITOR WELL LOCATION MAP *
SCALE: 1" = 30'
* FROM DRAWING TITLED "TOPOGRAPHIC SURVEY OF 29TH AVENUE NORTH OF CHEERY LYNN ROAD, PHOENIX FOR MONITORING WELL EGA-1 LOCATED WITHIN THE SOUTHEAST QUARTER, SECTION 26 T.2N., R.2E. OF THE G.&S.R.B.&M., MARICOPA COUNTY, ARIZONA" BY STARLINK SURVEYING, INC., DATED 10/4/2017

BENCHMARK

27TH AVENUE AND OSBORN ROAD
CITY OF PHOENIX BRASS CAP IN HANDHOLE;
ELEV. = 1106.35 ('29 N.G.V.D., CITY OF PHOENIX DATUM)

BASIS OF BEARINGS

N00°00'00"E ALONG THE MONUMENT LINE OF 29TH AVENUE, AS RECORDED IN BOOK 63, PAGE 36, M.C.R.

REFERENCE DOCUMENTS

GRAND INDUSTRIAL DISTRICT BOOK 63, PAGE 36, M.C.R.
MARICOPA COUNTY ASSESSOR'S MAP NO. 827-26-04-01

LEGEND

- CENTER LINE
- RIGHT OF WAY
- GAS — GAS BLUESTAKE LINE
- OHE — OVERHEAD ELECTRIC LINE
- M.C.R. — MARICOPA COUNTY RECORDER
- R/W — RIGHT-OF-WAY
- FND CITY OF PHOENIX BRASS CAP FLUSH
- POWER POLE WITH LIGHT
- PROPOSED MONITORING WELL
- ASPHALT
- GRAVEL

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 BLUE STAKE, INC.
Call 811 or click Arizona811.com

NO.	REVISION	DATE

HYDRO GEO CHEM, INC.
3038 E. Cactus Road, Suite 3
Phoenix, Arizona 85032
Tel: (480) 421-1501 / Fax: (480) 425-8794
Contact Person: Daniel V. Sola, R.G.

MONITORING WELL IN RIGHT-OF-WAY PLAN

MONITOR WELL EGA-1
PART OF THE SE 1/4, NE 1/4, SW 1/4, SECTION 26, TOWNSHIP 2 NORTH, RANGE 2 EAST, G&S.R.B&M. MARICOPA COUNTY, ARIZONA
N. 29TH AVENUE NORTH OF W. CHEERY LYNN ROAD, PHOENIX

KIVA #	XX-XXXX
CCPR #	XXXXXXX
SDEV #	XXXXXX
REVOCABLE PERMIT #	RP-91011
QUARTER SECTION #	15-22
ADWR #	55-XXXXXX

DATE:	October 10, 2017
DRAWN:	JAA
DESIGNED:	DVS
CHECKED:	DVS
PROJ. NO.:	2016031.10
SCALE:	AS SHOWN
FILE:	2016031013A.dwg
SHEET:	1 OF 1

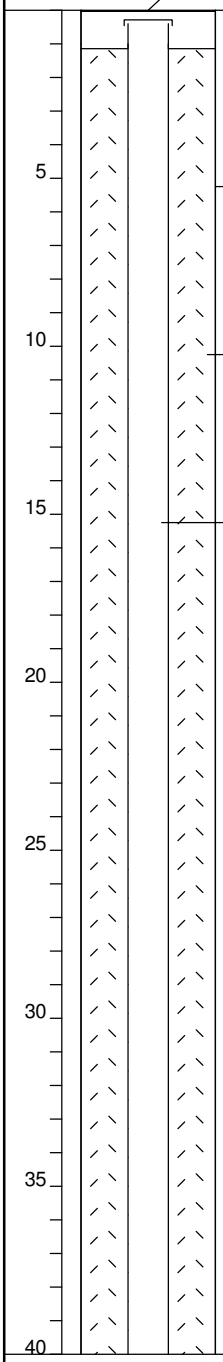
Project: WCP EGA | Boring: WCP EGA-2 | Pg. 1 of 5

Drilling Co: **Yellow Jacket** | Drilling Method: **Hollow Stem Auger** | Date Started: **11/27/17**

Location: 3102 N. 29th Avenue, Phoenix, AZ | Sampler Type: **Split Spoon** | Date Completed: **11/28/17**

Desc. of Meas Pt: -------- | Logged by: **L. Wills**

Land Surf. Elev (ft amsl): 1098 ft amsl | Meas. Pt. Elev: NM | Reviewed by: D. Sola



Depth - FT bgs	Blow Count	% Recovery	PID (ppm)	Samples	Graphic Log	DESCRIPTION	USCS Symbol	ESTIMATED % OF GR	SA	FI	Moisture
						Sandy lean clay, brown, fine to coase sand, low plasticity, medium stiff, dry, no odor					
10	6 10 11		4.4					0	40	60	
20	8 14 50/2		2.5			Well-graded sand with silt, tannish gray, fine to coarse sand, fine to medium gravel, dry, loose, no odor		10	80	10	
30	4 11 16		0.0			Clayey sand, brown, fine to coarse sand, dense, dry, no odor		16	11	4	

HYDRO GEO CHEM, INC.

Lithologic Log and Well Construction Details of WCP EGA-2

Approved	Date	Revised	Date	Reference:	FIG.
D. Sola	4/5/18				**a**

HGC-WELL EGA 2016031.GPJ NEWPROJ.GDT 2/23/18

Project: WCP EGA | Boring: WCP EGA-2 | Pg. 2 of 5

Drilling Co: **Yellow Jacket** | Drilling Method: **Hollow Stem Auger** | Date Started: **11/27/17**

Location: 3102 N. 29th Avenue, Phoenix, AZ | Sampler Type: **Split Spoon** | Date Completed: **11/28/17**

Desc. of Meas Pt: -------- | Logged by: **L. Wills**

Land Surf. Elev (ft amsl): 1098 ft amsl | Meas. Pt. Elev: NM | Reviewed by: D. Sola

Depth - FT bgs	WELL COMPLETION	Blow Count	% Recovery	PID (ppm)	Samples	Depth - FT bgs	Graphic Log	DESCRIPTION	USCS Symbol	ESTIMATED % OF GR	SA	FI	Moisture
								Clayey sand, brown, fine to coarse sand, dense, dry, no odor *(continued)*					
								WCP EGA-1-40 soil vapor sample					
45						45							
50	4" Sch 40 PVC Riser	20 50/3		0.0		50		Clayey sand, brown, medium to coarse sand, cobble chunks, dry, hard, with cementation, no odor		5	75	20	
55						55							
60	Cement Bentonite Grout	6 19 22		0.0		60		Clayey sand, brown, fine to coarse sand, fine to medium gravel, loose to medium dense, low plasticity, dry, no odor		3	60	37	
65						65							
70				12.4		70		WCP EGA-1-70 soil vapor sample					
75						75							
80						80							

HYDRO GEO CHEM, INC.

Lithologic Log and Well Construction Details of WCP EGA-2

Approved	Date	Revised	Date	Reference:	FIG.
D. Sola	4/5/18				b

Project: WCP EGA | Boring: WCP EGA-2 | Pg. 3 of 5

Drilling Co: **Yellow Jacket** | Drilling Method: **Hollow Stem Auger** | Date Started: **11/27/17**

Location: 3102 N. 29th Avenue, Phoenix, AZ | Sampler Type: **Split Spoon** | Date Completed: **11/28/17**

Desc. of Meas Pt: -------- | Logged by: **L. Wills**

Land Surf. Elev (ft amsl): 1098 ft amsl | Meas. Pt. Elev: NM | Reviewed by: D. Sola

Depth - FT bgs	WELL COMPLETION	Blow Count	% Recovery	PID (ppm)	Samples	Depth - FT bgs	Graphic Log	DESCRIPTION	USCS Symbol	ESTIMATED % OF GR	SA	FI	Moisture
		7 21 30		0.3				Clayey sand, brown, fine to coarse sand, fine to medium gravel, loose to medium dense, low plasticity, dry, no odor *(continued)*		3	60	37	
85						85							
90		21 50/5		0.0		90		Well-graded sand, brown, medium to coarse sand, fine gravel, loose, no odor		10	85	5	
95						95							
100	Cement Bentonite Grout			14.0		100		WCP EGA-1-100 soil vapor sample					
105						105							
110				12.6		110		WCP EGA-1-110 soil vapor sample					
115	4" Sch 40 PVC Riser					115							
120						120							

HYDRO GEO CHEM, INC.

Lithologic Log and Well Construction Details of WCP EGA-2

Approved	Date	Revised	Date	Reference:	FIG.
D. Sola	4/5/18				**C**

HGC-WELL EGA 2016031.GPJ NEWPROJ.GDT 2/23/18

Project: WCP EGA | Boring: WCP EGA-2 | Pg. 4 of 5

Drilling Co: **Yellow Jacket** | Drilling Method: **Hollow Stem Auger** | Date Started: **11/27/17**

Location: 3102 N. 29th Avenue, Phoenix, AZ | Sampler Type: **Split Spoon** | Date Completed: **11/28/17**

Desc. of Meas Pt: -------- | Logged by: **L. Wills**

Land Surf. Elev (ft amsl): 1098 ft amsl | Meas. Pt. Elev: NM | Reviewed by: D. Sola

Depth - FT bgs	WELL COMPLETION	Blow Count	% Recovery	PID (ppm)	Samples	Depth - FT bgs	Graphic Log	DESCRIPTION	USCS Symbol	ESTIMATED % OF GR	SA	FI	Moisture
		17 50/5		0.2				Clayey sand, brown, fine to medium sand, fine to medium gravel, dense, low plasticity, no odor		5	55	40	
125						125							
130						130		WCP EGA-1-130 soil vapor sample					
135						135							
140						140		WCP EGA-1-140 soil vapor sample					
145	Cement Bentonite Grout					145							
150		12 27 31		0		150		Sandy lean clay, brown, fine sand, stiff, medium plasticity, moist- saturated, no odor		0	25	75	
155	4" Sch 40 PVC Riser					155							
160						160							

HYDRO GEO CHEM, INC.

Lithologic Log and Well Construction Details of WCP EGA-2

Approved	Date	Revised	Date	Reference:	FIG.
D. Sola	4/5/18				**d**

Project: WCP EGA | Boring: WCP EGA-2 | Pg. 5 of 5

Drilling Co: **Yellow Jacket** | Drilling Method: **Hollow Stem Auger** | Date Started: **11/27/17**

Location: 3102 N. 29th Avenue, Phoenix, AZ | Sampler Type: **Split Spoon** | Date Completed: **11/28/17**

Desc. of Meas Pt: -------- | Logged by: **L. Wills**

Land Surf. Elev (ft amsl): 1098 ft amsl | Meas. Pt. Elev: NM | Reviewed by: D. Sola

Depth - FT bgs	WELL COMPLETION	Blow Count	% Recovery	PID (ppm)	Samples	Depth - FT bgs	Graphic Log	DESCRIPTION	USCS Symbol	ESTIMATED % OF GR	SA	FI	Moisture
	3/8" Bentonite Chips	30 50/5			X			2" lense of clayey sand with gravel EGA-1-160 bailed water sample		0	25	75	
165						165							
	10-20 Silica Sand												
170	4" Sch 40 PVC Riser Slot 0.020					170							
175						175							
180					X	180		EGA-1-180 bailed water sample					
185						185							
190	Borehole Backfill - Bentonite Chips					190							
195						195							
200					X	200		EGA-1-200 bailed water sample Total Depth 200 feet					

HYDRO GEO CHEM, INC.

Lithologic Log and Well Construction Details of WCP EGA-2

Approved	Date	Revised	Date	Reference:	FIG.
D. Sola	4/5/18				**e**

HGC-WELL EGA 2016031.GPJ NEWPROJ.GDT 2/23/18

ATTACHMENT 2

ANALYTICAL LABORATORY REPORTS FOR SOIL VAPOR AND GROUNDWATER GRAB SAMPLING ANALYSES

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: December 6, 2017

Client:	Dan Sola	Work Order #:	17K026
Company:	Hydro Geo Chem	Project Name:	WCP EGA
Address:	3038 E Cactus, Ste 3	Project Number:	2016031.1
	Phoenix, AZ 85032	Received Date:	11/28/2017

Dear Client:

Airtech Environmental Laboratories received eight (8) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: December 6, 2017

Client:	Dan Sola	Work Order #:	17K026
Company:	Hydro Geo Chem	Project Name:	WCP EGA
Address:	3038 E Cactus, Ste 3	Project Number:	2016031.1
	Phoenix, AZ 85032	Received Date:	11/28/2017

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
17K026-01	WCP EGA-1-40	TO-15	11/27/2017	1239
17K026-02	WCP EGA-1-70	TO-15	11/27/2017	1415
17K026-03	WCP EGA-1-100	TO-15	11/27/2017	1538
17K026-04	WCP EGA-1-110	TO-15	11/27/2017	1618
17K026-05	WCP EGA-1-111	TO-15	11/27/2017	1630
17K026-06	A1	TO-15	11/27/2017	1625
17K026-07	WCP EGA-1-130	TO-15	11/28/2017	0737
17K026-08	WCP EGA-1-140	TO-15	11/28/2017	0820

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: December 6, 2017

Client:	Dan Sola	Work Order #:	17K026
Company:	Hydro Geo Chem	Project Name:	WCP EGA
Address:	3038 E Cactus, Ste 3	Project Number:	2016031.1
	Phoenix, AZ 85032	Received Date:	11/28/17

Case Narrative

All samples and QC associated with your samples met the quality control objectives. Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

L5: The associated blank spike recovery was above the laboratory/method acceptance limits. The analyte was not detected in the sample.

R6: BS/BSD RPD exceeded the method acceptance limit. Recovery met acceptance criteria.

T4: Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Vacuum	Type	
	Client	1.0 liter		before sampled	after sampled	5 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
17K026-01	WCP EGA-1-40	E2410	1710-12	29.0	13.31	220	1709-06
17K026-02	WCP EGA-1-70	E2395	1710-12	29.0	13.12	185	1710-02
17K026-03	WCP EGA-1-100	1855	1710-14	29.0	13.13	216	1710-09
17K026-04	WCP EGA-1-110	E2397	1710-12	29.0	12.55	132	1709-06
17K026-05	WCP EGA-1-111	E2376	1710-12	29.0	13.63	059	1709-06
17K026-06	A1	E2352	1710-12	29.0	13.78	214	1710-02
17K026-07	WCP EGA-1-130	E2297	1710-13	29.0	12.68	116	1709-06
17K026-08	WCP EGA-1-140	1866	1710-14	29.0	11.28	211	1709-06

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-40
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	01	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 10	10	< 54.6	54.6		20	12/4/2017	71-55-6
1,1,2,2-Tetrachloroethane	< 10	10	< 68.7	68.7	R6	20	12/4/2017	79-34-5
1,1,2-Trichloroethane	< 10	10	< 54.6	54.6		20	12/4/2017	79-00-5
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	12/4/2017	75-34-3
1,1-Dichloroethene	**60**	**10**	**237**	**39.7**		20	12/4/2017	75-35-4
1,2,4-Trichlorobenzene	< 40	40	< 297	297		20	12/4/2017	120-82-1
1,2,4-Trimethylbenzene	< 10	10	< 49.2	49.2		20	12/4/2017	95-63-6
1,2-Dibromoethane	< 10	10	< 76.8	76.8		20	12/4/2017	106-93-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	12/4/2017	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	12/4/2017	107-06-2
1,2-Dichloropropane	< 10	10	< 46.2	46.2		20	12/4/2017	78-87-5
1,3,5-Trimethylbenzene	< 10	10	< 49.2	49.2		20	12/4/2017	108-67-8
1,3-Butadiene	< 10	10	< 22.1	22.1	L5, R6	20	12/4/2017	106-99-0
1,3-Dichlorobenzene	< 10	10	< 60.1	60.1		20	12/4/2017	541-73-1
1,4-Dichlorobenzene	< 10	10	< 60.1	60.1		20	12/4/2017	106-46-7
1,4-Dioxane	< 40	40	< 144	144		20	12/4/2017	123-91-1
2,2,4-Trimethylpentane	< 10	10	< 46.6	46.6		20	12/4/2017	540-84-1
2-Butanone (MEK)	< 100	100	< 295	295		20	12/4/2017	78-93-3
2-Hexanone	< 100	100	< 410	410		20	12/4/2017	591-78-6
2-Propanol (IPA)	< 100	100	< 245	245		20	12/4/2017	67-63-0
4-Ethyltoluene	< 20	20	< 98.4	98.4		20	12/4/2017	622-96-8
4-Methyl-2-pentanone (MIK)	< 100	100	< 410	410		20	12/4/2017	108-10-1
Acetone	< 100	100	< 238	238		20	12/4/2017	67-64-1
Allyl chloride	< 20	20	< 62.6	62.6		20	12/4/2017	107-05-1
Benzene	< 10	10	< 31.9	31.9		20	12/4/2017	71-43-2
Benzyl chloride	< 40	40	< 207	207		20	12/4/2017	100-44-7
Bromodichloromethane	< 10	10	< 67.0	67.0		20	12/4/2017	75-27-4
Bromoethene(Vinyl Bromide)	< 10	10	< 43.7	43.7		20	12/4/2017	593-60-2
Bromoform	< 10	10	< 103	103		20	12/4/2017	75-25-2
Bromomethane	< 10	10	< 38.8	38.8		20	12/4/2017	74-83-9
Butyl benzene	< 20	20	< 110	110		20	12/4/2017	104-51-8
Carbon disulfide	< 40	40	< 124	124		20	12/4/2017	75-15-0
Carbon tetrachloride	< 10	10	< 62.9	62.9		20	12/4/2017	56-23-5
Chlorobenzene	< 10	10	< 46.0	46.0		20	12/4/2017	108-90-7
Chloroethane	< 10	10	< 26.4	26.4		20	12/4/2017	75-00-3
Chloroform	< 10	10	< 48.8	48.8		20	12/4/2017	67-66-3
Chloromethane	< 20	20	< 41.4	41.4		20	12/4/2017	74-87-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	12/4/2017	156-59-2
cis-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	12/4/2017	10061-01-5
Cyclohexane	< 10	10	< 34.4	34.4		20	12/4/2017	110-82-7
Dibromochloromethane	< 10	10	< 85.2	85.2		20	12/4/2017	124-48-1
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	12/4/2017	75-71-8
Dichlorotetrafluoroethane(F-114)	< 10	10	< 69.9	69.9		20	12/4/2017	76-14-2
Ethanol	< 100	100	< 188	188		20	12/4/2017	64-17-5
Ethyl Acetate	< 10	10	< 36.0	36.0		20	12/4/2017	141-78-6
Ethylbenzene	< 10	10	< 43.4	43.4		20	12/4/2017	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-40
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	01	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 10	10	< 41.0	41.0		20	12/4/2017	142-82-5
Hexachlorobutadiene	< 20	20	< 213	213		20	12/4/2017	87-68-3
Hexane	< 20	20	< 70.4	70.4		20	12/4/2017	110-54-3
Isopropylbenzene	< 20	20	< 98.4	98.4		20	12/4/2017	98-82-8
m&p-Xylene	< 20	20	< 86.8	86.8		20	12/4/2017	179601-23-1
Methyl tert-butyl ether	< 40	40	< 144	144		20	12/4/2017	1634-04-4
Methylcyclohexane	< 20	20	< 80.4	80.4		20	12/4/2017	108-87-2
Methylene chloride	< 40	40	< 139	139		20	12/4/2017	75-09-2
Naphthalene	< 100	100	< 524	524		20	12/4/2017	91-20-3
Nonane	< 20	20	< 105	105		20	12/4/2017	111-84-2
Octane	< 20	20	< 93.4	93.4		20	12/4/2017	111-65-9
o-Xylene	< 10	10	< 43.4	43.4		20	12/4/2017	95-47-6
Propene (Propylene)	< 20	20	< 34.4	34.4	L5, R6	20	12/4/2017	115-07-1
Propylbenzene	< 20	20	< 98.4	98.4		20	12/4/2017	103-65-1
Sec-Butyl benzene	< 20	20	< 110	110		20	12/4/2017	135-98-8
Styrene	< 10	10	< 42.6	42.6		20	12/4/2017	100-42-5
Tert-Butyl benzene	< 20	20	< 110	110		20	12/4/2017	98-06-6
Tetrachloroethene	< 20	20	< 136	136		20	12/4/2017	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	12/4/2017	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	12/4/2017	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	12/4/2017	156-60-5
trans-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	12/4/2017	10061-02-6
Trichloroethene	**158**	**10**	**850**	**53.7**		20	12/4/2017	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	12/4/2017	75-69-4
Trichlorotrifluoroethane(F-113)	**54**	**10**	**417**	**76.6**		20	12/4/2017	76-13-1
Vinyl acetate	< 10	10	< 35.2	35.2		20	12/4/2017	108-05-4
Vinyl chloride	< 10	10	< 25.6	25.6	L5	20	12/4/2017	75-01-4
Surr: 4-Bromofluorobenzene	76.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	12/4/2017

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-70
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	02	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 500	500	< 2,730	2,730		1,000	12/4/2017	71-55-6
1,1,2,2-Tetrachloroethane	< 500	500	< 3,435	3,435	R6	1,000	12/4/2017	79-34-5
1,1,2-Trichloroethane	< 500	500	< 2,730	2,730		1,000	12/4/2017	79-00-5
1,1-Dichloroethane	< 500	500	< 2,025	2,025		1,000	12/4/2017	75-34-3
1,1-Dichloroethene	**10,600**	**500**	**42,100**	**1,985**		1,000	12/4/2017	75-35-4
1,2,4-Trichlorobenzene	< 2,000	2,000	< 14,840	14,840		1,000	12/4/2017	120-82-1
1,2,4-Trimethylbenzene	< 500	500	< 2,460	2,460		1,000	12/4/2017	95-63-6
1,2-Dibromoethane	< 500	500	< 3,840	3,840		1,000	12/4/2017	106-93-4
1,2-Dichlorobenzene	< 500	500	< 3,005	3,005		1,000	12/4/2017	95-50-1
1,2-Dichloroethane	< 500	500	< 2,025	2,025		1,000	12/4/2017	107-06-2
1,2-Dichloropropane	< 500	500	< 2,310	2,310		1,000	12/4/2017	78-87-5
1,3,5-Trimethylbenzene	< 500	500	< 2,460	2,460		1,000	12/4/2017	108-67-8
1,3-Butadiene	< 500	500	< 1,105	1,105	L5, R6	1,000	12/4/2017	106-99-0
1,3-Dichlorobenzene	< 500	500	< 3,005	3,005		1,000	12/4/2017	541-73-1
1,4-Dichlorobenzene	< 500	500	< 3,005	3,005		1,000	12/4/2017	106-46-7
1,4-Dioxane	< 2,000	2,000	< 7,200	7,200		1,000	12/4/2017	123-91-1
2,2,4-Trimethylpentane	< 500	500	< 2,330	2,330		1,000	12/4/2017	540-84-1
2-Butanone (MEK)	< 5,000	5,000	< 14,750	14,750		1,000	12/4/2017	78-93-3
2-Hexanone	< 5,000	5,000	< 20,500	20,500		1,000	12/4/2017	591-78-6
2-Propanol (IPA)	< 5,000	5,000	< 12,250	12,250		1,000	12/4/2017	67-63-0
4-Ethyltoluene	< 1,000	1,000	< 4,920	4,920		1,000	12/4/2017	622-96-8
4-Methyl-2-pentanone (MIK)	< 5,000	5,000	< 20,500	20,500		1,000	12/4/2017	108-10-1
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	12/4/2017	67-64-1
Allyl chloride	< 1,000	1,000	< 3,130	3,130		1,000	12/4/2017	107-05-1
Benzene	< 500	500	< 1,595	1,595		1,000	12/4/2017	71-43-2
Benzyl chloride	< 2,000	2,000	< 10,360	10,360		1,000	12/4/2017	100-44-7
Bromodichloromethane	< 500	500	< 3,350	3,350		1,000	12/4/2017	75-27-4
Bromoethene(Vinyl Bromide)	< 500	500	< 2,185	2,185		1,000	12/4/2017	593-60-2
Bromoform	< 500	500	< 5,170	5,170		1,000	12/4/2017	75-25-2
Bromomethane	< 500	500	< 1,940	1,940		1,000	12/4/2017	74-83-9
Butyl benzene	< 1,000	1,000	< 5,490	5,490		1,000	12/4/2017	104-51-8
Carbon disulfide	< 2,000	2,000	< 6,220	6,220		1,000	12/4/2017	75-15-0
Carbon tetrachloride	< 500	500	< 3,145	3,145		1,000	12/4/2017	56-23-5
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	12/4/2017	108-90-7
Chloroethane	< 500	500	< 1,320	1,320		1,000	12/4/2017	75-00-3
Chloroform	< 500	500	< 2,440	2,440		1,000	12/4/2017	67-66-3
Chloromethane	< 1,000	1,000	< 2,070	2,070		1,000	12/4/2017	74-87-3
cis-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	12/4/2017	156-59-2
cis-1,3-Dichloropropene	< 500	500	< 2,270	2,270		1,000	12/4/2017	10061-01-5
Cyclohexane	< 500	500	< 1,720	1,720		1,000	12/4/2017	110-82-7
Dibromochloromethane	< 500	500	< 4,260	4,260		1,000	12/4/2017	124-48-1
Dichlorodifluoromethane(F-12)	< 1,000	1,000	< 4,950	4,950		1,000	12/4/2017	75-71-8
Dichlorotetrafluoroethane(F-114)	< 500	500	< 3,495	3,495		1,000	12/4/2017	76-14-2
Ethanol	< 5,000	5,000	< 9,400	9,400		1,000	12/4/2017	64-17-5
Ethyl Acetate	< 500	500	< 1,800	1,800		1,000	12/4/2017	141-78-6
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	12/4/2017	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-70
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	02	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 500	500	< 2,050	2,050		1,000	12/4/2017	142-82-5
Hexachlorobutadiene	< 1,000	1,000	< 10,670	10,670		1,000	12/4/2017	87-68-3
Hexane	< 1,000	1,000	< 3,520	3,520		1,000	12/4/2017	110-54-3
Isopropylbenzene	< 1,000	1,000	< 4,920	4,920		1,000	12/4/2017	98-82-8
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	12/4/2017	179601-23-1
Methyl tert-butyl ether	< 2,000	2,000	< 7,220	7,220		1,000	12/4/2017	1634-04-4
Methylcyclohexane	< 1,000	1,000	< 4,020	4,020		1,000	12/4/2017	108-87-2
Methylene chloride	< 2,000	2,000	< 6,940	6,940		1,000	12/4/2017	75-09-2
Naphthalene	< 5,000	5,000	< 26,200	26,200		1,000	12/4/2017	91-20-3
Nonane	< 1,000	1,000	< 5,240	5,240		1,000	12/4/2017	111-84-2
Octane	< 1,000	1,000	< 4,670	4,670		1,000	12/4/2017	111-65-9
o-Xylene	< 500	500	< 2,170	2,170		1,000	12/4/2017	95-47-6
Propene (Propylene)	< 1,000	1,000	< 1,720	1,720	L5, R6	1,000	12/4/2017	115-07-1
Propylbenzene	< 1,000	1,000	< 4,920	4,920		1,000	12/4/2017	103-65-1
Sec-Butyl benzene	< 1,000	1,000	< 5,490	5,490		1,000	12/4/2017	135-98-8
Styrene	< 500	500	< 2,130	2,130		1,000	12/4/2017	100-42-5
Tert-Butyl benzene	< 1,000	1,000	< 5,490	5,490		1,000	12/4/2017	98-06-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	12/4/2017	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	12/4/2017	109-99-9
Toluene	< 500	500	< 1,885	1,885		1,000	12/4/2017	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	12/4/2017	156-60-5
trans-1,3-Dichloropropene	< 500	500	< 2,270	2,270		1,000	12/4/2017	10061-02-6
Trichloroethene	**12,700**	**500**	**68,200**	**2,685**		1,000	12/4/2017	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	12/4/2017	75-69-4
Trichlorotrifluoroethane(F-113)	**9,200**	**500**	**70,500**	**3,830**		1,000	12/4/2017	76-13-1
Vinyl acetate	< 500	500	< 1,760	1,760		1,000	12/4/2017	108-05-4
Vinyl chloride	< 500	500	< 1,280	1,280	L5	1,000	12/4/2017	75-01-4
Surr: 4-Bromofluorobenzene	79.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10,000	10,000	ppbv		T4	1,000	12/4/2017

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-100
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	03	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 250	250	< 1,365	1,365		500	12/4/2017	71-55-6
1,1,2,2-Tetrachloroethane	< 250	250	< 1,718	1,718	R6	500	12/4/2017	79-34-5
1,1,2-Trichloroethane	< 250	250	< 1,365	1,365		500	12/4/2017	79-00-5
1,1-Dichloroethane	**545**	**250**	**2,207**	**1,013**		500	12/4/2017	75-34-3
1,1-Dichloroethene	**13,000**	**250**	**51,610**	**993**		500	12/4/2017	75-35-4
1,2,4-Trichlorobenzene	< 1,000	1,000	< 7,420	7,420		500	12/4/2017	120-82-1
1,2,4-Trimethylbenzene	< 250	250	< 1,230	1,230		500	12/4/2017	95-63-6
1,2-Dibromoethane	< 250	250	< 1,920	1,920		500	12/4/2017	106-93-4
1,2-Dichlorobenzene	< 250	250	< 1,503	1,503		500	12/4/2017	95-50-1
1,2-Dichloroethane	< 250	250	< 1,013	1,013		500	12/4/2017	107-06-2
1,2-Dichloropropane	< 250	250	< 1,155	1,155		500	12/4/2017	78-87-5
1,3,5-Trimethylbenzene	< 250	250	< 1,230	1,230		500	12/4/2017	108-67-8
1,3-Butadiene	< 250	250	< 553	553	L5, R6	500	12/4/2017	106-99-0
1,3-Dichlorobenzene	< 250	250	< 1,503	1,503		500	12/4/2017	541-73-1
1,4-Dichlorobenzene	< 250	250	< 1,503	1,503		500	12/4/2017	106-46-7
1,4-Dioxane	< 1,000	1,000	< 3,600	3,600		500	12/4/2017	123-91-1
2,2,4-Trimethylpentane	< 250	250	< 1,165	1,165		500	12/4/2017	540-84-1
2-Butanone (MEK)	< 2,500	2,500	< 7,375	7,375		500	12/4/2017	78-93-3
2-Hexanone	< 2,500	2,500	< 10,250	10,250		500	12/4/2017	591-78-6
2-Propanol (IPA)	< 2,500	2,500	< 6,125	6,125		500	12/4/2017	67-63-0
4-Ethyltoluene	< 500	500	< 2,460	2,460		500	12/4/2017	622-96-8
4-Methyl-2-pentanone (MIK)	< 2,500	2,500	< 10,250	10,250		500	12/4/2017	108-10-1
Acetone	< 2,500	2,500	< 5,950	5,950		500	12/4/2017	67-64-1
Allyl chloride	< 500	500	< 1,565	1,565		500	12/4/2017	107-05-1
Benzene	< 250	250	< 798	798		500	12/4/2017	71-43-2
Benzyl chloride	< 1,000	1,000	< 5,180	5,180		500	12/4/2017	100-44-7
Bromodichloromethane	< 250	250	< 1,675	1,675		500	12/4/2017	75-27-4
Bromoethene(Vinyl Bromide)	< 250	250	< 1,093	1,093		500	12/4/2017	593-60-2
Bromoform	< 250	250	< 2,585	2,585		500	12/4/2017	75-25-2
Bromomethane	< 250	250	< 970	970		500	12/4/2017	74-83-9
Butyl benzene	< 500	500	< 2,745	2,745		500	12/4/2017	104-51-8
Carbon disulfide	< 1,000	1,000	< 3,110	3,110		500	12/4/2017	75-15-0
Carbon tetrachloride	< 250	250	< 1,573	1,573		500	12/4/2017	56-23-5
Chlorobenzene	< 250	250	< 1,150	1,150		500	12/4/2017	108-90-7
Chloroethane	< 250	250	< 660	660		500	12/4/2017	75-00-3
Chloroform	< 250	250	< 1,220	1,220		500	12/4/2017	67-66-3
Chloromethane	< 500	500	< 1,035	1,035		500	12/4/2017	74-87-3
cis-1,2-Dichloroethene	< 250	250	< 990	990		500	12/4/2017	156-59-2
cis-1,3-Dichloropropene	< 250	250	< 1,135	1,135		500	12/4/2017	10061-01-5
Cyclohexane	< 250	250	< 860	860		500	12/4/2017	110-82-7
Dibromochloromethane	< 250	250	< 2,130	2,130		500	12/4/2017	124-48-1
Dichlorodifluoromethane(F-12)	< 500	500	< 2,475	2,475		500	12/4/2017	75-71-8
Dichlorotetrafluoroethane(F-114)	< 250	250	< 1,748	1,748		500	12/4/2017	76-14-2
Ethanol	< 2,500	2,500	< 4,700	4,700		500	12/4/2017	64-17-5
Ethyl Acetate	< 250	250	< 900	900		500	12/4/2017	141-78-6
Ethylbenzene	< 250	250	< 1,085	1,085		500	12/4/2017	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-100
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	03	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 250	250	< 1,025	1,025		500	12/4/2017	142-82-5
Hexachlorobutadiene	< 500	500	< 5,335	5,335		500	12/4/2017	87-68-3
Hexane	< 500	500	< 1,760	1,760		500	12/4/2017	110-54-3
Isopropylbenzene	< 500	500	< 2,460	2,460		500	12/4/2017	98-82-8
m&p-Xylene	< 500	500	< 2,170	2,170		500	12/4/2017	179601-23-1
Methyl tert-butyl ether	< 1,000	1,000	< 3,610	3,610		500	12/4/2017	1634-04-4
Methylcyclohexane	< 500	500	< 2,010	2,010		500	12/4/2017	108-87-2
Methylene chloride	< 1,000	1,000	< 3,470	3,470		500	12/4/2017	75-09-2
Naphthalene	< 2,500	2,500	< 13,100	13,100		500	12/4/2017	91-20-3
Nonane	< 500	500	< 2,620	2,620		500	12/4/2017	111-84-2
Octane	< 500	500	< 2,335	2,335		500	12/4/2017	111-65-9
o-Xylene	< 250	250	< 1,085	1,085		500	12/4/2017	95-47-6
Propene (Propylene)	< 500	500	< 860	860	L5, R6	500	12/4/2017	115-07-1
Propylbenzene	< 500	500	< 2,460	2,460		500	12/4/2017	103-65-1
Sec-Butyl benzene	< 500	500	< 2,745	2,745		500	12/4/2017	135-98-8
Styrene	< 250	250	< 1,065	1,065		500	12/4/2017	100-42-5
Tert-Butyl benzene	< 500	500	< 2,745	2,745		500	12/4/2017	98-06-6
Tetrachloroethene	< 500	500	< 3,390	3,390		500	12/4/2017	127-18-4
Tetrahydrofuran	< 1,000	1,000	< 2,950	2,950		500	12/4/2017	109-99-9
Toluene	< 250	250	< 943	943		500	12/4/2017	108-88-3
trans-1,2-Dichloroethene	< 250	250	< 990	990		500	12/4/2017	156-60-5
trans-1,3-Dichloropropene	< 250	250	< 1,135	1,135		500	12/4/2017	10061-02-6
Trichloroethene	**13,100**	**250**	**70,350**	**1,343**		500	12/4/2017	79-01-6
Trichlorofluoromethane(F-11)	< 250	250	< 1,405	1,405		500	12/4/2017	75-69-4
Trichlorotrifluoroethane(F-113)	**9,580**	**250**	**73,380**	**1,915**		500	12/4/2017	76-13-1
Vinyl acetate	< 250	250	< 880	880		500	12/4/2017	108-05-4
Vinyl chloride	< 250	250	< 640	640	L5	500	12/4/2017	75-01-4
Surr: 4-Bromofluorobenzene	74.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 5,000	5,000	ppbv		T4	500	12/4/2017

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-110
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	04	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 250	250	< 1,365	1,365		500	12/4/2017	71-55-6
1,1,2,2-Tetrachloroethane	< 250	250	< 1,718	1,718	R6	500	12/4/2017	79-34-5
1,1,2-Trichloroethane	< 250	250	< 1,365	1,365		500	12/4/2017	79-00-5
1,1-Dichloroethane	**335**	**250**	**1,357**	**1,013**		500	12/4/2017	75-34-3
1,1-Dichloroethene	**8,730**	**250**	**34,660**	**993**		500	12/4/2017	75-35-4
1,2,4-Trichlorobenzene	< 1,000	1,000	< 7,420	7,420		500	12/4/2017	120-82-1
1,2,4-Trimethylbenzene	< 250	250	< 1,230	1,230		500	12/4/2017	95-63-6
1,2-Dibromoethane	< 250	250	< 1,920	1,920		500	12/4/2017	106-93-4
1,2-Dichlorobenzene	< 250	250	< 1,503	1,503		500	12/4/2017	95-50-1
1,2-Dichloroethane	< 250	250	< 1,013	1,013		500	12/4/2017	107-06-2
1,2-Dichloropropane	< 250	250	< 1,155	1,155		500	12/4/2017	78-87-5
1,3,5-Trimethylbenzene	< 250	250	< 1,230	1,230		500	12/4/2017	108-67-8
1,3-Butadiene	< 250	250	< 553	553	L5, R6	500	12/4/2017	106-99-0
1,3-Dichlorobenzene	< 250	250	< 1,503	1,503		500	12/4/2017	541-73-1
1,4-Dichlorobenzene	< 250	250	< 1,503	1,503		500	12/4/2017	106-46-7
1,4-Dioxane	< 1,000	1,000	< 3,600	3,600		500	12/4/2017	123-91-1
2,2,4-Trimethylpentane	< 250	250	< 1,165	1,165		500	12/4/2017	540-84-1
2-Butanone (MEK)	< 2,500	2,500	< 7,375	7,375		500	12/4/2017	78-93-3
2-Hexanone	< 2,500	2,500	< 10,250	10,250		500	12/4/2017	591-78-6
2-Propanol (IPA)	< 2,500	2,500	< 6,125	6,125		500	12/4/2017	67-63-0
4-Ethyltoluene	< 500	500	< 2,460	2,460		500	12/4/2017	622-96-8
4-Methyl-2-pentanone (MIK)	< 2,500	2,500	< 10,250	10,250		500	12/4/2017	108-10-1
Acetone	< 2,500	2,500	< 5,950	5,950		500	12/4/2017	67-64-1
Allyl chloride	< 500	500	< 1,565	1,565		500	12/4/2017	107-05-1
Benzene	< 250	250	< 798	798		500	12/4/2017	71-43-2
Benzyl chloride	< 1,000	1,000	< 5,180	5,180		500	12/4/2017	100-44-7
Bromodichloromethane	< 250	250	< 1,675	1,675		500	12/4/2017	75-27-4
Bromoethene(Vinyl Bromide)	< 250	250	< 1,093	1,093		500	12/4/2017	593-60-2
Bromoform	< 250	250	< 2,585	2,585		500	12/4/2017	75-25-2
Bromomethane	< 250	250	< 970	970		500	12/4/2017	74-83-9
Butyl benzene	< 500	500	< 2,745	2,745		500	12/4/2017	104-51-8
Carbon disulfide	< 1,000	1,000	< 3,110	3,110		500	12/4/2017	75-15-0
Carbon tetrachloride	< 250	250	< 1,573	1,573		500	12/4/2017	56-23-5
Chlorobenzene	< 250	250	< 1,150	1,150		500	12/4/2017	108-90-7
Chloroethane	< 250	250	< 660	660		500	12/4/2017	75-00-3
Chloroform	< 250	250	< 1,220	1,220		500	12/4/2017	67-66-3
Chloromethane	< 500	500	< 1,035	1,035		500	12/4/2017	74-87-3
cis-1,2-Dichloroethene	< 250	250	< 990	990		500	12/4/2017	156-59-2
cis-1,3-Dichloropropene	< 250	250	< 1,135	1,135		500	12/4/2017	10061-01-5
Cyclohexane	< 250	250	< 860	860		500	12/4/2017	110-82-7
Dibromochloromethane	< 250	250	< 2,130	2,130		500	12/4/2017	124-48-1
Dichlorodifluoromethane(F-12)	< 500	500	< 2,475	2,475		500	12/4/2017	75-71-8
Dichlorotetrafluoroethane(F-114)	< 250	250	< 1,748	1,748		500	12/4/2017	76-14-2
Ethanol	< 2,500	2,500	< 4,700	4,700		500	12/4/2017	64-17-5
Ethyl Acetate	< 250	250	< 900	900		500	12/4/2017	141-78-6
Ethylbenzene	< 250	250	< 1,085	1,085		500	12/4/2017	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-110
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	04	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 250	250	< 1,025	1,025		500	12/4/2017	142-82-5
Hexachlorobutadiene	< 500	500	< 5,335	5,335		500	12/4/2017	87-68-3
Hexane	< 500	500	< 1,760	1,760		500	12/4/2017	110-54-3
Isopropylbenzene	< 500	500	< 2,460	2,460		500	12/4/2017	98-82-8
m&p-Xylene	< 500	500	< 2,170	2,170		500	12/4/2017	179601-23-1
Methyl tert-butyl ether	< 1,000	1,000	< 3,610	3,610		500	12/4/2017	1634-04-4
Methylcyclohexane	< 500	500	< 2,010	2,010		500	12/4/2017	108-87-2
Methylene chloride	< 1,000	1,000	< 3,470	3,470		500	12/4/2017	75-09-2
Naphthalene	< 2,500	2,500	< 13,100	13,100		500	12/4/2017	91-20-3
Nonane	< 500	500	< 2,620	2,620		500	12/4/2017	111-84-2
Octane	< 500	500	< 2,335	2,335		500	12/4/2017	111-65-9
o-Xylene	< 250	250	< 1,085	1,085		500	12/4/2017	95-47-6
Propene (Propylene)	< 500	500	< 860	860	L5, R6	500	12/4/2017	115-07-1
Propylbenzene	< 500	500	< 2,460	2,460		500	12/4/2017	103-65-1
Sec-Butyl benzene	< 500	500	< 2,745	2,745		500	12/4/2017	135-98-8
Styrene	< 250	250	< 1,065	1,065		500	12/4/2017	100-42-5
Tert-Butyl benzene	< 500	500	< 2,745	2,745		500	12/4/2017	98-06-6
Tetrachloroethene	< 500	500	< 3,390	3,390		500	12/4/2017	127-18-4
Tetrahydrofuran	< 1,000	1,000	< 2,950	2,950		500	12/4/2017	109-99-9
Toluene	< 250	250	< 943	943		500	12/4/2017	108-88-3
trans-1,2-Dichloroethene	< 250	250	< 990	990		500	12/4/2017	156-60-5
trans-1,3-Dichloropropene	< 250	250	< 1,135	1,135		500	12/4/2017	10061-02-6
Trichloroethene	**7,880**	**250**	**42,320**	**1,343**		500	12/4/2017	79-01-6
Trichlorofluoromethane(F-11)	< 250	250	< 1,405	1,405		500	12/4/2017	75-69-4
Trichlorotrifluoroethane(F-113)	**6,440**	**250**	**49,330**	**1,915**		500	12/4/2017	76-13-1
Vinyl acetate	< 250	250	< 880	880		500	12/4/2017	108-05-4
Vinyl chloride	< 250	250	< 640	640	L5	500	12/4/2017	75-01-4
Surr: 4-Bromofluorobenzene	74.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 5,000	5,000	ppbv		T4	500	12/4/2017

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-111
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	05	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 250	250	< 1,365	1,365		500	12/4/2017	71-55-6
1,1,2,2-Tetrachloroethane	< 250	250	< 1,718	1,718	R6	500	12/4/2017	79-34-5
1,1,2-Trichloroethane	< 250	250	< 1,365	1,365		500	12/4/2017	79-00-5
1,1-Dichloroethane	**445**	**250**	**1,802**	**1,013**		500	12/4/2017	75-34-3
1,1-Dichloroethene	**10,900**	**250**	**43,270**	**993**		500	12/4/2017	75-35-4
1,2,4-Trichlorobenzene	< 1,000	1,000	< 7,420	7,420		500	12/4/2017	120-82-1
1,2,4-Trimethylbenzene	< 250	250	< 1,230	1,230		500	12/4/2017	95-63-6
1,2-Dibromoethane	< 250	250	< 1,920	1,920		500	12/4/2017	106-93-4
1,2-Dichlorobenzene	< 250	250	< 1,503	1,503		500	12/4/2017	95-50-1
1,2-Dichloroethane	< 250	250	< 1,013	1,013		500	12/4/2017	107-06-2
1,2-Dichloropropane	< 250	250	< 1,155	1,155		500	12/4/2017	78-87-5
1,3,5-Trimethylbenzene	< 250	250	< 1,230	1,230		500	12/4/2017	108-67-8
1,3-Butadiene	< 250	250	< 553	553	L5, R6	500	12/4/2017	106-99-0
1,3-Dichlorobenzene	< 250	250	< 1,503	1,503		500	12/4/2017	541-73-1
1,4-Dichlorobenzene	< 250	250	< 1,503	1,503		500	12/4/2017	106-46-7
1,4-Dioxane	< 1,000	1,000	< 3,600	3,600		500	12/4/2017	123-91-1
2,2,4-Trimethylpentane	< 250	250	< 1,165	1,165		500	12/4/2017	540-84-1
2-Butanone (MEK)	< 2,500	2,500	< 7,375	7,375		500	12/4/2017	78-93-3
2-Hexanone	< 2,500	2,500	< 10,250	10,250		500	12/4/2017	591-78-6
2-Propanol (IPA)	< 2,500	2,500	< 6,125	6,125		500	12/4/2017	67-63-0
4-Ethyltoluene	< 500	500	< 2,460	2,460		500	12/4/2017	622-96-8
4-Methyl-2-pentanone (MIK)	< 2,500	2,500	< 10,250	10,250		500	12/4/2017	108-10-1
Acetone	< 2,500	2,500	< 5,950	5,950		500	12/4/2017	67-64-1
Allyl chloride	< 500	500	< 1,565	1,565		500	12/4/2017	107-05-1
Benzene	< 250	250	< 798	798		500	12/4/2017	71-43-2
Benzyl chloride	< 1,000	1,000	< 5,180	5,180		500	12/4/2017	100-44-7
Bromodichloromethane	< 250	250	< 1,675	1,675		500	12/4/2017	75-27-4
Bromoethene(Vinyl Bromide)	< 250	250	< 1,093	1,093		500	12/4/2017	593-60-2
Bromoform	< 250	250	< 2,585	2,585		500	12/4/2017	75-25-2
Bromomethane	< 250	250	< 970	970		500	12/4/2017	74-83-9
Butyl benzene	< 500	500	< 2,745	2,745		500	12/4/2017	104-51-8
Carbon disulfide	< 1,000	1,000	< 3,110	3,110		500	12/4/2017	75-15-0
Carbon tetrachloride	< 250	250	< 1,573	1,573		500	12/4/2017	56-23-5
Chlorobenzene	< 250	250	< 1,150	1,150		500	12/4/2017	108-90-7
Chloroethane	< 250	250	< 660	660		500	12/4/2017	75-00-3
Chloroform	< 250	250	< 1,220	1,220		500	12/4/2017	67-66-3
Chloromethane	< 500	500	< 1,035	1,035		500	12/4/2017	74-87-3
cis-1,2-Dichloroethene	< 250	250	< 990	990		500	12/4/2017	156-59-2
cis-1,3-Dichloropropene	< 250	250	< 1,135	1,135		500	12/4/2017	10061-01-5
Cyclohexane	< 250	250	< 860	860		500	12/4/2017	110-82-7
Dibromochloromethane	< 250	250	< 2,130	2,130		500	12/4/2017	124-48-1
Dichlorodifluoromethane(F-12)	< 500	500	< 2,475	2,475		500	12/4/2017	75-71-8
Dichlorotetrafluoroethane(F-114)	< 250	250	< 1,748	1,748		500	12/4/2017	76-14-2
Ethanol	< 2,500	2,500	< 4,700	4,700		500	12/4/2017	64-17-5
Ethyl Acetate	< 250	250	< 900	900		500	12/4/2017	141-78-6
Ethylbenzene	< 250	250	< 1,085	1,085		500	12/4/2017	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-111
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	05	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 250	250	< 1,025	1,025		500	12/4/2017	142-82-5
Hexachlorobutadiene	< 500	500	< 5,335	5,335		500	12/4/2017	87-68-3
Hexane	< 500	500	< 1,760	1,760		500	12/4/2017	110-54-3
Isopropylbenzene	< 500	500	< 2,460	2,460		500	12/4/2017	98-82-8
m&p-Xylene	< 500	500	< 2,170	2,170		500	12/4/2017	179601-23-1
Methyl tert-butyl ether	< 1,000	1,000	< 3,610	3,610		500	12/4/2017	1634-04-4
Methylcyclohexane	< 500	500	< 2,010	2,010		500	12/4/2017	108-87-2
Methylene chloride	< 1,000	1,000	< 3,470	3,470		500	12/4/2017	75-09-2
Naphthalene	< 2,500	2,500	< 13,100	13,100		500	12/4/2017	91-20-3
Nonane	< 500	500	< 2,620	2,620		500	12/4/2017	111-84-2
Octane	< 500	500	< 2,335	2,335		500	12/4/2017	111-65-9
o-Xylene	< 250	250	< 1,085	1,085		500	12/4/2017	95-47-6
Propene (Propylene)	< 500	500	< 860	860	L5, R6	500	12/4/2017	115-07-1
Propylbenzene	< 500	500	< 2,460	2,460		500	12/4/2017	103-65-1
Sec-Butyl benzene	< 500	500	< 2,745	2,745		500	12/4/2017	135-98-8
Styrene	< 250	250	< 1,065	1,065		500	12/4/2017	100-42-5
Tert-Butyl benzene	< 500	500	< 2,745	2,745		500	12/4/2017	98-06-6
Tetrachloroethene	< 500	500	< 3,390	3,390		500	12/4/2017	127-18-4
Tetrahydrofuran	< 1,000	1,000	< 2,950	2,950		500	12/4/2017	109-99-9
Toluene	< 250	250	< 943	943		500	12/4/2017	108-88-3
trans-1,2-Dichloroethene	< 250	250	< 990	990		500	12/4/2017	156-60-5
trans-1,3-Dichloropropene	< 250	250	< 1,135	1,135		500	12/4/2017	10061-02-6
Trichloroethene	**10,300**	**250**	**55,310**	**1,343**		500	12/4/2017	79-01-6
Trichlorofluoromethane(F-11)	< 250	250	< 1,405	1,405		500	12/4/2017	75-69-4
Trichlorotrifluoroethane(F-113)	**7,820**	**250**	**59,900**	**1,915**		500	12/4/2017	76-13-1
Vinyl acetate	< 250	250	< 880	880		500	12/4/2017	108-05-4
Vinyl chloride	< 250	250	< 640	640	L5	500	12/4/2017	75-01-4
Surr: 4-Bromofluorobenzene	72.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 5,000	5,000	ppbv		T4	500	12/4/2017

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	A1
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	06	**Matrix:**	Ambient air

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	12/4/2017	71-55-6
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 6.87	6.87	R6	2	12/4/2017	79-34-5
1,1,2-Trichloroethane	< 1.0	1.0	< 5.46	5.46		2	12/4/2017	79-00-5
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	12/4/2017	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	12/4/2017	75-35-4
1,2,4-Trichlorobenzene	< 4.0	4.0	< 29.7	29.7		2	12/4/2017	120-82-1
1,2,4-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	12/4/2017	95-63-6
1,2-Dibromoethane	< 1.0	1.0	< 7.68	7.68		2	12/4/2017	106-93-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	12/4/2017	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	12/4/2017	107-06-2
1,2-Dichloropropane	< 1.0	1.0	< 4.62	4.62		2	12/4/2017	78-87-5
1,3,5-Trimethylbenzene	< 1.0	1.0	< 4.92	4.92		2	12/4/2017	108-67-8
1,3-Butadiene	< 1.0	1.0	< 2.21	2.21	L5, R6	2	12/4/2017	106-99-0
1,3-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	12/4/2017	541-73-1
1,4-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	12/4/2017	106-46-7
1,4-Dioxane	< 4.0	4.0	< 14.4	14.4		2	12/4/2017	123-91-1
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.66	4.66		2	12/4/2017	540-84-1
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	12/4/2017	78-93-3
2-Hexanone	< 10	10	< 41.0	41.0		2	12/4/2017	591-78-6
2-Propanol (IPA)	< 10	10	< 24.5	24.5		2	12/4/2017	67-63-0
4-Ethyltoluene	< 2.0	2.0	< 9.84	9.84		2	12/4/2017	622-96-8
4-Methyl-2-pentanone (MIK)	< 10	10	< 41.0	41.0		2	12/4/2017	108-10-1
Acetone	**27**	**10**	**64.5**	**23.8**		2	12/4/2017	67-64-1
Allyl chloride	< 2.0	2.0	< 6.26	6.26		2	12/4/2017	107-05-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	12/4/2017	71-43-2
Benzyl chloride	< 4.0	4.0	< 20.7	20.7		2	12/4/2017	100-44-7
Bromodichloromethane	< 1.0	1.0	< 6.70	6.70		2	12/4/2017	75-27-4
Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 4.37	4.37		2	12/4/2017	593-60-2
Bromoform	< 1.0	1.0	< 10.3	10.3		2	12/4/2017	75-25-2
Bromomethane	< 1.0	1.0	< 3.88	3.88		2	12/4/2017	74-83-9
Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	12/4/2017	104-51-8
Carbon disulfide	< 4.0	4.0	< 12.4	12.4		2	12/4/2017	75-15-0
Carbon tetrachloride	< 1.0	1.0	< 6.29	6.29		2	12/4/2017	56-23-5
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	12/4/2017	108-90-7
Chloroethane	< 1.0	1.0	< 2.64	2.64		2	12/4/2017	75-00-3
Chloroform	< 1.0	1.0	< 4.88	4.88		2	12/4/2017	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		2	12/4/2017	74-87-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	12/4/2017	156-59-2
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	12/4/2017	10061-01-5
Cyclohexane	< 1.0	1.0	< 3.44	3.44		2	12/4/2017	110-82-7
Dibromochloromethane	< 1.0	1.0	< 8.52	8.52		2	12/4/2017	124-48-1
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	12/4/2017	75-71-8
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 6.99	6.99		2	12/4/2017	76-14-2
Ethanol	< 10	10	< 18.8	18.8		2	12/4/2017	64-17-5
Ethyl Acetate	< 1.0	1.0	< 3.60	3.60		2	12/4/2017	141-78-6
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	12/4/2017	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	A1
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	06	**Matrix:**	Ambient air

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 1.0	1.0	< 4.10	4.10		2	12/4/2017	142-82-5
Hexachlorobutadiene	< 2.0	2.0	< 21.3	21.3		2	12/4/2017	87-68-3
Hexane	< 2.0	2.0	< 7.04	7.04		2	12/4/2017	110-54-3
Isopropylbenzene	< 2.0	2.0	< 9.84	9.84		2	12/4/2017	98-82-8
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	12/4/2017	179601-23-1
Methyl tert-butyl ether	< 4.0	4.0	< 14.4	14.4		2	12/4/2017	1634-04-4
Methylcyclohexane	< 2.0	2.0	< 8.04	8.04		2	12/4/2017	108-87-2
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	12/4/2017	75-09-2
Naphthalene	< 10	10	< 52.4	52.4		2	12/4/2017	91-20-3
Nonane	< 2.0	2.0	< 10.5	10.5		2	12/4/2017	111-84-2
Octane	< 2.0	2.0	< 9.34	9.34		2	12/4/2017	111-65-9
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	12/4/2017	95-47-6
Propene (Propylene)	< 2.0	2.0	< 3.44	3.44	L5, R6	2	12/4/2017	115-07-1
Propylbenzene	< 2.0	2.0	< 9.84	9.84		2	12/4/2017	103-65-1
Sec-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	12/4/2017	135-98-8
Styrene	< 1.0	1.0	< 4.26	4.26		2	12/4/2017	100-42-5
Tert-Butyl benzene	< 2.0	2.0	< 11.0	11.0		2	12/4/2017	98-06-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	12/4/2017	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	12/4/2017	109-99-9
Toluene	**7.5**	**1.0**	**28.2**	**3.77**		2	12/4/2017	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	12/4/2017	156-60-5
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.54	4.54		2	12/4/2017	10061-02-6
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	12/4/2017	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	12/4/2017	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	12/4/2017	76-13-1
Vinyl acetate	< 1.0	1.0	< 3.52	3.52		2	12/4/2017	108-05-4
Vinyl chloride	< 1.0	1.0	< 2.56	2.56	L5	2	12/4/2017	75-01-4
Surr: 4-Bromofluorobenzene	79.7	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-130
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	07	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 10	10	< 54.6	54.6		20	12/4/2017	71-55-6
1,1,2,2-Tetrachloroethane	< 10	10	< 68.7	68.7	R6	20	12/4/2017	79-34-5
1,1,2-Trichloroethane	< 10	10	< 54.6	54.6		20	12/4/2017	79-00-5
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	12/4/2017	75-34-3
1,1-Dichloroethene	**26**	**10**	**104**	**39.7**		20	12/4/2017	75-35-4
1,2,4-Trichlorobenzene	< 40	40	< 297	297		20	12/4/2017	120-82-1
1,2,4-Trimethylbenzene	< 10	10	< 49.2	49.2		20	12/4/2017	95-63-6
1,2-Dibromoethane	< 10	10	< 76.8	76.8		20	12/4/2017	106-93-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	12/4/2017	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	12/4/2017	107-06-2
1,2-Dichloropropane	< 10	10	< 46.2	46.2		20	12/4/2017	78-87-5
1,3,5-Trimethylbenzene	< 10	10	< 49.2	49.2		20	12/4/2017	108-67-8
1,3-Butadiene	< 10	10	< 22.1	22.1	L5, R6	20	12/4/2017	106-99-0
1,3-Dichlorobenzene	< 10	10	< 60.1	60.1		20	12/4/2017	541-73-1
1,4-Dichlorobenzene	< 10	10	< 60.1	60.1		20	12/4/2017	106-46-7
1,4-Dioxane	< 40	40	< 144	144		20	12/4/2017	123-91-1
2,2,4-Trimethylpentane	< 10	10	< 46.6	46.6		20	12/4/2017	540-84-1
2-Butanone (MEK)	< 100	100	< 295	295		20	12/4/2017	78-93-3
2-Hexanone	< 100	100	< 410	410		20	12/4/2017	591-78-6
2-Propanol (IPA)	< 100	100	< 245	245		20	12/4/2017	67-63-0
4-Ethyltoluene	< 20	20	< 98.4	98.4		20	12/4/2017	622-96-8
4-Methyl-2-pentanone (MIK)	< 100	100	< 410	410		20	12/4/2017	108-10-1
Acetone	**612**	**100**	**1,456**	**238**		20	12/4/2017	67-64-1
Allyl chloride	< 20	20	< 62.6	62.6		20	12/4/2017	107-05-1
Benzene	< 10	10	< 31.9	31.9		20	12/4/2017	71-43-2
Benzyl chloride	< 40	40	< 207	207		20	12/4/2017	100-44-7
Bromodichloromethane	< 10	10	< 67.0	67.0		20	12/4/2017	75-27-4
Bromoethene(Vinyl Bromide)	< 10	10	< 43.7	43.7		20	12/4/2017	593-60-2
Bromoform	< 10	10	< 103	103		20	12/4/2017	75-25-2
Bromomethane	< 10	10	< 38.8	38.8		20	12/4/2017	74-83-9
Butyl benzene	< 20	20	< 110	110		20	12/4/2017	104-51-8
Carbon disulfide	< 40	40	< 124	124		20	12/4/2017	75-15-0
Carbon tetrachloride	< 10	10	< 62.9	62.9		20	12/4/2017	56-23-5
Chlorobenzene	< 10	10	< 46.0	46.0		20	12/4/2017	108-90-7
Chloroethane	< 10	10	< 26.4	26.4		20	12/4/2017	75-00-3
Chloroform	**17**	**10**	**83.0**	**48.8**		20	12/4/2017	67-66-3
Chloromethane	< 20	20	< 41.4	41.4		20	12/4/2017	74-87-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	12/4/2017	156-59-2
cis-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	12/4/2017	10061-01-5
Cyclohexane	< 10	10	< 34.4	34.4		20	12/4/2017	110-82-7
Dibromochloromethane	< 10	10	< 85.2	85.2		20	12/4/2017	124-48-1
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	12/4/2017	75-71-8
Dichlorotetrafluoroethane(F-114)	< 10	10	< 69.9	69.9		20	12/4/2017	76-14-2
Ethanol	< 100	100	< 188	188		20	12/4/2017	64-17-5
Ethyl Acetate	< 10	10	< 36.0	36.0		20	12/4/2017	141-78-6
Ethylbenzene	< 10	10	< 43.4	43.4		20	12/4/2017	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-130
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	07	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 10	10	< 41.0	41.0		20	12/4/2017	142-82-5
Hexachlorobutadiene	< 20	20	< 213	213		20	12/4/2017	87-68-3
Hexane	< 20	20	< 70.4	70.4		20	12/4/2017	110-54-3
Isopropylbenzene	< 20	20	< 98.4	98.4		20	12/4/2017	98-82-8
m&p-Xylene	< 20	20	< 86.8	86.8		20	12/4/2017	179601-23-1
Methyl tert-butyl ether	< 40	40	< 144	144		20	12/4/2017	1634-04-4
Methylcyclohexane	< 20	20	< 80.4	80.4		20	12/4/2017	108-87-2
Methylene chloride	< 40	40	< 139	139		20	12/4/2017	75-09-2
Naphthalene	< 100	100	< 524	524		20	12/4/2017	91-20-3
Nonane	< 20	20	< 105	105		20	12/4/2017	111-84-2
Octane	< 20	20	< 93.4	93.4		20	12/4/2017	111-65-9
o-Xylene	< 10	10	< 43.4	43.4		20	12/4/2017	95-47-6
Propene (Propylene)	< 20	20	< 34.4	34.4	L5, R6	20	12/4/2017	115-07-1
Propylbenzene	< 20	20	< 98.4	98.4		20	12/4/2017	103-65-1
Sec-Butyl benzene	< 20	20	< 110	110		20	12/4/2017	135-98-8
Styrene	< 10	10	< 42.6	42.6		20	12/4/2017	100-42-5
Tert-Butyl benzene	< 20	20	< 110	110		20	12/4/2017	98-06-6
Tetrachloroethene	< 20	20	< 136	136		20	12/4/2017	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	12/4/2017	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	12/4/2017	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	12/4/2017	156-60-5
trans-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	12/4/2017	10061-02-6
Trichloroethene	**88**	**10**	**475**	**53.7**		20	12/4/2017	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	12/4/2017	75-69-4
Trichlorotrifluoroethane(F-113)	**16**	**10**	**123**	**76.6**		20	12/4/2017	76-13-1
Vinyl acetate	< 10	10	< 35.2	35.2		20	12/4/2017	108-05-4
Vinyl chloride	< 10	10	< 25.6	25.6	L5	20	12/4/2017	75-01-4
Surr: 4-Bromofluorobenzene	73.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	210	200	ppbv		T4	20	12/4/2017

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-140
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	08	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1,1-Trichloroethane	< 10	10	< 54.6	54.6		20	12/4/2017	71-55-6
1,1,2,2-Tetrachloroethane	< 10	10	< 68.7	68.7	R6	20	12/4/2017	79-34-5
1,1,2-Trichloroethane	< 10	10	< 54.6	54.6		20	12/4/2017	79-00-5
1,1-Dichloroethane	**142**	**10**	**573**	**40.5**		20	12/4/2017	75-34-3
1,1-Dichloroethene	**4,520**	**100**	**17,940**	**397**		200	12/6/2017	75-35-4
1,2,4-Trichlorobenzene	< 40	40	< 297	297		20	12/4/2017	120-82-1
1,2,4-Trimethylbenzene	< 10	10	< 49.2	49.2		20	12/4/2017	95-63-6
1,2-Dibromoethane	< 10	10	< 76.8	76.8		20	12/4/2017	106-93-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	12/4/2017	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	12/4/2017	107-06-2
1,2-Dichloropropane	< 10	10	< 46.2	46.2		20	12/4/2017	78-87-5
1,3,5-Trimethylbenzene	< 10	10	< 49.2	49.2		20	12/4/2017	108-67-8
1,3-Butadiene	< 10	10	< 22.1	22.1	L5, R6	20	12/4/2017	106-99-0
1,3-Dichlorobenzene	< 10	10	< 60.1	60.1		20	12/4/2017	541-73-1
1,4-Dichlorobenzene	< 10	10	< 60.1	60.1		20	12/4/2017	106-46-7
1,4-Dioxane	< 40	40	< 144	144		20	12/4/2017	123-91-1
2,2,4-Trimethylpentane	< 10	10	< 46.6	46.6		20	12/4/2017	540-84-1
2-Butanone (MEK)	< 100	100	< 295	295		20	12/4/2017	78-93-3
2-Hexanone	< 100	100	< 410	410		20	12/4/2017	591-78-6
2-Propanol (IPA)	< 100	100	< 245	245		20	12/4/2017	67-63-0
4-Ethyltoluene	< 20	20	< 98.4	98.4		20	12/4/2017	622-96-8
4-Methyl-2-pentanone (MIK)	< 100	100	< 410	410		20	12/4/2017	108-10-1
Acetone	< 100	100	< 238	238		20	12/4/2017	67-64-1
Allyl chloride	< 20	20	< 62.6	62.6		20	12/4/2017	107-05-1
Benzene	< 10	10	< 31.9	31.9		20	12/4/2017	71-43-2
Benzyl chloride	< 40	40	< 207	207		20	12/4/2017	100-44-7
Bromodichloromethane	< 10	10	< 67.0	67.0		20	12/4/2017	75-27-4
Bromoethene(Vinyl Bromide)	< 10	10	< 43.7	43.7		20	12/4/2017	593-60-2
Bromoform	< 10	10	< 103	103		20	12/4/2017	75-25-2
Bromomethane	< 10	10	< 38.8	38.8		20	12/4/2017	74-83-9
Butyl benzene	< 20	20	< 110	110		20	12/4/2017	104-51-8
Carbon disulfide	< 40	40	< 124	124		20	12/4/2017	75-15-0
Carbon tetrachloride	< 10	10	< 62.9	62.9		20	12/4/2017	56-23-5
Chlorobenzene	< 10	10	< 46.0	46.0		20	12/4/2017	108-90-7
Chloroethane	< 10	10	< 26.4	26.4		20	12/4/2017	75-00-3
Chloroform	**40**	**10**	**196**	**48.8**		20	12/4/2017	67-66-3
Chloromethane	< 20	20	< 41.4	41.4		20	12/4/2017	74-87-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	12/4/2017	156-59-2
cis-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	12/4/2017	10061-01-5
Cyclohexane	< 10	10	< 34.4	34.4		20	12/4/2017	110-82-7
Dibromochloromethane	< 10	10	< 85.2	85.2		20	12/4/2017	124-48-1
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	12/4/2017	75-71-8
Dichlorotetrafluoroethane(F-114)	< 10	10	< 69.9	69.9		20	12/4/2017	76-14-2
Ethanol	< 100	100	< 188	188		20	12/4/2017	64-17-5
Ethyl Acetate	< 10	10	< 36.0	36.0		20	12/4/2017	141-78-6
Ethylbenzene	< 10	10	< 43.4	43.4		20	12/4/2017	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	WCP EGA-1-140
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	11/27/2017
Lab ID:	08	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
Heptane	< 10	10	< 41.0	41.0		20	12/4/2017	142-82-5
Hexachlorobutadiene	< 20	20	< 213	213		20	12/4/2017	87-68-3
Hexane	**25**	**20**	**86.6**	**70.4**		20	12/4/2017	110-54-3
Isopropylbenzene	< 20	20	< 98.4	98.4		20	12/4/2017	98-82-8
m&p-Xylene	< 20	20	< 86.8	86.8		20	12/4/2017	179601-23-1
Methyl tert-butyl ether	< 40	40	< 144	144		20	12/4/2017	1634-04-4
Methylcyclohexane	< 20	20	< 80.4	80.4		20	12/4/2017	108-87-2
Methylene chloride	< 40	40	< 139	139		20	12/4/2017	75-09-2
Naphthalene	< 100	100	< 524	524		20	12/4/2017	91-20-3
Nonane	< 20	20	< 105	105		20	12/4/2017	111-84-2
Octane	< 20	20	< 93.4	93.4		20	12/4/2017	111-65-9
o-Xylene	< 10	10	< 43.4	43.4		20	12/4/2017	95-47-6
Propene (Propylene)	< 20	20	< 34.4	34.4	L5, R6	20	12/4/2017	115-07-1
Propylbenzene	< 20	20	< 98.4	98.4		20	12/4/2017	103-65-1
Sec-Butyl benzene	< 20	20	< 110	110		20	12/4/2017	135-98-8
Styrene	< 10	10	< 42.6	42.6		20	12/4/2017	100-42-5
Tert-Butyl benzene	< 20	20	< 110	110		20	12/4/2017	98-06-6
Tetrachloroethene	< 200	200	1,356	1,356		200	12/6/2017	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	12/4/2017	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	12/4/2017	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	12/4/2017	156-60-5
trans-1,3-Dichloropropene	< 10	10	< 45.4	45.4		20	12/4/2017	10061-02-6
Trichloroethene	**4,540**	**100**	**24,380**	**537**		200	12/6/2017	79-01-6
Trichlorofluoromethane(F-11)	**22**	**10**	**124**	**56.2**		20	12/4/2017	75-69-4
Trichlorotrifluoroethane(F-113)	**2,520**	**100**	**19,300**	**766**		200	12/6/2017	76-13-1
Vinyl acetate	< 10	10	< 35.2	35.2		20	12/4/2017	108-05-4
Vinyl chloride	< 10	10	< 25.6	25.6	L5	20	12/4/2017	75-01-4
Surr: 4-Bromofluorobenzene	73.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	12/4/2017

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011204 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	12/4/2017	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	12/4/2017	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	12/4/2017	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	12/4/2017	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	12/4/2017	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	12/4/2017	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	12/4/2017	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	12/4/2017	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	12/4/2017	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	12/4/2017	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	12/4/2017	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	12/4/2017	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	12/4/2017	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	12/4/2017	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	12/4/2017	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	12/4/2017	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	12/4/2017	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	12/4/2017	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	12/4/2017	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	12/4/2017	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	12/4/2017	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	12/4/2017	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	12/4/2017	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	12/4/2017	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	12/4/2017	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	12/4/2017	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	12/4/2017	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	12/4/2017	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	12/4/2017	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	12/4/2017	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	12/4/2017	104-51-8
Carbon disulfide	< 2.0	2.0	< 6.22	6.22		1	12/4/2017	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	12/4/2017	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	12/4/2017	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	12/4/2017	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	12/4/2017	67-66-3
Chloromethane	< 1.0	1.0	< 2.07	2.07		1	12/4/2017	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	12/4/2017	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	12/4/2017	10061-01-5
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	12/4/2017	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	12/4/2017	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	12/4/2017	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	12/4/2017	76-14-2
Ethanol	< 5.0	5.0	< 9.40	9.40		1	12/4/2017	64-17-5
Ethyl Acetate	< 0.5	0.5	< 1.80	1.80		1	12/4/2017	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	12/4/2017	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011204 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	12/4/2017	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	12/4/2017	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	12/4/2017	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	12/4/2017	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	12/4/2017	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	12/4/2017	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	12/4/2017	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	12/4/2017	75-09-2
Naphthalene	< 5.0	5.0	< 26.2	26.2		1	12/4/2017	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	12/4/2017	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	12/4/2017	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	12/4/2017	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	12/4/2017	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	12/4/2017	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	12/4/2017	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	12/4/2017	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	12/4/2017	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	12/4/2017	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	12/4/2017	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	12/4/2017	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	12/4/2017	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	12/4/2017	10061-02-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	12/4/2017	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	12/4/2017	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	12/4/2017	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	12/4/2017	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	12/4/2017	75-01-4
Surr: 4-Bromofluorobenzene	80.0	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 12/4/2017 Batch: MS011204 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	10.7	107	14.0	140	10.0	27.0	ppbv		L5	R6
Dichlorodifluoromethane(F-12)	11.0	110	12.9	129	10.0	16.0	ppbv			
Chloromethane	12.0	120	12.3	123	10.0	2.6	ppbv			
Dichlorotetrafluoroethane(F-114)	12.8	128	10.9	109	10.0	16.1	ppbv			
Vinyl Chloride	13.6	136	10.8	108	10.0	23.1	ppbv	L5		
1,3-Butadiene	15.1	151	11.3	113	10.0	29.0	ppbv	L5		R6
Bromomethane	8.9	88.7	10.8	108	10.0	19.5	ppbv			
Chloroethane	8.0	79.7	10.0	99.8	10.0	22.4	ppbv			
Ethanol	7.4	73.8	9.1	91.0	10.0	20.9	ppbv			
Bromoethene(Vinyl Bromide)	8.4	83.8	10.0	100	10.0	17.9	ppbv			
Trichlorofluoromethane (F-11)	9.9	99.0	10.5	105	10.0	5.5	ppbv			
Acetone	8.3	83.1	9.1	91.3	10.0	9.4	ppbv			
Isopropyl Alcohol (2-Propanol)	9.5	95.3	9.9	98.5	10.0	3.3	ppbv			
1,1-Dichloroethene	9.8	97.9	10.5	105	10.0	7.3	ppbv			
Trichlorotrifluoroethane (F-113)	8.4	84.0	9.6	96.1	10.0	13.4	ppbv			
Methylene Chloride	9.5	94.9	9.9	99.1	10.0	4.3	ppbv			
Allyl Chloride	8.2	81.5	9.8	97.8	10.0	18.2	ppbv			
Carbon disulfide	8.1	80.5	9.5	95.0	10.0	16.5	ppbv			
trans-1,2-Dichloroethene	8.0	79.5	9.3	93.4	10.0	16.1	ppbv			
Methyl tert-butyl ether	8.9	89.4	9.4	93.6	10.0	4.6	ppbv			
1,1-Dichloroethane	9.1	90.7	9.3	92.5	10.0	2.0	ppbv			
Vinyl acetate	10.5	105	10.3	103	10.0	1.3	ppbv			
2-Butanone (MEK)	9.6	96.4	8.3	83.2	10.0	14.7	ppbv			
Hexane	10.6	106	10.5	105.2	10.0	0.4	ppbv			
cis-1,2-Dichloroethene	8.3	83.0	9.3	93.0	10.0	11.4	ppbv			
Ethyl Acetate	9.4	94.0	9.0	89.8	10.0	4.6	ppbv			
Chloroform	9.0	90.1	9.2	91.8	10.0	1.9	ppbv			
Tetrahydrofuran	10.5	105	9.4	93.7	10.0	11.3	ppbv			
1,1,1-Trichloroethane	9.3	93.0	9.4	94.0	10.0	1.1	ppbv			
1,2-Dichloroethane	9.5	95.1	9.2	92.0	10.0	3.3	ppbv			
Benzene	7.9	78.9	7.9	78.5	10.0	0.5	ppbv			
Carbon tetrachloride	10.1	101	9.6	95.7	10.0	5.1	ppbv			
Cyclohexane	10.4	104	9.9	99.4	10.0	4.9	ppbv			
2,2,4-Trimethylpentane	10.2	102	9.4	93.9	10.0	8.6	ppbv			
Heptane	12.3	123	11.1	111	10.0	10.0	ppbv			
1,2-Dichloropropane	7.9	79.4	8.4	84.4	10.0	6.1	ppbv			
Trichloroethene	9.7	97.1	9.4	94.3	10.0	2.9	ppbv			
Bromodichloromethane	9.7	97.0	9.6	96.4	10.0	0.6	ppbv			
1,4-Dioxane	8.6	86.1	8.5	85.3	10.0	0.9	ppbv			
Methylcyclohexane	10.9	109	9.9	99.2	10.0	9.7	ppbv			
cis-1,3-Dichloropropene	11.2	112	9.5	94.7	10.0	16.3	ppbv			
4-methyl-2-pentanone	10.5	105	9.1	91.2	10.0	14.3	ppbv			
trans-1,3-Dichloropropene	9.9	99.1	9.7	97.1	10.0	2.0	ppbv			
Toluene	10.0	100	9.2	92.1	10.0	8.6	ppbv			

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 12/4/2017 Batch: MS011204 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	7.9	78.6	8.5	85.2	10.0	8.1	ppbv			
2-Hexanone	10.9	109	9.6	95.8	10.0	13.3	ppbv			
n-Octane	11.9	119	10.5	105	10.0	11.9	ppbv			
Dibromochloromethane	9.7	96.6	10.0	100	10.0	3.8	ppbv			
1,2-Dibromoethane	8.2	81.9	9.4	93.6	10.0	13.3	ppbv			
Tetrachloroethene	9.8	97.7	10.2	102	10.0	4.3	ppbv			
Chlorobenzene	8.5	85.4	8.3	83.1	10.0	2.7	ppbv			
Ethylbenzene	10.5	105	10.0	99.9	10.0	5.0	ppbv			
m&p-Xylene	23.6	118	21.2	106	20.0	10.8	ppbv			
Bromoform	10.9	109	10.7	107	10.0	2.0	ppbv			
Styrene	11.6	116	10.9	109	10.0	6.2	ppbv			
Nonane	12.4	124	11.5	115	10.0	7.3	ppbv			
o-Xylene	11.8	118	10.5	105	10.0	12.2	ppbv			
1,1,2,2-Tetrachloroethane	7.2	72.1	10.3	103	10.0	35.0	ppbv			R6
Isopropylbenzene	10.0	100	12.1	121	10.0	18.5	ppbv			
n-Propylbenzene	9.8	98.0	12.5	125	10.0	24.2	ppbv			
4-Ethyltoluene	10.2	102	12.0	120	10.0	16.3	ppbv			
1,3,5-Trimethylbenzene	11.8	118	11.8	118	10.0	0.1	ppbv			
Tert-Butyl Benzene	11.8	118	11.2	112	10.0	5.7	ppbv			
1,2,4-Trimethylbenzene	12.5	125	11.1	111	10.0	11.2	ppbv			
Sec-Butyl Benzene	9.8	98.4	9.7	96.9	10.0	1.5	ppbv			
1,3-Dichlorobenzene	11.2	112	10.5	105	10.0	6.8	ppbv			
Benzyl chloride	10.7	107	10.0	100	10.0	7.1	ppbv			
1,4-Dichlorobenzene	11.9	119	11.0	110	10.0	8.4	ppbv			
1,2-Dichlorobenzene	11.9	119	11.2	112	10.0	6.3	ppbv			
n-Butyl Benzene	9.9	99	8.9	89.0	10.0	10.8	ppbv			
1,2,4-Trichlorobenzene	12.1	121	11.0	110	10.0	9.6	ppbv			
Naphthalene	12.9	129	11.9	119	10.0	8.1	ppbv			
Hexachlorobutadiene	11.5	115	10.2	102	10.0	12.2	ppbv			
Surr: 4-Bromofluorobenzene	11.0	110	12.9	129			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011206 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	12/6/2017	75-35-4
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	12/6/2017	79-01-6
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	12/6/2017	76-13-1
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	12/6/2017	127-18-4
Surr: 4-Bromofluorobenzene	80.8	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	N/A
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 12/6/2017 Batch: MS011206 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1-Dichloroethene	11.3	113	10.8	108	10.0	4.5	ppbv			
Trichlorotrifluoroethane (F-113)	10.6	106	10.1	101	10.0	4.4	ppbv			
Trichloroethene	12.3	123	11.7	117	10.0	4.8	ppbv			
Tetrachloroethene	12.4	124	12.8	128	10.0	3.2	ppbv			
Surr: 4-Bromofluorobenzene	10.2	102	11.0	110			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Hydro Geo Chem	**Client Sample ID:**	NA
Project:	WCP EGA	**Project Number:**	2016031.1
Lab Order:	17K026	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-170623-01	Stock	Spectra Gases	113123527	TO-14 39 Analytes	1.0 ppmv	± 5%	6/23/2018
S-170824-01	Stock	Spectra Gases	113123527	TO-15 25 Analytes	1.0 ppmv	± 5%	8/24/2018
S-170623-02	Stock	Spectra Gases	113123527	15 Additional Compounds	1.0 ppmv	± 5%	6/23/2018
S-171019-01	Stock	Spectra Gases	114560630	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/19/2018
A-171130-01	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	3/1/2018
A-171128-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	2/28/2018

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Hydro Geochem	Page 1 of 1		AEL Lab #
Address: 3038 E Cactus Ste 3	Sampler: Leah Wills	Phone: 480-438-7165	17K026
	Project Name: WCP EGA	Project Number: 2016031.1	
City, State, Zip: Phoenix, AZ 85032	Project location: Phoenix, AZ		
Contact: Dan Sola	P.O. Number: ~~2016031.1~~		
Phone: 480-421-1501 Fax:	Fax Results: Y N		
E-Mail Address: dans@hgcinc.com	E-Mail Results: (Y) N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours
_____ 72 Hours
_____ 5 working Day
_____ Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
01	E2410	220	6 (1) bag	1 2 (5)	WCP EGA-1-40	11/27/17	1239	SV	1	X									X
02	E2395	185	6 (1) bag	1 2 5	WCP EGA-1-70	|	1415	|	1	X									X
03	1855	216	6 1 bag	1 2 5	WCP EGA-1-100	|	1538	|	1	X									X
04	E2397	132	6 1 bag	1 2 5	WCP EGA-1-110	|	1618	|	1	X									X
05	E2376	059	6 1 bag	1 2 5	WCP EGA-1-111	|	1630	|	1	X									X
06	E2352	214	6 1 bag	1 2 5	A1	|	1625	A	1	X									
07	E2297	116	6 1 bag	1 2 5	WCP EGA-1-130	11/28/17	0737	SV	1	X									X
08	1866	211	6 1 bag	1 2 5	WCP EGA-1-140	11/28/17	0820	SV	1	X									X
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
11/28/17	1420	[signature]	[signature]

Analytical Report 569433

for

Hydro Geo Chem, Inc.

Project Manager: Dan Solo

WCP EGA

2016031.1

29-NOV-17

Collected By: Client

2525 West Huntington Drive, Suite 102
Tempe, AZ 85282
Ph: (480) 355-0900

Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Houston (EPA Lab code: TX00122): Arizona (AZ0765)
Xenco-Dallas (EPA Lab code: TX01468): Arizona (AZ0809)

29-NOV-17

Project Manager: **Dan Solo**
Hydro Geo Chem, Inc.
6340 E. Thomas Rd., Suite 228
Scottsdale, AZ 85251

Reference: TWA Report No(s): **569433**
WCP EGA
Project Address:

Dan Solo :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the TWA Report Number(s) 569433. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the ADHS certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with ADHS standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and ADHS Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by TransWest Analytical. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 569433 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting TransWest Analytical to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Skip Harden
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample receipt non conformances and comments:

Acetone was detected in the Trip Blank and the associated Field Samples. Lab Contamination is most likely the cause.

Sample receipt non conformances and comments per sample:

None

Flagging Criteria

Arizona Flags

All method blanks, laboratory spikes, and/or matrix spikes met quality control objectives for the parameters associated with this Work Order except as detailed below or on the Data Qualifier page of this report. Data Qualifiers used in this report are in accordance with ADHS Data Qualifiers, Revision 4.0 9/05/2012.
Data qualifiers (flags) contained within this analytical report have been issued to explain a quality control deficiency, and do not affect the quality (validity) of the data unless noted otherwise in the case narrative.

E4 Concentration estimated. Analyte was detected below laboratory minimum reporting limit (MRL).

E8 Analyte reported to MDL per project specification. Target analyte was not detected in sample.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

Sample Cross Reference 569433

Hydro Geo Chem, Inc., Scottsdale, AZ

WCP EGA

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
EGA-1-160	W	11-28-17 09:26		569433-001
EGA-1-180	W	11-28-17 11:17		569433-002
EGA-1-200	W	11-28-17 13:15		569433-003
Trip Blank	W	11-28-17 13:15		569433-004

Certificate of Analytical Results 569433

Hydro Geo Chem, Inc., Scottsdale, AZ

WCP EGA

Sample Id: **EGA-1-160** Matrix: Ground Water Date Received:11.28.17 17.50
Lab Sample Id: 569433-001 Date Collected: 11.28.17 09.26

Analytical Method: Volatiles by SW 8260B Prep Method: SW5030C
Tech: MNI % Solids:
Analyst: MNI Date Prep: 11.28.17 09.25
Seq Number: 3034392

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	<0.100	0.500	0.100	ug/L	11.28.17 15.59	E8	1
1,1,1-Trichloroethane	71-55-6	<0.200	0.500	0.200	ug/L	11.28.17 15.59	E8	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.100	0.500	0.100	ug/L	11.28.17 15.59	E8	1
1,1,2-Trichloroethane	79-00-5	<0.0900	0.500	0.0900	ug/L	11.28.17 15.59	E8	1
1,1-Dichloroethane	75-34-3	<0.0700	0.500	0.0700	ug/L	11.28.17 15.59	E8	1
1,1-Dichloroethene	75-35-4	<0.200	0.500	0.200	ug/L	11.28.17 15.59	E8	1
1,1-Dichloropropene	563-58-6	<0.200	1.00	0.200	ug/L	11.28.17 15.59	E8	1
1,2,3-Trichlorobenzene	87-61-6	<0.200	5.00	0.200	ug/L	11.28.17 15.59	E8	1
1,2,3-Trichloropropane	96-18-4	<0.200	1.00	0.200	ug/L	11.28.17 15.59	E8	1
1,2,4-Trichlorobenzene	120-82-1	<0.0700	5.00	0.0700	ug/L	11.28.17 15.59	E8	1
1,2,4-Trimethylbenzene	95-63-6	<0.0700	2.00	0.0700	ug/L	11.28.17 15.59	E8	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.300	2.00	0.300	ug/L	11.28.17 15.59	E8	1
1,2-Dibromoethane	106-93-4	<0.200	0.500	0.200	ug/L	11.28.17 15.59	E8	1
1,2-Dichlorobenzene	95-50-1	<0.0800	1.50	0.0800	ug/L	11.28.17 15.59	E8	1
1,2-Dichloroethane	107-06-2	<0.100	0.500	0.100	ug/L	11.28.17 15.59	E8	1
1,2-Dichloropropane	78-87-5	<0.0900	0.500	0.0900	ug/L	11.28.17 15.59	E8	1
1,3,5-Trimethylbenzene	108-67-8	<0.0700	1.50	0.0700	ug/L	11.28.17 15.59	E8	1
1,3-Dichlorobenzene	541-73-1	<0.0600	1.50	0.0600	ug/L	11.28.17 15.59	E8	1
1,3-Dichloropropane	142-28-9	<0.0700	1.00	0.0700	ug/L	11.28.17 15.59	E8	1
1,4-Dichlorobenzene	106-46-7	<0.200	1.50	0.200	ug/L	11.28.17 15.59	E8	1
2,2-Dichloropropane	594-20-7	<0.200	0.500	0.200	ug/L	11.28.17 15.59	E8	1
2-Butanone	78-93-3	<0.300	5.00	0.300	ug/L	11.28.17 15.59	E8	1
2-Chlorotoluene	95-49-8	<0.0800	1.50	0.0800	ug/L	11.28.17 15.59	E8	1
2-Hexanone	591-78-6	<0.200	5.00	0.200	ug/L	11.28.17 15.59	E8	1
4-Chlorotoluene	106-43-4	<0.0700	2.00	0.0700	ug/L	11.28.17 15.59	E8	1
4-Methyl-2-Pentanone	108-10-1	<0.200	5.00	0.200	ug/L	11.28.17 15.59	E8	1
Acetone	67-64-1	**14.4**	20.0	0.600	ug/L	11.28.17 15.59	E4	1
Benzene	71-43-2	<0.100	0.500	0.100	ug/L	11.28.17 15.59	E8	1
Bromobenzene	108-86-1	<0.0900	1.50	0.0900	ug/L	11.28.17 15.59	E8	1
Bromochloromethane	74-97-5	<0.200	0.500	0.200	ug/L	11.28.17 15.59	E8	1
Bromodichloromethane	75-27-4	<0.0800	0.500	0.0800	ug/L	11.28.17 15.59	E8	1
Bromoform	75-25-2	<0.100	1.00	0.100	ug/L	11.28.17 15.59	E8	1
Bromomethane	74-83-9	<0.300	5.00	0.300	ug/L	11.28.17 15.59	E8	1
Carbon Disulfide	75-15-0	<0.0900	0.500	0.0900	ug/L	11.28.17 15.59	E8	1
Carbon Tetrachloride	56-23-5	<0.200	0.500	0.200	ug/L	11.28.17 15.59	E8	1
Chlorobenzene	108-90-7	<0.0700	0.500	0.0700	ug/L	11.28.17 15.59	E8	1
Chloroethane	75-00-3	<0.600	4.00	0.600	ug/L	11.28.17 15.59	E8	1
Chloroform	67-66-3	<0.0700	0.500	0.0700	ug/L	11.28.17 15.59	E8	1

Certificate of Analytical Results 569433

Hydro Geo Chem, Inc., Scottsdale, AZ

WCP EGA

Sample Id: **EGA-1-160**
Lab Sample Id: 569433-001

Matrix: Ground Water
Date Collected: 11.28.17 09.26

Date Received:11.28.17 17.50

Analytical Method: Volatiles by SW 8260B
Tech: MNI
Analyst: MNI
Seq Number: 3034392

Date Prep: 11.28.17 09.25

Prep Method: SW5030C
% Solids:

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloromethane	74-87-3	<0.200	5.00	0.200	ug/L	11.28.17 15.59	E8	1
cis-1,2-Dichloroethene	156-59-2	<0.200	0.500	0.200	ug/L	11.28.17 15.59	E8	1
cis-1,3-Dichloropropene	10061-01-5	<0.0800	1.00	0.0800	ug/L	11.28.17 15.59	E8	1
Dibromochloromethane	124-48-1	<0.0700	0.500	0.0700	ug/L	11.28.17 15.59	E8	1
Dibromomethane	74-95-3	<0.200	0.500	0.200	ug/L	11.28.17 15.59	E8	1
Dichlorodifluoromethane	75-71-8	<0.200	2.00	0.200	ug/L	11.28.17 15.59	E8	1
Ethylbenzene	100-41-4	<0.0900	2.00	0.0900	ug/L	11.28.17 15.59	E8	1
Hexachlorobutadiene	87-68-3	<0.200	5.00	0.200	ug/L	11.28.17 15.59	E8	1
Iodomethane (Methyl Iodide)	74-88-4	<0.300	2.00	0.300	ug/L	11.28.17 15.59	E8	1
isopropylbenzene	98-82-8	<0.0800	2.50	0.0800	ug/L	11.28.17 15.59	E8	1
m,p-Xylenes	179601-23-1	<0.0900	2.00	0.0900	ug/L	11.28.17 15.59	E8	1
Methylene Chloride	75-09-2	<0.200	3.00	0.200	ug/L	11.28.17 15.59	E8	1
MTBE	1634-04-4	<0.100	2.00	0.100	ug/L	11.28.17 15.59	E8	1
Naphthalene	91-20-3	<0.200	5.00	0.200	ug/L	11.28.17 15.59	E8	1
n-Butylbenzene	104-51-8	<0.200	2.50	0.200	ug/L	11.28.17 15.59	E8	1
n-Propylbenzene	103-65-1	<0.0800	2.00	0.0800	ug/L	11.28.17 15.59	E8	1
o-Xylene	95-47-6	<0.0900	1.00	0.0900	ug/L	11.28.17 15.59	E8	1
p-Cymene (p-Isopropyltoluene)	99-87-6	<0.100	1.50	0.100	ug/L	11.28.17 15.59	E8	1
Sec-Butylbenzene	135-98-8	<0.100	1.50	0.100	ug/L	11.28.17 15.59	E8	1
Styrene	100-42-5	<0.0800	1.00	0.0800	ug/L	11.28.17 15.59	E8	1
tert-Butylbenzene	98-06-6	<0.200	2.50	0.200	ug/L	11.28.17 15.59	E8	1
Tetrachloroethylene	127-18-4	<0.0800	0.500	0.0800	ug/L	11.28.17 15.59	E8	1
Toluene	108-88-3	<0.0700	2.00	0.0700	ug/L	11.28.17 15.59	E8	1
Total Trihalomethane		<0.0700	0.500	0.0700	ug/L	11.28.17 15.59	E8	1
Total Xylenes	1330-20-7	<0.0900	1.00	0.0900	ug/L	11.28.17 15.59	E8	1
trans-1,2-dichloroethene	156-60-5	<0.0900	0.500	0.0900	ug/L	11.28.17 15.59	E8	1
trans-1,3-dichloropropene	10061-02-6	<0.0600	0.500	0.0600	ug/L	11.28.17 15.59	E8	1
Trichloroethene	79-01-6	**1.42**	0.500	0.200	ug/L	11.28.17 15.59		1
Trichlorofluoromethane	75-69-4	<0.400	2.00	0.400	ug/L	11.28.17 15.59	E8	1
Vinyl Acetate	108-05-4	<0.200	5.00	0.200	ug/L	11.28.17 15.59	E8	1
Vinyl Chloride	75-01-4	<0.100	0.500	0.100	ug/L	11.28.17 15.59	E8	1

Surrogate	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	83	%	74-124	11.28.17 15.59	
Dibromofluoromethane	99	%	75-131	11.28.17 15.59	
1,2-Dichloroethane-D4	86	%	63-144	11.28.17 15.59	
Toluene-D8	97	%	80-117	11.28.17 15.59	

Final 1.000

Certificate of Analytical Results 569433

Hydro Geo Chem, Inc., Scottsdale, AZ

WCP EGA

Sample Id: **EGA-1-180**
Lab Sample Id: 569433-002

Matrix: Ground Water
Date Collected: 11.28.17 11.17

Date Received:11.28.17 17.50

Analytical Method: Volatiles by SW 8260B
Tech: MNI
Analyst: MNI
Seq Number: 3034392

Date Prep: 11.28.17 09.25

Prep Method: SW5030C
% Solids:

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	<0.100	0.500	0.100	ug/L	11.28.17 16.25	E8	1
1,1,1-Trichloroethane	71-55-6	<0.200	0.500	0.200	ug/L	11.28.17 16.25	E8	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.100	0.500	0.100	ug/L	11.28.17 16.25	E8	1
1,1,2-Trichloroethane	79-00-5	<0.0900	0.500	0.0900	ug/L	11.28.17 16.25	E8	1
1,1-Dichloroethane	75-34-3	<0.0700	0.500	0.0700	ug/L	11.28.17 16.25	E8	1
1,1-Dichloroethene	75-35-4	<0.200	0.500	0.200	ug/L	11.28.17 16.25	E8	1
1,1-Dichloropropene	563-58-6	<0.200	1.00	0.200	ug/L	11.28.17 16.25	E8	1
1,2,3-Trichlorobenzene	87-61-6	<0.200	5.00	0.200	ug/L	11.28.17 16.25	E8	1
1,2,3-Trichloropropane	96-18-4	<0.200	1.00	0.200	ug/L	11.28.17 16.25	E8	1
1,2,4-Trichlorobenzene	120-82-1	<0.0700	5.00	0.0700	ug/L	11.28.17 16.25	E8	1
1,2,4-Trimethylbenzene	95-63-6	<0.0700	2.00	0.0700	ug/L	11.28.17 16.25	E8	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.300	2.00	0.300	ug/L	11.28.17 16.25	E8	1
1,2-Dibromoethane	106-93-4	<0.200	0.500	0.200	ug/L	11.28.17 16.25	E8	1
1,2-Dichlorobenzene	95-50-1	<0.0800	1.50	0.0800	ug/L	11.28.17 16.25	E8	1
1,2-Dichloroethane	107-06-2	<0.100	0.500	0.100	ug/L	11.28.17 16.25	E8	1
1,2-Dichloropropane	78-87-5	<0.0900	0.500	0.0900	ug/L	11.28.17 16.25	E8	1
1,3,5-Trimethylbenzene	108-67-8	<0.0700	1.50	0.0700	ug/L	11.28.17 16.25	E8	1
1,3-Dichlorobenzene	541-73-1	<0.0600	1.50	0.0600	ug/L	11.28.17 16.25	E8	1
1,3-Dichloropropane	142-28-9	<0.0700	1.00	0.0700	ug/L	11.28.17 16.25	E8	1
1,4-Dichlorobenzene	106-46-7	<0.200	1.50	0.200	ug/L	11.28.17 16.25	E8	1
2,2-Dichloropropane	594-20-7	<0.200	0.500	0.200	ug/L	11.28.17 16.25	E8	1
2-Butanone	78-93-3	<0.300	5.00	0.300	ug/L	11.28.17 16.25	E8	1
2-Chlorotoluene	95-49-8	<0.0800	1.50	0.0800	ug/L	11.28.17 16.25	E8	1
2-Hexanone	591-78-6	<0.200	5.00	0.200	ug/L	11.28.17 16.25	E8	1
4-Chlorotoluene	106-43-4	<0.0700	2.00	0.0700	ug/L	11.28.17 16.25	E8	1
4-Methyl-2-Pentanone	108-10-1	<0.200	5.00	0.200	ug/L	11.28.17 16.25	E8	1
Acetone	67-64-1	**45.9**	20.0	0.600	ug/L	11.28.17 16.25		1
Benzene	71-43-2	<0.100	0.500	0.100	ug/L	11.28.17 16.25	E8	1
Bromobenzene	108-86-1	<0.0900	1.50	0.0900	ug/L	11.28.17 16.25	E8	1
Bromochloromethane	74-97-5	<0.200	0.500	0.200	ug/L	11.28.17 16.25	E8	1
Bromodichloromethane	75-27-4	<0.0800	0.500	0.0800	ug/L	11.28.17 16.25	E8	1
Bromoform	75-25-2	<0.100	1.00	0.100	ug/L	11.28.17 16.25	E8	1
Bromomethane	74-83-9	<0.300	5.00	0.300	ug/L	11.28.17 16.25	E8	1
Carbon Disulfide	75-15-0	<0.0900	0.500	0.0900	ug/L	11.28.17 16.25	E8	1
Carbon Tetrachloride	56-23-5	<0.200	0.500	0.200	ug/L	11.28.17 16.25	E8	1
Chlorobenzene	108-90-7	<0.0700	0.500	0.0700	ug/L	11.28.17 16.25	E8	1
Chloroethane	75-00-3	<0.600	4.00	0.600	ug/L	11.28.17 16.25	E8	1
Chloroform	67-66-3	<0.0700	0.500	0.0700	ug/L	11.28.17 16.25	E8	1

Final 1.000

Certificate of Analytical Results 569433

Hydro Geo Chem, Inc., Scottsdale, AZ

WCP EGA

Sample Id: **EGA-1-180**
Lab Sample Id: 569433-002

Matrix: Ground Water
Date Collected: 11.28.17 11.17

Date Received:11.28.17 17.50

Analytical Method: Volatiles by SW 8260B
Tech: MNI
Analyst: MNI
Seq Number: 3034392

Date Prep: 11.28.17 09.25

Prep Method: SW5030C
% Solids:

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloromethane	74-87-3	<0.200	5.00	0.200	ug/L	11.28.17 16.25	E8	1
cis-1,2-Dichloroethene	156-59-2	<0.200	0.500	0.200	ug/L	11.28.17 16.25	E8	1
cis-1,3-Dichloropropene	10061-01-5	<0.0800	1.00	0.0800	ug/L	11.28.17 16.25	E8	1
Dibromochloromethane	124-48-1	<0.0700	0.500	0.0700	ug/L	11.28.17 16.25	E8	1
Dibromomethane	74-95-3	<0.200	0.500	0.200	ug/L	11.28.17 16.25	E8	1
Dichlorodifluoromethane	75-71-8	<0.200	2.00	0.200	ug/L	11.28.17 16.25	E8	1
Ethylbenzene	100-41-4	<0.0900	2.00	0.0900	ug/L	11.28.17 16.25	E8	1
Hexachlorobutadiene	87-68-3	<0.200	5.00	0.200	ug/L	11.28.17 16.25	E8	1
Iodomethane (Methyl Iodide)	74-88-4	<0.300	2.00	0.300	ug/L	11.28.17 16.25	E8	1
isopropylbenzene	98-82-8	<0.0800	2.50	0.0800	ug/L	11.28.17 16.25	E8	1
m,p-Xylenes	179601-23-1	<0.0900	2.00	0.0900	ug/L	11.28.17 16.25	E8	1
Methylene Chloride	75-09-2	<0.200	3.00	0.200	ug/L	11.28.17 16.25	E8	1
MTBE	1634-04-4	<0.100	2.00	0.100	ug/L	11.28.17 16.25	E8	1
Naphthalene	91-20-3	<0.200	5.00	0.200	ug/L	11.28.17 16.25	E8	1
n-Butylbenzene	104-51-8	<0.200	2.50	0.200	ug/L	11.28.17 16.25	E8	1
n-Propylbenzene	103-65-1	<0.0800	2.00	0.0800	ug/L	11.28.17 16.25	E8	1
o-Xylene	95-47-6	<0.0900	1.00	0.0900	ug/L	11.28.17 16.25	E8	1
p-Cymene (p-Isopropyltoluene)	99-87-6	<0.100	1.50	0.100	ug/L	11.28.17 16.25	E8	1
Sec-Butylbenzene	135-98-8	<0.100	1.50	0.100	ug/L	11.28.17 16.25	E8	1
Styrene	100-42-5	<0.0800	1.00	0.0800	ug/L	11.28.17 16.25	E8	1
tert-Butylbenzene	98-06-6	<0.200	2.50	0.200	ug/L	11.28.17 16.25	E8	1
Tetrachloroethylene	127-18-4	<0.0800	0.500	0.0800	ug/L	11.28.17 16.25	E8	1
Toluene	108-88-3	<0.0700	2.00	0.0700	ug/L	11.28.17 16.25	E8	1
Total Trihalomethane		<0.0700	0.500	0.0700	ug/L	11.28.17 16.25	E8	1
Total Xylenes	1330-20-7	<0.0900	1.00	0.0900	ug/L	11.28.17 16.25	E8	1
trans-1,2-dichloroethene	156-60-5	<0.0900	0.500	0.0900	ug/L	11.28.17 16.25	E8	1
trans-1,3-dichloropropene	10061-02-6	<0.0600	0.500	0.0600	ug/L	11.28.17 16.25	E8	1
Trichloroethene	79-01-6	**1.71**	0.500	0.200	ug/L	11.28.17 16.25		1
Trichlorofluoromethane	75-69-4	<0.400	2.00	0.400	ug/L	11.28.17 16.25	E8	1
Vinyl Acetate	108-05-4	<0.200	5.00	0.200	ug/L	11.28.17 16.25	E8	1
Vinyl Chloride	75-01-4	<0.100	0.500	0.100	ug/L	11.28.17 16.25	E8	1

Surrogate	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	100	%	74-124	11.28.17 16.25	
Dibromofluoromethane	120	%	75-131	11.28.17 16.25	
1,2-Dichloroethane-D4	99	%	63-144	11.28.17 16.25	
Toluene-D8	109	%	80-117	11.28.17 16.25	

Final 1.000

Certificate of Analytical Results 569433

Hydro Geo Chem, Inc., Scottsdale, AZ

WCP EGA

Sample Id: **EGA-1-200**
Lab Sample Id: 569433-003

Matrix: Ground Water
Date Collected: 11.28.17 13.15

Date Received:11.28.17 17.50

Analytical Method: Volatiles by SW 8260B
Tech: MNI
Analyst: MNI
Seq Number: 3034392

Date Prep: 11.28.17 09.25

Prep Method: SW5030C
% Solids:

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	<0.100	0.500	0.100	ug/L	11.28.17 16.51	E8	1
1,1,1-Trichloroethane	71-55-6	<0.200	0.500	0.200	ug/L	11.28.17 16.51	E8	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.100	0.500	0.100	ug/L	11.28.17 16.51	E8	1
1,1,2-Trichloroethane	79-00-5	<0.0900	0.500	0.0900	ug/L	11.28.17 16.51	E8	1
1,1-Dichloroethane	75-34-3	<0.0700	0.500	0.0700	ug/L	11.28.17 16.51	E8	1
1,1-Dichloroethene	75-35-4	<0.200	0.500	0.200	ug/L	11.28.17 16.51	E8	1
1,1-Dichloropropene	563-58-6	<0.200	1.00	0.200	ug/L	11.28.17 16.51	E8	1
1,2,3-Trichlorobenzene	87-61-6	<0.200	5.00	0.200	ug/L	11.28.17 16.51	E8	1
1,2,3-Trichloropropane	96-18-4	<0.200	1.00	0.200	ug/L	11.28.17 16.51	E8	1
1,2,4-Trichlorobenzene	120-82-1	<0.0700	5.00	0.0700	ug/L	11.28.17 16.51	E8	1
1,2,4-Trimethylbenzene	95-63-6	<0.0700	2.00	0.0700	ug/L	11.28.17 16.51	E8	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.300	2.00	0.300	ug/L	11.28.17 16.51	E8	1
1,2-Dibromoethane	106-93-4	<0.200	0.500	0.200	ug/L	11.28.17 16.51	E8	1
1,2-Dichlorobenzene	95-50-1	<0.0800	1.50	0.0800	ug/L	11.28.17 16.51	E8	1
1,2-Dichloroethane	107-06-2	<0.100	0.500	0.100	ug/L	11.28.17 16.51	E8	1
1,2-Dichloropropane	78-87-5	<0.0900	0.500	0.0900	ug/L	11.28.17 16.51	E8	1
1,3,5-Trimethylbenzene	108-67-8	<0.0700	1.50	0.0700	ug/L	11.28.17 16.51	E8	1
1,3-Dichlorobenzene	541-73-1	<0.0600	1.50	0.0600	ug/L	11.28.17 16.51	E8	1
1,3-Dichloropropane	142-28-9	<0.0700	1.00	0.0700	ug/L	11.28.17 16.51	E8	1
1,4-Dichlorobenzene	106-46-7	<0.200	1.50	0.200	ug/L	11.28.17 16.51	E8	1
2,2-Dichloropropane	594-20-7	<0.200	0.500	0.200	ug/L	11.28.17 16.51	E8	1
2-Butanone	78-93-3	**6.11**	5.00	0.300	ug/L	11.28.17 16.51		1
2-Chlorotoluene	95-49-8	<0.0800	1.50	0.0800	ug/L	11.28.17 16.51	E8	1
2-Hexanone	591-78-6	<0.200	5.00	0.200	ug/L	11.28.17 16.51	E8	1
4-Chlorotoluene	106-43-4	<0.0700	2.00	0.0700	ug/L	11.28.17 16.51	E8	1
4-Methyl-2-Pentanone	108-10-1	**1.20**	5.00	0.200	ug/L	11.28.17 16.51	E4	1
Acetone	67-64-1	**65.3**	20.0	0.600	ug/L	11.28.17 16.51		1
Benzene	71-43-2	<0.100	0.500	0.100	ug/L	11.28.17 16.51	E8	1
Bromobenzene	108-86-1	<0.0900	1.50	0.0900	ug/L	11.28.17 16.51	E8	1
Bromochloromethane	74-97-5	<0.200	0.500	0.200	ug/L	11.28.17 16.51	E8	1
Bromodichloromethane	75-27-4	<0.0800	0.500	0.0800	ug/L	11.28.17 16.51	E8	1
Bromoform	75-25-2	<0.100	1.00	0.100	ug/L	11.28.17 16.51	E8	1
Bromomethane	74-83-9	<0.300	5.00	0.300	ug/L	11.28.17 16.51	E8	1
Carbon Disulfide	75-15-0	<0.0900	0.500	0.0900	ug/L	11.28.17 16.51	E8	1
Carbon Tetrachloride	56-23-5	<0.200	0.500	0.200	ug/L	11.28.17 16.51	E8	1
Chlorobenzene	108-90-7	<0.0700	0.500	0.0700	ug/L	11.28.17 16.51	E8	1
Chloroethane	75-00-3	<0.600	4.00	0.600	ug/L	11.28.17 16.51	E8	1
Chloroform	67-66-3	<0.0700	0.500	0.0700	ug/L	11.28.17 16.51	E8	1

Final 1.000

Certificate of Analytical Results 569433

Hydro Geo Chem, Inc., Scottsdale, AZ

WCP EGA

Sample Id: **EGA-1-200**
Lab Sample Id: 569433-003

Matrix: Ground Water
Date Collected: 11.28.17 13.15

Date Received:11.28.17 17.50

Analytical Method: Volatiles by SW 8260B
Tech: MNI
Analyst: MNI
Seq Number: 3034392

Date Prep: 11.28.17 09.25

Prep Method: SW5030C
% Solids:

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloromethane	74-87-3	<0.200	5.00	0.200	ug/L	11.28.17 16.51	E8	1
cis-1,2-Dichloroethene	156-59-2	<0.200	0.500	0.200	ug/L	11.28.17 16.51	E8	1
cis-1,3-Dichloropropene	10061-01-5	<0.0800	1.00	0.0800	ug/L	11.28.17 16.51	E8	1
Dibromochloromethane	124-48-1	<0.0700	0.500	0.0700	ug/L	11.28.17 16.51	E8	1
Dibromomethane	74-95-3	<0.200	0.500	0.200	ug/L	11.28.17 16.51	E8	1
Dichlorodifluoromethane	75-71-8	<0.200	2.00	0.200	ug/L	11.28.17 16.51	E8	1
Ethylbenzene	100-41-4	<0.0900	2.00	0.0900	ug/L	11.28.17 16.51	E8	1
Hexachlorobutadiene	87-68-3	<0.200	5.00	0.200	ug/L	11.28.17 16.51	E8	1
Iodomethane (Methyl Iodide)	74-88-4	<0.300	2.00	0.300	ug/L	11.28.17 16.51	E8	1
isopropylbenzene	98-82-8	<0.0800	2.50	0.0800	ug/L	11.28.17 16.51	E8	1
m,p-Xylenes	179601-23-1	<0.0900	2.00	0.0900	ug/L	11.28.17 16.51	E8	1
Methylene Chloride	75-09-2	<0.200	3.00	0.200	ug/L	11.28.17 16.51	E8	1
MTBE	1634-04-4	<0.100	2.00	0.100	ug/L	11.28.17 16.51	E8	1
Naphthalene	91-20-3	<0.200	5.00	0.200	ug/L	11.28.17 16.51	E8	1
n-Butylbenzene	104-51-8	<0.200	2.50	0.200	ug/L	11.28.17 16.51	E8	1
n-Propylbenzene	103-65-1	<0.0800	2.00	0.0800	ug/L	11.28.17 16.51	E8	1
o-Xylene	95-47-6	<0.0900	1.00	0.0900	ug/L	11.28.17 16.51	E8	1
p-Cymene (p-Isopropyltoluene)	99-87-6	<0.100	1.50	0.100	ug/L	11.28.17 16.51	E8	1
Sec-Butylbenzene	135-98-8	<0.100	1.50	0.100	ug/L	11.28.17 16.51	E8	1
Styrene	100-42-5	<0.0800	1.00	0.0800	ug/L	11.28.17 16.51	E8	1
tert-Butylbenzene	98-06-6	<0.200	2.50	0.200	ug/L	11.28.17 16.51	E8	1
Tetrachloroethylene	127-18-4	<0.0800	0.500	0.0800	ug/L	11.28.17 16.51	E8	1
Toluene	108-88-3	**0.820**	2.00	0.0700	ug/L	11.28.17 16.51	E4	1
Total Trihalomethane		<0.0700	0.500	0.0700	ug/L	11.28.17 16.51	E8	1
Total Xylenes	1330-20-7	<0.0900	1.00	0.0900	ug/L	11.28.17 16.51	E8	1
trans-1,2-dichloroethene	156-60-5	<0.0900	0.500	0.0900	ug/L	11.28.17 16.51	E8	1
trans-1,3-dichloropropene	10061-02-6	<0.0600	0.500	0.0600	ug/L	11.28.17 16.51	E8	1
Trichloroethene	79-01-6	**1.79**	0.500	0.200	ug/L	11.28.17 16.51		1
Trichlorofluoromethane	75-69-4	<0.400	2.00	0.400	ug/L	11.28.17 16.51	E8	1
Vinyl Acetate	108-05-4	<0.200	5.00	0.200	ug/L	11.28.17 16.51	E8	1
Vinyl Chloride	75-01-4	<0.100	0.500	0.100	ug/L	11.28.17 16.51	E8	1

Surrogate	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	87	%	74-124	11.28.17 16.51	
Dibromofluoromethane	104	%	75-131	11.28.17 16.51	
1,2-Dichloroethane-D4	84	%	63-144	11.28.17 16.51	
Toluene-D8	97	%	80-117	11.28.17 16.51	

Final 1.000

Certificate of Analytical Results 569433

Hydro Geo Chem, Inc., Scottsdale, AZ

WCP EGA

Sample Id: **Trip Blank** Matrix: Water Date Received:11.28.17 17.50
Lab Sample Id: 569433-004 Date Collected: 11.28.17 13.15

Analytical Method: Volatiles by SW 8260B Prep Method: SW5030C
Tech: MNI % Solids:
Analyst: MNI Date Prep: 11.28.17 09.25
Seq Number: 3034392

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	<0.100	0.500	0.100	ug/L	11.28.17 17.17	E8	1
1,1,1-Trichloroethane	71-55-6	<0.200	0.500	0.200	ug/L	11.28.17 17.17	E8	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.100	0.500	0.100	ug/L	11.28.17 17.17	E8	1
1,1,2-Trichloroethane	79-00-5	<0.0900	0.500	0.0900	ug/L	11.28.17 17.17	E8	1
1,1-Dichloroethane	75-34-3	<0.0700	0.500	0.0700	ug/L	11.28.17 17.17	E8	1
1,1-Dichloroethene	75-35-4	<0.200	0.500	0.200	ug/L	11.28.17 17.17	E8	1
1,1-Dichloropropene	563-58-6	<0.200	1.00	0.200	ug/L	11.28.17 17.17	E8	1
1,2,3-Trichlorobenzene	87-61-6	<0.200	5.00	0.200	ug/L	11.28.17 17.17	E8	1
1,2,3-Trichloropropane	96-18-4	<0.200	1.00	0.200	ug/L	11.28.17 17.17	E8	1
1,2,4-Trichlorobenzene	120-82-1	<0.0700	5.00	0.0700	ug/L	11.28.17 17.17	E8	1
1,2,4-Trimethylbenzene	95-63-6	<0.0700	2.00	0.0700	ug/L	11.28.17 17.17	E8	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.300	2.00	0.300	ug/L	11.28.17 17.17	E8	1
1,2-Dibromoethane	106-93-4	<0.200	0.500	0.200	ug/L	11.28.17 17.17	E8	1
1,2-Dichlorobenzene	95-50-1	<0.0800	1.50	0.0800	ug/L	11.28.17 17.17	E8	1
1,2-Dichloroethane	107-06-2	<0.100	0.500	0.100	ug/L	11.28.17 17.17	E8	1
1,2-Dichloropropane	78-87-5	<0.0900	0.500	0.0900	ug/L	11.28.17 17.17	E8	1
1,3,5-Trimethylbenzene	108-67-8	<0.0700	1.50	0.0700	ug/L	11.28.17 17.17	E8	1
1,3-Dichlorobenzene	541-73-1	<0.0600	1.50	0.0600	ug/L	11.28.17 17.17	E8	1
1,3-Dichloropropane	142-28-9	<0.0700	1.00	0.0700	ug/L	11.28.17 17.17	E8	1
1,4-Dichlorobenzene	106-46-7	<0.200	1.50	0.200	ug/L	11.28.17 17.17	E8	1
2,2-Dichloropropane	594-20-7	<0.200	0.500	0.200	ug/L	11.28.17 17.17	E8	1
2-Butanone	78-93-3	<0.300	5.00	0.300	ug/L	11.28.17 17.17	E8	1
2-Chlorotoluene	95-49-8	<0.0800	1.50	0.0800	ug/L	11.28.17 17.17	E8	1
2-Hexanone	591-78-6	<0.200	5.00	0.200	ug/L	11.28.17 17.17	E8	1
4-Chlorotoluene	106-43-4	<0.0700	2.00	0.0700	ug/L	11.28.17 17.17	E8	1
4-Methyl-2-Pentanone	108-10-1	<0.200	5.00	0.200	ug/L	11.28.17 17.17	E8	1
Acetone	67-64-1	**89.7**	20.0	0.600	ug/L	11.28.17 17.17		1
Benzene	71-43-2	<0.100	0.500	0.100	ug/L	11.28.17 17.17	E8	1
Bromobenzene	108-86-1	<0.0900	1.50	0.0900	ug/L	11.28.17 17.17	E8	1
Bromochloromethane	74-97-5	<0.200	0.500	0.200	ug/L	11.28.17 17.17	E8	1
Bromodichloromethane	75-27-4	<0.0800	0.500	0.0800	ug/L	11.28.17 17.17	E8	1
Bromoform	75-25-2	<0.100	1.00	0.100	ug/L	11.28.17 17.17	E8	1
Bromomethane	74-83-9	<0.300	5.00	0.300	ug/L	11.28.17 17.17	E8	1
Carbon Disulfide	75-15-0	<0.0900	0.500	0.0900	ug/L	11.28.17 17.17	E8	1
Carbon Tetrachloride	56-23-5	<0.200	0.500	0.200	ug/L	11.28.17 17.17	E8	1
Chlorobenzene	108-90-7	<0.0700	0.500	0.0700	ug/L	11.28.17 17.17	E8	1
Chloroethane	75-00-3	<0.600	4.00	0.600	ug/L	11.28.17 17.17	E8	1
Chloroform	67-66-3	<0.0700	0.500	0.0700	ug/L	11.28.17 17.17	E8	1

Certificate of Analytical Results 569433

Hydro Geo Chem, Inc., Scottsdale, AZ

WCP EGA

Sample Id: **Trip Blank** Matrix: Water Date Received:11.28.17 17.50
Lab Sample Id: 569433-004 Date Collected: 11.28.17 13.15

Analytical Method: Volatiles by SW 8260B Prep Method: SW5030C
Tech: MNI % Solids:
Analyst: MNI Date Prep: 11.28.17 09.25
Seq Number: 3034392

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloromethane	74-87-3	<0.200	5.00	0.200	ug/L	11.28.17 17.17	E8	1
cis-1,2-Dichloroethene	156-59-2	<0.200	0.500	0.200	ug/L	11.28.17 17.17	E8	1
cis-1,3-Dichloropropene	10061-01-5	<0.0800	1.00	0.0800	ug/L	11.28.17 17.17	E8	1
Dibromochloromethane	124-48-1	<0.0700	0.500	0.0700	ug/L	11.28.17 17.17	E8	1
Dibromomethane	74-95-3	<0.200	0.500	0.200	ug/L	11.28.17 17.17	E8	1
Dichlorodifluoromethane	75-71-8	<0.200	2.00	0.200	ug/L	11.28.17 17.17	E8	1
Ethylbenzene	100-41-4	<0.0900	2.00	0.0900	ug/L	11.28.17 17.17	E8	1
Hexachlorobutadiene	87-68-3	<0.200	5.00	0.200	ug/L	11.28.17 17.17	E8	1
Iodomethane (Methyl Iodide)	74-88-4	<0.300	2.00	0.300	ug/L	11.28.17 17.17	E8	1
isopropylbenzene	98-82-8	<0.0800	2.50	0.0800	ug/L	11.28.17 17.17	E8	1
m,p-Xylenes	179601-23-1	<0.0900	2.00	0.0900	ug/L	11.28.17 17.17	E8	1
Methylene Chloride	75-09-2	<0.200	3.00	0.200	ug/L	11.28.17 17.17	E8	1
MTBE	1634-04-4	<0.100	2.00	0.100	ug/L	11.28.17 17.17	E8	1
Naphthalene	91-20-3	<0.200	5.00	0.200	ug/L	11.28.17 17.17	E8	1
n-Butylbenzene	104-51-8	<0.200	2.50	0.200	ug/L	11.28.17 17.17	E8	1
n-Propylbenzene	103-65-1	<0.0800	2.00	0.0800	ug/L	11.28.17 17.17	E8	1
o-Xylene	95-47-6	<0.0900	1.00	0.0900	ug/L	11.28.17 17.17	E8	1
p-Cymene (p-Isopropyltoluene)	99-87-6	<0.100	1.50	0.100	ug/L	11.28.17 17.17	E8	1
Sec-Butylbenzene	135-98-8	<0.100	1.50	0.100	ug/L	11.28.17 17.17	E8	1
Styrene	100-42-5	<0.0800	1.00	0.0800	ug/L	11.28.17 17.17	E8	1
tert-Butylbenzene	98-06-6	<0.200	2.50	0.200	ug/L	11.28.17 17.17	E8	1
Tetrachloroethylene	127-18-4	<0.0800	0.500	0.0800	ug/L	11.28.17 17.17	E8	1
Toluene	108-88-3	<0.0700	2.00	0.0700	ug/L	11.28.17 17.17	E8	1
Total Trihalomethane		<0.0700	0.500	0.0700	ug/L	11.28.17 17.17	E8	1
Total Xylenes	1330-20-7	<0.0900	1.00	0.0900	ug/L	11.28.17 17.17	E8	1
trans-1,2-dichloroethene	156-60-5	<0.0900	0.500	0.0900	ug/L	11.28.17 17.17	E8	1
trans-1,3-dichloropropene	10061-02-6	<0.0600	0.500	0.0600	ug/L	11.28.17 17.17	E8	1
Trichloroethene	79-01-6	<0.200	0.500	0.200	ug/L	11.28.17 17.17	E8	1
Trichlorofluoromethane	75-69-4	<0.400	2.00	0.400	ug/L	11.28.17 17.17	E8	1
Vinyl Acetate	108-05-4	<0.200	5.00	0.200	ug/L	11.28.17 17.17	E8	1
Vinyl Chloride	75-01-4	<0.100	0.500	0.100	ug/L	11.28.17 17.17	E8	1

Surrogate	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	87	%	74-124	11.28.17 17.17	
Dibromofluoromethane	104	%	75-131	11.28.17 17.17	
1,2-Dichloroethane-D4	88	%	63-144	11.28.17 17.17	
Toluene-D8	95	%	80-117	11.28.17 17.17	

QC Summary 569433

Hydro Geo Chem, Inc.

WCP EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030C

Seq Number: 3034392 Matrix: Water Date Prep: 11.28.17

MB Sample Id: 7635084-1-BLK LCS Sample Id: 7635084-1-BKS LCSD Sample Id: 7635084-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1,2-Tetrachloroethane	<0.100	20.0	14.9	75	14.1	71	70-130	6	20	ug/L	11.28.17 11:38	
1,1,1-Trichloroethane	<0.200	20.0	17.0	85	17.4	87	70-130	2	20	ug/L	11.28.17 11:38	
1,1,2,2-Tetrachloroethane	<0.100	20.0	17.1	86	17.7	89	70-130	3	20	ug/L	11.28.17 11:38	
1,1,2-Trichloroethane	<0.0900	20.0	18.4	92	17.4	87	70-130	6	20	ug/L	11.28.17 11:38	
1,1-Dichloroethane	<0.0700	20.0	20.4	102	21.7	109	70-130	6	20	ug/L	11.28.17 11:38	
1,1-Dichloroethene	<0.200	20.0	17.4	87	19.0	95	70-130	9	21	ug/L	11.28.17 11:38	
1,1-Dichloropropene	<0.200	20.0	17.6	88	17.7	89	70-130	1	20	ug/L	11.28.17 11:38	
1,2,3-Trichlorobenzene	<0.200	20.0	14.4	72	15.1	76	70-130	5	27	ug/L	11.28.17 11:38	
1,2,3-Trichloropropane	<0.200	20.0	16.6	83	14.8	74	70-130	11	20	ug/L	11.28.17 11:38	
1,2,4-Trichlorobenzene	<0.0700	20.0	14.9	75	15.6	78	70-130	5	20	ug/L	11.28.17 11:38	
1,2,4-Trimethylbenzene	<0.0700	20.0	16.1	81	16.7	84	70-130	4	20	ug/L	11.28.17 11:38	
1,2-Dibromo-3-Chloropropane	<0.300	20.0	14.4	72	14.8	74	70-130	3	21	ug/L	11.28.17 11:38	
1,2-Dibromoethane	<0.200	20.0	16.9	85	16.5	83	70-130	2	20	ug/L	11.28.17 11:38	
1,2-Dichlorobenzene	<0.0800	20.0	15.0	75	16.2	81	70-130	8	20	ug/L	11.28.17 11:38	
1,2-Dichloroethane	<0.100	20.0	15.4	77	16.1	81	70-130	4	20	ug/L	11.28.17 11:38	
1,2-Dichloropropane	<0.0900	20.0	17.8	89	19.9	100	70-130	11	20	ug/L	11.28.17 11:38	
1,3,5-Trimethylbenzene	<0.0700	20.0	17.1	86	18.2	91	70-130	6	20	ug/L	11.28.17 11:38	
1,3-Dichlorobenzene	<0.0600	20.0	14.7	74	15.7	79	70-130	7	20	ug/L	11.28.17 11:38	
1,3-Dichloropropane	<0.0700	20.0	18.6	93	19.0	95	70-130	2	20	ug/L	11.28.17 11:38	
1,4-Dichlorobenzene	<0.200	20.0	14.3	72	15.6	78	70-130	9	20	ug/L	11.28.17 11:38	
2,2-Dichloropropane	<0.200	20.0	16.3	82	18.0	90	70-130	10	24	ug/L	11.28.17 11:38	
2-Butanone	<0.300	40.0	40.6	102	43.0	108	51-116	6	27	ug/L	11.28.17 11:38	
2-Chlorotoluene	<0.0800	20.0	16.7	84	17.9	90	70-130	7	20	ug/L	11.28.17 11:38	
2-Hexanone	<0.200	40.0	37.7	94	36.6	92	59-101	3	20	ug/L	11.28.17 11:38	
4-Chlorotoluene	<0.0700	20.0	17.0	85	17.8	89	70-130	5	28	ug/L	11.28.17 11:38	
4-Methyl-2-Pentanone	<0.200	40.0	39.4	99	38.0	95	57-106	4	21	ug/L	11.28.17 11:38	
Acetone	<0.600	40.0	43.0	108	40.8	102	47-128	5	28	ug/L	11.28.17 11:38	
Benzene	<0.100	20.0	17.0	85	18.6	93	70-130	9	20	ug/L	11.28.17 11:38	
Bromobenzene	<0.0900	20.0	14.9	75	15.5	78	70-130	4	20	ug/L	11.28.17 11:38	
Bromochloromethane	<0.200	20.0	16.0	80	15.8	79	70-130	1	24	ug/L	11.28.17 11:38	
Bromodichloromethane	<0.0800	20.0	15.4	77	15.0	75	70-130	3	20	ug/L	11.28.17 11:38	
Bromoform	<0.100	20.0	15.2	76	14.0	70	66-132	8	20	ug/L	11.28.17 11:38	
Bromomethane	<0.300	20.0	17.8	89	18.2	91	63-130	2	25	ug/L	11.28.17 11:38	
Carbon Disulfide	<0.0900	20.0	16.0	80	16.8	84	70-130	5	22	ug/L	11.28.17 11:38	
Carbon Tetrachloride	<0.200	20.0	16.2	81	16.9	85	70-130	4	21	ug/L	11.28.17 11:38	
Chlorobenzene	<0.0700	20.0	15.8	79	15.8	79	70-130	0	20	ug/L	11.28.17 11:38	
Chloroethane	<0.600	20.0	20.4	102	17.0	85	70-140	18	24	ug/L	11.28.17 11:38	
Chloroform	<0.0700	20.0	16.3	82	17.7	89	70-130	8	24	ug/L	11.28.17 11:38	
Chloromethane	<0.200	20.0	16.4	82	15.2	76	25-130	8	26	ug/L	11.28.17 11:38	
cis-1,2-Dichloroethene	<0.200	20.0	17.5	88	17.6	88	70-130	1	24	ug/L	11.28.17 11:38	
cis-1,3-Dichloropropene	<0.0800	20.0	16.2	81	18.3	92	70-130	12	20	ug/L	11.28.17 11:38	
Dibromochloromethane	<0.0700	20.0	14.8	74	14.5	73	70-130	2	20	ug/L	11.28.17 11:38	
Dibromomethane	<0.200	20.0	16.6	83	16.2	81	70-130	2	23	ug/L	11.28.17 11:38	
Dichlorodifluoromethane	<0.200	20.0	9.46	47	8.47	42	25-136	11	27	ug/L	11.28.17 11:38	
Ethylbenzene	<0.0900	20.0	16.5	83	16.8	84	70-130	2	20	ug/L	11.28.17 11:38	
Hexachlorobutadiene	<0.200	20.0	15.3	77	15.9	80	63-139	4	22	ug/L	11.28.17 11:38	
Iodomethane (Methyl Iodide)	<0.300	20.0	16.0	80	16.3	82	70-130	2	22	ug/L	11.28.17 11:38	
isopropylbenzene	<0.0800	20.0	15.3	77	15.4	77	70-130	1	20	ug/L	11.28.17 11:38	
m,p-Xylenes	<0.0900	40.0	32.4	81	32.5	81	70-130	0	20	ug/L	11.28.17 11:38	
Methylene Chloride	<0.200	20.0	18.7	94	20.1	101	70-130	7	20	ug/L	11.28.17 11:38	
MTBE	<0.100	20.0	18.1	91	17.0	85	70-130	6	21	ug/L	11.28.17 11:38	
Naphthalene	<0.200	20.0	15.8	79	16.2	81	70-130	3	27	ug/L	11.28.17 11:38	

QC Summary 569433

Hydro Geo Chem, Inc.

WCP EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030C

Seq Number: 3034392 Matrix: Water Date Prep: 11.28.17

MB Sample Id: 7635084-1-BLK LCS Sample Id: 7635084-1-BKS LCSD Sample Id: 7635084-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
n-Butylbenzene	<0.200	20.0	17.9	90	18.5	93	70-130	3	20	ug/L	11.28.17 11:38	
n-Propylbenzene	<0.0800	20.0	17.0	85	17.8	89	70-130	5	20	ug/L	11.28.17 11:38	
o-Xylene	<0.0900	20.0	14.9	75	14.4	72	70-130	3	20	ug/L	11.28.17 11:38	
p-Cymene (p-Isopropyltoluene)	<0.100	20.0	15.9	80	16.8	84	70-130	6	20	ug/L	11.28.17 11:38	
Sec-Butylbenzene	<0.100	20.0	16.8	84	18.2	91	70-130	8	20	ug/L	11.28.17 11:38	
Styrene	<0.0800	20.0	15.3	77	14.4	72	70-130	6	20	ug/L	11.28.17 11:38	
tert-Butylbenzene	<0.200	20.0	16.4	82	17.4	87	70-130	6	20	ug/L	11.28.17 11:38	
Tetrachloroethylene	<0.0800	20.0	15.0	75	14.5	73	70-130	3	20	ug/L	11.28.17 11:38	
Toluene	<0.0700	20.0	16.5	83	16.3	82	70-130	1	20	ug/L	11.28.17 11:38	
trans-1,2-dichloroethene	<0.0900	20.0	18.1	91	19.5	98	70-130	7	21	ug/L	11.28.17 11:38	
trans-1,3-dichloropropene	<0.0600	20.0	17.2	86	17.3	87	70-130	1	20	ug/L	11.28.17 11:38	
Trichloroethene	<0.200	20.0	16.7	84	17.7	89	70-130	6	20	ug/L	11.28.17 11:38	
Trichlorofluoromethane	<0.400	20.0	20.0	100	19.4	97	70-130	3	22	ug/L	11.28.17 11:38	
Vinyl Acetate	<0.200	20.0	21.4	107	22.3	112	46-172	4	22	ug/L	11.28.17 11:38	
Vinyl Chloride	<0.100	20.0	16.4	82	16.0	80	41-132	2	25	ug/L	11.28.17 11:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	85		86		97		74-124	%	11.28.17 11:38
Dibromofluoromethane	102		99		118		75-131	%	11.28.17 11:38
1,2-Dichloroethane-D4	90		86		105		63-144	%	11.28.17 11:38
Toluene-D8	100		92		114		80-117	%	11.28.17 11:38

QC Summary 569433

Hydro Geo Chem, Inc.

WCP EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030C

Seq Number: 3034392 Matrix: Water Date Prep: 11.28.17

Parent Sample Id: 568683-001 MS Sample Id: 568683-001 S MSD Sample Id: 568683-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1,2-Tetrachloroethane	<1.00	200	145	73	153	77	70-130	5	20	ug/L	11.28.17 13:13	
1,1,1-Trichloroethane	<2.00	200	173	87	165	83	70-130	5	20	ug/L	11.28.17 13:13	
1,1,2,2-Tetrachloroethane	<1.00	200	172	86	187	94	70-130	8	20	ug/L	11.28.17 13:13	
1,1,2-Trichloroethane	<0.900	200	184	92	191	96	70-130	4	20	ug/L	11.28.17 13:13	
1,1-Dichloroethane	1.09	200	220	109	226	112	70-130	3	20	ug/L	11.28.17 13:13	
1,1-Dichloroethene	8.55	200	206	99	235	113	63-144	13	20	ug/L	11.28.17 13:13	
1,1-Dichloropropene	<2.00	200	182	91	177	89	70-130	3	20	ug/L	11.28.17 13:13	
1,2,3-Trichlorobenzene	<2.00	200	158	79	170	85	70-130	7	24	ug/L	11.28.17 13:13	
1,2,3-Trichloropropane	<2.00	200	167	84	189	95	70-130	12	20	ug/L	11.28.17 13:13	
1,2,4-Trichlorobenzene	<0.700	200	163	82	173	87	70-130	6	20	ug/L	11.28.17 13:13	
1,2,4-Trimethylbenzene	<0.700	200	163	82	185	93	70-130	13	22	ug/L	11.28.17 13:13	
1,2-Dibromo-3-Chloropropane	<3.00	200	143	72	157	79	70-130	9	22	ug/L	11.28.17 13:13	
1,2-Dibromoethane	<2.00	200	168	84	174	87	70-130	4	20	ug/L	11.28.17 13:13	
1,2-Dichlorobenzene	<0.800	200	159	80	175	88	70-130	10	20	ug/L	11.28.17 13:13	
1,2-Dichloroethane	<1.00	200	162	81	167	84	70-130	3	20	ug/L	11.28.17 13:13	
1,2-Dichloropropane	<0.900	200	196	98	199	100	70-130	2	20	ug/L	11.28.17 13:13	
1,3,5-Trimethylbenzene	<0.700	200	176	88	197	99	70-130	11	20	ug/L	11.28.17 13:13	
1,3-Dichlorobenzene	<0.600	200	156	78	172	86	70-130	10	20	ug/L	11.28.17 13:13	
1,3-Dichloropropane	<0.700	200	192	96	201	101	70-130	5	20	ug/L	11.28.17 13:13	
1,4-Dichlorobenzene	<2.00	200	146	73	169	85	70-130	15	20	ug/L	11.28.17 13:13	
2,2-Dichloropropane	<2.00	200	167	84	170	85	70-130	2	20	ug/L	11.28.17 13:13	
2-Butanone	<3.00	400	444	111	479	120	40-133	8	22	ug/L	11.28.17 13:13	
2-Chlorotoluene	<0.800	200	177	89	197	99	70-130	11	20	ug/L	11.28.17 13:13	
2-Hexanone	<2.00	400	365	91	399	100	61-106	9	33	ug/L	11.28.17 13:13	
4-Chlorotoluene	<0.700	200	174	87	193	97	70-130	10	20	ug/L	11.28.17 13:13	
4-Methyl-2-Pentanone	<2.00	400	381	95	387	97	70-130	2	20	ug/L	11.28.17 13:13	
Acetone	40.2	400	410	92	446	101	7-174	8	20	ug/L	11.28.17 13:13	
Benzene	<1.00	200	184	92	178	89	70-130	3	20	ug/L	11.28.17 13:13	
Bromobenzene	<0.900	200	154	77	173	87	70-130	12	20	ug/L	11.28.17 13:13	
Bromochloromethane	<2.00	200	166	83	193	97	70-130	15	22	ug/L	11.28.17 13:13	
Bromodichloromethane	<0.800	200	157	79	171	86	70-130	9	20	ug/L	11.28.17 13:13	
Bromoform	<1.00	200	144	72	140	70	70-130	3	20	ug/L	11.28.17 13:13	
Bromomethane	<3.00	200	176	88	168	84	43-147	5	22	ug/L	11.28.17 13:13	
Carbon Disulfide	<0.900	200	175	88	203	102	50-137	15	28	ug/L	11.28.17 13:13	
Carbon Tetrachloride	<2.00	200	175	88	168	84	67-136	4	20	ug/L	11.28.17 13:13	
Chlorobenzene	<0.700	200	159	80	170	85	70-130	7	20	ug/L	11.28.17 13:13	
Chloroethane	<6.00	200	206	103	204	102	57-156	1	20	ug/L	11.28.17 13:13	
Chloroform	2.37	200	180	89	218	108	70-130	19	22	ug/L	11.28.17 13:13	
Chloromethane	<2.00	200	161	81	166	83	24-129	3	22	ug/L	11.28.17 13:13	
cis-1,2-Dichloroethene	29.0	200	227	99	235	103	70-130	3	20	ug/L	11.28.17 13:13	
cis-1,3-Dichloropropene	<0.800	200	184	92	215	108	70-130	16	20	ug/L	11.28.17 13:13	
Dibromochloromethane	<0.700	200	142	71	141	71	70-130	1	20	ug/L	11.28.17 13:13	
Dibromomethane	<2.00	200	171	86	176	88	70-130	3	20	ug/L	11.28.17 13:13	
Dichlorodifluoromethane	<2.00	200	107	54	113	57	21-138	5	33	ug/L	11.28.17 13:13	
Ethylbenzene	<0.900	200	159	80	173	87	70-130	8	20	ug/L	11.28.17 13:13	
Hexachlorobutadiene	<2.00	200	154	77	173	87	64-143	12	20	ug/L	11.28.17 13:13	
Iodomethane (Methyl Iodide)	<3.00	200	178	89	200	100	59-133	12	20	ug/L	11.28.17 13:13	
isopropylbenzene	<0.800	200	148	74	157	79	70-130	6	20	ug/L	11.28.17 13:13	
m,p-Xylenes	<0.900	400	319	80	327	82	70-130	2	20	ug/L	11.28.17 13:13	
Methylene Chloride	<2.00	200	200	100	213	107	65-127	6	20	ug/L	11.28.17 13:13	
MTBE	<1.00	200	187	94	204	102	69-135	9	20	ug/L	11.28.17 13:13	
Naphthalene	<2.00	200	168	84	186	93	70-130	10	26	ug/L	11.28.17 13:13	

QC Summary 569433

Hydro Geo Chem, Inc.

WCP EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030C

Seq Number: 3034392 Matrix: Water Date Prep: 11.28.17

Parent Sample Id: 568683-001 MS Sample Id: 568683-001 S MSD Sample Id: 568683-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
n-Butylbenzene	<2.00	200	178	89	201	101	70-130	12	20	ug/L	11.28.17 13:13	
n-Propylbenzene	<0.800	200	177	89	195	98	70-130	10	20	ug/L	11.28.17 13:13	
o-Xylene	<0.900	200	163	82	156	78	70-130	4	20	ug/L	11.28.17 13:13	
p-Cymene (p-Isopropyltoluene)	<1.00	200	160	80	184	92	70-130	14	20	ug/L	11.28.17 13:13	
Sec-Butylbenzene	<1.00	200	173	87	189	95	70-130	9	20	ug/L	11.28.17 13:13	
Styrene	<0.800	200	156	78	158	79	37-156	1	37	ug/L	11.28.17 13:13	
tert-Butylbenzene	<2.00	200	172	86	192	96	70-130	11	20	ug/L	11.28.17 13:13	
Tetrachloroethylene	6.33	200	148	71	157	75	70-130	6	20	ug/L	11.28.17 13:13	
Toluene	<0.700	200	159	80	169	85	70-130	6	20	ug/L	11.28.17 13:13	
trans-1,2-dichloroethene	<0.900	200	182	91	201	101	69-131	10	20	ug/L	11.28.17 13:13	
trans-1,3-dichloropropene	<0.600	200	178	89	185	93	70-130	4	20	ug/L	11.28.17 13:13	
Trichloroethene	411	200	524	57	558	74	70-130	6	20	ug/L	11.28.17 13:13	M2
Trichlorofluoromethane	<4.00	200	175	88	171	86	60-133	2	20	ug/L	11.28.17 13:13	
Vinyl Acetate	<2.00	200	232	116	246	123	32-156	6	23	ug/L	11.28.17 13:13	
Vinyl Chloride	<1.00	200	170	85	181	91	35-139	6	21	ug/L	11.28.17 13:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	85		89		74-124	%	11.28.17 13:13
Dibromofluoromethane	113		118		75-131	%	11.28.17 13:13
1,2-Dichloroethane-D4	93		104		63-144	%	11.28.17 13:13
Toluene-D8	100		112		80-117	%	11.28.17 13:13

Leah Wills 480 438 7165

XENCO LABORATORIES

Chain of Custody

Arizona: 2525 W. Huntington Dr. Suite 102 • Tempe, AZ 85282 • Ph: (480) 355-0900
Corporate: 4147 Greenbriar Dr. • Stafford, TX 77477 • Ph: (281) 240-4200
Other Locations: Midland, TX Dallas, TX San Antonio, TX El Paso, TX Lubbock, TX Hobbs, NM www.xenco.com

Work Order No: 569433

Page 1 of 1

Project Manager:	Dan Sola	Bill to: (if different)	
Company Name:	Hydro Geo Chem	Company Name:	
Address:	3038 E. Cactus Ste 3	Address:	
City, State ZIP:	Phoenix, AZ 85032	City, State ZIP:	
Phone:	480-421-1500 x139	Email:	dans@hgcinc.com

Work Order Comments

Project Name:	WCP EGA
Project Number:	20160311
P.O. Number:	
Sampler's Name:	Leah Wills

SAMPLE RECEIPT

Temperature (°C):	3.0	Temp Blank	
Received Intact:	Yes No N/A	Yes No	
Cooler Custody Seals:	Yes No N/A	Wet Ice	
Sample Custody Seals:	Yes No N/A	Yes No Melted	

ANALYSIS REQUEST (PLEASE CHECK BOX)

TAT
☐ Routine
☒ Rush
Due Date: ASAP

TAT starts the day recevied by the lab, if received by 4pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Lab ID	Number of Containers	8260 / 524.2 / 624 / 2-CEVE / Acrolein / Acrylonitrile	PAHs (8270 SIM)	Tetraethyl Lead	Semi-Volatile Organics 8270 / 625	Organochlorine Pesticides & PCBs 8081 / 8082 / 608	Metals (See Below) Total / Hardness / Ca Hardness	Metals (See Below) Dissolved / TCLP	Total Cyanide / Amenable (Free) Cyanide	BOD / TSS	pH / Cl / Cond. / SO4 / Alk / F / TDS / Ortho-P	Individual NO2 / Individual NO3	NO2+NO3	TKN / COD / NH3 / Total-P / Total N	Coliliert / HPC / E. Coli (MPN) / Fecal (CFU)					Sample Comments
EGA-1-160	GW	11/28/17	0926	1	3	X																		
EGA-1-180	↓	↓	1117	2	3	X																		
EGA-1-200	↓	↓	1315	3	5	X																		
Trip Blank				4	1	X																		

Total 200.7 / 6010C: 8RCRA 13PPM Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn V Zn
Circle Method(s) and Metal(s) to be analyzed 200.8 / 6020: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Other: 245.1 / 7470A: Hg

Dissolved / TCLP 200.7 / 6010C: 8RCRA 13PPM Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn V Zn
Circle Method(s) and Metal(s) to be analyzed 200.8 / 6020: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Other: 245.1 / 7470A: Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11/28/17 1750
2		
3		

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. Xenco's liability will be limited to the cost of samples. These terms will be enforced unless previously negotiated under a fully executed client contract.

Revised: 25.04.2017

XENCO LABORATORIES

Sample Receipt Checklist

Client Name: Hydro Geo Chem

Date and Time Received: 11/28/17 1750

Work Order Number: 569433

Checked by: HC

Checklist completed by: HC

Logged In by: HC Date: 11/28/17

Matrix: GW Courier Name: Client TWA

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	Not Present ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
All samples received same day of collection?	Yes ☑	No ☐	Temp: 3.0 Wet Ice Present ☐
Where was the temperature reading taken at?	Sample ☐	Temp Blank ☐	Other:
VOA Water – VOA vials have zero headspace?	Yes ☐	No ☐	N/A ☑
Water – Microbiological bottles have ≤ 2.5 cm headspace?	Yes ☑	No ☐	N/A ☐
Water – All sample pH's acceptable upon receipt?	Yes ☐	No ☐	N/A ☑ Checked by: HC

If No, list all samples and bottle types that are not acceptable in Additional Comments section. Also state any correction actions.

Dissolved Metals – Field Filtered?	Yes ☐	No ☐	N/A ☑

Additional Comments:

RChecklist 2016.1

ATTACHMENT 3

ANALYTICAL LABORATORY REPORTS FOR GROUNDWATER SAMPLING ANALYSES

Analytical Report 571839

for

Hydro Geo Chem, Inc.

Project Manager: Dan Solo

EGA

2016031

05-JAN-18

Collected By: Client

2525 West Huntington Drive, Suite 102
Tempe, AZ 85282
Ph: (480) 355-0900

Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Houston (EPA Lab code: TX00122): Arizona (AZ0765)
Xenco-Dallas (EPA Lab code: TX01468): Arizona (AZ0809)

05-JAN-18

Project Manager: **Dan Solo**
Hydro Geo Chem, Inc.
3038 E Cactus Road
Suite 3
Phoenix, AZ 85032

Reference: TWA Report No(s): **571839**
EGA
Project Address:

Dan Solo :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the TWA Report Number(s) 571839. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the ADHS certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with ADHS standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and ADHS Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by TransWest Analytical. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 571839 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting TransWest Analytical to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Skip Harden
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

CASE NARRATIVE

Client Name: Hydro Geo Chem, Inc.
Project Name: EGA

Project ID: *2016031*
Work Order Number(s): *571839*

Report Date: *05-JAN-18*
Date Received: *12/21/2017*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3037313 Volatiles by SW 8260B
Acetone was detected in the Field Samples and the Trip Blank. Laboratory contamination could not be ruled out.

Arizona Flags

All method blanks, laboratory spikes, and/or matrix spikes met quality control objectives for the parameters associated with this Work Order except as detailed below or on the Data Qualifier page of this report. Data Qualifiers used in this report are in accordance with ADHS Data Qualifiers, Revision 4.0 9/05/2012.
Data qualifiers (flags) contained within this analytical report have been issued to explain a quality control deficiency, and do not affect the quality (validity) of the data unless noted otherwise in the case narrative.

E4 Concentration estimated. Analyte was detected below laboratory minimum reporting limit (MRL).

E8 Analyte reported to MDL per project specification. Target analyte was not detected in sample.

T4 Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

Sample Cross Reference 571839

Hydro Geo Chem, Inc., Phoenix, AZ

EGA

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
EGA-1	W	12-21-17 09:45		571839-001
EGA-Dup	W	12-21-17 09:46		571839-002
Trip Blank	W	12-21-17 09:46		571839-003

Certificate of Analytical Results 571839

Hydro Geo Chem, Inc., Phoenix, AZ

EGA

Sample Id: **EGA-1** Matrix: Water Date Received:12.21.17 10.26
Lab Sample Id: 571839-001 Date Collected: 12.21.17 09.45

Analytical Method: Volatiles by SW 8260B Prep Method: SW5030C
Tech: MNI % Solids:
Analyst: MNI Date Prep: 01.02.18 09.47
Seq Number: 3037313

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	<0.100	0.500	0.100	ug/L	01.02.18 14.05	E8	1
1,1,1-Trichloroethane	71-55-6	<0.200	0.500	0.200	ug/L	01.02.18 14.05	E8	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.100	0.500	0.100	ug/L	01.02.18 14.05	E8	1
1,1,2-Trichloroethane	79-00-5	<0.0900	0.500	0.0900	ug/L	01.02.18 14.05	E8	1
1,1-Dichloroethane	75-34-3	<0.0700	0.500	0.0700	ug/L	01.02.18 14.05	E8	1
1,1-Dichloroethene	75-35-4	<0.200	0.500	0.200	ug/L	01.02.18 14.05	E8	1
1,1-Dichloropropene	563-58-6	<0.200	1.00	0.200	ug/L	01.02.18 14.05	E8	1
1,2,3-Trichlorobenzene	87-61-6	<0.200	5.00	0.200	ug/L	01.02.18 14.05	E8	1
1,2,3-Trichloropropane	96-18-4	<0.200	1.00	0.200	ug/L	01.02.18 14.05	E8	1
1,2,4-Trichlorobenzene	120-82-1	<0.0700	5.00	0.0700	ug/L	01.02.18 14.05	E8	1
1,2,4-Trimethylbenzene	95-63-6	<0.0700	2.00	0.0700	ug/L	01.02.18 14.05	E8	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.300	2.00	0.300	ug/L	01.02.18 14.05	E8	1
1,2-Dibromoethane	106-93-4	<0.200	0.500	0.200	ug/L	01.02.18 14.05	E8	1
1,2-Dichlorobenzene	95-50-1	<0.0800	1.50	0.0800	ug/L	01.02.18 14.05	E8	1
1,2-Dichloroethane	107-06-2	<0.100	0.500	0.100	ug/L	01.02.18 14.05	E8	1
1,2-Dichloropropane	78-87-5	<0.0900	0.500	0.0900	ug/L	01.02.18 14.05	E8	1
1,3,5-Trimethylbenzene	108-67-8	<0.0700	1.50	0.0700	ug/L	01.02.18 14.05	E8	1
1,3-Dichlorobenzene	541-73-1	<0.0600	1.50	0.0600	ug/L	01.02.18 14.05	E8	1
1,3-Dichloropropane	142-28-9	<0.0700	1.00	0.0700	ug/L	01.02.18 14.05	E8	1
1,4-Dichlorobenzene	106-46-7	<0.200	1.50	0.200	ug/L	01.02.18 14.05	E8	1
2,2-Dichloropropane	594-20-7	<0.200	0.500	0.200	ug/L	01.02.18 14.05	E8	1
2-Butanone	78-93-3	<0.300	5.00	0.300	ug/L	01.02.18 14.05	E8	1
2-Chlorotoluene	95-49-8	<0.0800	1.50	0.0800	ug/L	01.02.18 14.05	E8	1
2-Hexanone	591-78-6	<0.200	5.00	0.200	ug/L	01.02.18 14.05	E8	1
4-Chlorotoluene	106-43-4	<0.0700	2.00	0.0700	ug/L	01.02.18 14.05	E8	1
4-Isopropyltoluene	99-87-6	<0.100	1.50	0.100	ug/L	01.02.18 14.05	E8	1
4-Methyl-2-Pentanone	108-10-1	<0.200	5.00	0.200	ug/L	01.02.18 14.05	E8	1
Acetone	67-64-1	**30.1**	20.0	0.600	ug/L	01.02.18 14.05		1
Benzene	71-43-2	<0.100	0.500	0.100	ug/L	01.02.18 14.05	E8	1
Bromobenzene	108-86-1	<0.0900	1.50	0.0900	ug/L	01.02.18 14.05	E8	1
Bromochloromethane	74-97-5	<0.200	0.500	0.200	ug/L	01.02.18 14.05	E8	1
Bromodichloromethane	75-27-4	<0.0800	0.500	0.0800	ug/L	01.02.18 14.05	E8	1
Bromoform	75-25-2	<0.100	1.00	0.100	ug/L	01.02.18 14.05	E8	1
Bromomethane	74-83-9	<0.300	5.00	0.300	ug/L	01.02.18 14.05	E8	1
Carbon Disulfide	75-15-0	<0.0900	0.500	0.0900	ug/L	01.02.18 14.05	E8	1
Carbon Tetrachloride	56-23-5	<0.200	0.500	0.200	ug/L	01.02.18 14.05	E8	1
Chlorobenzene	108-90-7	<0.0700	0.500	0.0700	ug/L	01.02.18 14.05	E8	1
Chloroethane	75-00-3	<0.600	4.00	0.600	ug/L	01.02.18 14.05	E8	1

Certificate of Analytical Results 571839

Hydro Geo Chem, Inc., Phoenix, AZ

EGA

Sample Id: **EGA-1** Matrix: Water Date Received:12.21.17 10.26
Lab Sample Id: 571839-001 Date Collected: 12.21.17 09.45

Analytical Method: Volatiles by SW 8260B Prep Method: SW5030C
Tech: MNI % Solids:
Analyst: MNI Date Prep: 01.02.18 09.47
Seq Number: 3037313

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloroform	67-66-3	<0.0700	0.500	0.0700	ug/L	01.02.18 14.05	E8	1
Chloromethane	74-87-3	<0.200	5.00	0.200	ug/L	01.02.18 14.05	E8	1
cis-1,2-Dichloroethene	156-59-2	<0.200	0.500	0.200	ug/L	01.02.18 14.05	E8	1
cis-1,3-Dichloropropene	10061-01-5	<0.0800	1.00	0.0800	ug/L	01.02.18 14.05	E8	1
Dibromochloromethane	124-48-1	<0.0700	0.500	0.0700	ug/L	01.02.18 14.05	E8	1
Dibromomethane	74-95-3	<0.200	0.500	0.200	ug/L	01.02.18 14.05	E8	1
Dichlorodifluoromethane	75-71-8	<0.200	2.00	0.200	ug/L	01.02.18 14.05	E8	1
Ethylbenzene	100-41-4	<0.0900	2.00	0.0900	ug/L	01.02.18 14.05	E8	1
Hexachlorobutadiene	87-68-3	<0.200	5.00	0.200	ug/L	01.02.18 14.05	E8	1
Iodomethane (Methyl Iodide)	74-88-4	<0.300	2.00	0.300	ug/L	01.02.18 14.05	E8	1
Isopropylbenzene	98-82-8	<0.0800	2.50	0.0800	ug/L	01.02.18 14.05	E8	1
m,p-Xylenes	179601-23-1	<0.0900	2.00	0.0900	ug/L	01.02.18 14.05	E8	1
Methylene Chloride	75-09-2	<0.200	3.00	0.200	ug/L	01.02.18 14.05	E8	1
MTBE	1634-04-4	<0.100	2.00	0.100	ug/L	01.02.18 14.05	E8	1
Naphthalene	91-20-3	<0.200	5.00	0.200	ug/L	01.02.18 14.05	E8	1
n-Butylbenzene	104-51-8	<0.200	2.50	0.200	ug/L	01.02.18 14.05	E8	1
n-Propylbenzene	103-65-1	<0.0800	2.00	0.0800	ug/L	01.02.18 14.05	E8	1
o-Xylene	95-47-6	<0.0900	1.00	0.0900	ug/L	01.02.18 14.05	E8	1
Sec-Butylbenzene	135-98-8	<0.100	1.50	0.100	ug/L	01.02.18 14.05	E8	1
Styrene	100-42-5	<0.0800	1.00	0.0800	ug/L	01.02.18 14.05	E8	1
tert-Butylbenzene	98-06-6	<0.200	2.50	0.200	ug/L	01.02.18 14.05	E8	1
Tetrachloroethylene	127-18-4	<0.0800	0.500	0.0800	ug/L	01.02.18 14.05	E8	1
Toluene	108-88-3	<0.0700	2.00	0.0700	ug/L	01.02.18 14.05	E8	1
Total Trihalomethane		<0.0700	0.500	0.0700	ug/L	01.02.18 14.05	E8	1
Total Xylenes	1330-20-7	<0.0900	1.00	0.0900	ug/L	01.02.18 14.05	E8	1
trans-1,2-dichloroethene	156-60-5	<0.0900	0.500	0.0900	ug/L	01.02.18 14.05	E8	1
trans-1,3-dichloropropene	10061-02-6	<0.0600	0.500	0.0600	ug/L	01.02.18 14.05	E8	1
Trichloroethene	79-01-6	**1.91**	0.500	0.200	ug/L	01.02.18 14.05		1
Trichlorofluoromethane	75-69-4	<0.400	2.00	0.400	ug/L	01.02.18 14.05	E8	1
Vinyl Acetate	108-05-4	<0.200	5.00	0.200	ug/L	01.02.18 14.05	E8	1
Vinyl Chloride	75-01-4	<0.100	0.500	0.100	ug/L	01.02.18 14.05	E8	1
1,3-Butadiene	106-99-0	<0.276	5.00	0.276	ug/L	01.02.18 14.05	E8	1
Cyclohexane	110-82-7	<0.115	5.00	0.115	ug/L	01.02.18 14.05	E8	1
Dicyclopentadiene	77-73-6	<0.0540	5.00	0.0540	ug/L	01.02.18 14.05	E8	1
Methylcyclohexane	108-87-2	<0.117	5.00	0.117	ug/L	01.02.18 14.05	E8	1
n-Hexane	110-54-3	<0.0920	5.00	0.0920	ug/L	01.02.18 14.05	E8	1
4-Ethyltoluene	622-96-8	Not Present			ug/L	01.02.18 14.05	T4E8	1
Propene	115-07-1	Not Present			ug/L	01.02.18 14.05	T4E8	1

Certificate of Analytical Results 571839

Hydro Geo Chem, Inc., Phoenix, AZ

EGA

Sample Id: **EGA-1**
Lab Sample Id: 571839-001

Matrix: Water
Date Collected: 12.21.17 09.45

Date Received:12.21.17 10.26

Analytical Method: Volatiles by SW 8260B
Tech: MNI
Analyst: MNI
Seq Number: 3037313

Date Prep: 01.02.18 09.47

Prep Method: SW5030C
% Solids:

Surrogate	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	86	%	74-124	01.02.18 14.05	
Dibromofluoromethane	95	%	75-131	01.02.18 14.05	
1,2-Dichloroethane-D4	83	%	63-144	01.02.18 14.05	
Toluene-D8	109	%	70-130	01.02.18 14.05	

Certificate of Analytical Results 571839

Hydro Geo Chem, Inc., Phoenix, AZ

EGA

Sample Id: **EGA-Dup**
Lab Sample Id: 571839-002

Matrix: Water
Date Collected: 12.21.17 09.46

Date Received:12.21.17 10.26

Analytical Method: Volatiles by SW 8260B
Tech: MNI
Analyst: MNI
Seq Number: 3037313

Date Prep: 01.02.18 09.47

Prep Method: SW5030C
% Solids:

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	<0.100	0.500	0.100	ug/L	01.02.18 14.31	E8	1
1,1,1-Trichloroethane	71-55-6	<0.200	0.500	0.200	ug/L	01.02.18 14.31	E8	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.100	0.500	0.100	ug/L	01.02.18 14.31	E8	1
1,1,2-Trichloroethane	79-00-5	<0.0900	0.500	0.0900	ug/L	01.02.18 14.31	E8	1
1,1-Dichloroethane	75-34-3	<0.0700	0.500	0.0700	ug/L	01.02.18 14.31	E8	1
1,1-Dichloroethene	75-35-4	<0.200	0.500	0.200	ug/L	01.02.18 14.31	E8	1
1,1-Dichloropropene	563-58-6	<0.200	1.00	0.200	ug/L	01.02.18 14.31	E8	1
1,2,3-Trichlorobenzene	87-61-6	<0.200	5.00	0.200	ug/L	01.02.18 14.31	E8	1
1,2,3-Trichloropropane	96-18-4	<0.200	1.00	0.200	ug/L	01.02.18 14.31	E8	1
1,2,4-Trichlorobenzene	120-82-1	<0.0700	5.00	0.0700	ug/L	01.02.18 14.31	E8	1
1,2,4-Trimethylbenzene	95-63-6	<0.0700	2.00	0.0700	ug/L	01.02.18 14.31	E8	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.300	2.00	0.300	ug/L	01.02.18 14.31	E8	1
1,2-Dibromoethane	106-93-4	<0.200	0.500	0.200	ug/L	01.02.18 14.31	E8	1
1,2-Dichlorobenzene	95-50-1	<0.0800	1.50	0.0800	ug/L	01.02.18 14.31	E8	1
1,2-Dichloroethane	107-06-2	<0.100	0.500	0.100	ug/L	01.02.18 14.31	E8	1
1,2-Dichloropropane	78-87-5	<0.0900	0.500	0.0900	ug/L	01.02.18 14.31	E8	1
1,3,5-Trimethylbenzene	108-67-8	<0.0700	1.50	0.0700	ug/L	01.02.18 14.31	E8	1
1,3-Dichlorobenzene	541-73-1	<0.0600	1.50	0.0600	ug/L	01.02.18 14.31	E8	1
1,3-Dichloropropane	142-28-9	<0.0700	1.00	0.0700	ug/L	01.02.18 14.31	E8	1
1,4-Dichlorobenzene	106-46-7	<0.200	1.50	0.200	ug/L	01.02.18 14.31	E8	1
2,2-Dichloropropane	594-20-7	<0.200	0.500	0.200	ug/L	01.02.18 14.31	E8	1
2-Butanone	78-93-3	<0.300	5.00	0.300	ug/L	01.02.18 14.31	E8	1
2-Chlorotoluene	95-49-8	<0.0800	1.50	0.0800	ug/L	01.02.18 14.31	E8	1
2-Hexanone	591-78-6	<0.200	5.00	0.200	ug/L	01.02.18 14.31	E8	1
4-Chlorotoluene	106-43-4	<0.0700	2.00	0.0700	ug/L	01.02.18 14.31	E8	1
4-Isopropyltoluene	99-87-6	<0.100	1.50	0.100	ug/L	01.02.18 14.31	E8	1
4-Methyl-2-Pentanone	108-10-1	<0.200	5.00	0.200	ug/L	01.02.18 14.31	E8	1
Acetone	67-64-1	**2.06**	20.0	0.600	ug/L	01.02.18 14.31	E4	1
Benzene	71-43-2	<0.100	0.500	0.100	ug/L	01.02.18 14.31	E8	1
Bromobenzene	108-86-1	<0.0900	1.50	0.0900	ug/L	01.02.18 14.31	E8	1
Bromochloromethane	74-97-5	<0.200	0.500	0.200	ug/L	01.02.18 14.31	E8	1
Bromodichloromethane	75-27-4	<0.0800	0.500	0.0800	ug/L	01.02.18 14.31	E8	1
Bromoform	75-25-2	<0.100	1.00	0.100	ug/L	01.02.18 14.31	E8	1
Bromomethane	74-83-9	<0.300	5.00	0.300	ug/L	01.02.18 14.31	E8	1
Carbon Disulfide	75-15-0	<0.0900	0.500	0.0900	ug/L	01.02.18 14.31	E8	1
Carbon Tetrachloride	56-23-5	<0.200	0.500	0.200	ug/L	01.02.18 14.31	E8	1
Chlorobenzene	108-90-7	<0.0700	0.500	0.0700	ug/L	01.02.18 14.31	E8	1
Chloroethane	75-00-3	<0.600	4.00	0.600	ug/L	01.02.18 14.31	E8	1

Final 1.000

Certificate of Analytical Results 571839

Hydro Geo Chem, Inc., Phoenix, AZ

EGA

Sample Id: **EGA-Dup** Matrix: Water Date Received:12.21.17 10.26
Lab Sample Id: 571839-002 Date Collected: 12.21.17 09.46

Analytical Method: Volatiles by SW 8260B Prep Method: SW5030C
Tech: MNI % Solids:
Analyst: MNI Date Prep: 01.02.18 09.47
Seq Number: 3037313

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloroform	67-66-3	<0.0700	0.500	0.0700	ug/L	01.02.18 14.31	E8	1
Chloromethane	74-87-3	<0.200	5.00	0.200	ug/L	01.02.18 14.31	E8	1
cis-1,2-Dichloroethene	156-59-2	<0.200	0.500	0.200	ug/L	01.02.18 14.31	E8	1
cis-1,3-Dichloropropene	10061-01-5	<0.0800	1.00	0.0800	ug/L	01.02.18 14.31	E8	1
Dibromochloromethane	124-48-1	<0.0700	0.500	0.0700	ug/L	01.02.18 14.31	E8	1
Dibromomethane	74-95-3	<0.200	0.500	0.200	ug/L	01.02.18 14.31	E8	1
Dichlorodifluoromethane	75-71-8	<0.200	2.00	0.200	ug/L	01.02.18 14.31	E8	1
Ethylbenzene	100-41-4	<0.0900	2.00	0.0900	ug/L	01.02.18 14.31	E8	1
Hexachlorobutadiene	87-68-3	<0.200	5.00	0.200	ug/L	01.02.18 14.31	E8	1
Iodomethane (Methyl Iodide)	74-88-4	<0.300	2.00	0.300	ug/L	01.02.18 14.31	E8	1
Isopropylbenzene	98-82-8	<0.0800	2.50	0.0800	ug/L	01.02.18 14.31	E8	1
m,p-Xylenes	179601-23-1	<0.0900	2.00	0.0900	ug/L	01.02.18 14.31	E8	1
Methylene Chloride	75-09-2	<0.200	3.00	0.200	ug/L	01.02.18 14.31	E8	1
MTBE	1634-04-4	<0.100	2.00	0.100	ug/L	01.02.18 14.31	E8	1
Naphthalene	91-20-3	<0.200	5.00	0.200	ug/L	01.02.18 14.31	E8	1
n-Butylbenzene	104-51-8	<0.200	2.50	0.200	ug/L	01.02.18 14.31	E8	1
n-Propylbenzene	103-65-1	<0.0800	2.00	0.0800	ug/L	01.02.18 14.31	E8	1
o-Xylene	95-47-6	<0.0900	1.00	0.0900	ug/L	01.02.18 14.31	E8	1
Sec-Butylbenzene	135-98-8	<0.100	1.50	0.100	ug/L	01.02.18 14.31	E8	1
Styrene	100-42-5	<0.0800	1.00	0.0800	ug/L	01.02.18 14.31	E8	1
tert-Butylbenzene	98-06-6	<0.200	2.50	0.200	ug/L	01.02.18 14.31	E8	1
Tetrachloroethylene	127-18-4	<0.0800	0.500	0.0800	ug/L	01.02.18 14.31	E8	1
Toluene	108-88-3	<0.0700	2.00	0.0700	ug/L	01.02.18 14.31	E8	1
Total Trihalomethane		<0.0700	0.500	0.0700	ug/L	01.02.18 14.31	E8	1
Total Xylenes	1330-20-7	<0.0900	1.00	0.0900	ug/L	01.02.18 14.31	E8	1
trans-1,2-dichloroethene	156-60-5	<0.0900	0.500	0.0900	ug/L	01.02.18 14.31	E8	1
trans-1,3-dichloropropene	10061-02-6	<0.0600	0.500	0.0600	ug/L	01.02.18 14.31	E8	1
Trichloroethene	79-01-6	**2.33**	0.500	0.200	ug/L	01.02.18 14.31		1
Trichlorofluoromethane	75-69-4	<0.400	2.00	0.400	ug/L	01.02.18 14.31	E8	1
Vinyl Acetate	108-05-4	<0.200	5.00	0.200	ug/L	01.02.18 14.31	E8	1
Vinyl Chloride	75-01-4	<0.100	0.500	0.100	ug/L	01.02.18 14.31	E8	1
1,3-Butadiene	106-99-0	<0.276	5.00	0.276	ug/L	01.02.18 14.31	E8	1
Cyclohexane	110-82-7	<0.115	5.00	0.115	ug/L	01.02.18 14.31	E8	1
Dicyclopentadiene	77-73-6	<0.0540	5.00	0.0540	ug/L	01.02.18 14.31	E8	1
Methylcyclohexane	108-87-2	<0.117	5.00	0.117	ug/L	01.02.18 14.31	E8	1
n-Hexane	110-54-3	<0.0920	5.00	0.0920	ug/L	01.02.18 14.31	E8	1
4-Ethyltoluene	622-96-8	Not Present			ug/L	01.02.18 14.31	T4E8	1
Propene	115-07-1	Not Present			ug/L	01.02.18 14.31	T4E8	1

Certificate of Analytical Results 571839

Hydro Geo Chem, Inc., Phoenix, AZ

EGA

Sample Id: **EGA-Dup**
Lab Sample Id: 571839-002

Matrix: Water
Date Collected: 12.21.17 09.46

Date Received:12.21.17 10.26

Analytical Method: Volatiles by SW 8260B
Tech: MNI
Analyst: MNI
Seq Number: 3037313

Date Prep: 01.02.18 09.47

Prep Method: SW5030C
% Solids:

Surrogate	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	90	%	74-124	01.02.18 14.31	
Dibromofluoromethane	97	%	75-131	01.02.18 14.31	
1,2-Dichloroethane-D4	82	%	63-144	01.02.18 14.31	
Toluene-D8	86	%	70-130	01.02.18 14.31	

Certificate of Analytical Results 571839

Hydro Geo Chem, Inc., Phoenix, AZ

EGA

Sample Id: **Trip Blank** Matrix: Water Date Received:12.21.17 10.26
Lab Sample Id: 571839-003 Date Collected: 12.21.17 09.46

Analytical Method: Volatiles by SW 8260B Prep Method: SW5030C
Tech: MNI % Solids:
Analyst: MNI Date Prep: 01.02.18 09.47
Seq Number: 3037313

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	<0.100	0.500	0.100	ug/L	01.02.18 14.57	E8	1
1,1,1-Trichloroethane	71-55-6	<0.200	0.500	0.200	ug/L	01.02.18 14.57	E8	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.100	0.500	0.100	ug/L	01.02.18 14.57	E8	1
1,1,2-Trichloroethane	79-00-5	<0.0900	0.500	0.0900	ug/L	01.02.18 14.57	E8	1
1,1-Dichloroethane	75-34-3	<0.0700	0.500	0.0700	ug/L	01.02.18 14.57	E8	1
1,1-Dichloroethene	75-35-4	<0.200	0.500	0.200	ug/L	01.02.18 14.57	E8	1
1,1-Dichloropropene	563-58-6	<0.200	1.00	0.200	ug/L	01.02.18 14.57	E8	1
1,2,3-Trichlorobenzene	87-61-6	<0.200	5.00	0.200	ug/L	01.02.18 14.57	E8	1
1,2,3-Trichloropropane	96-18-4	<0.200	1.00	0.200	ug/L	01.02.18 14.57	E8	1
1,2,4-Trichlorobenzene	120-82-1	<0.0700	5.00	0.0700	ug/L	01.02.18 14.57	E8	1
1,2,4-Trimethylbenzene	95-63-6	<0.0700	2.00	0.0700	ug/L	01.02.18 14.57	E8	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.300	2.00	0.300	ug/L	01.02.18 14.57	E8	1
1,2-Dibromoethane	106-93-4	<0.200	0.500	0.200	ug/L	01.02.18 14.57	E8	1
1,2-Dichlorobenzene	95-50-1	<0.0800	1.50	0.0800	ug/L	01.02.18 14.57	E8	1
1,2-Dichloroethane	107-06-2	<0.100	0.500	0.100	ug/L	01.02.18 14.57	E8	1
1,2-Dichloropropane	78-87-5	<0.0900	0.500	0.0900	ug/L	01.02.18 14.57	E8	1
1,3,5-Trimethylbenzene	108-67-8	<0.0700	1.50	0.0700	ug/L	01.02.18 14.57	E8	1
1,3-Dichlorobenzene	541-73-1	<0.0600	1.50	0.0600	ug/L	01.02.18 14.57	E8	1
1,3-Dichloropropane	142-28-9	<0.0700	1.00	0.0700	ug/L	01.02.18 14.57	E8	1
1,4-Dichlorobenzene	106-46-7	<0.200	1.50	0.200	ug/L	01.02.18 14.57	E8	1
2,2-Dichloropropane	594-20-7	<0.200	0.500	0.200	ug/L	01.02.18 14.57	E8	1
2-Butanone	78-93-3	<0.300	5.00	0.300	ug/L	01.02.18 14.57	E8	1
2-Chlorotoluene	95-49-8	<0.0800	1.50	0.0800	ug/L	01.02.18 14.57	E8	1
2-Hexanone	591-78-6	<0.200	5.00	0.200	ug/L	01.02.18 14.57	E8	1
4-Chlorotoluene	106-43-4	<0.0700	2.00	0.0700	ug/L	01.02.18 14.57	E8	1
4-Isopropyltoluene	99-87-6	<0.100	1.50	0.100	ug/L	01.02.18 14.57	E8	1
4-Methyl-2-Pentanone	108-10-1	<0.200	5.00	0.200	ug/L	01.02.18 14.57	E8	1
Acetone	67-64-1	**3.84**	20.0	0.600	ug/L	01.02.18 14.57	E4	1
Benzene	71-43-2	<0.100	0.500	0.100	ug/L	01.02.18 14.57	E8	1
Bromobenzene	108-86-1	<0.0900	1.50	0.0900	ug/L	01.02.18 14.57	E8	1
Bromochloromethane	74-97-5	<0.200	0.500	0.200	ug/L	01.02.18 14.57	E8	1
Bromodichloromethane	75-27-4	<0.0800	0.500	0.0800	ug/L	01.02.18 14.57	E8	1
Bromoform	75-25-2	<0.100	1.00	0.100	ug/L	01.02.18 14.57	E8	1
Bromomethane	74-83-9	<0.300	5.00	0.300	ug/L	01.02.18 14.57	E8	1
Carbon Disulfide	75-15-0	<0.0900	0.500	0.0900	ug/L	01.02.18 14.57	E8	1
Carbon Tetrachloride	56-23-5	<0.200	0.500	0.200	ug/L	01.02.18 14.57	E8	1
Chlorobenzene	108-90-7	<0.0700	0.500	0.0700	ug/L	01.02.18 14.57	E8	1
Chloroethane	75-00-3	<0.600	4.00	0.600	ug/L	01.02.18 14.57	E8	1

Certificate of Analytical Results 571839

Hydro Geo Chem, Inc., Phoenix, AZ

EGA

Sample Id: **Trip Blank** Matrix: Water Date Received:12.21.17 10.26
Lab Sample Id: 571839-003 Date Collected: 12.21.17 09.46

Analytical Method: Volatiles by SW 8260B Prep Method: SW5030C
Tech: MNI % Solids:
Analyst: MNI Date Prep: 01.02.18 09.47
Seq Number: 3037313

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloroform	67-66-3	**0.700**	0.500	0.0700	ug/L	01.02.18 14.57		1
Chloromethane	74-87-3	<0.200	5.00	0.200	ug/L	01.02.18 14.57	E8	1
cis-1,2-Dichloroethene	156-59-2	<0.200	0.500	0.200	ug/L	01.02.18 14.57	E8	1
cis-1,3-Dichloropropene	10061-01-5	<0.0800	1.00	0.0800	ug/L	01.02.18 14.57	E8	1
Dibromochloromethane	124-48-1	<0.0700	0.500	0.0700	ug/L	01.02.18 14.57	E8	1
Dibromomethane	74-95-3	<0.200	0.500	0.200	ug/L	01.02.18 14.57	E8	1
Dichlorodifluoromethane	75-71-8	<0.200	2.00	0.200	ug/L	01.02.18 14.57	E8	1
Ethylbenzene	100-41-4	<0.0900	2.00	0.0900	ug/L	01.02.18 14.57	E8	1
Hexachlorobutadiene	87-68-3	<0.200	5.00	0.200	ug/L	01.02.18 14.57	E8	1
Iodomethane (Methyl Iodide)	74-88-4	<0.300	2.00	0.300	ug/L	01.02.18 14.57	E8	1
Isopropylbenzene	98-82-8	<0.0800	2.50	0.0800	ug/L	01.02.18 14.57	E8	1
m,p-Xylenes	179601-23-1	<0.0900	2.00	0.0900	ug/L	01.02.18 14.57	E8	1
Methylene Chloride	75-09-2	<0.200	3.00	0.200	ug/L	01.02.18 14.57	E8	1
MTBE	1634-04-4	<0.100	2.00	0.100	ug/L	01.02.18 14.57	E8	1
Naphthalene	91-20-3	<0.200	5.00	0.200	ug/L	01.02.18 14.57	E8	1
n-Butylbenzene	104-51-8	<0.200	2.50	0.200	ug/L	01.02.18 14.57	E8	1
n-Propylbenzene	103-65-1	<0.0800	2.00	0.0800	ug/L	01.02.18 14.57	E8	1
o-Xylene	95-47-6	<0.0900	1.00	0.0900	ug/L	01.02.18 14.57	E8	1
Sec-Butylbenzene	135-98-8	<0.100	1.50	0.100	ug/L	01.02.18 14.57	E8	1
Styrene	100-42-5	<0.0800	1.00	0.0800	ug/L	01.02.18 14.57	E8	1
tert-Butylbenzene	98-06-6	<0.200	2.50	0.200	ug/L	01.02.18 14.57	E8	1
Tetrachloroethylene	127-18-4	<0.0800	0.500	0.0800	ug/L	01.02.18 14.57	E8	1
Toluene	108-88-3	<0.0700	2.00	0.0700	ug/L	01.02.18 14.57	E8	1
Total Trihalomethane		**0.700**	0.500	0.0700	ug/L	01.02.18 14.57		1
Total Xylenes	1330-20-7	<0.0900	1.00	0.0900	ug/L	01.02.18 14.57	E8	1
trans-1,2-dichloroethene	156-60-5	<0.0900	0.500	0.0900	ug/L	01.02.18 14.57	E8	1
trans-1,3-dichloropropene	10061-02-6	<0.0600	0.500	0.0600	ug/L	01.02.18 14.57	E8	1
Trichloroethene	79-01-6	<0.200	0.500	0.200	ug/L	01.02.18 14.57	E8	1
Trichlorofluoromethane	75-69-4	<0.400	2.00	0.400	ug/L	01.02.18 14.57	E8	1
Vinyl Acetate	108-05-4	<0.200	5.00	0.200	ug/L	01.02.18 14.57	E8	1
Vinyl Chloride	75-01-4	<0.100	0.500	0.100	ug/L	01.02.18 14.57	E8	1
1,3-Butadiene	106-99-0	<0.276	5.00	0.276	ug/L	01.02.18 14.57	E8	1
Cyclohexane	110-82-7	<0.115	5.00	0.115	ug/L	01.02.18 14.57	E8	1
Dicyclopentadiene	77-73-6	<0.0540	5.00	0.0540	ug/L	01.02.18 14.57	E8	1
Methylcyclohexane	108-87-2	<0.117	5.00	0.117	ug/L	01.02.18 14.57	E8	1
n-Hexane	110-54-3	<0.0920	5.00	0.0920	ug/L	01.02.18 14.57	E8	1
4-Ethyltoluene	622-96-8	Not Present			ug/L	01.02.18 14.57	T4E8	1
Propene	115-07-1	Not Present			ug/L	01.02.18 14.57	T4E8	1

Certificate of Analytical Results 571839

Hydro Geo Chem, Inc., Phoenix, AZ

EGA

Sample Id: **Trip Blank**
Lab Sample Id: 571839-003

Matrix: Water
Date Collected: 12.21.17 09.46

Date Received:12.21.17 10.26

Analytical Method: Volatiles by SW 8260B
Tech: MNI
Analyst: MNI
Seq Number: 3037313

Date Prep: 01.02.18 09.47

Prep Method: SW5030C
% Solids:

Surrogate	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	115	%	74-124	01.02.18 14.57	
Dibromofluoromethane	120	%	75-131	01.02.18 14.57	
1,2-Dichloroethane-D4	97	%	63-144	01.02.18 14.57	
Toluene-D8	123	%	70-130	01.02.18 14.57	

QC Summary 571839

Hydro Geo Chem, Inc.

EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030C
Seq Number: 3037313 Matrix: Water Date Prep: 01.02.18
MB Sample Id: 7636868-1-BLK LCS Sample Id: 7636868-1-BKS LCSD Sample Id: 7636868-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1,2-Tetrachloroethane	<0.100	20.0	19.2	96	19.8	99	70-130	3	20	ug/L	01.02.18 13:04	
1,1,1-Trichloroethane	<0.200	20.0	16.7	84	18.6	93	70-130	11	20	ug/L	01.02.18 13:04	
1,1,2,2-Tetrachloroethane	<0.100	20.0	17.9	90	18.5	93	70-130	3	20	ug/L	01.02.18 13:04	
1,1,2-Trichloroethane	<0.0900	20.0	16.7	84	17.4	87	70-130	4	20	ug/L	01.02.18 13:04	
1,1-Dichloroethane	<0.0700	20.0	20.0	100	20.5	103	70-130	2	20	ug/L	01.02.18 13:04	
1,1-Dichloroethene	<0.200	20.0	18.1	91	17.8	89	70-130	2	21	ug/L	01.02.18 13:04	
1,1-Dichloropropene	<0.200	20.0	23.3	117	23.7	119	70-130	2	20	ug/L	01.02.18 13:04	
1,2,3-Trichlorobenzene	<0.200	20.0	19.9	100	21.5	108	70-130	8	27	ug/L	01.02.18 13:04	
1,2,3-Trichloropropane	<0.200	20.0	17.5	88	19.3	97	70-130	10	20	ug/L	01.02.18 13:04	
1,2,4-Trichlorobenzene	<0.0700	20.0	20.0	100	22.7	114	70-130	13	20	ug/L	01.02.18 13:04	
1,2,4-Trimethylbenzene	<0.0700	20.0	18.4	92	19.9	100	70-130	8	20	ug/L	01.02.18 13:04	
1,2-Dibromo-3-Chloropropane	<0.300	20.0	21.4	107	24.8	124	70-130	15	21	ug/L	01.02.18 13:04	
1,2-Dibromoethane	<0.200	20.0	20.0	100	21.2	106	70-130	6	20	ug/L	01.02.18 13:04	
1,2-Dichlorobenzene	<0.0800	20.0	19.0	95	21.5	108	70-130	12	20	ug/L	01.02.18 13:04	
1,2-Dichloroethane	<0.100	20.0	17.6	88	18.2	91	70-130	3	20	ug/L	01.02.18 13:04	
1,2-Dichloropropane	<0.0900	20.0	16.2	81	17.0	85	70-130	5	20	ug/L	01.02.18 13:04	
1,3,5-Trimethylbenzene	<0.0700	20.0	18.5	93	20.2	101	70-130	9	20	ug/L	01.02.18 13:04	
1,3-Dichlorobenzene	<0.0600	20.0	21.0	105	23.7	119	70-130	12	20	ug/L	01.02.18 13:04	
1,3-Dichloropropane	<0.0700	20.0	17.2	86	18.2	91	70-130	6	20	ug/L	01.02.18 13:04	
1,4-Dichlorobenzene	<0.200	20.0	20.3	102	23.7	119	70-130	15	20	ug/L	01.02.18 13:04	
2,2-Dichloropropane	<0.200	20.0	18.3	92	19.0	95	70-130	4	24	ug/L	01.02.18 13:04	
2-Butanone	<0.300	40.0	36.1	90	34.7	87	51-116	4	27	ug/L	01.02.18 13:04	
2-Chlorotoluene	<0.0800	20.0	19.8	99	20.0	100	70-130	1	20	ug/L	01.02.18 13:04	
2-Hexanone	<0.200	40.0	30.7	77	36.2	91	59-101	16	20	ug/L	01.02.18 13:04	
4-Chlorotoluene	<0.0700	20.0	18.3	92	20.8	104	70-130	13	28	ug/L	01.02.18 13:04	
4-Isopropyltoluene	<0.100	20.0	20.3	102	23.9	120	70-130	16	20	ug/L	01.02.18 13:04	
4-Methyl-2-Pentanone	<0.200	40.0	30.4	76	36.4	91	57-106	18	21	ug/L	01.02.18 13:04	
Acetone	<0.600	40.0	37.1	93	40.3	101	47-128	8	28	ug/L	01.02.18 13:04	
Benzene	<0.100	20.0	20.7	104	22.5	113	70-130	8	20	ug/L	01.02.18 13:04	
Bromobenzene	<0.0900	20.0	20.4	102	22.8	114	70-130	11	20	ug/L	01.02.18 13:04	
Bromochloromethane	<0.200	20.0	18.5	93	21.1	106	70-130	13	24	ug/L	01.02.18 13:04	
Bromodichloromethane	<0.0800	20.0	15.8	79	18.9	95	70-130	18	20	ug/L	01.02.18 13:04	
Bromoform	<0.100	20.0	19.7	99	20.6	103	66-132	4	20	ug/L	01.02.18 13:04	
Bromomethane	<0.300	20.0	16.4	82	16.4	82	63-130	0	25	ug/L	01.02.18 13:04	
Carbon Disulfide	<0.0900	20.0	20.8	104	21.5	108	70-130	3	22	ug/L	01.02.18 13:04	
Carbon Tetrachloride	<0.200	20.0	19.5	98	18.9	95	70-130	3	21	ug/L	01.02.18 13:04	
Chlorobenzene	<0.0700	20.0	19.4	97	21.4	107	70-130	10	20	ug/L	01.02.18 13:04	
Chloroethane	<0.600	20.0	16.5	83	15.3	77	70-140	8	24	ug/L	01.02.18 13:04	
Chloroform	<0.0700	20.0	17.2	86	18.1	91	70-130	5	24	ug/L	01.02.18 13:04	
Chloromethane	<0.200	20.0	18.4	92	18.4	92	25-130	0	26	ug/L	01.02.18 13:04	
cis-1,2-Dichloroethene	<0.200	20.0	19.1	96	18.7	94	70-130	2	24	ug/L	01.02.18 13:04	
cis-1,3-Dichloropropene	<0.0800	20.0	20.5	103	19.7	99	70-130	4	20	ug/L	01.02.18 13:04	
Dibromochloromethane	<0.0700	20.0	18.2	91	20.1	101	70-130	10	20	ug/L	01.02.18 13:04	
Dibromomethane	<0.200	20.0	15.1	76	18.8	94	70-130	22	23	ug/L	01.02.18 13:04	
Dichlorodifluoromethane	<0.200	20.0	16.0	80	16.9	85	25-136	5	27	ug/L	01.02.18 13:04	
Ethylbenzene	<0.0900	20.0	18.8	94	19.5	98	70-130	4	20	ug/L	01.02.18 13:04	
Hexachlorobutadiene	<0.200	20.0	21.4	107	24.4	122	63-139	13	22	ug/L	01.02.18 13:04	
Iodomethane (Methyl Iodide)	<0.300	20.0	23.6	118	22.6	113	70-130	4	22	ug/L	01.02.18 13:04	
Isopropylbenzene	<0.0800	20.0	23.7	119	25.1	126	70-130	6	20	ug/L	01.02.18 13:04	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 571839

Hydro Geo Chem, Inc.

EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030C

Seq Number: 3037313 Matrix: Water Date Prep: 01.02.18

MB Sample Id: 7636868-1-BLK LCS Sample Id: 7636868-1-BKS LCSD Sample Id: 7636868-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
m,p-Xylenes	<0.0900	40.0	43.3	108	48.2	121	70-130	11	20	ug/L	01.02.18 13:04	
Methylene Chloride	<0.200	20.0	20.7	104	22.4	112	70-130	8	20	ug/L	01.02.18 13:04	
MTBE	<0.100	20.0	19.9	100	21.3	107	70-130	7	21	ug/L	01.02.18 13:04	
Naphthalene	<0.200	20.0	17.2	86	18.8	94	70-130	9	27	ug/L	01.02.18 13:04	
n-Butylbenzene	<0.200	20.0	19.2	96	20.3	102	70-130	6	20	ug/L	01.02.18 13:04	
n-Propylbenzene	<0.0800	20.0	19.7	99	22.9	115	70-130	15	20	ug/L	01.02.18 13:04	
o-Xylene	<0.0900	20.0	19.6	98	22.1	111	70-130	12	20	ug/L	01.02.18 13:04	
Sec-Butylbenzene	<0.100	20.0	21.6	108	24.9	125	70-130	14	20	ug/L	01.02.18 13:04	
Styrene	<0.0800	20.0	21.0	105	23.3	117	70-130	10	20	ug/L	01.02.18 13:04	
tert-Butylbenzene	<0.200	20.0	20.4	102	23.6	118	70-130	15	20	ug/L	01.02.18 13:04	
Tetrachloroethylene	<0.0800	20.0	20.9	105	21.5	108	70-130	3	20	ug/L	01.02.18 13:04	
Toluene	<0.0700	20.0	19.6	98	20.4	102	70-130	4	20	ug/L	01.02.18 13:04	
trans-1,2-dichloroethene	<0.0900	20.0	18.2	91	18.5	93	70-130	2	21	ug/L	01.02.18 13:04	
trans-1,3-dichloropropene	<0.0600	20.0	17.6	88	21.1	106	70-130	18	20	ug/L	01.02.18 13:04	
Trichloroethene	<0.200	20.0	15.9	80	19.4	97	70-130	20	20	ug/L	01.02.18 13:04	
Trichlorofluoromethane	<0.400	20.0	16.5	83	16.6	83	70-130	1	22	ug/L	01.02.18 13:04	
Vinyl Acetate	<0.200	20.0	16.5	83	17.3	87	46-172	5	22	ug/L	01.02.18 13:04	
Vinyl Chloride	<0.100	20.0	17.6	88	19.1	96	41-132	8	25	ug/L	01.02.18 13:04	
1,3-Butadiene	<0.276	20.0	19.4	97	19.8	99	58-134	2	20	ug/L	01.02.18 13:04	
Cyclohexane	<0.115	20.0	20.8	104	19.8	99	70-130	5	21	ug/L	01.02.18 13:04	
Dicyclopentadiene	<0.0540	20.0	19.4	97	21.8	109	70-130	12	20	ug/L	01.02.18 13:04	
Methylcyclohexane	<0.117	20.0	22.2	111	22.5	113	70-130	1	20	ug/L	01.02.18 13:04	
n-Hexane	<0.0920	20.0	20.9	105	23.2	116	67-130	10	20	ug/L	01.02.18 13:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	104		100		91		74-124	%	01.02.18 13:04
Dibromofluoromethane	96		98		101		75-131	%	01.02.18 13:04
1,2-Dichloroethane-D4	82		106		92		63-144	%	01.02.18 13:04
Toluene-D8	114		110		104		70-130	%	01.02.18 13:04

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 571839

Hydro Geo Chem, Inc.

EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030C
Seq Number: 3037313 Matrix: Waste Water Date Prep: 01.02.18
Parent Sample Id: 572174-002 MS Sample Id: 572174-002 S MSD Sample Id: 572174-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1,2-Tetrachloroethane	<0.100	20.0	17.6	88	18.9	95	70-130	7	20	ug/L	01.02.18 16:55	
1,1,1-Trichloroethane	<0.200	20.0	18.0	90	19.2	96	70-130	6	20	ug/L	01.02.18 16:55	
1,1,2,2-Tetrachloroethane	<0.100	20.0	16.5	83	18.7	94	70-130	13	20	ug/L	01.02.18 16:55	
1,1,2-Trichloroethane	<0.0900	20.0	14.8	74	17.6	88	70-130	17	20	ug/L	01.02.18 16:55	
1,1-Dichloroethane	<0.0700	20.0	16.7	84	17.3	87	70-130	4	20	ug/L	01.02.18 16:55	
1,1-Dichloroethene	<0.200	20.0	22.6	113	19.1	96	63-144	17	20	ug/L	01.02.18 16:55	
1,1-Dichloropropene	<0.200	20.0	20.0	100	20.9	105	70-130	4	20	ug/L	01.02.18 16:55	
1,2,3-Trichlorobenzene	<0.200	20.0	19.3	97	20.8	104	70-130	7	24	ug/L	01.02.18 16:55	
1,2,3-Trichloropropane	<0.200	20.0	19.1	96	23.0	115	70-130	19	20	ug/L	01.02.18 16:55	
1,2,4-Trichlorobenzene	<0.0700	20.0	19.6	98	21.0	105	70-130	7	20	ug/L	01.02.18 16:55	
1,2,4-Trimethylbenzene	<0.0700	20.0	16.6	83	17.7	89	70-130	6	22	ug/L	01.02.18 16:55	
1,2-Dibromo-3-Chloropropane	<0.300	20.0	20.9	105	23.8	119	70-130	13	22	ug/L	01.02.18 16:55	
1,2-Dibromoethane	<0.200	20.0	18.0	90	20.9	105	70-130	15	20	ug/L	01.02.18 16:55	
1,2-Dichlorobenzene	<0.0800	20.0	18.0	90	19.9	100	70-130	10	20	ug/L	01.02.18 16:55	
1,2-Dichloroethane	<0.100	20.0	14.8	74	16.9	85	70-130	13	20	ug/L	01.02.18 16:55	
1,2-Dichloropropane	<0.0900	20.0	17.3	87	17.5	88	70-130	1	20	ug/L	01.02.18 16:55	
1,3,5-Trimethylbenzene	<0.0700	20.0	17.3	87	17.9	90	70-130	3	20	ug/L	01.02.18 16:55	
1,3-Dichlorobenzene	<0.0600	20.0	19.3	97	20.8	104	70-130	7	20	ug/L	01.02.18 16:55	
1,3-Dichloropropane	<0.0700	20.0	16.3	82	17.1	86	70-130	5	20	ug/L	01.02.18 16:55	
1,4-Dichlorobenzene	<0.200	20.0	19.1	96	20.9	105	70-130	9	20	ug/L	01.02.18 16:55	
2,2-Dichloropropane	<0.200	20.0	15.4	77	15.8	79	70-130	3	20	ug/L	01.02.18 16:55	
2-Butanone	16.2	40.0	46.4	76	53.8	94	40-133	15	22	ug/L	01.02.18 16:55	
2-Chlorotoluene	<0.0800	20.0	19.1	96	19.8	99	70-130	4	20	ug/L	01.02.18 16:55	
2-Hexanone	<0.200	40.0	33.6	84	36.7	92	61-106	9	33	ug/L	01.02.18 16:55	
4-Chlorotoluene	<0.0700	20.0	17.5	88	18.2	91	70-130	4	20	ug/L	01.02.18 16:55	
4-Isopropyltoluene	<0.100	20.0	19.1	96	19.6	98	70-130	3	20	ug/L	01.02.18 16:55	
4-Methyl-2-Pentanone	<0.200	40.0	35.3	88	29.1	73	70-130	19	20	ug/L	01.02.18 16:55	
Acetone	14.3	40.0	56.8	106	54.5	101	7-174	4	20	ug/L	01.02.18 16:55	
Benzene	<0.100	20.0	18.2	91	20.2	101	70-130	10	20	ug/L	01.02.18 16:55	
Bromobenzene	<0.0900	20.0	20.1	101	21.9	110	70-130	9	20	ug/L	01.02.18 16:55	
Bromochloromethane	<0.200	20.0	18.0	90	19.4	97	70-130	7	22	ug/L	01.02.18 16:55	
Bromodichloromethane	<0.0800	20.0	15.1	76	15.0	75	70-130	1	20	ug/L	01.02.18 16:55	
Bromoform	<0.100	20.0	18.1	91	20.9	105	70-130	14	20	ug/L	01.02.18 16:55	
Bromomethane	<0.300	20.0	18.3	92	17.9	90	43-147	2	22	ug/L	01.02.18 16:55	
Carbon Disulfide	<0.0900	20.0	23.0	115	20.0	100	50-137	14	28	ug/L	01.02.18 16:55	
Carbon Tetrachloride	<0.200	20.0	14.8	74	16.5	83	67-136	11	20	ug/L	01.02.18 16:55	
Chlorobenzene	<0.0700	20.0	18.5	93	20.4	102	70-130	10	20	ug/L	01.02.18 16:55	
Chloroethane	<0.600	20.0	21.0	105	17.2	86	57-156	20	20	ug/L	01.02.18 16:55	
Chloroform	<0.0700	20.0	16.7	84	17.5	88	70-130	5	22	ug/L	01.02.18 16:55	
Chloromethane	<0.200	20.0	21.6	108	21.2	106	24-129	2	22	ug/L	01.02.18 16:55	
cis-1,2-Dichloroethene	<0.200	20.0	18.5	93	20.2	101	70-130	9	20	ug/L	01.02.18 16:55	
cis-1,3-Dichloropropene	<0.0800	20.0	16.9	85	14.7	74	70-130	14	20	ug/L	01.02.18 16:55	
Dibromochloromethane	<0.0700	20.0	17.5	88	18.8	94	70-130	7	20	ug/L	01.02.18 16:55	
Dibromomethane	<0.200	20.0	14.7	74	17.5	88	70-130	17	20	ug/L	01.02.18 16:55	
Dichlorodifluoromethane	<0.200	20.0	19.0	95	17.0	85	21-138	11	33	ug/L	01.02.18 16:55	
Ethylbenzene	<0.0900	20.0	17.8	89	19.5	98	70-130	9	20	ug/L	01.02.18 16:55	
Hexachlorobutadiene	<0.200	20.0	20.8	104	20.9	105	64-143	0	20	ug/L	01.02.18 16:55	
Iodomethane (Methyl Iodide)	<0.300	20.0	23.7	119	20.6	103	59-133	14	20	ug/L	01.02.18 16:55	
Isopropylbenzene	<0.0800	20.0	21.3	107	22.5	113	70-130	5	20	ug/L	01.02.18 16:55	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 571839

Hydro Geo Chem, Inc.

EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030C

Seq Number: 3037313 Matrix: Waste Water Date Prep: 01.02.18

Parent Sample Id: 572174-002 MS Sample Id: 572174-002 S MSD Sample Id: 572174-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
m,p-Xylenes	<0.0900	40.0	39.6	99	43.0	108	70-130	8	20	ug/L	01.02.18 16:55	
Methylene Chloride	<0.200	20.0	24.7	124	20.6	103	65-127	18	20	ug/L	01.02.18 16:55	
MTBE	<0.100	20.0	21.2	106	18.1	91	69-135	16	20	ug/L	01.02.18 16:55	
Naphthalene	<0.200	20.0	16.5	83	18.3	92	70-130	10	26	ug/L	01.02.18 16:55	
n-Butylbenzene	<0.200	20.0	17.0	85	17.9	90	70-130	5	20	ug/L	01.02.18 16:55	
n-Propylbenzene	<0.0800	20.0	18.6	93	22.8	114	70-130	20	20	ug/L	01.02.18 16:55	
o-Xylene	<0.0900	20.0	18.8	94	19.8	99	70-130	5	20	ug/L	01.02.18 16:55	
Sec-Butylbenzene	<0.100	20.0	19.8	99	20.9	105	70-130	5	20	ug/L	01.02.18 16:55	
Styrene	<0.0800	20.0	20.6	103	21.6	108	37-156	5	37	ug/L	01.02.18 16:55	
tert-Butylbenzene	<0.200	20.0	18.6	93	19.9	100	70-130	7	20	ug/L	01.02.18 16:55	
Tetrachloroethylene	<0.0800	20.0	18.6	93	19.2	96	70-130	3	20	ug/L	01.02.18 16:55	
Toluene	1.95	20.0	18.5	83	20.1	91	70-130	8	20	ug/L	01.02.18 16:55	
trans-1,2-dichloroethene	<0.0900	20.0	22.2	111	19.3	97	69-131	14	20	ug/L	01.02.18 16:55	
trans-1,3-dichloropropene	<0.0600	20.0	16.2	81	19.3	97	70-130	17	20	ug/L	01.02.18 16:55	
Trichloroethene	<0.200	20.0	16.4	82	17.9	90	70-130	9	20	ug/L	01.02.18 16:55	
Trichlorofluoromethane	<0.400	20.0	18.9	95	16.6	83	60-133	13	20	ug/L	01.02.18 16:55	
Vinyl Acetate	<0.200	20.0	14.9	75	17.9	90	32-156	18	23	ug/L	01.02.18 16:55	
Vinyl Chloride	<0.100	20.0	21.3	107	17.8	89	35-139	18	21	ug/L	01.02.18 16:55	
1,3-Butadiene	<0.276	20.0	20.1	101	19.5	98	37-152	3	20	ug/L	01.02.18 16:55	
Cyclohexane	<0.115	20.0	15.8	79	19.0	95	64-138	18	20	ug/L	01.02.18 16:55	
Dicyclopentadiene	<0.0540	20.0	18.0	90	19.6	98	13-182	9	20	ug/L	01.02.18 16:55	
Methylcyclohexane	<0.117	20.0	18.4	92	18.7	94	70-130	2	20	ug/L	01.02.18 16:55	
n-Hexane	<0.0920	20.0	16.1	81	18.9	95	62-128	16	20	ug/L	01.02.18 16:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	98		92		74-124	%	01.02.18 16:55
Dibromofluoromethane	97		98		75-131	%	01.02.18 16:55
1,2-Dichloroethane-D4	86		91		63-144	%	01.02.18 16:55
Toluene-D8	108		79		70-130	%	01.02.18 16:55

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Chain of Custody

XENCO LABORATORIES

Arizona: 2525 W. Huntington Dr. Suite 102 • Tempe, AZ 85282 • Ph: (480) 355-0900
Corporate: 4147 Greenbriar Dr. • Stafford, TX 77477 • Ph: (281) 240-4200
Other Locations: Midland, TX Dallas, TX San Antonio, TX El Paso, TX Lubbock, TX Hobbs, NM www.xenco.com

Work Order No: 571839

Page 1 of 1

Project Manager:	Dan Sola	Bill to: (if different)	
Company Name:	Hydro Geo Chem	Company Name:	
Address:		Address:	
City, State ZIP:	Phoenix, AZ	City, State ZIP:	
Phone:	480 421 1501 X13a	Email:	dans@hgcinc.com

Work Order Comments

Project Name:	EGA
Project Number:	201603 1
P.O. Number:	
Sampler's Name:	Leah Wills

SAMPLE RECEIPT

Temperature (°C):	7		Temp Blank	
Received Intact:	Yes	No	N/A	Yes No
Cooler Custody Seals:	Yes	No	N/A	Wet Ice
Sample Custody Seals:	Yes	No	N/A	Yes No Melted

ANALYSIS REQUEST (PLEASE CHECK BOX)

TAT
- ☐ Routine
- ☐ Rush
- Due Date:

TAT starts the day recevied by the lab, if received by 4pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Lab ID	Number of Containers	8260 / 624 / Acrolein / Acrylonitrile / 524.2 / 2-CEVE	PAHs (8270 SIM)	Tetraethyl Lead	Semi-Volatile Organics 8270 / 625	Organochlorine Pesticides & PCBs 8081 / 8082 / 608	Metals (See Below) Total / Hardness / Ca Hardness	Metals (See Below) Dissolved / TCLP	Total Cyanide / Amenable (Free) Cyanide	BOD / TSS	pH / Cl / Cond. / SO4 / Alk / F / TDS / Ortho-P	Individual NO2 / Individual NO3	NO2+NO3	TKN / COD / NH3 / Total-P / Total N	Coliform HPC / E. Coli (MPN) Fecal (CFU)	Sample Comments
EGA-1	W	12/21/17	0945	1	3	X														
EGA-Dup		12/21/17	0946	2	3	X														
Trip Blank				3	1	X														

Total 200.7 / 6010C: 8RCRA 13PPM Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn V Zn
Circle Method(s) and Metal(s) to be analyzed 200.8 / 6020: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Other: 245.1 / 7470A: Hg

Dissolved / TCLP 200.7 / 6010C: 8RCRA 13PPM Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn V Zn
Circle Method(s) and Metal(s) to be analyzed 200.8 / 6020: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Other: 245.1 / 7470A: Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	[signature]	[signature]	12/21/17 10:[illegible]
2			
3			

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. Xenco's liability will be limited to the cost of samples. These terms will be enforced unless previously negotiated under a fully executed client contract.

Revised: 25.04.2017

XENCO LABORATORIES

Sample Receipt Checklist

Client Name: Hydro Geo

Date and Time Received: 12/21/17 10:26

Work Order Number: 571839

Checked by: HC

Checklist completed by: HC

Logged In by: HC Date: 12/21/17

Matrix: W Courier Name: Client TWA

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	Not Present ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
All samples received same day of collection?	Yes ☑	No ☐	Temp: 7 Wet Ice Present ☐
Where was the temperature reading taken at?	Sample ☐	Temp Blank ☑	Other:
VOA Water – VOA vials have zero headspace?	Yes ☐	No ☐	N/A ☑
Water – Microbiological bottles have ≤ 2.5 cm headspace?	Yes ☑	No ☐	N/A ☐
Water – All sample pH's acceptable upon receipt?	Yes ☐	No ☐	N/A ☑ Checked by: HC

If No, list all samples and bottle types that are not acceptable in Additional Comments section. Also state any correction actions.

Dissolved Metals – Field Filtered?	Yes ☐	No ☐	N/A ☑

Additional Comments:

SRChecklist 2016.1

Analytical Report 574026

for

Hydro Geo Chem, Inc.

Project Manager: Dan Solo

ADEQ-EGA

2016031

31-JAN-18

Collected By: Client

2525 West Huntington Drive, Suite 102
Tempe, AZ 85282
Ph: (480) 355-0900

Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Houston (EPA Lab code: TX00122): Arizona (AZ0765)
Xenco-Dallas (EPA Lab code: TX01468): Arizona (AZ0809)

31-JAN-18

Project Manager: **Dan Solo**
Hydro Geo Chem, Inc.
3038 E Cactus Road
Suite 3
Phoenix, AZ 85032

Reference: TWA Report No(s): **574026**
ADEQ-EGA
Project Address:

Dan Solo :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the TWA Report Number(s) 574026. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the ADHS certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with ADHS standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and ADHS Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by TransWest Analytical. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 574026 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting TransWest Analytical to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Skip Harden
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Flagging Criteria

Arizona Flags

All method blanks, laboratory spikes, and/or matrix spikes met quality control objectives for the parameters associated with this Work Order except as detailed below or on the Data Qualifier page of this report. Data Qualifiers used in this report are in accordance with ADHS Data Qualifiers, Revision 4.0 9/05/2012.
Data qualifiers (flags) contained within this analytical report have been issued to explain a quality control deficiency, and do not affect the quality (validity) of the data unless noted otherwise in the case narrative.

E4 Concentration estimated. Analyte was detected below laboratory minimum reporting limit (MRL).

E8 Analyte reported to MDL per project specification. Target analyte was not detected in sample.

L1 The associated blank spike recovery was above laboratory acceptance limits.

L2 The associated blank spike recovery was below laboratory acceptance limits.

M1 Matrix spike recovery was high; the associated blank spike recovery was acceptable.

M2 Matrix spike recovery was low; the associated blank spike recovery was acceptable.

Sample Cross Reference 574026

Hydro Geo Chem, Inc., Phoenix, AZ

ADEQ-EGA

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
EGA-1	W	01-19-18 11:25		574026-001
EGA IDW	W	01-19-18 11:45		574026-002

Certificate of Analytical Results 574026

Hydro Geo Chem, Inc., Phoenix, AZ

ADEQ-EGA

Sample Id: **EGA-1** Matrix: Water Date Received:01.19.18 15.20
Lab Sample Id: 574026-001 Date Collected: 01.19.18 11.25

Analytical Method: Volatiles by SW 8260B Prep Method: SW5030C
Tech: SAD % Solids:
Analyst: SAD Date Prep: 01.24.18 14.00
Seq Number: 3039267 SUB: AZ0765

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	<0.195	5.00	0.195	ug/L	01.24.18 16.14	E8	1
1,1,1-Trichloroethane	71-55-6	<0.130	5.00	0.130	ug/L	01.24.18 16.14	E8	1
1,1,2,2-Tetrachloroethane	79-34-5	<0.365	5.00	0.365	ug/L	01.24.18 16.14	E8	1
1,1,2-Trichloroethane	79-00-5	<0.272	5.00	0.272	ug/L	01.24.18 16.14	E8	1
1,1-Dichloroethane	75-34-3	<0.182	5.00	0.182	ug/L	01.25.18 16.17	E8	1
1,1-Dichloroethene	75-35-4	**0.790**	5.00	0.178	ug/L	01.25.18 16.17	E4	1
1,1-Dichloropropene	563-58-6	<0.257	5.00	0.257	ug/L	01.24.18 16.14	E8	1
1,2,3-Trichlorobenzene	87-61-6	<2.00	5.00	2.00	ug/L	01.24.18 16.14	E8	1
1,2,3-Trichloropropane	96-18-4	<0.214	5.00	0.214	ug/L	01.24.18 16.14	E8	1
1,2,4-Trichlorobenzene	120-82-1	<2.00	5.00	2.00	ug/L	01.24.18 16.14	E8	1
1,2,4-Trimethylbenzene	95-63-6	<0.113	5.00	0.113	ug/L	01.24.18 16.14	E8	1
1,2-Dibromo-3-Chloropropane	96-12-8	<0.707	5.00	0.707	ug/L	01.24.18 16.14	E8	1
1,2-Dibromoethane	106-93-4	<0.380	5.00	0.380	ug/L	01.24.18 16.14	E8	1
1,2-Dichlorobenzene	95-50-1	<0.175	5.00	0.175	ug/L	01.24.18 16.14	E8	1
1,2-Dichloroethane	107-06-2	<0.283	5.00	0.283	ug/L	01.24.18 16.14	E8	1
1,2-Dichloropropane	78-87-5	<0.170	5.00	0.170	ug/L	01.24.18 16.14	E8	1
1,3,5-Trimethylbenzene	108-67-8	<0.178	5.00	0.178	ug/L	01.24.18 16.14	E8	1
1,3-Dichlorobenzene	541-73-1	<0.169	5.00	0.169	ug/L	01.24.18 16.14	E8	1
1,3-Dichloropropane	142-28-9	<0.199	5.00	0.199	ug/L	01.24.18 16.14	E8	1
1,4-Dichlorobenzene	106-46-7	<0.222	5.00	0.222	ug/L	01.24.18 16.14	E8	1
2,2-Dichloropropane	594-20-7	<0.154	5.00	0.154	ug/L	01.24.18 16.14	E8	1
2-Butanone	78-93-3	<1.32	50.0	1.32	ug/L	01.24.18 16.14	E8	1
2-Chlorotoluene	95-49-8	<0.293	5.00	0.293	ug/L	01.24.18 16.14	E8	1
2-Hexanone	591-78-6	<1.05	50.0	1.05	ug/L	01.24.18 16.14	E8	1
4-Chlorotoluene	106-43-4	<0.114	5.00	0.114	ug/L	01.24.18 16.14	E8	1
4-Isopropyltoluene	99-87-6	<0.150	5.00	0.150	ug/L	01.24.18 16.14	E8	1
4-Methyl-2-Pentanone	108-10-1	<0.874	50.0	0.874	ug/L	01.24.18 16.14	E8	1
Acetone	67-64-1	<20.0	100	20.0	ug/L	01.24.18 16.14	E8	1
Benzene	71-43-2	<0.185	0.500	0.185	ug/L	01.24.18 16.14	E8	1
Bromobenzene	108-86-1	<0.258	5.00	0.258	ug/L	01.24.18 16.14	E8	1
Bromochloromethane	74-97-5	<0.328	5.00	0.328	ug/L	01.24.18 16.14	E8	1
Bromodichloromethane	75-27-4	<0.164	5.00	0.164	ug/L	01.24.18 16.14	E8	1
Bromoform	75-25-2	<0.348	5.00	0.348	ug/L	01.24.18 16.14	E8	1
Bromomethane	74-83-9	<0.127	5.00	0.127	ug/L	01.24.18 16.14	E8	1
Carbon Disulfide	75-15-0	<0.173	5.00	0.173	ug/L	01.24.18 16.14	E8	1
Carbon Tetrachloride	56-23-5	<0.243	5.00	0.243	ug/L	01.24.18 16.14	E8	1
Chlorobenzene	108-90-7	<0.110	5.00	0.110	ug/L	01.24.18 16.14	E8	1
Chloroethane	75-00-3	<0.190	10.0	0.190	ug/L	01.24.18 16.14	E8	1

Certificate of Analytical Results 574026

Hydro Geo Chem, Inc., Phoenix, AZ

ADEQ-EGA

Sample Id: **EGA-1** Matrix: Water Date Received:01.19.18 15.20
Lab Sample Id: 574026-001 Date Collected: 01.19.18 11.25

Analytical Method: Volatiles by SW 8260B Prep Method: SW5030C
Tech: SAD % Solids:
Analyst: SAD Date Prep: 01.24.18 14.00
Seq Number: 3039267 SUB: AZ0765

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloroform	67-66-3	**0.190**	5.00	0.107	ug/L	01.24.18 16.14	E4	1
Chloromethane	74-87-3	<5.00	10.0	5.00	ug/L	01.24.18 16.14	E8	1
cis-1,2-Dichloroethene	156-59-2	<0.162	5.00	0.162	ug/L	01.24.18 16.14	E8	1
cis-1,3-Dichloropropene	10061-01-5	<0.126	5.00	0.126	ug/L	01.24.18 16.14	E8	1
Dibromochloromethane	124-48-1	<0.212	5.00	0.212	ug/L	01.24.18 16.14	E8	1
Dibromomethane	74-95-3	<0.186	5.00	0.186	ug/L	01.24.18 16.14	E8	1
Dichlorodifluoromethane	75-71-8	<0.148	5.00	0.148	ug/L	01.24.18 16.14	E8	1
Ethylbenzene	100-41-4	<0.190	5.00	0.190	ug/L	01.24.18 16.14	E8	1
Hexachlorobutadiene	87-68-3	<2.00	5.00	2.00	ug/L	01.24.18 16.14	E8	1
Iodomethane (Methyl Iodide)	74-88-4	<0.170	20.0	0.170	ug/L	01.24.18 16.14	E8	1
Isopropylbenzene	98-82-8	<0.218	5.00	0.218	ug/L	01.24.18 16.14	E8	1
m,p-Xylenes	179601-23-1	<1.00	10.0	1.00	ug/L	01.24.18 16.14	E8	1
Methylene Chloride	75-09-2	<2.00	5.00	2.00	ug/L	01.24.18 16.14	E8	1
MTBE	1634-04-4	<0.500	5.00	0.500	ug/L	01.24.18 16.14	E8	1
Naphthalene	91-20-3	<2.00	10.0	2.00	ug/L	01.24.18 16.14	E8	1
n-Butylbenzene	104-51-8	<2.00	5.00	2.00	ug/L	01.24.18 16.14	E8	1
n-Propylbenzene	103-65-1	<0.173	5.00	0.173	ug/L	01.24.18 16.14	E8	1
o-Xylene	95-47-6	<0.500	5.00	0.500	ug/L	01.24.18 16.14	E8	1
Sec-Butylbenzene	135-98-8	<0.124	5.00	0.124	ug/L	01.24.18 16.14	E8	1
Styrene	100-42-5	<0.197	5.00	0.197	ug/L	01.24.18 16.14	E8	1
tert-Butylbenzene	98-06-6	<0.177	5.00	0.177	ug/L	01.24.18 16.14	E8	1
Tetrachloroethylene	127-18-4	<0.347	0.500	0.347	ug/L	01.24.18 16.14	E8	1
Toluene	108-88-3	<0.500	5.00	0.500	ug/L	01.24.18 16.14	E8	1
Total Trihalomethane		**0.190**	5.00	0.107	ug/L	01.24.18 16.14	E4	1
Total Xylenes	1330-20-7	<0.500	5.00	0.500	ug/L	01.24.18 16.14	E8	1
trans-1,2-dichloroethene	156-60-5	<0.167	5.00	0.167	ug/L	01.24.18 16.14	L1E8	1
trans-1,3-dichloropropene	10061-02-6	<0.198	5.00	0.198	ug/L	01.24.18 16.14	E8	1
Trichloroethene	79-01-6	**1.78**	5.00	0.218	ug/L	01.24.18 16.14	E4	1
Trichlorofluoromethane	75-69-4	<0.191	5.00	0.191	ug/L	01.24.18 16.14	E8	1
Vinyl Acetate	108-05-4	<0.583	50.0	0.583	ug/L	01.25.18 16.17	E8	1
Vinyl Chloride	75-01-4	<0.232	0.500	0.232	ug/L	01.24.18 16.14	E8	1

Surrogate	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	98	%	75-131	01.24.18 16.14	
1,2-Dichloroethane-D4	98	%	63-144	01.24.18 16.14	
Toluene-D8	104	%	80-117	01.24.18 16.14	
4-Bromofluorobenzene	104	%	74-124	01.24.18 16.14	

Certificate of Analytical Results 574026

Hydro Geo Chem, Inc., Phoenix, AZ

ADEQ-EGA

Sample Id: **EGA IDW** Matrix: Water Date Received:01.19.18 15.20
Lab Sample Id: 574026-002 Date Collected: 01.19.18 11.45

Analytical Method: Mercury by SW-846 7470A Prep Method: SW7470P
Tech: AHI % Solids:
Analyst: ELW Date Prep: 01.23.18 10.45
Seq Number: 3039009 SUB: AZ0765

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<0.0000263	0.000200	0.0000263	mg/L	01.23.18 16.49	E8	1

Analytical Method: RCRA Metals by SW 6010C Prep Method: SW3010A
Tech: MLI % Solids:
Analyst: DEP Date Prep: 01.22.18 12.24
Seq Number: 3039091 SUB: AZ0765

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	<0.00336	0.0100	0.00336	mg/L	01.24.18 00.47	E8	1
Barium	7440-39-3	**0.0759**	0.0100	0.000140	mg/L	01.24.18 00.47		1
Cadmium	7440-43-9	<0.000131	0.00500	0.000131	mg/L	01.24.18 00.47	E8	1
Chromium	7440-47-3	<0.00136	0.0100	0.00136	mg/L	01.24.18 00.47	E8	1
Lead	7439-92-1	<0.00183	0.0100	0.00183	mg/L	01.24.18 00.47	E8	1
Selenium	7782-49-2	<0.00555	0.0200	0.00555	mg/L	01.24.18 00.47	E8	1
Silver	7440-22-4	<0.00160	0.0200	0.00160	mg/L	01.24.18 00.47	E8	1

Analytical Method: Flash Point (CC) SW-846 1010
Tech: DHE % Solids:
Analyst: DHE
Seq Number: 3039020 SUB: AZ0765

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Flash Point		>180			Deg F	01.23.18 17.00		1

Certificate of Analytical Results 574026

Hydro Geo Chem, Inc., Phoenix, AZ

ADEQ-EGA

Sample Id: **EGA IDW** Matrix: Water Date Received:01.19.18 15.20

Lab Sample Id: 574026-002 Date Collected: 01.19.18 11.45

Analytical Method: pH by EPA 9040

Tech: MJP % Solids:

Analyst: MJP

Seq Number: 3038869 SUB: AZ0765

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
pH	12408-02-5	**8.28**			SU	01.22.18 10.30		1
Temperature	TEMP	**24.7**			Deg C	01.22.18 10.30		1

QC Summary 574026

Hydro Geo Chem, Inc.

ADEQ-EGA

Analytical Method: **Mercury by SW-846 7470A** Prep Method: SW7470P
Seq Number: 3039009 Matrix: Water Date Prep: 01.23.18
MB Sample Id: 7637891-1-BLK LCS Sample Id: 7637891-1-BKS LCSD Sample Id: 7637891-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	<0.0000263	0.00200	0.00192	96	0.00188	94	80-120	2	20	mg/L	01.23.18 15:08	

Analytical Method: **Mercury by SW-846 7470A** Prep Method: SW7470P
Seq Number: 3039009 Matrix: Water Date Prep: 01.23.18
Parent Sample Id: 573977-001 MS Sample Id: 573977-001 S MSD Sample Id: 573977-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	0.0000530	0.00200	0.000684	32	0.000699	32	75-125	2	20	mg/L	01.23.18 15:29	M2

Analytical Method: **Mercury by SW-846 7470A** Prep Method: SW7470P
Seq Number: 3039009 Matrix: Water Date Prep: 01.23.18
Parent Sample Id: 573977-002 MS Sample Id: 573977-002 S MSD Sample Id: 573977-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	<0.0000263	0.00200	0.000700	35	0.000715	36	75-125	2	20	mg/L	01.23.18 15:15	M2

Analytical Method: **RCRA Metals by SW 6010C** Prep Method: SW3010A
Seq Number: 3039091 Matrix: Water Date Prep: 01.22.18
MB Sample Id: 7637830-1-BLK LCS Sample Id: 7637830-1-BKS LCSD Sample Id: 7637830-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	<0.00336	1.00	0.963	96	0.955	96	75-125	1	20	mg/L	01.24.18 00:01	
Barium	<0.000140	1.00	0.963	96	0.965	97	75-125	0	20	mg/L	01.24.18 00:01	
Cadmium	<0.000131	1.00	0.952	95	0.955	96	75-125	0	20	mg/L	01.24.18 00:01	
Chromium	<0.00136	1.00	0.973	97	0.972	97	75-125	0	20	mg/L	01.24.18 00:01	
Lead	<0.00183	1.00	0.972	97	0.973	97	75-125	0	20	mg/L	01.24.18 00:01	
Selenium	<0.00555	1.00	0.965	97	0.972	97	75-125	1	20	mg/L	01.24.18 00:01	
Silver	<0.00160	0.500	0.489	98	0.490	98	75-125	0	20	mg/L	01.24.18 00:01	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 574026

Hydro Geo Chem, Inc.

ADEQ-EGA

Analytical Method: **RCRA Metals by SW 6010C** Prep Method: SW3010A
Seq Number: 3039091 Matrix: Ground Water Date Prep: 01.22.18
Parent Sample Id: 573976-001 MS Sample Id: 573976-001 S MSD Sample Id: 573976-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	0.0789	1.00	1.20	112	1.21	113	75-125	1	20	mg/L	01.24.18 00:13	
Barium	0.244	1.00	1.29	105	1.31	107	75-125	2	20	mg/L	01.24.18 00:13	
Cadmium	0.00109	1.00	1.09	109	1.10	110	75-125	1	20	mg/L	01.24.18 00:13	
Chromium	<0.00136	1.00	0.969	97	0.986	99	75-125	2	20	mg/L	01.24.18 00:13	
Lead	<0.00183	1.00	0.963	96	0.981	98	75-125	2	20	mg/L	01.24.18 00:13	
Selenium	0.0825	1.00	1.25	117	1.26	118	75-125	1	20	mg/L	01.24.18 00:13	
Silver	0.00559	0.500	0.567	112	0.578	114	75-125	2	20	mg/L	01.24.18 00:13	

Analytical Method: **Flash Point (CC) SW-846 1010**
Seq Number: 3039020 Matrix: Water
LCS Sample Id: 3039020-1-BKS

Parameter		Spike Amount	LCS Result	LCS %Rec		Limits		Units	Analysis Date	Flag
Flash Point	80.0	81.0	80.0	99		70-140		Deg F	01.23.18 08:30	

Analytical Method: **Flash Point (CC) SW-846 1010**
Seq Number: 3039020 Matrix: Waste Water
Parent Sample Id: 574191-002 MD Sample Id: 574191-002 D

Parameter	Parent Result	MD Result		%RPD	RPD Limit	Units	Analysis Date	Flag
Flash Point	>180	>180		0	25	Deg F	01.23.18 09:40	

Analytical Method: **pH by EPA 9040**
Seq Number: 3038869 Matrix: Water
Parent Sample Id: 573758-013 MD Sample Id: 573758-013 D

Parameter	Parent Result	MD Result		%RPD	RPD Limit	Units	Analysis Date	Flag
pH	7.63	7.64		0	20	SU	01.22.18 10:30	
Temperature	20.3	20.4		0	20	Deg C	01.22.18 10:30	

Analytical Method: **pH by EPA 9040**
Seq Number: 3038869 Matrix: Waste Water
Parent Sample Id: 574048-001 MD Sample Id: 574048-001 D

Parameter	Parent Result	MD Result		%RPD	RPD Limit	Units	Analysis Date	Flag
Temperature	20.5	20.3		1	20	Deg C	01.22.18 10:30	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 574026

Hydro Geo Chem, Inc.

ADEQ-EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030B

Seq Number: 3039267 Matrix: Water Date Prep: 01.24.18

MB Sample Id: 7638053-1-BLK LCS Sample Id: 7638053-1-BKS LCSD Sample Id: 7638053-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1,2-Tetrachloroethane	<0.195	50.0	50.4	101	55.1	110	78-131	9	25	ug/L	01.24.18 11:24	
1,1,1-Trichloroethane	<0.130	50.0	54.3	109	60.9	122	72-124	11	25	ug/L	01.24.18 11:24	
1,1,2,2-Tetrachloroethane	<0.365	50.0	50.1	100	53.0	106	80-133	6	25	ug/L	01.24.18 11:24	
1,1,2-Trichloroethane	<0.272	50.0	52.2	104	55.8	112	71-135	7	25	ug/L	01.24.18 11:24	
1,1-Dichloroethane	<0.182	50.0	53.9	108	62.9	126	75-125	15	25	ug/L	01.24.18 11:24	L1
1,1-Dichloroethene	<0.178	50.0	52.3	105	60.6	121	68-116	15	25	ug/L	01.24.18 11:24	L1
1,1-Dichloropropene	<0.257	50.0	51.4	103	57.6	115	69-124	11	25	ug/L	01.24.18 11:24	
1,2,3-Trichlorobenzene	<2.00	50.0	50.9	102	55.9	112	76-126	9	25	ug/L	01.24.18 11:24	
1,2,3-Trichloropropane	<0.214	50.0	53.5	107	58.4	117	75-134	9	25	ug/L	01.24.18 11:24	
1,2,4-Trichlorobenzene	<2.00	50.0	53.4	107	56.2	112	77-127	5	25	ug/L	01.24.18 11:24	
1,2,4-Trimethylbenzene	<0.113	50.0	51.0	102	54.7	109	79-132	7	25	ug/L	01.24.18 11:24	
1,2-Dibromo-3-Chloropropane	<0.707	50.0	53.3	107	57.4	115	62-134	7	25	ug/L	01.24.18 11:24	
1,2-Dibromoethane	<0.380	50.0	50.0	100	54.7	109	77-129	9	25	ug/L	01.24.18 11:24	
1,2-Dichlorobenzene	<0.175	50.0	50.9	102	54.9	110	81-123	8	25	ug/L	01.24.18 11:24	
1,2-Dichloroethane	<0.283	50.0	53.2	106	58.8	118	64-130	10	25	ug/L	01.24.18 11:24	
1,2-Dichloropropane	<0.170	50.0	53.9	108	58.9	118	72-127	9	25	ug/L	01.24.18 11:24	
1,3,5-Trimethylbenzene	<0.178	50.0	53.6	107	56.7	113	72-139	6	25	ug/L	01.24.18 11:24	
1,3-Dichlorobenzene	<0.169	50.0	50.7	101	53.7	107	82-126	6	25	ug/L	01.24.18 11:24	
1,3-Dichloropropane	<0.199	50.0	48.8	98	53.4	107	79-133	9	25	ug/L	01.24.18 11:24	
1,4-Dichlorobenzene	<0.222	50.0	50.7	101	54.5	109	80-119	7	25	ug/L	01.24.18 11:24	
2,2-Dichloropropane	<0.154	50.0	50.9	102	55.5	111	71-134	9	25	ug/L	01.24.18 11:24	
2-Butanone	<1.32	250	261	104	300	120	49-135	14	25	ug/L	01.24.18 11:24	
2-Chlorotoluene	<0.293	50.0	51.7	103	54.4	109	83-128	5	25	ug/L	01.24.18 11:24	
2-Hexanone	<1.05	250	288	115	307	123	56-134	6	25	ug/L	01.24.18 11:24	
4-Chlorotoluene	<0.114	50.0	53.8	108	57.5	115	81-125	7	25	ug/L	01.24.18 11:24	
4-Isopropyltoluene	<0.150	50.0	50.1	100	53.1	106	85-129	6	25	ug/L	01.24.18 11:24	
4-Methyl-2-Pentanone	<0.874	250	283	113	304	122	63-127	7	25	ug/L	01.24.18 11:24	
Acetone	<20.0	250	278	111	310	124	40-142	11	25	ug/L	01.24.18 11:24	
Benzene	<0.185	50.0	52.6	105	56.6	113	68-123	7	25	ug/L	01.24.18 11:24	
Bromobenzene	<0.258	50.0	49.9	100	53.1	106	83-124	6	25	ug/L	01.24.18 11:24	
Bromochloromethane	<0.328	50.0	49.7	99	56.6	113	68-119	13	25	ug/L	01.24.18 11:24	
Bromodichloromethane	<0.164	50.0	54.5	109	57.1	114	72-132	5	25	ug/L	01.24.18 11:24	
Bromoform	<0.348	50.0	55.4	111	59.3	119	65-136	7	25	ug/L	01.24.18 11:24	
Bromomethane	<0.127	50.0	37.5	75	41.0	82	48-120	9	25	ug/L	01.24.18 11:24	
Carbon Disulfide	<0.173	50.0	54.0	108	61.0	122	53-138	12	25	ug/L	01.24.18 11:24	
Carbon Tetrachloride	<0.243	50.0	53.9	108	61.9	124	68-135	14	25	ug/L	01.24.18 11:24	
Chlorobenzene	<0.110	50.0	49.6	99	55.2	110	78-124	11	25	ug/L	01.24.18 11:24	
Chloroethane	<0.190	50.0	39.9	80	44.2	88	55-120	10	25	ug/L	01.24.18 11:24	
Chloroform	<0.107	50.0	50.3	101	57.1	114	71-119	13	25	ug/L	01.24.18 11:24	
Chloromethane	<5.00	50.0	37.2	74	43.3	87	54-114	15	25	ug/L	01.24.18 11:24	
cis-1,2-Dichloroethene	<0.162	50.0	49.4	99	57.5	115	74-130	15	25	ug/L	01.24.18 11:24	
cis-1,3-Dichloropropene	<0.126	50.0	56.8	114	61.3	123	74-138	8	25	ug/L	01.24.18 11:24	
Dibromochloromethane	<0.212	50.0	51.3	103	55.8	112	74-135	8	25	ug/L	01.24.18 11:24	
Dibromomethane	<0.186	50.0	51.4	103	57.8	116	71-124	12	25	ug/L	01.24.18 11:24	
Dichlorodifluoromethane	<0.148	50.0	49.4	99	52.6	105	59-121	6	25	ug/L	01.24.18 11:24	
Ethylbenzene	<0.190	50.0	52.0	104	55.7	111	69-131	7	25	ug/L	01.24.18 11:24	
Hexachlorobutadiene	<2.00	50.0	54.7	109	57.4	115	74-130	5	25	ug/L	01.24.18 11:24	
Iodomethane (Methyl Iodide)	<0.170	50.0	44.9	90	52.1	104	66-115	15	25	ug/L	01.24.18 11:24	
Isopropylbenzene	<0.218	50.0	51.1	102	54.5	109	66-133	6	25	ug/L	01.24.18 11:24	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 574026

Hydro Geo Chem, Inc.

ADEQ-EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030B
Seq Number: 3039267 Matrix: Water Date Prep: 01.24.18
MB Sample Id: 7638053-1-BLK LCS Sample Id: 7638053-1-BKS LCSD Sample Id: 7638053-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
m,p-Xylenes	<1.00	100	103	103	113	113	69-132	9	25	ug/L	01.24.18 11:24	
Methylene Chloride	<2.00	50.0	50.0	100	59.3	119	60-121	17	25	ug/L	01.24.18 11:24	
MTBE	<0.500	50.0	52.3	105	62.0	124	60-152	17	25	ug/L	01.24.18 11:24	
Naphthalene	<2.00	50.0	55.5	111	60.7	121	69-140	9	25	ug/L	01.24.18 11:24	
n-Butylbenzene	<2.00	50.0	55.0	110	57.8	116	82-128	5	25	ug/L	01.24.18 11:24	
n-Propylbenzene	<0.173	50.0	52.6	105	57.1	114	86-129	8	25	ug/L	01.24.18 11:24	
o-Xylene	<0.500	50.0	53.0	106	58.1	116	67-132	9	25	ug/L	01.24.18 11:24	
Sec-Butylbenzene	<0.124	50.0	54.4	109	57.7	115	83-130	6	25	ug/L	01.24.18 11:24	
Styrene	<0.197	50.0	52.5	105	57.1	114	79-128	8	25	ug/L	01.24.18 11:24	
tert-Butylbenzene	<0.177	50.0	54.1	108	57.2	114	83-131	6	25	ug/L	01.24.18 11:24	
Tetrachloroethylene	<0.347	50.0	49.1	98	54.5	109	79-122	10	25	ug/L	01.24.18 11:24	
Toluene	<0.500	50.0	49.3	99	53.9	108	62-132	9	25	ug/L	01.24.18 11:24	
trans-1,2-dichloroethene	<0.167	50.0	50.2	100	57.7	115	64-109	14	25	ug/L	01.24.18 11:24	L1
trans-1,3-dichloropropene	<0.198	50.0	55.6	111	59.4	119	70-132	7	25	ug/L	01.24.18 11:24	
Trichloroethene	<0.218	50.0	51.8	104	56.6	113	74-123	9	25	ug/L	01.24.18 11:24	
Trichlorofluoromethane	<0.191	50.0	43.7	87	47.6	95	70-143	9	25	ug/L	01.24.18 11:24	
Vinyl Acetate	<0.583	250	153	61	178	71	63-145	15	25	ug/L	01.24.18 11:24	L2
Vinyl Chloride	<0.232	50.0	37.3	75	41.6	83	59-124	11	25	ug/L	01.24.18 11:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	104		101		108		75-131	%	01.24.18 11:24
1,2-Dichloroethane-D4	97		98		104		63-144	%	01.24.18 11:24
Toluene-D8	103		98		97		80-117	%	01.24.18 11:24
4-Bromofluorobenzene	103		101		100		74-124	%	01.24.18 11:24

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030B
Seq Number: 3039442 Matrix: Water Date Prep: 01.25.18
MB Sample Id: 7638158-1-BLK LCS Sample Id: 7638158-1-BKS LCSD Sample Id: 7638158-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
m,p-Xylenes	<1.00	100	106	106	103	103	69-132	3	25	ug/L	01.25.18 10:46	
o-Xylene	<0.500	50.0	53.6	107	52.4	105	67-132	2	25	ug/L	01.25.18 10:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	100		103		102		75-131	%	01.25.18 10:46
1,2-Dichloroethane-D4	101		100		103		63-144	%	01.25.18 10:46
Toluene-D8	105		102		101		80-117	%	01.25.18 10:46
4-Bromofluorobenzene	105		102		98		74-124	%	01.25.18 10:46

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 574026

Hydro Geo Chem, Inc.

ADEQ-EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030B

Seq Number: 3039267 Matrix: Ground Water Date Prep: 01.24.18

Parent Sample Id: 574046-005 MS Sample Id: 574046-005 S MSD Sample Id: 574046-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1,2-Tetrachloroethane	<0.195	50.0	52.6	105	50.1	100	75-114	5	25	ug/L	01.24.18 13:16	
1,1,1-Trichloroethane	<0.130	50.0	57.6	115	54.3	109	75-118	6	25	ug/L	01.24.18 13:16	
1,1,2,2-Tetrachloroethane	<0.365	50.0	52.5	105	51.1	102	75-113	3	25	ug/L	01.24.18 13:16	
1,1,2-Trichloroethane	<0.272	50.0	54.0	108	52.4	105	75-114	3	25	ug/L	01.24.18 13:16	
1,1-Dichloroethane	<0.182	50.0	58.1	116	54.7	109	71-121	6	25	ug/L	01.24.18 13:16	
1,1-Dichloroethene	<0.178	50.0	56.8	114	52.7	105	74-124	7	25	ug/L	01.24.18 13:16	
1,1-Dichloropropene	<0.257	50.0	54.1	108	50.0	100	77-116	8	25	ug/L	01.24.18 13:16	
1,2,3-Trichlorobenzene	<2.00	50.0	59.8	120	59.3	119	70-140	1	25	ug/L	01.24.18 13:16	
1,2,3-Trichloropropane	<0.214	50.0	57.7	115	54.9	110	73-115	5	25	ug/L	01.24.18 13:16	
1,2,4-Trichlorobenzene	<2.00	50.0	57.6	115	57.0	114	71-135	1	25	ug/L	01.24.18 13:16	
1,2,4-Trimethylbenzene	<0.113	50.0	52.0	104	51.0	102	74-118	2	25	ug/L	01.24.18 13:16	
1,2-Dibromo-3-Chloropropane	<0.707	50.0	61.7	123	59.7	119	70-124	3	25	ug/L	01.24.18 13:16	
1,2-Dibromoethane	<0.380	50.0	52.3	105	50.8	102	75-117	3	25	ug/L	01.24.18 13:16	
1,2-Dichlorobenzene	<0.175	50.0	52.9	106	52.0	104	77-115	2	25	ug/L	01.24.18 13:16	
1,2-Dichloroethane	<0.283	50.0	55.3	111	51.4	103	72-111	7	25	ug/L	01.24.18 13:16	
1,2-Dichloropropane	<0.170	50.0	55.2	110	51.8	104	75-113	6	25	ug/L	01.24.18 13:16	
1,3,5-Trimethylbenzene	<0.178	50.0	54.4	109	53.0	106	77-119	3	25	ug/L	01.24.18 13:16	
1,3-Dichlorobenzene	<0.169	50.0	51.8	104	49.6	99	79-112	4	25	ug/L	01.24.18 13:16	
1,3-Dichloropropane	<0.199	50.0	51.6	103	50.0	100	74-113	3	25	ug/L	01.24.18 13:16	
1,4-Dichlorobenzene	<0.222	50.0	52.7	105	50.7	101	76-112	4	25	ug/L	01.24.18 13:16	
2,2-Dichloropropane	<0.154	50.0	55.3	111	53.5	107	58-131	3	25	ug/L	01.24.18 13:16	
2-Butanone	<1.32	250	292	117	268	107	59-114	9	25	ug/L	01.24.18 13:16	M1
2-Chlorotoluene	<0.293	50.0	52.7	105	51.6	103	79-113	2	25	ug/L	01.24.18 13:16	
2-Hexanone	<1.05	250	305	122	302	121	66-129	1	25	ug/L	01.24.18 13:16	
4-Chlorotoluene	<0.114	50.0	55.0	110	47.2	94	76-114	15	25	ug/L	01.24.18 13:16	
4-Isopropyltoluene	<0.150	50.0	51.4	103	49.7	99	71-123	3	25	ug/L	01.24.18 13:16	
4-Methyl-2-Pentanone	<0.874	250	300	120	286	114	73-126	5	25	ug/L	01.24.18 13:16	
Acetone	<20.0	250	279	112	267	107	33-121	4	25	ug/L	01.24.18 13:16	
Benzene	<0.185	50.0	54.0	108	51.4	103	76-110	5	25	ug/L	01.24.18 13:16	
Bromobenzene	<0.258	50.0	51.8	104	50.2	100	77-114	3	25	ug/L	01.24.18 13:16	
Bromochloromethane	<0.328	50.0	54.6	109	50.5	101	72-112	8	25	ug/L	01.24.18 13:16	
Bromodichloromethane	<0.164	50.0	55.7	111	51.7	103	75-116	7	25	ug/L	01.24.18 13:16	
Bromoform	<0.348	50.0	59.9	120	57.4	115	66-119	4	25	ug/L	01.24.18 13:16	M1
Bromomethane	<0.127	50.0	37.4	75	32.0	64	60-110	16	25	ug/L	01.24.18 13:16	
Carbon Disulfide	<0.173	50.0	57.0	114	54.3	109	71-128	5	25	ug/L	01.24.18 13:16	
Carbon Tetrachloride	<0.243	50.0	57.0	114	54.3	109	77-119	5	25	ug/L	01.24.18 13:16	
Chlorobenzene	<0.110	50.0	51.6	103	51.1	102	78-110	1	25	ug/L	01.24.18 13:16	
Chloroethane	<0.190	50.0	39.7	79	35.0	70	62-113	13	25	ug/L	01.24.18 13:16	
Chloroform	<0.107	50.0	53.2	106	50.5	101	79-111	5	25	ug/L	01.24.18 13:16	
Chloromethane	<5.00	50.0	38.3	77	33.9	68	64-115	12	25	ug/L	01.24.18 13:16	
cis-1,2-Dichloroethene	<0.162	50.0	52.9	106	50.5	101	72-121	5	25	ug/L	01.24.18 13:16	
cis-1,3-Dichloropropene	<0.126	50.0	58.0	116	54.4	109	75-119	6	25	ug/L	01.24.18 13:16	
Dibromochloromethane	<0.212	50.0	54.1	108	53.5	107	74-117	1	25	ug/L	01.24.18 13:16	
Dibromomethane	<0.186	50.0	53.8	108	49.9	100	72-114	8	25	ug/L	01.24.18 13:16	
Dichlorodifluoromethane	<0.148	50.0	47.7	95	41.0	82	64-138	15	25	ug/L	01.24.18 13:16	
Ethylbenzene	<0.190	50.0	53.2	106	51.8	104	80-116	3	25	ug/L	01.24.18 13:16	
Hexachlorobutadiene	<2.00	50.0	60.3	121	57.2	114	79-123	5	25	ug/L	01.24.18 13:16	
Iodomethane (Methyl Iodide)	<0.170	50.0	49.2	98	46.5	93	74-108	6	25	ug/L	01.24.18 13:16	
Isopropylbenzene	<0.218	50.0	51.7	103	51.1	102	79-117	1	25	ug/L	01.24.18 13:16	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 574026

Hydro Geo Chem, Inc.

ADEQ-EGA

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030B
Seq Number: 3039267 Matrix: Ground Water Date Prep: 01.24.18
Parent Sample Id: 574046-005 MS Sample Id: 574046-005 S MSD Sample Id: 574046-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
m,p-Xylenes	<1.00	100	108	108	103	103	79-118	5	25	ug/L	01.24.18 13:16	
Methylene Chloride	<2.00	50.0	56.1	112	51.9	104	67-116	8	25	ug/L	01.24.18 13:16	
MTBE	<0.500	50.0	57.9	116	55.2	110	70-125	5	25	ug/L	01.24.18 13:16	
Naphthalene	<2.00	50.0	69.6	139	67.7	135	72-157	3	25	ug/L	01.24.18 13:16	
n-Butylbenzene	<2.00	50.0	56.2	112	54.1	108	74-128	4	25	ug/L	01.24.18 13:16	
n-Propylbenzene	<0.173	50.0	54.0	108	53.1	106	75-121	2	25	ug/L	01.24.18 13:16	
o-Xylene	<0.500	50.0	54.3	109	53.5	107	78-122	1	25	ug/L	01.24.18 13:16	
Sec-Butylbenzene	<0.124	50.0	54.9	110	53.5	107	76-126	3	25	ug/L	01.24.18 13:16	
Styrene	<0.197	50.0	54.7	109	53.1	106	74-124	3	25	ug/L	01.24.18 13:16	
tert-Butylbenzene	<0.177	50.0	55.2	110	53.8	108	77-124	3	25	ug/L	01.24.18 13:16	
Tetrachloroethylene	<0.347	50.0	50.8	102	49.8	100	78-117	2	25	ug/L	01.24.18 13:16	
Toluene	<0.500	50.0	50.4	101	49.2	98	77-112	2	25	ug/L	01.24.18 13:16	
trans-1,2-dichloroethene	<0.167	50.0	52.8	106	49.6	99	72-117	6	25	ug/L	01.24.18 13:16	
trans-1,3-dichloropropene	<0.198	50.0	57.3	115	56.0	112	75-123	2	25	ug/L	01.24.18 13:16	
Trichloroethene	<0.218	50.0	54.9	110	50.4	101	70-123	9	25	ug/L	01.24.18 13:16	
Trichlorofluoromethane	<0.191	50.0	43.8	88	41.1	82	69-118	6	25	ug/L	01.24.18 13:16	
Vinyl Acetate	<0.583	250	165	66	156	62	68-114	6	25	ug/L	01.24.18 13:16	M2
Vinyl Chloride	<0.232	50.0	37.5	75	32.6	65	65-114	14	25	ug/L	01.24.18 13:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	101		101		75-131	%	01.24.18 13:16
1,2-Dichloroethane-D4	101		101		63-144	%	01.24.18 13:16
Toluene-D8	98		102		80-117	%	01.24.18 13:16
4-Bromofluorobenzene	99		100		74-124	%	01.24.18 13:16

Analytical Method: **Volatiles by SW 8260B** Prep Method: SW5030B
Seq Number: 3039442 Matrix: Water Date Prep: 01.25.18
Parent Sample Id: 574128-009 MS Sample Id: 574128-009 S MSD Sample Id: 574128-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
m,p-Xylenes	<1.00	100	97.3	97	94.3	94	79-118	3	25	ug/L	01.25.18 12:55	
o-Xylene	<0.500	50.0	48.8	98	47.4	95	78-122	3	25	ug/L	01.25.18 12:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	98		101		75-131	%	01.25.18 12:55
1,2-Dichloroethane-D4	99		104		63-144	%	01.25.18 12:55
Toluene-D8	107		103		80-117	%	01.25.18 12:55
4-Bromofluorobenzene	104		105		74-124	%	01.25.18 12:55

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

HYDRO GEO CHEM, INC.
Environmental Science & Technology

Chain of Custody

574026

DATE 1-19-18 PAGE 1 OF 1

PROJ. MGR. Dan Sola
COMPANY HGC Inc
ADDRESS 3038 E Cactus #3
Phoenix 85032

SAMPLERS (SIGNATURE) [signature] (PHONE NO.) 480-387-0913

ANALYSIS REQUEST

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	BASE/NEU/ACID CMPDS. GC/MS/ 625/8270	VOLATILE CMPDS. GC/MS/ 624/8240	PESTICIDES/PCB 608/8080	POLYNUCLEAR AROMATIC 610/8310	PHENOLS, SUB PHENOLS 604/8040	HALOGENATED VOLATILES 601/8010	AROMATIC VOLATILES 602/8020	TOTAL ORGANIC CARBON 415/9060	TOTAL ORGANIC HALIDES 9020	PETROLEUM HYDROCARBONS 418	RCRA-8 Metals		PRIORITY POLLUTANT METALS (13)	CAM METALS (18) TTLC/STLC	EP TOX METALS (8)	SDWA -INORGANICS PRIMARY/SECONDARY	Flashpoint, pH				NUMBER OF CONTAINERS
EGA-1	1-19-18	11:25	W			X																			3
EGA IDW*	1-19-18	1145	W												X*						X				2
*unpreserved																									

PROJECT INFORMATION
PROJECT: ADEQ-EGA
PO NO. 2016031
SHIPPING ID. NO.
VIA: Hand delivered

SAMPLE RECEIPT
TOTAL NO. OF CONTAINERS 5
CHAIN OF CUSTODY SEALS
REC'D GOOD CONDITION/COLD
CONFORMS TO RECORD
LAB NO.

INVOICE TO:
Tanya Bentley
Daniel Sola
tanyab@hgcinc.com
dans@hgcinc.com

RELINQUISHED BY 2.
[signature] 1425
(Signature) (Time)
Daniel Sola 1/19/18
(Printed Name) (Date)
HGC
(Company)

RELINQUISHED BY 3.
[signature] 1520
(Signature) (Time)
JEFF LITTELL 1/19/18
(Printed Name) (Date)
HGC
(Company)

RECEIVED BY 2.
[signature] 1425
(Signature) (Time)
JEFF LITTELL 1/19/18
(Printed Name) (Date)
HGC
(Company)

RECEIVED BY (LABORATORY) 3.
[signature]
(Signature) (Time)
1/19/18 15:20
(Printed Name)

SPECIAL INSTRUCTIONS/COMMENTS:

XENCO LABORATORIES

Sample Receipt Checklist

Client Name: HydroGeo Chem

Date and Time Received: 01.19.18 @ 15:20

Work Order Number: 574026

Checked by: RW

Checklist completed by: RW

Logged In by: RW Date: 01.19.18

Matrix: W Courier Name: Client TWA

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	Not Present ☐
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
All samples received same day of collection?	Yes ☒	No ☐	Temp: 2.7 Wet Ice Present ☐
Where was the temperature reading taken at?	Sample ☐	Temp Blank ☒	Other:
VOA Water – VOA vials have zero headspace?	Yes ☐	No ☐	N/A ☒
Water – Microbiological bottles have ≤ 2.5 cm headspace?	Yes ☐	No ☐	N/A ☒
Water – All sample pH's acceptable upon receipt?	Yes ☒	No ☐	N/A ☐ Checked by: RW

If **No**, list all samples and bottle types that are not acceptable in Additional Comments section. Also state any correction actions.

Dissolved Metals – Field Filtered? Yes ☐ No ☐ N/A ☒

Additional Comments: Sample for metals analysis preserved upon arrival to the lab on 01.19.18 @ 15:25

SRChecklist 2016.1

Inter-Office Shipment

IOS Number **1054928**

Date/Time: 01/19/18 16:34
Lab# From: **Phoenix**
Lab# To: **Houston**

Created by: Ruriko Konuma
Delivery Priority:
Air Bill No.: 771275783398

Please send report to: Skip Harden
Address: 2525 West Huntington Drive, Suite 102
Phone: Tempe, AZ 85282
E-Mail: skip.harden@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
574026-001	W	EGA-1	01/19/18 11:25	SW8260B_AZ	Volatiles by SW 8260B	01/25/18	02/02/18	WWH	ACE BDCME BRBZ BRCI	
574026-002	W	EGA IDW	01/19/18 11:45	SW7470A	Mercury by SW-846 7470A	01/25/18	02/16/18	WWH	HG	
574026-002	W	EGA IDW	01/19/18 11:45	SW6010BRCRA	RCRA Metals by SW846-6010B	01/25/18	07/18/18	WWH	AG AS BA CD CR PB SE	
574026-002	W	EGA IDW	01/19/18 11:45	SW9040	pH by EPA 9040	01/25/18	**01/19/18**	WWH		
574026-002	W	EGA IDW	01/19/18 11:45	SW1010	Flash Point (CC) SW-846 1010	01/25/18	02/18/18	WWH	FLASHPT	

Inter Office Shipment or Sample Comments:

Relinquished By: Skip Harden

Date Relinquished: 01/19/2018

Received By: Rene Vandenberghe

Date Received: 01/20/2018 10:30

Cooler Temperature: 3.6

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 1054928

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : hou-068

Sent By: Ruriko Konuma **Date Sent:** 01/19/2018 04:34 PM

Received By: Rene Vandenberghe **Date Received:** 01/20/2018 10:30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 *Custody Seals Signed and dated for Containers/coolers	**N/A**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**No**	pH received out of hold

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: R. C. Vandenberghe Date: 01/20/2018
Rene Vandenberghe