TEXAS STATE UNIVERSITY
SAN MARCOS
The rising STAR *of Texas* ™

Date of Final Report: 1/14/14

Water Analysis Report

Sample #: 122302

Victor Castillo
EARDC
601 University Dr.
San Marcos, Texas 78666
512-245-3546
vc05@txstate.edu

Mr. Castillo,

EARDC laboratory received 1 sample on 12/9/13 for the analysis presented in the following report.

This final report provides results only to the sample(s) as received for the above referenced lab sample numbers. The EARDC laboratory certifies that the results are NELAP compliant, unless otherwise noted, and in accordance with the referenced methods. This document contains (4) pages.

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Thank you for selecting the EARDC laboratory for your analytical needs. If you have any questions regarding these results, please contact us at (512)245-2329. We look forward to assisting you again.

Sincerely,

EARDC Laboratory Representative

TEXAS STATE UNIVERSITY
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Victor Castillo
EARDC
601 University Dr.
San Marcos, Texas 78666
512-245-3546
vc05@txstate.edu

Water Analysis Report

Lab Sample #: 122302

Date Sampled: 12/9/13
Date Received (by lab): 12/9/13
Date Reported: 1/14/14

Time Sampled: 10:20
Time Received: 12:18p
Sample Description: Well Water

Sample ID: SEP GW Project USFW Hunter
Sample Type: Grab

Parameter	Results	MDL	PQL	Units	Date Analyzed	Time Analyzed	Analyst	Method	Qualifier
Total Coliform Bacteria	<1	1	-----	MPN/100mL	12/9/13	3:45p	jg	M9223-2005	
Escherichia coli	<1	1	-----	MPN/100mL	12/9/13	3:45p	jg	M9223B-2005	
Chloride	27	----	2	mg/L	12/10/13	8:09p	ma	E300.0	
Fluoride	0.26	----	0.1	mg/L	12/19/13	10:05	cj	M4500-FC- 2005	
Nitrate+Nitrite, Nitrogen	1.5	---	0.1	mg/L	12/12/13	2:40p	ma	E353.2	
Nitrite, Nitrogen	<0.2	----	0.2	mg/L	12/12/13	1:26p	ma	E353.2	
Sulfate	36	----	3	mg/L	12/10/13	8:09p	ma	E300.0	
Total Alkalinity	252	20	----	mg/L	12/16/13	10:00	cj	M2320B-2005	
Total Dissolved Solids	404	10	----	mg/L	12/12/13	9:30	cj	M2540C-2205	
Total Hardness	304	----	13	mg/L	12/12/13	10:15	cj	M2340C-1998	
Ortho-Phosphate	<0.012	-----	0.012	mg/L	12/10/13	4:15p	jg	M4500-PE-2005	
Barium, Total	0.0410	-----	0.0100	mg/L	*	*	*	E200.7	SC
Calcium, Total	91.0	----	0.200	mg/L	*	*	*	E200.7	SC

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Water Analysis Report

Continued Lab Sample #: 122302

Date Sampled: 12/9/13
Date Received (by lab): 12/9/13
Date Reported: 1/14/14

Time Sampled: 10:20
Time Received: 12:18p
Sample Description: Well Water

Sample ID: SEP GW Project USFW Hunter
Sample Type: Grab

Parameter	Results	MDL	PQL	Units	Date Analyzed	Time Analyzed	Analyst	Method	Qualifier
Iron, Total	<0.0500	----	0.0500	mg/L	*	*	*	E200.7	SC
Magnesium, Total	17.2	----	0.200	mg/L	*	*	*	E200.7	SC
Manganese, Total	<0.0100	----	0.0100	mg/L	*	*	*	E200.7	SC
Potassium, Total	1.53	----	0.200	mg/L	*	*	*	E200.7	SC
Sodium, Total	14.60	----	0.600	mg/L	*	*	*	E200.7	SC
Silica, Total	n/a	----	-----	mg/L	n/a	n/a	n/a	E200.7	n/a
Strontium, Total	0.593	-----	0.0100	mg/L	*	*	*	E200.7	SC

TEXAS STATE UNIVERSITY
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Case Narrative

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Sample #: 122302

MDL= Method Detection Limit
PQL= Practical Quantitation Limit
mg/L = milligrams per liter
M= Standard Methods for the Examination of Water and Wastewater
E = Environmental Protection Agency

N - EARDC not NELAP accredited for this analysis
A- Not availble for accreditation
B- Analyte detected in method blank
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S -Spike Recovery or Spike RPD failed. All other QC passed, so recovery problem judged to be either matrix or solution related not system related. Results reported and QC Flagged.

I - Results invalidated due Quality Control (QC) failure
H - Holding time exceeded
V - Value above Quantative Range

SC - subcontracted to LCRA laboratory

TEXAS STATE UNIVERSITY
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Date of Final Report: 1/14/14

Water Analysis Report

Sample #: 122326-27

Victor Castillo
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601 University Dr.
San Marcos, Texas 78666
512-245-3546
vc05@txstate.edu

Mr. Castillo,

EARDC laboratory received 2 samples on 12/10/13 for the analysis presented in the following report.

This final report provides results only to the sample(s) as received for the above referenced lab sample numbers. The EARDC laboratory certifies that the results are NELAP compliant, unless otherwise noted, and in accordance with the referenced methods. This document contains (5) pages.

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Sincerely,

EARDC Laboratory Representative

TEXAS STATE UNIVERSITY
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San Marcos, Texas 78666
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Water Analysis Report

Lab Sample #: 122326

Date Sampled: 12/10/13
Date Received (by lab): 12/10/13
Date Reported: 1/14/14

Time Sampled: 10:15
Time Received: 12:08p
Sample Description: Well Water

Sample ID: SEP GW Project City McCarty Well
Sample Type: Grab

Parameter	Results	MDL	PQL	Units	Date Analyzed	Time Analyzed	Analyst	Method	Qualifier
Total Coliform Bacteria	<1	1	-----	MPN/100mL	12/10/13	3:26p	mg	M9223-2005	
Escherichia coli	<1	1	-----	MPN/100mL	12/10/13	3:26p	mg	M9223B-2005	
Chloride	10	----	2	mg/L	12/17/13	8:36a	ma	E300.0	
Fluoride	0.15	----	0.1	mg/L	12/19/13	10:05	cj	M4500-FC- 2005	
Nitrate+Nitrite, Nitrogen	1.2	---	0.1	mg/L	12/12/13	2:40p	ma	E353.2	
Nitrite, Nitrogen	<0.2	----	0.2	mg/L	12/12/13	1:26p	ma	E353.2	
Sulfate	19	----	3	mg/L	12/17/13	8:36a	ma	E300.0	
Total Alkalinity	256	20	----	mg/L	12/16/13	10:00	cj	M2320B-2005	
Total Dissolved Solids	345	10	----	mg/L	12/12/13	9:30	cj	M2540C-2205	
Total Hardness	298	----	13	mg/L	12/12/13	10:15	cj	M2340C-1998	
Ortho-Phosphate	<0.012	-----	0.012	mg/L	12/10/13	4:15p	jg	M4500-PE-2005	
Barium, Total	0.0384	-----	0.0100	mg/L	*	*	*	E200.7	SC
Calcium, Total	90.2	----	0.200	mg/L	*	*	*	E200.7	SC

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Water Analysis Report

Continued Lab Sample #: 122326

Date Sampled: 12/10/13
Date Received (by lab): 12/10/13
Date Reported: 1/14/14

Time Sampled: 10:15
Time Received: 12:08p
Sample Description: Well Water

Sample ID: SEP GW Project City McCarty Well
Sample Type: Grab

Parameter	Results	MDL	PQL	Units	Date Analyzed	Time Analyzed	Analyst	Method	Qualifier
Iron, Total	<0.0500	----	0.0500	mg/L	*	*	*	E200.7	SC
Magnesium, Total	16.0	----	0.200	mg/L	*	*	*	E200.7	SC
Manganese, Total	<0.0100	----	0.0100	mg/L	*	*	*	E200.7	SC
Potassium, Total	0.844	----	0.200	mg/L	*	*	*	E200.7	SC
Sodium, Total	6.65	----	0.600	mg/L	*	*	*	E200.7	SC
Silica, Total	n/a	----	-----	mg/L	n/a	n/a	n/a	E200.7	n/a
Strontium, Total	0.468	-----	0.0100	mg/L	*	*	*	E200.7	SC

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Water Analysis Report

Lab Sample #: 122327

Date Sampled: 12/10/13
Date Received (by lab): 12/10/13
Date Reported:

Time Sampled: 10:50
Time Received: 12:08p
Sample Description: Well Water

Sample ID: SEP GW Project City Soyers Well
Sample Type: Grab

Parameter	Results	MDL	PQL	Units	Date Analyzed	Time Analyzed	Analyst	Method	Qualifier
Total Coliform Bacteria	<1	1	-----	MPN/100mL	12/10/13	3:26p	mg	M9223-2005	
Escherichia coli	<1	1	-----	MPN/100mL	12/10/13	3:26p	mg	M9223B-2005	
Chloride	27	----	2	mg/L	12/17/13	8:36a	ma	E300.0	
Fluoride	0.28	----	0.1	mg/L	12/19/13	10:05	cj	M4500-FC- 2005	
Nitrate+Nitrite, Nitrogen	2.3	---	0.1	mg/L	12/12/13	2:40p	ma	E353.2	
Nitrite, Nitrogen	<0.2	----	0.2	mg/L	12/12/13	1:26p	ma	E353.2	
Sulfate	36	----	3	mg/L	12/17/13	8:36a	ma	E300.0	
Total Alkalinity	264	20	----	mg/L	12/16/13	10:00	cj	M2320B-2005	
Total Dissolved Solids	430	10	----	mg/L	12/12/13	9:30	cj	M2540C-2205	
Total Hardness	334	----	13	mg/L	12/12/13	10:15	cj	M2340C-1998	
Ortho-Phosphate	<0.012	-----	0.012	mg/L	12/10/13	4:15p	jg	M4500-PE-2005	
Barium, Total	0.0473	-----	0.0100	mg/L	*	*	*	E200.7	SC
Calcium, Total	104	----	0.200	mg/L	*	*	*	E200.7	SC

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Water Analysis Report

Continued Lab Sample #: 122327

Date Sampled: 12/10/13
Date Received (by lab): 12/10/13
Date Reported:

Time Sampled: 10:50
Time Received: 12:08p
Sample Description: Well Water

Sample ID: SEP GW Project City Soyers Well
Sample Type: Grab

Parameter	Results	MDL	PQL	Units	Date Analyzed	Time Analyzed	Analyst	Method	Qualifier
Iron, Total	<0.0500	----	0.0500	mg/L	*	*	*	E200.7	SC
Magnesium, Total	15.8	----	0.200	mg/L	*	*	*	E200.7	SC
Manganese, Total	<0.0100	----	0.0100	mg/L	*	*	*	E200.7	SC
Potassium, Total	1.67	----	0.200	mg/L	*	*	*	E200.7	SC
Sodium, Total	15.60	----	0.600	mg/L	*	*	*	E200.7	SC
Silica, Total	n/a	----	-----	mg/L	n/a	n/a	n/a	E200.7	n/a
Strontium, Total	0.640	-----	0.0100	mg/L	*	*	*	E200.7	SC

TEXAS STATE UNIVERSITY
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Case Narrative

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vc05@txstate.edu

Sample #: 122326-27

MDL= Method Detection Limit
PQL= Practical Quantitation Limit
mg/L = milligrams per liter
M= Standard Methods for the Examination of Water and Wastewater
E = Environmental Protection Agency

N - EARDC not NELAP accredited for this analysis
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TEXAS STATE UNIVERSITY
SAN MARCOS
The rising STAR *of Texas* ™

Date of Final Report: 1/14/14

Water Analysis Report

Sample #: 122408

Victor Castillo
EARDC
601 University Dr.
San Marcos, Texas 78666
512-245-3546
vc05@txstate.edu

Mr. Castillo,

EARDC laboratory received 1 sample on 12/11/13 for the analysis presented in the following report.

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EARDC Laboratory Representative

TEXAS STATE UNIVERSITY
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Victor Castillo
EARDC
601 University Dr.
San Marcos, Texas 78666
512-245-3546
vc05@txstate.edu

Water Analysis Report

Lab Sample #: 122408

Date Sampled: 12/11/13
Date Received (by lab): 12/11/13
Date Reported: 1/14/14

Time Sampled: 10:40
Time Received: 12:18p
Sample Description: Well Water

Sample ID: SEP GW Project
USFW McCarty Well Outfall
Sample Type: Grab

Parameter	Results	MDL	PQL	Units	Date Analyzed	Time Analyzed	Analyst	Method	Qualifier
Total Coliform Bacteria	7	1	-----	MPN/100mL	12/11/13	1:48p	cj	M9223-2005	
Escherichia coli	<1	1	-----	MPN/100mL	12/11/13	1:48p	cj	M9223B-2005	
Chloride	24	----	2	mg/L	12/17/13	8:36a	ma	E300.0	
Fluoride	0.2	----	0.1	mg/L	12/19/13	10:05	cj	M4500-FC- 2005	
Nitrate+Nitrite, Nitrogen	1.5	---	0.1	mg/L	12/12/13	2:40p	ma	E353.2	
Nitrite, Nitrogen	<0.2	----	0.2	mg/L	12/12/13	1:26p	ma	E353.2	
Sulfate	30	----	3	mg/L	12/17/13	8:36a	ma	E300.0	
Total Alkalinity	258	20	----	mg/L	12/16/13	10:00	cj	M2320B-2005	
Total Dissolved Solids	385	10	----	mg/L	12/12/13	9:30	cj	M2540C-2205	
Total Hardness	312	----	13	mg/L	12/12/13	10:15	cj	M2340C-1998	
Ortho-Phosphate	<0.012	-----	0.012	mg/L	12/12/13	12:45p	jg	M4500-PE-2005	
Barium, Total	0.0414	-----	0.0100	mg/L	*	*	*	E200.7	SC
Calcium, Total	89.8	----	0.200	mg/L	*	*	*	E200.7	SC

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Water Analysis Report

Continued Lab Sample #: 122408

Date Sampled: 12/11/13
Date Received (by lab): 12/11/13
Date Reported: 1/14/14

Time Sampled: 10:40
Time Received: 12:18p
Sample Description: Well Water

Sample ID: SEP GW Project
USFW McCarty Well Outfall
Sample Type: Grab

Parameter	Results	MDL	PQL	Units	Date Analyzed	Time Analyzed	Analyst	Method	Qualifier
Iron, Total	<0.0500	----	0.0500	mg/L	*	*	*	E200.7	SC
Magnesium, Total	16.6	----	0.200	mg/L	*	*	*	E200.7	SC
Manganese, Total	<0.0100	----	0.0100	mg/L	*	*	*	E200.7	SC
Potassium, Total	1.44	----	0.200	mg/L	*	*	*	E200.7	SC
Sodium, Total	12.60	----	0.600	mg/L	*	*	*	E200.7	SC
Silica, Total	n/a	----	-----	mg/L	n/a	n/a	n/a	E200.7	n/a
Strontium, Total	0.566	-----	0.0100	mg/L	*	*	*	E200.7	SC

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Case Narrative

Victor Castillo
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vc05@txstate.edu

Sample #: 122408

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SC - subcontracted to LCRA laboratory

AMPLIFIED GEOCHEMICAL IMAGING, LLC

Laboratory Report

Site: McCarty & Soyer Wells 131017

Prepared for:

TEXAS STATE UNIVERSITY
SAN MARCOS, TX

Prepared on:
December 31, 2013

© 2013 Amplified Geochemical Imaging, LLC.

Project Summary and Objective

Amplified Geochemical Imaging, LLC. (AGI) provided the AGI Environmental Survey used at:

McCarty & Soyer Wells 131017

The service provided by AGI included delivery of the required quantity of AGI Universal Samplers, analysis by the method described below for the requested organic compounds, reporting of the data, and contour mapping (as needed).

This report includes results for only the samples noted under the Laboratory Sample Report section. If contour maps are part of the project deliverable, the maps will be prepared and issued under a separate report cover, upon receipt of a usable sitemap (electronic) and compound choices for contouring.

Written/submitted by:

Jim E Whetzel

Jim Whetzel

DN: CN = jwhetzel
Date: 2013.12.31 16:12:34 -04'00'

Project Manager

Reviewed/approved by:

Jay W Hodny

Project Manager

Analytical data approved by:

Kelly J Stringham

Chemist

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Quality Assurance Statement

The AGI Laboratory, at Amplified Geochemical Imaging's facility in Elkton, MD USA, operates under the guidelines of its ISO Standard 17025 DoD ELAP accreditation, and its Quality Assurance Manual, Operating Procedures, and Methods (SPG-SOP-0462).

For this project, the analytical method, results, and observations reported do [ ] do not [√] fall within the scope of AGI's ISO 17025 accreditation.

Screening/Concentration Method

The AGI Universal Samplers are analyzed at AGI's fixed laboratory using thermal desorption-gas chromatography/mass spectrometry (TD-GC/MS) instrumentation following U.S. EPA Method 8260 (SPG-WI-0292) which includes the following:

- **BFB Tuning Frequency:** A BFB tune is analyzed at the start of each analytical run and after every 30 samples.
- **Initial Calibration:** A minimum of a five point calibration curve is analyzed prior to the analysis of samples.
- **Linearity of Target Compounds:** If the RSD of any target analyte is less than or equal to 25% then average response factor can be used for quantitation. If the RSD exceeds 25% for a target compound a regression equation can be used for quantitation.
- **Continuing Calibration Verification:** After every 10 samples, and at the end of each analytical batch, and a second-source Reference Standard is analyzed near the mid point of the calibration curve. The acceptance criteria for all target analytes in the reference standards are +/- 50% of the true value.
- **Method Blank:** Analyzed prior to the analysis of field samples and every 30 samples.

Note: Analyte levels reported for the field-deployed AGI Universal Samplers that exceed trip and method blank levels, and/or the reporting limit, are more likely to have originated from on-site sources.

Media Sampled:	WATER
Chemist - sample analysis:	Jasmine R. Smith
Chemist - data processor:	Jasmine R. Smith
Chemist - data review:	Kelly J Stringham

Method deviations: The highest mass level responses for octane and 1,3,5-trimethylbenzene were removed from the calibration due to poor linearity.

Please note that data file names ending with R are rerun samples using the second pair of sorbers, in which the original results were not reported. Data file names ending in D are duplicate analysis results for the second set of sorbers from the same sampler, and are reported.

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Additional Report Information

- Comments
- Laboratory Sample Report
- Chain of Custody
- Installation and Retrieval Log
- Data Table(s) and Key (if needed)
- Concentration Calculation Method Summary (as applicable)
- Total Ion Chromatograms

Project Specific Comments

None.

Survey period [1]	Samplers were exposed for approximately two days in each well.		
Tamper seal intact:	Yes		
Date received:	12/16/2013 11:30 AM	By:	Scott Kirlin
COC returned:	Yes		

Comments:

AGI samplers shipped to Texas State University included samplers to be used for two sampling events. Data included in this report is from one sampling event.

1 - Installation start to end of retrieval, as reported. See installation and retrieval log for individual deployment and retrieval dates and times (i.e., sampler exposure time).

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General Comments

Analytical QA/QC

Laboratory instrumentation consists of gas chromatographs equipped with mass selective detectors, coupled with automated thermal desorption units. Sample preparation involves cutting the tip off the bottom of the AGI Universal Sampler, and transferring one or more "sorbers" to a thermal desorption tube for analysis. The insertion/retrieval cord prevents soil, water and other interferences from coming in contact with the adsorbent. No further sample preparation is required. Any replicate sorbers not consumed in the initial analysis will be discarded fifteen (15) days from the date of the laboratory report.

Data are archived and stored in a secure manner as per AGI's Quality Assurance program (SPG-SOP-0462).

Total petroleum hydrocarbons (TPH), gasoline-range petroleum hydrocarbons (GRPH), and/or diesel range petroleum hydrocarbons (DRPH), when reported, are calculated using the area under the peaks observed in m/z 55 and 57 selected ion chromatograms. Quantitation of the mass values was performed using the response factor for a specific alkane (present in the calibration standards). TPH values include the entire chromatogram and provide estimates for aliphatic hydrocarbon ranges of C4 to C20. GRPH and DRPH include only the relevant regions of the chromatograms and provide estimates for C4 to C10 and C10 to C20 aliphatic hydrocarbons, respectively.

Trip blanks were provided to document potential exposures that were not part of the signal of interest (e.g., impact during sampler shipment, installation and/or retrieval, and storage). The trip blanks are identically manufactured and packaged AGI Universal Samplers to those samplers deployed in the field. The trip blanks remain unopened during all phases of the project. Levels reported on the trip blanks may indicate potential impact to the samplers other than the contaminant source of interest.

Unresolved peak envelopes (UPEs) are represented as a series of compound peaks clustered together around a central gas chromatograph elution time in the total ion chromatogram. UPEs may be indicative of complex fluid mixtures. UPEs observed early in the chromatograms are considered to indicate presence of more volatile fluids, while UPEs observed later in the chromatogram may indicate the presence of less volatile fluids. Multiple UPEs may indicate the presence of multiple complex fluids.

Total ion chromatograms (TICs) are included in the Attachments. The eight-digit serial number of each sampler is incorporated in the TIC identification (e.g., 12345678.D represents AGI Universal Sampler 12345678).

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General Comments

Soil Gas Sampling

For soil gas sampling, the AGI Environmental Survey reports mass levels migrating through the open pore spaces of the soil and diffusing through the sampler membrane for sorption by the engineered, hydrophobic adsorbents, housed within the membrane tube. During the migration of the soil gas away from the source to the AGI Universal Sampler, the vapors are subject to a variety of attenuation factors. The soil gas masses reported on the samplers compare favorably with the concentrations reported in the soil or groundwater (e.g., where soil gas levels are reported at greater levels to other sampled locations on the site, the matrix data should reveal the same pattern, and vice versa). However, due to a variety of factors, a perfect comparison between matrix data and soil gas levels can rarely be achieved.

Soil gas concentrations (µg/m3) are calculated following the method described in the Additional Report Information section.

Soil gas signals reported by this method cannot be correlated specifically to soil adsorbed, groundwater, and/or free-phase contamination. The soil gas signal reported from each AGI Universal Sampler can evolve from all of these sources. Differentiation between soil and groundwater contamination can only be achieved with prior knowledge of the site history (i.e., the site is known to have groundwater contamination only).

Air Sampling

For indoor, outdoor, and crawlspace air sampling, the AGI Environmental Survey reports mass levels present in the air and diffusing through the sampler membrane for sorption by the engineered adsorbents housed within the membrane tube.

Air concentrations (µg/m3) are calculated following the method described in the Additional Report Information section.

Groundwater and Sediment Porewater Sampling

For groundwater and sediment porewater sampling, the AGI Environmental Survey reports the mass levels of compounds present in the water which, when coming in contact with the sampler membrane, partitions out of For groundwater and sediment porewater sampling, the AGI Environmental Survey reports the mass levels of compounds present in the water which, when coming in contact with the sampler membrane, partitions out of solution, and diffuses through the sampler membrane for sorption by the engineered adsorbents.

Water concentrations (µg/L) are calculated using the quantified mass, exposure period and the compound specific uptake rate. The rates were measured under controlled experimental conditions. The uptake rates are corrected for water pressure (depth of the AGI Universal Sampler below the water table), water temperature and the aquifer flow rate. For sediment porewater, the uptake rate is corrected for the reduced colume of water in the sediment, by multiplying the uptake rate by the pore water fraction.

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LABORATORY SAMPLE REPORT

Project: ENV 30000157-2 **Site Name: McCarty & Soyer Wells 131017** **Module Type: SPG0008**

Module ID	Sample Type	Field ID
00718583	FIELD_SAMPLE	USFW-Hunter
00718584	FIELD_SAMPLE	City-McCarty
00718585	FIELD_SAMPLE	City-Soyers
00718586	FIELD_SAMPLE	USFW-McCarty
00718587	TRIP_BLANK	Not Provided

Total # "FIELD SAMPLES"	Total # "TRIP BLANKS"	Total # "UNUSED"	Total # "LOST"
4	1	0	0

Duplicate samples: 0

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AGI Universal Passive Sampler Chain of Groundwater Sampling

Production Order #: 30000157

Customer Name:	TEXAS STATE UNVERSITY - SAN MA	Site Name:	Mcarty & Soyer Wells 131017
Address:	SAN MARCOS,TX	Site Address:	San Marcos, TX
	, 78667 United State	Project Manager:	Victor Castillo

Serial # of Samplers Shipped		# of Samplers for Installation	8.00	# of Trip Blanks	2
00718583	- 00718592	Total Samplers Shipped	10.00	Pieces	
		Total Samplers Received	10.00	Pieces	
		Total Samplers Installed	4 + blank	Pieces	

Serial # of Trip Blanks (Client Decides)

00718587		

Prepared By: Marlene Yellowdy **Verified By:** Mary Anne Murphi	***Is Concurrent water sampling planned this monitoring period?*** **YES** **NO** ***Scheduled Sampling Date:***
Installation Performed By: **Name:** See Attached **Company:**	**Retrieval Performed By:** **Name:** **Company:**
Installation Start Date / Time: **Installation Complete Date / Time**	**Retrieval Start Date / Time:** **Retrieval Complete Date / Time**

Total Samplers Retrieved: 5
Total Samplers Lost In Field: 0
Total Unused Samplers Returned: 0

Relinquished By Marlene Yellowdy **Date/Time** 11/06/13 **Company:** AGI	**Received By:** Victor Castillo **Date/Time** 11/8/13 / 310pm **Company:** EARAC
Relinquished By Victor Castillo **Date/Time** 12/13/13 1105 **Company:** EARAC	**Received By:** [illegible] **Date/Time** 12-16-13 11:30AM **Company:** AGI

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Chain of Custody

Well Site	Installation Start:		Installation Complete:		Retrieval Start:		Retrieval Complete:	
	Date	Time	Date	Time	Date	Time	Date	Time
USFW- Hunter	12/9/13	1025	12/9/13	1026	12/11/13	1030	12/11/13	1031
USFW-McCarty	12/11/13	1045	12/11/13	1046	12/13/13	1058	12/13/13	1059
City-Soyers	12/10/13	1055	12/10/13	1056	12/12/13	1055	12/12/13	1056
City-McCarty	12/10/13	1020	12/10/13	1021	12/12/13	1035	12/12/13	1036

Site	Module #
USFW- Hunter	00718583
USFW-McCarty	00718586
City-Soyers	00718585
City-McCarty	00718584
Field Blank	00718587

Installation Performed By: Name: Victor Gibbs II

Company: EARDC - TX STATE UNIV

Retrieval Performed By: Name: Victor Gibbs II

Company: EARDC - Tx State UNIV

Total Samplers Retrieved: 5
Total Samplers Lost in Field: 0
Total Unused Samplers Returned: 0

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AGI Project No. ENV 30000157
Site Name: McCarty & Soyer Wells 131017
Site Location: San Marcos, TX

AGI Soil Gas Sampling
Installation & Retrieval Log

Company Name: TEXAS STATE UNIVERSITY
Location: USFW wells- McCarty/Hunter ; City wells-McCarty/Soyers
Samples collected by: Victor Castillo III

*** Optional or as needed**

SAMPLER SERIAL NO.	WELL ID	SAMPLE TYPE (Field Sample, Trip Blank, Field Blank, etc.)	INSTALLATION DATE & TIME MM/DD/YYYY HH:MM (24 Hour) ex. 12/30/2000 13:00	RETRIEVAL DATE & TIME MM/DD/YYYY HH:MM (24 Hour) ex. 12/30/2000 15:00	WATER QUALITY MONITORING: INSTALLATION DEPTH FROM TOP OF CASING (feet)	WATER QUALITY MONITORING: DEPTH TO WATER FROM TOP OF CASING (feet)	WATER QUALITY MONITORING: SCREENED INTERVAL FROM TOP OF CASING (feet)
00718583	USFW-Hunter	FIELD_SAMPLE	12/09/2013 1025	12/11/2013 1030			
00718584	City-McCarty	FIELD_SAMPLE	12/10/2013 1020	12/12/2013 1035			
00718585	City-Soyers	FIELD_SAMPLE	12/10/2013 1055	12/12/2013 1055			
00718586	USFW-McCarty	FIELD_SAMPLE	12/11/2013 1045	12/13/2013 1058			
00718587		TRIP_BLANK					
00718588		FIELD_SAMPLE					
00718589		FIELD_SAMPLE					
00718590		FIELD_SAMPLE					
00718591		FIELD_SAMPLE					
00718592		TRIP_BLANK					

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AGI Soil Gas Sampling

USFW wells- McCarty/Hallett C&R Ranch/McCarty/Soyers

*** Optional or as needed**

WATER QUALITY MONITORING				YES / NO	
SAMPLER SERIAL NO.	WATER TEMPERATURE AT MODULE DEPTH (deg C)	FLOW RATE THROUGH SCREEN: HIGH OR LOW (HIGH = flow > than 10 m/day; LOW = flow < 10 m/day)		EVIDENCE OF LIQUID PETROLEUM HYDROCARBONS?	ODOR ?
00718583	17.5		cold front this week	no	no
00718584	12.9		cold front this week	no	no
00718585	14.8		cold front this week	no	no
00718586	18		cold front this week	no	no
00718587					
00718588					
00718589					
00718590					
00718591					
00718592					

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PROJECT NUMBER: ENV 30000157-2 **FOR:** TEXAS STATE UNIVERSITY
SITE NAME: McCarty & Soyer Wells 131017
SITE ADDRESS: San Marcos, TX , 78667
United States

SAMPLER ID: 00718583 FIELD_SAMPLE Matrix: WATER Product: SPG0008
Dilution Factor: 1 Field ID: USFW-Hunter
Installation Date: 12/9/2013 10:25:00AM
Retrieval Date: 12/11/2013 10:30:00AM Date Analyzed: 12/19/2013 7:01:00PM
Analyst: Jasmine R. Smith **Method:** SPG-WI-0292 **Batch:** ENV-131218-4
Reviewer: Kelly J Stringham

Compound	CAS #	Result (ug)	RL (ug)
Methyl tert-butyl ether	1634-04-4	<0.02	0.02
trans-1,2-Dichloroethene	156-60-5	<0.02	0.02
1,1-Dichloroethane	75-34-3	<0.02	0.02
cis-1,2-Dichloroethene	156-59-2	<0.02	0.02
Chloroform	67-66-3	<0.02	0.02
1,1,1-Trichloroethane	71-55-6	<0.02	0.02
1,2-Dichloroethane	107-06-2	<0.02	0.02
Benzene	71-43-2	<0.02	0.02
Carbon Tetrachloride	56-23-5	<0.02	0.02
Trichloroethene	79-01-6	<0.02	0.02
1,1,2-Trichloroethane	79-00-5	<0.02	0.02
Toluene	108-88-3	<0.02	0.02
Octane	111-65-9	<0.02	0.02
Tetrachloroethene	**127-18-4**	**0.10**	**0.02**
Chlorobenzene	108-90-7	<0.02	0.02
1,1,1,2-Tetrachloroethane	630-20-6	<0.02	0.02
Ethylbenzene	100-41-4	<0.02	0.02
m,p-Xylene	108-38-3/106-42-3	<0.02	0.02
o-Xylene	95-47-6	<0.02	0.02
1,1,2,2-Tetrachloroethane	79-34-5	<0.02	0.02
1,3,5-Trimethylbenzene	108-67-8	<0.02	0.02
1,2,4-Trimethylbenzene	95-63-6	<0.02	0.02
1,3-Dichlorobenzene	541-73-1	<0.02	0.02
1,4-Dichlorobenzene	106-46-7	<0.02	0.02
1,2-Dichlorobenzene	95-50-1	<0.02	0.02
Undecane	1120-21-4	<0.05	0.05
Naphthalene	91-20-3	<0.05	0.05
Tridecane	629-50-5	<0.05	0.05
2-Methylnaphthalene	91-57-6	<0.05	0.05
Acenaphthylene	208-96-8	<0.05	0.05
Pentadecane	629-62-9	<0.05	0.05

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PROJECT NUMBER: ENV 30000157-2 **FOR:** TEXAS STATE UNIVERSITY
SITE NAME: McCarty & Soyer Wells 131017
SITE ADDRESS: San Marcos, TX , 78667
United States

SAMPLER ID: 00718583 FIELD_SAMPLE Matrix: WATER Product: SPG0008
Dilution Factor: 1 Field ID: USFW-Hunter
Installation Date: 12/9/2013 10:25:00AM
Retrieval Date: 12/11/2013 10:30:00AM Date Analyzed: 12/19/2013 7:01:00PM
Analyst: Jasmine R. Smith **Method:** SPG-WI-0292 **Batch:** ENV-131218-4
Reviewer: Kelly J Stringham

Compound	CAS #	Result (ug)	RL (ug)
Acenaphthene	83-32-9	<0.05	0.05
Fluorene	86-73-7	<0.05	0.05
TPH		**0.83**	**0.50**
BTEX		<0.02	0.02
Phenanthrene	85-01-8	<0.05	0.05
Anthracene	120-12-7	<0.05	0.05
Fluoranthene	206-44-0	<0.05	0.05
Pyrene	129-00-0	<0.05	0.05

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PROJECT NUMBER: ENV 30000157-2 **FOR:** TEXAS STATE UNIVERSITY
SITE NAME: McCarty & Soyer Wells 131017
SITE ADDRESS: San Marcos, TX , 78667
United States

SAMPLER ID: 00718584 FIELD_SAMPLE Matrix: WATER Product: SPG0008
Dilution Factor: 1 Field ID: City-McCarty
Installation Date: 12/10/2013 10:20:00AM
Retrieval Date: 12/12/2013 10:35:00AM Date Analyzed: 12/19/2013 5:35:00PM
Analyst: Jasmine R. Smith **Method:** SPG-WI-0292 **Batch:** ENV-131218-4
Reviewer: Kelly J Stringham

Compound	CAS #	Result (ug)	RL (ug)
Methyl tert-butyl ether	1634-04-4	<0.02	0.02
trans-1,2-Dichloroethene	156-60-5	<0.02	0.02
1,1-Dichloroethane	75-34-3	<0.02	0.02
cis-1,2-Dichloroethene	156-59-2	<0.02	0.02
Chloroform	67-66-3	<0.02	0.02
1,1,1-Trichloroethane	71-55-6	<0.02	0.02
1,2-Dichloroethane	107-06-2	<0.02	0.02
Benzene	71-43-2	<0.02	0.02
Carbon Tetrachloride	56-23-5	<0.02	0.02
Trichloroethene	79-01-6	<0.02	0.02
1,1,2-Trichloroethane	79-00-5	<0.02	0.02
Toluene	108-88-3	<0.02	0.02
Octane	111-65-9	<0.02	0.02
Tetrachloroethene	127-18-4	<0.02	0.02
Chlorobenzene	108-90-7	<0.02	0.02
1,1,1,2-Tetrachloroethane	630-20-6	<0.02	0.02
Ethylbenzene	100-41-4	<0.02	0.02
m,p-Xylene	108-38-3/106-42-3	<0.02	0.02
o-Xylene	95-47-6	<0.02	0.02
1,1,2,2-Tetrachloroethane	79-34-5	<0.02	0.02
1,3,5-Trimethylbenzene	108-67-8	<0.02	0.02
1,2,4-Trimethylbenzene	95-63-6	<0.02	0.02
1,3-Dichlorobenzene	541-73-1	<0.02	0.02
1,4-Dichlorobenzene	106-46-7	<0.02	0.02
1,2-Dichlorobenzene	95-50-1	<0.02	0.02
Undecane	1120-21-4	<0.05	0.05
Naphthalene	91-20-3	<0.05	0.05
Tridecane	629-50-5	<0.05	0.05
2-Methylnaphthalene	91-57-6	<0.05	0.05
Acenaphthylene	208-96-8	<0.05	0.05
Pentadecane	629-62-9	<0.05	0.05

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PROJECT NUMBER: ENV 30000157-2 **FOR:** TEXAS STATE UNIVERSITY

SITE NAME: McCarty & Soyer Wells 131017

SITE ADDRESS: San Marcos, TX , 78667

United States

SAMPLER ID: 00718584 FIELD_SAMPLE Matrix: WATER Product: SPG0008

Dilution Factor: 1 Field ID: City-McCarty

Installation Date: 12/10/2013 10:20:00AM

Retrieval Date: 12/12/2013 10:35:00AM Date Analyzed: 12/19/2013 5:35:00PM

Analyst: Jasmine R. Smith **Method:** SPG-WI-0292 **Batch:** ENV-131218-4

Reviewer: Kelly J Stringham

Compound	CAS #	Result (ug)	RL (ug)
Acenaphthene	83-32-9	<0.05	0.05
Fluorene	86-73-7	<0.05	0.05
TPH		**1.47**	**0.50**
BTEX		<0.02	0.02
Phenanthrene	85-01-8	<0.05	0.05
Anthracene	120-12-7	<0.05	0.05
Fluoranthene	206-44-0	<0.05	0.05
Pyrene	129-00-0	<0.05	0.05

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PROJECT NUMBER: ENV 30000157-2 **FOR:** TEXAS STATE UNIVERSITY
SITE NAME: McCarty & Soyer Wells 131017
SITE ADDRESS: San Marcos, TX , 78667
United States

SAMPLER ID: 00718585 FIELD_SAMPLE Matrix: WATER Product: SPG0008
Dilution Factor: 1 Field ID: City-Soyers
Installation Date: 12/10/2013 10:55:00AM
Retrieval Date: 12/12/2013 10:55:00AM Date Analyzed: 12/19/2013 6:03:00PM
Analyst: Jasmine R. Smith **Method: SPG-WI-0292** **Batch: ENV-131218-4**
Reviewer: Kelly J Stringham

Compound	CAS #	Result (ug)	RL (ug)
Methyl tert-butyl ether	1634-04-4	<0.02	0.02
trans-1,2-Dichloroethene	156-60-5	<0.02	0.02
1,1-Dichloroethane	75-34-3	<0.02	0.02
cis-1,2-Dichloroethene	156-59-2	<0.02	0.02
Chloroform	**67-66-3**	**0.07**	**0.02**
1,1,1-Trichloroethane	71-55-6	<0.02	0.02
1,2-Dichloroethane	107-06-2	<0.02	0.02
Benzene	71-43-2	<0.02	0.02
Carbon Tetrachloride	56-23-5	<0.02	0.02
Trichloroethene	79-01-6	<0.02	0.02
1,1,2-Trichloroethane	79-00-5	<0.02	0.02
Toluene	108-88-3	<0.02	0.02
Octane	111-65-9	<0.02	0.02
Tetrachloroethene	**127-18-4**	**0.06**	**0.02**
Chlorobenzene	108-90-7	<0.02	0.02
1,1,1,2-Tetrachloroethane	630-20-6	<0.02	0.02
Ethylbenzene	100-41-4	<0.02	0.02
m,p-Xylene	108-38-3/106-42-3	<0.02	0.02
o-Xylene	95-47-6	<0.02	0.02
1,1,2,2-Tetrachloroethane	79-34-5	<0.02	0.02
1,3,5-Trimethylbenzene	108-67-8	<0.02	0.02
1,2,4-Trimethylbenzene	95-63-6	<0.02	0.02
1,3-Dichlorobenzene	541-73-1	<0.02	0.02
1,4-Dichlorobenzene	106-46-7	<0.02	0.02
1,2-Dichlorobenzene	95-50-1	<0.02	0.02
Undecane	1120-21-4	<0.05	0.05
Naphthalene	91-20-3	<0.05	0.05
Tridecane	629-50-5	<0.05	0.05
2-Methylnaphthalene	91-57-6	<0.05	0.05
Acenaphthylene	208-96-8	<0.05	0.05
Pentadecane	629-62-9	<0.05	0.05

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PROJECT NUMBER: ENV 30000157-2 **FOR:** TEXAS STATE UNIVERSITY

SITE NAME: McCarty & Soyer Wells 131017

SITE ADDRESS: San Marcos, TX , 78667

United States

SAMPLER ID: 00718585 FIELD_SAMPLE Matrix: WATER Product: SPG0008

Dilution Factor: 1 Field ID: City-Soyers

Installation Date: 12/10/2013 10:55:00AM

Retrieval Date: 12/12/2013 10:55:00AM Date Analyzed: 12/19/2013 6:03:00PM

Analyst: Jasmine R. Smith **Method:** SPG-WI-0292 **Batch:** ENV-131218-4

Reviewer: Kelly J Stringham

Compound	CAS #	Result (ug)	RL (ug)
Acenaphthene	83-32-9	<0.05	0.05
Fluorene	86-73-7	<0.05	0.05
TPH		**0.76**	**0.50**
BTEX		<0.02	0.02
Phenanthrene	85-01-8	<0.05	0.05
Anthracene	120-12-7	<0.05	0.05
Fluoranthene	206-44-0	<0.05	0.05
Pyrene	129-00-0	<0.05	0.05

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PROJECT NUMBER: ENV 30000157-2 **FOR:** TEXAS STATE UNIVERSITY
SITE NAME: McCarty & Soyer Wells 131017
SITE ADDRESS: San Marcos, TX , 78667
United States

SAMPLER ID: 00718586 FIELD_SAMPLE Matrix: WATER Product: SPG0008
Dilution Factor: 1 Field ID: USFW-McCarty
Installation Date: 12/11/2013 10:45:00AM
Retrieval Date: 12/13/2013 10:58:00AM Date Analyzed: 12/19/2013 5:06:00PM
Analyst: Jasmine R. Smith **Method: SPG-WI-0292** **Batch: ENV-131218-4**
Reviewer: Kelly J Stringham

Compound	CAS #	Result (ug)	RL (ug)
Methyl tert-butyl ether	1634-04-4	<0.02	0.02
trans-1,2-Dichloroethene	156-60-5	<0.02	0.02
1,1-Dichloroethane	75-34-3	<0.02	0.02
cis-1,2-Dichloroethene	156-59-2	<0.02	0.02
Chloroform	67-66-3	<0.02	0.02
1,1,1-Trichloroethane	71-55-6	<0.02	0.02
1,2-Dichloroethane	107-06-2	<0.02	0.02
Benzene	71-43-2	<0.02	0.02
Carbon Tetrachloride	56-23-5	<0.02	0.02
Trichloroethene	79-01-6	<0.02	0.02
1,1,2-Trichloroethane	79-00-5	<0.02	0.02
Toluene	**108-88-3**	**0.07**	**0.02**
Octane	111-65-9	<0.02	0.02
Tetrachloroethene	**127-18-4**	**0.06**	**0.02**
Chlorobenzene	108-90-7	<0.02	0.02
1,1,1,2-Tetrachloroethane	630-20-6	<0.02	0.02
Ethylbenzene	100-41-4	<0.02	0.02
m,p-Xylene	108-38-3/106-42-3	<0.02	0.02
o-Xylene	95-47-6	<0.02	0.02
1,1,2,2-Tetrachloroethane	79-34-5	<0.02	0.02
1,3,5-Trimethylbenzene	108-67-8	<0.02	0.02
1,2,4-Trimethylbenzene	95-63-6	<0.02	0.02
1,3-Dichlorobenzene	541-73-1	<0.02	0.02
1,4-Dichlorobenzene	106-46-7	<0.02	0.02
1,2-Dichlorobenzene	95-50-1	<0.02	0.02
Undecane	1120-21-4	<0.05	0.05
Naphthalene	91-20-3	<0.05	0.05
Tridecane	629-50-5	<0.05	0.05
2-Methylnaphthalene	91-57-6	<0.05	0.05
Acenaphthylene	208-96-8	<0.05	0.05
Pentadecane	629-62-9	<0.05	0.05

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PROJECT NUMBER: ENV 30000157-2 **FOR:** TEXAS STATE UNIVERSITY

SITE NAME: McCarty & Soyer Wells 131017

SITE ADDRESS: San Marcos, TX , 78667

United States

SAMPLER ID: 00718586 FIELD_SAMPLE Matrix: WATER Product: SPG0008

Dilution Factor: 1 Field ID: USFW-McCarty

Installation Date: 12/11/2013 10:45:00AM

Retrieval Date: 12/13/2013 10:58:00AM Date Analyzed: 12/19/2013 5:06:00PM

Analyst: Jasmine R. Smith **Method:** SPG-WI-0292 **Batch:** ENV-131218-4

Reviewer: Kelly J Stringham

Compound	CAS #	Result (ug)	RL (ug)
Acenaphthene	83-32-9	<0.05	0.05
Fluorene	86-73-7	<0.05	0.05
TPH		<0.50	0.50
BTEX		**0.07**	**0.02**
Phenanthrene	85-01-8	<0.05	0.05
Anthracene	120-12-7	<0.05	0.05
Fluoranthene	206-44-0	<0.05	0.05
Pyrene	129-00-0	<0.05	0.05

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PROJECT NUMBER: ENV 30000157-2 **FOR:** TEXAS STATE UNIVERSITY
SITE NAME: McCarty & Soyer Wells 131017
SITE ADDRESS: San Marcos, TX , 78667
United States

SAMPLER ID: 00718587 TRIP_BLANK Matrix: WATER Product: SPG0008
Dilution Factor: 1

Date Analyzed: 12/19/2013 6:32:00PM
Analyst: Jasmine R. Smith **Method:** SPG-WI-0292 **Batch:** ENV-131218-4
Reviewer: Kelly J Stringham

Compound	CAS #	Result (ug)	RL (ug)
Methyl tert-butyl ether	1634-04-4	<0.02	0.02
trans-1,2-Dichloroethene	156-60-5	<0.02	0.02
1,1-Dichloroethane	75-34-3	<0.02	0.02
cis-1,2-Dichloroethene	156-59-2	<0.02	0.02
Chloroform	67-66-3	<0.02	0.02
1,1,1-Trichloroethane	71-55-6	<0.02	0.02
1,2-Dichloroethane	107-06-2	<0.02	0.02
Benzene	71-43-2	<0.02	0.02
Carbon Tetrachloride	56-23-5	<0.02	0.02
Trichloroethene	79-01-6	<0.02	0.02
1,1,2-Trichloroethane	79-00-5	<0.02	0.02
Toluene	108-88-3	<0.02	0.02
Octane	111-65-9	<0.02	0.02
Tetrachloroethene	127-18-4	<0.02	0.02
Chlorobenzene	108-90-7	<0.02	0.02
1,1,1,2-Tetrachloroethane	630-20-6	<0.02	0.02
Ethylbenzene	100-41-4	<0.02	0.02
m,p-Xylene	108-38-3/106-42-3	<0.02	0.02
o-Xylene	95-47-6	<0.02	0.02
1,1,2,2-Tetrachloroethane	79-34-5	<0.02	0.02
1,3,5-Trimethylbenzene	108-67-8	<0.02	0.02
1,2,4-Trimethylbenzene	95-63-6	<0.02	0.02
1,3-Dichlorobenzene	541-73-1	<0.02	0.02
1,4-Dichlorobenzene	106-46-7	<0.02	0.02
1,2-Dichlorobenzene	95-50-1	<0.02	0.02
Undecane	1120-21-4	<0.05	0.05
Naphthalene	91-20-3	<0.05	0.05
Tridecane	629-50-5	<0.05	0.05
2-Methylnaphthalene	91-57-6	<0.05	0.05
Acenaphthylene	208-96-8	<0.05	0.05
Pentadecane	629-62-9	<0.05	0.05

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SITE NAME: McCarty & Soyer Wells 131017

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SAMPLER ID: 00718587 TRIP_BLANK Matrix: WATER Product: SPG0008

Dilution Factor: 1

Date Analyzed: 12/19/2013 6:32:00PM

Analyst: Jasmine R. Smith **Method:** SPG-WI-0292 **Batch:** ENV-131218-4

Reviewer: Kelly J Stringham

Compound	CAS #	Result (ug)	RL (ug)
Acenaphthene	83-32-9	<0.05	0.05
Fluorene	86-73-7	<0.05	0.05
TPH		<0.50	0.50
BTEX		<0.02	0.02
Phenanthrene	85-01-8	<0.05	0.05
Anthracene	120-12-7	<0.05	0.05
Fluoranthene	206-44-0	<0.05	0.05
Pyrene	129-00-0	<0.05	0.05

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AMPLIFIED GEOCHEMICAL IMAGING, LLC ANALYTICAL RESULTS
TEXAS STATE UNIVERSITY, SAN MARCOS, TX
AGI STANDARD SVOCs & VOCs
WATER CONCENTRATIONS
MCCARTY & SOYER WELLS 131017, SAN MARCOS, TX
PRODUCTION ORDER # 30000157-2

DATE ANALYZED	FIELD ID	SAMPLE NAME	TPH, ug/L	BTEX, ug/L	BENZ, ug/L	TOL, ug/L	ETBENZ, ug/L	mpXYL, ug/L	oXYL, ug/L
		RL=	2.97		0.33	0.30	0.28	0.28	0.27
12/19/2013	USFW-Hunter	718583	3.56	nd	nd	nd	nd	nd	nd
12/19/2013	City-McCarty	718584	4.97	bdl	nd	bdl	bdl	bdl	bdl
12/19/2013	City-Soyers	718585	3.62	nd	nd	nd	nd	nd	nd
12/19/2013	USFW-McCarty	718586	bdl	0.91	nd	0.91	nd	nd	nd
12/19/2013	Trip Blank	718587	bdl	nd	nd	nd	nd	nd	nd
12/19/2013		method blank	bdl	nd	nd	nd	nd	nd	nd

No RL is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

AMPLIFIED GEOCHEMICAL IMAGING, LLC ANALYTICAL RESULTS
TEXAS STATE UNIVERSITY, SAN MARCOS, TX
AGI STANDARD SVOCs & VOCs
WATER CONCENTRATIONS
MCCARTY & SOYER WELLS 131017, SAN MARCOS, TX
PRODUCTION ORDER # 30000157-2

SAMPLE NAME	C11, C13, &C15, ug/L	UNDEC, ug/L	TRIDEC, ug/L	PENTADEC, ug/L	TMBs, ug/L	124TMB, ug/L	135TMB, ug/L
RL=		1.11	1.11	1.11		0.26	0.25
718583	nd	nd	nd	nd	nd	nd	nd
718584	bdl	bdl	nd	bdl	bdl	bdl	bdl
718585	bdl	bdl	nd	bdl	nd	nd	nd
718586	bdl	nd	nd	bdl	nd	nd	nd
718587	nd	nd	nd	nd	nd	nd	nd
method blank	bdl	nd	nd	bdl	nd	nd	nd

No RL is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

AMPLIFIED GEOCHEMICAL IMAGING, LLC ANALYTICAL RESULTS
TEXAS STATE UNIVERSITY, SAN MARCOS, TX
AGI STANDARD SVOCs & VOCs
WATER CONCENTRATIONS
MCCARTY & SOYER WELLS 131017, SAN MARCOS, TX
PRODUCTION ORDER # 30000157-2

SAMPLE NAME	ct12DCE, ug/L	t12DCE, ug/L	c12DCE, ug/L	NAPH&2-MN, ug/L	NAPH, ug/L	2MeNAPH, ug/L	MTBE, ug/L	11DCA, ug/L
RL=		0.39	0.37		0.74	0.66	0.64	0.36
718583	nd	nd	nd	nd	nd	nd	nd	nd
718584	nd	nd	nd	bdl	nd	bdl	nd	nd
718585	nd	nd	nd	nd	nd	nd	nd	nd
718586	nd	nd	nd	bdl	nd	bdl	nd	nd
718587	nd	nd	nd	nd	nd	nd	nd	nd
method blank	nd	nd	nd	bdl	nd	bdl	nd	nd

No RL is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

AMPLIFIED GEOCHEMICAL IMAGING, LLC ANALYTICAL RESULTS
TEXAS STATE UNIVERSITY, SAN MARCOS, TX
AGI STANDARD SVOCs & VOCs
WATER CONCENTRATIONS
MCCARTY & SOYER WELLS 131017, SAN MARCOS, TX
PRODUCTION ORDER # 30000157-2

SAMPLE NAME	CHCl3, ug/L	111TCA, ug/L	12DCA, ug/L	TCE, ug/L	OCT, ug/L	PCE, ug/L	14DCB, ug/L	Acenaphthene, ug/L
RL=	0.38	0.26	0.40	0.33	0.30	0.30	0.29	0.67
718583	nd	nd	nd	nd	nd	1.11	nd	bdl
718584	nd	nd	nd	nd	bdl	bdl	nd	bdl
718585	1.28	nd	nd	nd	bdl	0.78	nd	bdl
718586	nd	nd	nd	nd	nd	0.72	nd	bdl
718587	nd	nd	nd	nd	nd	nd	nd	bdl
method blank	nd	nd	nd	nd	nd	nd	nd	bdl

No RL is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

AMPLIFIED GEOCHEMICAL IMAGING, LLC ANALYTICAL RESULTS
TEXAS STATE UNIVERSITY, SAN MARCOS, TX
AGI STANDARD SVOCs & VOCs
WATER CONCENTRATIONS
MCCARTY & SOYER WELLS 131017, SAN MARCOS, TX
PRODUCTION ORDER # 30000157-2

SAMPLE NAME	Acenaphthylene, ug/L	Fluorene, ug/L	CCl4, ug/L	112TCA, ug/L	ClBENZ, ug/L	1112TetCA, ug/L	1122TetCA, ug/L
RL=	0.67	0.67	0.25	0.47	0.32	0.33	0.49
718583	nd	nd	nd	nd	nd	nd	nd
718584	nd	bdl	nd	nd	bdl	bdl	nd
718585	nd	bdl	nd	nd	nd	nd	nd
718586	nd	bdl	nd	nd	nd	nd	nd
718587	nd	nd	nd	nd	nd	nd	nd
method blank	nd	bdl	nd	nd	nd	nd	nd

No RL is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

AMPLIFIED GEOCHEMICAL IMAGING, LLC ANALYTICAL RESULTS
TEXAS STATE UNIVERSITY, SAN MARCOS, TX
AGI STANDARD SVOCs & VOCs
WATER CONCENTRATIONS
MCCARTY & SOYER WELLS 131017, SAN MARCOS, TX
PRODUCTION ORDER # 30000157-2

SAMPLE NAME	13DCB, ug/L	12DCB, ug/L
RL=	0.29	0.30
718583	nd	nd
718584	nd	nd
718585	nd	nd
718586	nd	nd
718587	nd	nd
method blank	nd	nd

No RL is available for summed combinations of analytes. In summed columns (eg., BTEX), the reported values should be considered ESTIMATED if any of the individual compounds were reported as bdl.

KEY TO DATA TABLE

UNITS

µg	micrograms, relative mass value
µg/L	micrograms per cubic meter; estimated soil gas concentration
RL	reporting limit

(Note: the concentration reporting limit is a calculated average value, and may not be reflective of sample specific conditions.)

bdl	below reporting limit; compound was observed at level below the RL
nd	non-detect, compound was not detected at any level
>	greater than; value considered estimated due to high mass levels

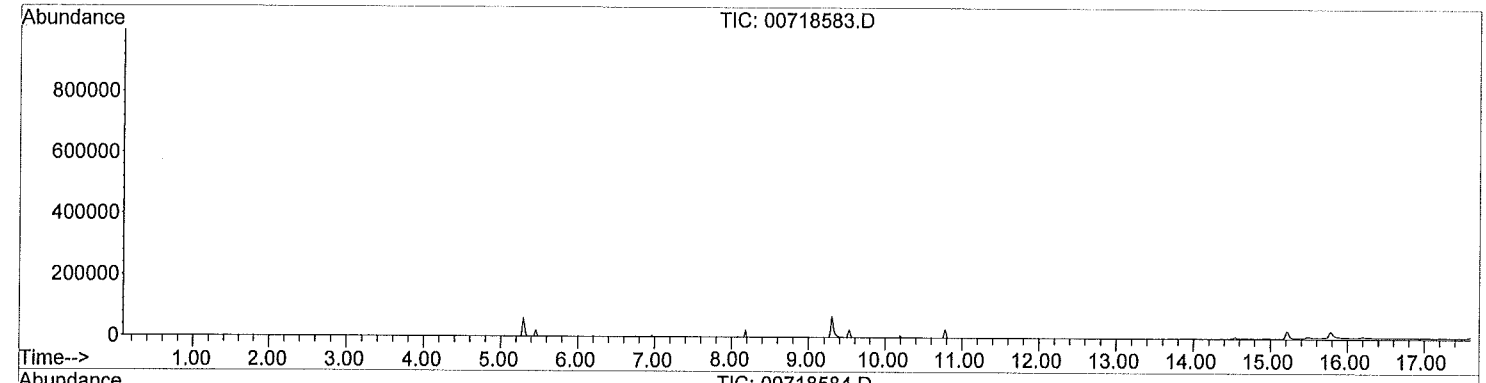
ANALYTES

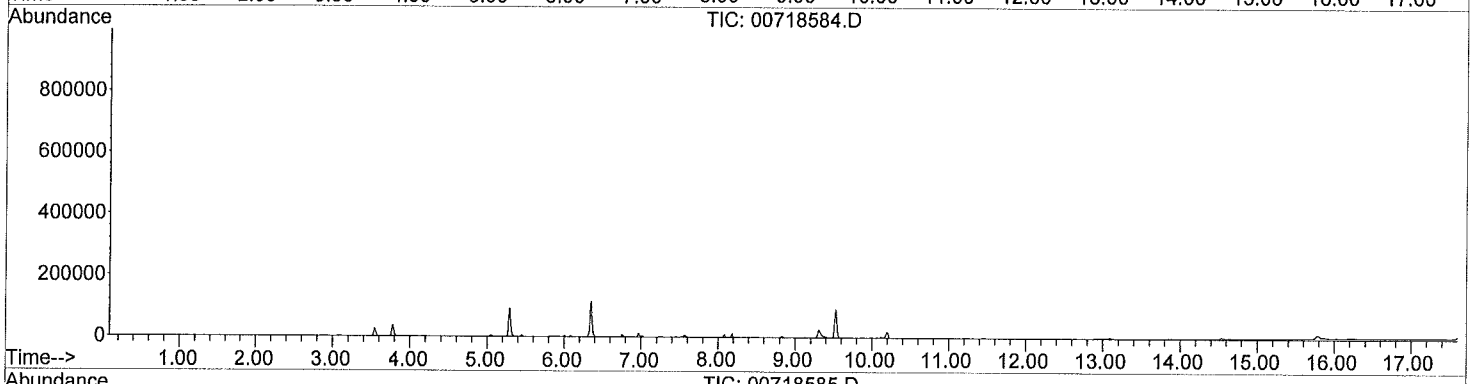
TPH	total petroleum hydrocarbons
BTEX	combined masses of benzene, toluene, ethylbenzene and total xylenes (Gasoline Range Aromatics)
BENZ	benzene
TOL	toluene
EtBENZ	ethylbenzene
mpXYL	m-, p-xylene
oXYL	o-xylene
C11,C13&C15	combined masses of undecane, tridecane, and pentadecane (C11+C13+C15) (Diesel Range Alkanes)
UNDEC	undecane
TRIDEC	tridecane
PENTADEC	pentadecane
TMBs	combined masses of 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene
135TMB	1,3,5-trimethylbenzene
124TMB	1,2,4-trimethylbenzene
MTBE	methyl t-butyl ether
NAPH	naphthalene
2MeNAPH	2-methyl naphthalene
OCT	octane
ct12DCE	cis- & trans-1,2-dichloroethene
t12DCE	trans-1,2-dichloroethene
c12DCE	cis-1,2-dichloroethene
11DCA	1,1-dichloroethane
CHC13	chloroform
111TCA	1,1,1-trichloroethane
12DCA	1,2-dichloroethane
CCl4	carbon tetrachloride
TCE	trichloroethene
PCE	tetrachloroethene
ClBENZ	chlorobenzene
14DCB	1,4-dichlorobenzene
112TCA	1,1,2-trichloroethane
1112TetCA	1,1,1,2-tetrachloroethane
1122TetCA	1,1,2,2-tetrachloroethane
13DCB	1,3-dichlorobenzene
12DCB	1,2-dichlorobenzene

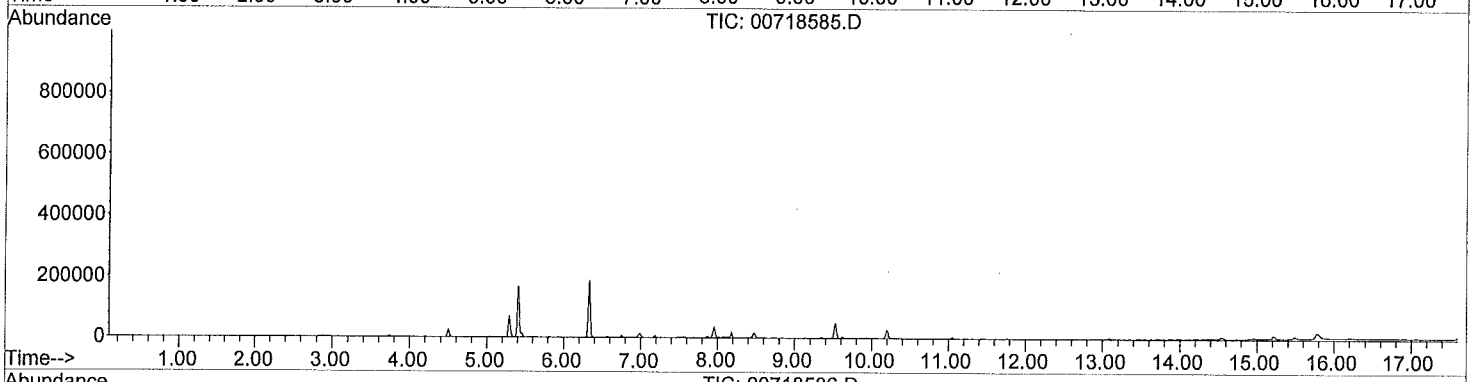
BLANKS

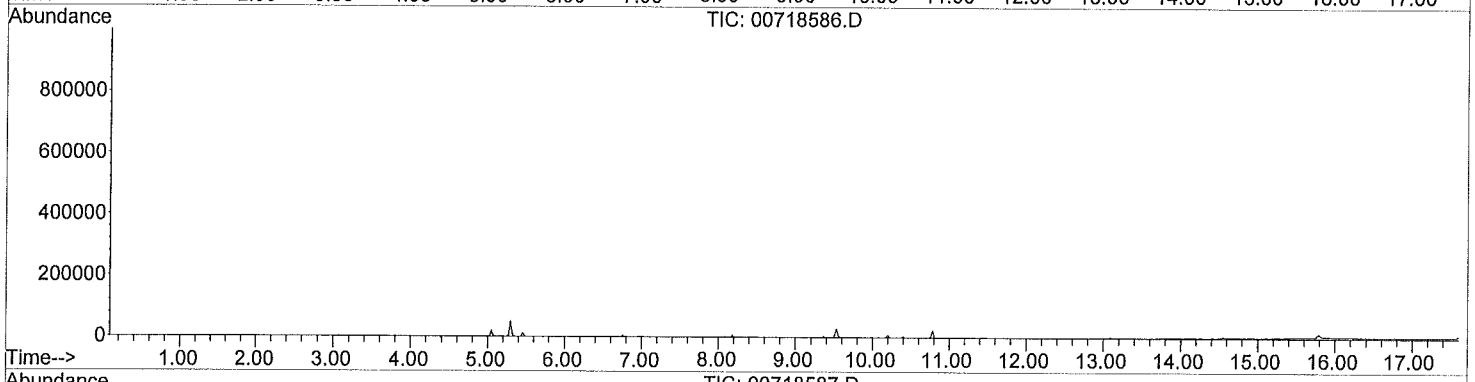
method blank	QA/QC module, documents analytical conditions during analysis

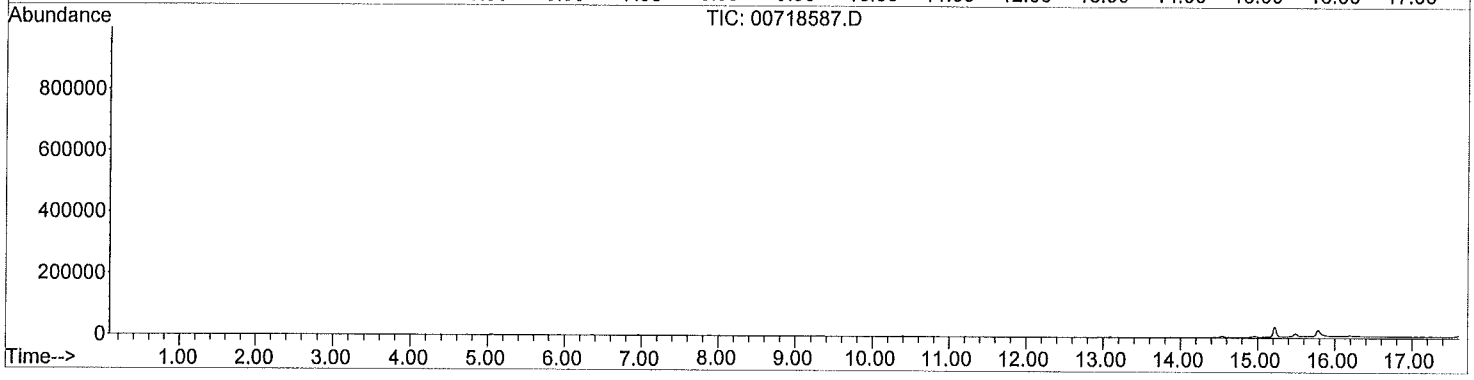
TICS - 30000157-2
In Numerical Order











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