

August 20, 2018

Parigi Property Management, Ltd.
c/o Sam C. Parigi, Jr.
445 North 14th Street
Beaumont, Texas 77702

I. Project Identification

Property Address:

Acreage along Interstate Highway 10 West and Major Drive
Beaumont, Jefferson County, Texas 77707

Consultant Name and Project Number:

Phase Engineering, Inc.
Report # 201807111

II. Property Use

The subject property currently consists of approximately 487 acres of undeveloped and agricultural land.

III. Purpose

The purpose of this Limited Phase II investigation is to determine if the subject property has been impacted as result of any past documented and undocumented hazardous substance and / or petroleum product releases associated with the following areas of concern:

- Galvanizing operations offsite to the south of the south subject property tract; and
- Past oil and gas exploration activities conducted at the north subject property tract.

IV. Background

Phase Engineering, Inc. conducted Phase I Environmental Site Assessments (ESAs) for both tracts of land that were dated June 27, 2018. The following are summaries of the findings associated with the recognized environmental conditions (RECs) identified by Phase Engineering, Inc. during the Phase I ESAs:

North Tract

- *“The Texas Railroad Commission map shows a plugged oil well on the west portion of the subject property and a plugged oil well on the west adjoining property. Vertical and lateral impact to the subsurface soils and / or groundwater can occur due to drilling operations, mud pit operations and closure, and production operations including excess surface spillage or equipment failure at wells. It is the responsibility of the operator to maintain and operate the well and associated equipment in accordance with all applicable federal, state and local regulations. Historical aerial photographs and topographic maps show indications of mud / reserve pits located on the west portion of the subject property from the early-1950s to the early-1980s and at the west adjoining property from the late-1930s to the mid-1970s. Historical documentation indicates that oil / gas exploration waste disposal related features at the west adjoining property were located at least 250 feet from the boundary of the subject property and are, therefore, not a likely source of impact to the subject property. Phase Engineering, Inc. has the opinion that, based on the historical presence of oil / gas exploration related waste disposal features onsite, the subject property may have been impacted as the result of an undocumented hazardous substance or petroleum product release.”*

South Tract

- *“The property located approximately 0.18 mile southeast of the subject property across Interstate Highway 10, addressed as 5898 Industrial Road under the name International Galvanizers, is a RCRA generator of hazardous wastes, an IHW registration and reporting facility and an IHW corrective action facility.*
 - *RCRA violations were noted at this facility by the Environmental Protection Agency (EPA) between January and June 2017.*
 - *This facility has an IHW status of “Active”. Compliance investigations were conducted at this facility in February 2005, May 2005, May 2006, November 2006, July 2007, June 2010 and March 2017 and a compliance investigation file review was conducted in August 2017. Violations were noted at this facility in May 2017 for failure to properly maintain all facility operation and inspection related documentation and failure to identify the location of all container storage areas. Waste Management Units (WMUs) listed for this facility consist of a container storage area, miscellaneous storage containers, a spent acid storage tank, a wastewater sump with closure pending and two surface impoundments with a status of “Closed”. Wastes listed for this facility include stabilized solids from hot dip galvanizing, waste oil, spent acid from steel pickling, spent sodium hydroxide, molten zinc kettle skimmings and bottoms, spent metal treatment solution, used oil filters, galvanizing process sludge, plant trash and used air filters. A complete list of wastes generated by this facility is located in the attached appendix.*
 - *A leaking process tank at this facility caused a solution of acids and RCRA regulated metals to be released to soils around an emergency overflow sump in 1996. Corrective action investigation activities were conducted at this facility from November 1996 to December 1997 in order to determine the extent of impact near the overflow sump. A deed recordation was made at this facility documenting impacted soil near the overflow sump affected with elevated concentrations of RCRA regulated metals. No information is available to determine the northernmost extent of sub-surface impact from metals. No groundwater investigation activities were documented in association with soil investigation activities at this facility.*

Historical documentation and the site visit indicate that this facility continued to operate as a galvanizing facility from the cessation of investigation activities to the present (approximately 20 years).

Phase Engineering, Inc. has the opinion that, based on the undetermined extent of impact at this facility and continued operations over an extended period of time, the subject property may have been impacted by a hazardous substance release at this facility.”



V. Scope of Investigation

The investigation consisted of installation of seven (7) soil borings utilizing direct push technology (DPT) with a tractor-mounted Powerprobe, conversion of each soil boring into temporary groundwater monitoring wells, and collection of selected samples for laboratory analysis on August 2 and 3, 2018.

It is the opinion of Phase Engineering, Inc. that the scope and character of the environmental report and services and the investigation performed were sufficient to justify the conclusions reached in light of the character of the property and the results of tests performed. Phase Engineering, Inc. has used methodologies that conform to standards established by the EPA, appropriate state environmental protection agencies under similar budget and time constraints, good and customary practices and laboratory standards for this kind of work. Samples collected and analyzed as part of this limited assessment are indicative of only those areas sampled.

Sample locations / rationale are summarized in the following table:

TABLE 1: SAMPLE LOCATIONS / RATIONALE	
Sample #	Location / Rationale
SB-1	Along south boundary of tract south of Interstate 10 / proximate to offsite galvanizing operations
SB-2	Along south boundary of tract south of Interstate 10 / proximate to offsite galvanizing operations
SB-3	Along south boundary of tract south of Interstate 10 / proximate to offsite galvanizing operations
SB-4	Northwest portion of tract north of Interstate 10 / proximate to former oil/gas exploration related reserve / disposal pit
SB-5	West-central portion of tract north of Interstate 10 / proximate to former reserve / disposal pit
SB-6	West-central portion of tract north of Interstate 10 / proximate to former reserve / disposal pit
SB-7	Southwest portion of tract north of Interstate 10 / proximate to former reserve / disposal pit

See the included Sample Location Map for soil boring locations.

VI. Soil Investigation Details

Investigation activities included use of direct push technology (DPT). Each soil core was collected from Shelby tubes with disposable plastic liners and handled using clean, disposable nitrile gloves. The soil samples from each interval were collected into disposable plastic bags, sealed, and allowed to equilibrate (allowing vapor concentrations between the soil and headspace in the bag to equalize) prior to Organic Vapor Meter (OVM) screening. Soil grab samples were collected directly from the soil sample liners and handled with clean, disposable nitrile gloves. Selected soil samples were collected into appropriate sample containers via EPA method 5035 (when applicable) and preserved on ice for transport to ALS Environmental for the following laboratory analyses:

TABLE A: SOIL SAMPLE LABORATORY ANALYSIS SELECTION						
Sample #	Depth	Analytical Method				
		BTEX/MTBE (EPA 8260)	TPH (Texas 1005)	Select PP Metals (EPA 6020/7471)	Chloride (EPA 300)	pH (EPA 300)
SB-1	1-2' bgs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SB-2	1-2' bgs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SB-3	1-2' bgs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SB-4	1-2' bgs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SB-5	1-2' bgs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SB-5	10-12' bgs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SB-6	1-2' bgs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SB-6	10-12' bgs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SB-7	1-2' bgs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SB-7	10-12' bgs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



The following table summarizes field screening results collected during investigation activities:

TABLE 2: FIELD SCREENING SUMMARY				
Sample #	Visual / Olfactory Release Indicator	Visual / Olfactory Indicator Depth	Highest OVM Depth	Highest OVM Reading
SB-1	None	N/A	N/A	All <1.0 ppm
SB-2	None	N/A	N/A	All <1.0 ppm
SB-3	None	N/A	N/A	All <1.0 ppm
SB-4	None	N/A	N/A	All <1.0 ppm
SB-5	None	N/A	N/A	All <1.0 ppm
SB-6	None	N/A	N/A	All <1.0 ppm
SB-7	None	N/A	N/A	All <1.0 ppm

- (parts per million)
- OVM (Organic Vapor Meter)

The following table summarizes rationale utilized for selection of soil samples for laboratory analysis:

TABLE 3: SOIL SAMPLE SELECTION RATIONALE SUMMARY		
Sample #	Depth	Rationale
SB-1	1-2' bgs	Evaluation of potential past surface releases / lack of elevated OVM readings
SB-2	1-2' bgs	Evaluation of potential past surface releases / lack of elevated OVM readings
SB-3	1-2' bgs	Evaluation of potential past surface releases / lack of elevated OVM readings
SB-4	1-2' bgs	Evaluation of potential past surface releases / lack of elevated OVM readings
SB-5	1-2' bgs	Evaluation of potential past surface releases / lack of elevated OVM readings
SB-5	10-12' bgs	Evaluation of potential subsurface releases from former reserve / disposal pit
SB-6	1-2' bgs	Evaluation of potential past surface releases / lack of elevated OVM readings
SB-6	10-12' bgs	Evaluation of potential subsurface releases from former reserve / disposal pit
SB-7	1-2' bgs	Evaluation of potential past surface releases / lack of elevated OVM readings
SB-7	10-12' bgs	Evaluation of potential subsurface releases from former reserve / disposal pit

- bgs (below ground surface)
- OVM (Organic Vapor Meter)

VII. Groundwater Investigation Details

A groundwater bearing unit (GWBU) was encountered during soil boring installation activities at depths greater than 30' bgs. Soil borings were converted into temporary groundwater monitoring wells (TMW-1, TMW-2, TMW-3, TMW-4, TMW-5, TMW-6, and TMW-7). Depth to groundwater measurements were collected prior to purging and prior to sample collection. A minimum of three well volumes was purged from each temporary groundwater monitoring well. Turbidity was constantly measured during purging activities and determined to be greater than 10 Nephelometric Turbidity Units (NTUs); therefore, 0.10 micron inline disposable filters were used during sampling procedures. Groundwater was allowed to recharge to at least 90% of the initial static water level prior to sample collection. Groundwater samples were collected into appropriate sample containers using a peristaltic pump and dedicated, disposable tubing. Groundwater samples were preserved on ice for transport to ALS Environmental for the following laboratory analyses:

TABLE B: GROUNDWATER SAMPLE LABORATORY ANALYSIS SELECTION					
Sample #	Analytical Method				
	BTEX/MTBE (EPA 8260)	TPH (Texas 1005)	TPH (Texas 1006)	Select PP Metals (EPA 6020/7471)	Chloride (EPA 300)
TMW-1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TMW-2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TMW-3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TMW-4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TMW-5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TMW-6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TMW-7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



VIII. Laboratory Report Review

A review of the laboratory analytical report for quality assurance / quality control indicators indicates that the soil and groundwater data are generally acceptable and usable for this limited Phase II assessment. Overall the data sets are of good quality. Recoveries were typically within acceptable ranges (a few recoveries were outside of control limits but the associated data were not affected) and no contaminants were detected in blank samples. No significant anomalies were noted.

IX. Findings

SOIL LABORATORY RESULTS

1. Lead was detected in each of the soil samples selected for laboratory analysis at concentrations ranging from 7.62 to 23.6 mg/Kg. Soil samples selected from SB-1, SB-2, SB-3, SB-5 (1-2' bgs), SB-6 (1-2' bgs) and SB-7 (1-2' bgs) exhibited lead at concentrations greater than its respective Texas Risk Reduction Program (TRRP) Tier 1 Protective Concentration Level (PCL) for the soil to groundwater pathway (^{SOIL}GW_{ING}) of 3.0 mg/Kg and the Texas State Background Concentration (TSBC) of 15.0 mg/Kg. The samples that exhibited lead at concentrations exceeding the TRRP Tier 1 PCL and TSBC were selected for additional analysis by synthetic precipitation leaching procedure (SPLP) for lead. None of the soil samples selected for SPLP analysis exhibited detectable lead concentrations following the leaching procedure.

Barium was detected in each of the soil samples selected for laboratory analysis from SB-4, SB-5, SB-6 and SB-7 at concentrations ranging from 37.4 to 1,610 mg/Kg. The soil sample selected from SB-6 (1-2' bgs) exhibited barium at a concentration of 1,610 mg/Kg, which is greater than its respective TRRP Tier 1 PCL for the soil to groundwater pathway (^{SOIL}GW_{ING}) of 440 mg/Kg and the TSBC of 300.0 mg/Kg. The sample from SB-6 (1-2' bgs) was selected for additional analysis by synthetic precipitation leaching procedure (SPLP) for barium. This soil sample selected exhibited a leachable concentration of barium at 0.0215 mg/L, which is less than the TRRP Tier 1 PCL for groundwater ingestion (^{GW}GW_{ING}) of 2.0 mg/L.

Arsenic, beryllium, chromium, copper, nickel, selenium, zinc and mercury were detected in soil samples selected for laboratory analysis from SB-1, SB-2 and SB-3 at concentrations less than their respective TRRP Tier 1 PCLs and / or TSBCs.

Antimony, cadmium, silver and thallium were not detected in any of the soil samples selected for laboratory analysis at concentrations greater than their respective laboratory reporting limits (RLs).

2. Benzene, toluene, ethyl benzene and xylenes were not detected in any of the soil samples selected for laboratory analysis at concentrations greater than their respective laboratory RLs.
3. No TPH ranges were detected under Texas 1005 method analysis in any of the soil samples selected for laboratory analysis at concentrations greater than their respective laboratory RLs.
4. Chloride was detected in soil samples selected for laboratory analysis from SB-4, SB-5 and SB-6 at concentrations ranging from 16.5 to 108 mg/Kg, which is less than its respective Texas Railroad Commission (RRC) Health Based Level of 3,000 mg/Kg.
5. Soil samples selected for laboratory analysis exhibited pH at concentrations ranging between 4.78 and 8.09 pH units.

Soil analytical results are summarized in the attached tables and laboratory report.

GROUNDWATER LABORATORY RESULTS

1. Lead was detected in the groundwater sample collected from TMW-7 at a concentration of 0.0163 mg/L, which is greater than its respective TRRP Tier 1 PCL of 0.015 mg/L.

None of the remaining groundwater samples exhibited lead at concentrations greater than its respective laboratory RLs.

Barium, nickel, zinc and mercury were detected in groundwater samples selected for laboratory analysis at concentrations less than their respective TRRP Tier 1 PCLs.



Antimony, arsenic, beryllium, cadmium, chromium, copper, selenium, silver and thallium were not detected in any of the groundwater samples selected for laboratory analysis at concentrations greater than their respective laboratory RLs.

2. Benzene, toluene, ethyl benzene and xylenes were not detected in any of the groundwater samples collected for laboratory analysis at concentrations greater than their respective laboratory RLs.
3. TPH within the heavy oil range (C₂₈-C₃₅) was initially detected under Texas Method 1005 analysis in the groundwater sample collected from TMW-3 at a concentration of 1.6 mg/L, which is greater than its TRRP Tier 1 PCL of 0.98 mg/L. This sample was selected for TPH analysis per Texas Method 1006. No TPH ranges were detected in any of the speciated carbon ranges associated with Method 1006 analysis at concentrations greater than their respective laboratory RLs.

No other TPH ranges were detected in any of the groundwater samples selected for TPH Texas Method 1005 laboratory analysis at concentrations greater than their respective laboratory RLs

4. Chloride was detected in groundwater samples selected for laboratory analysis from TMW-4, TMW-5, TMW-6 and TMW-7 at concentrations ranging from 338 to 950 mg/L, which are greater than its respective RRC Health Based Level 300 mg/L.

Groundwater analytical results are summarized in the attached tables and laboratory report.

X. Conclusions and Opinions

Phase Engineering, Inc. is offering the following conclusions and opinions based on the results of the field screening observations noted during sample collection activities and the reported laboratory results:

- None of the soil samples selected for laboratory analysis exhibited impact subject to reporting under TRRP or other Texas RRC regulations based on the results of all analyses.
- The lead concentration in groundwater samples TMW-7 was at a concentration greater than its TRRP PCL for groundwater ingestion. It appears that the elevated lead at this sample location was due to sample matrix interference and not due to a past release from activities of concern based on the turbidity experienced at this location and likely suspended sediment influence in the final laboratory analysis. This is a common occurrence within similar conditions in this region; the concentration detected at a level above the TRRP PCL experienced while using temporary groundwater monitoring wells during initial assessment does not appear to be representative of a condition that would raise concern of risk (of exposure) with regard to future unlikely usage of the shallow groundwater for potable purposes (based on the nature of the temporary monitoring wells used in limited screening assessments).
- The heavy range TPH concentration initially reported in the groundwater sample collected from TMW-3 was further evaluated and determined to not represent a reportable condition due to the additional analysis using TPH method 1006 to quantify the fractionated carbon ranges.
- The chloride concentrations detected during this assessment are in excess of drinking water standards. If the underlying groundwater is anticipated to be utilized for potable purposes, then this condition should be reported to the Texas RRC and additional evaluation would be necessary under one of the RRC environmental cleanup programs. Chloride is regulated based on aesthetic qualities (taste, odor, etc) rather than toxicity or carcinogenicity; the presence of chloride may be due to a release associated with oil / gas exploration related activities and / or considered to be representative of similar saline conditions within the proximity of the subject property.



XI. Recommendations

No further investigation or action under TRRP or Texas RRC regulations appears to be warranted at this time based on results of soil analyses that were selected at areas evaluated during this assessment provided the underlying groundwater is not anticipated to be utilized for potable purposes.

If greater certainty is necessary by the user of this report for a formal determination regarding whether the conditions identified during this assessment are reportable under state regulatory agency requirements, then this report can be submitted for review to the TCEQ remedial program section and / or Texas RRC environmental cleanup section.

Thank you for using the environmental professional services of Phase Engineering, Inc. If you should have any questions, please contact us at 832-485-2238 or 832-485-2230.



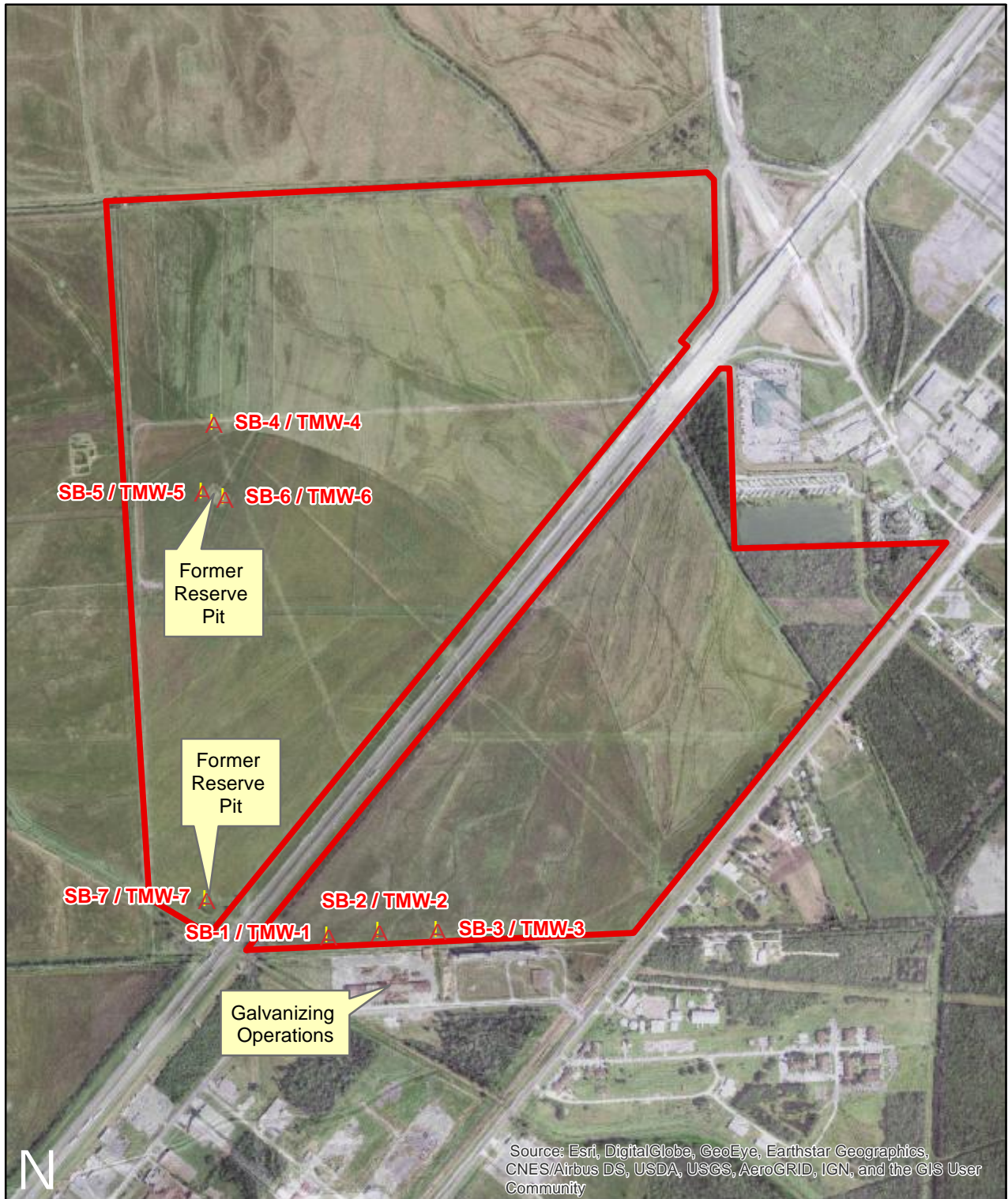
Ross Doctoroff, Texas P.G. #2767
Vice President



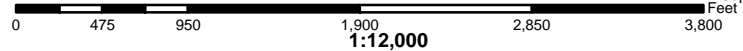
Ronny Alvarado
Staff Environmental Scientist



337 Acres & 150 Acres
Unaddressed Along I-10 (North & South)
Beaumont, TX 77707
Jefferson County



Sources: HCAD, USGS EarthExplorer, ESRI



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Sample Locations - August 2 & 3, 2018

- Sample Location
- Subject Property

PEI Project No: 201807111

ANALYTE	TRRP Tier 1 PCLs ^{TOT} SOIL _{COMB} mg/Kg	TRRP Tier 1 PCLs ^{GW} SOIL _{ING} mg/Kg	TSBC ^{GW} SOIL _{ING} mg/Kg	SB-1 1-2' bgs 8/2/2018 mg/Kg	SB-2 1-2' bgs 8/2/2018 mg/Kg	SB-3 1-2' bgs 8/2/2018 mg/Kg
Priority Pollutant Metals per EPA Methods: SW6020 and SW7471						
Antimony	15	5.4	1	<0.682	<0.684	<0.642
Arsenic	24	5	5.9	3.83	2.85	4.65
Beryllium	38	1.8	1.5	1.72	1.73	1.56
Cadmium	52	1.5	N/A	<0.682	<0.684	<0.642
Chromium	33000	2400	30	30.7	31.9	30.6
Copper	1300	1000	15	10.9	10.7	10.1
Lead	500	3	15	20.1	17.9	18.8
Nickel	840	160	10	11.1	10.3	10.7
Selenium	310	2.3	0.3	0.960	1.06	0.857
Silver	97	0.48	N/A	<0.682	<0.684	<0.642
Thallium	5.3	1.7	N/A	<0.682	<0.684	<0.642
Zinc	9900	2400	30	102	50.4	60.4
Mercury	3.6	2.1	0.04	0.0327	0.0291	0.0284

ANALYTE	TRRP Tier 1 PCLs ^{TOT} SOIL _{COMB} mg/Kg	TRRP Tier 1 PCLs ^{GW} SOIL _{ING} mg/Kg	TSBC ^{GW} SOIL _{ING} mg/Kg	SB-4 1-2' bgs 8/3/2018 mg/Kg	SB-5 1-2' bgs 8/3/2018 mg/Kg	SB-5 10-12' bgs 8/3/2018 mg/Kg	SB-6 1-2' bgs 8/3/2018 mg/Kg	SB-6 10-12' bgs 8/3/2018 mg/Kg	SB-7 1-2' bgs 8/3/2018 mg/Kg	SB-7 10-12' bgs 8/3/2018 mg/Kg
Metals per EPA Method: SW6020										
Barium	8100	440	300	60.8	267	37.4	1610	34.3	190	60.9
Lead	500	3	15	14.5	17.2	10.6	18.6	10.8	23.6	7.62

SOIL LABORATORY RESULTS SUMMARY TABLE

ANALYTE	TRRP Tier 1 PCLs ^{TOT} SOIL _{COMB} mg/Kg	TRRP Tier 1 PCLs ^{GW} SOIL _{ING} mg/Kg	SB-1 1-2' bgs 8/2/2018 mg/Kg	SB-2 1-2' bgs 8/2/2018 mg/Kg	SB-3 1-2' bgs 8/2/2018 mg/Kg	SB-4 1-2' bgs 8/3/2018 mg/Kg	SB-5 1-2' bgs 8/3/2018 mg/Kg	SB-5 10-12' bgs 8/3/2018 mg/Kg	SB-6 1-2' bgs 8/3/2018 mg/Kg	SB-6 10-12' bgs 8/3/2018 mg/Kg	SB-7 1-2' bgs 8/3/2018 mg/Kg	SB-7 10-12' bgs 8/3/2018 mg/Kg
TPH per Texas Method: TX1005												
>nC12 to nC28	2300	200	<69	<64	<62	<54	<56	<54	<59	<50	<58	<52
>nC28 to nC35	2300	200	<69	<64	<62	<54	<56	<54	<59	<50	<58	<52
nC6 to nC12	1600	65	<69	<64	<62	<54	<56	<54	<59	<50	<58	<52

SOIL LABORATORY RESULTS SUMMARY TABLE

ANALYTE	TRRP Tier 1 PCLs	TRRP Tier 1 PCLs	TCEQ PST Action Levels	SB-4	SB-5	SB-5	SB-6	SB-6	SB-7	SB-7
	^{TOT} SOIL _{COMB} mg/Kg	^{GW} SOIL _{ING} mg/Kg	mg/Kg	1-2' bgs 8/3/2018 mg/Kg	1-2' bgs 8/3/2018 mg/Kg	10-12' bgs 8/3/2018 mg/Kg	1-2' bgs 8/3/2018 mg/Kg	10-12' bgs 8/3/2018 mg/Kg	1-2' bgs 8/3/2018 mg/Kg	10-12' bgs 8/3/2018 mg/Kg
VOCs per EPA Method: SW8260										
Benzene	120	0.026	0.12	<0.0055	<0.0055	<0.0058	<0.0060	<0.0054	<0.0061	<0.0052
Ethylbenzene	6400	7.6	36.8	<0.0055	<0.0055	<0.0058	<0.0060	<0.0054	<0.0061	<0.0052
m,p-Xylene	N/A	N/A	117	<0.011	<0.011	<0.012	<0.012	<0.011	<0.012	<0.010
o-Xylene	48000	71	117	<0.0055	<0.0055	<0.0058	<0.0060	<0.0054	<0.0061	<0.0052
Toluene	5900	8.2	39.1	<0.0055	<0.0055	<0.0058	<0.0060	<0.0054	<0.0061	<0.0052
Xylenes, Total	6000	120	117	<0.0055	<0.0055	<0.0058	<0.0060	<0.0054	<0.0061	<0.0052

SOIL LABORATORY RESULTS SUMMARY TABLE

ANALYTE	SB-1 1-2' bgs 8/2/2018 pH Units	SB-2 1-2' bgs 8/2/2018 pH Units	SB-3 1-2' bgs 8/2/2018 pH Units	SB-4 1-2' bgs 8/3/2018 pH Units	SB-5 1-2' bgs 8/3/2018 pH Units	SB-5 10-12' bgs 8/3/2018 pH Units	SB-6 1-2' bgs 8/3/2018 pH Units	SB-6 10-12' bgs 8/3/2018 pH Units	SB-7 1-2' bgs 8/3/2018 pH Units	SB-7 10-12' bgs 8/3/2018 pH Units
pH per EPA Method: SW9045										
pH	5.18	4.78	4.99	6.20	6.95	8.09	7.33	8.0	7.47	8.5

ANALYTE	Texas RRC Health-Based Level mg/Kg	SB-4 1-2' bgs 8/3/2018 mg/Kg	SB-5 1-2' bgs 8/3/2018 mg/Kg	SB-5 10-12' bgs 8/3/2018 mg/Kg	SB-6 1-2' bgs 8/3/2018 mg/Kg	SB-6 10-12' bgs 8/3/2018 mg/Kg	SB-7 1-2' bgs 8/3/2018 mg/Kg	SB-7 10-12' bgs 8/3/2018 mg/Kg
Chloride per EPA Method: E300								
Chloride	3000	16.5	56.2	78.2	74.9	108	<6.7	<6.4

ANALYTE	TRRP Tier 1 PCLs ^{GW} GW _{ING} mg/L	TMW-1 8/2/2018 mg/L	TMW-2 8/2/2018 mg/L	TMW-3 8/2/2018 mg/L
Priority Pollutant Metals per EPA Methods: SW6020 and SW7470				
Antimony	0.006	<0.002	<0.002	<0.002
Arsenic	0.01	<0.002	<0.002	<0.002
Beryllium	0.004	<0.002	<0.002	<0.002
Cadmium	0.005	<0.002	<0.002	<0.002
Chromium	0.1	<0.004	<0.004	<0.004
Copper	1.3	<0.002	<0.002	<0.002
Lead	0.015	<0.002	<0.002	<0.002
Nickel	0.49	0.00722	0.00982	0.00858
Selenium	0.05	<0.002	<0.002	<0.002
Silver	0.12	<0.002	<0.002	<0.002
Thallium	0.002	<0.002	<0.002	<0.002
Zinc	7.3	0.0129	0.00640	0.00959
Mercury	0.002	<0.0002	<0.0002	0.000236

ANALYTE	TRRP Tier 1 PCLs ^{GW} GW _{ING} mg/L	TMW-4 8/3/2018 mg/L	TMW-5 8/3/2018 mg/L	TMW-6 8/3/2018 mg/L	TMW-7 8/3/2018 mg/L
Metals per EPA Method: SW6020					
Barium	2	0.0201	0.0381	0.0507	0.195
Lead	0.015	<0.002	<0.002	<0.002	0.0163

GROUNDWATER LABORATORY RESULTS SUMMARY TABLE

ANALYTE	TRRP Tier 1 PCLs GW _{ING} mg/L	TMW-1 8/2/2018 mg/L	TMW-2 8/2/2018 mg/L	TMW-3 8/2/2018 mg/L	TMW-4 8/3/2018 mg/L	TMW-5 8/3/2018 mg/L	TMW-6 8/3/2018 mg/L	TMW-7 8/3/2018 mg/L
TPH per Texas Method: TX1005								
>nC12 to nC28	0.98	<0.50	<0.49	<0.48	<0.48	<0.48	<0.49	<0.48
>nC28 to nC35	0.98	<0.50	<0.49	1.6	<0.48	<0.48	<0.49	<0.48
nC6 to nC12	0.98	<0.50	<0.49	<0.48	<0.48	<0.48	<0.49	<0.48

ANALYTE	TRRP Tier 1 PCLs ^{GW} GW _{ING} mg/L	TMW-3 8/2/2018 mg/L
TPH per Texas Method: TX1006		
Aliphatics nC6	1.5	<0.966
Aliphatics >nC10 to nC12	2.4	<0.966
Aliphatics >nC12 to nC16	2.4	<0.966
Aliphatics >nC16 to nC21	49	<0.966
Aliphatics >nC21 to nC35	49	<0.966
Aliphatics >nC6 to nC8	1.5	<0.966
Aliphatics >nC8 to nC10	2.4	<0.966
Aliphatics Relative % Distribution	N/A	0
Aromatics >nC10 to nC12	0.98	<0.966
Aromatics >nC12 to nC16	0.98	<0.966
Aromatics >nC16 to nC21	0.73	<0.966
Aromatics >nC21 to nC35	0.73	<0.966
Aromatics >nC7 to nC8	2.4	<0.966
Aromatics >nC8 to nC10	0.98	<0.966
Aromatics Relative % Distribution	N/A	0
Total Petroleum Hydrocarbons		<0.966

ANALYTE	Texas RRC Health-Based Level mg/L	TMW-4 8/3/2018 mg/L	TMW-5 8/3/2018 mg/L	TMW-6 8/3/2018 mg/L	TMW-7 8/3/2018 mg/L
Chloride per EPA Method: E300					
Chloride	300	946	933	950	338



Phase Engineering, Inc.
 5524 Cornioosh Street
 Houston, Texas 77007
 Telephone: 832-485-2238
 Fax: 713-476-9797

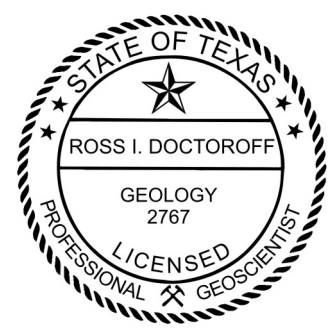
BORING NUMBER SB-1/TMW-1

CLIENT Parigi Property Management, Ltd. **PROJECT NAME** _____
PROJECT NUMBER 201807111 **PROJECT LOCATION** Interstate Highway 10 and Major Drive, Beaumont, Tex
DATE STARTED 8/2/18 **COMPLETED** 8/2/18 **GROUND ELEVATION** _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR MEDI **GROUND WATER LEVELS:**
DRILLING METHOD Push Core **AT TIME OF DRILLING** ---
LOGGED BY Ronny Alvarado **CHECKED BY** Ross Doctoroff **AT END OF DRILLING** ---
NOTES _____ **▼ AFTER DRILLING** 15.03 ft

ENVIRONMENTAL BH - GINT STD US LAB.GDT - 8/14/18 11:46 - F:\USERS\ROSS\DESKTOP\PHASE 2 STUFF\SOIL BORING LOGS\INTERSTATE 10 AND MAJOR.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						
0 - 1.0	ST		PID = 0		1.0 topsoil (CL-ML) dark gray/olive gray/yellowish orange silty clay; medium stiff; moist	
1.0 - 27.0			PID = 0			3/4" solid PVC riser
27.0 - 27.5			PID = 0		27.0 27.5 (SC) yellowish orange clayey sily; soft; moist	
27.5 - 34.0			PID = 0		(CL-ML) light brown/light gray silty clay; very stiff; moist	3/4" 0.010 gauge slotted PVC
34.0			PID = 0		Bottom of borehole at 34.0 feet.	

Ross Doctoroff
 8/14/2018

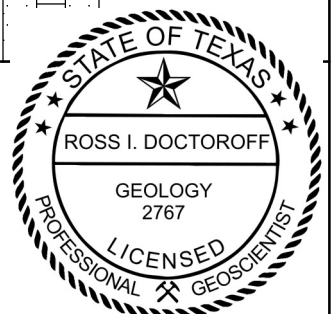


CLIENT Parigi Property Management, Ltd. **PROJECT NAME** _____
PROJECT NUMBER 201807111 **PROJECT LOCATION** Interstate Highway 10 and Major Drive, Beaumont, Tex
DATE STARTED 8/2/18 **COMPLETED** 8/2/18 **GROUND ELEVATION** _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR MEDI **GROUND WATER LEVELS:**
DRILLING METHOD Push Core **AT TIME OF DRILLING** ---
LOGGED BY Ronny Alvarado **CHECKED BY** Ross Doctoroff **AT END OF DRILLING** ---
NOTES _____ **▼ AFTER DRILLING** 3.96 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						
0 - 1.0	ST		PID = 0		1.0 topsoil (CL-ML) light to dark gray/yellowish orange silty clay; soft to stiff; moist	
1.0 - 24.0			PID = 0			3/4" solid PVC riser
24.0 - 26.0			PID = 0		24.0 (CL) yellowish orange/light gray sandy clay; stiff; moist	
26.0 - 48.0			PID = 0		26.0 (CL) yellowish orange/light gray sandy clay; very stiff; moist	3/4" 0.010 gauge slotted PVC
48.0			PID = 0			

Bottom of borehole at 48.0 feet.

Ross Doctoroff
8/14/2018



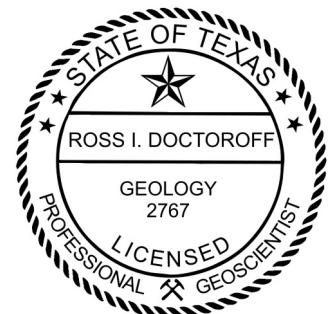
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CLIENT Parigi Property Management, Ltd. **PROJECT NAME** _____
PROJECT NUMBER 201807111 **PROJECT LOCATION** Interstate Highway 10 and Major Drive, Beaumont, Tex
DATE STARTED 8/2/18 **COMPLETED** 8/2/18 **GROUND ELEVATION** _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR MEDI **GROUND WATER LEVELS:**
DRILLING METHOD Push Core **AT TIME OF DRILLING** ---
LOGGED BY Ronny Alvarado **CHECKED BY** Ross Doctoroff **AT END OF DRILLING** ---
NOTES _____ **▼ AFTER DRILLING** 29.78 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0	ST					
1.0			PID = 0		topsoil (CL-ML) light to dark gray/olive gray/yellowish orange silty clay; medium stiff to stiff; moist	
			PID = 0			
			PID = 0			
			PID = 0			
			PID = 0			
			PID = 0			
24.0			PID = 0		(CL) light gray sandy clay; stiff; moist	3/4" solid PVC riser
			PID = 0			
29.0			PID = 0		(CL-ML) light brown/light gray/yellowis orange silty clay; stiff; moist	3/4" 0.010 gauge slotted PVC
			PID = 0			
			PID = 0			
40.0			PID = 0			

Bottom of borehole at 40.0 feet.

Ross Doctoroff
8/14/2018



ENVIRONMENTAL BH - GINT STD US LAB.GDT - 8/14/18 11:46 - F:\USERS\ROSS\DESKTOP\PHASE 2 STUFF\SOIL BORING LOGS\INTERSTATE 10 AND MAJOR.GPJ



Phase Engineering, Inc.
 5524 Corniash Street
 Houston, Texas 77007
 Telephone: 832-485-2238
 Fax: 713-476-9797

BORING NUMBER SB-4/TMW-4

CLIENT Parigi Property Management, Ltd. **PROJECT NAME** _____

PROJECT NUMBER 201807111 **PROJECT LOCATION** Interstate Highway 10 and Major Drive, Beaumont, Tex

DATE STARTED 8/2/18 **COMPLETED** 8/2/18 **GROUND ELEVATION** _____ **HOLE SIZE** 2" inches

DRILLING CONTRACTOR MEDI **GROUND WATER LEVELS:**

DRILLING METHOD Push Core **AT TIME OF DRILLING** ---

LOGGED BY Ronny Alvarado **CHECKED BY** Ross Doctoroff **AT END OF DRILLING** ---

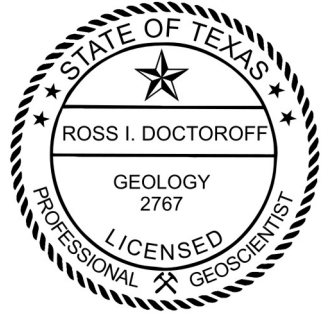
NOTES _____ **▼ AFTER DRILLING** 3.75 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0	ST				1.0 topsoil (CL-ML) light to dark gray/olive gray/yellowish orange silty clay; medium stiff to stiff; moist	
10			PID = 0			
20			PID = 0			
30			PID = 0			
40			PID = 0			






Bottom of borehole at 40.0 feet.

ENVIRONMENTAL BH - GINT STD US LAB.GDT - 8/14/18 11:46 - F:\USERS\ROSS\DESKTOP\PHASE 2 STUFF\SOIL BORING LOGS\INTERSTATE 10 AND MAJOR.GPJ

Ross Doctoroff
 8/14/2018

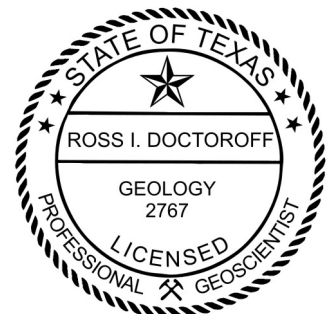


CLIENT Parigi Property Management, Ltd. **PROJECT NAME** _____
PROJECT NUMBER 201807111 **PROJECT LOCATION** Interstate Highway 10 and Major Drive, Beaumont, Tex
DATE STARTED 8/3/18 **COMPLETED** 8/3/18 **GROUND ELEVATION** _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR MEDI **GROUND WATER LEVELS:**
DRILLING METHOD Push Core **AT TIME OF DRILLING** ---
LOGGED BY Ronny Alvarado **CHECKED BY** Ross Doctoroff **AT END OF DRILLING** ---
NOTES _____ **▼ AFTER DRILLING** 29.00 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						
0 - 10	ST		PID = 0		1.0 topsoil (CL-ML) light gray/olive gray/yellowish orange/light brown silty clay; stiff to very stiff; moist	
10 - 20	ST		PID = 0			3/4" solid PVC riser
20 - 30			PID = 0			
30 - 40			PID = 0			3/4" 0.010 gauge slotted PVC
40			PID = 0			

Bottom of borehole at 40.0 feet.

Ross Doctoroff
8/14/2018



ENVIRONMENTAL BH - GINT STD US LAB.GDT - 8/14/18 11:46 - F:\USERS\ROSS\DESKTOP\PHASE 2 STUFF\SOIL BORING LOGS\INTERSTATE 10 AND MAJOR.GPJ



Phase Engineering, Inc.
 5524 Corniosh Street
 Houston, Texas 77007
 Telephone: 832-485-2238
 Fax: 713-476-9797

BORING NUMBER SB-6/TMW-6

CLIENT Parigi Property Management, Ltd. **PROJECT NAME** _____

PROJECT NUMBER 201807111 **PROJECT LOCATION** Interstate Highway 10 and Major Drive, Beaumont, Tex

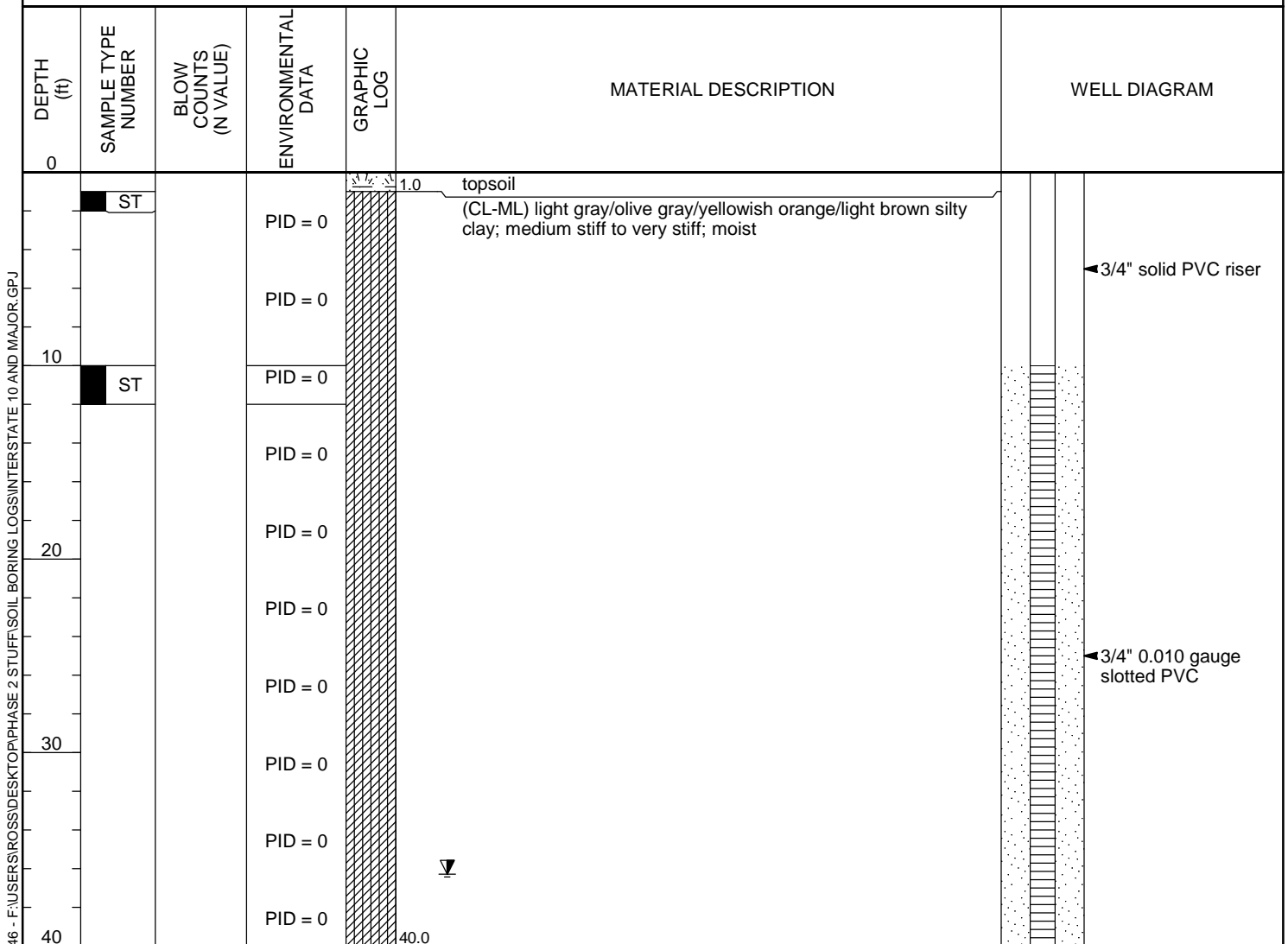
DATE STARTED 8/3/18 **COMPLETED** 8/3/18 **GROUND ELEVATION** _____ **HOLE SIZE** 2" inches

DRILLING CONTRACTOR MEDI **GROUND WATER LEVELS:**

DRILLING METHOD Push Core **AT TIME OF DRILLING** ---

LOGGED BY Ronny Alvarado **CHECKED BY** Ross Doctoroff **AT END OF DRILLING** ---

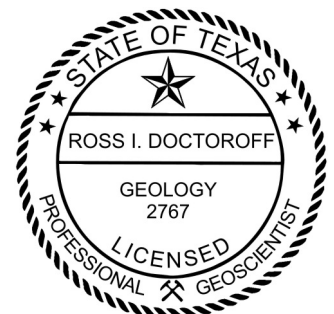
NOTES _____ **▼ AFTER DRILLING** 36.29 ft



Bottom of borehole at 40.0 feet.


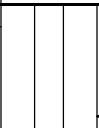

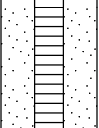



Ross Doctoroff

8/14/2018



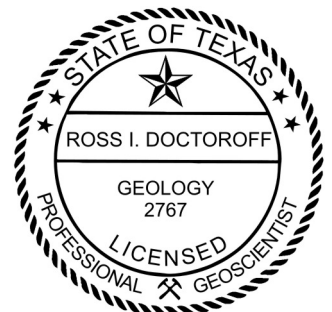
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CLIENT Parigi Property Management, Ltd. **PROJECT NAME** _____
PROJECT NUMBER 201807111 **PROJECT LOCATION** Interstate Highway 10 and Major Drive, Beaumont, Tex
DATE STARTED 8/3/18 **COMPLETED** 8/3/18 **GROUND ELEVATION** _____ **HOLE SIZE** 2" inches
DRILLING CONTRACTOR MEDI **GROUND WATER LEVELS:**
DRILLING METHOD Push Core **AT TIME OF DRILLING** ---
LOGGED BY Ronny Alvarado **CHECKED BY** Ross Doctoroff **AT END OF DRILLING** ---
NOTES _____ **▼ AFTER DRILLING** 37.28 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						
0 - 10	ST		PID = 0		1.0 topsoil (CL-ML) light gray/olive gray/yellowish orange/light brown silty clay; soft to very stiff; moist	
10 - 20	ST		PID = 0			
20 - 30			PID = 0			
30 - 40			PID = 0			
40			PID = 0			

Bottom of borehole at 40.0 feet.

Ross Doctoroff
8/14/2018



ENVIRONMENTAL BH - GINT STD US LAB.GDT - 8/14/18 11:46 - F:\USERS\ROSS\DESKTOP\PHASE 2 STUFF\SOIL BORING LOGS\INTERSTATE 10 AND MAJOR.GPJ



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
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August 16, 2018

Ross Doctoroff
Phase Engineering, Inc.
5524 Cornish Street
Houston, TX 77007

Work Order: **HS18080603**

Laboratory Results for: **I-10 & Major Drive (South Side)**

Dear Ross,

ALS Environmental received 6 sample(s) on Aug 13, 2018 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Bernadette A. Fini
Project Manager

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
Work Order: HS18080603

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18080603-01	SB-1 1-2	Soil	HS1808024 4-01 B	02-Aug-2018 08:45	13-Aug-2018 09:58	<input type="checkbox"/>
HS18080603-02	SB-2 1-2	Soil	HS1808024 4-02 B	02-Aug-2018 09:45	13-Aug-2018 09:58	<input type="checkbox"/>
HS18080603-03	SB-3 1-2	Soil	HS1808024 4-03 B	02-Aug-2018 12:00	13-Aug-2018 09:58	<input type="checkbox"/>
HS18080603-04	TMW-1	Water	HS1808024 4-04 A	02-Aug-2018 13:15	13-Aug-2018 09:58	<input type="checkbox"/>
HS18080603-05	TMW-2	Water	HS1808024 4-05 A	02-Aug-2018 13:45	13-Aug-2018 09:58	<input type="checkbox"/>
HS18080603-06	TMW-3	Water	HS1808024 4-06 A	02-Aug-2018 14:15	13-Aug-2018 09:58	<input type="checkbox"/>

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
Work Order: HS18080603

CASE NARRATIVE

Work Order Comments

- This report contains additional analyses per your request on August 13, 2018 via email. The laboratory analyzed your samples for the following:

All soil for SPLP Lead
All waters for BTEX
TMW-3 for TPH TX1006

The sample was originally reported as ALS Work order Number HS18080244.

GC Semivolatiles by Method TX1006

Batch ID: 131517

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260

Batch ID: R321635

Sample ID: VLCSW-180813

- MS/MSD were not analyzed due to auto sampler malfunction. LCS and LCSD provided.

Metals by Method SW6020

Batch ID: 131451

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: SB-1 1-2
 Collection Date: 02-Aug-2018 08:45

ANALYTICAL REPORT

WorkOrder:HS18080603
 Lab ID:HS18080603-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
SPL METALS BY SW6020A		Method:SW6020	Leache:SW1312 / 14-Aug-2018	Prep:SW3010A / 14-Aug-2018		Analyst: JDE
Lead	ND		0.00500	mg/L	1	15-Aug-2018 14:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: SB-2 1-2
 Collection Date: 02-Aug-2018 09:45

ANALYTICAL REPORT

WorkOrder:HS18080603
 Lab ID:HS18080603-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
SPL METALS BY SW6020A		Method:SW6020	Leache:SW1312 / 14-Aug-2018	Prep:SW3010A / 14-Aug-2018		Analyst: JDE
Lead	ND		0.00500	mg/L	1	15-Aug-2018 14:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: SB-3 1-2
 Collection Date: 02-Aug-2018 12:00

ANALYTICAL REPORT

WorkOrder:HS18080603
 Lab ID:HS18080603-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
SPL METALS BY SW6020A		Method:SW6020	Leache:SW1312 / 14-Aug-2018	Prep:SW3010A / 14-Aug-2018		Analyst: JDE
Lead	ND		0.00500	mg/L	1	15-Aug-2018 14:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: TMW-1
 Collection Date: 02-Aug-2018 13:15

ANALYTICAL REPORT
 WorkOrder:HS18080603
 Lab ID:HS18080603-04
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: AKP
Benzene	ND		0.0010	mg/L	1	13-Aug-2018 14:57
Ethylbenzene	ND		0.0010	mg/L	1	13-Aug-2018 14:57
m,p-Xylene	ND		0.0020	mg/L	1	13-Aug-2018 14:57
o-Xylene	ND		0.0010	mg/L	1	13-Aug-2018 14:57
Toluene	ND		0.0010	mg/L	1	13-Aug-2018 14:57
Xylenes, Total	ND		0.0010	mg/L	1	13-Aug-2018 14:57
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>105</i>		<i>70-126</i>	<i>%REC</i>	<i>1</i>	<i>13-Aug-2018 14:57</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>88.6</i>		<i>81-113</i>	<i>%REC</i>	<i>1</i>	<i>13-Aug-2018 14:57</i>
<i>Surr: Dibromofluoromethane</i>	<i>104</i>		<i>77-123</i>	<i>%REC</i>	<i>1</i>	<i>13-Aug-2018 14:57</i>
<i>Surr: Toluene-d8</i>	<i>100</i>		<i>82-127</i>	<i>%REC</i>	<i>1</i>	<i>13-Aug-2018 14:57</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: TMW-2
 Collection Date: 02-Aug-2018 13:45

ANALYTICAL REPORT
 WorkOrder:HS18080603
 Lab ID:HS18080603-05
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: AKP
Benzene	ND		0.0010	mg/L	1	13-Aug-2018 15:23
Ethylbenzene	ND		0.0010	mg/L	1	13-Aug-2018 15:23
m,p-Xylene	ND		0.0020	mg/L	1	13-Aug-2018 15:23
o-Xylene	ND		0.0010	mg/L	1	13-Aug-2018 15:23
Toluene	ND		0.0010	mg/L	1	13-Aug-2018 15:23
Xylenes, Total	ND		0.0010	mg/L	1	13-Aug-2018 15:23
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>110</i>		<i>70-126</i>	<i>%REC</i>	<i>1</i>	<i>13-Aug-2018 15:23</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>90.2</i>		<i>81-113</i>	<i>%REC</i>	<i>1</i>	<i>13-Aug-2018 15:23</i>
<i>Surr: Dibromofluoromethane</i>	<i>109</i>		<i>77-123</i>	<i>%REC</i>	<i>1</i>	<i>13-Aug-2018 15:23</i>
<i>Surr: Toluene-d8</i>	<i>102</i>		<i>82-127</i>	<i>%REC</i>	<i>1</i>	<i>13-Aug-2018 15:23</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: TMW-3
 Collection Date: 02-Aug-2018 14:15

ANALYTICAL REPORT
 WorkOrder:HS18080603
 Lab ID:HS18080603-06
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: AKP
Benzene	ND		0.0010	mg/L	1	13-Aug-2018 15:48
Ethylbenzene	ND		0.0010	mg/L	1	13-Aug-2018 15:48
m,p-Xylene	ND		0.0020	mg/L	1	13-Aug-2018 15:48
o-Xylene	ND		0.0010	mg/L	1	13-Aug-2018 15:48
Toluene	ND		0.0010	mg/L	1	13-Aug-2018 15:48
Xylenes, Total	ND		0.0010	mg/L	1	13-Aug-2018 15:48
Surr: 1,2-Dichloroethane-d4	110		70-126	%REC	1	13-Aug-2018 15:48
Surr: 4-Bromofluorobenzene	90.2		81-113	%REC	1	13-Aug-2018 15:48
Surr: Dibromofluoromethane	105		77-123	%REC	1	13-Aug-2018 15:48
Surr: Toluene-d8	101		82-127	%REC	1	13-Aug-2018 15:48
NC6 TO NC35 PETROLEUM HYDROCARBONS BY TX1006		Method:TX1006			Prep:TX1006PR / 15-Aug-2018	Analyst: MBG
Aliphatics nC6	ND	n	0.966	mg/L	1	15-Aug-2018 21:26
Aliphatics >nC6 to nC8	ND	n	0.966	mg/L	1	15-Aug-2018 21:26
Aliphatics >nC8 to nC10	ND	n	0.966	mg/L	1	15-Aug-2018 21:26
Aliphatics >nC10 to nC12	ND	n	0.966	mg/L	1	15-Aug-2018 21:26
Aliphatics >nC12 to nC16	ND	n	0.966	mg/L	1	15-Aug-2018 21:26
Aliphatics >nC16 to nC21	ND	n	0.966	mg/L	1	15-Aug-2018 21:26
Aliphatics >nC21 to nC35	ND	n	0.966	mg/L	1	15-Aug-2018 21:26
Total Aliphatic Fraction	ND	n	0.966	mg/L	1	15-Aug-2018 21:26
Aliphatics Relative % Distribution	0	n	0	%	1	15-Aug-2018 21:26
Aromatics >nC7 to nC8	ND	n	0.966	mg/L	1	15-Aug-2018 23:22
Aromatics >nC8 to nC10	ND	n	0.966	mg/L	1	15-Aug-2018 23:22
Aromatics >nC10 to nC12	ND	n	0.966	mg/L	1	15-Aug-2018 23:22
Aromatics >nC12 to nC16	ND	n	0.966	mg/L	1	15-Aug-2018 23:22
Aromatics >nC16 to nC21	ND	n	0.966	mg/L	1	15-Aug-2018 23:22
Aromatics >nC21 to nC35	ND	n	0.966	mg/L	1	15-Aug-2018 23:22
Total Aromatic Fraction	ND	n	0.966	mg/L	1	15-Aug-2018 23:22
Aromatics Relative % Distribution	0	n	0	%	1	15-Aug-2018 23:22
Total Petroleum Hydrocarbons	ND	n	0.966	mg/L	1	15-Aug-2018 21:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080603

Batch ID: 131451 **Method:** SPLP METALS BY SW6020A **Prep:** 3010A_SPLP

SamplID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080603-01	1	10	10 (mL)	1
HS18080603-02	1	10	10 (mL)	1
HS18080603-03	1	10	10 (mL)	1

Batch ID: 131517 **Method:** NC6 TO NC35 PETROLEUM HYDROCARBONS BY TX1006 **Prep:** TX 1006_W PR

SamplID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080603-06	1	31.05	3 (mL)	0.09662

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080603

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 131451		Test Name : SPLP METALS BY SW6020A		Matrix: Soil		
HS18080603-01	SB-1 1-2	02 Aug 2018 08:45	14 Aug 2018 08:00	14 Aug 2018 09:47	15 Aug 2018 14:51	1
HS18080603-02	SB-2 1-2	02 Aug 2018 09:45	14 Aug 2018 08:00	14 Aug 2018 09:47	15 Aug 2018 14:53	1
HS18080603-03	SB-3 1-2	02 Aug 2018 12:00	14 Aug 2018 08:00	14 Aug 2018 09:47	15 Aug 2018 14:55	1
Batch ID 131517		Test Name : NC6 TO NC35 PETROLEUM HYDROCARBONS BY TX1006		Matrix: Water		
HS18080603-06	TMW-3	02 Aug 2018 14:15		15 Aug 2018 14:59	15 Aug 2018 23:22	1
HS18080603-06	TMW-3	02 Aug 2018 14:15		15 Aug 2018 14:59	15 Aug 2018 21:26	1
Batch ID R321635		Test Name : LOW LEVEL VOLATILES BY SW8260C		Matrix: Water		
HS18080603-04	TMW-1	02 Aug 2018 13:15			13 Aug 2018 14:57	1
HS18080603-05	TMW-2	02 Aug 2018 13:45			13 Aug 2018 15:23	1
HS18080603-06	TMW-3	02 Aug 2018 14:15			13 Aug 2018 15:48	1

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080603

QC BATCH REPORT

Batch ID: 131517	Instrument: FID-10	Method: TX1006
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MBLK	Sample ID: MBLK-131517	Units: mg/L	Analysis Date: 15-Aug-2018 20:00							
Client ID:	Run ID: FID-10_321784	SeqNo: 4694719	PrepDate: 15-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aliphatics nC6	ND	1.00								
Aliphatics >nC6 to nC8	ND	1.00								
Aliphatics >nC8 to nC10	ND	1.00								
Aliphatics >nC10 to nC12	ND	1.00								
Aliphatics >nC12 to nC16	ND	1.00								
Aliphatics >nC16 to nC21	ND	1.00								
Aliphatics >nC21 to nC35	ND	1.00								
Total Aliphatic Fraction	ND	1.00								
Aliphatics Relative % Distribution			0							
Total Petroleum Hydrocarbons	ND	1.00								

MBLK	Sample ID: MBLK-131517	Units: mg/L	Analysis Date: 15-Aug-2018 21:55							
Client ID:	Run ID: FID-10_321787	SeqNo: 4694732	PrepDate: 15-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aromatics >nC7 to nC8	ND	1.00								
Aromatics >nC8 to nC10	ND	1.00								
Aromatics >nC10 to nC12	ND	1.00								
Aromatics >nC12 to nC16	ND	1.00								
Aromatics >nC16 to nC21	ND	1.00								
Aromatics >nC21 to nC35	ND	1.00								
Total Aromatic Fraction	ND	1.00								
Aromatics Relative % Distribution			0							

LCS	Sample ID: LCS-131517	Units: mg/L	Analysis Date: 15-Aug-2018 20:29							
Client ID:	Run ID: FID-10_321784	SeqNo: 4694720	PrepDate: 15-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Petroleum Hydrocarbons	47.2	1.00	50	0	94.4	60 - 140				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080603

QC BATCH REPORT

Batch ID: 131517	Instrument: FID-10	Method: TX1006
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LCSD	Sample ID: LCSD-131517	Units: mg/L	Analysis Date: 15-Aug-2018 20:58							
Client ID:	Run ID: FID-10_321784	SeqNo: 4694721	PrepDate: 15-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Petroleum Hydrocarbons	43.57	1.00	50	0	87.1	60 - 140	47.2	8	30
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The following samples were analyzed in this batch: HS18080603-06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080603

QC BATCH REPORT

Batch ID: 131451		Instrument: ICPMS05			Method: SW6020				
MBLK	Sample ID: MBLKP2-131451	Units: mg/L			Analysis Date: 15-Aug-2018 14:01				
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693477		PrepDate: 14-Aug-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Lead	ND	0.00500							
MBLK	Sample ID: MBLKP1-131451	Units: mg/L			Analysis Date: 15-Aug-2018 13:59				
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693476		PrepDate: 14-Aug-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Lead	ND	0.00500							
MBLK	Sample ID: MBLK-131451	Units: mg/L			Analysis Date: 15-Aug-2018 14:03				
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693478		PrepDate: 14-Aug-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Lead	ND	0.00500							
LCS	Sample ID: LCS-131451	Units: mg/L			Analysis Date: 15-Aug-2018 14:05				
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693479		PrepDate: 14-Aug-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Lead	0.04663	0.00500	0.05	0	93.3	80 - 120			
MS	Sample ID: HS18080544-03MS	Units: mg/L			Analysis Date: 15-Aug-2018 14:33				
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693493		PrepDate: 14-Aug-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Lead	0.04789	0.00500	0.05	0.000082	95.6	80 - 120			
MSD	Sample ID: HS18080544-03MSD	Units: mg/L			Analysis Date: 15-Aug-2018 14:35				
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693494		PrepDate: 14-Aug-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Lead	0.04707	0.00500	0.05	0.000082	94.0	80 - 120	0.04789	1.72	20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080603

QC BATCH REPORT

Batch ID: 131451	Instrument: ICPMS05	Method: SW6020
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PDS	Sample ID: HS18080544-03PDS	Units: mg/L	Analysis Date: 15-Aug-2018 14:37							
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693495	PrepDate: 14-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Lead	0.09706	0.00500	0.1	0.000082	97.0	75 - 125
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SD	Sample ID: HS18080544-03SD	Units: mg/L	Analysis Date: 15-Aug-2018 14:31							
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693492	PrepDate: 14-Aug-2018 DF: 5							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	RPD Limit	Qual

Lead	ND	0.0250					0.000082	0	10
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The following samples were analyzed in this batch:

HS18080603-01	HS18080603-02	HS18080603-03
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Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080603

QC BATCH REPORT

Batch ID: R321635		Instrument: VOA4		Method: SW8260					
MBLK	Sample ID: VBLKW-180813	Units: ug/L			Analysis Date: 13-Aug-2018 12:49				
Client ID:	Run ID: VOA4_321635	SeqNo: 4691179		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	ND	1.0							
Ethylbenzene	ND	1.0							
m,p-Xylene	ND	2.0							
o-Xylene	ND	1.0							
Toluene	ND	1.0							
Xylenes, Total	ND	1.0							
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>52.58</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>70 - 123</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>44.75</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>89.5</i>	<i>82 - 115</i>			
<i>Surr: Dibromofluoromethane</i>	<i>50.6</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>73 - 126</i>			
<i>Surr: Toluene-d8</i>	<i>51.71</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>81 - 120</i>			

LCS	Sample ID: VLCSW-180813	Units: ug/L			Analysis Date: 13-Aug-2018 11:08				
Client ID:	Run ID: VOA4_321635	SeqNo: 4691176		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	50.53	1.0	50	0	101	74 - 120			
Ethylbenzene	48.67	1.0	50	0	97.3	77 - 117			
m,p-Xylene	91.6	2.0	100	0	91.6	77 - 122			
o-Xylene	46.5	1.0	50	0	93.0	75 - 119			
Toluene	51.59	1.0	50	0	103	77 - 118			
Xylenes, Total	138.1	1.0	150	0	92.1	75 - 122			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>52.49</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>70 - 130</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.61</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>82 - 115</i>			
<i>Surr: Dibromofluoromethane</i>	<i>53.93</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>73 - 126</i>			
<i>Surr: Toluene-d8</i>	<i>47.99</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>96.0</i>	<i>81 - 120</i>			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080603

QC BATCH REPORT

Batch ID: R321635		Instrument: VOA4		Method: SW8260					
LCSD	Sample ID: VLCS DW-180813	Units: ug/L			Analysis Date: 13-Aug-2018 11:59				
Client ID:	Run ID: VOA4_321635	SeqNo: 4691178		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	48.79	1.0	50	0	97.6	74 - 120	50.53	3.51	20
Ethylbenzene	45.61	1.0	50	0	91.2	77 - 117	48.67	6.49	20
m,p-Xylene	83.73	2.0	100	0	83.7	77 - 122	91.6	8.98	20
o-Xylene	43.46	1.0	50	0	86.9	75 - 119	46.5	6.75	20
Toluene	48.53	1.0	50	0	97.1	77 - 118	51.59	6.12	20
Xylenes, Total	127.2	1.0	150	0	84.8	75 - 122	138.1	8.22	20
<i>Surr: 1,2-Dichloroethane-d4</i>	53.27	1.0	50	0	107	70 - 130	52.49	1.48	20
<i>Surr: 4-Bromofluorobenzene</i>	52.33	1.0	50	0	105	82 - 115	52.61	0.539	20
<i>Surr: Dibromofluoromethane</i>	54.67	1.0	50	0	109	73 - 126	53.93	1.37	20
<i>Surr: Toluene-d8</i>	47.08	1.0	50	0	94.2	81 - 120	47.99	1.92	20

The following samples were analyzed in this batch: HS18080603-04 HS18080603-05 HS18080603-06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080603

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
Date	
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Oklahoma	2017-088	31-Aug-2018
North Carolina	624-2018	31-Dec-2018
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	L2231 Rev 3-30-2018	22-Dec-2018
Kentucky	123043 - 2018	30-Apr-2019
Kansas	E-10352 2018-2019	31-Jul-2019

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
Work Order: HS18080603

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS18080603-01	SB-1 1-2	Login	8/13/2018 11:34:45 AM	JRM	SPA302
HS18080603-01	SB-1 1-2	Login	8/13/2018 11:34:45 AM	JRM	LF055
HS18080603-02	SB-2 1-2	Login	8/13/2018 11:34:45 AM	JRM	SPA302
HS18080603-02	SB-2 1-2	Login	8/13/2018 11:34:45 AM	JRM	LF055
HS18080603-03	SB-3 1-2	Login	8/13/2018 11:34:45 AM	JRM	SPA302
HS18080603-03	SB-3 1-2	Login	8/13/2018 11:34:45 AM	JRM	LF055
HS18080603-04	TMW-1	Login	8/13/2018 11:34:45 AM	JRM	MET082
HS18080603-04	TMW-1	Login	8/13/2018 11:34:45 AM	JRM	TPH010
HS18080603-05	TMW-2	Login	8/13/2018 11:34:45 AM	JRM	MET082
HS18080603-05	TMW-2	Login	8/13/2018 11:34:45 AM	JRM	TPH010
HS18080603-06	TMW-3	Login	8/13/2018 11:34:45 AM	JRM	MET082
HS18080603-06	TMW-3	Login	8/13/2018 11:34:45 AM	JRM	TPH010

Sample Receipt Checklist

Client Name: Phase
 Work Order: HS18080603

Date/Time Received: **13-Aug-2018 09:58**
 Received by: **PS**

Checklist completed by: Jared R. Makan 4-Aug-2018 Reviewed by: Bernadette A. Fini 13-Aug-2018
 eSignature Date eSignature Date

Matrices: **Water, Soil** Carrier name: **ALS Courier**

- 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 present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- TX1005 solids received in hermetically sealed vials? Yes No N/A
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 0.7c/0.4c, 1.6c/1.3c UC/C IR25
 Cooler(s)/Kit(s): 44196, 24888
 Date/Time sample(s) sent to storage: 08/03/2018 19:51

- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH acceptable upon receipt? Yes No N/A
- pH adjusted? Yes No N/A
- pH adjusted by:

Login Notes: **Re-log 08/13/18**

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



Cincinnati, OH
+1 513 733 5336

Fort Collins, CO
+1 970 490 1511

Everett, WA
+1 425 356 2600

Holland, MI
+1 616 399 6070

Chain of Custody

Page 1 of 3

COC ID: 1866

HS18080603

Phase Engineering, Inc.
I-10 & Major Drive (South Side)



Customer Information		Project Information		ALS Project Manager	
Purchase Order	201807111 (South Side)	Project Name	I-10 & Major Drive	A	TX1005_S_REV3 (5035/Texas TPH TX1005)
Work Order		Project Number	Beaumont, TX	B	ICP_S_Low (PP Metals + Hg)
Company Name	Phase Engineering, Inc.	Bill To Company	Phase Engineering, Inc.	C	MOIST_SW3550
Send Report To	Ross Doctoroff	Invoice Attn	Claudia Pedroza-AP	D	PH_S (pH)
Address	5524 Cornish Street	Address	5524 Cornish Street	E	ICP_TW (PP Metals + Hg)
City/State/Zip	Houston, TX 77007	City/State/Zip	Houston TX 77007	F	TX1005_W_Low
Phone	(713) 476-9844	Phone	(713) 476-9844	G	
Fax	(713) 476-9797	Fax	(713) 476-9797	H	
e-Mail Address	ross@PhaseEngineering.com	e-Mail Address	Claudia@phaseengineering.com	I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-1 1-2	8/2/13	0845	S	8,9	3	X	X	X	X							
2	SB-2 1-2	8/2/13	0945	S	8,9	3	X	X	X	X							
3	SB-3 1-2	8/2/13	1200	S	8,9	3	X	X	X	X							
4	TMW-1	8/2/13	1315	w	1,8	4					X	X					
5	TMW-2	8/2/13	1345	w	1,8	4					X	X					
6	TMW-3	8/2/13	1415	w	1,8	4					X	X					
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: *Ronny Ayarza* / *Phong Phanh*

Relinquished by: *Ronny Ayarza* Date: 8/3/13 Time: 1515

Received by: *Phong Phanh* Date: 8/3/13 Time: 1515

Relinquished by (Laboratory): *Phong Phanh* Date: 8/3/13 Time: 1515

Received by (Laboratory): *Phong Phanh* Date: 8/3/13 Time: 1515

Logged by (Laboratory): *Phong Phanh* Date: 8/3/13 Time: 1515

Checked by (Laboratory): *Phong Phanh* Date: 8/3/13 Time: 1515

Shipment Method: _____

Required Turnaround Time: (Check Box) STD 10 Wk Days 5 Wk Days Other _____ 2 Wk Days 24 Hour


Results Due Date: 8-3-13

Notes: Phase South I-10 & Major Drive


Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)
40196	4.0	<input checked="" type="checkbox"/> Level II Std CC
24898	4.6	<input type="checkbox"/> Level III Std QC/Row Date
		<input type="checkbox"/> Level IV SWB4ICLP
		<input type="checkbox"/> Other

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035


Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Rony Alvarez</i>	Company: <i>Phive</i>	


44196 *44196* **AUG 03 2018**

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Rony Alvarez</i>	Company: <i>Phive</i>	

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 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Rony Alvarez</i>	Company: <i>Phive</i>	

24888 **AUG 03 2018**

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Rony Alvarez</i>	Company: <i>Phive</i>	

24888 **AUG 03 2018**



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

August 16, 2018

Ross Doctoroff
Phase Engineering, Inc.
5524 Cornish Street
Houston, TX 77007

Work Order: **HS18080597**

Laboratory Results for: **I-10 & Major Drive (North Side)**

Dear Ross,

ALS Environmental received 3 sample(s) on Aug 13, 2018 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Bernadette A. Fini
Project Manager

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
Work Order: HS18080597

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18080597-01	SB-5 1-2	Soil	HS1808024 6-02 D	03-Aug-2018 08:30	13-Aug-2018 09:38	<input type="checkbox"/>
HS18080597-02	SB-6 1-2	Soil	HS1808024 6-04 D	03-Aug-2018 09:20	13-Aug-2018 09:38	<input type="checkbox"/>
HS18080597-03	SB-7 1-2	Soil	HS1808024 6-06 D	03-Aug-2018 10:20	13-Aug-2018 09:38	<input type="checkbox"/>

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
Work Order: HS18080597

CASE NARRATIVE

Work Order Comments

- This report contains additional analyses per your request on August 13, 2018 via email. The laboratory analyzed your samples for the following:

SPLP:

Barium for:

- SB-6 1-2'

Lead for:

- SB-5 1-2'

- SB-6 1-2'

- SB-7 1-2'

The sample was originally reported as ALS Work order Number HS18080246.

Metals by Method SW6020

Batch ID: 131451

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: SB-5 1-2
 Collection Date: 03-Aug-2018 08:30

ANALYTICAL REPORT

WorkOrder:HS18080597
 Lab ID:HS18080597-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
SPLP METALS BY SW6020A		Method:SW6020	Leache:SW1312 / 14-Aug-2018	Prep:SW3010A / 14-Aug-2018		Analyst: JDE
Lead	ND		0.00500	mg/L	1	15-Aug-2018 14:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: SB-6 1-2
 Collection Date: 03-Aug-2018 09:20

ANALYTICAL REPORT

WorkOrder:HS18080597
 Lab ID:HS18080597-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
SPL METALS BY SW6020A		Method:SW6020	Leache:SW1312 / 14-Aug-2018	Prep:SW3010A / 14-Aug-2018		Analyst: JDE
Barium	0.0215		0.0200	mg/L	1	15-Aug-2018 14:47
Lead	ND		0.00500	mg/L	1	15-Aug-2018 14:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: SB-7 1-2
 Collection Date: 03-Aug-2018 10:20

ANALYTICAL REPORT

WorkOrder:HS18080597
 Lab ID:HS18080597-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
SPL METALS BY SW6020A		Method:SW6020	Leache:SW1312 / 14-Aug-2018	Prep:SW3010A / 14-Aug-2018		Analyst: JDE
Lead	ND		0.00500	mg/L	1	15-Aug-2018 14:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080597

Batch ID: 131451 **Method:** SPLP METALS BY SW6020A **Prep:** 3010A_SPLP

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080597-01	1	10	10 (mL)	1
HS18080597-02	1	10	10 (mL)	1
HS18080597-03	1	10	10 (mL)	1

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080597

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 131451	Test Name : SPLP METALS BY SW6020A		Matrix: Soil			
HS18080597-01	SB-5 1-2	03 Aug 2018 08:30	14 Aug 2018 08:00	14 Aug 2018 09:47	15 Aug 2018 14:41	1
HS18080597-02	SB-6 1-2	03 Aug 2018 09:20	14 Aug 2018 08:00	14 Aug 2018 09:47	15 Aug 2018 14:47	1
HS18080597-03	SB-7 1-2	03 Aug 2018 10:20	14 Aug 2018 08:00	14 Aug 2018 09:47	15 Aug 2018 14:49	1

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080597

QC BATCH REPORT

Batch ID: 131451	Instrument: ICPMS05	Method: SW6020
-------------------------	----------------------------	-----------------------

MBLK	Sample ID: MBLKP2-131451	Units: mg/L	Analysis Date: 15-Aug-2018 14:01							
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693477	PrepDate: 14-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Barium	ND	0.0200								
Lead	ND	0.00500								

MBLK	Sample ID: MBLKP1-131451	Units: mg/L	Analysis Date: 15-Aug-2018 13:59							
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693476	PrepDate: 14-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Barium	ND	0.0200								
Lead	ND	0.00500								

MBLK	Sample ID: MBLK-131451	Units: mg/L	Analysis Date: 15-Aug-2018 14:03							
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693478	PrepDate: 14-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Barium	ND	0.0200								
Lead	ND	0.00500								

LCS	Sample ID: LCS-131451	Units: mg/L	Analysis Date: 15-Aug-2018 14:05							
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693479	PrepDate: 14-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Barium	0.04548	0.0200	0.05	0	91.0	80 - 120				
Lead	0.04663	0.00500	0.05	0	93.3	80 - 120				

MS	Sample ID: HS18080544-03MS	Units: mg/L	Analysis Date: 15-Aug-2018 14:33							
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693493	PrepDate: 14-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Barium	0.1104	0.0200	0.05	0.06369	93.5	80 - 120				
Lead	0.04789	0.00500	0.05	0.000082	95.6	80 - 120				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080597

QC BATCH REPORT

Batch ID: 131451	Instrument: ICPMS05	Method: SW6020
-------------------------	----------------------------	-----------------------

MSD	Sample ID: HS18080544-03MSD	Units: mg/L	Analysis Date: 15-Aug-2018 14:35							
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693494	PrepDate: 14-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1112	0.0200	0.05	0.06369	95.0	80 - 120	0.1104	0.657	20	
Lead	0.04707	0.00500	0.05	0.000082	94.0	80 - 120	0.04789	1.72	20	

PDS	Sample ID: HS18080544-03PDS	Units: mg/L	Analysis Date: 15-Aug-2018 14:37							
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693495	PrepDate: 14-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1507	0.0200	0.1	0.06369	87.0	75 - 125				
Lead	0.09706	0.00500	0.1	0.000082	97.0	75 - 125				

SD	Sample ID: HS18080544-03SD	Units: mg/L	Analysis Date: 15-Aug-2018 14:31							
Client ID:	Run ID: ICPMS05_321710	SeqNo: 4693492	PrepDate: 14-Aug-2018 DF: 5							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Barium	0.06206	0.100					0.06369	0	10	J
Lead	ND	0.0250					0.000082	0	10	

The following samples were analyzed in this batch:

HS18080597-01	HS18080597-02	HS18080597-03
---------------	---------------	---------------

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080597

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
Date	
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Oklahoma	2017-088	31-Aug-2018
North Carolina	624-2018	31-Dec-2018
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	L2231 Rev 3-30-2018	22-Dec-2018
Kentucky	123043 - 2018	30-Apr-2019
Kansas	E-10352 2018-2019	31-Jul-2019

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
Work Order: HS18080597

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS18080597-01	SB-5 1-2	Login	8/13/2018 10:42:02 AM	JRM	VOA034
HS18080597-01	SB-5 1-2	Login	8/13/2018 10:42:02 AM	JRM	SPA302
HS18080597-01	SB-5 1-2	Login	8/13/2018 10:42:02 AM	JRM	LF059
HS18080597-01	SB-5 1-2	Login	8/13/2018 10:42:02 AM	JRM	J011
HS18080597-02	SB-6 1-2	Login	8/13/2018 10:42:02 AM	JRM	VOA034
HS18080597-02	SB-6 1-2	Login	8/13/2018 10:42:02 AM	JRM	SPA302
HS18080597-02	SB-6 1-2	Login	8/13/2018 10:42:02 AM	JRM	LF059
HS18080597-02	SB-6 1-2	Login	8/13/2018 10:42:02 AM	JRM	J011
HS18080597-03	SB-7 1-2	Login	8/13/2018 10:42:02 AM	JRM	VOA034
HS18080597-03	SB-7 1-2	Login	8/13/2018 10:42:02 AM	JRM	SPA302
HS18080597-03	SB-7 1-2	Login	8/13/2018 10:42:02 AM	JRM	LF059
HS18080597-03	SB-7 1-2	Login	8/13/2018 10:42:02 AM	JRM	J011

Sample Receipt Checklist

Client Name: Phase
 Work Order: HS18080597

Date/Time Received: **13-Aug-2018 09:38**
 Received by: **PS**

Checklist completed by: Jared R. Makan 4-Aug-2018 Reviewed by: Bernadette A. Fini 13-Aug-2018
 eSignature Date eSignature Date

Matrices: **Water, Soil** Carrier name: **ALS Courier**

- 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 present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- TX1005 solids received in hermetically sealed vials? Yes No N/A
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 0.7c/0.4c, 1.6c/1.3c UC/C IR25
 Cooler(s)/Kit(s): 44196, 24888
 Date/Time sample(s) sent to storage: 08/03/2018 19:51

- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH acceptable upon receipt? Yes No N/A
- pH adjusted? Yes No N/A
- pH adjusted by:

Login Notes: **Re-log 08/13/18**

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



Cincinnati, OH
+1 513 733 5336

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+1 970 490 1511

Everett, WA
+1 425 356 2600

Holland, MI
+1 616 399 6070

Chain of Custody

Page 2 of 3

COC ID: 1861

HS18080597

Phase Engineering, Inc.
I-10 & Major Drive (North Side)



ALS Project Manager

Customer Information		Project Information	
Purchase Order	201807111 (North Side)	Project Name	I-10 & Major Drive
Work Order		Project Number	Beaumont, TX
Company Name	Phase Engineering, Inc.	Bill To Company	Phase Engineering, Inc.
Send Report To	Ross Doctoroff	Invoice Attn	Claudia Pedroza-AP
Address	5524 Cornish Street	Address	5524 Cornish Street
City/State/Zip	Houston, TX 77007	City/State/Zip	Houston TX 77007
Phone	(713) 476-9844	Phone	(713) 476-9844
Fax	(713) 476-9797	Fax	(713) 476-9797
e-Mail Address	ross@PhaseEngineering.com	e-Mail Address	Claudia@phaseengineering.com

A	8260_S (5035/8260 BTEX)
B	TX1005_S_REV3 (5035/Texas TPH TX1005)
C	300_S (Chloride)
D	ICP_S_Low (Total Barium/Lead)
E	MOIST_SW3550
F	PH_S (pH)
G	8260_LL_W (Low Level VOC 8260 BTEX)
H	TX1005_W_Low (Texas TPH TX1005)
I	300_W (Chloride)
J	ICP_TW (Ba,Pb)

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J
1	SB-4 ¹⁻²	8/2/18	1445	S	8,9	7	X	X	X	X	X	X				
2	SB-5 ¹⁻²	8/3/18	0830	S	8,9	7	X	X	X	X	X	X				
3	SB-5 ¹⁰⁻¹²	8/3/18	0840	S	8,9	7	X	X	X	X	X	X				
4	SB-6 ¹⁻²	8/3/18	0920	S	8,9	7	X	X	X	X	X	X				
5	SB-6 ¹⁰⁻¹²	8/3/18	0930	S	8,9	7	X	X	X	X	X	X				
6	SB-7 ¹⁻²	8/3/18	1020	S	8,9	7	X	X	X	X	X	X				
7	SB-7 ¹⁰⁻¹²	8/3/18	1030	S	8,9	7	X	X	X	X	X	X				
8						14	X	X	X	X	X	X				
9																
10																

Sampler(s) Please Print & Sign: *Ross Doctoroff*

Relinquished by: *Ross Doctoroff* Date: 8/3/18 Time: 1515

Received by: *[Signature]* Date: 8/3/18 Time: 1515

QC Package: (Check One Box Below)

- Level II Std CC
- Level III Std QC/Rev Date
- Level IV SW-242/CLP
- Other

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

ote: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



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Chain of Custody Form

HS18080597

Phase Engineering, Inc.
I-10 & Major Drive (North Side)

Page 3 of 3

COC ID: **186683**



ALS Project Manager:

Customer Information		Project Information		ALS Project Manager:											
Purchase Order	201807111 (North Side)	Project Name	I-10 & Major Drive	A	8260_S (5035/8260 BTEX)										
Work Order		Project Number	Beaumont, TX	B	TX1005_S_REV3 (5035/Texas TPH TX1005)										
Company Name	Phase Engineering, Inc.	Bill To Company	Phase Engineering, Inc.	C	300_S (Chloride)										
Send Report To	Ross Doctoroff	Invoice Attn	Claudia Pedroza-AP	D	ICP_S_Low (Total Barium/Lead)										
Address	5524 Cornish Street	Address	5524 Cornish Street	E	MOIST_SW3550										
				F	PH_S (pH)										
City/State/Zip	Houston, TX 77007	City/State/Zip	Houston TX 77007	G	8260_LL_W (Low Level VOC 8260 BTEX)										
Phone	(713) 476-9844	Phone	(713) 476-9844	H	TX1005_W_Low (Texas TPH TX1005)										
Fax	(713) 476-9797	Fax	(713) 476-9797	I	300_W (Chloride)										
e-Mail Address	ross@PhaseEngineering.com	e-Mail Address	Claudia@phaseengineering.com	J	ICP_TW (Ba,Pb)										

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TMW-4	8/3/18	0800	W	1,2,8	8											
2	TMW-5	8/3/18	1120	W	1,2,8	8							X	X	X	X	
3	TMW-6	8/3/18	1200	W	1,2,8	8							X	X	X	X	
4	TMW-7	8/3/18	1230	W	1,2,8	8							X	X	X	X	
5													X	X	X	X	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign

Relinquished by: *Benny Hernandez* Date: 8/3/18 Time: 1515

Relinquished by: *Paul Ward* Date: 8/3/18 Time: 1520

Received by: *Paul Ward* Date: 8/3/18 Time: 1520

Checked by (Laboratory): *Paul Ward*

Shipment Method: _____

Required Turnaround Time: (Check Box) STD 10 Wk Days 5 Wk Days 2 Wk Days 24 Hour


Results Due Date: _____

Notes: Phase I-10 & Major Drive 8/3/18


Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)
44196	4°C	<input checked="" type="checkbox"/> Level II Std OC
24888	4-7	<input type="checkbox"/> Level III Std OC/Raw Data
	1-6	<input type="checkbox"/> Level IV SW/24/CLP
		<input type="checkbox"/> Other


ote: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarado</i>	Company: <i>Phase</i>	


44196 **AUG 03 2018**

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarado</i>	Company: <i>Phase</i>	

44196 **AUG 03 2018**

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/1/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarado</i>	Company: <i>Phase</i>	

24888 **AUG 03 2018**

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarado</i>	Company: <i>Phase</i>	

24888 **AUG 03 2018**



10450 Stancliff Rd. Suite 210
Houston, TX 77099
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August 10, 2018

Ross Doctoroff
Phase Engineering, Inc.
5524 Cornish Street
Houston, TX 77007

Work Order: **HS18080246**

Laboratory Results for: **I-10 & Major Drive (North Side)**

Dear Ross,

ALS Environmental received 11 sample(s) on Aug 03, 2018 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Bernadette A. Fini
Project Manager

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
Work Order: HS18080246

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18080246-01	SB-4 1-2	Soil		02-Aug-2018 14:45	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080246-02	SB-5 1-2	Soil		03-Aug-2018 08:30	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080246-03	SB-5 10-12	Soil		03-Aug-2018 08:40	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080246-04	SB-6 1-2	Soil		03-Aug-2018 09:20	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080246-05	SB-6 10-12	Soil		03-Aug-2018 09:30	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080246-06	SB-7 1-2	Soil		03-Aug-2018 10:20	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080246-07	SB-7 10-12	Soil		03-Aug-2018 10:30	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080246-08	TMW-4	Water		03-Aug-2018 08:00	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080246-09	TMW-5	Water		03-Aug-2018 11:20	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080246-10	TMW-6	Water		03-Aug-2018 12:00	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080246-11	TMW-7	Water		03-Aug-2018 12:30	03-Aug-2018 16:20	<input type="checkbox"/>

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
Work Order: HS18080246

CASE NARRATIVE

Work Order Comments

- Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.
The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

GC Semivolatiles by Method TX1005

Batch ID: 131246

Sample ID: HS18080249-01MS

- MS and MSD are for an unrelated sample

Batch ID: 131254

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260

Batch ID: R321192,R321304

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW6020

Batch ID: 131193

Sample ID: SB-7 10-12 (HS18080246-07MS)

- The MS and/or MSD recovery was outside of the control; however, the result in the parent sample is greater than 4x the spike amount.
Barium,

Batch ID: 131309

Sample ID: HS18080215-07MS

- MS and MSD are for an unrelated sample

WetChemistry by Method SW9045B

Batch ID: R321514

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW3550

Batch ID: R321387

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300

Batch ID: 131363,R321527

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: SB-4 1-2
 Collection Date: 02-Aug-2018 14:45

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0055	mg/Kg-dry	1	06-Aug-2018 17:22
Ethylbenzene	ND		0.0055	mg/Kg-dry	1	06-Aug-2018 17:22
m,p-Xylene	ND		0.011	mg/Kg-dry	1	06-Aug-2018 17:22
o-Xylene	ND		0.0055	mg/Kg-dry	1	06-Aug-2018 17:22
Toluene	ND		0.0055	mg/Kg-dry	1	06-Aug-2018 17:22
Xylenes, Total	ND		0.0055	mg/Kg-dry	1	06-Aug-2018 17:22
<i>Surr: 1,2-Dichloroethane-d4</i>	108		70-126	%REC	1	06-Aug-2018 17:22
<i>Surr: 4-Bromofluorobenzene</i>	89.6		70-130	%REC	1	06-Aug-2018 17:22
<i>Surr: Dibromofluoromethane</i>	102		70-130	%REC	1	06-Aug-2018 17:22
<i>Surr: Toluene-d8</i>	101		70-130	%REC	1	06-Aug-2018 17:22
TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		54	mg/Kg-dry	1	08-Aug-2018 00:48
>nC12 to nC28	ND		54	mg/Kg-dry	1	08-Aug-2018 00:48
>nC28 to nC35	ND		54	mg/Kg-dry	1	08-Aug-2018 00:48
Total Petroleum Hydrocarbon	ND		54	mg/Kg-dry	1	08-Aug-2018 00:48
<i>Surr: 2-Fluorobiphenyl</i>	88.9		70-130	%REC	1	08-Aug-2018 00:48
<i>Surr: Trifluoromethyl benzene</i>	98.0		70-130	%REC	1	08-Aug-2018 00:48
METALS BY SW6020A		Method:SW6020			Prep:SW3050A / 06-Aug-2018	Analyst: JCJ
Barium	60.8		0.643	mg/Kg-dry	1	10-Aug-2018 15:31
Lead	14.5		0.643	mg/Kg-dry	1	10-Aug-2018 15:31
ANIONS BY E300.0		Method:E300			Prep:E300 / 09-Aug-2018	Analyst: KMU
Chloride	16.5		6.65	mg/Kg-dry	1	10-Aug-2018 00:10
MOISTURE		Method:SW3550				Analyst: DFF
Percent Moisture	25.3		0.0100	wt%	1	08-Aug-2018 09:53
PH SOIL BY SW9045D		Method:SW9045B				Analyst: KVL
pH	6.20	H	0.100	pH Units	1	10-Aug-2018 15:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: SB-5 1-2
 Collection Date: 03-Aug-2018 08:30

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0055	mg/Kg-dry	1	06-Aug-2018 17:49
Ethylbenzene	ND		0.0055	mg/Kg-dry	1	06-Aug-2018 17:49
m,p-Xylene	ND		0.011	mg/Kg-dry	1	06-Aug-2018 17:49
o-Xylene	ND		0.0055	mg/Kg-dry	1	06-Aug-2018 17:49
Toluene	ND		0.0055	mg/Kg-dry	1	06-Aug-2018 17:49
Xylenes, Total	ND		0.0055	mg/Kg-dry	1	06-Aug-2018 17:49
<i>Surr: 1,2-Dichloroethane-d4</i>	110		70-126	%REC	1	06-Aug-2018 17:49
<i>Surr: 4-Bromofluorobenzene</i>	93.9		70-130	%REC	1	06-Aug-2018 17:49
<i>Surr: Dibromofluoromethane</i>	109		70-130	%REC	1	06-Aug-2018 17:49
<i>Surr: Toluene-d8</i>	97.9		70-130	%REC	1	06-Aug-2018 17:49
TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		56	mg/Kg-dry	1	08-Aug-2018 01:17
>nC12 to nC28	ND		56	mg/Kg-dry	1	08-Aug-2018 01:17
>nC28 to nC35	ND		56	mg/Kg-dry	1	08-Aug-2018 01:17
Total Petroleum Hydrocarbon	ND		56	mg/Kg-dry	1	08-Aug-2018 01:17
<i>Surr: 2-Fluorobiphenyl</i>	82.3		70-130	%REC	1	08-Aug-2018 01:17
<i>Surr: Trifluoromethyl benzene</i>	92.2		70-130	%REC	1	08-Aug-2018 01:17
METALS BY SW6020A		Method:SW6020			Prep:SW3050A / 06-Aug-2018	Analyst: JCJ
Barium	267		12.5	mg/Kg-dry	20	10-Aug-2018 16:11
Lead	17.2		0.623	mg/Kg-dry	1	10-Aug-2018 15:33
ANIONS BY E300.0		Method:E300			Prep:E300 / 09-Aug-2018	Analyst: KMU
Chloride	56.2		6.71	mg/Kg-dry	1	10-Aug-2018 00:24
MOISTURE		Method:SW3550				Analyst: DFF
Percent Moisture	25.9		0.0100	wt%	1	08-Aug-2018 09:53
PH SOIL BY SW9045D		Method:SW9045B				Analyst: KVL
pH	6.95	H	0.100	pH Units	1	10-Aug-2018 15:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: SB-5 10-12
 Collection Date: 03-Aug-2018 08:40

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0058	mg/Kg-dry	1	06-Aug-2018 18:15
Ethylbenzene	ND		0.0058	mg/Kg-dry	1	06-Aug-2018 18:15
m,p-Xylene	ND		0.012	mg/Kg-dry	1	06-Aug-2018 18:15
o-Xylene	ND		0.0058	mg/Kg-dry	1	06-Aug-2018 18:15
Toluene	ND		0.0058	mg/Kg-dry	1	06-Aug-2018 18:15
Xylenes, Total	ND		0.0058	mg/Kg-dry	1	06-Aug-2018 18:15
Surr: 1,2-Dichloroethane-d4	103		70-126	%REC	1	06-Aug-2018 18:15
Surr: 4-Bromofluorobenzene	94.6		70-130	%REC	1	06-Aug-2018 18:15
Surr: Dibromofluoromethane	103		70-130	%REC	1	06-Aug-2018 18:15
Surr: Toluene-d8	96.5		70-130	%REC	1	06-Aug-2018 18:15
TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		54	mg/Kg-dry	1	08-Aug-2018 02:44
>nC12 to nC28	ND		54	mg/Kg-dry	1	08-Aug-2018 02:44
>nC28 to nC35	ND		54	mg/Kg-dry	1	08-Aug-2018 02:44
Total Petroleum Hydrocarbon	ND		54	mg/Kg-dry	1	08-Aug-2018 02:44
Surr: 2-Fluorobiphenyl	85.8		70-130	%REC	1	08-Aug-2018 02:44
Surr: Trifluoromethyl benzene	93.6		70-130	%REC	1	08-Aug-2018 02:44
METALS BY SW6020A		Method:SW6020			Prep:SW3050A / 06-Aug-2018	Analyst: JCJ
Barium	37.4		0.629	mg/Kg-dry	1	10-Aug-2018 15:36
Lead	10.6		0.629	mg/Kg-dry	1	10-Aug-2018 15:36
ANIONS BY E300.0		Method:E300			Prep:E300 / 09-Aug-2018	Analyst: KMU
Chloride	78.2		6.51	mg/Kg-dry	1	10-Aug-2018 00:39
MOISTURE		Method:SW3550				Analyst: DFF
Percent Moisture	23.7		0.0100	wt%	1	08-Aug-2018 09:53
PH SOIL BY SW9045D		Method:SW9045B				Analyst: KVL
pH	8.09	H	0.100	pH Units	1	10-Aug-2018 15:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: SB-6 1-2
 Collection Date: 03-Aug-2018 09:20

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0060	mg/Kg-dry	1	06-Aug-2018 18:40
Ethylbenzene	ND		0.0060	mg/Kg-dry	1	06-Aug-2018 18:40
m,p-Xylene	ND		0.012	mg/Kg-dry	1	06-Aug-2018 18:40
o-Xylene	ND		0.0060	mg/Kg-dry	1	06-Aug-2018 18:40
Toluene	ND		0.0060	mg/Kg-dry	1	06-Aug-2018 18:40
Xylenes, Total	ND		0.0060	mg/Kg-dry	1	06-Aug-2018 18:40
Surr: 1,2-Dichloroethane-d4	114		70-126	%REC	1	06-Aug-2018 18:40
Surr: 4-Bromofluorobenzene	93.9		70-130	%REC	1	06-Aug-2018 18:40
Surr: Dibromofluoromethane	116		70-130	%REC	1	06-Aug-2018 18:40
Surr: Toluene-d8	99.0		70-130	%REC	1	06-Aug-2018 18:40
TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		59	mg/Kg-dry	1	08-Aug-2018 03:13
>nC12 to nC28	ND		59	mg/Kg-dry	1	08-Aug-2018 03:13
>nC28 to nC35	ND		59	mg/Kg-dry	1	08-Aug-2018 03:13
Total Petroleum Hydrocarbon	ND		59	mg/Kg-dry	1	08-Aug-2018 03:13
Surr: 2-Fluorobiphenyl	84.3		70-130	%REC	1	08-Aug-2018 03:13
Surr: Trifluoromethyl benzene	95.3		70-130	%REC	1	08-Aug-2018 03:13
METALS BY SW6020A		Method:SW6020			Prep:SW3050A / 06-Aug-2018	Analyst: JCJ
Barium	1,610		63.3	mg/Kg-dry	100	10-Aug-2018 16:13
Lead	18.6		0.633	mg/Kg-dry	1	10-Aug-2018 15:40
ANIONS BY E300.0		Method:E300			Prep:E300 / 09-Aug-2018	Analyst: KMU
Chloride	74.9		6.64	mg/Kg-dry	1	10-Aug-2018 01:22
MOISTURE		Method:SW3550				Analyst: DFF
Percent Moisture	24.9		0.0100	wt%	1	08-Aug-2018 09:53
PH SOIL BY SW9045D		Method:SW9045B				Analyst: KVL
pH	7.33	H	0.100	pH Units	1	10-Aug-2018 15:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: SB-6 10-12
 Collection Date: 03-Aug-2018 09:30

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0054	mg/Kg-dry	1	06-Aug-2018 19:08
Ethylbenzene	ND		0.0054	mg/Kg-dry	1	06-Aug-2018 19:08
m,p-Xylene	ND		0.011	mg/Kg-dry	1	06-Aug-2018 19:08
o-Xylene	ND		0.0054	mg/Kg-dry	1	06-Aug-2018 19:08
Toluene	ND		0.0054	mg/Kg-dry	1	06-Aug-2018 19:08
Xylenes, Total	ND		0.0054	mg/Kg-dry	1	06-Aug-2018 19:08
<i>Surr: 1,2-Dichloroethane-d4</i>	102		70-126	%REC	1	06-Aug-2018 19:08
<i>Surr: 4-Bromofluorobenzene</i>	93.1		70-130	%REC	1	06-Aug-2018 19:08
<i>Surr: Dibromofluoromethane</i>	100		70-130	%REC	1	06-Aug-2018 19:08
<i>Surr: Toluene-d8</i>	98.5		70-130	%REC	1	06-Aug-2018 19:08
TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		50	mg/Kg-dry	1	08-Aug-2018 03:42
>nC12 to nC28	ND		50	mg/Kg-dry	1	08-Aug-2018 03:42
>nC28 to nC35	ND		50	mg/Kg-dry	1	08-Aug-2018 03:42
Total Petroleum Hydrocarbon	ND		50	mg/Kg-dry	1	08-Aug-2018 03:42
<i>Surr: 2-Fluorobiphenyl</i>	90.4		70-130	%REC	1	08-Aug-2018 03:42
<i>Surr: Trifluoromethyl benzene</i>	101		70-130	%REC	1	08-Aug-2018 03:42
METALS BY SW6020A		Method:SW6020			Prep:SW3050A / 06-Aug-2018	Analyst: JCJ
Barium	34.3		0.614	mg/Kg-dry	1	10-Aug-2018 15:42
Lead	10.8		0.614	mg/Kg-dry	1	10-Aug-2018 15:42
ANIONS BY E300.0		Method:E300			Prep:E300 / 09-Aug-2018	Analyst: KMU
Chloride	108		6.57	mg/Kg-dry	1	10-Aug-2018 01:37
MOISTURE		Method:SW3550				Analyst: DFF
Percent Moisture	24.5		0.0100	wt%	1	08-Aug-2018 09:53
PH SOIL BY SW9045D		Method:SW9045B				Analyst: KVL
pH	8.00	H	0.100	pH Units	1	10-Aug-2018 15:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: SB-7 1-2
 Collection Date: 03-Aug-2018 10:20

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-06
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0061	mg/Kg-dry	1	06-Aug-2018 19:40
Ethylbenzene	ND		0.0061	mg/Kg-dry	1	06-Aug-2018 19:40
m,p-Xylene	ND		0.012	mg/Kg-dry	1	06-Aug-2018 19:40
o-Xylene	ND		0.0061	mg/Kg-dry	1	06-Aug-2018 19:40
Toluene	ND		0.0061	mg/Kg-dry	1	06-Aug-2018 19:40
Xylenes, Total	ND		0.0061	mg/Kg-dry	1	06-Aug-2018 19:40
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>107</i>		<i>70-126</i>	<i>%REC</i>	<i>1</i>	<i>06-Aug-2018 19:40</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>91.7</i>		<i>70-130</i>	<i>%REC</i>	<i>1</i>	<i>06-Aug-2018 19:40</i>
<i>Surr: Dibromofluoromethane</i>	<i>103</i>		<i>70-130</i>	<i>%REC</i>	<i>1</i>	<i>06-Aug-2018 19:40</i>
<i>Surr: Toluene-d8</i>	<i>102</i>		<i>70-130</i>	<i>%REC</i>	<i>1</i>	<i>06-Aug-2018 19:40</i>
TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		58	mg/Kg-dry	1	08-Aug-2018 04:11
>nC12 to nC28	ND		58	mg/Kg-dry	1	08-Aug-2018 04:11
>nC28 to nC35	ND		58	mg/Kg-dry	1	08-Aug-2018 04:11
Total Petroleum Hydrocarbon	ND		58	mg/Kg-dry	1	08-Aug-2018 04:11
<i>Surr: 2-Fluorobiphenyl</i>	<i>81.4</i>		<i>70-130</i>	<i>%REC</i>	<i>1</i>	<i>08-Aug-2018 04:11</i>
<i>Surr: Trifluoromethyl benzene</i>	<i>91.6</i>		<i>70-130</i>	<i>%REC</i>	<i>1</i>	<i>08-Aug-2018 04:11</i>
METALS BY SW6020A		Method:SW6020			Prep:SW3050A / 06-Aug-2018	Analyst: JCJ
Barium	190		0.647	mg/Kg-dry	1	10-Aug-2018 15:56
Lead	23.6		0.647	mg/Kg-dry	1	10-Aug-2018 15:56
ANIONS BY E300.0		Method:E300			Prep:E300 / 09-Aug-2018	Analyst: KMU
Chloride	ND		6.70	mg/Kg-dry	1	10-Aug-2018 01:51
MOISTURE		Method:SW3550				Analyst: DFF
Percent Moisture	25.9		0.0100	wt%	1	08-Aug-2018 09:53
PH SOIL BY SW9045D		Method:SW9045B				Analyst: KVL
pH	7.47	H	0.100	pH Units	1	10-Aug-2018 15:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: SB-7 10-12
 Collection Date: 03-Aug-2018 10:30

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-07
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0052	mg/Kg-dry	1	06-Aug-2018 15:59
Ethylbenzene	ND		0.0052	mg/Kg-dry	1	06-Aug-2018 15:59
m,p-Xylene	ND		0.010	mg/Kg-dry	1	06-Aug-2018 15:59
o-Xylene	ND		0.0052	mg/Kg-dry	1	06-Aug-2018 15:59
Toluene	ND		0.0052	mg/Kg-dry	1	06-Aug-2018 15:59
Xylenes, Total	ND		0.0052	mg/Kg-dry	1	06-Aug-2018 15:59
Surr: 1,2-Dichloroethane-d4	103		70-126	%REC	1	06-Aug-2018 15:59
Surr: 4-Bromofluorobenzene	90.1		70-130	%REC	1	06-Aug-2018 15:59
Surr: Dibromofluoromethane	105		70-130	%REC	1	06-Aug-2018 15:59
Surr: Toluene-d8	99.8		70-130	%REC	1	06-Aug-2018 15:59
TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		52	mg/Kg-dry	1	07-Aug-2018 23:22
>nC12 to nC28	ND		52	mg/Kg-dry	1	07-Aug-2018 23:22
>nC28 to nC35	ND		52	mg/Kg-dry	1	07-Aug-2018 23:22
Total Petroleum Hydrocarbon	ND		52	mg/Kg-dry	1	07-Aug-2018 23:22
Surr: 2-Fluorobiphenyl	92.1		70-130	%REC	1	07-Aug-2018 23:22
Surr: Trifluoromethyl benzene	101		70-130	%REC	1	07-Aug-2018 23:22
METALS BY SW6020A		Method:SW6020			Prep:SW3050A / 06-Aug-2018	Analyst: JCJ
Barium	60.9		0.599	mg/Kg-dry	1	10-Aug-2018 15:58
Lead	7.62		0.599	mg/Kg-dry	1	10-Aug-2018 15:58
ANIONS BY E300.0		Method:E300			Prep:E300 / 09-Aug-2018	Analyst: KMU
Chloride	ND		6.40	mg/Kg-dry	1	10-Aug-2018 02:06
MOISTURE		Method:SW3550				Analyst: DFF
Percent Moisture	23.4		0.0100	wt%	1	08-Aug-2018 09:53
PH SOIL BY SW9045D		Method:SW9045B				Analyst: KVL
pH	8.50	H	0.100	pH Units	1	10-Aug-2018 15:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: TMW-4
 Collection Date: 03-Aug-2018 08:00

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-08
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: AKP
Benzene	ND		0.0010	mg/L	1	07-Aug-2018 14:05
Ethylbenzene	ND		0.0010	mg/L	1	07-Aug-2018 14:05
m,p-Xylene	ND		0.0020	mg/L	1	07-Aug-2018 14:05
o-Xylene	ND		0.0010	mg/L	1	07-Aug-2018 14:05
Toluene	ND		0.0010	mg/L	1	07-Aug-2018 14:05
Xylenes, Total	ND		0.0010	mg/L	1	07-Aug-2018 14:05
<i>Surr: 1,2-Dichloroethane-d4</i>	91.0		70-126	%REC	1	07-Aug-2018 14:05
<i>Surr: 4-Bromofluorobenzene</i>	99.5		81-113	%REC	1	07-Aug-2018 14:05
<i>Surr: Dibromofluoromethane</i>	95.7		77-123	%REC	1	07-Aug-2018 14:05
<i>Surr: Toluene-d8</i>	93.1		82-127	%REC	1	07-Aug-2018 14:05
LOW-LEVEL TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		0.48	mg/L	1	09-Aug-2018 16:42
>nC12 to nC28	ND		0.48	mg/L	1	09-Aug-2018 16:42
>nC28 to nC35	ND		0.48	mg/L	1	09-Aug-2018 16:42
Total Petroleum Hydrocarbon	ND		0.48	mg/L	1	09-Aug-2018 16:42
<i>Surr: 2-Fluorobiphenyl</i>	85.5		70-130	%REC	1	09-Aug-2018 16:42
<i>Surr: Trifluoromethyl benzene</i>	103		70-130	%REC	1	09-Aug-2018 16:42
ICP-MS METALS BY SW6020A		Method:SW6020			Prep:SW3010A / 08-Aug-2018	Analyst: JDE
Barium	0.0201		0.00400	mg/L	1	10-Aug-2018 00:42
Lead	ND		0.00200	mg/L	1	10-Aug-2018 00:42
ANIONS BY E300.0		Method:E300				Analyst: KMU
Chloride	946		25.0	mg/L	50	10-Aug-2018 09:52

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: TMW-5
 Collection Date: 03-Aug-2018 11:20

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-09
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: AKP
Benzene	ND		0.0010	mg/L	1	07-Aug-2018 14:31
Ethylbenzene	ND		0.0010	mg/L	1	07-Aug-2018 14:31
m,p-Xylene	ND		0.0020	mg/L	1	07-Aug-2018 14:31
o-Xylene	ND		0.0010	mg/L	1	07-Aug-2018 14:31
Toluene	ND		0.0010	mg/L	1	07-Aug-2018 14:31
Xylenes, Total	ND		0.0010	mg/L	1	07-Aug-2018 14:31
<i>Surr: 1,2-Dichloroethane-d4</i>	94.1		70-126	%REC	1	07-Aug-2018 14:31
<i>Surr: 4-Bromofluorobenzene</i>	98.0		81-113	%REC	1	07-Aug-2018 14:31
<i>Surr: Dibromofluoromethane</i>	96.5		77-123	%REC	1	07-Aug-2018 14:31
<i>Surr: Toluene-d8</i>	93.5		82-127	%REC	1	07-Aug-2018 14:31
LOW-LEVEL TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		0.48	mg/L	1	09-Aug-2018 17:11
>nC12 to nC28	ND		0.48	mg/L	1	09-Aug-2018 17:11
>nC28 to nC35	ND		0.48	mg/L	1	09-Aug-2018 17:11
Total Petroleum Hydrocarbon	ND		0.48	mg/L	1	09-Aug-2018 17:11
<i>Surr: 2-Fluorobiphenyl</i>	101		70-130	%REC	1	09-Aug-2018 17:11
<i>Surr: Trifluoromethyl benzene</i>	109		70-130	%REC	1	09-Aug-2018 17:11
ICP-MS METALS BY SW6020A		Method:SW6020			Prep:SW3010A / 08-Aug-2018	Analyst: JDE
Barium	0.0381		0.00400	mg/L	1	10-Aug-2018 00:48
Lead	ND		0.00200	mg/L	1	10-Aug-2018 00:48
ANIONS BY E300.0		Method:E300				Analyst: KMU
Chloride	933		25.0	mg/L	50	10-Aug-2018 10:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: TMW-6
 Collection Date: 03-Aug-2018 12:00

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-10
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: AKP
Benzene	ND		0.0010	mg/L	1	07-Aug-2018 14:57
Ethylbenzene	ND		0.0010	mg/L	1	07-Aug-2018 14:57
m,p-Xylene	ND		0.0020	mg/L	1	07-Aug-2018 14:57
o-Xylene	ND		0.0010	mg/L	1	07-Aug-2018 14:57
Toluene	ND		0.0010	mg/L	1	07-Aug-2018 14:57
Xylenes, Total	ND		0.0010	mg/L	1	07-Aug-2018 14:57
<i>Surr: 1,2-Dichloroethane-d4</i>	92.9		70-126	%REC	1	07-Aug-2018 14:57
<i>Surr: 4-Bromofluorobenzene</i>	98.9		81-113	%REC	1	07-Aug-2018 14:57
<i>Surr: Dibromofluoromethane</i>	96.5		77-123	%REC	1	07-Aug-2018 14:57
<i>Surr: Toluene-d8</i>	93.0		82-127	%REC	1	07-Aug-2018 14:57
LOW-LEVEL TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		0.49	mg/L	1	09-Aug-2018 17:40
>nC12 to nC28	ND		0.49	mg/L	1	09-Aug-2018 17:40
>nC28 to nC35	ND		0.49	mg/L	1	09-Aug-2018 17:40
Total Petroleum Hydrocarbon	ND		0.49	mg/L	1	09-Aug-2018 17:40
<i>Surr: 2-Fluorobiphenyl</i>	89.6		70-130	%REC	1	09-Aug-2018 17:40
<i>Surr: Trifluoromethyl benzene</i>	102		70-130	%REC	1	09-Aug-2018 17:40
ICP-MS METALS BY SW6020A		Method:SW6020			Prep:SW3010A / 08-Aug-2018	Analyst: JDE
Barium	0.0507		0.00400	mg/L	1	10-Aug-2018 00:50
Lead	ND		0.00200	mg/L	1	10-Aug-2018 00:50
ANIONS BY E300.0		Method:E300				Analyst: KMU
Chloride	950		25.0	mg/L	50	10-Aug-2018 10:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (North Side)
 Sample ID: TMW-7
 Collection Date: 03-Aug-2018 12:30

ANALYTICAL REPORT
 WorkOrder:HS18080246
 Lab ID:HS18080246-11
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: AKP
Benzene	ND		0.0010	mg/L	1	07-Aug-2018 15:23
Ethylbenzene	ND		0.0010	mg/L	1	07-Aug-2018 15:23
m,p-Xylene	ND		0.0020	mg/L	1	07-Aug-2018 15:23
o-Xylene	ND		0.0010	mg/L	1	07-Aug-2018 15:23
Toluene	ND		0.0010	mg/L	1	07-Aug-2018 15:23
Xylenes, Total	ND		0.0010	mg/L	1	07-Aug-2018 15:23
<i>Surr: 1,2-Dichloroethane-d4</i>	93.6		70-126	%REC	1	07-Aug-2018 15:23
<i>Surr: 4-Bromofluorobenzene</i>	99.2		81-113	%REC	1	07-Aug-2018 15:23
<i>Surr: Dibromofluoromethane</i>	96.4		77-123	%REC	1	07-Aug-2018 15:23
<i>Surr: Toluene-d8</i>	91.9		82-127	%REC	1	07-Aug-2018 15:23
LOW-LEVEL TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 07-Aug-2018	Analyst: MBG
nC6 to nC12	ND		0.48	mg/L	1	09-Aug-2018 18:09
>nC12 to nC28	ND		0.48	mg/L	1	09-Aug-2018 18:09
>nC28 to nC35	ND		0.48	mg/L	1	09-Aug-2018 18:09
Total Petroleum Hydrocarbon	ND		0.48	mg/L	1	09-Aug-2018 18:09
<i>Surr: 2-Fluorobiphenyl</i>	89.3		70-130	%REC	1	09-Aug-2018 18:09
<i>Surr: Trifluoromethyl benzene</i>	102		70-130	%REC	1	09-Aug-2018 18:09
ICP-MS METALS BY SW6020A		Method:SW6020			Prep:SW3010A / 08-Aug-2018	Analyst: JDE
Barium	0.195		0.00400	mg/L	1	10-Aug-2018 00:52
Lead	0.0163		0.00200	mg/L	1	10-Aug-2018 00:52
ANIONS BY E300.0		Method:E300				Analyst: KMU
Chloride	338		5.00	mg/L	10	10-Aug-2018 10:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

Batch ID: 2582 **Method:** VOLATILES BY SW8260C

SampleID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS18080246-01	1	6.071 (g)	5 (mL)	0.82	TerraCore (5035A)
HS18080246-02	1	6.201 (g)	5 (mL)	0.81	TerraCore (5035A)
HS18080246-03	1	5.691 (g)	5 (mL)	0.88	TerraCore (5035A)
HS18080246-04	1	5.527 (g)	5 (mL)	0.9	TerraCore (5035A)
HS18080246-05	1	6.069 (g)	5 (mL)	0.82	TerraCore (5035A)
HS18080246-06	1	5.491 (g)	5 (mL)	0.91	TerraCore (5035A)
HS18080246-07	1	6.245 (g)	5 (mL)	0.8	TerraCore (5035A)

Batch ID: 131193 **Method:** METALS BY SW6020A **Prep:** 3050_I_LOW

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080246-01	1	0.5208	50 (mL)	96.01
HS18080246-02	1	0.5412	50 (mL)	92.39
HS18080246-03	1	0.5209	50 (mL)	95.99
HS18080246-04	1	0.526	50 (mL)	95.06
HS18080246-05	1	0.539	50 (mL)	92.76
HS18080246-06	1	0.5218	50 (mL)	95.82
HS18080246-07	1	0.5446	50 (mL)	91.81

Batch ID: 131246 **Method:** LOW-LEVEL TEXAS TPH BY TX1005 **Prep:** TX 1005_W PR

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080246-08	1	30.94	3 (mL)	0.09696
HS18080246-09	1	31.01	3 (mL)	0.09674
HS18080246-10	1	30.52	3 (mL)	0.0983
HS18080246-11	1	31.39	3 (mL)	0.09557

Batch ID: 131254 **Method:** TEXAS TPH BY TX1005 **Prep:** TX 1005_S PR

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080246-01	1	12.33	10 (mL)	0.811
HS18080246-02	1	12.08	10 (mL)	0.8278
HS18080246-03	1	12.08	10 (mL)	0.8278
HS18080246-04	1	11.26	10 (mL)	0.8881
HS18080246-05	1	13.35	10 (mL)	0.7491
HS18080246-06	1	11.56	10 (mL)	0.8651
HS18080246-07	1	12.62	10 (mL)	0.7924

Batch ID: 131309 **Method:** ICP-MS METALS BY SW6020A **Prep:** 3010A

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080246-08	1	10	10 (mL)	1
HS18080246-09	1	10	10 (mL)	1
HS18080246-10	1	10	10 (mL)	1
HS18080246-11	1	10	10 (mL)	1

WEIGHT LOG

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

Batch ID: 131363 **Method:** ANIONS BY E300.0 **Prep:** 300_S_PR

SamplID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080246-01	1	5.0318	50 (mL)	9.937
HS18080246-02	1	5.0301	50 (mL)	9.94
HS18080246-03	1	5.0321	50 (mL)	9.936
HS18080246-04	1	5.0171	50 (mL)	9.966
HS18080246-05	1	5.042	50 (mL)	9.917
HS18080246-06	1	5.0361	50 (mL)	9.928
HS18080246-07	1	5.0971	50 (mL)	9.809

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 131193		Test Name : METALS BY SW6020A		Matrix: Soil		
HS18080246-01	SB-4 1-2	02 Aug 2018 14:45		06 Aug 2018 07:56	10 Aug 2018 15:31	1
HS18080246-02	SB-5 1-2	03 Aug 2018 08:30		06 Aug 2018 07:56	10 Aug 2018 16:11	20
HS18080246-02	SB-5 1-2	03 Aug 2018 08:30		06 Aug 2018 07:56	10 Aug 2018 15:33	1
HS18080246-03	SB-5 10-12	03 Aug 2018 08:40		06 Aug 2018 07:56	10 Aug 2018 15:36	1
HS18080246-04	SB-6 1-2	03 Aug 2018 09:20		06 Aug 2018 07:56	10 Aug 2018 16:13	100
HS18080246-04	SB-6 1-2	03 Aug 2018 09:20		06 Aug 2018 07:56	10 Aug 2018 15:40	1
HS18080246-05	SB-6 10-12	03 Aug 2018 09:30		06 Aug 2018 07:56	10 Aug 2018 15:42	1
HS18080246-06	SB-7 1-2	03 Aug 2018 10:20		06 Aug 2018 07:56	10 Aug 2018 15:56	1
HS18080246-07	SB-7 10-12	03 Aug 2018 10:30		06 Aug 2018 07:56	10 Aug 2018 17:59	1
HS18080246-07	SB-7 10-12	03 Aug 2018 10:30		06 Aug 2018 07:56	10 Aug 2018 15:58	1
Batch ID 131246		Test Name : LOW-LEVEL TEXAS TPH BY TX1005		Matrix: Water		
HS18080246-08	TMW-4	03 Aug 2018 08:00		07 Aug 2018 09:00	09 Aug 2018 16:42	1
HS18080246-09	TMW-5	03 Aug 2018 11:20		07 Aug 2018 09:00	09 Aug 2018 17:11	1
HS18080246-10	TMW-6	03 Aug 2018 12:00		07 Aug 2018 09:00	09 Aug 2018 17:40	1
HS18080246-11	TMW-7	03 Aug 2018 12:30		07 Aug 2018 09:00	09 Aug 2018 18:09	1
Batch ID 131254		Test Name : TEXAS TPH BY TX1005		Matrix: Soil		
HS18080246-01	SB-4 1-2	02 Aug 2018 14:45		07 Aug 2018 11:30	08 Aug 2018 00:48	1
HS18080246-02	SB-5 1-2	03 Aug 2018 08:30		07 Aug 2018 11:30	08 Aug 2018 01:17	1
HS18080246-03	SB-5 10-12	03 Aug 2018 08:40		07 Aug 2018 11:30	08 Aug 2018 02:44	1
HS18080246-04	SB-6 1-2	03 Aug 2018 09:20		07 Aug 2018 11:30	08 Aug 2018 03:13	1
HS18080246-05	SB-6 10-12	03 Aug 2018 09:30		07 Aug 2018 11:30	08 Aug 2018 03:42	1
HS18080246-06	SB-7 1-2	03 Aug 2018 10:20		07 Aug 2018 11:30	08 Aug 2018 04:11	1
HS18080246-07	SB-7 10-12	03 Aug 2018 10:30		07 Aug 2018 11:30	07 Aug 2018 23:22	1
Batch ID 131309		Test Name : ICP-MS METALS BY SW6020A		Matrix: Water		
HS18080246-08	TMW-4	03 Aug 2018 08:00		08 Aug 2018 13:30	10 Aug 2018 00:42	1
HS18080246-09	TMW-5	03 Aug 2018 11:20		08 Aug 2018 13:30	10 Aug 2018 00:48	1
HS18080246-10	TMW-6	03 Aug 2018 12:00		08 Aug 2018 13:30	10 Aug 2018 00:50	1
HS18080246-11	TMW-7	03 Aug 2018 12:30		08 Aug 2018 13:30	10 Aug 2018 00:52	1
Batch ID 131363		Test Name : ANIONS BY E300.0		Matrix: Soil		
HS18080246-01	SB-4 1-2	02 Aug 2018 14:45		09 Aug 2018 12:00	10 Aug 2018 00:10	1
HS18080246-02	SB-5 1-2	03 Aug 2018 08:30		09 Aug 2018 12:00	10 Aug 2018 00:24	1
HS18080246-03	SB-5 10-12	03 Aug 2018 08:40		09 Aug 2018 12:00	10 Aug 2018 00:39	1
HS18080246-04	SB-6 1-2	03 Aug 2018 09:20		09 Aug 2018 12:00	10 Aug 2018 01:22	1
HS18080246-05	SB-6 10-12	03 Aug 2018 09:30		09 Aug 2018 12:00	10 Aug 2018 01:37	1
HS18080246-06	SB-7 1-2	03 Aug 2018 10:20		09 Aug 2018 12:00	10 Aug 2018 01:51	1
HS18080246-07	SB-7 10-12	03 Aug 2018 10:30		09 Aug 2018 12:00	10 Aug 2018 02:06	1

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R321192		Test Name : VOLATILES BY SW8260C			Matrix: Soil	
HS18080246-01	SB-4 1-2	02 Aug 2018 14:45			06 Aug 2018 17:22	1
HS18080246-02	SB-5 1-2	03 Aug 2018 08:30			06 Aug 2018 17:49	1
HS18080246-03	SB-5 10-12	03 Aug 2018 08:40			06 Aug 2018 18:15	1
HS18080246-04	SB-6 1-2	03 Aug 2018 09:20			06 Aug 2018 18:40	1
HS18080246-05	SB-6 10-12	03 Aug 2018 09:30			06 Aug 2018 19:08	1
HS18080246-06	SB-7 1-2	03 Aug 2018 10:20			06 Aug 2018 19:40	1
HS18080246-07	SB-7 10-12	03 Aug 2018 10:30			06 Aug 2018 15:59	1
Batch ID R321304		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Water	
HS18080246-08	TMW-4	03 Aug 2018 08:00			07 Aug 2018 14:05	1
HS18080246-09	TMW-5	03 Aug 2018 11:20			07 Aug 2018 14:31	1
HS18080246-10	TMW-6	03 Aug 2018 12:00			07 Aug 2018 14:57	1
HS18080246-11	TMW-7	03 Aug 2018 12:30			07 Aug 2018 15:23	1
Batch ID R321387		Test Name : MOISTURE			Matrix: Soil	
HS18080246-01	SB-4 1-2	02 Aug 2018 14:45			08 Aug 2018 09:53	1
HS18080246-02	SB-5 1-2	03 Aug 2018 08:30			08 Aug 2018 09:53	1
HS18080246-03	SB-5 10-12	03 Aug 2018 08:40			08 Aug 2018 09:53	1
HS18080246-04	SB-6 1-2	03 Aug 2018 09:20			08 Aug 2018 09:53	1
HS18080246-05	SB-6 10-12	03 Aug 2018 09:30			08 Aug 2018 09:53	1
HS18080246-06	SB-7 1-2	03 Aug 2018 10:20			08 Aug 2018 09:53	1
HS18080246-07	SB-7 10-12	03 Aug 2018 10:30			08 Aug 2018 09:53	1
Batch ID R321514		Test Name : PH SOIL BY SW9045D			Matrix: Soil	
HS18080246-01	SB-4 1-2	02 Aug 2018 14:45			10 Aug 2018 15:40	1
HS18080246-02	SB-5 1-2	03 Aug 2018 08:30			10 Aug 2018 15:40	1
HS18080246-03	SB-5 10-12	03 Aug 2018 08:40			10 Aug 2018 15:40	1
HS18080246-04	SB-6 1-2	03 Aug 2018 09:20			10 Aug 2018 15:40	1
HS18080246-05	SB-6 10-12	03 Aug 2018 09:30			10 Aug 2018 15:40	1
HS18080246-06	SB-7 1-2	03 Aug 2018 10:20			10 Aug 2018 15:40	1
HS18080246-07	SB-7 10-12	03 Aug 2018 10:30			10 Aug 2018 15:40	1
Batch ID R321527		Test Name : ANIONS BY E300.0			Matrix: Water	
HS18080246-08	TMW-4	03 Aug 2018 08:00			10 Aug 2018 09:52	50
HS18080246-09	TMW-5	03 Aug 2018 11:20			10 Aug 2018 10:06	50
HS18080246-10	TMW-6	03 Aug 2018 12:00			10 Aug 2018 10:21	50
HS18080246-11	TMW-7	03 Aug 2018 12:30			10 Aug 2018 10:35	10

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: 131246		Instrument: FID-12		Method: TX1005						
MBLK	Sample ID: MBLK-131246	Units: mg/L			Analysis Date: 08-Aug-2018 08:03					
Client ID:	Run ID: FID-12_321413	SeqNo: 4686484		PrepDate: 07-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
nC6 to nC12	ND	0.50								
>nC12 to nC28	ND	0.50								
>nC28 to nC35	ND	0.50								
Total Petroleum Hydrocarbon	ND	0.50								
Surr: 2-Fluorobiphenyl	2.377	0	2.5	0	95.1	70 - 130				
Surr: Trifluoromethyl benzene	2.32	0	2.5	0	92.8	70 - 130				
LCS	Sample ID: LCS-131246	Units: mg/L			Analysis Date: 08-Aug-2018 08:32					
Client ID:	Run ID: FID-12_321413	SeqNo: 4686485		PrepDate: 07-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
nC6 to nC12	22.07	0.50	25	0	88.3	75 - 125				
>nC12 to nC28	29.18	0.50	25	0	117	75 - 125				
Surr: 2-Fluorobiphenyl	2.14	0	2.5	0	85.6	70 - 130				
Surr: Trifluoromethyl benzene	2.348	0	2.5	0	93.9	70 - 130				
LCSD	Sample ID: LCSD-131246	Units: mg/L			Analysis Date: 09-Aug-2018 11:22					
Client ID:	Run ID: FID-12_321413	SeqNo: 4686486		PrepDate: 07-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
nC6 to nC12	22.23	0.50	25	0	88.9	75 - 125	22.07	0.699	20	
>nC12 to nC28	28.89	0.50	25	0	116	75 - 125	29.18	0.999	20	
Surr: 2-Fluorobiphenyl	2.357	0	2.5	0	94.3	70 - 130	2.14	9.67	20	
Surr: Trifluoromethyl benzene	2.396	0	2.5	0	95.8	70 - 130	2.348	2	20	
MS	Sample ID: HS18080249-01MS	Units: mg/L			Analysis Date: 09-Aug-2018 12:20					
Client ID:	Run ID: FID-12_321413	SeqNo: 4686488		PrepDate: 07-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
nC6 to nC12	31.17	0.46	23.07	14.42	72.6	75 - 125			S	
>nC12 to nC28	136.1	0.46	23.07	162.1	-113	75 - 125			SEO	
Surr: 2-Fluorobiphenyl	2.995	0	2.307	0	130	70 - 130				
Surr: Trifluoromethyl benzene	2.424	0	2.307	0	105	70 - 130				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: 131246		Instrument: FID-12		Method: TX1005						
MSD	Sample ID: HS18080249-01MSD	Units: mg/L			Analysis Date: 09-Aug-2018 12:49					
Client ID:	Run ID: FID-12_321413	SeqNo: 4686489		PrepDate: 07-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

nC6 to nC12	35.3	0.46	23.18	14.42	90.1	75 - 125	31.17	12.4	20	
>nC12 to nC28	163.5	0.46	23.18	162.1	6.14	75 - 125	136.1	18.3	20	SEO
<i>Surr: 2-Fluorobiphenyl</i>	<i>2.743</i>	<i>0</i>	<i>2.318</i>	<i>0</i>	<i>118</i>	<i>70 - 130</i>	<i>2.995</i>	<i>8.78</i>	<i>20</i>	
<i>Surr: Trifluoromethyl benzene</i>	<i>2.658</i>	<i>0</i>	<i>2.318</i>	<i>0</i>	<i>115</i>	<i>70 - 130</i>	<i>2.424</i>	<i>9.2</i>	<i>20</i>	

The following samples were analyzed in this batch:

HS18080246-08	HS18080246-09	HS18080246-10	HS18080246-11
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Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: 131254	Instrument: FID-12	Method: TX1005
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MBLK	Sample ID: MBLK-131254	Units: mg/Kg	Analysis Date: 07-Aug-2018 21:55							
Client ID:	Run ID: FID-12_321457	SeqNo: 4687361	PrepDate: 07-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	ND	50								
>nC12 to nC28	ND	50								
>nC28 to nC35	ND	50								
Total Petroleum Hydrocarbon	ND	50								
Surr: 2-Fluorobiphenyl	22.75	0	25	0	91.0	70 - 130				
Surr: Trifluoromethyl benzene	26.62	0	25	0	106	70 - 130				

LCS	Sample ID: LCS-131254	Units: mg/Kg	Analysis Date: 07-Aug-2018 22:24							
Client ID:	Run ID: FID-12_321457	SeqNo: 4687362	PrepDate: 07-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	219.1	50	250	0	87.6	75 - 125				
>nC12 to nC28	293.2	50	250	0	117	75 - 125				
Surr: 2-Fluorobiphenyl	21.79	0	25	0	87.1	70 - 130				
Surr: Trifluoromethyl benzene	23.34	0	25	0	93.4	70 - 130				

LCSD	Sample ID: LCSD-131254	Units: mg/Kg	Analysis Date: 07-Aug-2018 22:52							
Client ID:	Run ID: FID-12_321457	SeqNo: 4687363	PrepDate: 07-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	218.7	50	250	0	87.5	75 - 125	219.1	0.202	20	
>nC12 to nC28	287.5	50	250	0	115	75 - 125	293.2	1.98	20	
Surr: 2-Fluorobiphenyl	21.88	0	25	0	87.5	70 - 130	21.79	0.456	20	
Surr: Trifluoromethyl benzene	23.56	0	25	0	94.3	70 - 130	23.34	0.944	20	

MS	Sample ID: HS18080246-07MS	Units: mg/Kg	Analysis Date: 07-Aug-2018 23:51							
Client ID: SB-7 10-12	Run ID: FID-12_321457	SeqNo: 4687365	PrepDate: 07-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	187.5	40	198.6	0	94.4	75 - 125				
>nC12 to nC28	234.3	40	198.6	0	118	75 - 125				
Surr: 2-Fluorobiphenyl	18.58	0	19.86	0	93.6	70 - 130				
Surr: Trifluoromethyl benzene	20.04	0	19.86	0	101	70 - 130				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: 131254	Instrument: FID-12	Method: TX1005
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MSD	Sample ID: HS18080246-07MSD	Units: mg/Kg	Analysis Date: 08-Aug-2018 00:20							
Client ID: SB-7 10-12	Run ID: FID-12_321457	SeqNo: 4687366	PrepDate: 07-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

nC6 to nC12	188.6	42	208.7	0	90.4	75 - 125	187.5	0.581	20
>nC12 to nC28	238.9	42	208.7	0	114	75 - 125	234.3	1.95	20
Surr: 2-Fluorobiphenyl	19.67	0	20.87	0	94.3	70 - 130	18.58	5.69	20
Surr: Trifluoromethyl benzene	20.8	0	20.87	0	99.7	70 - 130	20.04	3.76	20

The following samples were analyzed in this batch:

HS18080246-01	HS18080246-02	HS18080246-03	HS18080246-04
HS18080246-05	HS18080246-06	HS18080246-07	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: 131193		Instrument: ICPMS04		Method: SW6020						
MBLK	Sample ID: MBLK-131193	Units: mg/Kg			Analysis Date: 10-Aug-2018 15:20					
Client ID:	Run ID: ICPMS04_321483	SeqNo: 4688462	PrepDate: 06-Aug-2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	ND	0.500								
Lead	ND	0.500								
LCS	Sample ID: LCS-131193	Units: mg/Kg			Analysis Date: 10-Aug-2018 15:22					
Client ID:	Run ID: ICPMS04_321483	SeqNo: 4688463	PrepDate: 06-Aug-2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	9.599	0.500	10	0	96.0	80 - 120				
Lead	9.851	0.500	10	0	98.5	80 - 120				
MS	Sample ID: HS18080246-07MS	Units: mg/Kg			Analysis Date: 10-Aug-2018 16:02					
Client ID: SB-7 10-12	Run ID: ICPMS04_321483	SeqNo: 4688611	PrepDate: 06-Aug-2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	62.9	0.464	9.285	46.68	175	75 - 125				SO
Lead	14.77	0.464	9.285	5.834	96.3	75 - 125				
MSD	Sample ID: HS18080246-07MSD	Units: mg/Kg			Analysis Date: 10-Aug-2018 16:05					
Client ID: SB-7 10-12	Run ID: ICPMS04_321483	SeqNo: 4688612	PrepDate: 06-Aug-2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	71.82	0.456	9.114	46.68	276	75 - 125	62.9	13.2	20	SO
Lead	15.66	0.456	9.114	5.834	108	75 - 125	14.77	5.83	20	
PDS	Sample ID: HS18080246-07PDS	Units: mg/Kg			Analysis Date: 10-Aug-2018 16:07					
Client ID: SB-7 10-12	Run ID: ICPMS04_321483	SeqNo: 4688613	PrepDate: 06-Aug-2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	55.71	0.459	9.181	46.68	98.3	75 - 125				O
Lead	14.29	0.459	9.181	5.834	92.1	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: 131193	Instrument: ICPMS04	Method: SW6020								
SD	Sample ID: HS18080246-07SD	Units: mg/Kg	Analysis Date: 10-Aug-2018 16:00							
Client ID: SB-7 10-12	Run ID: ICPMS04_321483	SeqNo: 4688610	PrepDate: 06-Aug-2018 DF: 5							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	Limit	Qual

Barium	47.22	2.30					46.68	1.14	10
Lead	5.877	2.30					5.834	0.738	10

The following samples were analyzed in this batch:

HS18080246-01	HS18080246-02	HS18080246-03	HS18080246-04
HS18080246-05	HS18080246-06	HS18080246-07	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: 131309		Instrument: ICPMS05		Method: SW6020						
MBLK	Sample ID: MBLK-131309	Units: mg/L			Analysis Date: 10-Aug-2018 00:10					
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687392	PrepDate: 08-Aug-2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	ND	0.00400								
Lead	ND	0.00200								
LCS	Sample ID: LCS-131309	Units: mg/L			Analysis Date: 10-Aug-2018 00:12					
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687393	PrepDate: 08-Aug-2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.044	0.00400	0.05	0	88.0	80 - 120				
Lead	0.0477	0.00200	0.05	0	95.4	80 - 120				
MS	Sample ID: HS18080215-07MS	Units: mg/L			Analysis Date: 10-Aug-2018 00:28					
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687401	PrepDate: 08-Aug-2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.07115	0.00400	0.05	0.02747	87.4	80 - 120				
Lead	0.04338	0.00200	0.05	0.007602	71.6	80 - 120				S
MSD	Sample ID: HS18080215-07MSD	Units: mg/L			Analysis Date: 10-Aug-2018 00:30					
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687402	PrepDate: 08-Aug-2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.07277	0.00400	0.05	0.02747	90.6	80 - 120	0.07115	2.26	20	
Lead	0.04444	0.00200	0.05	0.007602	73.7	80 - 120	0.04338	2.41	20	S
PDS	Sample ID: HS18080215-07PDS	Units: mg/L			Analysis Date: 10-Aug-2018 00:32					
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687403	PrepDate: 08-Aug-2018	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1254	0.00400	0.1	0.02747	97.9	75 - 125				
Lead	0.09236	0.00200	0.1	0.007602	84.8	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: 131309	Instrument: ICPMS05	Method: SW6020
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SD	Sample ID: HS18080215-07SD	Units: mg/L	Analysis Date: 10-Aug-2018 00:26							
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687400	PrepDate: 08-Aug-2018 DF: 5							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	Limit	Qual
Barium	0.02714	0.0200					0.02747	1.22	10	
Lead	0.008186	0.0100					0.007602	0	10	J

The following samples were analyzed in this batch:

HS18080246-08	HS18080246-09	HS18080246-10	HS18080246-11
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Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: R321192 **Instrument:** VOA8 **Method:** SW8260

MBLK		Sample ID: VBLKS1-080618		Units: ug/Kg		Analysis Date: 06-Aug-2018 15:33			
Client ID:		Run ID: VOA8_321192		SeqNo: 4681417		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	5.0							
Ethylbenzene	ND	5.0							
m,p-Xylene	ND	10							
o-Xylene	ND	5.0							
Toluene	ND	5.0							
Xylenes, Total	ND	5.0							
<i>Surr: 1,2-Dichloroethane-d4</i>	53.5	0	50	0	107	76 - 125			
<i>Surr: 4-Bromofluorobenzene</i>	47.3	0	50	0	94.6	80 - 120			
<i>Surr: Dibromofluoromethane</i>	53.21	0	50	0	106	80 - 119			
<i>Surr: Toluene-d8</i>	49.53	0	50	0	99.1	81 - 118			

LCS		Sample ID: VLCSS1-080618		Units: ug/Kg		Analysis Date: 06-Aug-2018 15:04			
Client ID:		Run ID: VOA8_321192		SeqNo: 4681416		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	49.96	5.0	50	0	99.9	75 - 124			
Ethylbenzene	51.15	5.0	50	0	102	70 - 123			
m,p-Xylene	101.7	10	100	0	102	77 - 125			
o-Xylene	50.23	5.0	50	0	100	78 - 122			
Toluene	45.28	5.0	50	0	90.6	76 - 122			
Xylenes, Total	152	5.0	150	0	101	77 - 128			
<i>Surr: 1,2-Dichloroethane-d4</i>	53.26	0	50	0	107	76 - 125			
<i>Surr: 4-Bromofluorobenzene</i>	50.17	0	50	0	100	80 - 120			
<i>Surr: Dibromofluoromethane</i>	50.32	0	50	0	101	80 - 119			
<i>Surr: Toluene-d8</i>	48.07	0	50	0	96.1	81 - 118			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: R321192 **Instrument:** VOA8 **Method:** SW8260

MS		Sample ID: HS18080246-07MS			Units: ug/Kg		Analysis Date: 06-Aug-2018 16:28			
Client ID: SB-7 10-12		Run ID: VOA8_321192			SeqNo: 4681419		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	43.21	3.9	39	0	111	70 - 130				
Ethylbenzene	43.39	3.9	39	0	111	70 - 130				
m,p-Xylene	85.63	7.8	78	0	110	70 - 130				
o-Xylene	42.82	3.9	39	0	110	70 - 130				
Toluene	43.02	3.9	39	0	110	70 - 130				
Xylenes, Total	128.4	3.9	117	0	110	70 - 130				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>40.91</i>	<i>0</i>	<i>39</i>	<i>0</i>	<i>105</i>	<i>70 - 126</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>39.23</i>	<i>0</i>	<i>39</i>	<i>0</i>	<i>101</i>	<i>70 - 130</i>				
<i>Surr: Dibromofluoromethane</i>	<i>41.91</i>	<i>0</i>	<i>39</i>	<i>0</i>	<i>107</i>	<i>70 - 130</i>				
<i>Surr: Toluene-d8</i>	<i>37.53</i>	<i>0</i>	<i>39</i>	<i>0</i>	<i>96.2</i>	<i>70 - 130</i>				

MSD		Sample ID: HS18080246-07MSD			Units: ug/Kg		Analysis Date: 06-Aug-2018 16:55			
Client ID: SB-7 10-12		Run ID: VOA8_321192			SeqNo: 4681420		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	42.32	4.2	41.5	0	102	70 - 130	43.21	2.09	30	
Ethylbenzene	43.66	4.2	41.5	0	105	70 - 130	43.39	0.63	30	
m,p-Xylene	86.24	8.3	83	0	104	70 - 130	85.63	0.706	30	
o-Xylene	42.51	4.2	41.5	0	102	70 - 130	42.82	0.716	30	
Toluene	42.52	4.2	41.5	0	102	70 - 130	43.02	1.19	30	
Xylenes, Total	128.7	4.2	124.5	0	103	70 - 130	128.4	0.234	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>44.73</i>	<i>0</i>	<i>41.5</i>	<i>0</i>	<i>108</i>	<i>70 - 126</i>	<i>40.91</i>	<i>8.92</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>41.24</i>	<i>0</i>	<i>41.5</i>	<i>0</i>	<i>99.4</i>	<i>70 - 130</i>	<i>39.23</i>	<i>4.99</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>43.93</i>	<i>0</i>	<i>41.5</i>	<i>0</i>	<i>106</i>	<i>70 - 130</i>	<i>41.91</i>	<i>4.71</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>39.45</i>	<i>0</i>	<i>41.5</i>	<i>0</i>	<i>95.1</i>	<i>70 - 130</i>	<i>37.53</i>	<i>5</i>	<i>30</i>	

The following samples were analyzed in this batch:

HS18080246-01	HS18080246-02	HS18080246-03	HS18080246-04
HS18080246-05	HS18080246-06	HS18080246-07	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: R321304	Instrument: VOA2	Method: SW8260
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MBLK		Sample ID: VBLKW-180807		Units: ug/L		Analysis Date: 07-Aug-2018 13:12			
Client ID:		Run ID: VOA2_321304		SeqNo: 4683847		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	1.0							
Ethylbenzene	ND	1.0							
m,p-Xylene	ND	2.0							
o-Xylene	ND	1.0							
Toluene	ND	1.0							
Xylenes, Total	ND	1.0							
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>45.91</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>91.8</i>	<i>70 - 123</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.81</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>97.6</i>	<i>82 - 115</i>			
<i>Surr: Dibromofluoromethane</i>	<i>48.12</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>96.2</i>	<i>73 - 126</i>			
<i>Surr: Toluene-d8</i>	<i>46.43</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>92.9</i>	<i>81 - 120</i>			

LCS		Sample ID: VLCSW-180807		Units: ug/L		Analysis Date: 07-Aug-2018 12:20			
Client ID:		Run ID: VOA2_321304		SeqNo: 4683846		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	47.34	1.0	50	0	94.7	74 - 120			
Ethylbenzene	56.07	1.0	50	0	112	77 - 117			
m,p-Xylene	115.5	2.0	100	0	116	77 - 122			
o-Xylene	56.71	1.0	50	0	113	75 - 119			
Toluene	47.08	1.0	50	0	94.2	77 - 118			
Xylenes, Total	172.2	1.0	150	0	115	75 - 122			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.9</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>95.8</i>	<i>70 - 130</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>51.93</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>82 - 115</i>			
<i>Surr: Dibromofluoromethane</i>	<i>45.95</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>91.9</i>	<i>73 - 126</i>			
<i>Surr: Toluene-d8</i>	<i>44.65</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>89.3</i>	<i>81 - 120</i>			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: R321304 **Instrument:** VOA2 **Method:** SW8260

MS		Sample ID: HS18080310-03MS			Units: ug/L		Analysis Date: 07-Aug-2018 19:09			
Client ID:		Run ID: VOA2_321304			SeqNo: 4683860		PrepDate:		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	2431	50	2500	0	97.2	70 - 127				
Ethylbenzene	2871	50	2500	0	115	70 - 124				
m,p-Xylene	6012	100	5000	0	120	70 - 130				
o-Xylene	2874	50	2500	0	115	70 - 124				
Toluene	2405	50	2500	0	96.2	70 - 123				
Xylenes, Total	8885	50	7500	0	118	70 - 130				
Surr: 1,2-Dichloroethane-d4	2383	50	2500	0	95.3	70 - 126				
Surr: 4-Bromofluorobenzene	2609	50	2500	0	104	81 - 113				
Surr: Dibromofluoromethane	2261	50	2500	0	90.4	77 - 123				
Surr: Toluene-d8	2192	50	2500	0	87.7	82 - 127				

MSD		Sample ID: HS18080310-03MSD			Units: ug/L		Analysis Date: 07-Aug-2018 19:34			
Client ID:		Run ID: VOA2_321304			SeqNo: 4683861		PrepDate:		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	2381	50	2500	0	95.3	70 - 127	2431	2.04	20	
Ethylbenzene	2838	50	2500	0	114	70 - 124	2871	1.19	20	
m,p-Xylene	5814	100	5000	0	116	70 - 130	6012	3.34	20	
o-Xylene	2792	50	2500	0	112	70 - 124	2874	2.87	20	
Toluene	2322	50	2500	0	92.9	70 - 123	2405	3.49	20	
Xylenes, Total	8607	50	7500	0	115	70 - 130	8885	3.19	20	
Surr: 1,2-Dichloroethane-d4	2382	50	2500	0	95.3	70 - 126	2383	0.0592	20	
Surr: 4-Bromofluorobenzene	2582	50	2500	0	103	81 - 113	2609	1.05	20	
Surr: Dibromofluoromethane	2313	50	2500	0	92.5	77 - 123	2261	2.27	20	
Surr: Toluene-d8	2205	50	2500	0	88.2	82 - 127	2192	0.585	20	

The following samples were analyzed in this batch: HS18080246-08 HS18080246-09 HS18080246-10 HS18080246-11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: 131363	Instrument: ICS2100	Method: E300
-------------------------	----------------------------	---------------------

MBLK	Sample ID: MBLK-131363	Units: mg/Kg	Analysis Date: 09-Aug-2018 23:26							
Client ID:	Run ID: ICS2100_321526	SeqNo: 4688788	PrepDate: 09-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride ND 5.00

LCS	Sample ID: LCS-131363	Units: mg/Kg	Analysis Date: 09-Aug-2018 23:41							
Client ID:	Run ID: ICS2100_321526	SeqNo: 4688789	PrepDate: 09-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 191.9 5.00 200 0 96.0 90 - 110

LCSD	Sample ID: LCSD-131363	Units: mg/Kg	Analysis Date: 09-Aug-2018 23:55							
Client ID:	Run ID: ICS2100_321526	SeqNo: 4688790	PrepDate: 09-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 189.2 5.00 200 0 94.6 90 - 110 191.9 1.41 20

MS	Sample ID: HS18080246-07MS	Units: mg/Kg	Analysis Date: 10-Aug-2018 02:21							
Client ID: SB-7 10-12	Run ID: ICS2100_321526	SeqNo: 4688800	PrepDate: 09-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 102.2 4.91 98.19 4.689 99.3 75 - 125

MSD	Sample ID: HS18080246-07MSD	Units: mg/Kg	Analysis Date: 10-Aug-2018 02:35							
Client ID: SB-7 10-12	Run ID: ICS2100_321526	SeqNo: 4688801	PrepDate: 09-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 104 4.96 99.16 4.689 100 75 - 125 102.2 1.71 20

The following samples were analyzed in this batch:	HS18080246-01	HS18080246-02	HS18080246-03	HS18080246-04
	HS18080246-05	HS18080246-06	HS18080246-07	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: R321387		Instrument: Balance1		Method: SW3550						
DUP	Sample ID: HS18080246-07DUP	Units: wt%		Analysis Date: 08-Aug-2018 09:53						
Client ID: SB-7 10-12	Run ID: Balance1_321387	SeqNo: 4685861		PrepDate:	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Percent Moisture	21	0.0100					23.4	10.8	20
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The following samples were analyzed in this batch:

HS18080246-01	HS18080246-02	HS18080246-03	HS18080246-04
HS18080246-05	HS18080246-06	HS18080246-07	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: R321514	Instrument: WetChem_HS	Method: SW9045B
--------------------------	-------------------------------	------------------------

DUP	Sample ID: HS18080401-01DUP	Units: pH Units	Analysis Date: 10-Aug-2018 15:40							
Client ID:	Run ID: WetChem_HS_321514	SeqNo: 4688541	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

pH 8.29 0.100 8.2 1.09 10

DUP	Sample ID: HS18080246-07DUP	Units: pH Units	Analysis Date: 10-Aug-2018 15:40							
Client ID: SB-7 10-12	Run ID: WetChem_HS_321514	SeqNo: 4688536	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

pH 8.43 0.100 8.5 0.827 10

The following samples were analyzed in this batch:	HS18080246-01	HS18080246-02	HS18080246-03	HS18080246-04
	HS18080246-05	HS18080246-06	HS18080246-07	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

QC BATCH REPORT

Batch ID: R321527	Instrument: ICS2100	Method: E300
--------------------------	----------------------------	---------------------

MBLK	Sample ID: WBLKW1-081018	Units: mg/L	Analysis Date: 10-Aug-2018 03:33							
Client ID:	Run ID: ICS2100_321527	SeqNo: 4688809	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride ND 0.500

LCS	Sample ID: WLCSW1-081018	Units: mg/L	Analysis Date: 10-Aug-2018 03:48							
Client ID:	Run ID: ICS2100_321527	SeqNo: 4688810	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 19.93 0.500 20 0 99.6 90 - 110

LCSD	Sample ID: WLCSDW1-081018	Units: mg/L	Analysis Date: 10-Aug-2018 04:02							
Client ID:	Run ID: ICS2100_321527	SeqNo: 4688811	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 18.92 0.500 20 0 94.6 90 - 110 19.93 5.16 20

MS	Sample ID: HS18080246-11MS	Units: mg/L	Analysis Date: 10-Aug-2018 10:50							
Client ID: TMW-7	Run ID: ICS2100_321527	SeqNo: 4688820	PrepDate: DF: 10							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 426.1 5.00 100 337.5 88.6 80 - 120

MSD	Sample ID: HS18080246-11MSD	Units: mg/L	Analysis Date: 10-Aug-2018 11:04							
Client ID: TMW-7	Run ID: ICS2100_321527	SeqNo: 4688821	PrepDate: DF: 10							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Chloride 431.8 5.00 100 337.5 94.3 80 - 120 426.1 1.34 20

The following samples were analyzed in this batch: HS18080246-08 HS18080246-09 HS18080246-10 HS18080246-11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (North Side)
WorkOrder: HS18080246

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg-dry	Milligrams per Kilogram- Dry weight corrected
mg/L	Milligrams per Liter
pH Units	

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Oklahoma	2017-088	31-Aug-2018
North Carolina	624-2018	31-Dec-2018
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	L2231 Rev 3-30-2018	22-Dec-2018
Kentucky	123043 - 2018	30-Apr-2019

Sample Receipt Checklist

Client Name: Phase
 Work Order: HS18080246

Date/Time Received: **03-Aug-2018 16:20**
 Received by: **PS**

Checklist completed by: Jared R. Makan 4-Aug-2018
 eSignature Date

Reviewed by: Bernadette A. Fini 6-Aug-2018
 eSignature Date

Matrices: **Water, Soil**

Carrier name: **ALS Courier**

- 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 present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- TX1005 solids received in hermetically sealed vials? Yes No N/A
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 0.7c/0.4c, 1.6c/1.3c UC/C IR25
 Cooler(s)/Kit(s): 44196, 24888
 Date/Time sample(s) sent to storage: 08/03/2018 19:51

- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH acceptable upon receipt? Yes No N/A
- pH adjusted? Yes No N/A
- pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



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Chain of Custody

Page 2 of 3

COC ID: 1866

HS18080246

Phase Engineering, Inc.
I-10 & Major Drive



ALS Project Manager

Customer Information		Project Information	
Purchase Order	201807111 (North Side)	Project Name	I-10 & Major Drive
Work Order		Project Number	Beaumont, TX
Company Name	Phase Engineering, Inc.	Bill To Company	Phase Engineering, Inc.
Send Report To	Ross Doctoroff	Invoice Attn	Claudia Pedroza-AP
Address	5524 Cornish Street	Address	5524 Cornish Street
City/State/Zip	Houston, TX 77007	City/State/Zip	Houston TX 77007
Phone	(713) 476-9844	Phone	(713) 476-9844
Fax	(713) 476-9797	Fax	(713) 476-9797
e-Mail Address	ross@PhaseEngineering.com	e-Mail Address	Claudia@phaseengineering.com

A	8260_S (5035/8260 BTEX)
B	TX1005_S_REV3 (5035/Texas TPH TX1005)
C	300_S (Chloride)
D	ICP_S_Low (Total Barium/Lead)
E	MOIST_SW3550
F	PH_S (pH)
G	8260_LL_W (Low Level VOC 8260 BTEX)
H	TX1005_W_Low (Texas TPH TX1005)
I	300_W (Chloride)
J	ICP_TW (Ba,Pb)

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J
1	SB-4 1-2	8/2/18	1445	S	8,9	7	X	X	X	X	X	X				
2	SB-5 1-2	8/3/18	0830	S	8,9	7	X	X	X	X	X	X				
3	SB-5 10-12	8/3/18	0840	S	8,9	7	X	X	X	X	X	X				
4	SB-6 1-2	8/3/18	0920	S	8,9	7	X	X	X	X	X	X				
5	SB-6 10-12	8/3/18	0930	S	8,9	7	X	X	X	X	X	X				
6	SB-7 1-2	8/3/18	1020	S	8,9	7	X	X	X	X	X	X				
7	SB-7 10-12	8/3/18	1030	S	8,9	14	X	X	X	X	X	X				
8																
9																
10																

Sampler(s) Please Print & Sign: *Bonny Alvarez* / *Ross Doctoroff*

Shipment Method: _____ Required Turnaround Time: (Check Box) STD 10 Wk Days 5 Wk Days 2 Wk Days 24 Hour Other: _____ Results Due Date: _____

Relinquished by: *[Signature]* Date: 8/3/18 Time: 1515 Received By: *[Signature]* Date: 8/3/18 Time: 1620

Relinquished by (Laboratory): *[Signature]* Date: 8/3/18 Time: 1620 Received by (Laboratory): *[Signature]* Date: _____ Time: _____

Logged by (Laboratory): *[Signature]* Date: _____ Time: _____ Checked by (Laboratory): *[Signature]* Date: _____ Time: _____

Notes: Phase I-10 & Major Drive 0318

Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
44126	0.7	<input checked="" type="checkbox"/> Level II Std QC	<input type="checkbox"/> TRRP Checklist
24888	1.6	<input type="checkbox"/> Level III Std QC/Raw Data	<input type="checkbox"/> TRRP Level IV
		<input type="checkbox"/> Level IV SW846/CLP	<input type="checkbox"/> Other

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

ote: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.



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Chain of Custody Form

Page 3 of 3

COC ID: 186683

HS18080246

Phase Engineering, Inc.
I-10 & Major Drive



ALS Project Manager: _____

Customer Information		Project Information	
Purchase Order	201807111 (North Side)	Project Name	I-10 & Major Drive
Work Order		Project Number	Beaumont, TX
Company Name	Phase Engineering, Inc.	Bill To Company	Phase Engineering, Inc.
Send Report To	Ross Doctoroff	Invoice Attn	Claudia Pedroza-AP
Address	5524 Cornish Street	Address	5524 Cornish Street
City/State/Zip	Houston, TX 77007	City/State/Zip	Houston TX 77007
Phone	(713) 476-9844	Phone	(713) 476-9844
Fax	(713) 476-9797	Fax	(713) 476-9797
e-Mail Address	ross@PhaseEngineering.com	e-Mail Address	Claudia@phaseengineering.com

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	ALS Project Manager: _____												
							A	B	C	D	E	F	G	H	I	J	Hold		
1	TMW-4	8/3/18	0800	w	1,2,8	8									X	X	X	X	
2	TMW-5	8/3/18	1120	w	1,2,8	8									X	X	X	X	
3	TMW-6	8/3/18	1200	w	1,2,8	8									X	X	X	X	
4	TMW-7	8/3/18	1230	w	1,2,8	8									X	X	X	X	
5															X	X	X	X	
6																			
7																			
8																			
9																			
10																			

Sampler(s) Please Print & Sign: *Ross Doctoroff* *Angela...*

Relinquished by: *Ross Doctoroff* Date: 8/3/18 Time: 1515

Relinquished by: *Angela...* Date: 8/3/18 Time: 1620

Shipment Method: _____

Required Turnaround Time: (Check Box) STD 10 Wk Days 5 Wk Days 2 Wk Days 24 Hour


Results Due Date: _____

Notes: Phase I-10 & Major Drive 8/3/18


QC Package: (Check One Box Below) Level II Std QC TRRP Checklist
 Level III Std QC/Raw Data TRRP Level IV
 Level IV SW846/CLP
 Other

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035


ote: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarez</i>	Company: <i>Phase</i>	


44196 **AUG 03 2018**

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarez</i>	Company: <i>Phase</i>	

44196 **AUG 03 2018**

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarez</i>	Company: <i>Phase</i>	

24888 **AUG 03 2018**

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarez</i>	Company: <i>Phase</i>	

24888 **AUG 03 2018**



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

August 13, 2018

Ross Doctoroff
Phase Engineering, Inc.
5524 Cornish Street
Houston, TX 77007

Work Order: **HS18080244**

Laboratory Results for: **I-10 & Major Drive (South Side)**

Dear Ross,

ALS Environmental received 6 sample(s) on Aug 03, 2018 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: **BERNADETTE.FINI**
Bernadette A. Fini
Project Manager

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
Work Order: HS18080244

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18080244-01	SB-1 1-2	Soil		02-Aug-2018 08:45	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080244-02	SB-2 1-2	Soil		02-Aug-2018 09:45	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080244-03	SB-3 1-2	Soil		02-Aug-2018 12:00	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080244-04	TMW-1	Water		02-Aug-2018 13:15	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080244-05	TMW-2	Water		02-Aug-2018 13:45	03-Aug-2018 16:20	<input type="checkbox"/>
HS18080244-06	TMW-3	Water		02-Aug-2018 14:15	03-Aug-2018 16:20	<input type="checkbox"/>

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
Work Order: HS18080244

CASE NARRATIVE

Work Order Comments

- Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.
The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

GC Semivolatiles by Method TX1005

Batch ID: 131246

Sample ID: HS18080249-01MS

- MS and MSD are for an unrelated sample

Batch ID: 131226

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW7471A

Batch ID: 131264

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW7470

Batch ID: 131243

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW6020

Batch ID: 131193

Sample ID: HS18080246-07MS

- MS and MSD are for an unrelated sample

Batch ID: 131309

Sample ID: HS18080215-07MS

- MS/MSD and DUPs are for an unrelated sample

WetChemistry by Method SW9045B

Batch ID: R321514

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW3550

Batch ID: R321305

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: SB-1 1-2
 Collection Date: 02-Aug-2018 08:45

ANALYTICAL REPORT
 WorkOrder:HS18080244
 Lab ID:HS18080244-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 06-Aug-2018		Analyst: MBG
nC6 to nC12	ND		69	mg/Kg-dry	1	08-Aug-2018 14:05
>nC12 to nC28	ND		69	mg/Kg-dry	1	08-Aug-2018 14:05
>nC28 to nC35	ND		69	mg/Kg-dry	1	08-Aug-2018 14:05
Total Petroleum Hydrocarbon	ND		69	mg/Kg-dry	1	08-Aug-2018 14:05
Surr: 2-Fluorobiphenyl	73.5		70-130	%REC	1	08-Aug-2018 14:05
Surr: Trifluoromethyl benzene	73.3		70-130	%REC	1	08-Aug-2018 14:05
METALS BY SW6020A		Method:SW6020		Prep:SW3050A / 06-Aug-2018		Analyst: JCJ
Antimony	ND		0.682	mg/Kg-dry	1	10-Aug-2018 15:24
Arsenic	3.83		0.682	mg/Kg-dry	1	10-Aug-2018 17:18
Beryllium	1.72		0.682	mg/Kg-dry	1	10-Aug-2018 15:24
Cadmium	ND		0.682	mg/Kg-dry	1	10-Aug-2018 15:24
Chromium	30.7		0.682	mg/Kg-dry	1	10-Aug-2018 15:24
Copper	10.9		0.273	mg/Kg-dry	1	10-Aug-2018 15:24
Lead	20.1		0.682	mg/Kg-dry	1	10-Aug-2018 15:24
Nickel	11.1		0.682	mg/Kg-dry	1	10-Aug-2018 15:24
Selenium	0.960		0.682	mg/Kg-dry	1	10-Aug-2018 15:24
Silver	ND		0.682	mg/Kg-dry	1	10-Aug-2018 15:24
Thallium	ND		0.682	mg/Kg-dry	1	10-Aug-2018 15:24
Zinc	102		0.682	mg/Kg-dry	1	10-Aug-2018 15:24
MERCURY BY SW7471B		Method:SW7471A		Prep:SW7471A / 08-Aug-2018		Analyst: JBA
Mercury	0.0327		0.00481	mg/Kg-dry	1	09-Aug-2018 11:54
MOISTURE		Method:SW3550				Analyst: DFF
Percent Moisture	28.8		0.0100	wt%	1	07-Aug-2018 10:43
PH SOIL BY SW9045D		Method:SW9045B				Analyst: KVL
pH	5.18	H	0.100	pH Units	1	10-Aug-2018 15:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: SB-2 1-2
 Collection Date: 02-Aug-2018 09:45

ANALYTICAL REPORT
 WorkOrder:HS18080244
 Lab ID:HS18080244-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 06-Aug-2018		Analyst: MBG
nC6 to nC12	ND		64	mg/Kg-dry	1	08-Aug-2018 14:34
>nC12 to nC28	ND		64	mg/Kg-dry	1	08-Aug-2018 14:34
>nC28 to nC35	ND		64	mg/Kg-dry	1	08-Aug-2018 14:34
Total Petroleum Hydrocarbon	ND		64	mg/Kg-dry	1	08-Aug-2018 14:34
Surr: 2-Fluorobiphenyl	78.0		70-130	%REC	1	08-Aug-2018 14:34
Surr: Trifluoromethyl benzene	73.3		70-130	%REC	1	08-Aug-2018 14:34
METALS BY SW6020A		Method:SW6020		Prep:SW3050A / 06-Aug-2018		Analyst: JCJ
Antimony	ND		0.684	mg/Kg-dry	1	10-Aug-2018 15:27
Arsenic	2.85		0.684	mg/Kg-dry	1	10-Aug-2018 17:20
Beryllium	1.73		0.684	mg/Kg-dry	1	10-Aug-2018 15:27
Cadmium	ND		0.684	mg/Kg-dry	1	10-Aug-2018 15:27
Chromium	31.9		0.684	mg/Kg-dry	1	10-Aug-2018 15:27
Copper	10.7		0.274	mg/Kg-dry	1	10-Aug-2018 15:27
Lead	17.9		0.684	mg/Kg-dry	1	10-Aug-2018 15:27
Nickel	10.3		0.684	mg/Kg-dry	1	10-Aug-2018 15:27
Selenium	1.06		0.684	mg/Kg-dry	1	10-Aug-2018 15:27
Silver	ND		0.684	mg/Kg-dry	1	10-Aug-2018 15:27
Thallium	ND		0.684	mg/Kg-dry	1	10-Aug-2018 15:27
Zinc	50.4		0.684	mg/Kg-dry	1	10-Aug-2018 15:27
MERCURY BY SW7471B		Method:SW7471A		Prep:SW7471A / 08-Aug-2018		Analyst: JBA
Mercury	0.0291		0.00510	mg/Kg-dry	1	09-Aug-2018 12:00
MOISTURE		Method:SW3550				Analyst: DFF
Percent Moisture	30.6		0.0100	wt%	1	07-Aug-2018 10:43
PH SOIL BY SW9045D		Method:SW9045B				Analyst: KVL
pH	4.78	H	0.100	pH Units	1	10-Aug-2018 15:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: SB-3 1-2
 Collection Date: 02-Aug-2018 12:00

ANALYTICAL REPORT
 WorkOrder:HS18080244
 Lab ID:HS18080244-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 06-Aug-2018		Analyst: MBG
nC6 to nC12	ND		62	mg/Kg-dry	1	08-Aug-2018 15:02
>nC12 to nC28	ND		62	mg/Kg-dry	1	08-Aug-2018 15:02
>nC28 to nC35	ND		62	mg/Kg-dry	1	08-Aug-2018 15:02
Total Petroleum Hydrocarbon	ND		62	mg/Kg-dry	1	08-Aug-2018 15:02
Surr: 2-Fluorobiphenyl	71.6		70-130	%REC	1	08-Aug-2018 15:02
Surr: Trifluoromethyl benzene	71.2		70-130	%REC	1	08-Aug-2018 15:02
METALS BY SW6020A		Method:SW6020		Prep:SW3050A / 06-Aug-2018		Analyst: JCJ
Antimony	ND		0.642	mg/Kg-dry	1	10-Aug-2018 15:29
Arsenic	4.65		0.642	mg/Kg-dry	1	10-Aug-2018 17:22
Beryllium	1.56		0.642	mg/Kg-dry	1	10-Aug-2018 15:29
Cadmium	ND		0.642	mg/Kg-dry	1	10-Aug-2018 15:29
Chromium	30.6		0.642	mg/Kg-dry	1	10-Aug-2018 15:29
Copper	10.1		0.257	mg/Kg-dry	1	10-Aug-2018 15:29
Lead	18.8		0.642	mg/Kg-dry	1	10-Aug-2018 15:29
Nickel	10.7		0.642	mg/Kg-dry	1	10-Aug-2018 15:29
Selenium	0.857		0.642	mg/Kg-dry	1	10-Aug-2018 15:29
Silver	ND		0.642	mg/Kg-dry	1	10-Aug-2018 15:29
Thallium	ND		0.642	mg/Kg-dry	1	10-Aug-2018 15:29
Zinc	60.4		0.642	mg/Kg-dry	1	10-Aug-2018 15:29
MERCURY BY SW7471B		Method:SW7471A		Prep:SW7471A / 08-Aug-2018		Analyst: JBA
Mercury	0.0284		0.00481	mg/Kg-dry	1	09-Aug-2018 12:01
MOISTURE		Method:SW3550				Analyst: DFF
Percent Moisture	27.6		0.0100	wt%	1	07-Aug-2018 10:43
PH SOIL BY SW9045D		Method:SW9045B				Analyst: KVL
pH	4.99	H	0.100	pH Units	1	10-Aug-2018 15:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: TMW-1
 Collection Date: 02-Aug-2018 13:15

ANALYTICAL REPORT
 WorkOrder:HS18080244
 Lab ID:HS18080244-04
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 07-Aug-2018		Analyst: MBG
nC6 to nC12	ND		0.50	mg/L	1	09-Aug-2018 15:15
>nC12 to nC28	ND		0.50	mg/L	1	09-Aug-2018 15:15
>nC28 to nC35	ND		0.50	mg/L	1	09-Aug-2018 15:15
Total Petroleum Hydrocarbon	ND		0.50	mg/L	1	09-Aug-2018 15:15
Surr: 2-Fluorobiphenyl	91.6		70-130	%REC	1	09-Aug-2018 15:15
Surr: Trifluoromethyl benzene	91.2		70-130	%REC	1	09-Aug-2018 15:15
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 08-Aug-2018		Analyst: JDE
Antimony	ND		0.00200	mg/L	1	10-Aug-2018 00:36
Arsenic	ND		0.00200	mg/L	1	10-Aug-2018 00:36
Beryllium	ND		0.00200	mg/L	1	10-Aug-2018 00:36
Cadmium	ND		0.00200	mg/L	1	10-Aug-2018 00:36
Chromium	ND		0.00400	mg/L	1	10-Aug-2018 00:36
Copper	ND		0.00200	mg/L	1	10-Aug-2018 00:36
Lead	ND		0.00200	mg/L	1	10-Aug-2018 00:36
Nickel	0.00722		0.00200	mg/L	1	10-Aug-2018 00:36
Selenium	ND		0.00200	mg/L	1	10-Aug-2018 00:36
Silver	ND		0.00200	mg/L	1	10-Aug-2018 00:36
Thallium	ND		0.00200	mg/L	1	10-Aug-2018 00:36
Zinc	0.0129		0.00400	mg/L	1	10-Aug-2018 00:36
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 07-Aug-2018		Analyst: JBA
Mercury	ND		0.000200	mg/L	1	08-Aug-2018 12:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: TMW-2
 Collection Date: 02-Aug-2018 13:45

ANALYTICAL REPORT
 WorkOrder:HS18080244
 Lab ID:HS18080244-05
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 07-Aug-2018		Analyst: MBG
nC6 to nC12	ND		0.49	mg/L	1	10-Aug-2018 10:37
>nC12 to nC28	ND		0.49	mg/L	1	10-Aug-2018 10:37
>nC28 to nC35	ND		0.49	mg/L	1	10-Aug-2018 10:37
Total Petroleum Hydrocarbon	ND		0.49	mg/L	1	10-Aug-2018 10:37
Surr: 2-Fluorobiphenyl	81.8		70-130	%REC	1	10-Aug-2018 10:37
Surr: Trifluoromethyl benzene	94.4		70-130	%REC	1	10-Aug-2018 10:37
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 08-Aug-2018		Analyst: JDE
Antimony	ND		0.00200	mg/L	1	10-Aug-2018 00:38
Arsenic	ND		0.00200	mg/L	1	10-Aug-2018 00:38
Beryllium	ND		0.00200	mg/L	1	10-Aug-2018 00:38
Cadmium	ND		0.00200	mg/L	1	10-Aug-2018 00:38
Chromium	ND		0.00400	mg/L	1	10-Aug-2018 00:38
Copper	ND		0.00200	mg/L	1	10-Aug-2018 00:38
Lead	ND		0.00200	mg/L	1	10-Aug-2018 00:38
Nickel	0.00982		0.00200	mg/L	1	10-Aug-2018 00:38
Selenium	ND		0.00200	mg/L	1	10-Aug-2018 00:38
Silver	ND		0.00200	mg/L	1	10-Aug-2018 00:38
Thallium	ND		0.00200	mg/L	1	10-Aug-2018 00:38
Zinc	0.00640		0.00400	mg/L	1	10-Aug-2018 00:38
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 07-Aug-2018		Analyst: JBA
Mercury	ND		0.000200	mg/L	1	08-Aug-2018 12:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
 Project: I-10 & Major Drive (South Side)
 Sample ID: TMW-3
 Collection Date: 02-Aug-2018 14:15

ANALYTICAL REPORT
 WorkOrder:HS18080244
 Lab ID:HS18080244-06
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 07-Aug-2018		Analyst: MBG
nC6 to nC12	ND		0.48	mg/L	1	09-Aug-2018 16:13
>nC12 to nC28	ND		0.48	mg/L	1	09-Aug-2018 16:13
>nC28 to nC35	1.6		0.48	mg/L	1	09-Aug-2018 16:13
Total Petroleum Hydrocarbon	1.60		0.48	mg/L	1	09-Aug-2018 16:13
Surr: 2-Fluorobiphenyl	84.2		70-130	%REC	1	09-Aug-2018 16:13
Surr: Trifluoromethyl benzene	86.0		70-130	%REC	1	09-Aug-2018 16:13
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 08-Aug-2018		Analyst: JDE
Antimony	ND		0.00200	mg/L	1	10-Aug-2018 00:40
Arsenic	ND		0.00200	mg/L	1	10-Aug-2018 00:40
Beryllium	ND		0.00200	mg/L	1	10-Aug-2018 00:40
Cadmium	ND		0.00200	mg/L	1	10-Aug-2018 00:40
Chromium	ND		0.00400	mg/L	1	10-Aug-2018 00:40
Copper	ND		0.00200	mg/L	1	10-Aug-2018 00:40
Lead	ND		0.00200	mg/L	1	10-Aug-2018 00:40
Nickel	0.00858		0.00200	mg/L	1	10-Aug-2018 00:40
Selenium	ND		0.00200	mg/L	1	10-Aug-2018 00:40
Silver	ND		0.00200	mg/L	1	10-Aug-2018 00:40
Thallium	ND		0.00200	mg/L	1	10-Aug-2018 00:40
Zinc	0.00959		0.00400	mg/L	1	10-Aug-2018 00:40
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 07-Aug-2018		Analyst: JBA
Mercury	0.000236		0.000200	mg/L	1	08-Aug-2018 12:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

Batch ID: 131193 **Method:** METALS BY SW6020A **Prep:** 3050_I_LOW

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080244-01	1	0.5151	50 (mL)	97.07
HS18080244-02	1	0.5266	50 (mL)	94.95
HS18080244-03	1	0.5376	50 (mL)	93.01

Batch ID: 131226 **Method:** TEXAS TPH BY TX1005 **Prep:** TX 1005_S PR

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080244-01	1	10.17	10 (mL)	0.9833
HS18080244-02	1	11.31	10 (mL)	0.8842
HS18080244-03	1	11.12	10 (mL)	0.8993

Batch ID: 131243 **Method:** MERCURY BY SW7470A **Prep:** HG_WPR

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080244-04	1	10 (mL)	10 (mL)	1
HS18080244-05	1	10 (mL)	10 (mL)	1
HS18080244-06	1	10 (mL)	10 (mL)	1

Batch ID: 131246 **Method:** LOW-LEVEL TEXAS TPH BY TX1005 **Prep:** TX 1005_W PR

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080244-04	1	30.03	3 (mL)	0.0999
HS18080244-05	1	30.45	3 (mL)	0.09852
HS18080244-06	1	31.05	3 (mL)	0.09662

Batch ID: 131264 **Method:** MERCURY BY SW7471B **Prep:** HG_S_LOWPR

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080244-01	1	0.5824	40 (mL)	68.68
HS18080244-02	1	0.5637	40 (mL)	70.96
HS18080244-03	1	0.5727	40 (mL)	69.84

Batch ID: 131309 **Method:** ICP-MS METALS BY SW6020A **Prep:** 3010A

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18080244-04	1	10	10 (mL)	1
HS18080244-05	1	10	10 (mL)	1
HS18080244-06	1	10	10 (mL)	1

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 131193		Test Name : METALS BY SW6020A		Matrix: Soil		
HS18080244-01	SB-1 1-2	02 Aug 2018 08:45		06 Aug 2018 07:56	10 Aug 2018 17:18	1
HS18080244-01	SB-1 1-2	02 Aug 2018 08:45		06 Aug 2018 07:56	10 Aug 2018 15:24	1
HS18080244-02	SB-2 1-2	02 Aug 2018 09:45		06 Aug 2018 07:56	10 Aug 2018 17:20	1
HS18080244-02	SB-2 1-2	02 Aug 2018 09:45		06 Aug 2018 07:56	10 Aug 2018 15:27	1
HS18080244-03	SB-3 1-2	02 Aug 2018 12:00		06 Aug 2018 07:56	10 Aug 2018 17:22	1
HS18080244-03	SB-3 1-2	02 Aug 2018 12:00		06 Aug 2018 07:56	10 Aug 2018 15:29	1
Batch ID 131226		Test Name : TEXAS TPH BY TX1005		Matrix: Soil		
HS18080244-01	SB-1 1-2	02 Aug 2018 08:45		06 Aug 2018 13:30	08 Aug 2018 14:05	1
HS18080244-02	SB-2 1-2	02 Aug 2018 09:45		06 Aug 2018 13:30	08 Aug 2018 14:34	1
HS18080244-03	SB-3 1-2	02 Aug 2018 12:00		06 Aug 2018 13:30	08 Aug 2018 15:02	1
Batch ID 131243		Test Name : MERCURY BY SW7470A		Matrix: Water		
HS18080244-04	TMW-1	02 Aug 2018 13:15		07 Aug 2018 08:25	08 Aug 2018 12:38	1
HS18080244-05	TMW-2	02 Aug 2018 13:45		07 Aug 2018 08:25	08 Aug 2018 12:40	1
HS18080244-06	TMW-3	02 Aug 2018 14:15		07 Aug 2018 08:25	08 Aug 2018 12:45	1
Batch ID 131246		Test Name : LOW-LEVEL TEXAS TPH BY TX1005		Matrix: Water		
HS18080244-04	TMW-1	02 Aug 2018 13:15		07 Aug 2018 09:00	09 Aug 2018 15:15	1
HS18080244-05	TMW-2	02 Aug 2018 13:45		07 Aug 2018 09:00	10 Aug 2018 10:37	1
HS18080244-06	TMW-3	02 Aug 2018 14:15		07 Aug 2018 09:00	09 Aug 2018 16:13	1
Batch ID 131264		Test Name : MERCURY BY SW7471B		Matrix: Soil		
HS18080244-01	SB-1 1-2	02 Aug 2018 08:45		08 Aug 2018 10:30	09 Aug 2018 11:54	1
HS18080244-02	SB-2 1-2	02 Aug 2018 09:45		08 Aug 2018 10:30	09 Aug 2018 12:00	1
HS18080244-03	SB-3 1-2	02 Aug 2018 12:00		08 Aug 2018 10:30	09 Aug 2018 12:01	1
Batch ID 131309		Test Name : ICP-MS METALS BY SW6020A		Matrix: Water		
HS18080244-04	TMW-1	02 Aug 2018 13:15		08 Aug 2018 13:30	10 Aug 2018 00:36	1
HS18080244-05	TMW-2	02 Aug 2018 13:45		08 Aug 2018 13:30	10 Aug 2018 00:38	1
HS18080244-06	TMW-3	02 Aug 2018 14:15		08 Aug 2018 13:30	10 Aug 2018 00:40	1
Batch ID R321305		Test Name : MOISTURE		Matrix: Soil		
HS18080244-01	SB-1 1-2	02 Aug 2018 08:45			07 Aug 2018 10:43	1
HS18080244-02	SB-2 1-2	02 Aug 2018 09:45			07 Aug 2018 10:43	1
HS18080244-03	SB-3 1-2	02 Aug 2018 12:00			07 Aug 2018 10:43	1
Batch ID R321514		Test Name : PH SOIL BY SW9045D		Matrix: Soil		
HS18080244-01	SB-1 1-2	02 Aug 2018 08:45			10 Aug 2018 15:40	1
HS18080244-02	SB-2 1-2	02 Aug 2018 09:45			10 Aug 2018 15:40	1
HS18080244-03	SB-3 1-2	02 Aug 2018 12:00			10 Aug 2018 15:40	1

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131226	Instrument: FID-10	Method: TX1005
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MBLK	Sample ID: MBLK-131226	Units: mg/Kg	Analysis Date: 08-Aug-2018 05:24							
Client ID:	Run ID: FID-10_321407	SeqNo: 4686261	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	ND	50								
>nC12 to nC28	ND	50								
>nC28 to nC35	ND	50								
Total Petroleum Hydrocarbon	ND	50								
Surr: 2-Fluorobiphenyl	20.04	0	25	0	80.1	70 - 130				
Surr: Trifluoromethyl benzene	17.62	0	25	0	70.5	70 - 130				

LCS	Sample ID: LCS-131226	Units: mg/Kg	Analysis Date: 08-Aug-2018 05:52							
Client ID:	Run ID: FID-10_321407	SeqNo: 4686262	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	231	50	250	0	92.4	75 - 125				
>nC12 to nC28	227.1	50	250	0	90.8	75 - 125				
Surr: 2-Fluorobiphenyl	26.87	0	25	0	107	70 - 130				
Surr: Trifluoromethyl benzene	21.95	0	25	0	87.8	70 - 130				

LCSD	Sample ID: LCSD-131226	Units: mg/Kg	Analysis Date: 08-Aug-2018 06:21							
Client ID:	Run ID: FID-10_321407	SeqNo: 4686263	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	231.8	50	250	0	92.7	75 - 125	231	0.333	20	
>nC12 to nC28	223.6	50	250	0	89.5	75 - 125	227.1	1.52	20	
Surr: 2-Fluorobiphenyl	22.97	0	25	0	91.9	70 - 130	26.87	15.6	20	
Surr: Trifluoromethyl benzene	20.8	0	25	0	83.2	70 - 130	21.95	5.39	20	

MS	Sample ID: HS18080229-01MS	Units: mg/Kg	Analysis Date: 08-Aug-2018 07:19							
Client ID:	Run ID: FID-10_321407	SeqNo: 4686265	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	245.1	50	249.3	0	98.4	75 - 125				
>nC12 to nC28	214.1	50	249.3	0	85.9	75 - 125				
Surr: 2-Fluorobiphenyl	20.24	0	24.93	0	81.2	70 - 130				
Surr: Trifluoromethyl benzene	17.87	0	24.93	0	71.7	70 - 130				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131226 **Instrument:** FID-10 **Method:** TX1005

MSD Sample ID: **HS18080229-01MSD** Units: **mg/Kg** Analysis Date: **08-Aug-2018 07:48**
 Client ID: Run ID: **FID-10_321407** SeqNo: **4686266** PrepDate: **06-Aug-2018** DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

nC6 to nC12	254.2	50	248.5	0	102	75 - 125	245.1	3.63	20
>nC12 to nC28	205.1	50	248.5	0	82.5	75 - 125	214.1	4.28	20
Surr: 2-Fluorobiphenyl	21.21	0	24.85	0	85.3	70 - 130	20.24	4.67	20
Surr: Trifluoromethyl benzene	18.67	0	24.85	0	75.1	70 - 130	17.87	4.34	20

The following samples were analyzed in this batch: HS18080244-01 HS18080244-02 HS18080244-03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131246		Instrument: FID-12		Method: TX1005						
MBLK	Sample ID: MBLK-131246	Units: mg/L			Analysis Date: 08-Aug-2018 08:03					
Client ID:	Run ID: FID-12_321413	SeqNo: 4686484		PrepDate: 07-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	ND	0.50								
>nC12 to nC28	ND	0.50								
>nC28 to nC35	ND	0.50								
Total Petroleum Hydrocarbon	ND	0.50								
Surr: 2-Fluorobiphenyl	2.377	0	2.5	0	95.1	70 - 130				
Surr: Trifluoromethyl benzene	2.32	0	2.5	0	92.8	70 - 130				
LCS	Sample ID: LCS-131246	Units: mg/L			Analysis Date: 08-Aug-2018 08:32					
Client ID:	Run ID: FID-12_321413	SeqNo: 4686485		PrepDate: 07-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	22.07	0.50	25	0	88.3	75 - 125				
>nC12 to nC28	29.18	0.50	25	0	117	75 - 125				
Surr: 2-Fluorobiphenyl	2.14	0	2.5	0	85.6	70 - 130				
Surr: Trifluoromethyl benzene	2.348	0	2.5	0	93.9	70 - 130				
LCSD	Sample ID: LCSD-131246	Units: mg/L			Analysis Date: 09-Aug-2018 11:22					
Client ID:	Run ID: FID-12_321413	SeqNo: 4686486		PrepDate: 07-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	22.23	0.50	25	0	88.9	75 - 125	22.07	0.699	20	
>nC12 to nC28	28.89	0.50	25	0	116	75 - 125	29.18	0.999	20	
Surr: 2-Fluorobiphenyl	2.357	0	2.5	0	94.3	70 - 130	2.14	9.67	20	
Surr: Trifluoromethyl benzene	2.396	0	2.5	0	95.8	70 - 130	2.348	2	20	
MS	Sample ID: HS18080249-01MS	Units: mg/L			Analysis Date: 09-Aug-2018 12:20					
Client ID:	Run ID: FID-12_321413	SeqNo: 4686488		PrepDate: 07-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	31.17	0.46	23.07	14.42	72.6	75 - 125				S
>nC12 to nC28	136.1	0.46	23.07	162.1	-113	75 - 125				SEO
Surr: 2-Fluorobiphenyl	2.995	0	2.307	0	130	70 - 130				
Surr: Trifluoromethyl benzene	2.424	0	2.307	0	105	70 - 130				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131246	Instrument: FID-12	Method: TX1005
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MSD	Sample ID: HS18080249-01MSD	Units: mg/L	Analysis Date: 09-Aug-2018 12:49							
Client ID:	Run ID: FID-12_321413	SeqNo: 4686489	PrepDate: 07-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	35.3	0.46	23.18	14.42	90.1	75 - 125	31.17	12.4	20	
>nC12 to nC28	163.5	0.46	23.18	162.1	6.14	75 - 125	136.1	18.3	20	SEO
<i>Surr: 2-Fluorobiphenyl</i>	<i>2.743</i>	<i>0</i>	<i>2.318</i>	<i>0</i>	<i>118</i>	<i>70 - 130</i>	<i>2.995</i>	<i>8.78</i>	<i>20</i>	
<i>Surr: Trifluoromethyl benzene</i>	<i>2.658</i>	<i>0</i>	<i>2.318</i>	<i>0</i>	<i>115</i>	<i>70 - 130</i>	<i>2.424</i>	<i>9.2</i>	<i>20</i>	

The following samples were analyzed in this batch:

HS18080244-04	HS18080244-05	HS18080244-06
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Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131193	Instrument: ICPMS04	Method: SW6020
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MBLK	Sample ID: MBLK-131193	Units: mg/Kg	Analysis Date: 10-Aug-2018 15:20							
Client ID:	Run ID: ICPMS04_321483	SeqNo: 4688462	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Antimony	ND	0.500								
Beryllium	ND	0.500								
Cadmium	ND	0.500								
Chromium	ND	0.500								
Copper	ND	0.200								
Lead	ND	0.500								
Nickel	ND	0.500								
Selenium	ND	0.500								
Silver	ND	0.500								
Thallium	ND	0.500								
Zinc	ND	0.500								

MBLK	Sample ID: MBLK-131193	Units: mg/Kg	Analysis Date: 10-Aug-2018 17:14							
Client ID:	Run ID: ICPMS05_321477	SeqNo: 4688892	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Arsenic	ND	0.500								
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LCS	Sample ID: LCS-131193	Units: mg/Kg	Analysis Date: 10-Aug-2018 15:22							
Client ID:	Run ID: ICPMS04_321483	SeqNo: 4688463	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Antimony	9.401	0.500	10	0	94.0	80 - 120				
Beryllium	9.828	0.500	10	0	98.3	80 - 120				
Cadmium	9.551	0.500	10	0	95.5	80 - 120				
Chromium	10.14	0.500	10	0	101	80 - 120				
Copper	10.28	0.200	10	0	103	80 - 120				
Lead	9.851	0.500	10	0	98.5	80 - 120				
Nickel	9.94	0.500	10	0	99.4	80 - 120				
Selenium	9.799	0.500	10	0	98.0	80 - 120				
Silver	9.747	0.500	10	0	97.5	80 - 120				
Thallium	9.634	0.500	10	0	96.3	80 - 120				
Zinc	9.502	0.500	10	0	95.0	80 - 120				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131193	Instrument: ICPMS04	Method: SW6020								
LCS	Sample ID: LCS-131193	Units: mg/Kg	Analysis Date: 10-Aug-2018 17:16							
Client ID:	Run ID: ICPMS05_321477	SeqNo: 4688893	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic	9.624	0.500	10	0	96.2	80 - 120
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MS	Sample ID: HS18080246-07MS	Units: mg/Kg	Analysis Date: 10-Aug-2018 16:02							
Client ID:	Run ID: ICPMS04_321483	SeqNo: 4688611	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Antimony	1.926	0.464	9.285	0.01983	20.5	75 - 125	S
Beryllium	8.611	0.464	9.285	0.9253	82.8	75 - 125	
Cadmium	8.485	0.464	9.285	0.1396	89.9	75 - 125	
Chromium	43.9	0.464	9.285	25.55	198	75 - 125	S
Copper	15.73	0.186	9.285	8.35	79.5	75 - 125	
Lead	14.77	0.464	9.285	5.834	96.3	75 - 125	
Nickel	22.76	0.464	9.285	15.31	80.1	75 - 125	
Selenium	7.983	0.464	9.285	0.3503	82.2	75 - 125	
Silver	8.533	0.464	9.285	0.02864	91.6	75 - 125	
Thallium	8.621	0.464	9.285	0.2254	90.4	75 - 125	
Zinc	59.57	0.464	9.285	49.55	108	75 - 125	O

MS	Sample ID: HS18080246-07MS	Units: mg/Kg	Analysis Date: 10-Aug-2018 18:03							
Client ID:	Run ID: ICPMS05_321477	SeqNo: 4688914	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic	9.498	0.464	9.285	2.68	73.4	75 - 125	S
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Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131193		Instrument: ICPMS04			Method: SW6020					
MSD	Sample ID: HS18080246-07MSD	Units: mg/Kg			Analysis Date: 10-Aug-2018 16:05					
Client ID:	Run ID: ICPMS04_321483	SeqNo: 4688612		PrepDate: 06-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	1.983	0.456	9.114	0.01983	21.5	75 - 125	1.926	2.9	20	S
Beryllium	8.768	0.456	9.114	0.9253	86.0	75 - 125	8.611	1.8	20	
Cadmium	8.685	0.456	9.114	0.1396	93.8	75 - 125	8.485	2.33	20	
Chromium	45.5	0.456	9.114	25.55	219	75 - 125	43.9	3.57	20	S
Copper	16.33	0.182	9.114	8.35	87.5	75 - 125	15.73	3.73	20	
Lead	15.66	0.456	9.114	5.834	108	75 - 125	14.77	5.83	20	
Nickel	24.58	0.456	9.114	15.31	102	75 - 125	22.76	7.73	20	
Selenium	8.173	0.456	9.114	0.3503	85.8	75 - 125	7.983	2.36	20	
Silver	9.023	0.456	9.114	0.02864	98.7	75 - 125	8.533	5.57	20	
Thallium	9.143	0.456	9.114	0.2254	97.8	75 - 125	8.621	5.89	20	
Zinc	63.27	0.456	9.114	49.55	151	75 - 125	59.57	6.02	20	SO

MSD	Sample ID: HS18080246-07MSD	Units: mg/Kg			Analysis Date: 10-Aug-2018 18:05					
Client ID:	Run ID: ICPMS05_321477	SeqNo: 4688915		PrepDate: 06-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.01	0.456	9.114	2.68	80.4	75 - 125	9.498	5.2	20	

PDS	Sample ID: HS18080246-07PDS	Units: mg/Kg			Analysis Date: 10-Aug-2018 16:07					
Client ID:	Run ID: ICPMS04_321483	SeqNo: 4688613		PrepDate: 06-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	9.056	0.459	9.181	0.01983	98.4	75 - 125				
Beryllium	9.27	0.459	9.181	0.9253	90.9	75 - 125				
Cadmium	8.821	0.459	9.181	0.1396	94.6	75 - 125				
Chromium	34.23	0.459	9.181	25.55	94.5	75 - 125				
Copper	16.98	0.184	9.181	8.35	94.0	75 - 125				
Lead	14.29	0.459	9.181	5.834	92.1	75 - 125				
Nickel	23.19	0.459	9.181	15.31	85.8	75 - 125				
Selenium	9.222	0.459	9.181	0.3503	96.6	75 - 125				
Silver	8.493	0.459	9.181	0.02864	92.2	75 - 125				
Thallium	8.756	0.459	9.181	0.2254	92.9	75 - 125				
Zinc	57.66	0.459	9.181	49.55	88.4	75 - 125				O

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131193	Instrument: ICPMS04	Method: SW6020								
PDS	Sample ID: HS18080246-07PDS	Units: mg/Kg	Analysis Date: 10-Aug-2018 18:07							
Client ID:	Run ID: ICPMS05_321477	SeqNo: 4688916	PrepDate: 06-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic	11.45	0.459	9.181	2.68	95.5	75 - 125
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SD	Sample ID: HS18080246-07SD	Units: mg/Kg	Analysis Date: 10-Aug-2018 16:00							
Client ID:	Run ID: ICPMS04_321483	SeqNo: 4688610	PrepDate: 06-Aug-2018 DF: 5							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual

Antimony	ND	2.30					0.01983	0	10	
Beryllium	0.9793	2.30					0.9253	0	10	J
Cadmium	0.1444	2.30					0.1396	0	10	J
Chromium	25.93	2.30					25.55	1.48	10	
Copper	8.667	0.918					8.35	3.79	10	
Lead	5.877	2.30					5.834	0.738	10	
Nickel	15.29	2.30					15.31	0.151	10	
Selenium	ND	2.30					0.3503	0	10	
Silver	ND	2.30					0.02864	0	10	
Thallium	ND	2.30					0.2254	0	10	
Zinc	51.77	2.30					49.55	4.49	10	

SD	Sample ID: HS18080246-07SD	Units: mg/Kg	Analysis Date: 10-Aug-2018 18:01							
Client ID:	Run ID: ICPMS05_321477	SeqNo: 4688913	PrepDate: 06-Aug-2018 DF: 5							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual

Arsenic	2.692	2.30					2.68	0.456	10	
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The following samples were analyzed in this batch: HS18080244-01 HS18080244-02 HS18080244-03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131243	Instrument: HG03	Method: SW7470
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MBLK	Sample ID: MBLK-131243	Units: mg/L	Analysis Date: 08-Aug-2018 11:23							
Client ID:	Run ID: HG03_321336	SeqNo: 4684464	PrepDate: 07-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury ND 0.000200

LCS	Sample ID: LCS-131243	Units: mg/L	Analysis Date: 08-Aug-2018 11:25							
Client ID:	Run ID: HG03_321336	SeqNo: 4684465	PrepDate: 07-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00533 0.000200 0.005 0 107 80 - 120

MS	Sample ID: HS18080115-01MS	Units: mg/L	Analysis Date: 08-Aug-2018 11:39							
Client ID:	Run ID: HG03_321336	SeqNo: 4684471	PrepDate: 07-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00419 0.000200 0.005 -0.000002 83.8 75 - 125

MSD	Sample ID: HS18080115-01MSD	Units: mg/L	Analysis Date: 08-Aug-2018 11:30							
Client ID:	Run ID: HG03_321336	SeqNo: 4684467	PrepDate: 07-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00408 0.000200 0.005 -0.000002 81.6 75 - 125 0.00419 2.66 20

The following samples were analyzed in this batch: HS18080244-04 HS18080244-05 HS18080244-06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131264	Instrument: HG03	Method: SW7471A
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MBLK	Sample ID: MBLK-131264	Units: ug/Kg	Analysis Date: 09-Aug-2018 11:39							
Client ID:	Run ID: HG03_321411	SeqNo: 4686337	PrepDate: 08-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury ND 3.32

LCS	Sample ID: LCS-131264	Units: ug/Kg	Analysis Date: 09-Aug-2018 11:41							
Client ID:	Run ID: HG03_321411	SeqNo: 4686338	PrepDate: 08-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 324 3.32 333.3 0 97.2 80 - 120

MS	Sample ID: HS18080229-01MS	Units: ug/Kg	Analysis Date: 09-Aug-2018 11:44							
Client ID:	Run ID: HG03_321411	SeqNo: 4686340	PrepDate: 08-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 348.1 3.43 344 11.41 97.9 80 - 120

MSD	Sample ID: HS18080229-01MSD	Units: ug/Kg	Analysis Date: 09-Aug-2018 11:46							
Client ID:	Run ID: HG03_321411	SeqNo: 4686341	PrepDate: 08-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 343.9 3.48 348.8 11.41 95.3 80 - 120 348.1 1.22 20

The following samples were analyzed in this batch: HS18080244-01 HS18080244-02 HS18080244-03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131309	Instrument: ICPMS05	Method: SW6020								
MBLK	Sample ID: MBLK-131309	Units: mg/L	Analysis Date: 10-Aug-2018 00:10							
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687392	PrepDate: 08-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Antimony	ND	0.00200								
Arsenic	ND	0.00200								
Beryllium	ND	0.00200								
Cadmium	ND	0.00200								
Chromium	ND	0.00400								
Copper	ND	0.00200								
Lead	ND	0.00200								
Nickel	ND	0.00200								
Selenium	ND	0.00200								
Silver	ND	0.00200								
Thallium	ND	0.00200								
Zinc	ND	0.00400								

LCS	Sample ID: LCS-131309	Units: mg/L	Analysis Date: 10-Aug-2018 00:12							
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687393	PrepDate: 08-Aug-2018 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Antimony	0.04592	0.00200	0.05	0	91.8	80 - 120				
Arsenic	0.04573	0.00200	0.05	0	91.5	80 - 120				
Beryllium	0.04456	0.00200	0.05	0	89.1	80 - 120				
Cadmium	0.04477	0.00200	0.05	0	89.5	80 - 120				
Chromium	0.04482	0.00400	0.05	0	89.6	80 - 120				
Copper	0.04785	0.00200	0.05	0	95.7	80 - 120				
Lead	0.0477	0.00200	0.05	0	95.4	80 - 120				
Nickel	0.04772	0.00200	0.05	0	95.4	80 - 120				
Selenium	0.04636	0.00200	0.05	0	92.7	80 - 120				
Silver	0.04539	0.00200	0.05	0	90.8	80 - 120				
Thallium	0.04398	0.00200	0.05	0	88.0	80 - 120				
Zinc	0.04899	0.00400	0.05	0	98.0	80 - 120				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131309		Instrument: ICPMS05			Method: SW6020					
MS	Sample ID: HS18080215-07MS	Units: mg/L			Analysis Date: 10-Aug-2018 00:28					
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687401		PrepDate: 08-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04649	0.00200	0.05	0.000853	91.3	80 - 120				
Arsenic	0.05009	0.00200	0.05	0.001965	96.2	80 - 120				
Cadmium	0.05134	0.00200	0.05	0.005918	90.8	80 - 120				
Chromium	0.04518	0.00400	0.05	0.000795	88.8	80 - 120				
Copper	0.04542	0.00200	0.05	0.000275	90.3	80 - 120				
Lead	0.04338	0.00200	0.05	0.007602	71.6	80 - 120				S
Nickel	0.2304	0.00200	0.05	0.1892	82.3	80 - 120				
Selenium	0.05473	0.00200	0.05	0.000682	108	80 - 120				
Silver	0.04273	0.00200	0.05	0.000027	85.4	80 - 120				
Thallium	0.04407	0.00200	0.05	0.000264	87.6	80 - 120				
Zinc	0.4761	0.00400	0.05	0.4336	85.0	80 - 120				O

MS	Sample ID: HS18080215-07MS	Units: mg/L			Analysis Date: 10-Aug-2018 12:23					
Client ID:	Run ID: ICPMS05_321477	SeqNo: 4687948		PrepDate: 08-Aug-2018		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.04711	0.0200	0.05	0.001235	91.8	80 - 120				

MSD	Sample ID: HS18080215-07MSD	Units: mg/L			Analysis Date: 10-Aug-2018 00:30					
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687402		PrepDate: 08-Aug-2018		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.048	0.00200	0.05	0.000853	94.3	80 - 120	0.04649	3.19	20	
Arsenic	0.05226	0.00200	0.05	0.001965	101	80 - 120	0.05009	4.24	20	
Cadmium	0.05204	0.00200	0.05	0.005918	92.2	80 - 120	0.05134	1.35	20	
Chromium	0.04715	0.00400	0.05	0.000795	92.7	80 - 120	0.04518	4.27	20	
Copper	0.04743	0.00200	0.05	0.000275	94.3	80 - 120	0.04542	4.33	20	
Lead	0.04444	0.00200	0.05	0.007602	73.7	80 - 120	0.04338	2.41	20	S
Nickel	0.2338	0.00200	0.05	0.1892	89.3	80 - 120	0.2304	1.49	20	
Selenium	0.05716	0.00200	0.05	0.000682	113	80 - 120	0.05473	4.34	20	
Silver	0.04238	0.00200	0.05	0.000027	84.7	80 - 120	0.04273	0.822	20	
Thallium	0.04402	0.00200	0.05	0.000264	87.5	80 - 120	0.04407	0.114	20	
Zinc	0.4855	0.00400	0.05	0.4336	104	80 - 120	0.4761	1.95	20	O

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131309		Instrument: ICPMS05		Method: SW6020					
MSD	Sample ID: HS18080215-07MSD	Units: mg/L			Analysis Date: 10-Aug-2018 12:25				
Client ID:	Run ID: ICPMS05_321477	SeqNo: 4687949		PrepDate: 08-Aug-2018		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Beryllium	0.0462	0.0200	0.05	0.001235	89.9	80 - 120	0.04711	1.97	20
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PDS	Sample ID: HS18080215-07PDS	Units: mg/L			Analysis Date: 10-Aug-2018 00:32				
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687403		PrepDate: 08-Aug-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Antimony	0.09158	0.00200	0.1	0.000853	90.7	75 - 125			
Arsenic	0.1088	0.00200	0.1	0.001965	107	75 - 125			
Cadmium	0.1053	0.00200	0.1	0.005918	99.4	75 - 125			
Chromium	0.09935	0.00400	0.1	0.000795	98.6	75 - 125			
Copper	0.0995	0.00200	0.1	0.000275	99.2	75 - 125			
Lead	0.09236	0.00200	0.1	0.007602	84.8	75 - 125			
Nickel	0.2726	0.00200	0.1	0.1892	83.4	75 - 125			
Selenium	0.1162	0.00200	0.1	0.000682	116	75 - 125			
Silver	0.09223	0.00200	0.1	0.000027	92.2	75 - 125			
Thallium	0.103	0.00200	0.1	0.000264	103	75 - 125			
Zinc	0.5002	0.00400	0.1	0.4336	66.6	75 - 125			SO

PDS	Sample ID: HS18080215-07PDS	Units: mg/L			Analysis Date: 10-Aug-2018 12:27				
Client ID:	Run ID: ICPMS05_321477	SeqNo: 4687950		PrepDate: 08-Aug-2018		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Beryllium	0.09025	0.0200	0.1	0.001235	89.0	75 - 125			
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Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: 131309		Instrument: ICPMS05		Method: SW6020						
SD	Sample ID: HS18080215-07SD	Units: mg/L		Analysis Date: 10-Aug-2018 00:26						
Client ID:	Run ID: ICPMS05_321404	SeqNo: 4687400		PrepDate: 08-Aug-2018		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	Limit	Qual
Antimony	ND	0.0100					0.000853	0	10	
Arsenic	ND	0.0100					0.001965	0	10	
Cadmium	0.005848	0.0100					0.005918	0	10	J
Chromium	ND	0.0200					0.000795	0	10	
Copper	ND	0.0100					0.000275	0	10	
Lead	0.008186	0.0100					0.007602	0	10	J
Nickel	0.1903	0.0100					0.1892	0.6	10	
Selenium	ND	0.0100					0.000682	0	10	
Silver	ND	0.0100					0.000027	0	10	
Thallium	ND	0.0100					0.000264	0	10	
Zinc	0.4387	0.0200					0.4336	1.18	10	

SD	Sample ID: HS18080215-07SD	Units: mg/L		Analysis Date: 10-Aug-2018 12:21						
Client ID:	Run ID: ICPMS05_321477	SeqNo: 4687947		PrepDate: 08-Aug-2018		DF: 50				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	Limit	Qual
Beryllium	ND	0.100					0.001235	0	10	

The following samples were analyzed in this batch: HS18080244-04 HS18080244-05 HS18080244-06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: R321305	Instrument: Balance1	Method: SW3550
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DUP	Sample ID: HS18080245-11DUP	Units: wt%	Analysis Date: 07-Aug-2018 10:43							
Client ID:	Run ID: Balance1_321305	SeqNo: 4683842	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Percent Moisture	7.85	0.0100	8.05	2.52	20
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The following samples were analyzed in this batch:

HS18080244-01	HS18080244-02	HS18080244-03
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Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

QC BATCH REPORT

Batch ID: R321514	Instrument: WetChem_HS	Method: SW9045B
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DUP	Sample ID: HS18080401-01DUP	Units: pH Units	Analysis Date: 10-Aug-2018 15:40							
Client ID:	Run ID: WetChem_HS_321514	SeqNo: 4688541	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

pH 8.29 0.100 8.2 1.09 10

DUP	Sample ID: HS18080246-07DUP	Units: pH Units	Analysis Date: 10-Aug-2018 15:40							
Client ID:	Run ID: WetChem_HS_321514	SeqNo: 4688536	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

pH 8.43 0.100 8.5 0.827 10

The following samples were analyzed in this batch: HS18080244-01 HS18080244-02 HS18080244-03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Phase Engineering, Inc.
Project: I-10 & Major Drive (South Side)
WorkOrder: HS18080244

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg-dry	Milligrams per Kilogram- Dry weight corrected
mg/L	Milligrams per Liter
pH Units	

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Oklahoma	2017-088	31-Aug-2018
North Carolina	624-2018	31-Dec-2018
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	L2231 Rev 3-30-2018	22-Dec-2018
Kentucky	123043 - 2018	30-Apr-2019

Sample Receipt Checklist

Client Name: Phase
 Work Order: HS18080244

Date/Time Received: **03-Aug-2018 16:20**
 Received by: **PS**

Checklist completed by: Jared R. Makan 4-Aug-2018
 eSignature Date

Reviewed by: Bernadette A. Fini 6-Aug-2018
 eSignature Date

Matrices: **Water, Soil**

Carrier name: **ALS Courier**

- 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 present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- TX1005 solids received in hermetically sealed vials? Yes No N/A
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 0.7c/0.4c, 1.6c/1.3c UC/C IR25
 Cooler(s)/Kit(s): 44196, 24888
 Date/Time sample(s) sent to storage: 08/03/2018 19:51

- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH acceptable upon receipt? Yes No N/A
- pH adjusted? Yes No N/A
- pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



Cincinnati, OH
+1 513 733 5336
Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody

Page 1 of 3

COC ID: 1866

ALS Project Manager

HS18080244

Phase Engineering, Inc.
I-10 & Major Drive



Customer Information		Project Information			
Purchase Order	201807111 (South Side)	Project Name	I-10 & Major Drive	A	TX1005_S_REV3 (5035/Texas TPH TX1005)
Work Order		Project Number	Beaumont, TX	B	ICP_S_Low (PP Metals + Hg)
Company Name	Phase Engineering, Inc.	Bill To Company	Phase Engineering, Inc.	C	MOIST_SW3550
Send Report To	Ross Doctoroff	Invoice Attn	Claudia Pedroza-AP	D	PH_S (pH)
Address	5524 Cornish Street	Address	5524 Cornish Street	E	ICP_TW (PP Metals + Hg)
				F	TX1005_W_Low
City/State/Zip	Houston, TX 77007	City/State/Zip	Houston TX 77007	G	
Phone	(713) 476-9844	Phone	(713) 476-9844	H	
Fax	(713) 476-9797	Fax	(713) 476-9797	I	
e-Mail Address	ross@PhaseEngineering.com	e-Mail Address	Claudia@phaseengineering.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-1 ¹⁻²	8/2/18	0845	S	8,9	3	X	X	X	X							
2	SB-2 ¹⁻²	8/2/18	0945	S	8,9	3	X	X	X	X							
3	SB-3 ¹⁻²	8/2/18	1200	S	8,9	3	X	X	X	X							
4	TMW-1	8/2/18	1315	w	1,8	4					X	X					
5	TMW-2	8/2/18	1345	w	1,8	4					X	X					
6	TMW-3	8/2/18	1415	w	1,8	4					X	X					
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign
Ronny Howard *Paula...*

Shipment Method _____ **Required Turnaround Time: (Check Box)**
 STD 10 Wk Days 5 Wk Days 2 Wk Days 24 Hour

Results Due Date: _____

Relinquished by: _____ **Date:** 8/3/18 **Time:** 1515
Received by: _____ **Date:** 8/3/18 **Time:** 1620

Relinquished by: _____ **Date:** 8/3/18 **Time:** 1620
Received by (Laboratory): _____ **Date:** 8/3/18 **Time:** 1620

Logged by (Laboratory): _____ **Date:** _____ **Time:** _____
Checked by (Laboratory): _____


Notes: Phase South I-10 & Major Drive 8-3-18

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035


Cooler ID: 44196 **Cooler Temp:** 4.0
 24888 1.6


QC Package: (Check One Box Below)
 Level II Std OC TRRP Checklist
 Level III Std OC/Raw Date TRRP Level IV
 Level IV SW846/CLP
 Other

note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.


 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarado</i>	Company: <i>Pharm</i>	

44196 *44196* **AUG 03 2018**

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarado</i>	Company: <i>Pharm</i>	

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/1/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarado</i>	Company: <i>Pharm</i>	

24888 *24888* **AUG 03 2018**

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>8/3/18</i>	Time: <i>1515</i>	Date: <i>08/03/18</i>
	Name: <i>Randy Alvarado</i>	Company: <i>Pharm</i>	

Phase Engineering, Inc.

Environmental Consultants

July 9, 2018

Parigi Property Management, Ltd.

Sam C. Parigi, Jr.

445 North 14th Street

Beaumont, TX 77702

Phone: (409) 833-9555 Ext. 104 Fax: (409) 833-9522 Email: scp@parigiproperty.com

We are pleased to make the following proposal for Professional Environmental Services:

Current Use: Land - Undeveloped - Approximately 337 Acres and 150 Acres

Address/ Property Location: Along I-10 West of Major Drive (North side) and Along I-10 Southwest of Major Drive (South side)

City: Beaumont County: Jefferson State: TX Zip: 77707

Perform a limited Phase II Environmental Site Assessment to determine if the subject property has likely been impacted as a result of any petroleum product or hazardous substance releases associated with past onsite oil / gas exploration activities. The investigation is to include:

North Side:

The installation of four soil borings / wells; continuous field screening of soils with an OVM meter; conversion of each soil boring into temporary groundwater monitoring wells; analytical testing of selected soil samples and groundwater samples for benzene, toluene, ethylbenzene and xylene (BTEX), Lead, Barium, total petroleum hydrocarbons (TPH), Chloride and pH (soils only); and preparation of a combined report of findings and conclusions. If groundwater is not encountered before 40' or probe refusal is encountered prior to the groundwater zone, then soil samples will be collected from the bottom of each boring for laboratory analysis.

South Side:

The installation of three soil borings / wells ; continuous field screening of soils with an OVM meter; conversion of each soil boring into temporary groundwater monitoring wells; analytical testing of selected soil samples and groundwater samples for total petroleum hydrocarbons (TPH), Priority Pollutant Metals and pH (soils only) and preparation of a combined report of findings and conclusions. If groundwater is not encountered before 40' or probe refusal is encountered prior to the groundwater zone, then soil samples will be collected from the bottom of each boring for laboratory analysis.

- Includes: Electronic version in PDF with findings, opinions and conclusions. Originals @ \$125.00 each.
- Delivery: Final Report - approximately 10-15 business days from date of signed letter of engagement.
- Terms: Net due prior to receipt of final report.
- Insurance Coverage: \$2,000,000 general and professional liability.

If the above terms and attached Agreement for Professional Environmental Consulting Services (General Terms & Conditions) are acceptable, please sign and fax (eFax 281-200-0060) or email (proposals@phaseengineering.com) a copy of this letter to serve as a letter of engagement and notification to proceed.

By signing below, the client acknowledges the responsibility to arrange for access granted by the owner of the property under investigation. Phase Engineering, Inc. will perform project when owner has granted access to Phase Engineering. Thank you for the opportunity to work with you and your environmental needs. If you have any questions, please do not hesitate to contact me.


Ross Doctoroff P.G.

Accepted By:

Print Name: SAM C. PARIGI, JR.

Date: 7-22-18

AGREEMENT FOR PROFESSIONAL ENVIRONMENTAL CONSULTING SERVICES

Section 1 – General Terms and Conditions

1.1 Definitions

“Agreement” means this Agreement for Professional Environmental Consulting Services.

“Party” (or collectively, “Parties”) means PEI and Client, unless expressly stated otherwise in this Agreement.

“PEI” means Phase Engineering, Inc.

“Engagement Letter” the instrument delivered by PEI to the Parties

“Services” has the meaning set forth in Section 1.2 below.

Any capitalized terms not otherwise defined in this Agreement have the meanings given to them under the Engagement Letter.

1.2 Services

The professional environmental consulting services to be provided by PEI for the Client are set forth in the Engagement Letter, and such services, including subsequent services, changed, altered or additional services are hereinafter called the “Services”.

1.3 Standard of Care

PEI shall perform the services under this agreement with that degree of care, skill and diligence generally accepted as typical of the industry in the performance of such services as contemplated by the Agreement at the time and location such services are rendered. PEI shall employ only competent staff and sub-contractors who will be under the supervision of a senior member of PEI's staff.

1.4 Rights of Entry, Site Information and Utilities

The Client shall provide right of entry for PEI and its subcontractors to carry out the Services, unless specified otherwise in the Engagement Letter. The Client warrants that it has furnished to PEI all information known to, or in possession or control of, the Client relating to the past and existing conditions of the site, including but not limited to soil and geologic data, contaminants, wastes, petroleum products, controlled substances, hazardous materials, and subsurface utilities. The Client shall extend use and reliance of this information to PEI, unless stated otherwise and to the extent permitted by law. Such information shall be and remain confidential as between the Client and PEI and PEI shall not disclose same to any third party unless required by law.

1.5 Safety

1.5.1 PEI maintains a General Health and Safety Plan, a copy of which will be provided to the Client on written request and will fall under Section 1.8 Subsequent Changes of this Agreement unless this service is included in the Engagement Letter.

1.5.2 PEI shall take every precaution reasonable in the circumstances for the protection of the workers providing any of the Services. When required and prior to any field work being carried out, PEI shall provide the Client with a comprehensive site-specific safety plan for providing the Services. Such request must be made in writing by the Client prior to commencement of the Services by PEI and will fall under Section 1.9 Subsequent Changes of this Agreement unless included in the Engagement Letter.

1.6 Investigations and Reports

1.6.1 Findings: The findings of any investigation undertaken as part of the Services will be based upon information generated as a result of the specific scope of the Services as described in the Engagement Letter.

1.6.2 Restoration: The Client accepts that in the normal course of the Services some damage to existing ground or other surface finishes may occur, the restoration of which shall be the responsibility of the client or as specified in the Engagement Letter.

1.6.3 Investigations: The parties acknowledge and accept that unique risks exist whenever engineering or related disciplines are applied to identify environmental conditions and even a comprehensive sampling and testing program may fail to detect certain conditions. Because of the inherent uncertainties in environmental evaluations, changed or unanticipated conditions may occur or become known subsequent to PEI's investigation that could affect conclusions, recommendations, total Project cost and/or execution. Changes in conditions are subject to amendments to the Scope of Services.

1.6.4 Confidentiality and Reliance: Any Final Report or draft reports and the information contained therein shall be treated as confidential and, unless otherwise agreed to by PEI and the Client, the information, sampling data, analysis, findings, conclusions and recommendations (if any), may be used and relied upon only by the Client, its officers, directors and employees and professional advisors in the performance of their obligations for or on behalf of the Client. Any such use and reliance shall be subject to the limitations set forth in this agreement. In addition, the Client may submit any report to a regulatory authority or lender for the purpose of obtaining financing on a property.

1.6.5 Third Party Reliance: This Agreement and the Services provided are for Consultant and Client's sole benefit and exclusive use with no third party beneficiaries intended. Reliance upon the Services and any work product is limited to Client, and is not intended for third parties. In the event PEI agrees, in its sole and absolute discretion, to make the Report available to a third party not mentioned in Paragraph 1.6.4, the Third Party shall be required to obtain the original Client's release, sign PEI's standard Authorized User Agreement (AUA) and pay PEI a fee of not less than \$350.00. Any such use shall be subject to the terms, conditions and limitations set forth in this Agreement, the Report and the AUA.

1.7 Ownership of Records/Reports:

All documents or records created or prepared by PEI in the performance of the Services are considered PEI's professional work product and shall remain the copyright property of PEI, subject to any reasonable disclosure request from the Client as may be necessary and for which reasonable reimbursement for copies is provided.

1.8 Disposal and Samples

1.8.1 Disposal of all wastes generated from the subject property shall be the responsibility of the Client.

1.8.2 PEI shall be responsible for appropriate disposal of sample material and sample residuals after 30 days following submission of the Final Report unless the Client specifically requests otherwise.

M
2/22/18

1.9 Subsequent Changes

With the consent of PEI, the Client may in writing at any time after the execution of this Agreement or the commencement of the Services delete, extend, increase, vary or otherwise alter the Services. The Parties further agree that such changes shall alter the Services, schedule and/or the costs. Any such changes shall be made in writing with reference to this Agreement, and accepted in writing by both Parties.

1.10 Delays

Neither Party shall be liable or penalized for delays or failure to perform its Services if the same is caused directly or indirectly by circumstances beyond a Party's reasonable control. The Client shall not hold PEI responsible for damages or delays in performance caused by the Client, acts of God, acts and/or omissions of governmental authorities and regulatory agencies or other events which are beyond the reasonable control of the Parties.

1.11 Payment

- 1.11.1 The PEI shall invoice the Client in accordance with the provisions set forth in the Engagement Letter. Except as stated in the Engagement Letter, the Client shall pay to PEI at its corporate office each invoice within 30 days of the date of the invoice without holdback. Interest at a rate of 10% per year or the maximum rate allowed by law, whichever is lower, may be charged on all overdue amounts.
- 1.11.2 In the event of a disputed billing, only the disputed portion will be withheld from payment, and the undisputed portion will be paid. The Client shall exercise reasonableness in disputing any bill or portion thereof. No interest will accrue on any disputed portion of the billing until mutually resolved.
- 1.11.3 If the Client fails to make payment of any sum due hereunder within a reasonable time period, Client acknowledges and agrees that the subject Invoice will be referred to legal collections, and any amount in aggregate less than Ten Thousand Dollars U.S. (\$10,000) will be referred to small claims court in Harris County, Texas.

1.12 Suspension or Termination

The Client may at any time by notice in writing to PEI, suspend or terminate the Services or any portion thereof at any stage of the Project. Upon receipt of such written notice by the Client, PEI shall perform no further Services other than those reasonably necessary to close out its Services. In such an event, PEI shall invoice the Client for the portion of the Services completed and shall be entitled to payment in accordance with Section 1.9. Once the Services are completed the Client assumes the risk of Frustration of Purpose.

1.13 Insurance

- 1.13.1 PEI agrees to carry and maintain the following **minimum** insurance coverages for the term of this Agreement:
 - Worker's Compensation Insurance: Statutory requirement amounts
 - Commercial General Liability: \$1,000,000 per occurrence
 - Automobile Liability Insurance: \$1,000,000 per occurrence for both owned and non-owned vehicles
 - Professional Liability and Contractors Professional Insurance: \$1,000,000 per occurrence
- 1.13.2 PEI's current Certificate of Insurance is provided with the Engagement Letter. If the Client requests to be a named as a certificate holder, this request must be made in writing to PEI prior to commencement of the Services.
- 1.13.3 PEI will renew the Professional Liability Insurance at or above the minimum coverage for period of two (2) years after completion of the Services.
- 1.13.4 If the Client requests that PEI increase the amount of insurance coverage or obtain other special insurance for the Project, PEI shall endeavor forthwith to obtain such increased or special insurance at the Client's expense.
- 1.13.5 Each of PEI and Client waive all claims, losses, damages and rights of recovery against the other to extent of the limits of coverage under any commercial general liability or property insurance policy actually obtained by a Party to this Agreement (or, in the case of PEI, to the extent obtained or required to be obtained by PEI under this Agreement). In addition, each Party shall exercise commercially reasonable efforts to cause to waive subrogation under its commercial general liability and property insurance policies and provide any necessary endorsements thereto.

1.14 Indemnity/Statute of Limitations.

EACH OF PEI AND CLIENT SHALL INDEMNIFY AND HOLD HARMLESS THE OTHER AND THEIR RESPECTIVE AGENTS, EMPLOYEES, SUCCESSORS AND ASSIGNS FROM AND AGAINST LEGAL LIABILITY FOR CLAIMS, LOSSES, DAMAGES, AND EXPENSES TO THE EXTENT SUCH CLAIMS, LOSSES, DAMAGES, OR EXPENSES ARE LEGALLY DETERMINED TO BE CAUSED BY THEIR NEGLIGENT ACTS, ERRORS, OR OMISSIONS. IN THE EVENT SUCH CLAIMS, LOSSES, DAMAGES, OR EXPENSES ARE LEGALLY DETERMINED TO BE CAUSED BY THE JOINT OR CONCURRENT NEGLIGENCE OF PEI AND CLIENT, THE PARTIES SHALL BEAR LIABILITY IN PROPORTION TO ITS OWN NEGLIGENCE UNDER COMPARATIVE FAULT PRINCIPLES. NEITHER PARTY SHALL HAVE A DUTY TO DEFEND THE OTHER PARTY, AND NO DUTY TO DEFEND IS HEREBY CREATED BY THIS INDEMNITY PROVISION AND SUCH DUTY IS EXPLICITLY WAIVED UNDER THIS AGREEMENT. CAUSES OF ACTION ARISING OUT OF PEI'S SERVICES OR THIS AGREEMENT, REGARDLESS OF CAUSE OR THE THEORY OF LIABILITY, INCLUDING NEGLIGENCE, INDEMNITY OR OTHER RECOVERY, SHALL BE DEEMED TO HAVE ACCRUED AND THE APPLICABLE STATUTE OF LIMITATIONS SHALL COMMENCE TO RUN NO LATER THAN THE DATE OF PEI'S SUBSTANTIAL COMPLETION OF SERVICES ON THE PROJECT.

1.15 Limitation of Liability.

- 1.15.1 Notwithstanding any other provisions contained herein, it is understood and agreed that PEI's liability to the Client for all claims arising out of this Agreement, or in any way relating to the Services, will be limited to direct damages and/or to the specific performance of any Services not meeting the Standard of Care set forth herein and such liability will, in the aggregate, not exceed the sum of the coverages shown on PEI's Certificate of Insurance in effect at the time of the claim.
- 1.15.2 No claim may be brought against PEI more than Two (2) years after the Services were completed under this Agreement, or as negotiated between PEI and the Client.

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1.15.3. TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL AGGREGATE LIABILITY OF PEI (AND ITS DIRECTORS, EMPLOYEES, AGENTS AND AFFILIATES) TO CLIENT AND THIRD PARTIES GRANTED RELIANCE IS LIMITED TO THE GREATER OF \$50,000 OR PEI'S FEE FOR ANY AND ALL INJURIES, DAMAGES, CLAIMS, LOSSES, OR EXPENSES (INCLUDING ATTORNEY AND EXPERT FEES) ARISING OUT OF PEI'S SERVICES OR THIS AGREEMENT. THIS LIMITATION SHALL APPLY REGARDLESS OF AVAILABLE PROFESSIONAL LIABILITY INSURANCE COVERAGE, CAUSE OR THE THEORY OF LIABILITY, INCLUDING NEGLIGENCE, INDEMNITY, OR OTHER RECOVERY; PROVIDED, HOWEVER, THAT THIS LIMITATION SHALL NOT APPLY TO THE EXTENT OF ANY AVAILABLE COVERAGE UNDER PEI'S COMMERCIAL GENERAL LIABILITY POLICY.

1.16 Consequential Damages.

EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR LOSS OF PROFITS OR REVENUE, LOSS OF USE OR OPPORTUNITY, LOSS OF GOOD WILL, COST OF SUBSTITUTE FACILITIES, GOODS, OR SERVICES, COST OF CAPITAL, OR FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES.

1.17 Regulatory Reporting Requirements

Client recognizes that hazardous substances or contaminants may be discovered at the subject property in the course of provision of the Services by PEI under conditions that may be reportable to Federal or State environmental regulatory agencies. The "duty to report" is ultimately the responsibility of the landowner unless the condition represents an acute threat to human health or the environment. PEI will notify the Client of any such reportable condition. The Client will notify the Landowner, or under mutual agreement, authorize PEI to perform such notification to the landowner.

Section 2 – MISCELLANEOUS PROVISIONS

2.1 Notices:

All notices under this Agreement shall be in writing. It shall be sufficient in all respects if the Notice is delivered by hand, sent by any electronic means, including email or facsimile transmission, with confirmation ("Transmission") during normal business hours, or sent by registered mail, postage prepaid, addressed to the Parties shown on the Engagement Letter or to such other address as either Party shall designate by written notice to the other Party. Any notice so given shall be deemed to have been given and to have been received on the day of delivery, if so delivered, on the third Business Day (excluding each day during which there exists any interruption of postal services due to strike, lockout or other cause) following the mailing thereof, if so mailed, and on the day that notice was sent by Transmission, provided such day is a Business Day (a Business Day being any day of the week save and except for Saturday and Sunday) and if not, on the first Business Day thereafter.

2.2 Entire Agreement, Modifications, Headings, Severability:

The Parties acknowledge that this Agreement and the Engagement Letter constitutes the entire agreement between them and supersedes all prior representations, warranties, agreements, and understandings, oral or written, between the Parties with respect to its subject matter. Unless stated otherwise in this Agreement, this Agreement may not be modified except in writing signed by both Parties. The headings to this Agreement are for convenience and reference purposes only and shall not constitute a part of the Agreement. If any element of this Agreement is later held to violate the law or a regulation, it shall be deemed void, and all remaining provisions shall continue in force.

2.3 Effect:

This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns provided that it may not be assigned by either Party without the consent of the other, which consent shall not be unreasonably withheld.

2.4 Survival:

All representations and obligations (including without limitation the mutual obligations of indemnification) shall survive the termination of this Agreement and expire five (5) years from the date of completion of Services.

2.5 Waiver of Rights:

Any waiver of, or consent to depart from, the requirements of any provision of this Agreement shall be effective only if made in writing and signed by the Party granting such waiver or consent, and is valid only in the specific instance and for the specific purpose for which it has been granted. No failure on the part of any Party to exercise, and no delay in exercising, any right under this Agreement shall operate as a waiver of such right. No single or partial exercise of any such right shall preclude any other or further exercise of such right or the exercise of any other right.

2.6 Applicable Law:

This Agreement shall be governed by, and interpreted and enforced in accordance with, the laws in the State of Texas and the laws of The United States of America, as applicable.

2.7 Dispute Resolution:

Excepting Section 1.11 for the purpose of this Agreement, any disagreement arising between the Parties to this Agreement with reference to the interpretation of this Agreement or any matter arising hereunder and upon which the Parties cannot agree shall be referred to mediation. Reference to mediation shall be to a single mediator and in accordance with the laws of mediation in the State of Texas. The costs of the mediator shall be shared equally by the Parties on an interim basis as may be necessary provided however that the mediator shall have the discretion to award costs of the proceeding, including costs of the mediator. The venue for such mediation is agreed to be Harris County, Texas

2.8 Contract Documents:

The Contract Documents consist of the documents listed. If there is a conflict with the Contract Documents, the conflicting terms will be governed in the order of priority set forth as follows: 1. Agreement 2. Engagement Letter

